

Davis4Health

COMMUNITY HEALTH ASSESSMENT

2023



DAVIS 4
HEALTH



Davis
COUNTY
HEALTH DEPARTMENT

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- Live Strong House
- Midtown Community Health Center
- My Discovery Destination
- Nations for Christ Church
- No Hunger Zone
- NUAMES
- Office of Congressman Chris Stewart
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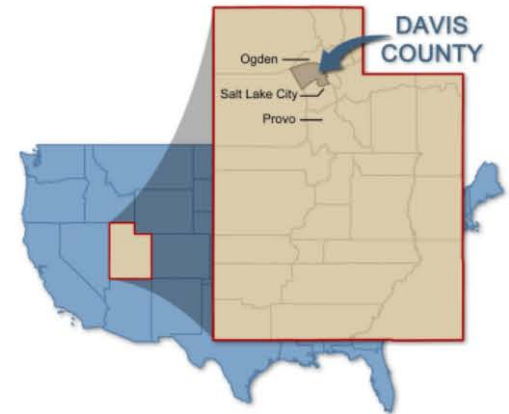
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Executive Summary

In conjunction with Davis County's local community health improvement collaborative, Davis4Health, Davis County Health Department (DCHD) conducted a comprehensive community health assessment. In this third iteration of the Davis4Health Community Health Assessment (CHA), new local data was collected, priority health and human services issues were explored, and community needs and assets were assessed with an equity lens. These efforts have provided a deeper understanding of community strengths, resources, and areas for improvement in terms of people, place, and opportunity in Davis County, Utah.



What is a Community Health Assessment?

For the purpose of this assessment, health is considered in the broadest sense of the word by presenting data on the wide range of factors that influence how long and how well people live along with how they perceive their quality of life. Health is a resource that allows people to realize their aspirations and satisfy their needs. Community health was assessed using the Take Action Cycle and the County Health Rankings and Roadmaps (CHR&R) model along with a variety of quantitative and qualitative data sources. Because reports and statistics are continually being released and updated, assessment efforts are ongoing. This report represents a snapshot of the data available as of the end of 2022. The process of improving community health takes partnerships, time, and commitment. To address the wide variety of health factors outlined in the CHA, partners from many sectors are committed to working together to ensure Davis County is a place where all people are treated fairly, have a voice in decisions that affect them, and have a chance to prosper.

What is Health Equity?

Health equity means every individual has a fair and just opportunity to live their healthiest life, regardless of who they are, where they live, how much money they make, or any other personal characteristic. The idea of health equity is not new, with publications starting in 1966, and ongoing efforts at the national, state, and local levels. The assessment applies an equity lens by comparing data between demographic, economic, and geographic groups within Davis County. This approach does not blame groups for the health conditions or outcomes they experience. It highlights that disparities exist across health behaviors and outcomes so that root causes can be explored.

About Davis County

Davis County has the smallest land area, but the 3rd largest population among Utah counties with 362,679 residents. The population is young with 1 in 3 residents under age 18, but drastic increases are projected in the age 50 and older group. This may shift future healthcare needs. A growing population and shifting climate bring concerns about the environment. A large percentage of residents identify as religious (76.1%) and Republican (54.4%) leading to a culture and policies that align with conservative views and family values. A majority also identify as non-Hispanic White (84.3%). Hill Air Force Base brings many jobs and a large number of military families and veterans to the area. Health concerns vary by community in Davis County due to age, gender identity, sexual orientation, race and ethnicity, religion, immigration status, language, disability status, justice involvement, and city.

Culture of Health

CHR&R ranks Davis County as the 4th healthiest county in Utah and the Utah Healthy Places Index (UT HPI), the assessment's primary health index, suggests that it has healthier community conditions than 92.6% of other Utah counties. Residents have a life expectancy of 80.3 years, higher than the Utah and the U.S. averages. Areas of strength include clinical care, income, employment, education, civic engagement, and low use of tobacco and alcohol. Significant health disparities exist between demographic groups for several measures, even within the county's strongest areas. Physical environment continues to be Davis County's greatest challenge. Obesity and social associations are also areas for improvement. The UT HPI recommends policies linked to air quality, green space per person, and housing as the best opportunities for improving community conditions in Davis County. Community focus groups and a community resilience survey were primary data collection efforts that highlighted health concerns of underserved/underrepresented residents, such as access to resources and respect for others with different backgrounds. They also identified resilience measures like asking for help, emotional safety, and community connections as areas to explore.

COVID-19 Pandemic

The new infectious disease overburdened the healthcare system and community assistance programs. In 2020, it was a leading cause of death in Davis County. Vaccination helped reduce the impact of the disease with 2 in 3 residents getting vaccinated. The Pandemic magnified existing disparities at the local, state, and national levels. In Davis County, the Native Hawaiian/Pacific Islander community was impacted the most with the highest rates of cases, hospitalizations, and deaths.

Health Outcomes

In Davis County, most leading causes of death are chronic diseases. Accidents and suicide are also among the top causes of preventable death. Childbirth, septicemia, and heart disease are the leading causes of hospitalization. Davis County has higher rates of obesity, skin cancer, Alzheimer's disease, and depression than both Utah and the U.S. Notable disparities exist by sex, sexual orientation, and income. Davis County has higher rates than the U.S., but not Utah, for the following outcomes: chickenpox, invasive pneumococcal disease, pertussis, shiga toxin-producing *Escherichia coli*, and suicide. Increases over time in injuries, mental health conditions, maternal mortality, postpartum depression, obesity, and sexually transmitted infections are concerning and should be addressed.

Health Behaviors

Health behaviors are determined by the choices, resources, and opportunities available in the places where people live, learn, work, and play. Not everyone has the money, access, and advantages needed to make healthy choices. Davis County strengths include seat belt use along with low rates of tobacco and alcohol use. Progress has also been made towards lessening the impact of opioid misuse due to many community supports. Challenges include less than half of Davis County adults meeting nutrition recommendations along with low physical activity and sleep among youth. Technology use and sexual health indicators also warrant further exploration. For harmful behaviors like substance misuse, early prevention that reduces risk factors and increases protective factors is key. Populations most affected by substance use include males, working ages, and the LGBTQ+ community. Emerging substance use trends are the increasing use of methamphetamine and synthetic opioids like fentanyl.

Clinical Care

Davis County is ranked 3rd among Utah counties for Clinical Care by CHR&R for access and quality measures. Strengths include adults with health insurance, especially from an employer; fewer preventable hospital stays; prenatal care sought in the first trimester; use of community health workers and telehealth services; and higher vaccination rates for most indicators compared to Utah and the U.S. Access to mental and behavioral health services is also improving. Challenges for Davis County include the financial burden of medical care; demographic disparities in insurance coverage, especially by nationality, age, and income; provider to patient ratios; cancer screening rates; and declining school immunization rates. Among Davis County residents, the most frequently filled prescriptions in 2021 were related to mental health, pain relief, and chronic disease. Areas for further exploration are antidepressants as the leading prescription, substance abuse services as the fourth most common type of insurance claim, and post-Pandemic telehealth trends.

Social & Economic Factors

Improving social and economic factors addresses multiple health outcomes and helps everyone have the opportunity to reach their desired quality of life. Strategies to improve these factors have a greater impact on health over time than those directed at changing behaviors because the experiences, choices, and resources that are available in a community are impacted by social and economic factors. Education, employment, economic diversity, and community safety are strengths of Davis County along with low rates of poverty and youth risk factors. Housing, income, community connection, and abuse are areas for improvement. Housing affordability and financial disparities were the top issues across multiple sources. Concerning issues are cyberbullying, gender pay gap, caregiver burden, and sexual abuse.

Physical Environment

The physical environment has always been Davis County's lowest ranked health factor according to CHR&R, mainly due to air quality and commuting measures. Many trails and facilities that support walking and biking, safe and fluoridated water systems, and broadband access are among Davis County's strengths. Davis County is doing worse than Utah and the U.S. for grocery stores, supermarkets, and SNAP/WIC-authorized stores per person; traffic volume; commuting alone; and air pollution from PM2.5. Differences by city for park access and indoor radon levels are also areas of concern. Emerging issues include multi-unit rental housing, water supply, and density of fast food restaurants.

Conclusion

This thorough assessment has led to the identification of current community themes, strengths, and concerns. Many community supports are also outlined, including infrastructure, policies, partnerships, services, programs, resource directories, and community centers. Data gaps that exist for specific topics and groups have been acknowledged. The CHA provides the information Davis4Health partners will use to prioritize issues, choose strategies, and direct resources to improve the health of the Davis County community.

What is a Community Health Assessment?

Definition of Health

The concept of health varies from person to person and culture to culture. For the purpose of this assessment, health is considered in the broadest sense of the word. Health is more than the absence of disease or what happens at the doctor's office. A wide range of factors influence how long and how well people live. This includes education, income, nutrition, physical activity and movement, quality of housing, neighborhood safety, and many more.

When Davis County residents are asked why Davis County is a healthy place to live, their answers are often related to the people, the places, and the opportunities. For some people, the essential elements for a healthy life are readily available; for others, the opportunities for healthy choices may be limited.

Health is a resource that allows people to realize their aspirations and satisfy their needs. It also helps them adapt to their environment in order to live a long and productive life. Health enables social, economic, and personal development important to well-being ([CDC](#), 2018).

Well-being is a broader and more complete term that contains many interconnected dimensions of health. Well-being goes beyond morbidity (health conditions and disease), mortality (death), and economic status. It shows how people view the way their life is going from their own perspective. Aspects of well-being include: physical, mental, emotional, social, spiritual, occupational, intellectual, financial, and environmental.

Public Health Accreditation

In 2011, the Public Health Accreditation Board (PHAB), in partnership with key public health organizations, launched a new national voluntary accreditation program for state, tribal, local, and territorial health departments. Accreditation is a means for transparency and trust in public health. Communities served by accredited public health departments can feel confident that their health department is meeting national standards for performance and quality. Davis County Health Department (DCHD) has been accredited since 2015.

Accreditation standards require participating in or leading a collaborative process that results in a comprehensive community health assessment. A comprehensive assessment should be completed at least once every five years ([PHAB](#), 2022), and includes:

- Collecting and sharing data that provides information on conditions of public health importance and on the health status of the population
- Analyzing public health data
- Sharing findings
- Using the results to improve population health

Purpose of Assessment

This Davis4Health Community Health Assessment (CHA) tells the community story and provides a foundation to improve the health of the population. It is the basis for priority setting, planning, program development, policy changes, and coordination of community resources. It also assists with funding applications and finding new ways to collaboratively use local assets for improving community conditions.

The CHA is an essential step to help the community decide where and how to focus efforts. This is done by asking if there are some people who face challenges that others do not, and identifying strengths, assets, and gaps. Sharing these results with community partners, leaders, and the public across Davis County is crucial.

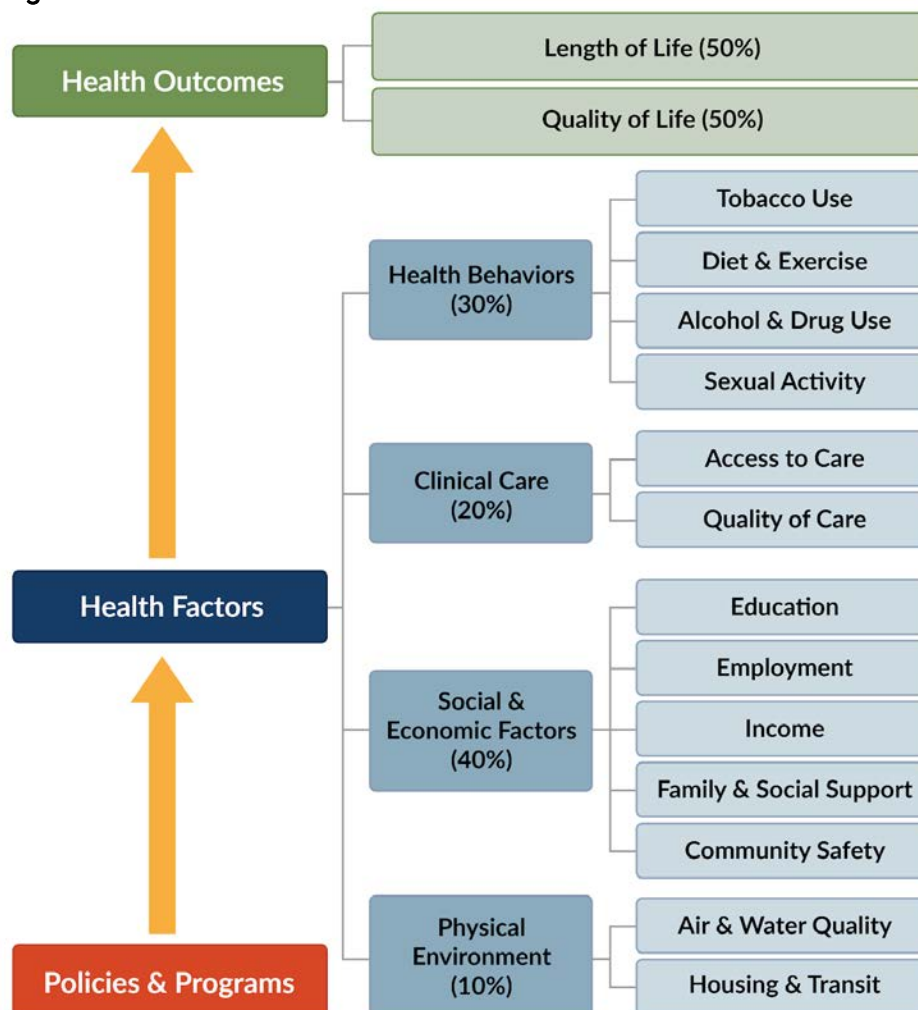
Special effort was made in this third version of the CHA to fill data gaps identified in prior reports. Data was obtained from a variety of new and existing sources to describe the health status of the county population. Various data collection methods were used and include information about:

- Demographics
- Mortality and morbidity
- Differences in health status between populations
- Quality of life
- Attitudes about health behaviors
- Social and economic factors
- Environmental factors (including the built environment)
- Community themes and stories
- Resources and strengths
- Input from community partners

County Health Rankings & Roadmaps Model

County Health Rankings & Roadmaps (CHR&R) is a platform that provides an excellent framework for understanding and organizing content in the CHA. It has been helpful in enabling partners to choose health priorities for the community. As seen in Figure 1, CHR&R uses a model of population health that emphasizes the many factors that, if improved, can help make communities healthier places to live, learn, work, and play ([CHR&R](#), 2014).

Figure 1



County Health Rankings model © 2014 UWPHI

Davis4Health

Davis4Health is Davis County's health improvement collaboration with partners from many organizations and sectors working together to improve population health in our community. The collaboration was formalized in 2012 with the vision of a shared commitment toward a culture of health.

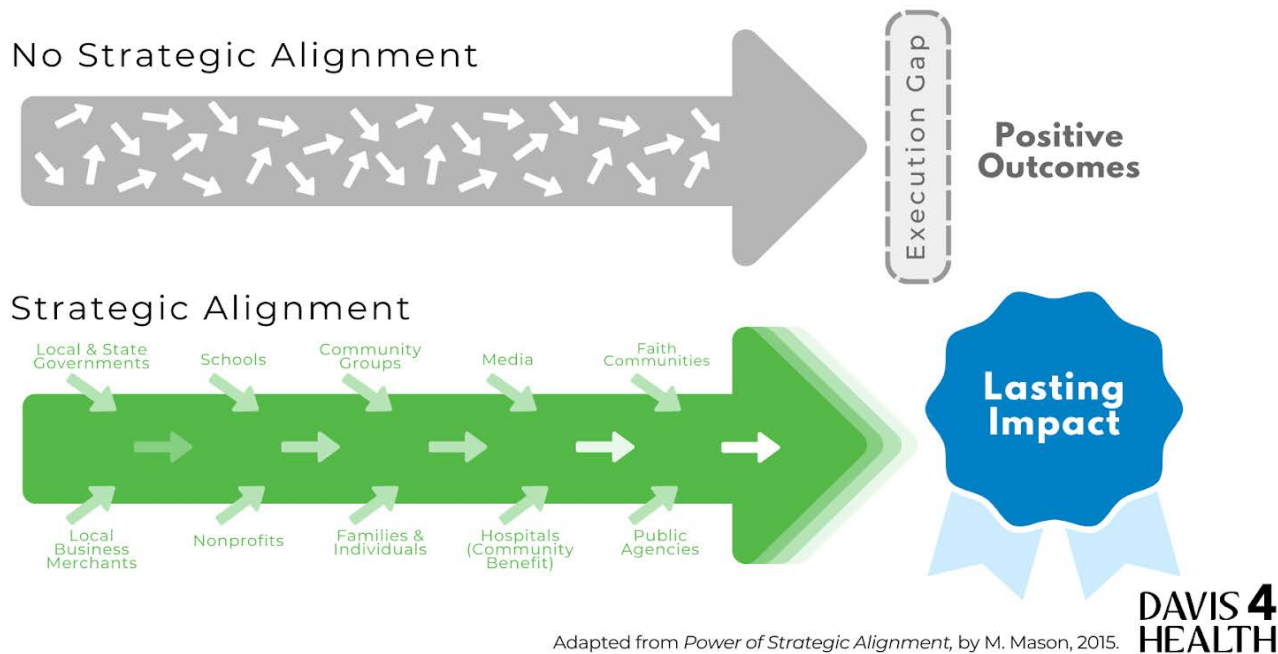
The Davis4Health mission is to improve community health through the power of partnerships, collaboration, and strategic alignment around Davis County's top health priorities (Figure 2). The collaborative is working to enhance health outcomes for all, closing health gaps between those with the most and least opportunities for good health ([Davis4Health](#), 2022).

Over 100 partners from many community groups are involved in the collaboration. They contribute staff time, leadership, volunteers, advocacy, data, community connections, in-kind donations, guidance, and decision-making. Davis County Health Department currently serves as the backbone organization. It provides ongoing support to maintain organizational function and move the collaborative forward.

Davis4Health aligns with Public Health 3.0, a 2016 call to action from the Centers for Disease Control and Prevention (CDC). Public Health 3.0 broadens the role of public health leaders to serve as community health strategists. A strategist brings partners together to address community health issues, including unfair differences in health status and resources between populations ([CDC](#), 2017).

Figure 2

Can Davis County Use the Power of Strategic Alignment?



Take Action Cycle

Davis4Health uses the Take Action Cycle from County Health Rankings & Roadmaps (CHR&R) to guide the health improvement process. The cycle emphasizes prevention strategies rather than reactive interventions ([CHR&R](#), n.d.). Community partners work together to improve health by following the Take Action Cycle (Figure 3). The cycle provides a path and steps to move partners from data to action:

1. Assess needs and resources
2. Focus on what's important
3. Choose effective policies and programs
4. Act on what's important
5. Evaluate actions

The CHA is crucial to the first step of the cycle. It provides the information Davis4Health partners need to move through the next steps of identifying priority issues, developing and implementing strategies for action, and establishing accountability to ensure measurable health improvement.

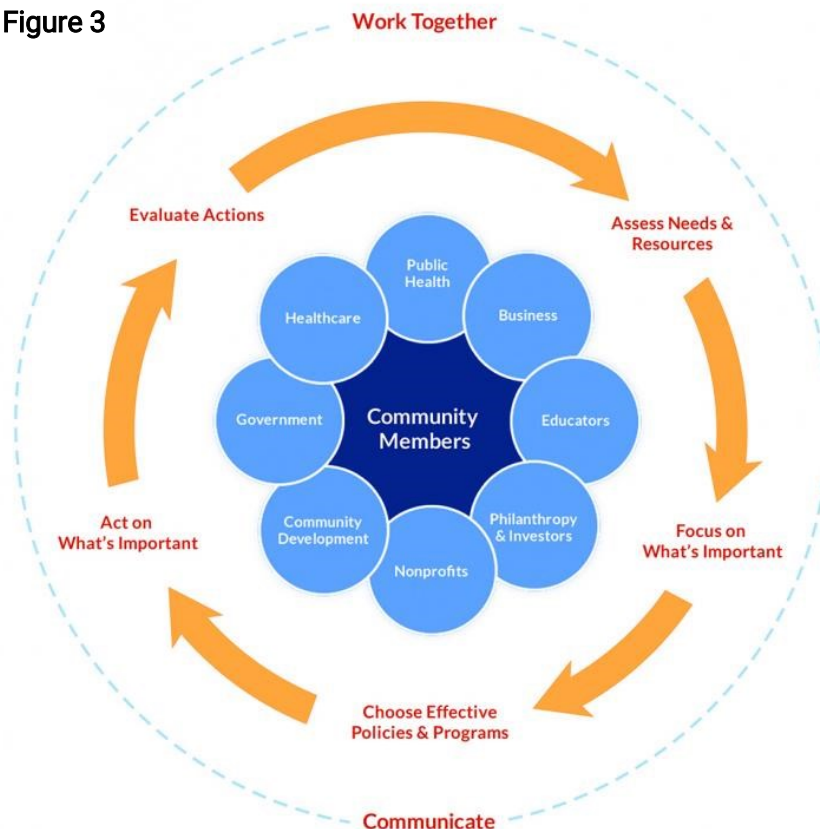
Health Takes All of Us

Improving community health with the Take Action Cycle takes partnerships, time, and commitment. It requires:

- Sustainable changes to policies and systems
- Problem-solving and innovation
- Engaging and communicating with both partners and community members
- Everyone working together toward a shared goal

To address the wide variety of health factors outlined in the CHA, people from public health and many other sectors are needed. Partners from these areas work together to ensure that Davis County is a place where all people are treated fairly, have a voice in decisions that affect them, and have a chance to succeed.

Figure 3



Source: [CHR&R](#), n.d.

Data Sources

Data guides partners through the Take Action Cycle. It tells a story, drives decisions, and leads to asking better questions. To tell the most complete story of health in Davis County, the CHA combines two types of data:

- **Quantitative data:** Information described by numbers and statistics, such as counts, rates, and percentages
- **Qualitative data:** Information described by words, such as community stories, lived experiences, viewpoints, quotes, and historical context which provides the “why” behind the numbers

These data come from two types of sources:

- **Primary source:** Information collected by DCHD or Davis4Health, such as surveys, interviews, or case investigations
- **Secondary source:** Existing information collected by an organization outside of DCHD, such as the U.S. Census Bureau or a university

In this assessment, key secondary sources for demographics and health measures include:

- [Centers for Disease Control \(CDC\) Wide-ranging Online Data for Epidemiologic Research \(WONDER\)](#)
- [County Health Rankings & Roadmaps \(CHR&R\)](#)
- [Healthy People 2030](#)
- [Student Health and Risk Prevention \(SHARP\) Statewide Survey](#)
- [University of Utah, Kem C. Gardner Policy Institute](#) (Gardner Institute)
- [U.S. Census Bureau](#)
- [Utah Healthy Places Index \(UT HPI\)](#)
- [Utah Public Health Indicator Based Information System \(IBIS\)](#), which includes local Behavioral Risk Factor Surveillance (BRFSS) data

Focused assessments, supported by Davis4Health, combined data from multiple sources to identify community strengths and challenges ([DCHD](#), n.d.). These assessments include:

- Community Equity Assessment (2023), including focus groups with residents who identified as underserved or underrepresented
- Community Resilience Survey (2023)
- COVID-19 Vaccine Equity Progress Report (2022)
- Food Environment Assessment (2023)
- Housing Environment Assessment (2023)
- LGBTQ+ Population Health Report (2023)
- Violence, Abuse & Trauma Report (2019)

Where possible, this CHA includes community voice and data breakdowns for populations within Davis County. Data trends are compared between demographic and geographic groups. For example, different geographic locations might include census blocks, cities, and Utah Small Areas. Nine Utah Small Areas are designated in Davis County. They are based on specific criteria, such as population size, boundaries of cities and towns, and economic similarity. Appendix 2 has a Utah Small Area map.

This assessment summarizes data available as of November 2022. More recent data may have been released since the assembly of the report. Those interested in newer data are encouraged to follow the citation links. Questions about this report’s data, sources, or methods should be directed to Davis County Health Department at healthstrategy@co.davis.ut.us.

What is Health Equity?

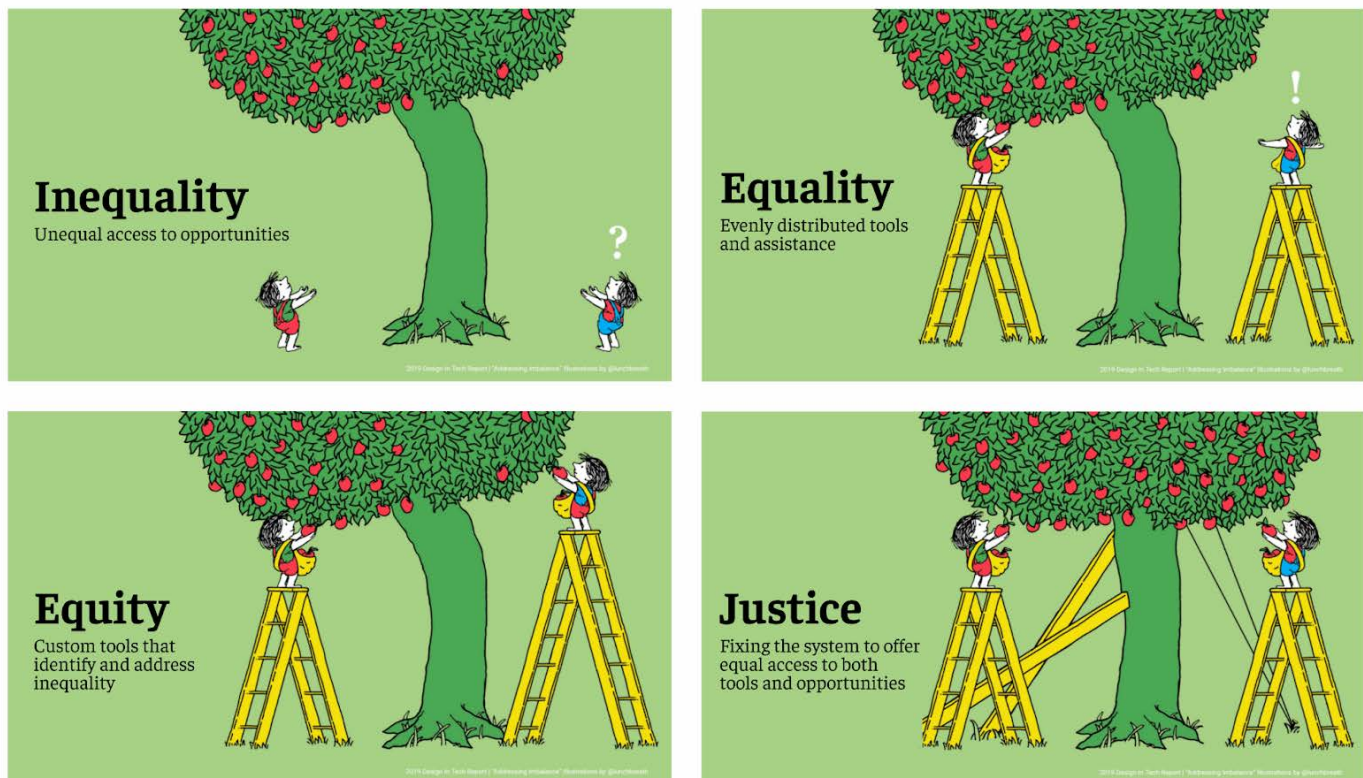
Health equity is about everyone. It occurs when every individual has a fair and just opportunity to live their healthiest life, regardless of who they are, where they live, how much money they make, or any other personal characteristic.

- *Health equity is a principle* striving for the highest possible standard of health for all people. It gives special attention to the needs of those communities at greatest risk for health disparities.
- *Health equity is a process* that addresses inequities at the social and structural factors that relate to health.
- *Health equity is a pathway* to better quality of life and social cohesion for the advancement of all people across all systems.
- *Health equity is an outcome* underlying the commitment to reduce and, ultimately, eliminate health disparities ([UDHHS](#), 2022).

This acknowledges that health and well-being go beyond personal choices, like diet and exercise. They are also influenced by environmental and societal factors outside the individual's control, such as air pollution and quality education. For this reason, it is important to consider all the factors that may be a part of a person's health status.

Figure 4 is an image chosen by Davis4Health partners to convey what equity means and how it compares to other terms such as equality and justice. This chapter discusses terms related to health equity, efforts to advance equity at all levels, and how equity is woven into this assessment.

Figure 4



2019 Design in Tech Report "Addressing Imbalance" by Tony Ruth

Health Equity Definitions

The following terminology includes adaptations of definitions from these equity resources:

- [CDC's Preferred Terms](#)
- [County Health Rankings & Roadmaps](#)
- [Health Resources & Services Administration](#)
- [Healthy People 2030](#)
- [National Center for Chronic Disease Prevention and Health Promotion](#)
- [R.E.A.C.H Beyond Solutions](#)
- [U.S. Department of Housing and Urban Development](#)
- [Utah Department of Health and Human Services](#)

Accessibility includes making information, technology, services, resources, and environments so that all people, including those with disabilities, can fully and independently use them. It means equal opportunities for employment and participation in activities for people with disabilities.

Ally/Allies are people who recognize the advantages they receive from power structures and injustices in society. An ally is willing to act with, and for, those who are disadvantaged in pursuit of fair and just opportunities.

Belonging is the feeling of security, support, acceptance, inclusion, and identity within a group. It is when an individual feels they can be their true self.

Community can include any group of people who identify with each other in any way, including but not limited to, where they live, their values, practices, beliefs, or common goals.

Community Engagement is when members of the community are involved in decision-making processes that affect their circumstances.

Community Outreach includes meeting people where they are, sharing resources, providing services, and creating opportunities for community members to be heard.

Culture refers to social norms related to values, beliefs, systems of language, communication styles, arts, and customs that influence behavior and are shared by a group of people.

Cultural Humility is an attitude through which an individual learns about other cultures while becoming more aware of one's own beliefs and identities. This practice aims to create greater mutual understanding, equity, honesty, and trustworthy relationships.

Diversity is the existence of varying characteristics in a group of people that make them unique, such as different social, cultural, racial, and ethnic backgrounds. It encompasses people of different genders, sexual orientations, abilities, lifestyles, experiences, and interests.

Health Disparities are the avoidable, unfair, and unjust differences in health outcomes.

Health Inequities are an uneven distribution of resources. They include barriers that limit people's access to services and opportunities. Health inequities in society lead to disparities in health outcomes.

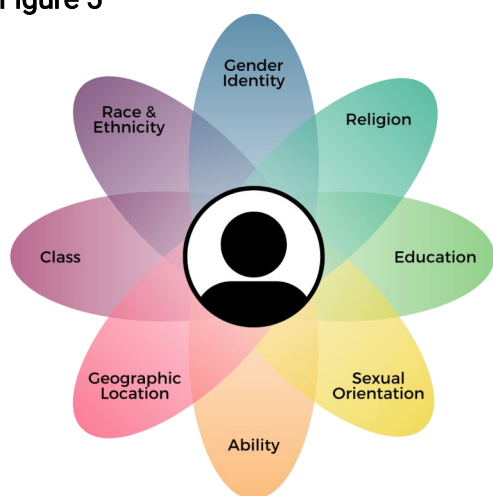
Identity is a person's sense of self. It encompasses various qualities, beliefs, traits, appearances, and expressions that either exist from birth or develop and change over time.

Implicit Bias, also known as unconscious bias, is an opinion or feeling in favor of or against a person or group that occurs automatically and unintentionally. It affects judgments, decisions, and behaviors.

Inclusion is the practice of valuing people's unique ideas and lived experiences and ensuring everyone feels involved, respected, connected, and has their voice heard.

Intersectionality is understanding that people occupy multiple social positions and have many identities. These positions and identities do not cancel each other out, but they overlap and interact in complex ways (Figure 5) that should be explored and understood.

Figure 5



Source: DCHD, 2023

Justice is achieved by creating and sustaining a fair and equitable society where all people have equal access to economic, political and social rights, privileges, and opportunities.

Marginalized Groups are those excluded from mainstream social, economic, educational, and/or cultural life. Marginalization occurs due to unequal power relationships between social groups.

Microaggressions are verbal, behavioral, or environmental indignities, whether intentional or unintentional. They communicate hostile, derogatory, or negative slights and insults from one person to another.

Root Causes are the underlying reasons for health inequities and disparities. They are the conditions in a community that determine whether people have access to opportunities and resources to meet their basic needs.

Social Determinants of Health are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.

Stereotypes are widely held but fixed and oversimplified images or ideas of a particular type of person or group of people.

Structural Determinants of Health, or systems-based determinants, are governing processes and social, economic, and institutional policies and practices. They affect power, privilege, and social hierarchies. These are high-level factors that impact the social determinants of health.

Vulnerable Groups are those who are at higher risk for health disparities. A person's risk should not be attributed to identity alone, as physical, mental, and social conditions, as well as societal barriers, can contribute to risk.

Underserved Groups include people who face economic, cultural, or language barriers and limited access to services and resources because of existing systems and/or lack of infrastructure.

Underrepresented Groups refer to communities in a population whose representation is disproportionately low relative to their numbers in the general population. These groups have historically been marginalized, left behind by public systems, and are not usually reflected in positions of power.

The Health Equity Movement

Efforts to achieve health equity are happening around the world. Private, public, and non-profit sectors are working together to address complex systematic barriers that limit the opportunities of many people leading to poor health outcomes and quality of life.

The idea of health equity is not new. There are references to equity dating back to the early 1800s and the first publication appeared in 1966 linking racial inequality to health. However, much of the research and understanding of the importance of addressing health disparities did not start until the early 1990s when the World Health Organization officially endorsed the “concept and principles of equity in health” (Yao et al., 2019). These decades of research show that health disparities do exist. Addressing the root causes of health inequities is critical for ensuring everyone has the opportunity to live a healthy life.

National Efforts

The Healthy People initiative provides measurable public health objectives for building a healthier future for all. With the implementation of the Healthy People 2010 goals (CDC, 2015), the U.S. started nationwide efforts to address health disparities. Since then, many leading health organizations have made health equity a priority and incorporated it into their visions and values. The Healthy People 2030 initiative has made health equity a priority by using an overarching focus on Social Determinants of Health (SDOH) for their goals (Healthy People 2030, n.d.).

In 2020, the 10 Essential Public Health Services framework, which guides the work of public health organizations, was revised to emphasize the concept of equity. It puts equity at the center of current and future public health practice, as seen in Figure 6 (PHNCL, 2020).

Figure 6



Source: PHNCL, 2020

State Efforts

National health equity goals have led to states receiving funding in recent years to take system-wide approaches to address and remove barriers that limit access to opportunities affecting health and quality of life. Since the early 2000s, the Utah Department of Health has been committed to reducing health disparities by creating the Center for Multicultural Health, which later became the Office of Health Disparities, and is now the Office of Health Equity within the Utah Department of Health and Human Services (UDHHS). They have four foundational practices that have been guiding equity efforts across the state:

- Build Internal Infrastructure
- Work Across Agencies
- Foster Community Partnerships
- Expand the Narrative

Figure 7 is the Health Equity Pathways Framework that UDHHS uses to illustrate how addressing the structural and social determinants of health are the first step in advancing health equity and improving quality of life in Utah ([UDHHS, 2022](#)). As organizations and communities learn more about equity, this and other frameworks may change as strategies evolve.

Local Efforts

Davis County Health Department (DCHD) has made significant strides in advancing health equity across Davis County.

The Health Strategy Bureau (HSB) at DCHD was formed in 2021 with the mission, “To pursue health equity with a commitment to address the causes and conditions leading to health inequities and, in turn, reduce health disparities.” To address the needs of all community members in Davis County, HSB has been working to align equity efforts within DCHD and throughout the community ([DCHD, 2022](#)).

Figure 7

Health equity pathways framework

A tool to expand the narrative of what creates health



Source: [UDHHS, 2023](#)

This work is accomplished through a four-part approach:

1. Build infrastructure
2. Assess and share data
3. Engage community partners and convene stakeholders
4. Advocate for groups who are historically underserved or underrepresented

Through this approach, HSB hired community health workers (CHWs); participated in community outreach events; collected lived experiences through focus groups with underserved and underrepresented residents; conducted a community resilience survey for the public; and held equity interviews with community leaders and partners.

Interviews with community partners revealed the following about local health equity efforts:

- Some agencies' sole purpose is to serve populations that are underserved and to address community conditions that impact health
- Many key partnerships are already in place
- Agencies have identified several existing frameworks and documents to guide their equity work
- Federal and state emphasis has led to additional resources
- Some agencies have new equity, inclusion, diversity, and accessibility (EDIA) positions
- Many are working to improve infrastructure, processes, and services for equity
- Many agencies encouraged development of a county-wide equity improvement plan

In 2022, Davis4Health partners expressed support to serve as both the county health and equity collaborative. The Davis4Health Community Health Improvement Plan (CHIP) will also serve as the county's equity improvement plan. By partnering in this way, the community can continue to work together to make equity improvement efforts sustainable.

Equity in this Assessment

An equity lens is applied throughout this Community Health Assessment (CHA). This approach means disparities and inequities will be recognized by breaking down data between demographic, social and economic, and geographic groups.

Examples of newly-available equity measures include:

- From County Health Rankings & Roadmaps (CHR&R): School segregation, school funding adequacy, gender pay gap, living wage, child care cost burden, and child care centers ([2022](#))
- From Utah Healthy Places Index (UT HPI): Civil engagement, economic stability, Race/Ethnicity Diversity Index, and residential segregation ([2022](#))

To learn more, see the Culture of Health chapter.

This assessment will note if group data is unavailable or if there is not enough information to determine if disparities exist between groups. A key part of the review will be highlighting where statistically significant differences exist, meaning the observed gap in health between groups is not due to chance. Significance is a way to use math to confidently identify potential disparities for further exploration.

When exploring data, factors that may be driving differences between groups should be considered. It is important to understand that this approach is intended to inform the movement toward health equity, not to blame certain identities or groups for the health conditions or outcomes they experience. Community and structural factors outside an individual's or group's control can influence health choices.

The equity lens of the CHA should inform efforts to identify the structures and systems that contribute to inequities. This application of data provides a path to reduce and remove barriers.

About Davis County

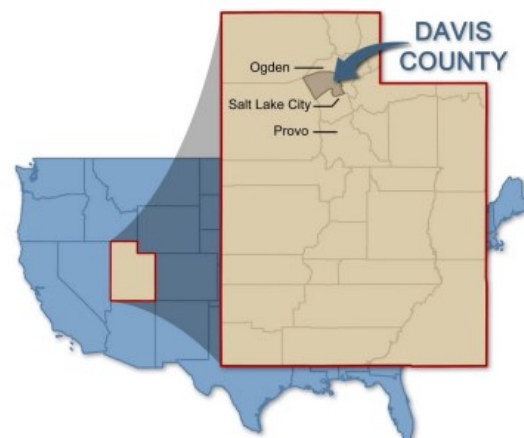
This chapter provides a description of Davis County's features, structures, and people. These characteristics serve as the foundation for understanding later chapters about health trends.

Geography

Davis County is the smallest county in Utah by total land area with 304 square miles of land and 329 square miles of water ([Davis Chamber](#), 2022). It is home to the third largest population in Utah. The county is a narrow strip of land 26.5 miles long and 37.5 miles wide. Its main geographical features are the Wasatch Mountains to the east and the Great Salt Lake to the west, including Antelope Island, the largest island in the lake ([Utah State Library](#), 2020). The average elevation is 4,200 feet above sea level with the highest point, Thurston Peak, at 9,707 feet ([Davis Chamber](#), 2022).

Davis County is centrally located south of Ogden and north of Salt Lake City (Figure 8). It is a bedroom community with access to many amenities. This means it is a residential suburb containing many people who commute to other nearby counties for work.

Figure 8



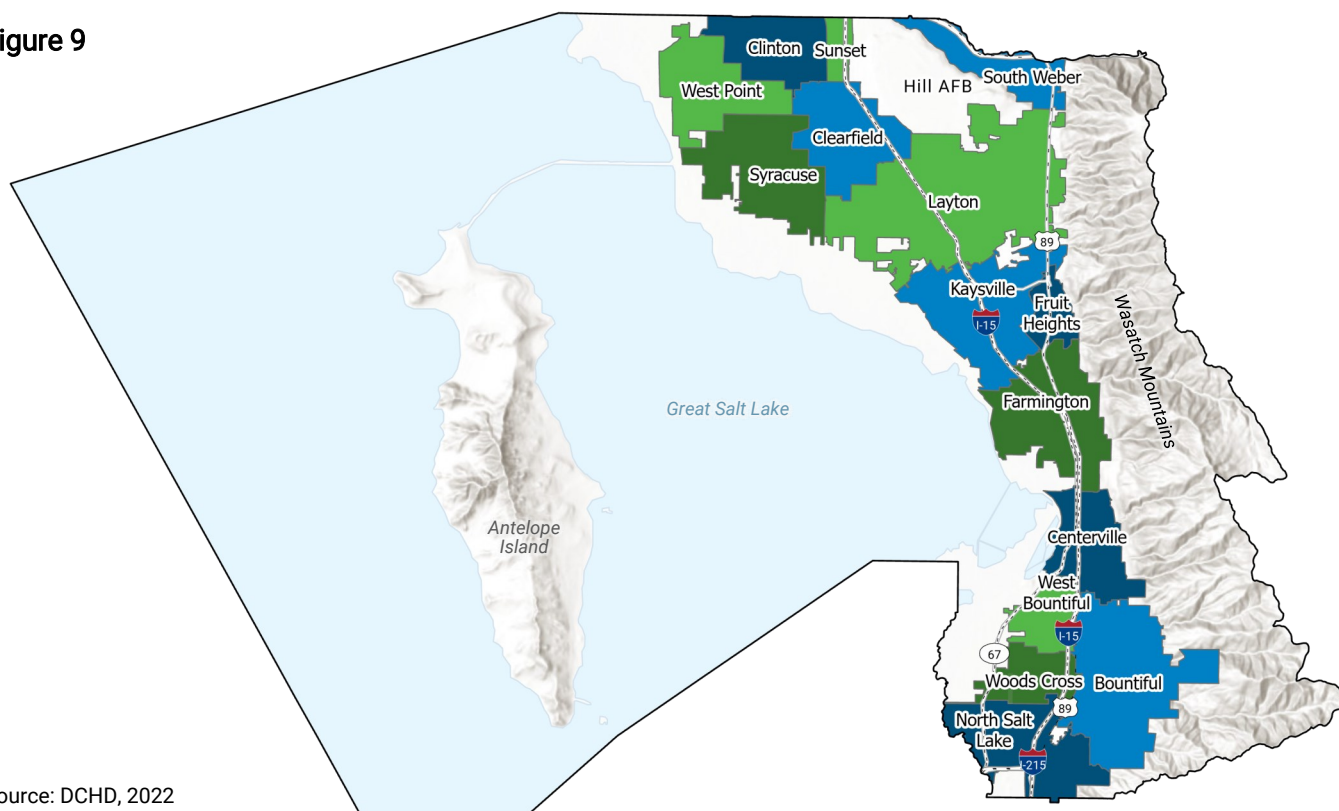
Source: [Davis County Sheriff's Search & Rescue](#), n.d.

Government

The county seat is Farmington. A three-member Board of Commissioners, each serving a four-year term, is the county's governing body. They are responsible for all county services and operations. The Commissioners approve, adopt, and amend the budget. They serve as the legislative body and property tax board. In Davis County's unincorporated areas, the Commissioners also regulate business licensing. Seven other county officials are also elected every four years.

Davis County contains 15 incorporated cities (Figure 9), each with a mayor and city council ([Davis County](#), n.d.).

Figure 9



Source: DCHD, 2022

Climate

Weather is the daily temperature and other outside conditions. Climate is the average of weather over time. Both weather and climate can affect quality of life ([BestPlaces](#), n.d.). Davis County has a cold semi-arid climate, featuring hot summers, cold winters, and low humidity. This creates the possibility of drastic day to night temperature swings ([Davis Chamber](#), 2022). Based on annual temperatures and humidity levels, Davis County scores 7.2 out of 10 on the BestPlaces Comfort Index, which means it is more comfortable than most places in Utah. Additionally, it experiences 226 sunny days per year ([BestPlaces](#), n.d.).

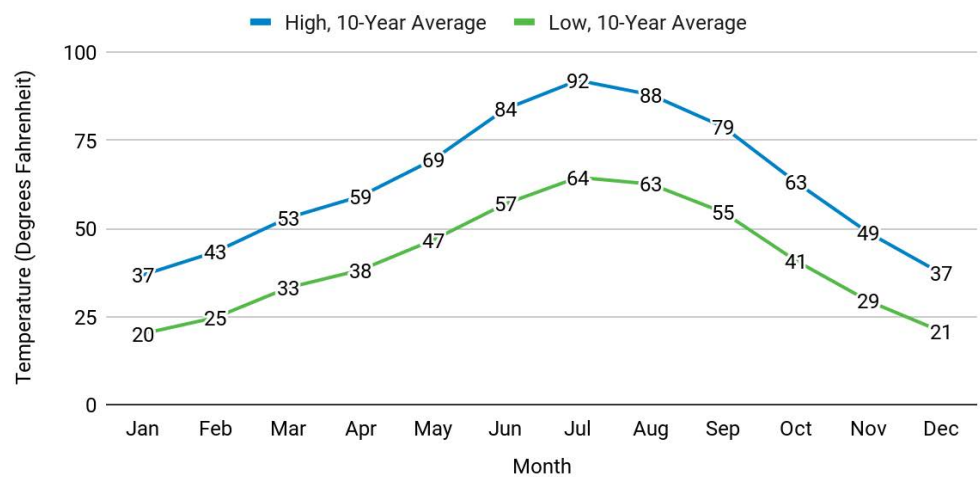
As shown in Figure 10, over the last decade, January has been the coldest month with average temperatures ranging from 20.1 to 36.8 degrees Fahrenheit. The hottest month in Davis County has been July with average temperatures ranging from 64.5 to 92.0 degrees Fahrenheit ([NOAA](#), 2013-2022). Recently, there have been an average of 45.3 days per summer where temperatures reached 90 degrees or higher in Davis County ([CDC](#), 2019-2021).

In addition to temperature, moisture is also a measure of a region's climate.

Precipitation is the amount of water, in the form of rain or melting snow, that reaches the ground each day. Snowfall is the amount of unmelted snow that accumulates on the ground daily.

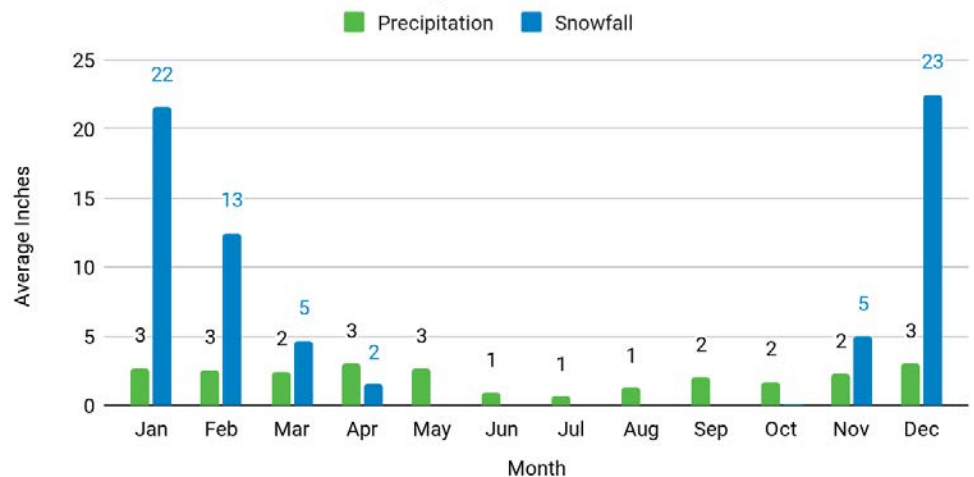
Over the last decade, April was the wettest month in Davis County with an average of 3.1 inches of precipitation. This was closely followed by December with 3.0 inches ([NOAA](#), 2013-2022). On average, the most snowfall occurred in December with 22.5 inches and January with 21.6 inches of snow (Figure 11).

Figure 10: Average Temperature Range by Month, Davis County, 2013-2022



Data: NOAA, 2013-2022 (from Weber Basin Layton pump site)

Figure 11: Precipitation & Snowfall Averages by Month, Davis County, 2013-2022

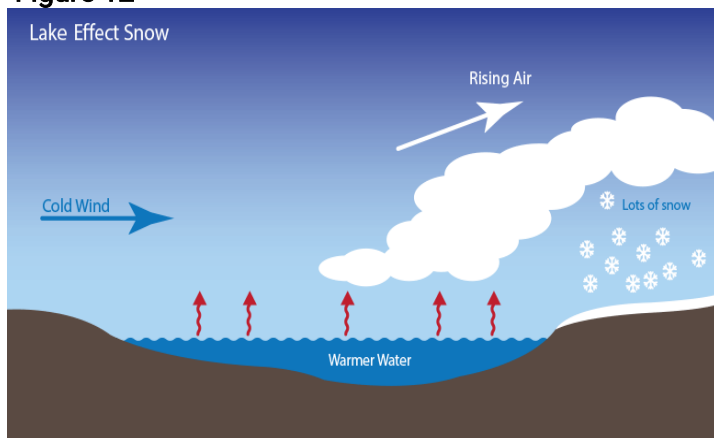


Data: NOAA, 2013-2022

The Great Salt Lake & Drought

Having the Great Salt Lake to the west sometimes causes a unique climate feature called "Lake-Effect Snow," as shown in Figure 12. This feature produces large snowfalls as cold winds move eastward over the warm moisture of the Great Salt Lake.

Figure 12



Source: [NOAA](#), n.d.

Davis County along with the entire State, has been in severe or extreme drought conditions for three years since 2018. The driest year on record was 2022 ([NIDIS](#), 2022). There is an increasing trend in the number of weeks spent in severe to extreme drought over the last two decades in Davis County ([CDC](#), n.d). Since 2000, the average number of

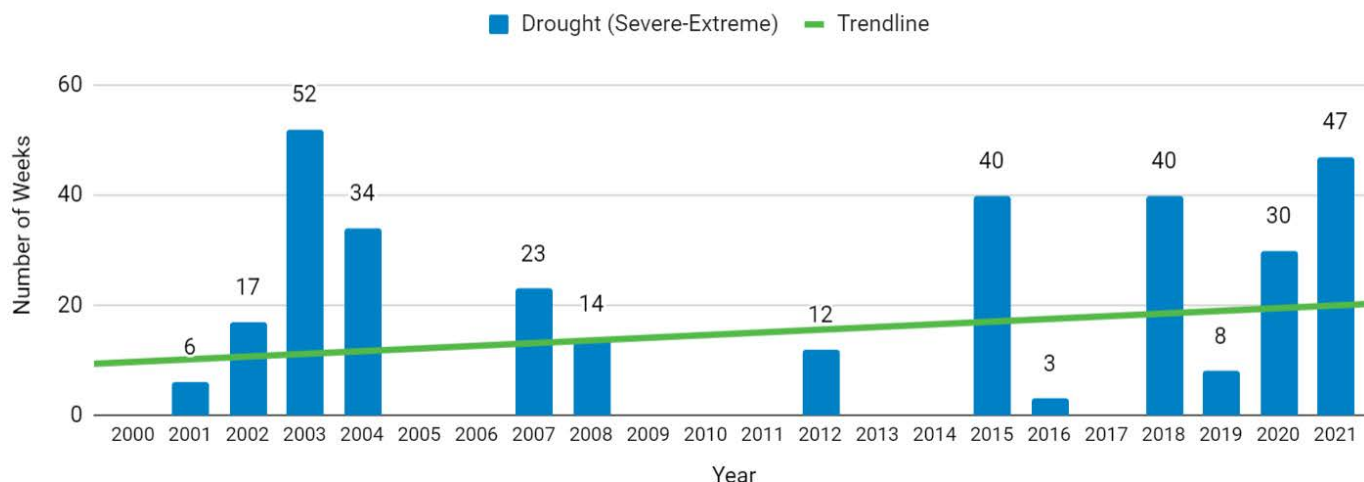
drought weeks has increased by 10 weeks per year (Figure 13). If this trend continues, it could impact the economy and outdoor recreation opportunities.

Drought conditions impact lake water levels. Recent research released by Brigham Young University shows the Great Salt Lake has lost 73% of its water and 60% of its surface area since 1850. This is mostly due to unsustainable water use. There has been an accelerated drop in water levels since 2020. If this continues, the lake is projected to be dry in five years ([Abbott et al.](#), 2023). This impacts health because the Great Salt Lake:

- Provides Utah with \$2.5 billion in economic value and 8,800 jobs annually, mostly due to mineral extraction, recreation, and brine shrimp harvesting
- Increases precipitation and snowfall, which impacts future drought status and the ski industry
- Suppresses toxic dust that contains metals like arsenic, which worsens air quality and limits outdoor activity
- Supports 80% of Utah's wetlands which are home to 350 bird species

For more research on the future of the lake, visit pws.byu.edu/great-salt-lake.

Figure 13: Weeks per Year Spent at Severe to Extreme Drought Status, Davis County, 2000-2021



Data: CDC, 2000-2021

The implications of this research are also reflected in community voice data. Davis community members ranked water supply as a top concern when asked about their future well-being ([USU](#), 2022). Some focus group participants during the 2022 Community Equity Assessment also expressed this concern:

“The apartments being built, there's just too many and I'm worried about the water. Everybody's gonna flush their toilet” (DCHD, 2022).

To address concerns about the lake, the Utah Governor's Office formed a Great Salt Lake Strike Team composed of multiple stakeholder agencies to propose water conservation policies. The Utah Legislature is also considering water conservation bills, and the Church of Jesus Christ of Latter-day Saints has donated water shares back to the lake. A new Great Salt Lake Commissioner will help to ensure follow through on all of these measures. (Utah Governor's Office, 2023).

Transportation

Auto, train, bus, and trail options are available in Davis County. Traveling by car continues to be the most commonly used form of transportation. Interstate 15 (I-15) is a key feature in the county. It runs north to south, connecting Ogden to Salt Lake City, and divides the county in half. Major east-west routes are limited due to the county being bound by the Great Salt Lake and Wasatch mountains. The State's major airport is Salt Lake City International Airport, located 9 miles from the county's southern border, putting it within a 15 to 40 minute drive from most areas in the county.

For more information, refer to the Transportation section of the Physical Environment chapter.

Education

Throughout Davis County, there are many educational opportunities and institutions available for a range of ages, incomes, and types of learners and abilities.

Elementary & Secondary Education

Davis School District (DSD) is the second largest school district in Utah enrolling around 72,540 students. The school district consists of 62 elementary schools, 17 junior high schools, nine high schools, three alternative schools, and one online school. DSD has 16 Title I schools, 15 elementary schools, and one junior high school that are considered high poverty schools. Additionally, the district offers adult community classes available at various high schools on topics such as art, finance, fitness, and cooking. The district is the second largest employer in Davis County with over 6,500 staff ([DSD](#), n.d.).

An additional 30 charter and private schools provide more education choices for students.

Higher Education

Weber State University (WSU) serves more than 10,000 Davis County residents at its WSU Davis Campus located on the border of Layton and Clearfield. Many associate degrees, bachelor degrees, master degrees, certificate programs, and student services are available at the Davis Campus. WSU Davis also hosts many community and strategic partnership events throughout the year ([WSU Davis](#), n.d.).

Davis Technical College (Davis Tech) is Davis County's largest institution of higher education. In 2021, there were 6,709 high school students and adults enrolled ([Davis Tech](#), 2021). This public technical training center is located in Kaysville and provides competency-based education in an open-entry, open-exit environment that prepares students with career and technical skills in more than 35 programs, certificates, and trades. Davis Tech offers students the most affordable, flexible, and short-term education in the State ([Davis Tech](#), n.d.).

Other private vocational colleges in Davis County include: Avalon School of Cosmetology, Eagle Gate College, and Renaissance School of Therapeutic Massage.

Extension Education

Utah State University Extension (USU) provides research-based programs and resources with the goal of improving the lives of individuals, families, and communities throughout Utah. USU Extension operates through a cooperative agreement between the United States Department of Agriculture, Utah State University, and county governments. Program areas include Agriculture and Natural Resources, Gardening, Home, Family and Food, and Utah 4H and Youth ([USU](#), n.d.).

Utah State University owns and operates the Utah Botanical Center in Kaysville, which includes an education center. The Botanical Center guides the conservation and wise use of plant, water, and energy resources through research-based educational experiences, demonstrations, and technology ([USU](#), n.d.).

Population Characteristics

The demographic profile of a location provides insight on who lives there along with beliefs and experiences that may affect health. Specifically, population characteristics provide an estimate of cultural trends in an area. It is important to note the equity concept of intersectionality when discussing population characteristics to avoid stereotyping. Intersectionality means that a person may have multiple social identities that influence their interactions and perceptions. For example, a person may identify as Asian, single-parent, with a disability, meaning health trends related to each of those identity groups may overlap to impact their quality of life. Thus, the trends of one demographic group cannot explain a person's whole experience or well-being.

Size & Density

In 2020, the size of the Davis County population was 362,679 people. The population has grown 18.3% since 2010 ([U.S. Census](#), 2020). It is anticipated to grow an additional 13% by 2030. By 2050, the county is expected to grow to 529,710 people and remain the third largest in the State.

Similar to Utah trends, natural increase (births minus deaths) has been the primary cause of past and future growth. By the mid-2040s, the primary driver of population growth in the county will shift to net migration. Net migration is the number of people moving to the county minus the number of people leaving the county ([Gardner Institute](#), 2022).

Table 1 compares the percent change in population since 2010 (growth), total residents, and percent share of the total county population for each city in Davis County. When interpreting percent growth in population, the amount of available land a city has to grow should be considered.

Table 1: Size of Population and Growth by City, Davis County, 2020

City in Davis County	Percent Growth Since 2010	Total Population in 2020	Percent Share of County Population
Layton	21%	81,773	22.5%
Bountiful	8%	45,762	12.6%
Kaysville	21%	32,945	9.1%
Syracuse	32%	32,141	8.9%
Clearfield	6%	31,909	8.8%
Farmington	34%	24,531	6.8%
Clinton	14%	23,386	6.4%
North Salt Lake	34%	21,907	6.0%
Centerville	10%	16,884	4.7%
Woods Cross	17%	11,410	3.1%
West Point	15%	10,963	3.0%
South Weber	30%	7,867	2.2%
Fruit Heights	22%	6,101	1.7%
West Bountiful	12%	5,917	1.6%
Sunset	7%	5,475	1.5%

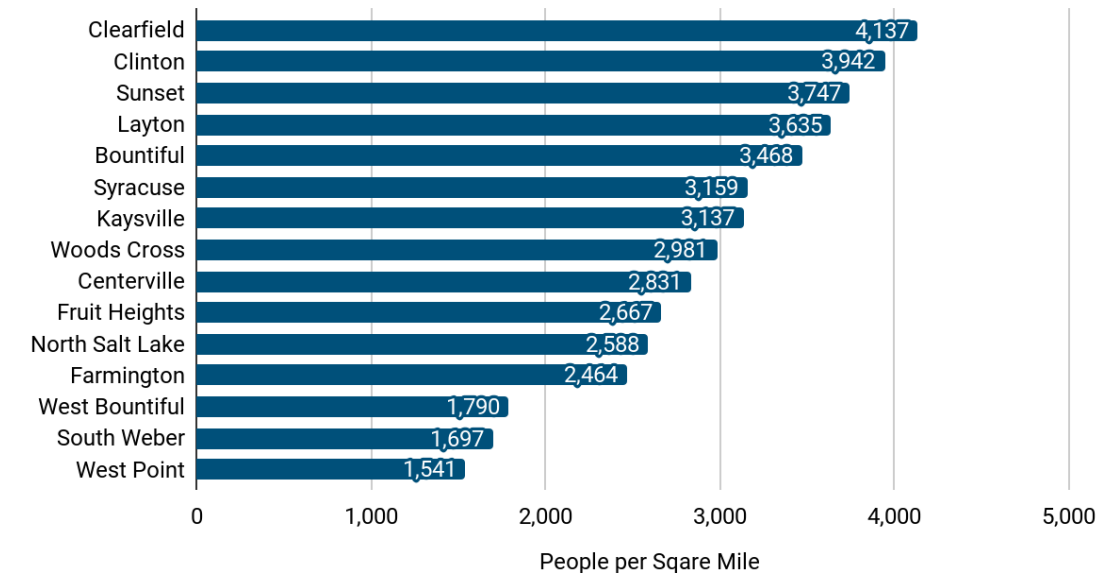
Data: [Gardner Institute](#), 2020

Population density is the size of the population divided by miles of land within a city's boundary. Due to its large population and small land area, Davis County has the 2nd highest population density in Utah behind Salt Lake County. There are 1,212.7 people per square mile of dry land in Davis County

([U.S. Census](#), 2020). However, this may be an underestimate because of the limited amount of usable land due to the dry lakebed and mountains.

When examined by city, Clearfield is the most densely populated city in the county while West Point is the least dense (Figure 14).

Figure 14: Population Density by City, Davis County, 2020



Age

The median age in Davis County is 31.6 years, which is similar to the Utah median of 31.3 and younger than the U.S. median of 38.4 ([U.S. Census](#), 2021). Median age has been gradually increasing at the national, state, and county level due to the aging of the Baby Boomer population (those born 1946 to 1964) and a decrease in the fertility rate.

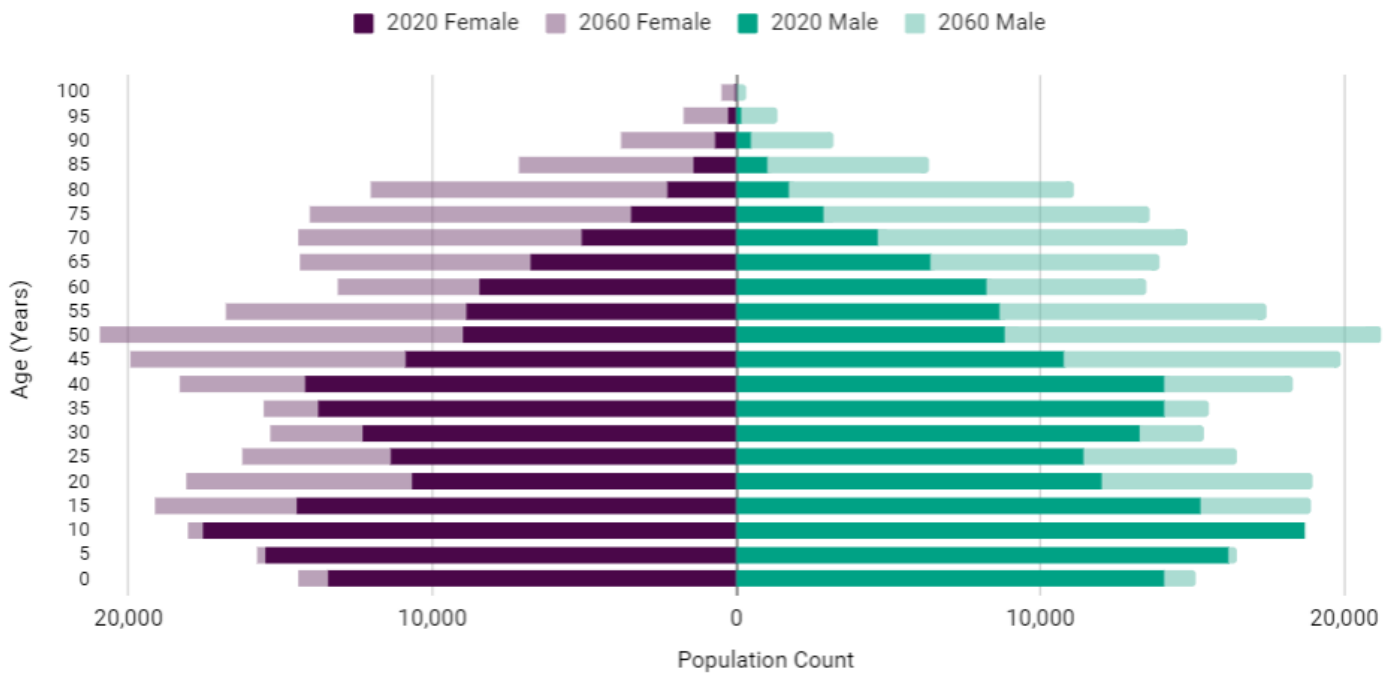
For fertility data, see the Reproductive and Birth Outcomes section of the Health Outcomes chapter.

Figure 15 (next page) is a population pyramid, which shows the people currently living in Davis County by age and sex along with 2060 projections ([Gardner Institute](#), 2021). Davis County currently has a young population with nearly 1 in 3 residents being under age 18 ([IBIS](#), 2021). However, drastic increases are projected in the age 50 and older population, suggesting there will be an increased demand on the healthcare system and caregivers in the future ([Gardner Institute](#), 2021).

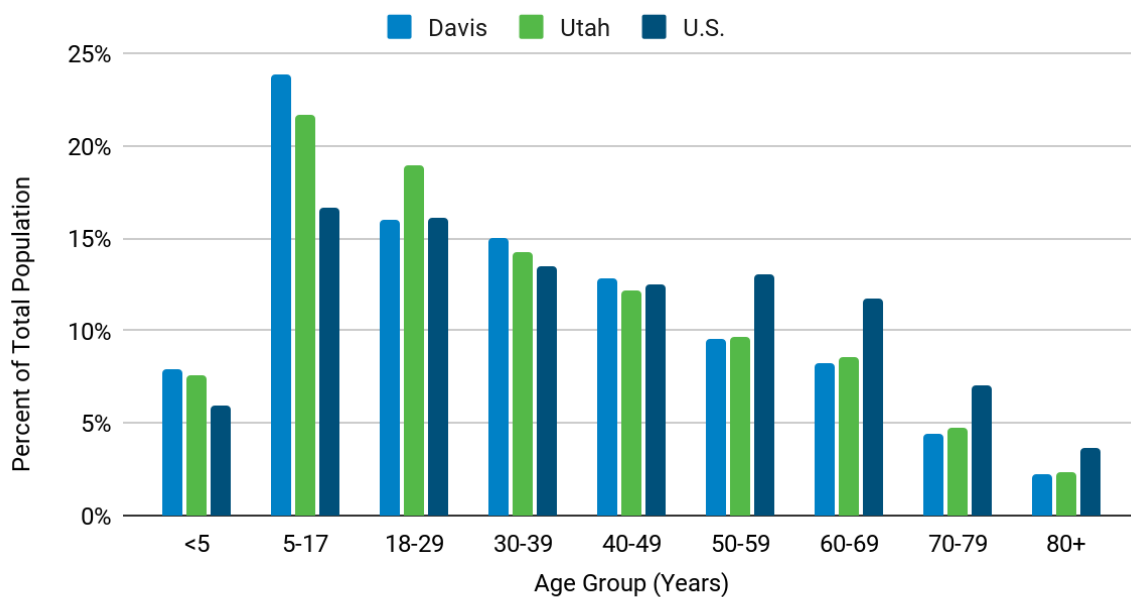
Figure 16 (next page) shows the proportion of the population by age group in Davis County, Utah, and the U.S. ([U.S. Census](#), 2021).

Within Davis County, each city has its own unique mix of age groups. This is important to health because health needs change with age. Populations dominated by certain age groups will need different services than populations with a different mix of age groups. Syracuse, Kaysville, and Farmington have the largest percent of city residents under age 18 while Centerville, West Bountiful, and Fruit Heights have the largest percent of residents that are age 65 and over ([U.S. Census](#), 2021).

For specific health status data for these two age groups, see Appendix 3 for the Adolescent Health Profile and Appendix 4 for the Senior Health Profile.

Figure 15: Present and Future Population Pyramids by Sex, Davis County, 2020 & 2060

Data: Gardner Institute, 2021

Figure 16: Proportion of Total Population by Age Group, 2021

Data: U.S. Census, 2021

Sex, Gender & Sexual Orientation

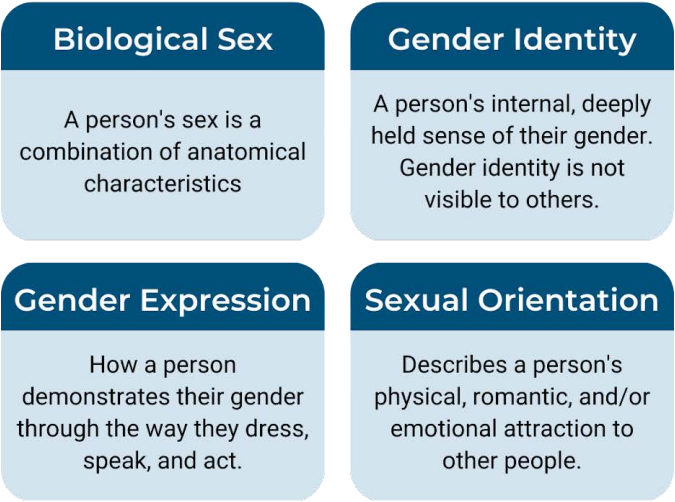
A person's sex is a combination of biological variables such as chromosomes, hormones, and reproductive organs. Sex is usually characterized as female or male, but can also include intersex, having both female and male biological traits (NIH, n.d.).

A person's gender expression is how they demonstrate their gender through the way they dress, speak, and act. The majority of people identify their gender as a man or woman, and relate that gender to their sex at birth. However, people whose gender identity and/or gender expression differs from what is typically associated with the sex they were assigned, may express themselves and identify using different terms. The most common terms include transgender, queer or genderqueer, and nonbinary (GLAAD, n.d.).

Sexual orientation describes a person's physical, romantic, and/or emotional attraction to other people. Straight, lesbian, gay, and bisexual are the most common terms used to describe sexual orientation; however, there are many other identities as well (GLAAD, n.d.).

Figure 17 provides simple definitions to help differentiate between these characteristics.

Figure 17



Source: GLAAD, n.d.

There are different health concerns for people according to their sex at birth, gender identity, and sexual orientation. Risk of developing disease, disease progression, and overall outcomes are

affected by genetic and hormonal components which are often associated with a person's sex (WHO, n.d.).

Gender norms, roles, and differences in social and health related behaviors also influence health outcomes. Men are more likely to die at a younger age and face higher rates of chronic disease, which is often due to health behaviors influenced by gender norms. Women and girls often face issues with barriers to health information, reproductive health risks, and autoimmune diseases (WHO, n.d.). People of minority gender identities and sexual orientations are more likely to face barriers to accessing healthcare than people of majority gender identities and sexual orientations (Healthy People 2030, n.d.). Additionally, many groups are affected by social practices and policies that limit the decisions they can make about their bodies and healthcare (WHO, n.d.).

Table 2 summarizes the population percentages that identify with each sex, gender, and sexual orientation. Utah is one of only ten states that has more males than females (U.S. Census, 2016-2020). There are about 102 males per 100 females in Davis County, a larger ratio than the State and the Nation.

About 3.4% of Utah adults aged 18 and older identify as lesbian, gay, or bisexual (LGB), and 0.3% identify as transgender (Williams Institute, 2020). A smaller percent share of the population in Utah identifies as LGB and transgender compared to in the U.S. The Davis County percentages for adult gender and sexual orientation should not be compared to the State and National percentages because they are averaging over different years (2012 to 2017 for Utah and U.S. and 2019 to 2021 for Davis County). In Davis County, 2.5% of men and 7.2% of women identify as LGB, and 0.4% of adults identify as transgender (BRFSS, 2019-2021).

There are around 600 families headed by same-sex couples in Davis County, of which 71% include married couples. Similar to different-sex couples, same-sex couples in Utah marry more often than all but two other states. Utah has the second highest proportion of lesbian, gay, bisexual, and transgender (LGBT) parents in the Nation with 40% having children in the home under the age of 18 (Williams Institute, 2019).

Younger people are more likely to identify as LGBT ([Gallup](#), 2018). Using state level percentages to create a county level estimate, roughly 250 Davis County youth of all ages identify as transgender ([Williams Institute](#), 2020). In Davis County, 9.3% of students in grades 8, 10, and 12 identified as LGB, and 1.1% identified as transgender ([SHARP](#), 2021). These percentages have increased since the survey question was first introduced in 2019. However, Utah has the lowest share of youth identifying as LGBT of any state ([CDC](#), 2019), which suggests there may be some barriers to identification in Utah.

Gender identity and sexual orientation are on a broad spectrum, not everyone identifies with only the categories of lesbian, gay, bisexual, and transgender. People identifying with other genders and sexual orientations, or those who may be unsure about how they identify, might not be represented in the data.

Davis County's first Pride Festival, celebrating the LGBTQ+ community, was held in 2022. DCHD released the [2023 LGBTQ+ Population Health Report](#) that shared additional health data, tips, and strategies for making Davis County a safe and welcoming place for all people. It includes a resource directory of affirming service providers in the county.

Table 2: Population by Sex, Gender, and Sexual Orientation

Sex	Davis	Utah	U.S
Percent Males	50.5%	50.4%	49.2%
Percent Females	49.5%	49.6%	50.8%
Male to Female Ratio	102.1	101.4	97.0
Gender	Davis	Utah	U.S
Youth - Percent Transgender	1.1%	1.2%	1.4%
Adults - Percent Transgender	0.4%	0.3%	0.6%
Sexual Orientation	Davis	Utah	U.S
Youth - Percent Lesbian, Gay, or Bisexual	9.3%	10.1%	11.2%
Adults - Percent Lesbian, Gay, or Bisexual	4.9%	3.4%	4.1%

Note: Davis County Adult Gender and Sexual Orientation data is averaged from 2019 to 2021 and should not be compared to Utah and U.S Adult Gender and Sexual Orientation data, which is averaged from 2012 to 2017.

Data: [U.S. Census](#), 2016-2020; [SHARP](#), 2021; [Williams Institute](#), 2020, [Williams Institute](#), 2020, [Williams Institute](#), 2022, [CDC](#), 2019; UDHSS BRFSS, 2019-2021

Local LGBTQ+ Resources		
Davis County Pride	Grassroots organization dedicated to making Davis County Utah a loving, affirming and safe place to live for all LGBTQIA+ individuals	daviscountypride.org
Davis County Behavioral Health Directories	Resources for all members of the community concerned about behavioral health, including the Behavioral Health Directory, Spanish Mental Health Directory, and LGBTQ+ Resource Directory	directories.davis4health.org
LGBTQ+ Population Report, DCHD Reports & Assessments	Reports and assessments for different topics and populations including the COVID-19 Vaccine Equity Progress Report, LGBTQ+ Population Health Report, Pacific Islander Community Health Indicator Report, and Adolescent and Older Adult Health Profiles	daviscountyutah.gov/health/reports-and-assessments
State & National LGBTQ+ Resources		
Affirmation: LGBTQ Mormons, Families, & Friends	Creates worldwide communities of safety, love, and hope and promotes understanding, acceptance, and self-determination of individuals of diverse sexual orientations, gender identities, and expressions	affirmation.org
Encircle	A safe space to hang out, daily programs, friendship circles, and affordable therapy	encircletogether.org
Equality Utah	Educates Utahns about issues in the LGBTQ community. Trains LGBTQ Utahns and allies to respond and work proactively for LGBTQ equality	equalityutah.org
Family Acceptance Project	Lists of resources sorted by location, crisis & support, culture-based, evidence based, and faith-based	lgbtqfamilyacceptance.org
LGBTQ Community Resource App	Local, state, and national resources searchable by area and type	lgbtqut.com
The Peculiar Organization	Works to inspire, educate, and empower parents and families from faith-based communities to unconditionally love and embrace their LGBTQ+ children	facebook.com/thepeculiarorg
The Trevor Project	Advocacy, research, education, and 24/7 crisis support by chat, call, and text	thetrevorproject.org
Utah Pride Center	A safe, empowering space for Utah's diverse LGBTQ+ community through programs, activities, and support groups for youth, adults, seniors, and families	utahpridecenter.org

Race & Ethnicity

The concept of race refers to a group of people who share an outward physical trait, such as skin color or facial features. They may also share similar social or cultural identities and ancestral backgrounds. There are many racial groups, and a person may identify with more than one group (NCI, n.d.). Surveys in the U.S. commonly categorize race into at least five categories: American Indian or Alaska Native, Asian or Asian American, Black or African American, Native Hawaiian or Other Pacific Islander, and White.

Ethnicity refers to the social and cultural characteristics and backgrounds shared by a group of people, such as language, religion, or nationality

(NCI, n.d.). On U.S. surveys, Hispanic/Latino and non-Hispanic/Latino are common ethnicity categories. Hispanic refers to someone with ancestry from a country whose primary language is Spanish. Latino refers to someone with origins from anywhere in Latin America, regardless of language (Pew Research Center, 2022).

When completing the census, people who identify as only Hispanic/Latino, meaning they do not identify with a race category, are still required to choose a race. Research shows that most Hispanics/Latinos will choose "White" or "Another Race" (Pew Research Center, 2021). This is an instance of when survey methods may not represent the cultural makeup of an area. Population surveys may not accurately report the racial diversity of a community

because of the categories they use, which do not accommodate people identifying with multiple races and ethnicities.

Deaths, illness, and injury outcomes vary significantly between racial and ethnic groups due to differences in lived experiences that relate to social, economic, cultural, and structural environments ([The Commonwealth Fund](#), 2021). To address these differences, it is important to know who is represented in Davis County.

Davis County is less racially and ethnically diverse when compared to Utah and the U.S. Approximately 84.3% of the people in Davis County identify as non-Hispanic, White alone compared to 78.9% of Utah and 61.5% of the U.S. The Hispanic/Latino population is the next largest group, making up approximately 10.8% of the county ([U.S. Census](#), 2020).

Table 3 displays the racial and ethnic diversity in Davis County ([U.S. Census](#), 2020). It lists non-Hispanic/Latino race categories, which include anyone identifying as one race alone or in combination with another race. It also shows a Hispanic/Latino ethnicity category, which includes anyone identifying as Hispanic/Latino, regardless of race.

Using the same alone and combination criteria, the following list includes the number of people identifying with each racial and ethnic group in Davis County:

- 305,712 people identify with the White population
- 39,295 people identify with the Hispanic/Latino population
- 12,323 people identify with the Asian/Asian American population
- 6,678 people identify with the Black/African American population
- 5,596 people identify with the Native Hawaiian/Pacific Islander population
- 4,667 people identify with the American Indian/Alaska Native population
- 3,748 people identify with Another Race not listed ([U.S. Census](#), 2020)

In 2019, the Kem C. Gardner Policy Institute projected an increase in diversity across the state of Utah estimating that by 2065 a greater share of people will identify as Hispanic/Latino, Asian/Asian American, and Black/African American. Other race categories are also expected to increase in population size, but will make up a smaller proportion of people ([Gardner Institute](#), n.d.).

Table 3: People by Non-Hispanic Race (in Combination) & Ethnicity, 2020

Race & Ethnicity	Davis	Utah	U.S.
American Indian/Alaska Native	1.3%	1.8%	2.0%
Asian/Asian American	3.4%	3.6%	7.0%
Black/African American	1.8%	1.8%	13.4%
Hispanic/Latino	10.8%	15.1%	18.7%
Native Hawaiian/Pacific Islander	1.5%	1.7%	0.4%
White	84.3%	78.9%	61.5%
Another Race	1.0%	1.1%	1.4%

Note: Race categories are non-Hispanic/Latino and includes people who identify with one race alone or in combination with another race; the Hispanic/Latino category can be of any race.
Data: [U.S. Census](#), 2020

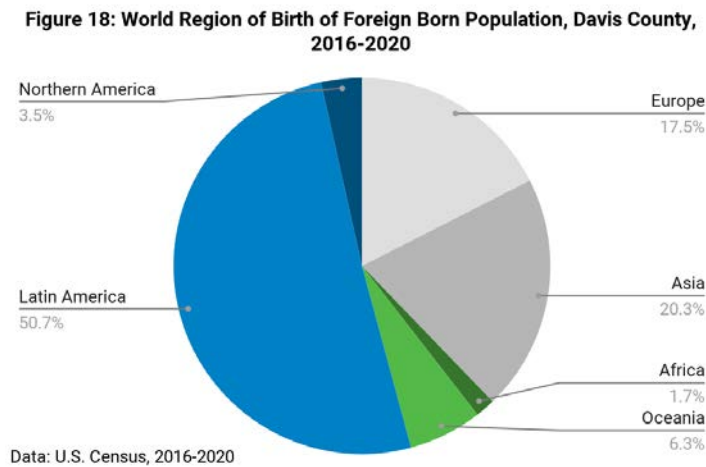
Ancestry

Ancestry is another measure of diversity in a population. It refers to ethnic origin or descent and relates to the race and ethnicity that people identify with. Table 4 lists the most commonly reported ancestries for Davis County in 2021.

In 2022, Davis County Health Department (DCHD) released a health indicator profile for the Pacific Islander population at the request of the Utah Pacific Islander Health Coalition. To see this example of how health outcomes vary by racial group, the report can be found on DCHD’s [Reports & Assessments](#) webpage.

National Origin & Citizenship

Immigrants are an important part of the Utah and Davis County culture and economy. An estimated 18,458 people (5.3%) in Davis County are foreign born. Of those, 10,324 (55.9%) are naturalized citizens, while 8,134 (44.1%) are either permanent or temporary residents ([U.S. Census](#), 2016-2020). Figure 18 displays the world region of birth for foreign born population in Davis County. A majority are from Latin America, followed by Asia, Europe, Oceania, Northern America, and Africa.



There are many reasons why people move to the U.S. For example, they may move for social and economic opportunities, religious and political freedoms, rejoining family, or seeking asylum and refuge. A refugee is someone who is unable or unwilling to return to their country for fear of persecution on account of race, religion, nationality,

Table 4: People Reporting Ancestry, Davis County, 2021	
Ancestry	Count
English	120,271
Unclassified or not reported	96,135
German	39,915
Irish	24,297
Danish	17,131
Scottish	15,173
American	12,854
Italian	11,956
Swedish	11,259
Norwegian	9,102
European	7,527
French (except Basque)	6,563
Dutch	6,120
British	6,037
Welsh	5,882
Swiss	3,669
Polish	2,809
Scotch-Irish	1,920
Arab	1,328
Subsaharan African	1,206
Czech	808
Greek	778
Portuguese	611
West Indian (except Hispanic)	474
Hungarian	451
Ukrainian	217
French Canadian	186
Lithuanian	137
Slovak	107
Russian	56

Data: [U.S. Census](#), 2021

membership in a particular social group, or political opinion. Utah is recognized as being one of the most welcoming states to refugees and as having one of the best resettlement services systems in the U.S. ([UDWS](#), 2022).

Utah is home to approximately 65,000 refugees, former refugees, and their children; most of whom are living in the Salt Lake Valley. In 2022, Utah resettled 1,680 refugees, more than the four previous years combined ([UDWS, 2022](#)). Most new arrivals were Afghans, with many Congolese, Syrians, Sudanese, and Ukrainians as well. Unfortunately, local level data is not available for how many of those refugees live in Davis County.

Separate from the refugee population, is the unauthorized immigrant population. It consists of foreign-born non-citizens currently living in the U.S. There are many reasons someone might be unauthorized, including:

- Entering the U.S. without inspection
- Previously being a temporary resident and staying past the expiration date of their documents
- Having applied for lawful permanent residence but waiting on approval

In Utah, the unauthorized population is estimated to consist of about 89,000 people. Roughly 15,000 people in the State are eligible Deferred Action for Childhood Arrivals (DACA) recipients ([MPI, 2021](#)).

Community focus groups identified many unique challenges experienced by immigrants and refugees living in Davis County. These challenges come when accessing basic needs, including food, housing, transportation, and healthcare. Finding opportunities for connection and community involvement is also difficult because they often face discrimination in many settings (DCHD, 2022).

Language

In Davis County, 9.5% of people over the age of five speak a language other than English in their home. Of that population, 26.9% speak English less than “very well” ([U.S. Census, 2016-2020](#)). The 10 most commonly spoken languages in Davis County are:

1. English
2. Spanish
3. Chinese (including Mandarin, Cantonese)
4. Portuguese
5. Ilocano, Samoan, Hawaiian, or other Austronesian languages
6. French (including Cajun)
7. German
8. Tagalog (including Filipino)
9. Vietnamese
10. Thai, Lao, or other Tai-Kadai languages

More than 20 other languages and dialects are spoken in homes across Davis County. Those who are less proficient at speaking English are more likely to speak Thai, Lao, or other Tai-Kadai languages (58%), Vietnamese (54%), Korean (47%), and Japanese (33%) in the home. While a vast majority of those who speak Spanish also speak English very well, 28.4% speak English less than very well ([U.S. Census, 2016-2020](#)).

Language barriers can significantly impact access to preventative care, understanding health information, and receiving quality health and mental healthcare ([Healthy People 2030](#), n.d.). Focus group discussions in Davis County also suggest that the Spanish-speaking community here has experience with not knowing what resources are available to them. Examples of this include opportunities to save money at the grocery store, encountering barriers to signing up and paying for public services like utilities, and experiences with unfair treatment and discrimination in multiple settings (DCHD, 2022).

While there has been little coordination at the county level to address language barriers, many Davis County employers list Spanish speaking as a desired skill. Organizations are making efforts to have documents available in Spanish.

Racial & Ethnic, Immigrant & Refugee Resources		
Best of Africa	Serves African refugees/immigrants of Utah through advocacy, education and empowerment	bestofafricagroup.org
Catholic Community Services	Case management, job placement, health services, interpretation, transportation, housing, and food assistance	ccsutah.org
International Rescue Committee	Opportunities for refugees, asylees, victims of human trafficking, survivors of torture, and other immigrants to thrive in Utah	rescue.org/united-states/salt-lake-city-ut
Marshallese Moms and Babies Workgroup	Consists of partners who serve Pacific Islander women and families throughout Davis County and works to address maternal and child health disparities	801-525-4950
Pacific Island Knowledge 2 Action Resources (PIK2AR)	Aims to eliminate violence, empower, improve health, and give dignity and hope by increasing personal and financial growth in ethnic and underserved households	pik2ar.org/
Pacific Islander Community Health Indicator Report, DCHD Reports & Assessments	Reports and assessments for different topics and populations including the COVID-19 Vaccine Equity Progress Report, LGBTQ+ Population Health Report, Pacific Islander Community Health Indicator Report, and Adolescent and Older Adult Health Profiles	daviscountyutah.gov/health/reports-and-assessments
Refugee & Immigrant Center, Asian Association of Utah	Community wellness, ESL and Life skills, Interpreting and Translation, Social services, Youth and Family services	aau-slc.org
Student Health and Risk Prevention (SHARP) Survey, DCHD Reports & Assessments	Survey presentation, risk & protective factors compared by race & ethnicity, and adolescent health profile	daviscountyutah.gov/health/reports-and-assessments
Utah Cultural Celebration Center	Event center for people to come together and share ideas; inspire, nurture, and learn from one another; enjoy arts and cultural experiences; concerts and performing arts	culturalcelebration.org
Utah Division of Multicultural Affairs	Promotes greater understanding of connection, opportunity building, and access so that we can support diverse populations that meaningfully impact Utah's educational system, growing workforce, economy, and quality of life	multicultural.utah.gov
Utah Micronesians Women	Provides education, outreach, and a support network to Micronesians women living in Utah	umw1.org
Utah Pacific Islander Health Coalition	Public health education, preventive wellness services, and health policy advocacy	upihc.org
Workforce Services - Refugee Services	Provides opportunities for refugees to access family-sustaining employment and supports refugee communities' efforts to find appropriate solutions towards integration	jobs.utah.gov/refugee

Disability

“Disability is part of being a human. Almost everyone will temporarily or permanently experience disability at some point in their life” ([WHO](#), n.d.). A disability refers to the relationship between a health condition and a person’s ability to do certain activities and interact with the environment around them. There are many types of disabilities that can generally be grouped into six categories ([U.S. Census](#), 2021):

- **Hearing:** deaf or having difficulty hearing
- **Vision:** blind or having difficulty seeing
- **Cognitive:** difficulty remembering, concentrating, or making decisions
- **Mobility:** difficulty walking or climbing stairs
- **Self-care:** difficulty bathing or dressing
- **Independent living:** difficulty doing things alone such as going to appointments and grocery shopping

In Davis County, an estimated 31,220 people are living with at least one disability ([U.S. Census](#), 2020). This is equal to about 9.0% of the population, which is a smaller proportion of the population living with a disability than Utah and the U.S. (Table 5).

The percent of the population living with each type of disability is also shown in Table 5.

The likelihood of living with a disability increases with age. This can be seen in Figure 19 where just 3.7% of the Davis County population under the age of 18 is living with a disability compared to 44.8% of those over the age of 75.

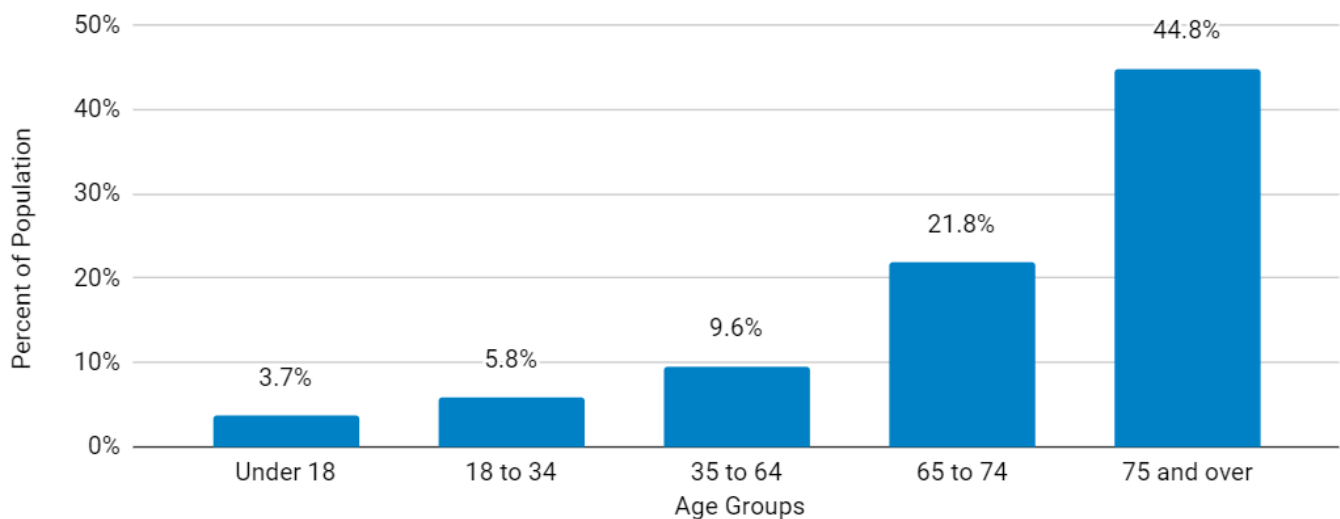
Mobility and cognitive disabilities are the most common across the Nation as noted in Table 5.

Table 5: Population with a Disability by Type

Disability Type	Davis	Utah	U.S
Any Disability	9.0%	9.7%	12.7%
Hearing	2.9%	2.9%	3.6%
Vision	1.5%	1.6%	2.4%
Cognitive	4.0%	4.4%	5.1%
Mobility	3.9%	4.4%	6.8%
Self-Care	1.3%	1.6%	2.6%
Independent Living	3.4%	4.3%	5.8%

Data: [U.S. Census](#), 2016-2020

Figure 19: Population with a Disability by Age Group, Davis County, 2016-2020



Data: U.S. Census, 2016-2020

However, this differs by age groups. Figure 20 shows the most prevalent type of disabilities among everyone living with a disability in each age group. The size of the mobility (shown in gray) and hearing (shown in dark blue) disability sections of the bars for the age 65 to 74 and age 75 and over groups means these types of disabilities are most common in the older adult population. Cognitive disabilities (shown in purple) are the most common type among youth under age 18 and adults age 18 to 34.

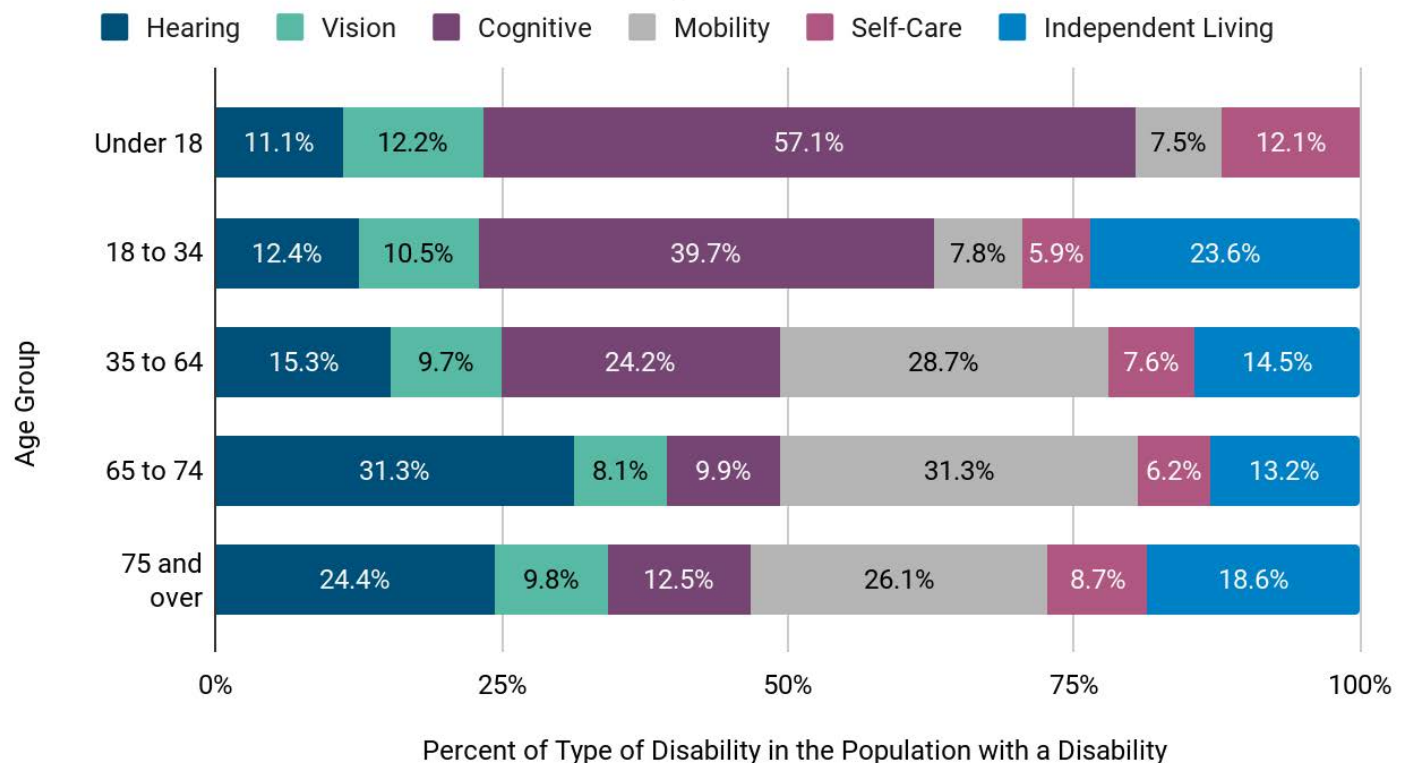
This data suggests that there may be a burden on the middle age groups to care for both their children and their parents (or other loved ones) with disabilities. For more information on caregiver burden, refer to the Caregiving section of the Social and Economic Factors chapter.

Because of small population sizes county level disability status data can not reliably be compared for sexual orientation, racial, and ethnic groups. However, state level estimates are available.

In Utah, lesbian, gay, and bisexual adults report having a disability much more often (39.3%) than those who identify as straight (21.6%). Among racial and ethnic groups, American Indian and Alaska Natives have the greatest disability burden in Utah with 1 in 3 living with one or more disabilities ([IBIS, 2016-2021](#)).

People living with disabilities face more social and economic disadvantages such as living on lower income, the inability to rise out of poverty, lack of support and accessibility, and emotional and psychological stresses ([The Commonwealth Fund, 2019](#)). All of these conditions further affect their health and well-being.

Figure 20: Type of Disability by Age Group in the Population Living With a Disability, Davis County, 2016-2020



Data: U.S. Census, 2016-2020

Community focus groups highlighted the importance of accessibility to basic services and resources, activities, and community involvement for people living with disabilities. Some of the biggest barriers to these include:

- Cost of living and affordability, especially for those on a limited income
- Policies that make it difficult, or impossible, to qualify for services and resources such as housing or financial assistance
- Difficulty getting around the county safely, in a timely manner, and on the weekends (DCHD, 2022)

There are many organizations that serve those living with disabilities in Davis County. These can be found in the resources box below.

During 2022, public health services were assessed for accessibility across the state, including at physical facilities, within health education programs and educational materials, and on websites.

Local Resources for Those with Disabilities

Aging and Adult Services, DCHD	<i>Offers a variety of services for older adults including those living with disabilities</i>	daviscountyutah.gov/health/aging-and-adult-services
Danville Services of Utah	<i>Adult day programs and homes in multiple locations throughout the county</i>	danvilleservices.com/locations/utah/
Intersect Services	<i>A business that contracts with community agencies</i>	intersectservicesllc.com/services/
Ohana Day Center	<i>Day center for adults with cognitive and developmental disabilities</i>	facebook.com/ohanadaycenter
Phoenix Services	<i>Provides support to individuals with brain injury or similar disabilities to live as independently as possible in their own homes</i>	phoenixservices.org/home
Pioneer Adult Rehabilitation Center (PARC) Utah	<i>Provides community employment services</i>	parc-ut.org
TURN Community Services	<i>Provides day programs, residential living services, art center programs, summer camp, and supported employment opportunities</i>	turncommunityservices.org/about-us

State & National Resources for Those with Disabilities

Division of Services for People with Disabilities, UDHHS	<i>Provides community living, day and supported services, and supported employment services</i>	dspd.utah.gov
Roads to Independence	<i>Works with clients to set and maintain goals to become independent or maintain independence in the community</i>	rticil.org/services/
Utah Transit Authority (UTA)	<i>Paratransit service</i>	rideuta.com/Rider-Info/Accessibility/Accessible-UTA/Paratransit-Services
Workforce Services Rehabilitation	<i>Serves the blind and visually impaired</i>	jobs.utah.gov/usor/dsbvi/
Utah State University Institute for Disability Research, Policy, & Practice	<i>Provides community education and technical assistance to people with developmental disabilities, family members, service providers, educators, and professionals on a wide range of topics</i>	idrpp.usu.edu

Religion

Religion and church participation are a large part of Davis County's culture. It is known for its strong faith community with 276,152 (76.1%) residents reporting adherence to a religion. This means 3 in 4 residents participate in a congregation, which is similar to the State and much larger than the Nation (Table 6).

In 2020, there were 676 congregations across 29 religious groups in Davis County ([U.S. Religion Census](#), 2020). The number of congregations per 100,000 people in Davis County (186.4) is higher than the Utah (183.9) and U.S. rates (107.6) while the number of religious groups is lower, suggesting more opportunity to worship but less religious diversity.

Table 6: Religious Population, 2020

Religion Indicators	Davis	Utah	U.S.
Percent of Residents who are Religious	76.1%	76.1%	48.7%
Number of Religions (Groups)	29	84	372
Number of Congregations	676	6,018	356,723
Congregations Per 100,000 People	186.4	183.9	107.6

Data: [U.S. Religion Census](#), 2020

In Davis County, the majority of the population identify with one religious group. Specifically, 70.5% of all county residents affiliate with The Church of Jesus Christ of Latter-day Saints (LDS) compared to 65.0% of people in Utah and 2.0% of those in the U.S. Of the religious population in Davis County, 92.6% are LDS (Table 7). Additionally, the number of LDS congregations in the county has increased to 625 over the last decade.

Research shows that religious participation and spiritual beliefs have a positive impact on health measures, such as life expectancy, resilience skills, quality of life, and mental health conditions ([Mueller et al.](#), 2001). Local data from the Utah Wellbeing Project echoes this theme. It shows that religion, especially LDS membership, was an important factor in higher well-being and social connection ratings ([USU](#), 2022).

Table 7: The Church of Jesus Christ of Latter-day Saints (LDS) Population, 2020

Percent Share of Population	Davis	Utah	U.S.
LDS Percent of Total Population	70.5%	65.0%	2.0%
LDS Percent of Religious Population	92.6%	85.4%	4.2%
LDS Percent of Congregations	92.5%	87.1%	4.1%

Data: [U.S. Religion Census](#), 2020

Responses from Davis County residents to the Community Resilience Survey and community focus groups indicate a difference in feelings of belonging between religious identities. Those who were part of any religious community felt supported by their church community. Residents who had left the LDS faith or were never part of it, even if they still identified as spiritual, felt disconnected and rejected by those who were part of the predominant religion (DCHD, 2022).

Politics & Voting

Davis County politics can be broken down into voter registration, voter beliefs, who is elected, and how those elected officials compare to the people they represent.

Voter turnout is a Healthy People 2030 objective ([Healthy People 2030](#), n.d.). Voting is important to health because it allows individuals to have a voice in the community and in social structures that influence their health outcomes, such as healthcare access and quality, education systems, rights, and service programs offered. Additionally, voter participation has been linked to better mental health because it can improve one's sense of belonging and decrease social isolation ([AHR](#), 2022).

In Utah, voting is recognized as being very accessible. It is conducted primarily, although not exclusively, by mail. Election officials automatically distribute mail-in ballots to registered voters. In-person registration and voting are also offered through the end of election day ([Vote.gov](#), n.d.). However, Utah has some unique systems that limit participation in selecting candidates and who can vote in primary elections.

Utah Caucus-Convention System

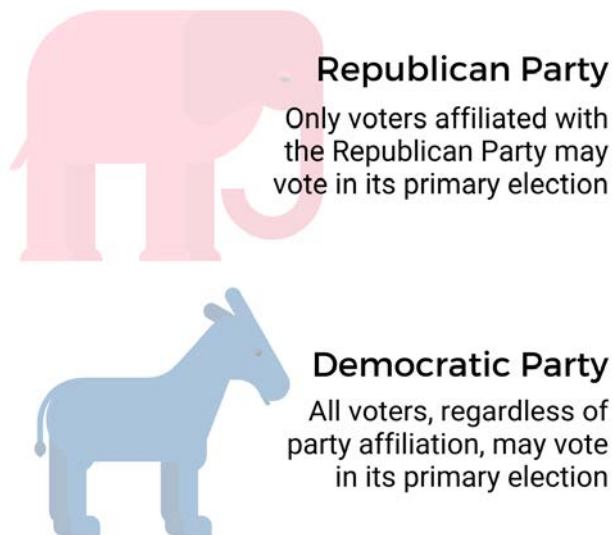
Utah is one of the last states in the U.S. where political parties use a caucus or convention nominating process to select candidates for elections. At the root of this process are neighborhood caucuses where county and state delegates are elected by fellow party members to decide which candidates their party will nominate. Utah has recently solidified an additional petition path to the primary ballot for candidates who wish to bypass the caucus-convention system.

Due to a supermajority party, Republican nominees in conservative districts are almost certain to win the general election. That means that sometimes only a small number of people, the delegates, choose the person who will become the elected officials in most precincts ([Better Utah Institute](#), n.d.).

Utah Primary Elections

Utah State law permits political parties to choose whether to allow unaffiliated voters, or voters not registered with the party, to participate in their nominating contests. Figure 21 shows each party's rules for who can vote in their primary elections, or nomination process.

Figure 21



Source: [Vote.Utah.gov](#), n.d.

Because of this closed primary system for the Republican Party, those who are unaffiliated or otherwise registered with another party, are sometimes encouraged to register as Republican to vote in key State and local races decided during the primary election.

Party Affiliation & Election Results

In 2022, there were 193,717 active voters in Davis County (Davis County Clerk's Office, 2022). Of those, the majority (54.4%) reported affiliation with the Republican Party followed by Unaffiliated (29.9%) and Democratic (10.6%) parties (Table 8). In Davis County, this party majority plus the large religious population leads to strong support for candidates and policies that align with conservative views and family values.

Table 8: Political Affiliation of Active Voters, Davis County, 2022

Political Party	Number of Voters	Percent of Voters
Republican	105,437	54.4%
Unaffiliated	57,984	29.9%
Democratic	20,626	10.6%
Independent American	6,491	3.4%
Libertarian	2,176	1.1%
Constitution	587	0.3%
Green	216	0.1%
United Utah	200	0.1%
Total	193,717	100.0%

Data: Davis County Clerk/Auditor Office, February 2022

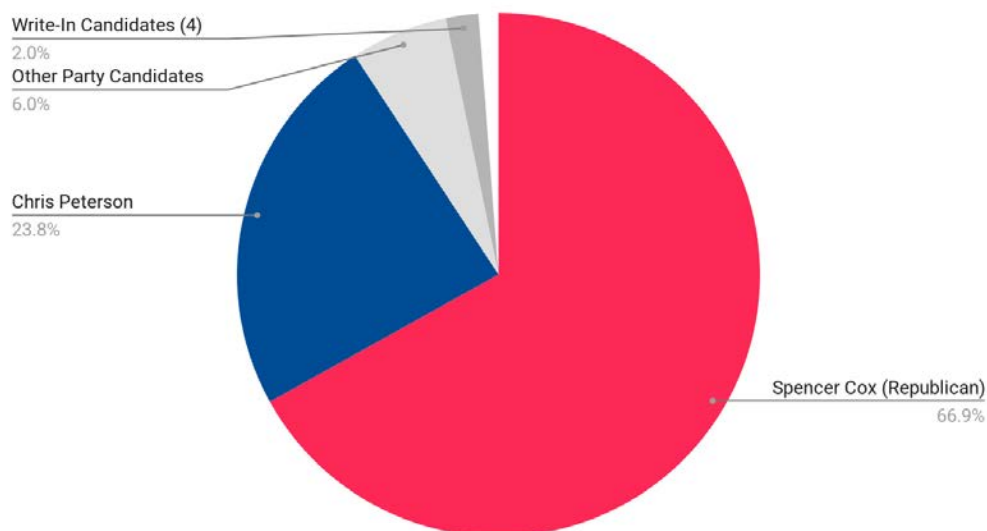
Regarding voter participation, Davis County has healthier community conditions than 55.6% of other counties in Utah. Specifically, 90.0% of registered voters participated in the 2020 general election in Davis County compared to 89.3% of Utah voters ([UT HPI](#), 2020). In the 2020 election, the Republican candidates for governor and president received the majority of votes in Davis County (Figures 22 & 23, next page).

Despite strong voter participation, Davis County has room for improvement. Gaps in political representation exist for women, people of color, and non-Republican voters. Utah ranks 49th among U.S. states for the share of elected officials who are female ([Madsen & Madsen, 2021](#)). Additionally, Davis County scores lower than the State average for the racial and ethnic diversity of its elected officials matching the diversity of its total population ([UT HPI, 2019](#)).

Justice System Involved

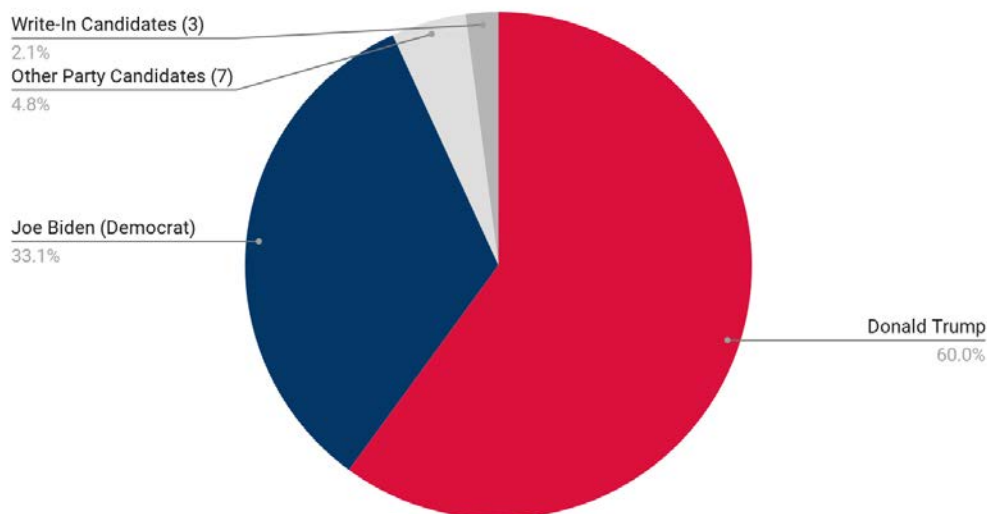
In Utah, 1 in 4 residents have some sort of criminal record ([Utah Courts, 2022](#)). Those currently involved in the criminal justice system might be serving time in jail, prison, or a juvenile facility. They may also be under community supervision on probation or parole. Some justice involved individuals may be ordered to enroll in treatments, counseling, or other restorative justice opportunities.

Figure 22: Governor Election Results, Davis County, 2020



Data: Davis County Clerk/Auditor, 2022

Figure 23: Presidential Election Results, Davis County, 2020



Data: Davis County Clerk/Auditor, 2022

Incarceration refers to confining someone in places such as jail, prison, halfway houses, boot camps, or other facilities ([BJS](#), n.d). Incarcerated and formerly incarcerated individuals face unique health challenges such as higher rates of infectious disease, chronic disease, mental health, and substance use disorders ([CDC](#), 2022). Previously justice involved individuals often have a record that impacts opportunities well into the future.

In 2020, an estimated 324 Davis County residents were living in correctional facilities for adults and 241 were living in juvenile facilities ([U.S. Census](#), 2020). The Davis County Correctional Facility is located in Farmington with an average daily population of approximately 800 inmates ([Davis County Sheriff's Office](#), n.d.). In 2021, a total of 5,915 inmates were booked, an increase from 5,392 in 2020 (Davis County Sheriff's Department, 2022). These bookings occurred across all ages from 10 to 89, with the average age being 34. Between 2020 and 2021, inmates spent an average of 18 days in jail. Roughly 3 in 4 inmates were male. Black/African American and Hispanic/Latino individuals are overrepresented in the jail population relative to the county population. This can be seen by comparing the demographic proportions listed for the Davis County Correctional Facility population in Table 9 to the general population race and ethnicity estimates in Table 3 of the Race & Ethnicity section within Population Characteristics.

Table 9: Davis County Correctional Facility Inmate Demographics, 2022

Demographics	2020	2021
Male	72.6%	72.7%
Female	27.2%	27.3%
American Indian/Alaska Native	1.0%	1.4%
Asian/Pacific Islander	1.7%	2.3%
Black/African American	4.5%	4.3%
Hispanic/Latino	14.8%	13.5%
White	57.3%	65.5%
Unknown Race/Ethnicity	20.8%	7.7%

Note: Race categories are non-Hispanic/Latino; the Hispanic/Latino category can be of any race.
Data: Davis County Sheriff's Department, 2022

Most people serving time in jail are not yet convicted of a crime, but are instead awaiting trial because they are unable to afford bail ([Prison Policy Initiative](#), 2022). More than half of those at the Davis County Correctional Facility who had a judicial status entered in 2020 and 2021 were being held pre-trial (Davis County Sheriff's Department, 2022).

Community focus groups have indicated that people who have faced more significant criminal charges still struggle to find those supports that provide opportunities to break the cycles of incarceration. A woman currently unable to find affordable housing in Davis County due to a felony on her record from seven years ago is experiencing homelessness and talks about her struggles to stay positive:

"It's not where I wanted to be. After where I came from...I'm a recovering addict, and I've been sober for two years and trying everything not to go back that way...Going back to that route of being homeless makes me feel like I'm right back in that mix again. So, I'm really struggling right now" (DCHD, 2022).

Community Supports

Utah and Davis County have made strides in recent years that prevent criminal justice system involvement when possible. These efforts also aim to improve the health and welfare of those who are incarcerated and provide services and opportunities to help with community reintegration for those who were formerly incarcerated.

To improve the care and response to medical and mental health needs for inmates, the Davis County Correctional Facility is building a new medical observation unit with greater capacity and isolation capabilities. In collaboration with community partners, the correctional facility also offers many programs and opportunities to improve on and build life skills that are helpful for reentry into the general community ([Davis County Sheriff's Office](#), n.d.).

To help address the issue of healthcare access for those released from incarceration, Utah has submitted a proposal to the Centers for Medicare and Medicaid Services (CMS). The reform proposal would allow inmates who are preparing for reentry and have chronic physical or behavioral health conditions to access Medicaid services 30 days prior to release ([UDOH](#), 2020).

The first Davis County Receiving Center opened in 2019. It is a community-based center that offers an alternative to jail and emergency departments for individuals experiencing mental health, substance use, or other behavioral crises. It provides a suicide assessment, physical health screening, an evaluation, detox services, peer services, and medication management. Once stabilized, individuals are linked to a treatment program and discharged. It is a law enforcement diversion program for interested individuals who would like access to treatment and an opportunity to avoid a criminal offense ([DBH](#), 2023).

The Davis Criminal Justice Coordinating Council is headed by a county commissioner and has representation from justices, the county sheriff, the county attorney, local law enforcement, a public attorney, Davis Behavioral Health, Safe Harbor, the Department of Corrections, a person with lived

experience in the justice system, Davis County Health Department, and other interested individuals. The council is currently looking at ways to improve the county's pretrial system and help those previously involved in the criminal justice system to fully reintegrate into society. As part of newly established Utah Code, the council will undergo a formal strategic planning process to best determine how to meet needs in the county ([Utah State Legislature](#), 2022).

In 2022, Utah became the second state to implement a Clean Slate Law, which automatically expunged old and minor criminal records of individuals who have remained conviction-free for five to seven years ([Utah Courts](#), 2022). These efforts help to reduce barriers of incarceration that affect health and well-being by making it easier for people to gain employment opportunities and qualify for housing.

Also in 2022, the Davis Community Reentry Coalition started sponsoring weekly reentry fairs to provide resources for justice involved individuals. Thirteen community partners attend regularly to provide individuals with information about employment opportunities, peer support, mental and behavioral healthcare, Medicaid, and other community services (Vocational Rehab, 2023).

Resources for Justice System Involved Individuals & Families

Davis Community Reentry Fair	<i>Provide resources for justice involved individuals including employment, peer support, mental and behavioral health, Medicaid, etc.</i>	Heidi Volt: 385-489-6021 Facebook Profile: Davis Reentry
Utah Clean Slate	<i>Utah criminal records expungement</i>	cleanslateutah.org

Military

Hill Air Force Base (HAFB) is located on 7,000 acres within the county's northern border and has its own zip code ([HAFB](#), n.d.). HAFB employed 21,938 military, civilian, and contractor personnel in 2021, generating an estimated \$7.1 billion annual economic impact for the area ([HAFB](#), 2021). Its personnel live on and off base, influencing the population makeup of nearby Davis County cities, such as Clearfield, Layton, South Weber, Clinton, and Sunset ([HAFB](#), n.d.).

In 2021, there were 5,014 active-duty military personnel assigned to HAFB with 4,959 dependent family members ([HAFB](#), 2021). There are 998 households on base occupied by 3,566 residents. Of base residents, 52.2% are male and 47.8% are female. The median age of base residents is 22.9, which is 9 years younger than the Davis County median. This is likely influenced by two-thirds of base households having children under the age of 18. Only 1.3% of base households contain adults age 65 or older ([U.S. Census](#), 2021; [U.S. Census](#), 2021). All base residents rent their homes.

Additionally, base residents have a different racial and ethnic profile than Davis County:

- 75.0% of base residents identify as non-Hispanic White
- 8.9% as Hispanic or Latino of any race
- 5.8% as Black/African American alone
- 5.4% as Two or More Races
- 2.7% as Asian alone
- 2.1% as Native Hawaiian/Pacific Islander alone
- 0.2% as Some Other Race
- 0.0% as American Indian/Alaska Native alone ([U.S. Census](#), 2021)

No estimates are available for the characteristics of military members who live off base.

The military population has access to multiple amenities on base that impact quality of life, such as parks, a grocery store, walking paths, gyms, a veterinary clinic, library, bowling alley, a family resource center, child care, and a medical clinic. For those living on base, these amenities are all within a 10-minute drive from home ([HAFB](#), n.d.; [Boyer Hill Military Housing](#), n.d.). However, the military lifestyle requires members to move frequently. This can impact their support network and their connection to the surrounding community, specifically Utah culture and identifying as a Davis County resident.

Veterans

Veterans are individuals who served in the military and ended their service career without dishonorable discharge ([VA](#), 2019). Veterans and their beneficiaries are eligible for healthcare benefits, pensions, and other discounts that impact their quality of life, such as education, insurance, home loans, and disability programs ([VA](#), 2022).

In Davis County, 17,923 residents are veterans, who account for 7.6% of the county's total population and 14.9% of the State's veteran population ([U.S. Census](#), 2016-2020). The largest percent share of veterans in Davis County live in the Utah Small Areas closest to Hill Air Force Base, specifically Clearfield Area, Layton/South Weber, and Syracuse ([IBIS](#), 2017-2021).

As shown in Table 10, the majority (91.6%) of Davis County veterans are male and 61.0% are under the age of 65, making them significantly younger than the State veteran population. They are also more likely to have served in the Iraq (Gulf) Wars than the State veteran population. Additionally, Davis County veterans have significantly higher rates of Bachelor's degrees along with lower rates of poverty and disability compared to Utah veterans ([U.S. Census](#), 2020).

Table 10: Select Characteristics of the Veteran Population

Characteristics	Davis	Utah	U.S.
Percent of Population	7.6%	5.4%	7.1%
Younger than Age 65	61.0%	49.5%	50.0%
Male Population	91.6%	92.6%	90.9%
Bachelor's Degree or Higher	41.1%	36.2%	29.4%
Below Poverty Level	2.5%	4.9%	6.7%
With Any Disability	24.6%	28.2%	29.5%
Overall Health Status: Good to Excellent	91.1%	87.0%	80.7%

Data: [U.S. Census](#), 2016-2020; [IBIS](#), 2017-2021 (age-adjusted); [CDC](#), 2017-2021 (age-adjusted)

Compared to the general population, U.S. veterans have higher rates of chronic disease, mental health challenges, and substance use. However, they also have better access to healthcare and experience more days of good to excellent health status ([AHR, 2022](#)).

For Davis County veterans, the mental health and chronic disease themes do not hold true. In Davis County, when compared to the non-veteran population, veterans have significantly higher

incomes and levels of college education ([U.S. Census, 2016-2020](#)). They also report fewer days of poor mental and physical health along with lower rates of depression than non-veterans ([IBIS, 2017-2021](#)). Nearly 1 in 4 veterans lives with a disability, which is more than double the rate of disability among Davis County non-veterans ([U.S. Census, 2016-2020](#)). However, a greater proportion of Davis County veterans who have a disability report being in good to excellent overall health compared to non-veterans with a disability ([IBIS, 2017-2021](#)).

Local Resources for Veterans

Continue Mission	Suicide prevention for Veterans and their families	continuemission.org
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State & National Resources for Veterans

Make the Connection Veterans Mental Health Resources	Resources and support for Veterans and their families	maketheconnection.net
Veterans Administration, housing vouchers (VASH)	Helps homeless Veterans and their families find and sustain permanent housing and access to health care, mental health treatment, substance use counseling, and other supports	va.gov/homeless/hud-vash.asp
Veterans Crisis Line	24/7 confidential crisis support for Veterans and their loved ones. Do not have to be enrolled in VA benefits or health care to connect.	Call 988 then press 1. veteranscrisisline.net

Households & Families

Households and families bring together multiple characteristics and concepts like marriage, multi-generational living, isolation, and family roles.

The U.S. Census defines a household as anyone living together regardless of family relation. In Davis County, there are 109,899 households, with an average size of 3.2 people. This is larger than the Utah (3.1) and U.S. (2.6) averages ([U.S. Census, 2017-2021](#)). The number of households in Davis County is projected to increase by 22.8% by 2030, which is slightly less than the Utah growth projection of 25.9% ([Gardner Institute, 2021](#)).

In Davis County, the most common household characteristics are four or more occupants, containing a married couple, and being homeowners (Table 11, next page). Factors like religious norms and the majority of housing options in the county being single unit homes may influence this data. Utahns marrying at a higher rate than the rest of the U.S. may also influence common household characteristics ([IBIS, 1990-2019](#)). However, it is

important to note the variety of living situations in Davis County.

An estimated 18,192 residents live alone, which accounts for 16.6% of all households in Davis County. Of those living alone, 6,942 (38.2%) are older adults aged 65 and up while 43.4% are aged 35-64 and 18.4% are aged 15-34 ([U.S. Census, 2017-2021](#)). Living alone can pose a risk for isolation and lack of social support.

Households often, but not always, contain families. A family is defined as any two or more related people living together ([U.S. Census, 2021](#)). In Davis County, there are 86,923 families, with an average size of 3.7 family members. This is larger than the Utah average family size of 3.6 and the U.S. average of 3.2 ([U.S. Census, 2017-2021](#)). Multigenerational households, including young adults living at home, are the fastest growing type of family across the U.S. ([Pew Research Center, 2022](#)).

In Davis County, 66.1% of households contain a married couple, which also means the household is counted as containing a family. Other household

situations include 13.4% of households containing residents who are not a married couple but have some other family relation to each other. This could look like an adult child living with a parent or siblings living together. Unrelated residents (non-family) make up 4.4% of households.

Of Davis County households, 44.6% contain one or more people under age 18. This is a higher proportion of households with children than in Utah (39.7%) and in the U.S. (30.6%). An estimated 7,669 households contain a parent and children with no spouse or partner present ([U.S. Census](#), 2017-2021). In Davis County, 13% of children live in a single-

parent household compared to 15% in Utah and 25% in the U.S. ([CHR&R](#), 2022). Children in Davis County households include 3,728 adopted children and 280 foster children ([U.S. Census](#), 2017-2021).

“Grandfamilies” are another example of a family household. An estimated 7,062 grandparents live in the same household as their grandchildren in Davis County. Of these grandparents, 1,459 are responsible for the care of their grandchildren. This means 1 in 5 are the primary caretaker for their grandchildren, which is lower than in Utah and the U.S. ([U.S. Census](#), 2017-2021).

Table 11: Household Characteristics, Davis County, 2021

Household Size	Percent of Households
1 person	16.6%
2 persons	29.2%
3 persons	16.3%
4+ persons	37.9%
Family Status of Household	
Family with Married Couple	66.1%
Family with Other Relation	13.0%
Non-Family, Living Together	4.4%
Non-Family, Person Living Alone	16.6%
Children	
Households with 1+ Children Under 18	44.6%
Children in Single-Parent Households*	13%
Ownership of Dwelling	
Homeowner	77.5%
Renter	22.5%

Data: [U.S. Census](#), 2017-2021; *[CHR&R](#), 2022

Resources for Households & Families

Grandfamilies, Children's Service Society of Utah	<i>A support, advocacy, educational, and crisis intervention program created to meet the needs of individuals and/or families that are caring for a relative's child</i>	cssutah.org/services/kinship-care
Office of Families	<i>Advises Utah's Governor on pro-family policy and prioritizes supporting vulnerable families, child care, youth mental health, ensuring high schoolers graduate, and family-friendly workforce policies</i>	awn@utah.gov governor.utah.gov/families
Uplift Families	<i>Connects parents with programs, resources, and information that help them acquire the skills necessary to raise loving, responsible children</i>	upliftfamilies.org
Utah Marriage Commission, USU Extension	<i>Webinars, assessments, courses, and podcasts that can be used to strengthen relationships</i>	extension.usu.edu/strongermarriage

Culture of Health

Culture of Health is when good health and well-being grow across geographic and demographic groups creating increasingly equitable and healthy communities ([Robert Wood Johnson Foundation](#), n.d.).

Davis County is known for being a healthy community because of the people, place, and opportunities. Strengths of the community's culture include:

People

- Friendly, welcoming, and caring
- Shared values of family, faith, community service, and civic engagement
- Working together for common good
- Large population educated beyond high school level
- High median household income and low rates of poverty
- Low tobacco and alcohol use rates

Place

- Safe and clean neighborhoods
- Beautiful natural environment
- Proximity to goods and services, such as groceries, dining, healthcare, shopping, and entertainment
- Public transportation North to South

Opportunities

- Access to quality education for a variety of ages, types of learners, and abilities
- Access to parks, trails, recreation, and the mountains
- Community support available through government and faith-based organizations for those in need of assistance

County Health Rankings

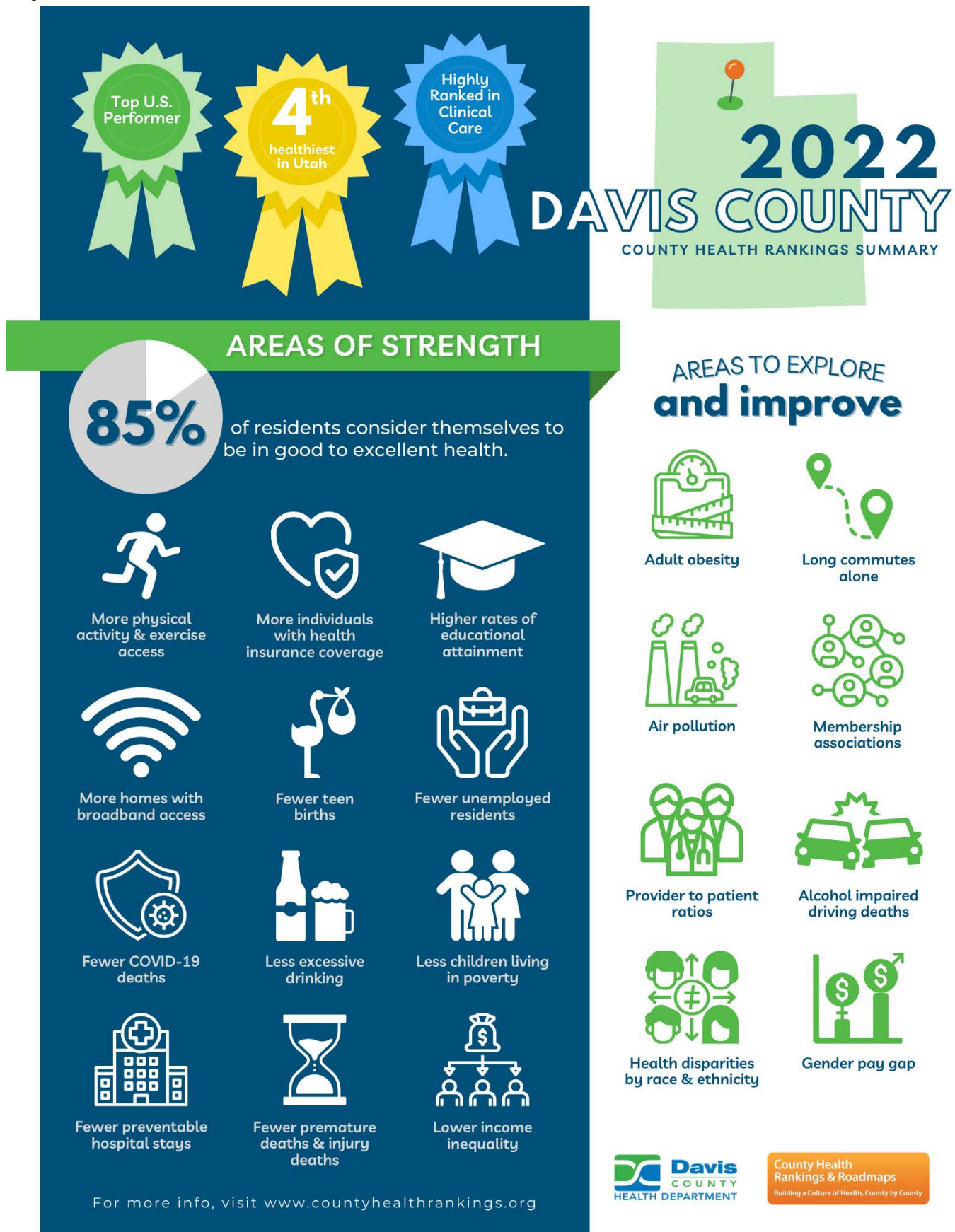
According to the 2022 County Health Rankings & Roadmaps (CHR&R) report, Davis County is the 4th healthiest county in Utah and the healthiest county along the Wasatch Front. Annual rankings are based on weighted categories related to the health status of the population (health outcomes), and modifiable factors that influence how well and how long residents live (health factors).

Clinical care is the county's strongest category while the physical environment continues to be Davis County's greatest challenge. Compared to the 2021 report, ranks for health behaviors and social economic factors decreased while ranks for clinical care and physical environment improved ([CHR&R](#), 2022).

Davis County Health Department publishes an annual infographic (Figure 24, next page) summarizing strengths and weaknesses identified by CHR&R. It is important to note that significant health disparities exist between race and ethnicity groups for several measures in the reporting, even within the county's strongest areas.

For more detailed rankings, see Appendix 5.

Figure 24



Utah Healthy Places Index

Factors outside an individual's control, including the conditions in which they live, work, and play, can influence their health. The Utah Healthy Places Index (UT HPI) was created to show how community conditions with statistically proven connections to life expectancy differ across Utah. The UT HPI scores communities based on a set of health indicators related to the following eight areas:

- Education
- Transportation
- Housing
- Social engagement
- Clean environment
- Neighborhood
- Healthcare access
- Economic

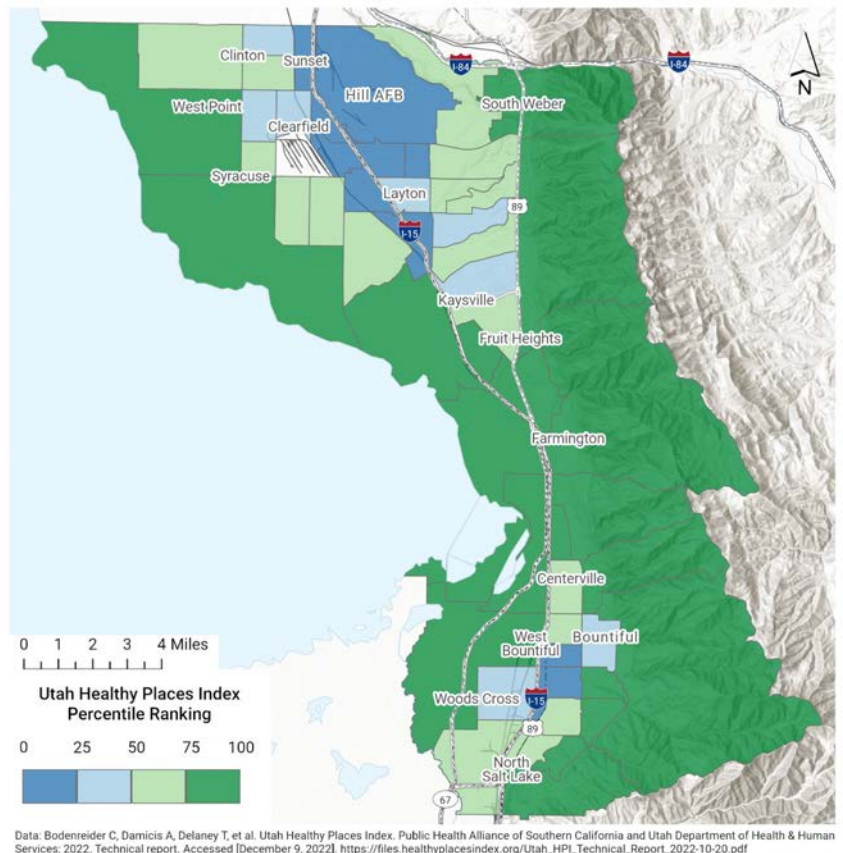
The UT HPI is a valuable tool for assessing health and identifying disparities and inequities within Davis County down to the neighborhood level. Through its data mapping features and policy guides, the UT HPI tool allows users to turn data into actionable solutions ([UT HPI, 2022](#)).

The UT HPI suggests that Davis County has healthier community conditions than 92.6% of other counties in Utah. Compared to other counties, census response rate, adults above the poverty level, and adults with health insurance are among Davis County's strengths. Policies linked to air quality, park access, and housing provide the best opportunities for improving community conditions ([UT HPI, 2022](#)).

Figure 25 is color-coded by UT HPI score to show how conditions vary by neighborhood in Davis County when examined by census tract. Dark green tracts indicate high UT HPI scores, or areas with the most assets, while dark blue tracts represent low UT HPI scores, or areas with the most opportunities for improvement. It is important to note that blue areas still have assets, too. Common policy opportunities for improving community conditions and UT HPI

scores among blue neighborhoods in Davis County include access to education, transportation, air quality, voter turnout, and housing ([UT HPI, 2022](#)). To learn more about community conditions in Davis County, visit dhhs.utah.gov/UtahHPI.

Figure 25: Utah Health Places Index Percentile Ranking by Census Tract in Davis County, 2022



Source: DCHD, 2022

The UT HPI is one of many health indexes available. It is highlighted in this report because it is customized to Utah, uses positive framing, and offers research-backed solutions along with data. Other indexes worth exploring include:

- Area Deprivation Index: neighborhoodatlas.medicine.wisc.edu/mapping
- Social Vulnerability Index: atsdr.cdc.gov/placeandhealth/svi/index.html
- Community Resilience Estimates for Equity and Disasters: covid19.census.gov

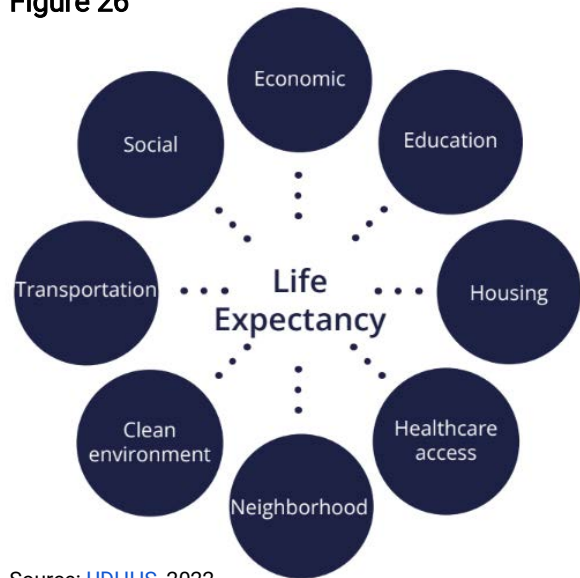
Life Expectancy

Life expectancy is used as a measurement tool to better understand the health of a community and trends in mortality. Davis County residents have a life expectancy at birth of 80.3 years compared to 79.7 for the State of Utah and 77.3 for the U.S. (IBIS, 2016-2020). While higher life expectancy is an indicator of good overall health, it may come with higher rates of chronic disease. Chronic disease may reduce quality of life. Life expectancy at birth has been increasing gradually for decades, but declined in 2020 and 2021 due to the COVID-19 Pandemic (CDC, 2022).

Life expectancy is not only influenced by genetics, disease, and mortality, but as Figure 26 shows, many social, economic, and environmental factors can play a role in how long a person lives. Because of this, life expectancy varies between geographic and demographic groups, such as race, ethnicity, gender, and income.

Figure 27 displays life expectancy by race and ethnicity at the state level. As expected, differences in life expectancy can be seen between racial and ethnic groups. Despite facing socioeconomic disadvantages, the Hispanic/Latino population has a higher life expectancy than non-Hispanic/Latinos across the Nation, in Utah, and in Davis County. Some research suggests this may be due to genetic, social, and cultural differences that protect against chronic disease and mortality (PRB, 2013). County Health Rankings and Roadmaps does have estimates at the county level that align with these

Figure 26



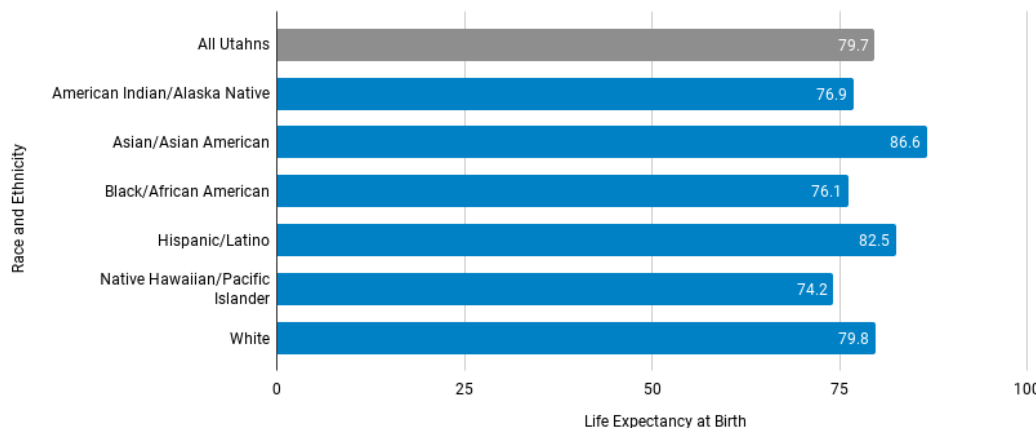
Source: UDHHS, 2022

same trends, however, not all racial groups are represented in the data (CHR&R, 2022).

Life expectancy can also be affected by the neighborhoods people live in due to the historic separation of certain demographic groups, which can influence job opportunities and healthcare access. The most recent life expectancy estimates available at the neighborhood level are from 2010 to 2015.

Life expectancy varies across Davis County. It ranges from 86.9 years on the North Salt Lake bench to 73.5 years in Clearfield next to the southwest corner of Hill Air Force Base.

Figure 27: Life Expectancy at Birth by Race and Ethnicity, Utah, 2016-2020



Data: IBIS, 2016-2020

Figure 28: Life Expectancy at Birth by Census Tract in Davis County, 2010-2015

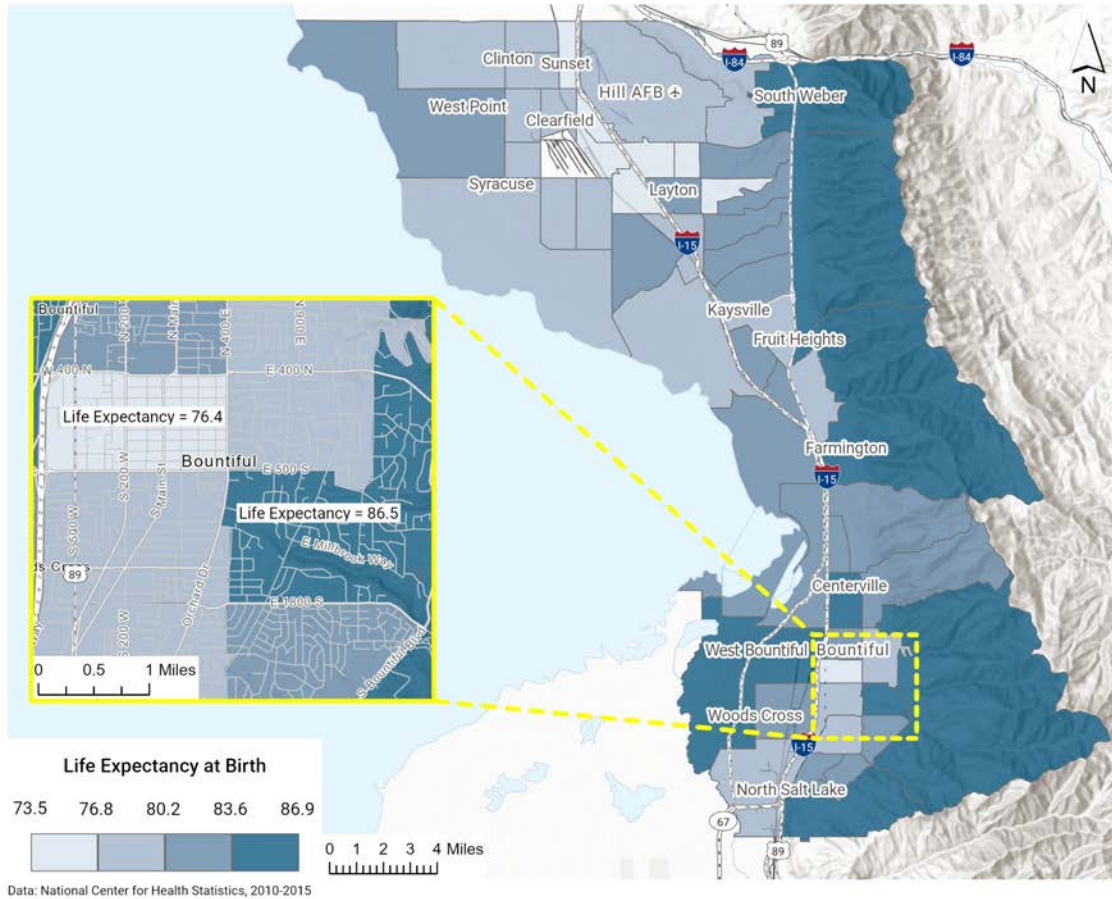


Figure 28 groups life expectancy at birth into four categories to show how it differs by neighborhood. In the map, life expectancy is lower in neighborhoods displayed in lighter colors and higher in those displayed in darker colors.

Even people living in neighborhoods right next to each other can have drastically different life expectancies due to a variety of cultural, socioeconomic, and community conditions. For example, the highlighted area of the map shows a 10-year difference between two neighboring census tracts in Bountiful.

Quality of Life

Quality of life refers to how healthy and comfortable people feel. It represents the well-being of a community along with the satisfaction of its residents with their physical, mental, social, and emotional health from birth to adulthood ([CHR&R, 2022](#)).

Health Status

Health status indicators provide a simple estimate of how people in a community perceive their own health. Davis County adults are doing the same or slightly better than the State and the Nation in terms of overall, physical, and mental health status (Table 12).

Table 12: Comparison of Current Health Status

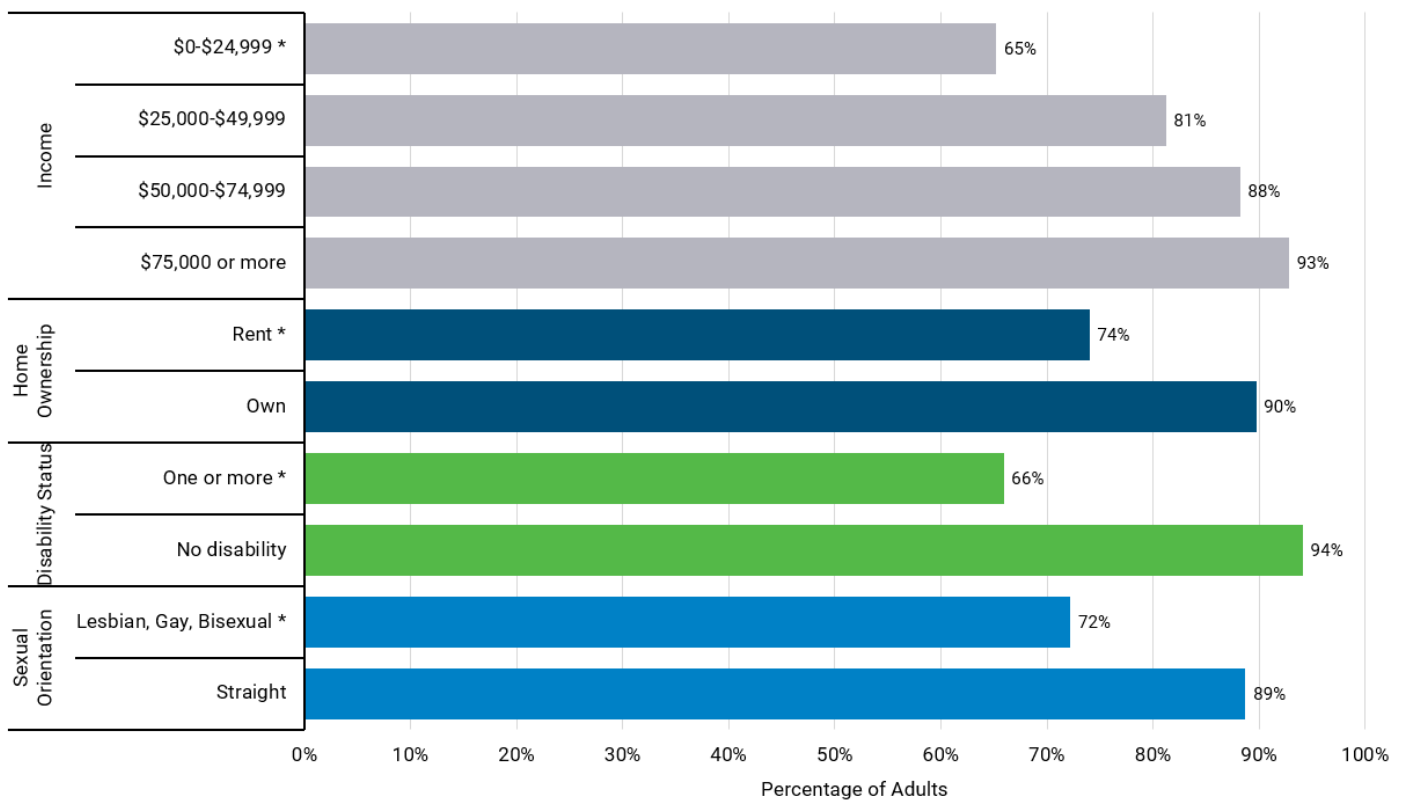
Health Status Indicators	Davis	Utah	U.S.
Adults with Overall Health Status: Good to Excellent	87.1%	87.2%	83.3%
Adults with Frequent Physical Distress	11%	11%	12%
Adults with Frequent Mental Distress	13%	14%	14%

Data: [IBIS](#), 2019-2021 (age-adjusted); [CHR&R](#), 2022 (age-adjusted)

Over the last decade, Davis County trends for both overall and physical health status have remained steady with no significant changes. Mental health status declined slightly during this time, but its decline accelerated after 2019 with the start of the COVID-19 Pandemic. This resulted in the proportion of Davis County adults reporting good mental health dropping from 80.3% in 2019 to 74.5% in 2021 ([IBIS, 2011-2021](#)).

Overall, physical, and mental health status were broken down by demographic group. Significant disparities existed in Davis County by age group, disability status, sexual orientation, income, employment status, and homeownership status ([IBIS, 2017-2021](#)). For overall health status, Figure 29 shows the significant gaps between these demographic groups.

Figure 29: Adults Reporting Good to Excellent Overall Health by Demographic Group, Davis County, 2017-2021



Data: IBIS, 2017-2021 (age-adjusted)

* = Significantly lower health status than other categories within the demographic group

Well-Being

Well-being is an overarching way to measure and monitor the health status of a community. The concept of well-being combines physical and mental health with community conditions and life satisfaction. Higher levels of well-being are associated with lower risk of death, illness, and injury along with increased productivity and community involvement ([CDC, 2018](#)). Multiple indicators are available for estimating well-being.

The Community Well-Being Index encompasses over 600 health-related measures for people and places. It combines them into one score ranging from 0 to 100. Higher scores represent higher levels of well-being. The index compliments CDC's Healthy People framework and encompasses the social determinants of health. Utah has the 10th highest well-being score among the 50 states. Within Utah, Davis County ranks 4th among the 29 counties for overall well-being ([Sharecare, 2022](#)). This ranking is largely due to its high levels of education, income, and voter turnout. It matches the County Health Rankings & Roadmaps assessment of Davis County as the 4th healthiest county in the state based on current and future health factors ([CHR&R, 2022](#)).

The Community Well-Being Index can be broken down further into 10 areas: community satisfaction, economic security, finances, food access, healthcare access, housing and transportation, physical health, personal purpose, resource access, and social relationships. Davis County scores above the national average in 8 of the 10 areas and below the national average in the following areas:

- **Healthcare access:** the ability of community members to find healthcare resources or facilities easily; Davis County ranks 5th in Utah for this area
- **Resource access:** the availability of key community resources like libraries, churches, and senior employment; Davis County ranks 25th in Utah for this area

Data from community focus groups and healthcare provider ratios reinforce these two areas as opportunities for improvement (DCHD, 2022; [CHR&R, 2022](#)).

At a city level, well-being has been surveyed annually in the two largest Davis County cities, Bountiful and Layton, as part of the Utah Wellbeing Project. Davis County cities scored above average in both personal and community well-being among the 33 cities studied ([USU, 2022](#)). Although scores for specific aspects of well-being differed between Bountiful and Layton, residents of both cities agreed that their communities were doing good to excellent in the following areas:

- Education
- Living Standards
- Safety and Security

Residents of both cities also indicated that the following areas of well-being were the most important to them:

- Living Standards
- Mental Health
- Physical Health
- Safety and Security

Additionally, residents of both cities highlighted the following topics as their top concerns for the future:

- Water Supply
- Air Quality
- Affordable Housing
- Roads and Transportation

It is important to note that the survey methods were not representative of the whole county, but provide valuable insights to explore further with additional data sources.

Community Voice

Understanding community perceptions and lived experience is an essential component of this assessment. Collecting and sharing lived experiences and community themes from those who live in Davis County adds context to data. Personal stories complement the statistics and provide a local perspective on community strengths and needs. Efforts to collect community voices that illustrate equity issues are an improvement in this assessment compared to prior reports. The data summarized here is also sprinkled throughout the assessment as it relates to specific topics.

Community Equity Assessment

A Community Equity Assessment was conducted in Davis County from 2021 through 2022. The report will be released in 2023. The purpose of this assessment was to identify structural factors (practices, policies, conditions beyond an individual's control) that impact health equity in Davis County. It consisted of two parts which are outlined in the following sections.

THRIVE Survey

In 2021, an adapted version of the Tool for Health and Resilience in Vulnerable Environments (THRIVE) Survey was used to assess perceptions of structural community conditions in Davis County across three dimensions of health:

- **People:** social and cultural environment
- **Place:** built and physical environment
- **Opportunity:** economic and educational environment

The survey was shared with Davis4Health partners and Davis County Health Department (DCHD) employees in an effort to identify and prioritize opportunities for improvement related to health, safety, and equity. Respondents were asked to provide a letter grade (A for "Excellent" to F for "Failing") on how well Davis County was doing on 13 structural drivers across the three dimensions of health ([Prevention Institute](#), n.d.). Those letter grades were then converted to whole numbers (0=F to 4=A) which were averaged across all responses

and ranked from highest score to lowest. A rank of Survey respondents could also provide an open-ended comment at the end of each section (People, Place, and Opportunity) to explain their reasoning for the grades given in that section. There were 130 usable responses from those who lived or worked in Davis County. The structural drivers with their average scores and rankings can be seen in Table 13 (DCHD, 2021). Low rankings represent strengths and high rankings are areas for improvement.

Table 13: THRIVE Survey Results, 2021

People	Rank	Average Score
Participation & Willingness to Act for the Common Good	5	2.7
Social Networks & Trust	6	2.7
Norms & Culture	8	2.5
Place	Rank	Average Score
Parks & Open Space	1	3.2
Look, Feel, & Safety	2	3.0
Sale of Healthy Items	4	2.9
Getting Around	7	2.6
Sale of Harmful Items	9	2.5
Air, Water, & Soil	10	2.5
Arts & Cultural Expression	11	2.4
Housing	13	1.5
Opportunity	Rank	Average Score
Educational Opportunities	3	2.9
Wages & Wealth	12	2.4

Data: DCHD, 2021

Note: THRIVE stands for Tool for Health and Resilience in Vulnerable Environments

Parks and Open Space was ranked the highest, meaning that most respondents felt there was availability and access to safe, clean parks, green space, and open areas that appeal to the interest and activities of people of all abilities and ages. Some open-ended comments from survey respondents supported this by saying:

“Parks are great and well-maintained.”

“There are some really nice biking and walking paths within the county.”

This was followed by Look, Feel, and Safety where most respondents felt that surroundings were well-maintained, appealing, perceived to be safe and culturally inviting for all residents.

Arts and Cultural Expression was ranked third to lowest where many did not agree that opportunities for both cultural and artistic expression exist. Respondents also felt offerings did not promote positive values or reflect the backgrounds and cultures of all residents. This was conveyed in open-ended comments from survey respondents that said:

“Lack of cultural expression because acceptance of difference is low.”

“Most of the arts and cultural events are provided through the schools or small community theater. Not an abundance of other types of arts and culture. More in SLC.”

Wages and Wealth was the second to lowest ranking, meaning many respondents did not agree with the statements: accessible employment that pays living wages and salaries; access to investment opportunities; and local ownership of businesses and resources. The following comment showed the dissatisfaction with wages:

“Many jobs do not pay a living wage. Current wages are not keeping up with inflation.”

The lowest ranked structural driver was Housing indicating most respondents did not feel there was high-quality, safe, and affordable housing accessible for residents with mixed income levels. Survey comments suggested that this ranking was mostly due to the unaffordability of housing:

“Housing is a major concern of mine right now as I am seeing fewer feasible options particularly for lower and middle class families/individuals. Additionally, low income housing is set up in such a way that people in those facilities often still cannot get ahead or, if they do, can lose housing and still be left making too much to qualify for low-income housing, but making too little to afford a clean, safe apartment or home.”

Community Focus Groups

In 2022, focus groups further explored structural factors that impact health equity in Davis County. Nine focus groups with 76 Davis County community members were conducted to explore root causes of inequities and adversities experienced by those or among those who feel underserved and underrepresented where they live. Participants were grateful for the opportunity to share their stories and hopeful that what was gathered would be used to make improvements throughout Davis County.

“Sitting in [discussions] like this is helpful if your intent is giving the information back to the powers that can maybe do something with it.”

With representation from people of varying identities, cultures, abilities, ages, and histories, this diverse collection of stories, thoughts, and experiences is valuable data. The overarching themes across people, place, and opportunities from the community focus groups are divided into community strengths and areas for improvement in Figure 30 (next page). Root causes of these themes will be further explored in the Community Equity Assessment, to be released later in 2023 and published on Davis County Health Department [Reports & Assessments](#) webpage. Other themes and direct quotes from participants can be found throughout this CHA in the sections where they can add community voice to existing data.

Figure 30

Community Focus Group Themes, 2022		
Dimension	Strengths	Opportunities for Improvement
People <i>Social & Cultural Environment</i>	- Friendly and welcoming people and neighborhoods - Shared cultural values for many including family, faith, service, social support, and community and civic engagement - Many opportunities, events, gatherings, and activities that support various cultures and beliefs, encouraging community involvement, connection, and cultural integration - Communities support each other in a times of need and work together to act for the common good	- Unfair treatment (incl. discrimination, bullying, exclusion, violence) of adults and youth with differing cultures, identities, faiths, and values - Cultural, linguistic, and accessibility barriers to information, services, and resources - Feeling underserved/underrepresented for not being involved in conversations/decisions that affect them - Some are unaware of how to influence community change; voices are unheard, dismissed, or overshadowed
Place <i>Physical Environment</i>	- Safe and clean neighborhoods - Beautiful environment - Access to parks, hiking, biking, and walking trails - Public transportation for north/south travel - Culturally appropriate products and services are becoming more available and accessible for people of different cultures - Neighborhoods that provide all basic needs and services or are in close proximity (ex. food, shopping, parks, events, etc.)	- Affordable, available, and accessible housing for everyone - Transportation east/west is limited, missing in some neighborhoods, and is not always available when needed - Getting around the county can be difficult and unsafe especially for those with disabilities and older adults - Supportive services and resources are not evenly distributed across the county - Community concerns related to increasing population and limited resources
Opportunity <i>Educational & Economic Environment</i>	- Educational opportunities available for many different ages, incomes, types of learners, and abilities - Financial and educational resources and programs available to support families and individuals	- Misunderstanding and a lack of resources for mental and behavioral health disorders within the education system - Education to improve cultural awareness - Inclusive and comprehensive sex education - Cost/income was the leading barrier to services, resources, and opportunities for involvement in events and activities - Wages are not keeping up with the cost of living - Bridging the gap for those in need who don't qualify for assistance programs

Data: DCHD, 2022

Community Resilience Survey

The Davis4Health Community Resilience Survey explored the individual characteristics, relationships, and connection to community that make up resilience. Resilience is the ability to bounce back from life's challenges.

The survey was designed to measure resilience in Davis County adults. The survey incorporates youth resilience frameworks being used by Davis County agencies. Over 50 partners shared the survey and 1,175 Davis County residents responded, including residents from every city and many ages, nationalities, religions, and sexual orientations.

Most survey participants expressed that they feel safe where they live (97%), trust their neighbors (91%), and are proud of their community (88%). Additionally, 85% felt that their income met their needs. Most participants had their basic needs met all or most of the time, especially shelter and hygiene.

Survey respondents agreed most with the following statements about resilience:

1. I can calm myself down.
2. I try to understand the perspectives of others.
3. I feel safe where I live.

Respondents agreed the least with these statements:

1. I ask for help when I need it.
2. I feel safe talking to others about my feelings.
3. I have the opportunity to be involved in community decisions.

The survey also measured practices and experiences that can impact the ability to be resilient. For instance, 89% of participants responded that self-care is important, only 59% reported that they had enough self-care in the past month. Additionally, the most commonly reported ways participants reported being involved in their community were through associations and activities related to were religious or spirituality (71%), work (50%), and social media or virtual groups like neighborhood Facebook pages and the NextDoor app (45%).

Over 1 in 10 participants reported being treated unfairly in Davis County within the past 30 days. Among those, the most common types of unfair treatment reported were being treated with less courtesy or respect than other people (48.8%) and/or being treated as if they were not smart (36.1%). When asked how they responded to this unfair treatment, the most common answers were that they talked to someone about how they were feeling (44.4%) and/or accepted the treatment as a fact of life (43.9%).

For more information, see Figure 31.

A full Community Resilience Survey report will be available later in 2023 and published on Davis County Health Department [Reports & Assessments](#) webpage.

When interpreting these results, the influence of social norms, culture, and connection should be considered.

For more on resilience, see the Family and Social Support section of the Social and Economic Factors chapter.

State Surveillance Survey Sample

In 2019, an open-ended survey question was added to the Utah Behavioral Risk Factor Surveillance System (BRFSS) aimed to capture a broader representation of individual perceptions of health needs. The question was: "What would you say are the top three physical and mental health concerns facing you, your family, and/or your community right now?"

These are the results from the Davis County resident sample, ordered by frequency:

- I don't know
- Mental health
- Obesity
- Aging
- Substance misuse
- Access/Affordability of healthcare
- Heart disease
- Other topics: Air quality, safety (especially from gun violence), eye health, chronic pain, infectious diseases

Figure 31

Davis4Health community resilience survey

1,175 TOTAL PARTICIPANTS
representing adults from all 15 Davis County cities

97% feel safe where they live



91% trust their neighbors



88% are proud of their community



STRENGTHS

*I can calm myself down.
I try to understand the perspectives of others.
I feel safe where I live.*

AREAS FOR IMPROVEMENT

*I ask for help when I need it.
I feel safe talking to others about my feelings.
I have the opportunity to be involved in community decisions.*

BASIC NEEDS



hygiene



shelter

MOST MET



exercise



sleep

LEAST MET

15%

report their income doesn't meet their basic needs

1 out of 10 people felt treated unfairly in the past 30 days



"The things that stress me and challenge my mental health are **inflation, rising food and gas prices**, all while my paycheck is not increasing enough to keep me at a level spot."



of participants are satisfied with their level of community involvement

the most common sources of support are



1. family
2. friends
3. partners

89% feel that self-care is important

59% feel they had enough self-care this month

"Knowing that I am a person of worth and that I am loved and appreciated by my family, friends, and the God I believe in has helped me stay strong when I have felt judged by the color of my skin and how I look."

DAVIS4
HEALTH

TO READ THE FULL REPORT, VISIT WWW.DAVISCOUNTYUTAH.GOV

Key insights for Utah overall from the survey question included:

- “Health” is not a top-of-mind concern; it’s a means to an end of living
- Residents are more likely to connect social issues with health than environmental issues
- Aging well is a critical need
- Financial stress is an important contributor to downstream health issues

Community Supports

Efforts to sustain and improve a strong culture of health include community agencies working together to strengthen protective factors and link people to community resources.

Protective Factors

Public systems have historically separated outcomes and problems into silos. However, outcomes are predicted by shared factors across systems. Identifying community risk and protective factors should guide community health improvement prevention and intervention strategies. Davis4Health partners are interested in working together to strengthen protective factors.

Protective Factors are conditions or attributes in an individual, family, or community that increase health and well-being and help people deal more effectively with stress. The more protective factors someone has in their life, the more likely they are to be able to cope with adverse experiences. Protective factors also lower the likelihood of negative health or social outcomes ([SAMSHA](#), n.d.).

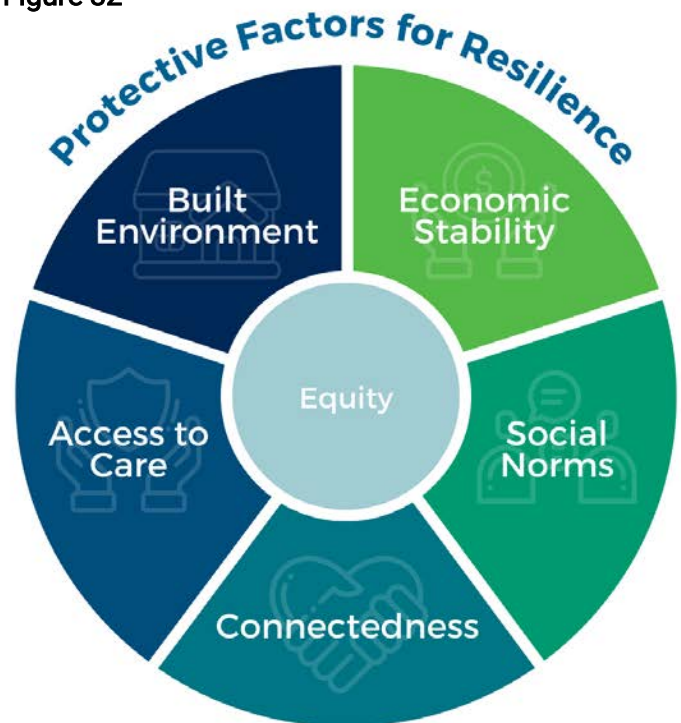
Five actionable protective factors along with where their data can be found in this report are:

1. *Access to Care*: connection to needed resources and services that promote health and well-being in a timely manner
2. *Built Environment*: physical presence of opportunities that positively impact the public’s health
3. *Economic Stability*: opportunities for steady employment at a living wage; affordability of food, housing, healthcare, and education

4. *Social Norms*: perceived informal, mostly unwritten, rules that define acceptable and appropriate actions within a given group or community which guides human behavior
5. *Connectedness*: relationships and interactions with family, friends, co-workers, and community members; feelings of belonging within one’s community; happens when people are seen, heard, and understood for exactly who they are (and for who they are not)

Figure 32 shows equity at the center of the protective factors as a principle of striving for the highest possible standard of health for all people, giving special attention to the needs of communities with the least opportunities for good health.

Figure 32



Source: DCHD, 2023

When each protective factor is improved and supported *with* equity, the result is more resilient people and communities.

Community Resource Locators

A theme among focus group participants and service providers in Davis County was the need for a location where all available resources can be found and where people can get help navigating complicated systems. Currently, available resources can be difficult to access or learn about when they are spread across agencies, sectors, and different formats. Depending on the service or resource they may be accessed online, in-person, or over the phone. Many people, especially those who have immigrated to the U.S., often have a difficult

time knowing what they qualify for and applying for needed services. The community is interested in and believes there would be great value in having a central location where people could go to ask questions, get help completing forms, receive translation services, and be connected to the services and resources they need (DCHD, 2022).

The list below highlights some general resource repositories used in Davis County. Throughout this assessment resource directories and resource centers are listed for specific topics and populations.

Local Resource Locators		
Davis County Behavioral Health Directories	<i>Resources for all members of the community concerned about behavioral health, including the Behavioral Health Directory, Spanish Mental Health Directory, and LGBTQ+ Resource Directory</i>	directories.davis4health.org
Davis County Staycation Guide	<i>A guide to free and low-cost physical activities in Davis County</i>	bit.ly/DavisStaycationGuide
Davis Links Forum	<i>Monthly forum dedicated to connecting community partners and leaders with local resources</i>	davislinks.davis4health.org
Davis School District Community Resources	<i>List of online mental and physical health care information and resources including addiction support, advocacy groups, crisis hotlines, support groups, food resources, and more</i>	davis.k12.ut.us/departments/student-family-resources/community-resources
Davis4Health Resource Locator	<i>An online directory of health resources located in Davis County, including active living, community programs, green solutions, health services, healthy eating, and human services</i>	davis4health.org
Discover Davis	<i>Discover what makes Davis County the go-to location for day trips, weekend getaways, events and just plain fun</i>	discoverdavis.com
State & National Resource Locators		
Utah 211	<i>The state's leading resource network connecting Utahns in need with local health and social services, confidential and available 24/7</i>	211utah.org
findhelp.org	<i>Resource locator for financial assistance, food pantries, medical care, and other free or reduced-cost help</i>	findhelp.org
USA Gov	<i>Federal COVID-19 resources</i>	usa.gov/coronavirus

COVID-19 Pandemic

A new respiratory disease known as coronavirus disease 2019 (COVID-19) quickly spread throughout the globe in late 2019, resulting in a worldwide pandemic from 2020-2023 (CDC, 2023). The disease is mainly transmitted through respiratory droplets from coughing, sneezing, talking, and breathing. While a majority of people experience mild symptoms from the disease, some groups, such as older adults and those with certain medical conditions, are at a higher risk for severe illness. Nationally, hundreds of thousands of people have died from COVID-19 (CDC, 2021).

Due to the magnitude of COVID-19, it has its own chapter in this report. Data for COVID-19 will only be presented here, although it is important to consider the wider impacts of the Pandemic when reading other chapters. These impacts include, but are not limited to, the economy, social connectedness and norms, education, and access to care.

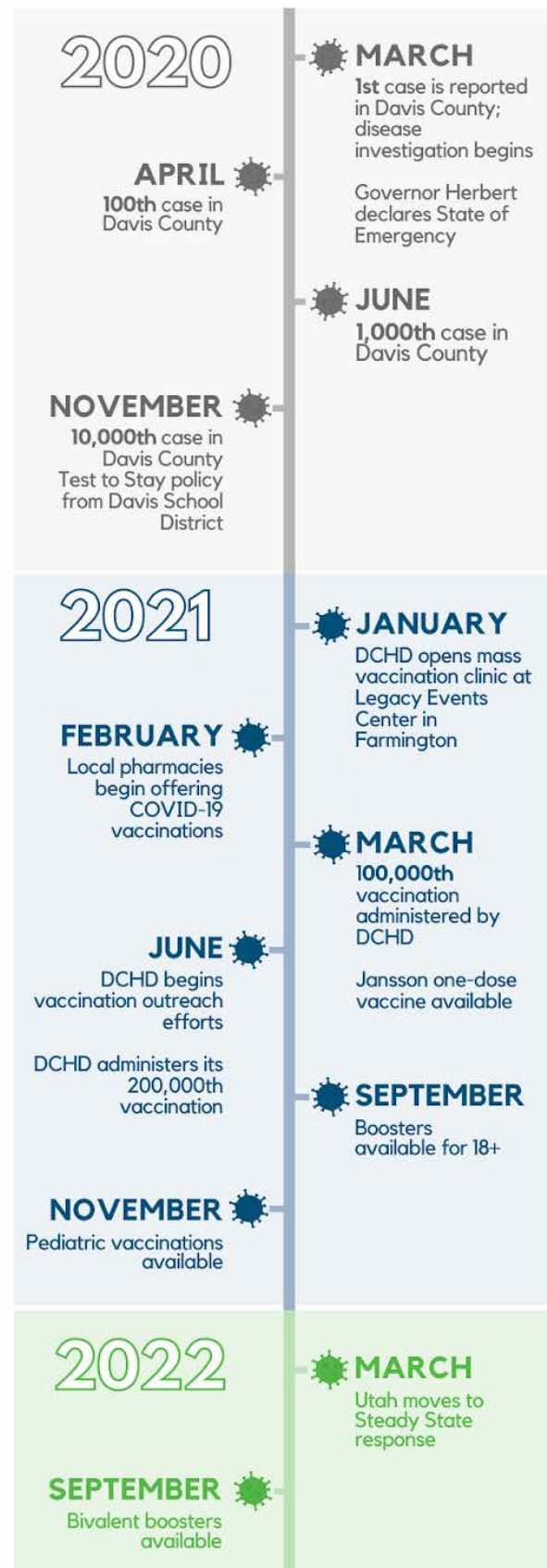
Timeline

COVID-19 was first observed in the city of Wuhan, China in late December 2019. By the following month, the disease had made its way to the U.S. On March 6, 2020, Governor Gary Herbert declared a State of Emergency in Utah. That same day, Davis County identified its first positive case which was the first case in the State. On March 22, 2020, the first death from COVID-19 in Utah occurred in Davis County (DCHD, 2022).

National, state, and local efforts were made to slow the spread of COVID-19, including stay-at-home declarations, public health orders, and travel restrictions. Quarantine and isolation orders were issued for those who were exposed or had tested positive for COVID-19 to reduce the spread to other community members. Many adjustments were made by businesses, schools, and individuals.

In an effort to respond to the COVID-19 Pandemic, Davis County Health Department (DCHD) hired additional staff and conducted contact tracing and disease investigation, provided COVID-19 testing, implemented a high volume mass vaccination clinic, and coordinated communication processes with the public, partners, and local government leaders.

Figure 33



Source: DCHD, 2022

Figure 33 (prior page) provides a timeline overview of the Pandemic response in Davis County from March 2020 through March 2022 (DCHD, 2022). After March 2022, Utah's pandemic response shifted from emergency status to an ongoing response, similar to other respiratory illnesses like the flu. This shift was called "Steady State".

Additional timelines for state, national, and global events can be found at:

- Utah: storymaps.arcgis.com/stories/cabf07b39a6046ee992f1630949a7c80
- U.S. & the World: cdc.gov/museum/timeline/covid19.html

COVID-19 Outcomes

People experienced a variety of health outcomes from COVID-19. For example, some people did not experience any symptoms, while for others the disease led to hospitalization and/or death. COVID-19 symptoms can range from mild to severe (CDC, 2022). Some common symptoms of COVID-19 are shown in Figure 34.

Figure 34



Source: CDC, 2022

The number of individuals who tested positive for COVID-19 from March 2020 to March 2022 are listed in the total cases row of Table 14 as well as hospitalizations and deaths.

Table 14: COVID-19 Outcomes, Davis County, March 2020-March 2022

Disease Measures	Count
Total Cases	100,131
Hospitalizations	1,826
Deaths	402

Data: DCHD, 2022

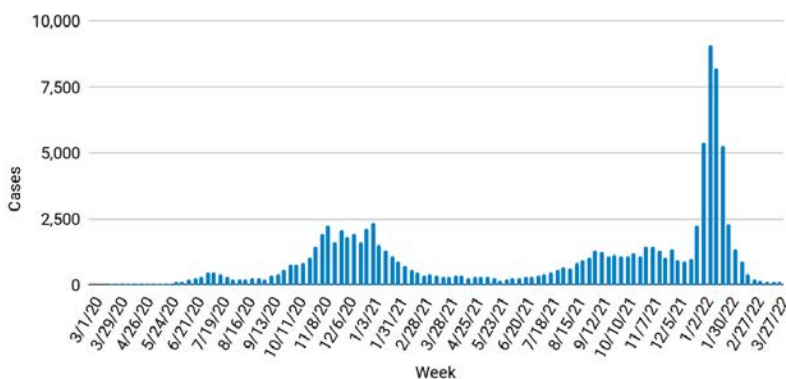
Cases

Between March 2020 and March 2022, there were 100,131 cases of COVID-19 reported in Davis County. This was by far the largest infectious disease burden and response documented in Davis County history. The number of COVID-19 cases accounted for over 20 times the number of cases of all other infectious diseases combined.

Incidence is the number of new cases diagnosed during a set time period. From March 2020 to March 2022, COVID-19 had an annual incidence rate of 13,936.8 per 100,000 people. During this time, 1.8% of COVID-19 cases were hospitalized and 0.4% of cases died due to the illness (DCHD, 2022).

Two large case increases, or waves, were seen during this time (Figure 35). The first wave occurred from early September of 2020 through the beginning of 2021. The second started in July 2021 and peaked in December 2021 through January 2022.

Figure 35: COVID-19 Cases by Week, Davis County, 2020-2022



Source: DCHD, 2020-2022

due to the Delta and Omicron variants. These waves were due to a variety of factors, including lessening of restrictions and prevention strategies as well as changes in circulating variants (DCHD, 2022).

Variants

The virus that causes COVID-19 is called SARS-CoV-2 (CDC, 2021). Over time, the virus evolved, which created variants. Several variants of the virus were identified as concerning and needing monitoring based on their characteristics. The most notable of these variants in 2021 and 2022 were Alpha, Delta, and Omicron (DCHD, 2021-2022; CDC, 2023).

These major variants had different characteristics:

- *Alpha variant (B.1.1.7)*: more transmissible, increased disease severity compared to the original strain
- *Delta variant (B.1.617.2)*: more transmissible, increased disease severity compared to the Alpha variant, vaccines were less effective, certain treatments were less effective

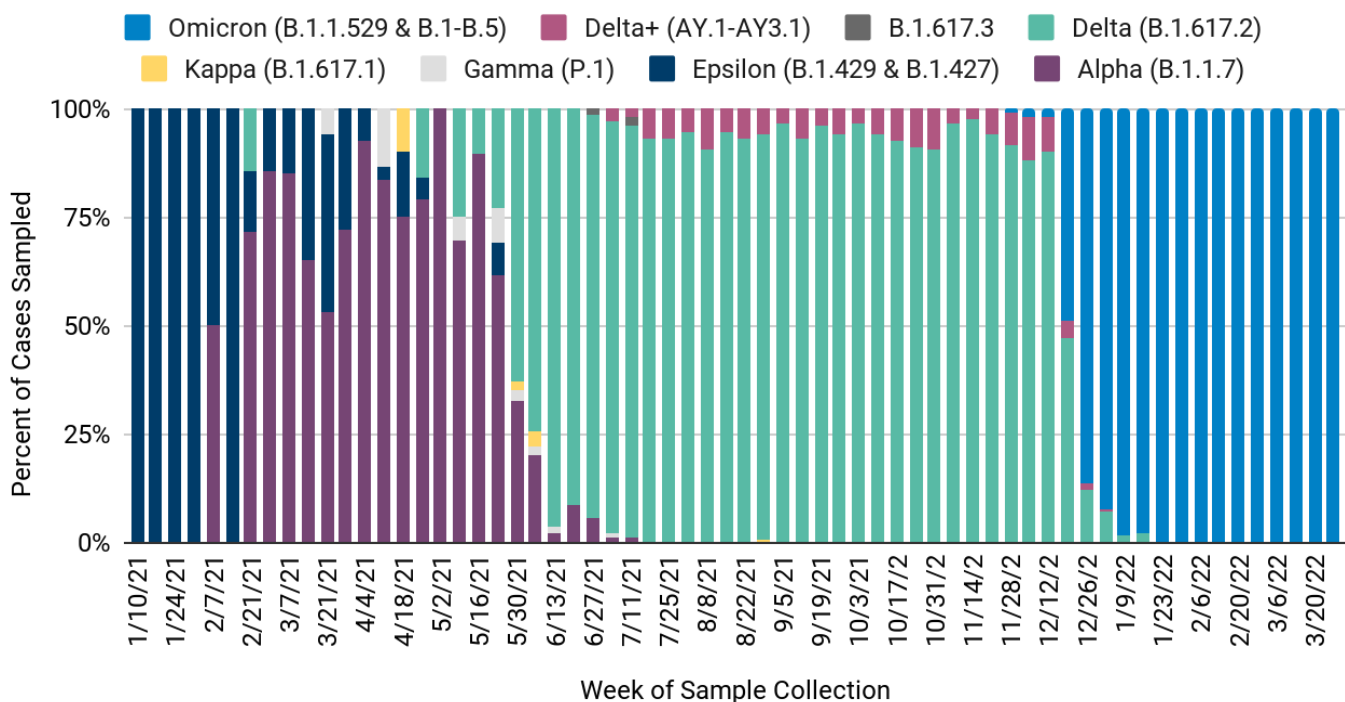
- *Omicron variant (B.1.1.529 and B.1-B.5)*: more transmissible, less disease severity resulting in fewer hospitalizations and deaths, vaccines were less effective, multiple treatments were less effective (DCHD, 2021-2022)

Figure 36 shows the change in variants from March 2021 to March 2022. Davis County saw a surge of cases in Fall 2021 due to the Delta variant (shown in teal). The arrival of the Omicron variant (shown in blue) at the end of 2021 quickly surpassed it as the dominant circulating strain.

Hospitalizations

In Davis County, the total hospitalization rate from March 2020 to March 2022 was 508.3 per 100,000 people. This amounted to 1,826 individuals hospitalized due to COVID-19. The week with the highest number of hospitalizations occurred in mid-December of 2020 (Figure 37). During the first wave of cases, hospitalizations mimicked a proportionate increase. However, during the second increase in cases, the increase of hospitalizations was not proportionate to the number of confirmed cases.

Figure 36: COVID-19 Variants of Concern & Variants Being Monitored by Week, Davis County, January 2021-March 2022



Source: DCHD, 2021-2022

This indicates that the Omicron variant circulating during the second wave spread faster and easier, but severe illness was not as common as it was during the prior wave (DCHD, 2022).

Hospitalization rates varied by several factors, including age, comorbidities, vaccination status, race, and ethnicity. Figure 38 shows the difference among age groups.

Deaths

During the first year of the Pandemic, the COVID-19 death rate was 33 per 100,000 people in Davis County, making it the 7th leading cause of death. However, this was significantly lower than the Utah (49 per 100,000 people) and U.S. (85 per 100,000 people) death rates ([CHR&R](#), 2022).

In Davis County, there was a total of 402 deaths due to complications with COVID-19 from March 2020 through March 2022. Davis County deaths represented 8.5% of all COVID-19 deaths in Utah despite the county's population making up 11.1% of the total state population.

During this two-year time period, the overall death rate was 112 per 100,000 people in Davis County. Those ages 65 and older had a higher risk of death than those who were younger. The death rate for those aged 65 to 84 was 597 per 100,000 people. The death rate for those aged 85 and older was 2,093 per 100,000 people (DCHD, 2022).

Figure 37: COVID-19 Hospitalized Cases by Week, Davis County, 2020-2022

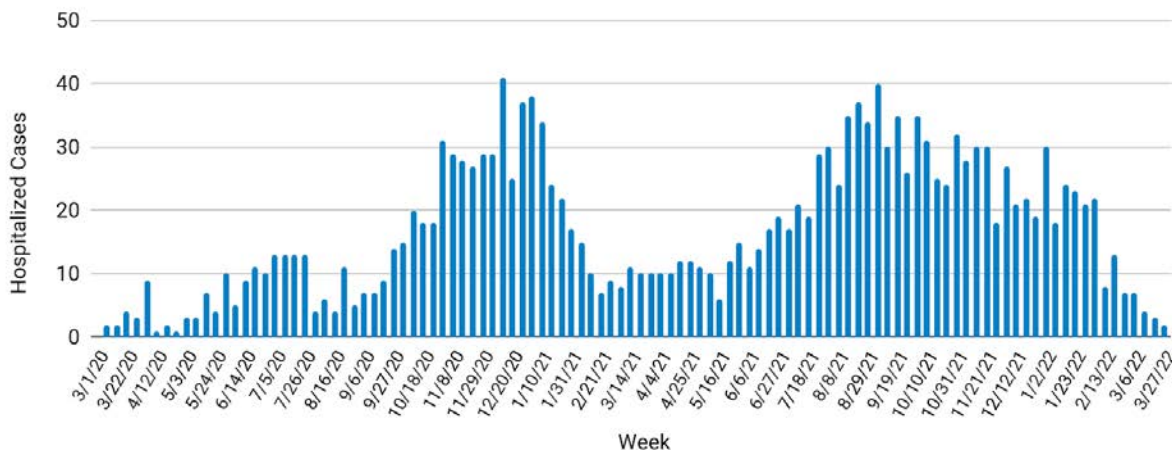
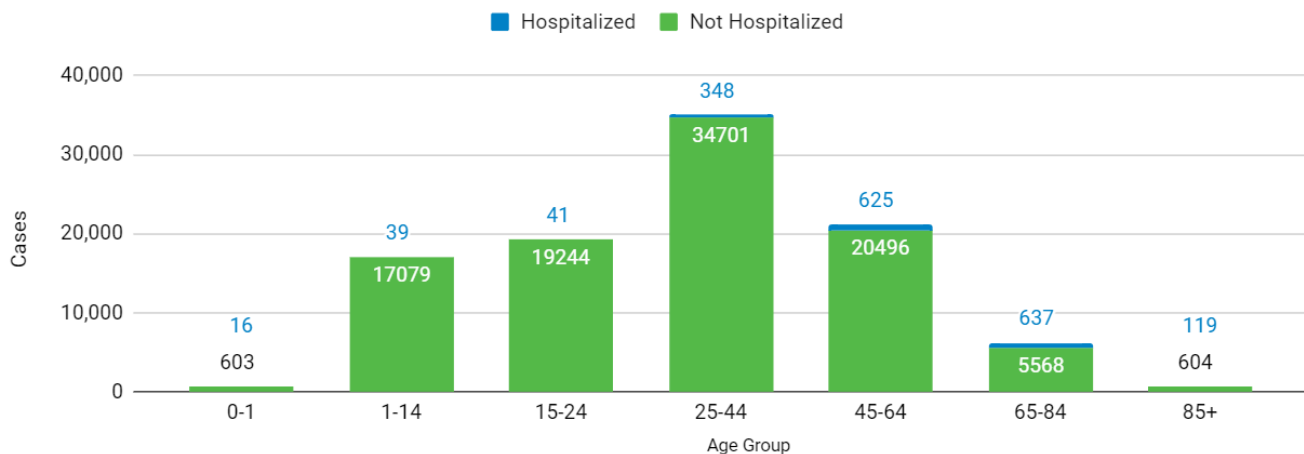


Figure 38: COVID-19 Cases by Age Group & Hospitalization Status, Davis County, March 2020-March 2022



Disparities by Race & Ethnicity

Throughout the Pandemic, historically underserved and underrepresented groups were impacted by COVID-19 infections and outcomes at a higher rate. This widened existing health disparities. As shown in Figure 39, there were large gaps in case rates between different racial and ethnic groups in Davis County.

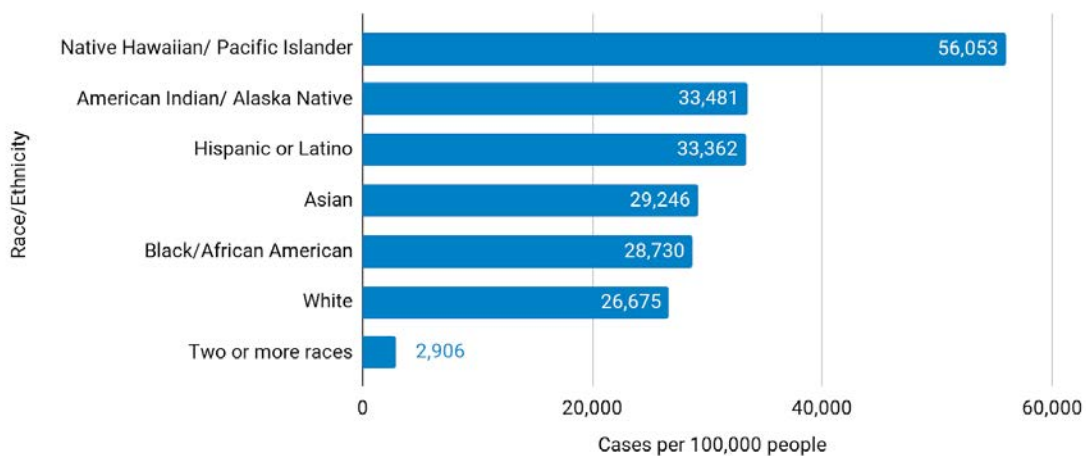
Disparities in hospitalization and death rates by race and ethnicity also existed (Figure 40). In Davis County, the Native Hawaiian/Pacific Islander community was impacted the most by COVID-19 with the highest rates of cases, hospitalizations, and

deaths (DCHD, 2022). Community Health Workers from the Utah Pacific Islander Health Coalition (UPIHC) and DCHD helped to connect this population with needed resources, education, and vaccinations to reduce poor outcomes when possible.

Vaccines for COVID-19

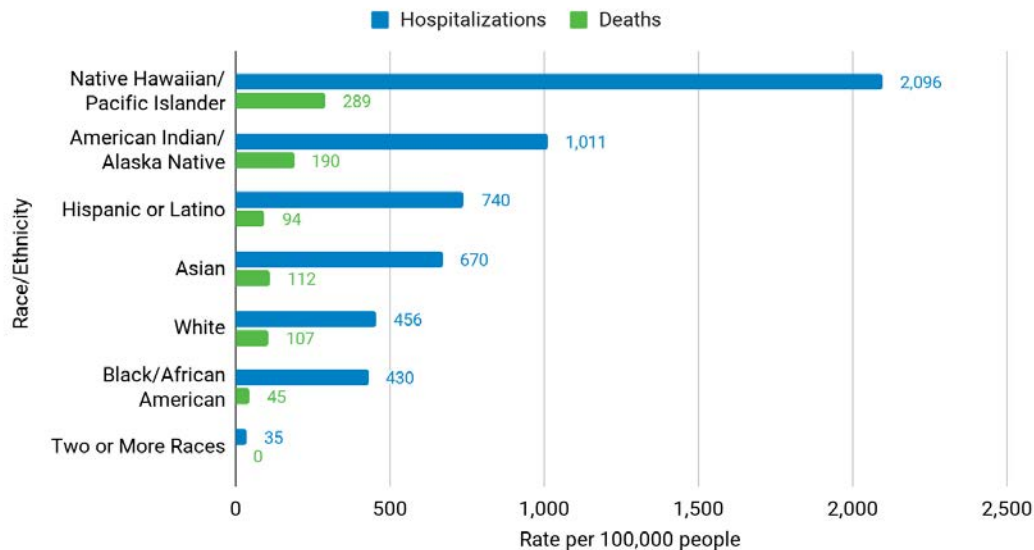
In December 2020, vaccines for COVID-19 became available in Davis County. Due to lower availability of vaccines, those at higher risk of complications from COVID-19 due to their work environment, age, or existing health conditions were offered vaccines first.

Figure 39: Rates of COVID-19 Cases by Race/Ethnicity, Davis County, March 2020-March 2022



Source: DCHD, 2020-2022

Figure 40: Rates of Severe COVID-19 Outcomes by Race/Ethnicity, Davis County, March 2020-March 2022



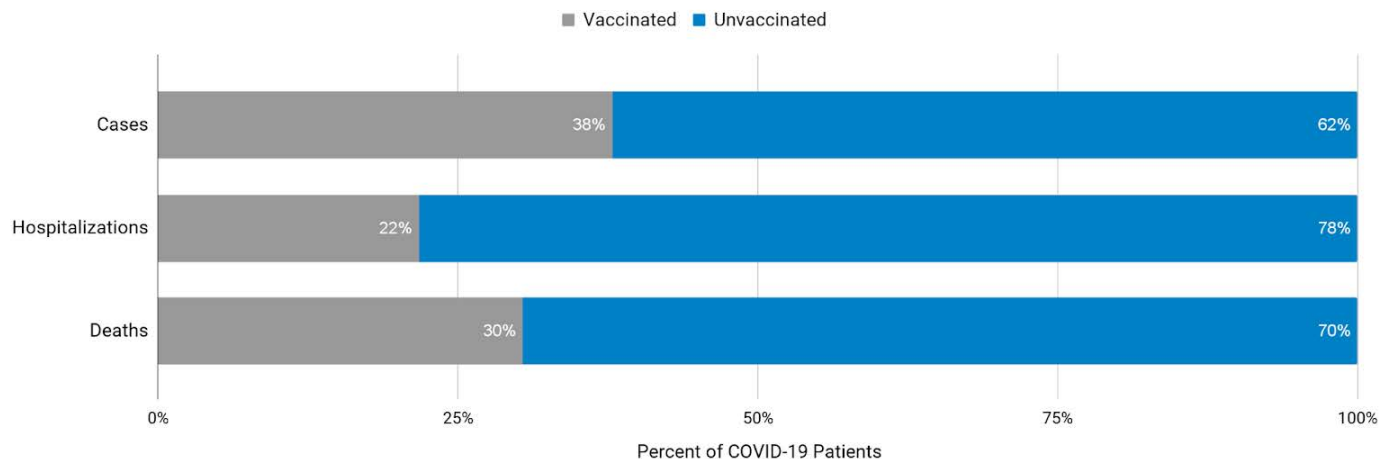
Source: DCHD, 2020-2022

As vaccine availability increased and CDC guidelines changed, all age groups were able to be vaccinated. There were many opportunities for Davis County community members to receive the COVID-19 vaccine at no cost. The Davis County Health Department (DCHD) offered a drive-through mass vaccination clinic held at the centrally located Legacy Events Center in Farmington. DCHD also provided vaccines to homebound residents and group living facilities. Other vaccine distribution avenues included outreach events at schools, churches, worksites, and community events. The healthcare system provided vaccines through hospitals, clinics, and pharmacies.

As the Pandemic progressed, the protective benefit of getting vaccinated became clear. Those who were unvaccinated made up a greater proportion of those experiencing severe illness than those who were vaccinated (Figure 41).

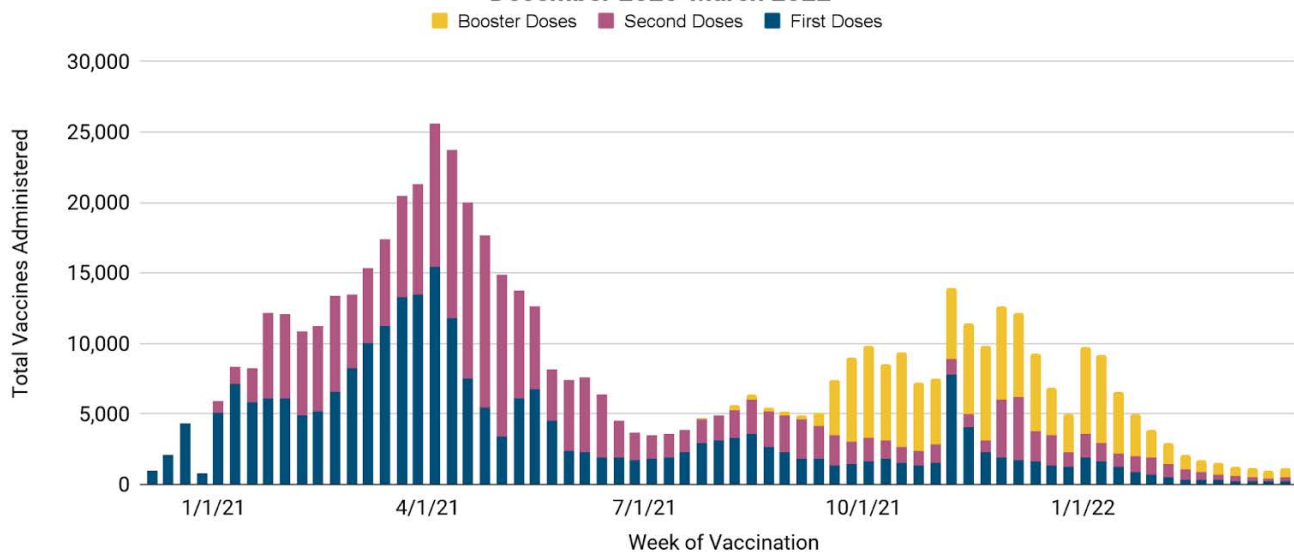
By the end of March 2022, over 577,000 vaccine doses had been administered to Davis County residents (Figure 42).

Figure 41: Percent of All COVID-19 Cases, Hospitalizations, & Deaths by Vaccination Status, Davis County, January 2021-March 2022



Data: DCHD, 2021-2022

Figure 42: Count of COVID-19 Vaccines Given to Davis County Residents by Week and Dose Number, December 2020-March 2022



Data: DCHD, 2020-2022; Utah COVID-19 Internal Surveillance Dashboard, 2022

By March 2022, two-thirds of all people in Davis County were fully vaccinated. This means they had received all recommended doses in a vaccine primary series. Additionally, over one-fourth of Davis County residents had received at least one booster dose (Table 15).

Table 15: Population Vaccinated for COVID-19, March 2022

Vaccine Status	Davis	Utah	U.S.
At Least One Dose	73%	69%	77%
Fully Vaccinated	65%	62%	66%
First Booster	27%	28%	45%

Data: DCHD, 2021-2022; Utah COVID-19 Internal Surveillance Dashboard, 2021-2022

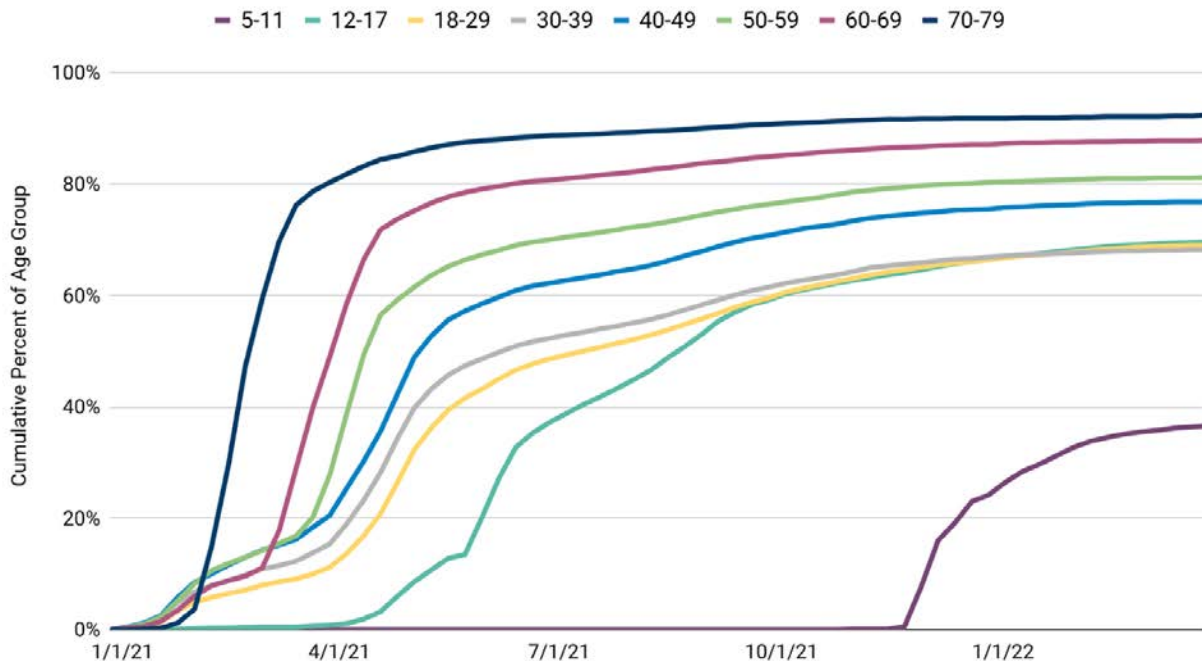
Throughout the Pandemic, Davis County remained the third most vaccinated county in Utah behind Summit and Salt Lake Counties. In January 2021, during the early stages of vaccine availability, roughly 42% of Davis County residents reported being hesitant to be vaccinated, but hesitancy gradually decreased. By January 2022, only 12% of residents reported any hesitancy ([IHME, 2022](#)).

When examined by Utah Small Areas, the southern areas of the county had the lowest hesitancy rates and the highest vaccination rates, while northern areas had greater hesitancy and lower vaccination rates. Differences in social and economic factors may have influenced rates in these areas.

When broken down by age group, older age groups were more likely to be fully vaccinated. Given that older adults were at greater risk of complications and death from COVID-19, it was a success for Davis County to have such high vaccination rates among this population (Figure 43).

To ensure that every Davis County resident had the opportunity to be protected against severe illness from COVID-19, partners in Davis County came together to create the Davis County Vaccine Equity Plan in March 2021. The COVID-19 Vaccine Equity Progress Report was completed in May 2022. The report contains additional vaccination data by race/ethnicity and gender as well as outreach efforts ([DCHD, 2022](#)). It can be found on Davis County Health Department [Reports & Assessments](#) webpage.

Figure 43: Percent of Davis County Population Fully Vaccinated for COVID-19 by Age Group, January 2021-March 2022



Data: DCHD, 2021-2022; Utah COVID-19 Internal Surveillance Dashboard, 2022

Community Supports

Throughout the Pandemic, families in Davis County faced challenges related to finances, housing, child care, healthcare, employment, and more. Multiple agencies responded to community needs.

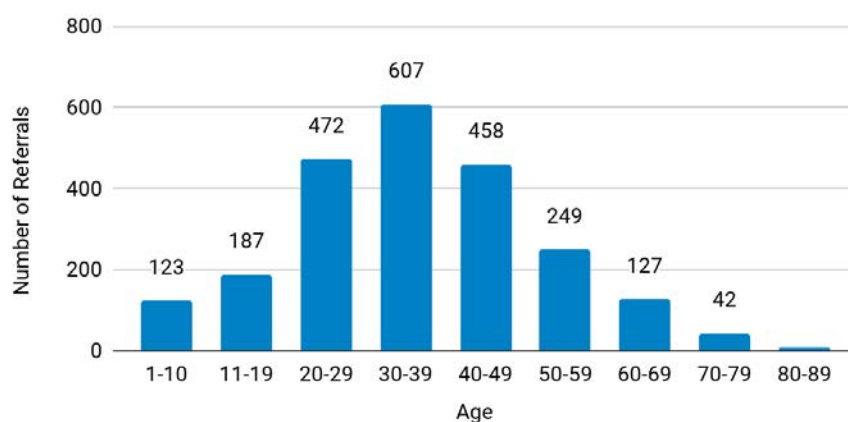
In September 2020, statewide COVID-19 disease investigation began incorporating an assessment for temporary assistance, which included the option to connect with a Community Health Worker (CHW). By March 2022, nearly 2,300 Davis County residents who were quarantined and isolated due to COVID-19 had requested assistance from a CHW (DCHD, 2022):

- Top needs included rental assistance, financial assistance (utilities and other bills), and food assistance
- The most requests for assistance came from the 30-39 age group, making up more than a quarter of all referrals; the 20-29 age group and the 40-49 age group followed (Figure 44)
- Among those seeking assistance, 1 in 3 identified as Hispanic or Latino
- The primary languages of those requesting assistance included English, Spanish, Chuukese, Marshallese, Pashto, Portuguese, Swahili, and Tigrinya
- Females requested assistance more often than males, with 58% of requests coming from females and 42% from males
- The cities with the most referrals were Layton, Clearfield, and Bountiful (Figure 45)

As COVID-19 cases increased in the community, requests for assistance increased. At times, resources were not available to meet these demands in a timely manner. New funding and changes to programs were needed to help close gaps.

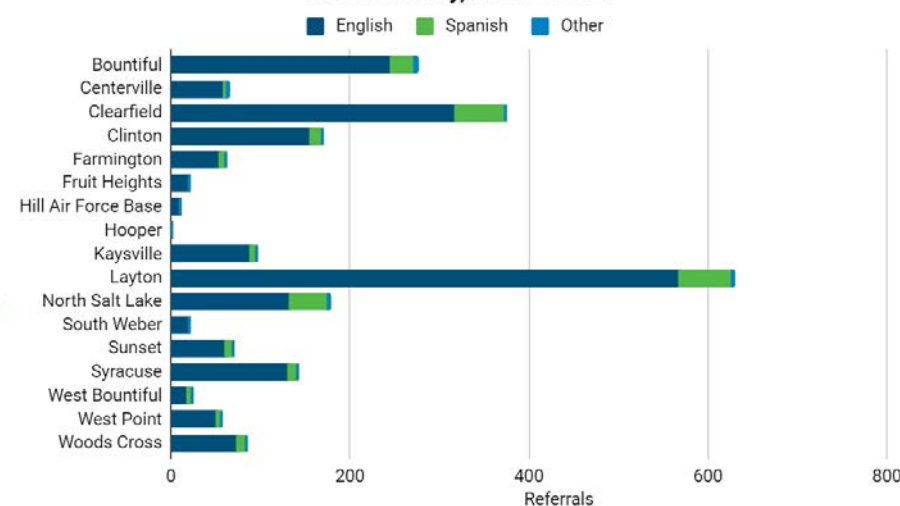
Rental assistance was one such area of high demand. Between March 2020 and March 2022, there were nearly 13,000 requests for assistance through 2-1-1, a community resource database and referral network. Housing and shelter was the top service requested, making up over 25% of requests. This included rental assistance and low-cost housing ([211](#), 2022). In Davis County, limited rental assistance was available through the Association for Utah Community Health (AUCH), the Bountiful Community Food Pantry, and Open Doors during 2020. In March 2021, the State streamlined rental assistance by creating the Utah Rent Relief website.

Figure 44: Referrals for CHW Assistance by Age, Davis County, 2022



Data: DCHD, 2022

Figure 45: Referrals for CHW Assistance by City & Language, Davis County, 2020-2022



Data: DCHD, 2022

This allowed community members in need to apply for temporary assistance. Since its existence, over \$28 million in rent relief payments have been made to nearly 6,900 Davis County applicants, accounting for over 10% of the State's total payments ([Utah Rent Relief](#), 2022). In 2022, statewide mortgage assistance became available through the Utah Homeowners Assistance Fund ([UHAF](#), 2022).

In addition to the existing Utah Crisis Line, new mental health resources emerged in response to increased need during the Pandemic including:

- Utah Strong text and phone line, sponsored by the Division of Substance Abuse and Mental Health
- Emotional Health Relief Hotline, sponsored by Intermountain Health
- Utah Warm Line, sponsored by the Huntsman Mental Health Institute

There were many questions and concerns about the emerging Pandemic, and the State of Utah responded quickly to provide communication resources. In March 2020, the Utah Coronavirus Information Line opened a 24/7 hotline for the public to help answer questions about COVID-19.

As shown in Figure 46 (next page), thousands of daily calls were made to the line during the beginning of the Pandemic. The Utah Poison Control

Center reported that over 60,000 people in Utah called the hotline between March and May of 2020 ([Utah Poison Control Center](#), 2020).

Locally, DCHD answered calls through a disease investigation line in addition to conducting case investigations. When vaccinations became available, the Davis County COVID-19 Information Line was created as a resource for vaccine scheduling and questions. This line received almost 34,000 calls between January 2021 and March 2022 (DCHD, 2022).

Online dashboards and webpages were created locally, statewide, and nationally to provide information to the public. The Davis County COVID-19 Data Dashboard was one such dashboard. It was updated on a regular basis with local case counts, hospitalizations, deaths, testing rates, and vaccination rates (Figure 47, next page).

Local, state, and private agencies offered COVID-19 testing at multiple locations in Davis County during the Pandemic for the public, worksites, schools, healthcare facilities, and those traveling. Later, at-home tests were available by mail or over the counter. Costs varied by service provider and type of test.

The Pandemic continues to impact Davis County, and existing data on assistance is likely an underestimate of the full scope of needs.

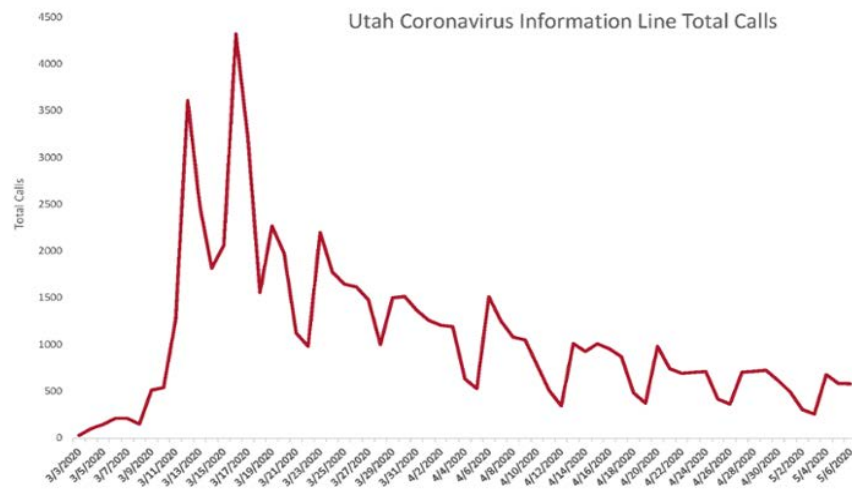
Local COVID-19 Resources

Communicable Disease and Epidemiology Division, DCHD	<i>COVID-19 information</i>	daviscountyutah.gov/health/covid-19/
Community Health Workers, DCHD	<i>Provide health education, attend outreach events, connect people with resources, and help with language and translation needs</i>	daviscountyutah.gov/health/community-health-workers
2022 COVID-19 Vaccine Equity Progress Report, DCHD Reports & assessments	<i>An update for partners, stakeholders, and community members on the Davis County Health Department's effort to make the COVID-19 vaccine accessible to all members of the community</i>	daviscountyutah.gov/health/reports-and-assessments

State & National COVID-19 Resources

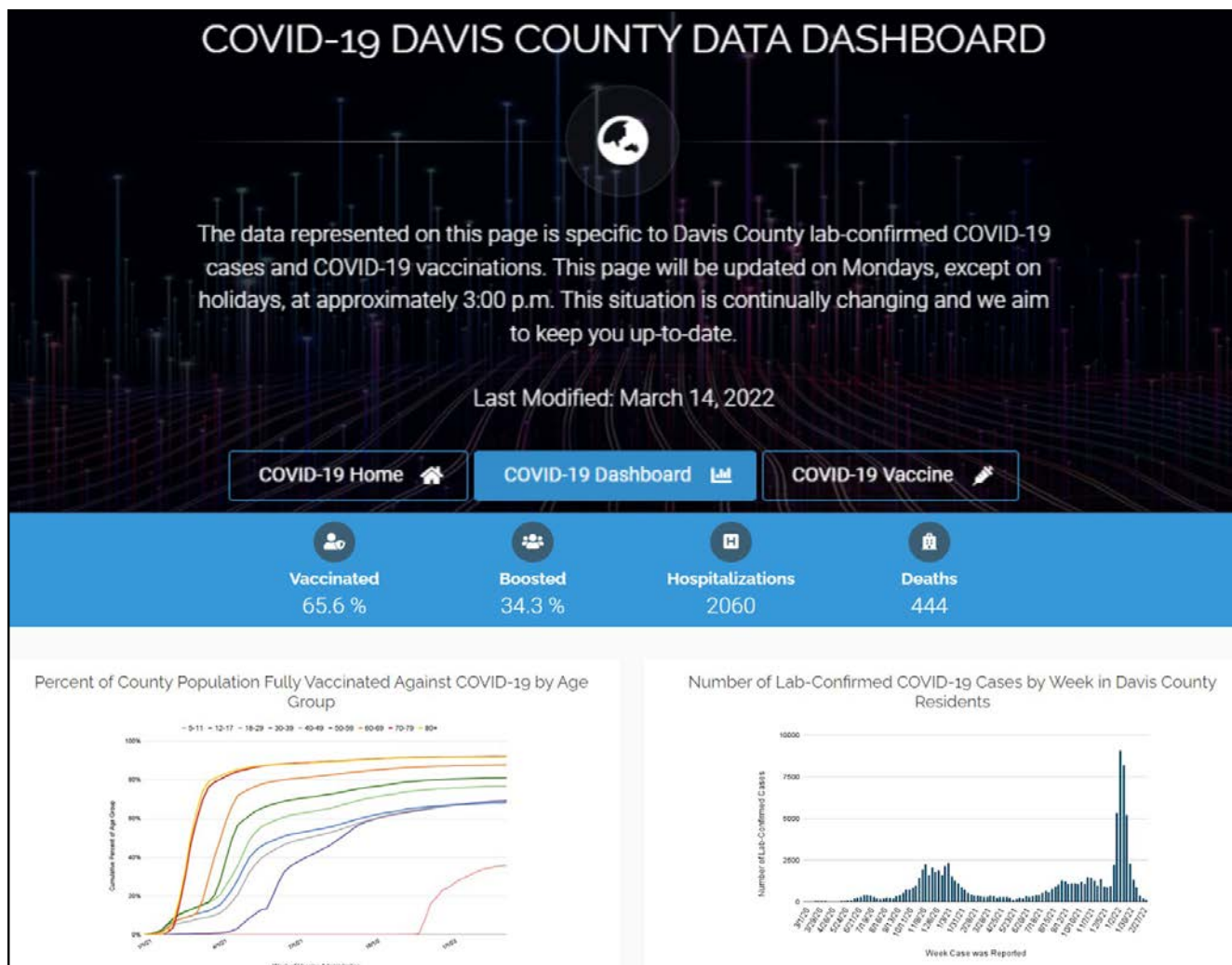
Alliance Community Services	<i>COVID-19 resources for the Latino community</i>	alliance-community.org/covid19/
Department of Health and Human Services	<i>COVID-19 testing & vaccine locations</i>	coronavirus.utah.gov
Federal Emergency Management Agency (FEMA)	<i>Financial assistance for COVID-19 related funerals</i>	fema.gov/disaster/coronavirus/economic/funeral-assistance
Free At-home COVID-19 Tests	<i>Home test kits</i>	covid.gov/tests

Figure 46



Source: [Utah Poison Control Center](#), 2020

Figure 47



Source: DCHD, 2022

Health Outcomes

This chapter provides a comprehensive overview of health status across the lifespan including birth and death rates, hospitalizations, injuries, and prevalence of diseases and conditions. Helpful definitions include:

- **Mortality:** Death
- **Morbidity:** Living with a disease or condition that reduces quality of life
- **Injury:** Bodily harm or damage, which can be intentional or unintentional

Additionally, the chapter will highlight key health issues across Davis County along with disparities between demographic, economic, and geographic groups. A summary of the top issues is available in the Conclusion chapter. Appendix 6 also shows issues identified by Layton Hospital during their assessment.

Leading Causes of Death

Overall, the leading causes of death in Davis County are heart disease, cancer, Alzheimer's disease, accidents (unintentional injuries), and chronic respiratory disease. Table 16 shows a comparison of the leading causes of death between Davis County, Utah, and the U.S. ([CDC WONDER](#), 2020).

Table 16: Leading Causes of Death, Rate per 100,000 People, 2020

Cause of Death	Davis	Utah	U.S.
Heart Disease	170.1	168.2	168.2
Cancer	122.3	119.5	144.1
Alzheimer's Disease	50.9	42.9	32.4
Accidents (Unintentional Injury)	42.7	49.4	57.6
Chronic Lower Respiratory Disease	34.1	32.7	36.4
Stroke	34.2	34.1	38.8
COVID-19	32.8	48.6	85.0
Diabetes Mellitus	22.6	25.3	24.8
Suicide (Intentional Self-harm)	17.5	20.8	13.5
Kidney Disease	16.4	12.0	12.7

Data: [CDC WONDER](#), 2020 (age-adjusted)

Leading causes of death vary by age group:

- 0 to 14 years: Prenatal and congenital heart conditions
- 15 to 44 years: Injuries (intentional and unintentional)
- 45 to 84 years: Cancer and heart disease
- 85 and older: Heart disease and Alzheimer's disease ([CDC WONDER](#), 2020)

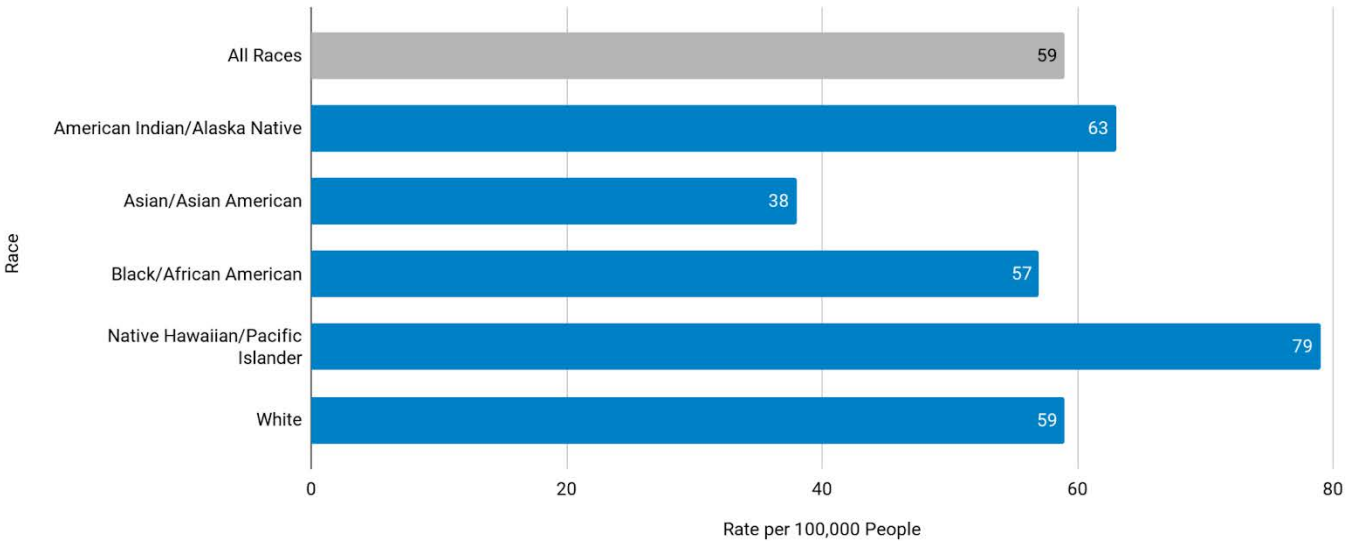
For both females and males in Davis County, heart disease and cancer are the leading causes of death. For females, it is followed by Alzheimer's disease, whereas for males, it is followed by unintentional injuries.

Cancer is the leading cause of death among those who identify as Hispanic or Latino, followed by heart disease and unintentional injuries. Among those who identify as non-Hispanic or Latino, the three leading causes of death are heart disease, cancer, and Alzheimer's disease.

In 2019-2020, the heart disease death rate was lowest among the Asian population (28.4 per 100,000 people) compared to all races (59.2 per 100,000 people). As shown in Figure 48 (next page), the highest rate was among the Native Hawaiian/Pacific Islander population, with a rate of 78.9 per 100,000 people ([IBIS](#), 2019-2020).

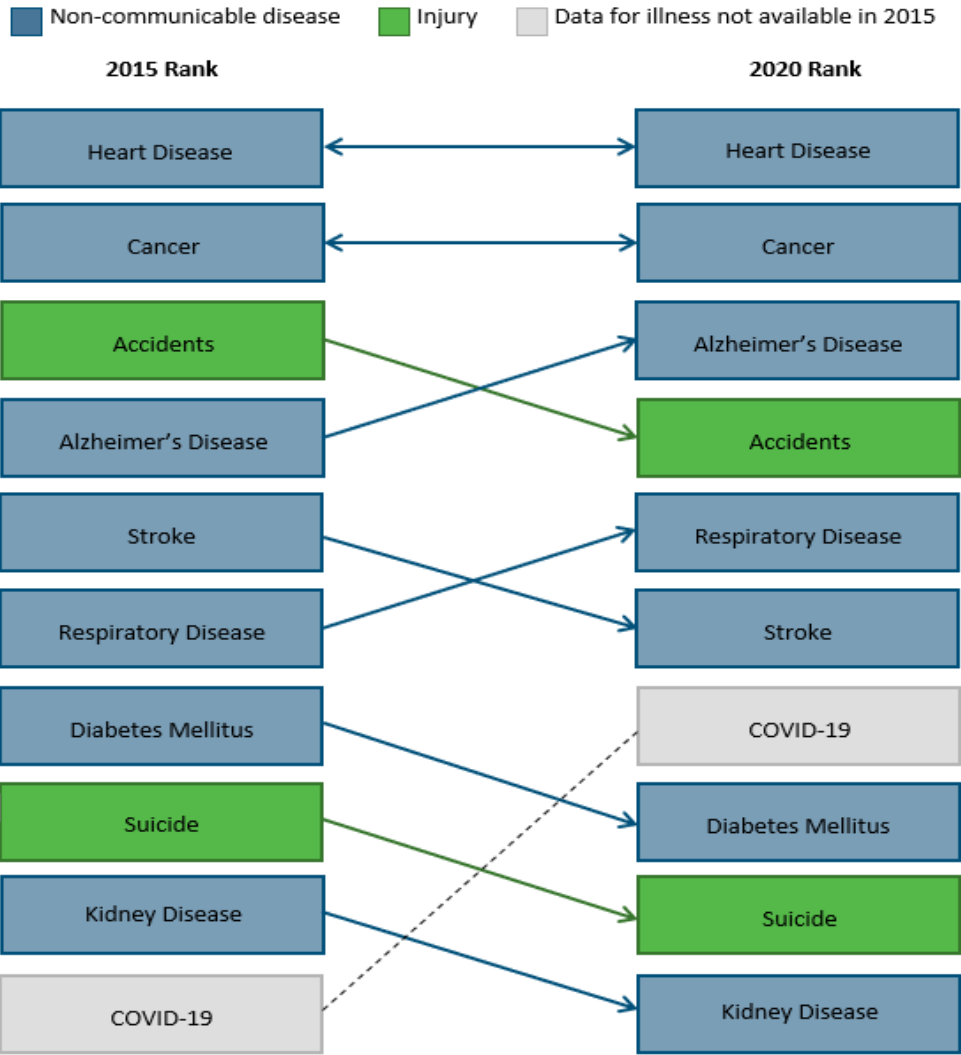
Figure 49 (next page) shows the movement in cause of death rankings in Davis County between 2015 and 2020. Chronic diseases continued to make up the majority of the leading causes of death. Alzheimer's disease went from being the fourth leading cause of death in 2015 to the third leading cause of death in 2020. Deaths from accidents became the fourth leading cause of death in 2020. COVID-19 deaths are the only infectious disease-related deaths in the top 10, ranking at number seven. Suicide continued to be the ninth leading cause of death ([CDC WONDER](#), 2020).

Figure 48: Heart Disease Deaths by Race, Utah, 2019-2020



Data: IBIS, 2020 (age-adjusted)

Figure 49: Leading Cause of Death Rankings, Davis County, 2015 & 2020



Data: [CDC WONDER](#), 2020

Leading Causes of Hospitalization

Childbirth was the leading cause of hospitalization in Davis County in 2020, with 4,781 pregnancy or childbirth related hospitalizations ([IBIS](#), 2020). Following childbirth, septicemia (blood poisoning by bacteria), heart disease, COVID-19, and stroke, were the leading causes of inpatient hospitalization (Table 17).

Table 17: Leading Causes of Inpatient Hospitalizations, Davis County, 2020

Cause of Hospitalization	Number	Rate per 10,000 People
Pregnancy or Childbirth Related	4,781	133.4
Septicemia	1,394	44.7
Heart Disease	1,236	41.0
COVID-19	560	17.7
Stroke	528	17.4
Injury - Fall	500	17.1
Cancer	470	14.4
Influenza or Pneumonia	327	10.3
Diabetes Mellitus	301	8.8
Kidney-related Illness	242	7.9

Data: [IBIS](#), 2020 (age-adjusted); [IBIS](#), 2020 (age-adjusted)

Mental health conditions may be increasing as a common cause of hospitalization, based on 2021 preliminary procedure data from three hospitals in Davis County (UDHHS, 2022). The impacts of the COVID-19 Pandemic should be considered when interpreting hospitalization data, as hospital capacity and other unique limitations affected access to care.

Premature Deaths

In 2022, County Health Rankings and Roadmaps (CHR&R) ranked Davis County 5th among Utah counties for Length of Life, based on premature death data. Premature death data is an indicator of overall health that emphasizes deaths of younger people, whereas statistics for all deaths mostly represent deaths among older people. Examining premature deaths separate from overall deaths is important because it highlights deaths that might have been prevented ([CHR&R](#), n.d.).

Premature death is defined as a death that occurs before the average age of death in a population, which is 75 years-old in the U.S. Premature death is commonly measured in two ways: number of premature deaths and total years of potential life lost before age 75.

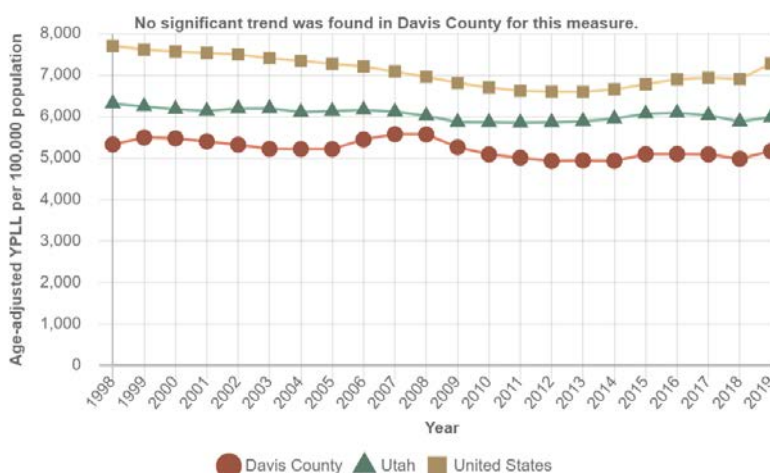
In 2022, there were 260 premature deaths per 100,000 people in Davis County compared to 290 in Utah and 360 in the U.S. The five leading causes of premature death in Davis County were cancer, heart disease, accidents, suicide, and chronic lower respiratory diseases ([CHR&R](#), 2022).

Years of potential life lost (YPLL) represent the difference between the population's average age of death (75) and an individual's actual age at death. YPLL is the sum of these differences for everyone who died prematurely into a rate per 100,000 people. A person who dies at 30 years old would contribute 45 YPLLs and someone that dies at 71 years old would contribute 4 YPLLs to the rate calculation. A high YPLL rate indicates more people died at younger ages.

In Davis County, 5,200 years of life were lost to deaths of people under age 75, per 100,000 people. This is better than the State YPLL rate of 6,000 and the U.S. YPLL rate of 7,300 ([CHR&R](#), 2022). Davis County trends have remained steady for this measure while staying lower than the Utah and U.S. rates for the past two decades (Figure 50, next page).

Figure 50

Premature death in Davis County, UT
Years of Potential Life Lost (YPLL): county, state and national trends



Source: [CHR&R](#), 2022

When broken down by demographics and geography, disparities exist in Davis County. Those who identify as Black or African American experience significantly higher rates of premature death than those who identify as White ([CHR&R](#), 2022). Additionally, YPLL rates vary significantly among Utah Small Areas within Davis County ([IBIS](#), 2015-2019). The Clearfield Area has the highest rate and Centerville has the lowest (Table 18). High YPLL rates appear to align with lower Utah Healthy Places Index (UT HPI) scores that measure community conditions that influence health ([UT HPI](#), 2022).

Chronic Diseases

Control of infectious diseases has increased lifespan in the 21st century and shifted the national burden of disease to chronic diseases ([CDC](#), 2021). Chronic diseases are ongoing illnesses that last for a year or longer, impact everyday activities and well-being, and often require continued medical care. Common chronic diseases include cancer, diabetes, heart disease, and stroke. These diseases are the leading causes of disability and death and account for a majority of health care costs. Nationally, 6 in 10 adults have one chronic disease, and 4 in 10 live with multiple chronic diseases ([CDC](#), 2022).

Chronic diseases are separate from infectious diseases in that they are not spread from person to person, but are generally caused by modifiable risk factors. Decreasing alcohol and tobacco use, improving nutrition, and increasing physical activity can help to reduce risk of chronic disease ([CDC](#), 2022).

Many chronic diseases do not currently have a cure. Due to the ongoing nature of chronic diseases, those living with chronic diseases are at a higher risk for emotional and mental health conditions ([MedlinePlus](#), 2022; [NIH](#), 2021).

This section summarizes the most common chronic diseases reported in Davis County. Most rates reported within the chronic disease section are age-adjusted.

Table 18: Premature Deaths by Utah Small Area, Davis County, 2015-2019

Utah Small Area	Years of Potential Life Lost (YPLL)*
Clearfield Area	5,571
Bountiful	4,699
Layton/South Weber	4,522
Woods Cross/West Bountiful	4,420
Syracuse	4,240
North Salt Lake	3,888
Farmington	3,857
Kaysville/Fruit Heights	3,192
Centerville	3,157

Data: [IBIS](#), 2015-2019 (crude)

*Rate of years of potential life lost before age 75 per 100,000 population

Heart Disease

Heart disease is a broad term that refers to different conditions that affect the heart. The most common type of heart disease is coronary artery disease, which is caused by narrow or blocked coronary arteries. This can lead to a heart attack or stroke. Other common heart diseases include heart failure, heart inflammation, and heart rhythm problems (CDC, 2022; NCI, n.d.).

Almost half of the people living in the U.S. have at least one risk factor for heart disease. Health conditions, such as diabetes, high blood pressure, high cholesterol, and obesity can increase the risk of heart disease. Alcohol and tobacco use can also increase risk (CDC, 2022). Lifestyle modifications such as improving diet, getting regular physical activity, reducing or eliminating substance use, and using prescription medications to address cholesterol can help to reduce a person's risk for heart disease (CDC, 2020).

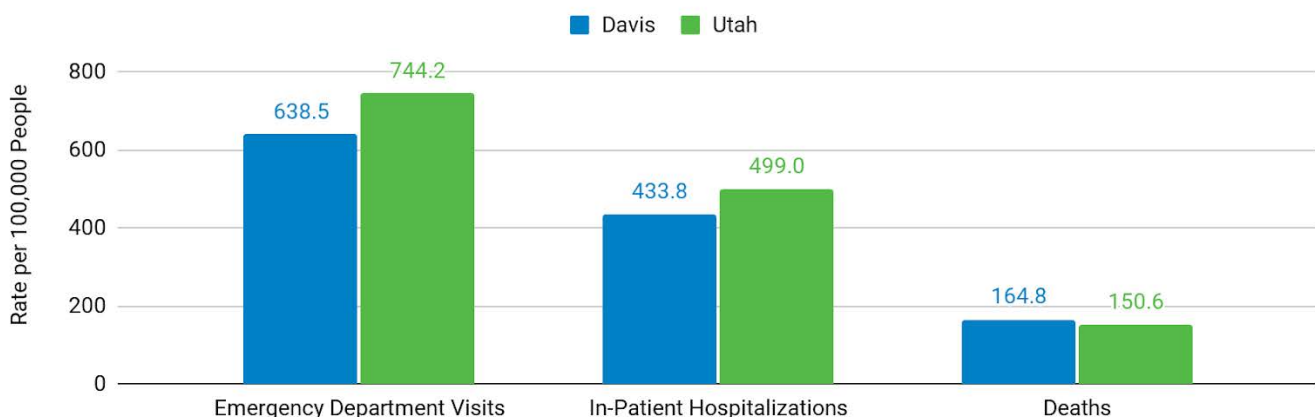
Heart disease is the leading cause of death for men and women in Davis County, Utah, and the U.S. Nearly 805,000 Americans experience a heart attack each year, and 1 in 5 heart attacks are silent, meaning they are not recognized until the damage is diagnosed later. Between 2017-2018, \$229 billion was spent on healthcare services for heart disease, such as treatment and missed work time (CDC, 2022).

In Davis County, 164.8 per 100,000 people die from heart disease compared to 150.6 in Utah and 167.8 in the U.S. (IBIS, 2019-2021; CDC WONDER, 2019-2021). The county death rate is significantly higher than the State rate. However, the rate of death from heart disease has decreased over the past two decades at the county, state, and national levels (IBIS, 1999-2021; IBIS, 1999-2020).

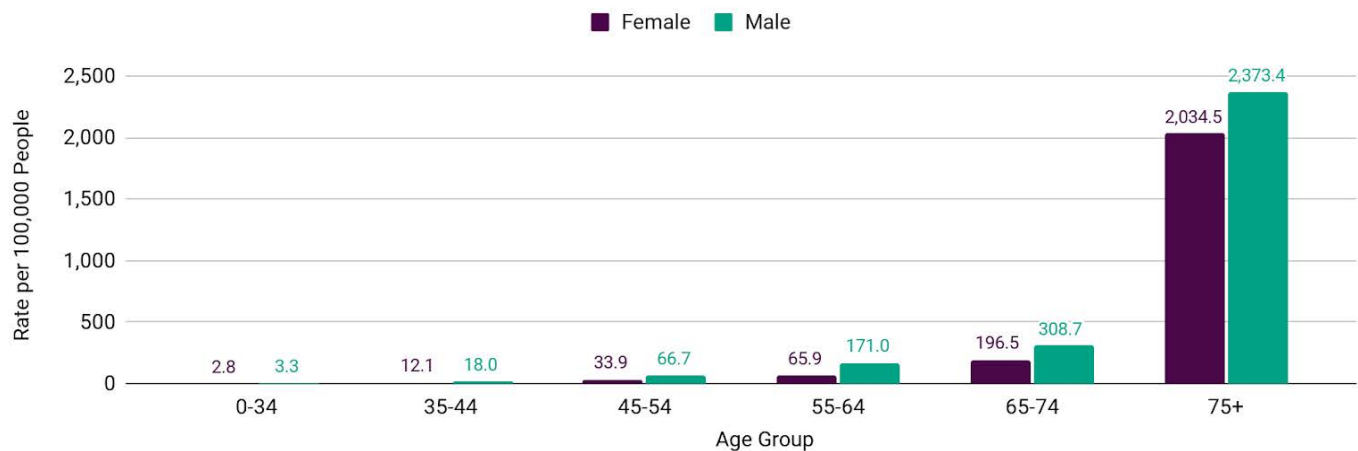
The burden of heart disease on the population can be measured by use of the healthcare system and deaths. As shown in Figure 51, the rates of emergency department visits and hospitalizations from heart disease are significantly lower among Davis County residents than in Utah (IBIS, 2019-2021; IBIS, 2019-2021).

When examined by demographic group, males and older adults experience significantly higher rates of death from heart disease than those who are younger or female (IBIS, 2019-2021; IBIS, 2019-2021). Figure 52 (next page) shows how death rates increase with age for both sexes with those age 75 and older experiencing the greatest burden of disease. So few deaths occur in younger age groups that rates for ages 0-34 and 35-44 may be unreliable at the county level.

Figure 51: Heart Disease Rates for Emergency Department Visits, Hospitalizations, & Deaths, 2019-2021



Data: IBIS, 2019-2021 (age-adjusted)

Figure 52: Rate of Heart Disease Deaths by Age & Sex, Davis County, 2019-2021

Data: IBIS, 2019-2021 (crude rate)

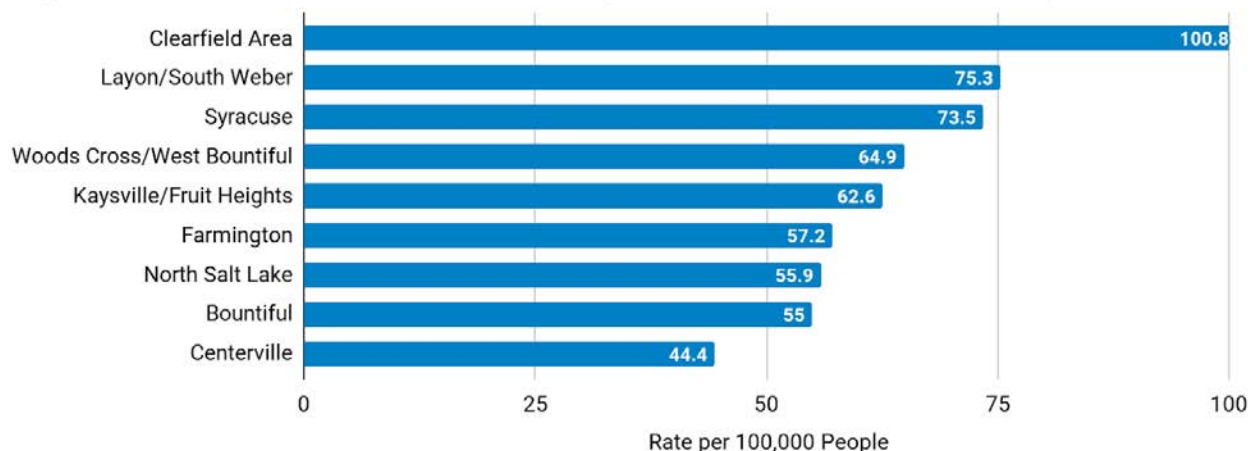
Heart disease death rates were not available at the county level by race or ethnicity. Utah data suggests that deaths are significantly lower among the Hispanic/Latino population compared to non-Hispanic/Latino. State data also shows that those who identify as Asian experience the lowest rates of death while those who identify as Native Hawaiian or Pacific Islander experience the highest rates (IBIS, 2020 & 2021).

When examined by geography, heart disease death rates were lowest in the Utah Small Area of Centerville at 44.4 per 100,000 people and highest in the Clearfield Area with 100.8 per 100,000 people (IBIS, 2016-2020), as shown in Figure 53. The variation in education levels, income, age, and other social factors between Utah Small Areas should be considered when interpreting this data.

Healthy People 2030 has a goal to reduce deaths from coronary artery disease (CAD) (Healthy People 2030, n.d.). Utah's target goal is 54.0 deaths per 100,000 people (IBIS, 2022). Neither Davis County or the State have met the Healthy People targets.

Community Supports

In Davis County, a strong effort has focused on actively inviting medical providers to participate in the Million Hearts® award program, which recognizes excellence in hypertension (blood pressure) management, and allows providers to assess their clinic's efforts and make an action plan for areas that need improvement. Participation has consistently increased since the program's inception.

Figure 53: Rate of Heart Disease Deaths by Utah Small Area, Davis County, 2016-2020

Data: IBIS, 2016-2020 (age-adjusted)

Cancer

Cancer is a chronic disease that occurs when some of the body's cells grow uncontrollably and spread to other parts of the body. Because it is related to cell growth, cancer can start almost anywhere in the human body. There are multiple types of cancer, often named by the part of the body they affect ([NCI](#), 2021).

Cancer generally develops over several years and has many causes. Common factors that increase one's risk of developing cancer include, but are not limited to, the following:

- Older age
- Physical activity and poor diet
- Tobacco use
- Certain environmental and chemical exposures
- Genetics and family history
- Certain medical conditions or diseases, such as a weak immune system, diabetes, Crohn's disease, or human papillomavirus (HPV) infection ([IBIS](#), 2022)

At some point during their life, 1 in 3 women and 1 in 2 men will be diagnosed with cancer. The likelihood of diagnosis and recovery increases with prevention, screening, and treatment options for most types of cancer ([IBIS](#), 2022).

For information on cancer screening and preventive care, refer to the Clinical Care chapter.

Cancer can be measured in several ways. This section will focus on the number of newly diagnosed cases (incidence) and the number of deaths from the disease.

Incidence

The CDC reported 56,065 new cancer cases in Utah with 6,172 (11.0%) of those cases occurring in Davis County, which is expected given the county's population size ([CDC](#), 2015-2019). The incidence rate of all types of cancer in Davis County was 421.5 cases per 100,000 people compared to 407.2 in Utah and 449.4 in the U.S. ([NIH](#), 2015-2019). The Davis County rate was significantly higher than the Utah rate and significantly lower than the U.S. rate.

Leading types of cancer vary by sex. Table 19 shows the five most common types of cancer among Davis County females based on incidence rate. Breast cancer is the leading type of cancer diagnosed in females. However, Utah has the 5th lowest rate of breast cancer incidence among the 50 states ([NIH](#), 2015-2019).

Table 19: Most Common Female Cancers by Incidence Rate per 100,000 People, 2015-2019

Cancer Type	Davis	Utah	U.S.
Breast	118.1	115.8	128.1
Skin (Melanoma)	38.1	34.4	18.3
Uterus	27.0	26.3	27.7
Colon & Rectum	26.2	26.4	33.0
Thyroid	23.8	25.3	20.3

Data: [NIH](#), 2015-2019 (age-adjusted)

Table 20 shows the most common male cancers. Prostate cancer is the leading type of cancer diagnosed among males. Utah ranks 20th in the U.S. for prostate cancer incidence ([NIH](#), 2015-2019).

Table 20: Most Common Male Cancers by Incidence Rate per 100,000 People, 2015-2019

Cancer Type	Davis	Utah	U.S.
Prostate	139.0	117.2	109.9
Skin (Melanoma)	64.2	49.9	29.1
Bladder	32.0	30.2	33.5
Lung & Bronchus	29.0	30.2	64.1
Non-Hodgkin Lymphoma	22.0	22.2	22.9

Data: [NIH](#), 2015-2019 (age-adjusted)

Most notably for both sexes, new cases of skin cancer occur at double the rate in Davis County as in the U.S. ([NIH](#), 2015-2019).

Deaths

Cancer death rates are declining. There was a 32% drop in the U.S. cancer death rate between 1991 and 2019. This means almost 3.5 million fewer cancer deaths occurred during these years than what would have been expected if the death rate had not fallen. This success is largely because of fewer people smoking, which resulted in declines in lung and other smoking-related cancers ([ACS](#), 2022).

Additionally, the following factors have led to the decrease in cancer deaths over time:

- Chemotherapy treatment after surgery for breast and colon cancer
- Combining treatment methods for many cancers
- Prevention and early detection with screening for some cancers, including cancer in the breast, cervix, colon, prostate, rectum, and more recently, lung

Accelerating declines in the cancer death rate show the power of prevention, screening, early diagnosis, treatment, and the potential to remove cancer as a leading cause of death ([ACS](#), 2022).

Cancer (all types combined) remains the 2nd leading cause of death in Davis County, Utah, and the U.S. In 2020, there were 122.3 deaths per 100,000 people from all types of cancer in Davis County compared to 119.5 in Utah and 144.1 in the U.S. Davis County and Utah rates are significantly lower than the U.S. ([CDC WONDER](#), 2020).

Table 21 shows the types of cancers with the highest death rates in Davis County. Fewer people die from cancer than are diagnosed. This means death rates are often lower than incidence rates for most types of cancer, such as prostate and breast cancer. Another example of this is skin cancer. It is the second most commonly diagnosed cancer for both sexes, but leads to only 3.0 deaths per 100,000 people in Davis County ([NIH](#), 2016-2020).

Table 21: Leading Causes of Cancer Death, Rates per 100,000 People (All Sexes & Ages), 2016-2020

Cancer Type	Davis	Utah	U.S.
Prostate (males only)	23.6	21.8	18.8
Breast (females only)	17.8	19.8	19.6
Lung & Bronchus	14.4	16.6	35.0
Colon & Rectum	10.2	10.6	13.1
Pancreas	8.9	9.6	11.1

Data: [NIH](#), 2016-2020 (age-adjusted)

Skin Cancer (Melanoma)

This section focuses on melanoma, one form of skin cancer. It is less common than other skin cancers, such as basal cell and squamous cell, but it is far more dangerous ([IBIS](#), 2022). Risk factors for melanoma are related to sunlight and ultraviolet (UV) radiation exposure, specifically:

- History of sunburns early in life
- Increased severity of sunburn or blisters
- Lifetime sun exposure, even if sunburn does not occur
- Tanning outside with oils or inside using sunlamps and tanning booths
- Living in a place (like Utah) with a high elevation, warmer climate, and where sand, water, snow, or ice reflect sunlight ([IBIS](#), 2022)

The American Cancer Society has some simple suggestions to help protect skin from UV rays: seek, slip, slop, slap, and wrap, as shown in Figure 54 ([ACS](#), 2021).

Figure 54



Source: [ACS](#), 2021

Utah has the highest rate of melanoma skin cancer incidence among all U.S. states with a rate of 41.3 new cases diagnosed per 100,000 people for all sexes and ages combined. The Utah rate is double the U.S. rate of 22.9 per 100,000 people ([NIH](#), 2015-2019). Additionally, Utah has the second highest rate of death from melanoma skin cancer among all 50 states. For every 100,000 Utahns, 2.8 die by skin cancer compared to 2.1 in the U.S. The Utah rate is significantly higher than the U.S. rate.

In Davis County, there are 49.8 newly diagnosed cases of melanoma per 100,000 people ([NIH](#), 2015-2019). This Davis County incidence rate for all sexes and ages combined is significantly higher than the Utah and U.S. rates. Davis County residents die from melanoma skin cancer at a similar rate to Utahns ([NIH](#), 2016-2020).

When examined by demographic group, more new cases of melanoma occur in males (64.2 per 100,000) than females (38.1 per 100,000) in Davis County ([NIH](#), 2015-2019). State trends suggest death by melanoma is more common among those age 65 and older, males, and those identifying as non-Hispanic ethnicity ([IBIS](#), 2022).

Respiratory Illness

Chronic lower respiratory diseases are the fifth leading cause of death in the U.S. ([CDC WONDER](#), 2020). Chronic respiratory illnesses are diseases that impact a person's airway and parts of the lungs, such as asthma and chronic obstructive pulmonary disease (COPD). These illnesses are not curable, but treatments exist that ease symptoms. Inflammation from these diseases can make breathing difficult, which can affect activity levels and quality of life. Air pollution, smoking tobacco, frequent respiratory infections as a child, and workplace exposure to chemicals or dust can increase a person's risk of developing a chronic respiratory disease ([WHO](#), n.d.).

Chronic Obstructive Pulmonary Disease (COPD)

Chronic Obstructive Pulmonary Disease (COPD) is a constriction of the airways and breathing-related problems caused by a group of lung diseases. Due to the nature of COPD, it may also lead to other

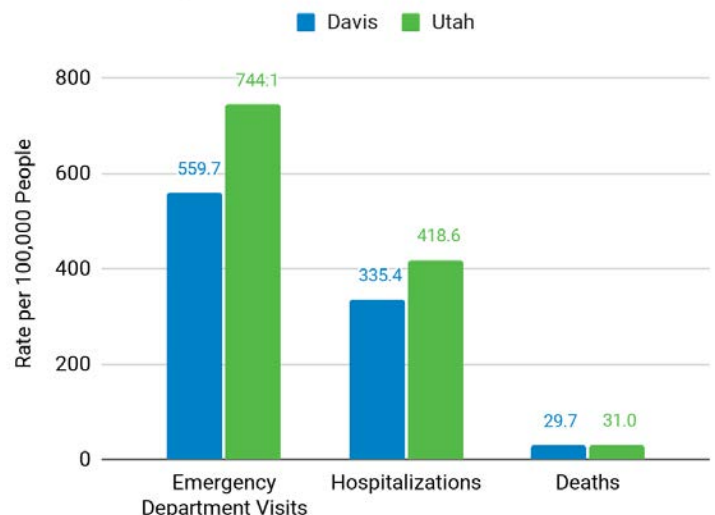
health issues and increases the risk of respiratory infection ([CDC](#), 2022). It is the most common among the four diseases that make up the category of Chronic Lower Respiratory Disease, the fifth leading cause of death in Davis County ([CDC WONDER](#), 2020).

Inhaling tobacco smoke and exposure to air pollutants at home, outdoors, or in the workplace are elements that can cause COPD or lead to its progression ([CDC](#), 2021). Air quality in Davis County and surrounding areas is an element that factors into the examination of COPD.

There is no cure for COPD, meaning it may lead to disability and limitations on daily life. However, early detection and treatment of COPD could limit its progression. In Davis County, 3.7% of adults have been told by a healthcare provider that they have COPD compared to 4.3% of Utah adults and 5.8% of U.S. adults ([IBIS](#), 2019-2021; [CDC](#), 2019-2020).

Between 2019 and 2021, there were 246 total deaths due to COPD in Davis County. For every 100,000 people in Davis County, 29.7 die by COPD compared to 31.0 in Utah and 35.1 in the U.S. ([IBIS](#), 2019-2021; [CDC WONDER](#), 2019-2021). As shown in Figure 55, Davis County had significantly lower rates of emergency department (ED) visits and hospitalizations for COPD during that time period than Utah ([IBIS](#), 2019-2021).

Figure 55: COPD Rates of Emergency Department Visits, Hospitalizations, & Deaths, 2019-2021



Data: IBIS, 2019-2021 (age-adjusted)

Over the past decade, COPD rates for ED visits, hospitalizations, and deaths have held steady with a slight decline in recent years. The impact of COVID-19 as a cause of death and hospitalization should be noted when considering this recent decline in rates since COPD puts individuals at higher risk of experiencing severe COVID-19 outcomes ([ALA](#), 2020).

At the national and local levels, females are hospitalized and die by COPD at lower rates than males ([IBIS](#), 2019-2021; [CDC](#), 2022). Additionally, as age increases, so does the likelihood of an ED visit due to COPD ([IBIS](#), 2019-2021). Those who identify as Hispanic or Latino in Davis County had a significantly lower rate (349.7 per 100,000 people) of ED visits for COPD than non-Hispanic or Latino individuals (532.0 per 100,000 people). When looking at differences among racial groups, those identifying as Asian had the lowest ED visit rate for COPD (197.5 per 100,000 people). Those who identified as Some Other Race had significantly higher rates than all other racial groups (2,238.0 per 100,000 people) ([IBIS](#), 2017-2021).

Asthma

Asthma is a long-term inflammatory disease of the lungs that causes repeated episodes of wheezing, breathlessness, chest tightness, and nighttime or early morning coughing. It has no cure, but can be managed through medication and avoiding triggers. A trigger is exposure to something that causes airways to react and become restricted, such as tobacco smoke, allergens, mold, poor air quality, and infections ([CDC](#), 2023). In Utah, 26.3% of childhood asthma is due to environmental exposure, especially PM_{2.5} pollution ([IBIS](#), 2011). For more air pollution data, see the Air Quality section of the Physical Environment chapter.

Among Davis County adults over 18 years old, 13.1% report being told by their doctor that they have asthma, which is significantly higher than the 10.4% reported in Utah ([EPHT](#), 2020) and the 9.0% reported in the U.S. ([EPHT](#), 2019).

In Davis County, 17.1% of adolescents report having asthma diagnosed by a healthcare professional in their lifetime, which is similar to the State (16.8%). Within the U.S., 21.8% of students report having

asthma in their lifetime. Among Davis County adolescents:

- 13.0% reported currently having asthma
- 6.5% have had an asthma attack in the past year
- 16.9% have an asthma action plan
- 10.8% have had to miss school due to asthma in the past year

All of these percentages were comparable to the Utah average ([UDOH](#), 2021).

From 2017 to 2021, there were 140 deaths due to asthma in Utah with 14 of those deaths being Davis County residents ([IBIS](#), 2017-2021).

Asthma Emergency Department Visits

The emergency department (ED) is an important place for patients to seek immediate care for asthma attacks. The ED may also be the main place of care for patients with limited insurance or who do not have a primary care provider ([CDC](#), 2021).

Children were significantly more likely to be seen in an ED than adults. Those ages 0 to 4 had the highest rate of asthma-related ED visits compared to any other age group ([IBIS](#), 2019-2021). This is consistent with Utah and U.S. trends ([CDC](#), 2021).

In Davis County, females had significantly more asthma-related ED encounters (166.9 per 100,000 people) than males (131.0 per 100,000 people) ([IBIS](#), 2019-2021).

Differences in ED visit rates also exist between racial groups. Davis County residents that identified as Black/African American (348.3 per 100,000 people), Other Race (568.9 per 100,000 people), or Native Hawaiian or Other Pacific Islander (714.7 per 100,000 people) were significantly more likely to be seen in the ED due to asthma compared to individuals who identified as White (130.1 per 100,000 people) or Asian (87.0 per 100,000 people). There was not enough data to make a comparison for those who identify as American Indian/Alaska Native. Additionally, ED visit rates did not differ significantly between ethnic groups ([IBIS](#), 2019-2021).

Stroke

Stroke is a common form of cerebrovascular disease. A stroke occurs when there is a loss of blood flow to part of the brain, which damages brain tissue. Strokes can be caused by a blood clot (ischemic stroke, 87% of all strokes), a blood vessel that is weakened and ruptures (hemorrhagic stroke), or a temporary blood clot (transient ischemic attack or TIA), more commonly known as a “mini stroke” (ASA, n.d.).

Strokes can cause damage to areas of the brain that control certain bodily functions like walking, talking, and eating. Stroke remains the leading cause of permanent disability in the U.S., reducing mobility by more than half for stroke survivors over the age of 65 (CDC, 2022). Age, family history, obesity, smoking, diabetes, high cholesterol, heart disease, and physical inactivity are risk factors for stroke (IBIS, 2022). Medical advancements in stroke care and early screening for risk factors, such as high blood pressure and heart disease, have greatly contributed to an overall decline in stroke-related deaths (IBIS, 2022).

An estimated 795,000 strokes occur every year in the U.S. This means someone experiences a stroke every 40 seconds, and every 3.5 seconds someone dies from a stroke. In the U.S. from 2017 to 2018, \$53 billion were spent on stroke costs, such as healthcare services, treatment, and missed work days (CDC, 2022). In Davis County and Utah, roughly 1 in 50 adults reports having been told by a healthcare provider that they have had a stroke (IBIS, 2019-2021).

In Davis County and Utah, stroke is the 6th leading cause of death (CDC WONDER, 2020). In 2020, 34.2 deaths per 100,000 people were due to stroke in Davis County compared to 34.1 in Utah and 38.8 in the U.S. (CDC WONDER, 2020). Although the Davis County and Utah rates were similar and lower than the U.S., the rates are not significantly different from each other. Over the past decade, the rate of stroke deaths has remained steady in Davis County while gradually declining in Utah and the U.S. (IBIS, 2012-2021; IBIS, 2022).

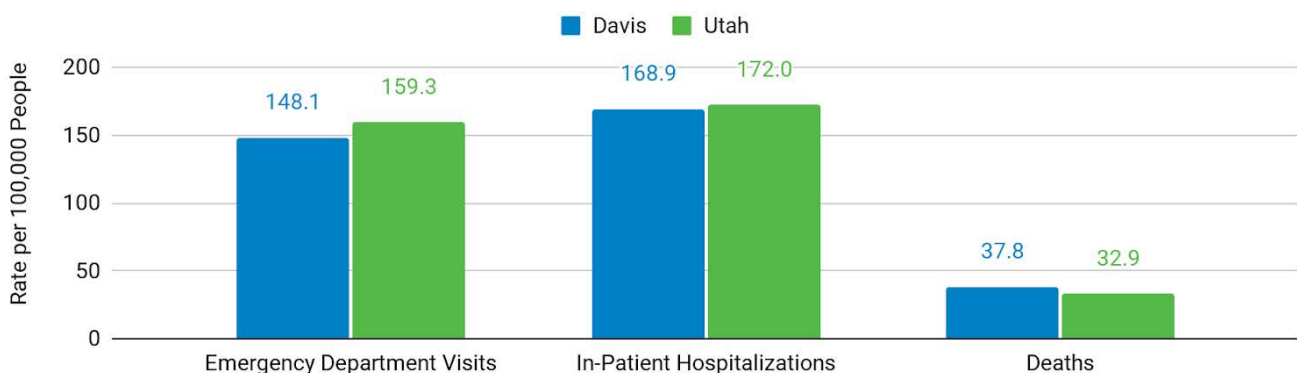
Figure 56 shows the use of the healthcare system along with deaths related to stroke in recent years. Rates of emergency department visits and hospitalizations for stroke are lower among Davis County residents than in Utah while stroke-related deaths are higher. However, these differences are not significant (IBIS, 2019-2021; IBIS, 2019-2021).

When examined by geography, stroke death rates were lowest in the Utah Small Area of North Salt Lake (31.2 per 100,000) and highest in Woods Cross/West Bountiful (51.2 per 100,000) (IBIS, 2017-2021).

When broken down by demographic group in Davis County, the rate of death from stroke differs significantly by age and sex (Figure 57, next page). Rates increase dramatically after age 65 compared to all other age groups. Females also die at a higher rate than males (IBIS, 2017-2021).

Race or ethnicity data for stroke are unreliable at the county level due to small sample size. However, Utah data suggests that stroke deaths are lower for individuals who identify as Hispanic compared to

Figure 56: Stroke Rates for Emergency Department Visits, Hospitalizations, & Deaths, 2019-2021



Data: IBIS, 2019-2021 (age-adjusted)

non-Hispanic while rates among Pacific Islanders are significantly higher than the Utah average ([IBIS, 2022](#)).

Reducing stroke deaths is a Healthy People 2030 goal ([Healthy People 2030](#), n.d.). The Utah target rate is 28.2 deaths per 100,000 people. If stroke rates continue to decline as they have over the past two decades due to better care and stroke detection, this goal may be met by 2030 ([IBIS, 2022](#)).

Community Supports

State and local health departments efforts under the Healthy Eating Active Living (HEAL) Program work to reduce the occurrence of strokes in Utah. The program aims to reduce new cases of diabetes, heart disease, and stroke by targeting risk factors, including reducing obesity, increasing physical activity and nutritious food consumption, and improving diabetes and hypertension control ([IBIS, 2022](#)).

Davis Hospital and Medical Center is a certified Primary Stroke Center that serves all of Davis County. Their program has been recognized for its commitment to ensuring stroke patients receive the most appropriate treatment according to nationally recognized, research-based guidelines, ultimately leading to more lives saved and reduced disability.

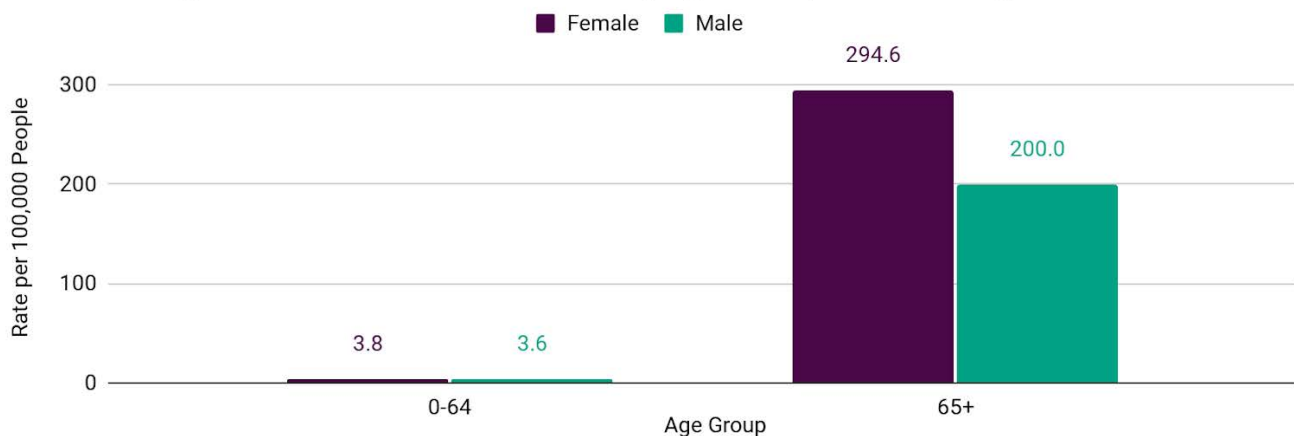
Diabetes

Diabetes impacts how a person's body processes food. Insulin is a hormone that regulates how the body uses the food for energy. Diabetes occurs when the body does not make enough insulin, or stops responding to insulin, and too much glucose (blood sugar) remains in the bloodstream. There are three forms of diabetes. Gestational diabetes is temporary and occurs during pregnancy (see the Reproductive and Birth Outcomes section). Type 1 diabetes is an autoimmune disease (when the body attacks itself by mistake) that usually develops before the age of 30 and is not preventable. Type 2 diabetes is a chronic disease that is often diagnosed in adults, but increasingly in children, teens, and young adults ([CDC, 2022](#)).

Development of type 2 diabetes is strongly linked to genetics and lifestyle factors ([American Diabetes Association, n.d.](#)). This section will focus on Type 2 diabetes because it is the most common form of diabetes and is preventable.

If left untreated, diabetes can lead to serious conditions, such as heart disease, stroke, blindness, kidney failure, and lower extremity amputations. Diabetes continues to place a great economic burden on Utah's healthcare system. More than one billion dollars are spent annually on direct and indirect costs for diabetes in the State ([IBIS, 2021](#)).

Figure 57: Rate of Stroke Deaths by Age & Sex, Davis County, 2017-2021



Data: IBIS, 2017-2021 (crude)

Risk factors for type 2 diabetes include advancing age, being overweight or obese, physical inactivity, and family history ([IBIS](#), 2021). Prediabetes, which is when blood sugar levels are higher than normal, also increases one's chance of being diagnosed with type 2 diabetes. In Davis County, 8.4% of adults reported being told they have prediabetes. The prevalence of adults with prediabetes in Davis County is lower than in Utah (9.1%) or the U.S. (10.6%).

The incidence of diabetes, meaning newly diagnosed cases, is higher for Davis County adults than adults in Utah and the U.S. ([CDC](#), 2019). It is unclear whether this local trend is influenced by access to care and provider practices. Davis County is not meeting the Healthy People 2030 target for new cases of diabetes in adults aged 18 to 84 years, indicating this is an area for improvement ([DCHD](#), 2022).

With a rate of 22.6 deaths per 100,000 people, diabetes is the 8th leading cause of death among county residents ([CDC WONDER](#), 2020). However, the Davis County rate is lower than the Utah (25.3) and the U.S. (24.8) rates (Table 22).

In Davis County, 7.0% of adults are living with diabetes, which is less than Utah and the U.S. ([IBIS](#), 2021). Historically, the prevalence of adult diabetes in Davis County has remained lower than the U.S. and slightly above the Utah prevalence until recently (Figure 58).

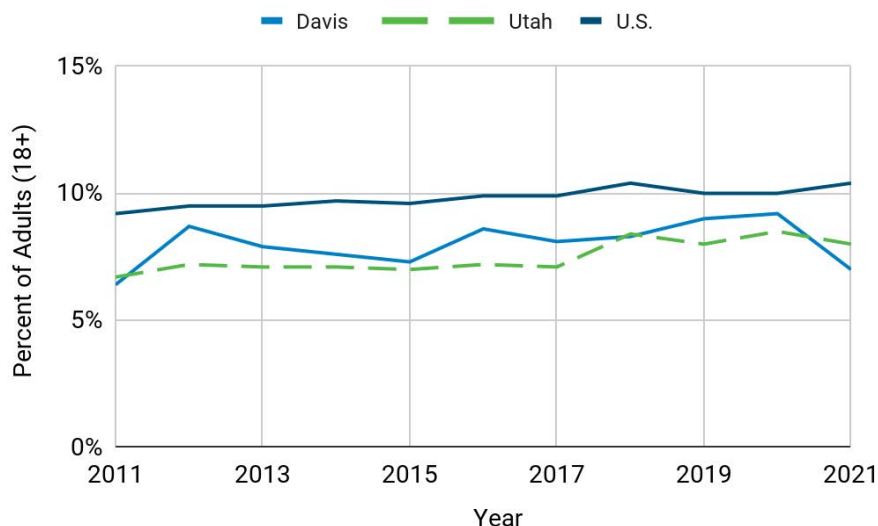
The prevalence of diabetes (type 1 or type 2) among Davis County students in grades 8, 10, and 12 is 0.9%, which is similar to 0.7% of students in the State (UDHHS, 2021).

Table 22: Impact of Diabetes

Diabetes Indicators	Davis	Utah	U.S.
Adults with Prediabetes	8.4%	9.1%	10.6%
Adults Living with Diabetes	7.0%	8.4%	10.3%
Newly Diagnosed Cases Rate per 1,000 Adults	7.4	6.4	5.6
Diabetes Deaths Rate per 100,000 People	22.6	25.3	24.8

Data: [IBIS](#), 2016-2020; [IBIS](#), 2016-2020; [CDC](#), 2019; [IBIS](#), 2021; [CDC WONDER](#), 2020 (all are age-adjusted)

Figure 58: Prevalence of Adult Diabetes, 2011-2021

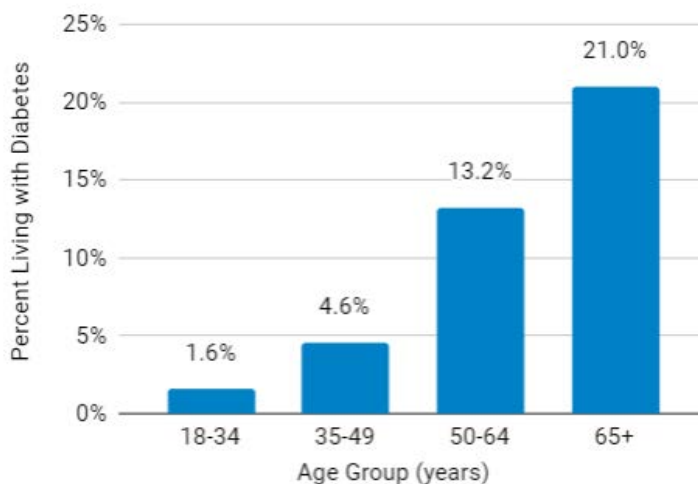


Data: [IBIS](#), 2011-2021 (age-adjusted)

Populations Affected

When examined by demographic groups in Davis County, diabetes is more common among those who are older, identify as straight, did not finish high school, have lower incomes, or are veterans ([IBIS, 2017-2021](#)). Significant differences exist between veterans and non-veterans as well as between age groups. Figure 59 shows how diabetes is most common among older age groups.

Figure 59: Diabetes Prevalence by Age Group, Davis County, 2017-2021



Data: IBIS, 2017-2021 (crude)

Data for racial and ethnic groups is unreliable at the county level due to small sample sizes. However, state diabetes data suggests that diabetes is more common among those who identify as Hispanic/Latino versus non-Hispanic/Latino. Utahns who identify as White or Asian experience diabetes less frequently than all other racial groups ([IBIS, 2020-2021](#)).

When diabetes prevalence is examined by Utah Small Area, some variation exists across Davis County areas. However, the differences in the prevalence of diabetes between Davis County Small Areas are not significant. When compared to the State average, the Clearfield Area had a significantly higher prevalence of diabetes than the State ([IBIS, 2017-2021](#)).

Community Supports

To prevent complications in people living with diabetes, Davis County Health Department (DCHD) and its partners are working to expand access to and participation in Diabetes Self-Management Education and Support (DSME) services and The National Diabetes Prevention Program (DPP). DPP is a partnership of public and private organizations working to prevent or delay type 2 diabetes. DSME is an evidence-based program that helps people with diabetes receive preventive care and effectively manage their blood sugar, blood pressure, and cholesterol. The overall objectives of DSME are to help the patient improve communication with their health care team, as well as to support the patient's informed decision making, self-care behaviors, and problem solving skills.

Utah has a Steering Committee for the Prevention of Diabetes and is supported by organizations in Davis County. It is a broad-based group of experts and stakeholders with a common interest in providing support to prevent diabetes in Utah by focusing on sustainable coverage, infrastructure, awareness, data, and evaluation.

In 2022, Medicaid Legislation HB80 was signed by the Utah Governor ([Utah State Legislature, 2022](#)). This bill allows for Medicaid reimbursement for diabetes prevention services.

Efforts toward improving the rate of diabetes in Davis County have also focused on widely promoting diabetes education resources to both medical providers and community members. These efforts include supporting a new DSME program as it becomes accredited and promoting Prediabetes 101 classes at [Intermountain Health](#).

Obesity

Obesity is a chronic disease related to excess weight gain. It is a complex issue influenced by both community and individual factors, such as:

- Physical activity: availability and affordability of exercise opportunities, neighborhood safety, education
- Eating patterns: availability and affordability of healthy food, cultural practices, targeted marketing, education
- Sleep routines: personal habits, household and occupational demands
- Genetics: personal and family history, specific genes linked to the condition
- Medications & illnesses ([CDC](#), 2022)

Nationally, obesity is considered a leading cause of preventable death. It increases the risk of health conditions, such as heart disease, diabetes, cancer, stroke, sleep disorders, chronic respiratory diseases, arthritis, high cholesterol, and mental health conditions ([CHR&R](#), n.d.). Being overweight may also increase risk for these conditions; however, this section will focus only on obesity.

Obesity creates \$173 billion in healthcare costs annually. Medical costs for adults who had obesity were \$1,861 higher annually than medical costs for people who were categorized as a healthy weight ([CDC](#), 2022).

Body Mass Index (BMI) is a measure used for calculating obesity using an individual's height and weight. BMI is a common way of tracking weight across populations and serves as a screening tool for identifying potential health risks, such as poor diet and limited physical activity. For adults and children, BMI is calculated the same way, but interpreted and translated to obesity status differently ([CDC](#), 2018).

BMI is used as a substitute indicator for fat because it is quick and inexpensive compared to other body fat measures. When using this measure, it is important to consider that BMI does not directly measure body fat because it does not distinguish between excess fat, muscle, bone mass, or the distribution of fat throughout the body. Factors such as age, sex, ethnicity, and muscle

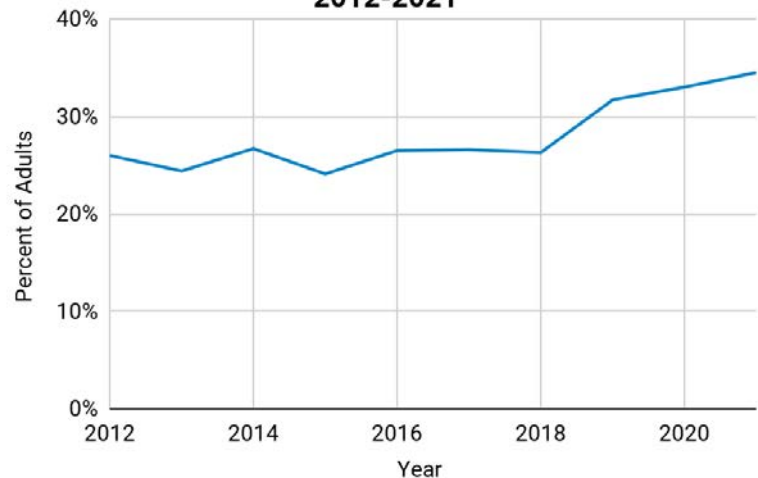
mass can influence the relationship between BMI and body fat. This means BMI may be a misleading or unfair measure of health for certain individuals and body types ([CDC](#), 2018; [CDC](#), 2022; [ASDAH](#), n.d.).

Adult Obesity

For adults, obesity is defined as having a BMI score of 30 or higher while overweight is defined as a BMI score of 25 to 29. Over the last decade, County, State, and National obesity trends have all been rising steadily so that 1 in 3 adults is now considered obese ([IBIS](#), 2011-2021).

Davis County and Utah trends remained lower than U.S. obesity trends from 2012 to 2018. In 2018, adult obesity in Davis County started increasing more rapidly than prior years (Figure 60). From 2019 to 2021, Davis County had a higher prevalence of adult obesity than both Utah and the U.S. Specifically, 34.5% Davis County adults were obese in 2021 compared to 31.8% of Utah adults and 33.3% of U.S. adults ([IBIS](#), 2011-2021). County Health Rankings and Roadmaps (CHR&R) has identified adult obesity as an area to explore, meaning reduction in the prevalence of obesity would improve Davis County's ranking in the future ([CHR&R](#), 2022).

Figure 60: Prevalence of Adult Obesity, Davis County, 2012-2021



Data: IBIS, 2012-2021 (age-adjusted)

In Utah, adults who are college graduates, younger, homeowners, Asian, have higher incomes, live without a disability, or identify as non-Hispanic/Latino are significantly less likely to be obese ([IBIS](#), 2019-2021). When county level data was examined by demographic group, obesity was significantly different between age and income groups. Adult obesity was less common among those ages 18 to 34 (23.7%) compared to all older age groups combined (33.5%). People making \$50,000 or more per year were also less likely to be obese (28.8%) compared to those making under \$50,000 (35.3%). No significant differences were observed at the county level between racial, ethnic, sexual, veteran, housing, religious, or geographic groups ([IBIS](#), 2017-2021). This may be due to small sample sizes.

Childhood Obesity

BMI is also used to define overweight and obesity in children. However, BMI for children is age- and gender-specific, calculated by using percentiles and standardized growth charts. Youth ages 2 to 19 with BMI values at or above the 95th percentile of the growth charts are categorized as obese ([CDC](#), 2021).

Childhood obesity is a significant health issue in the U.S., affecting 1 in 5 children and adolescents ([CDC](#), 2022). The prevalence of childhood obesity has nearly doubled over the last 30 years from 10.0% in

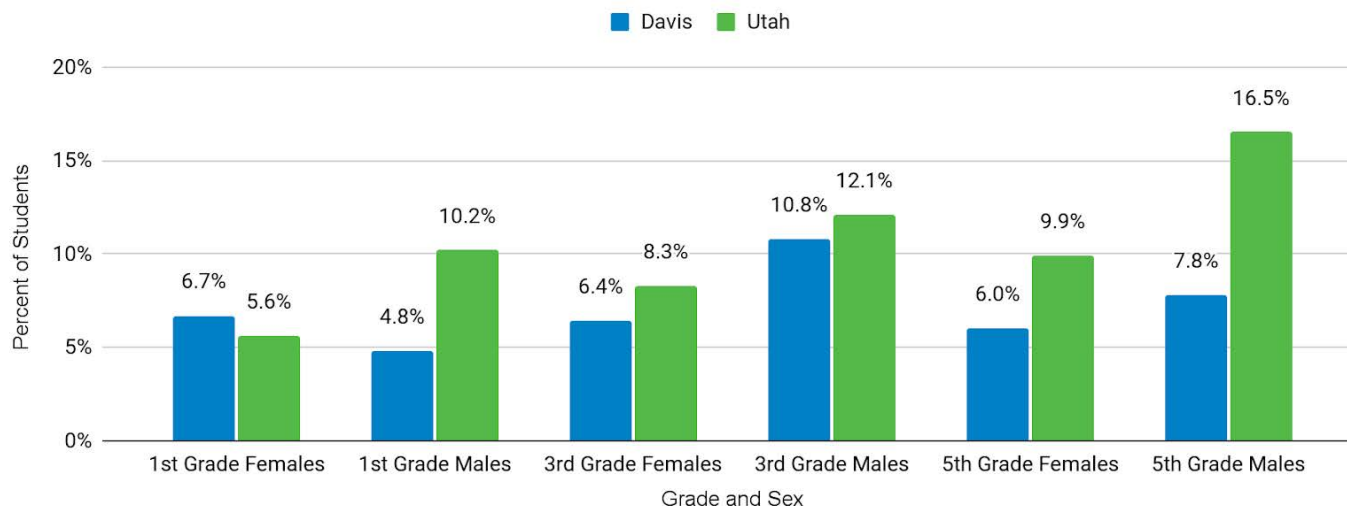
1988 to 19.3% in 2018. Additionally, related chronic conditions such as diabetes, high blood pressure, and high cholesterol, not previously diagnosed until adulthood, are now present in early childhood and adolescents. Obesity during childhood can increase a youth's risk for experiencing bullying, social isolation, depression, and anxiety ([IBIS](#), 2021). Many factors are at play during a child's growth and each child develops at a different pace. Talking to a healthcare provider can help provide context for BMI and next steps to maintain good health (Johns Hopkins All Children's Hospital, n.d.).

Elementary-Age Data

In Utah, childhood obesity is measured through a partnership with schools so data is presented by grade. In 2018, the prevalence of childhood obesity in Davis County was similar to the State, with the exception of a few grades. Boys in first and fifth grade along with fifth grade girls in Davis County were less likely to be obese than their peers in Utah (Figure 61).

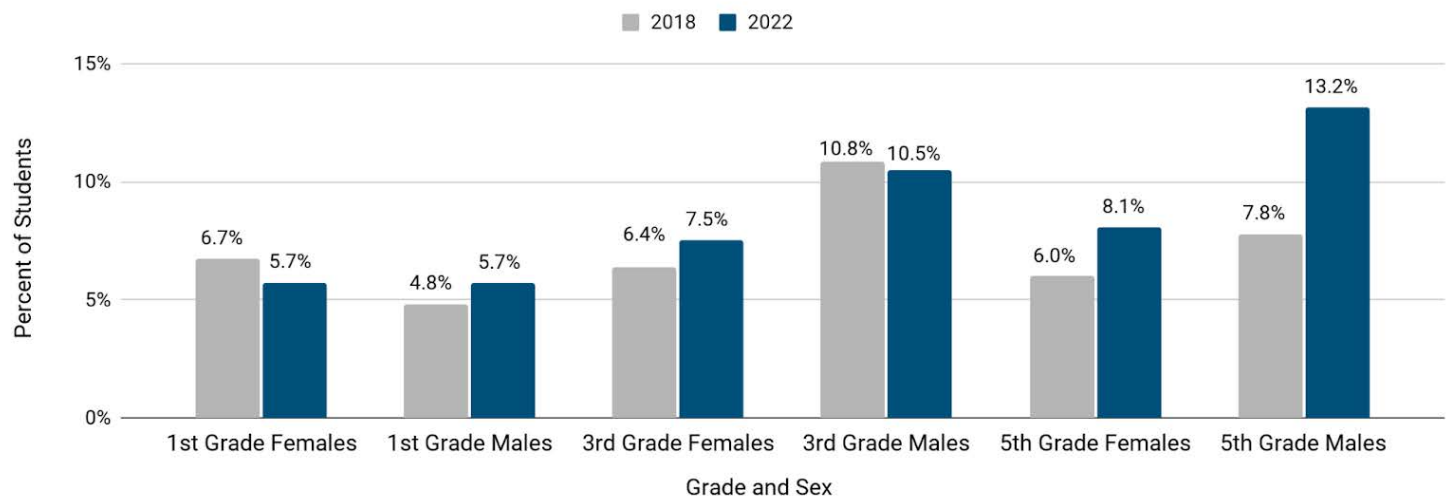
Figure 62 (next page) compares the prevalence of childhood obesity between two years in Davis County. Most age groups had modest changes, except fifth grade boys experienced a larger increase in the prevalence (UDHHS, 2022). The impact of puberty should be considered when interpreting this data. The impact of puberty should be considered when interpreting this data.

Figure 61: Prevalence of Childhood Obesity by Grade & Sex, 2018



Data: UDHHS, 2018

Figure 62: Childhood Obesity Trends By Grade & Sex, Davis County, 2018 & 2022



Data: UDHHS, 2022

Adolescent Data

The prevalence of obesity among adolescents has been trending up over time statewide and nationally. In 2021, the prevalence of obesity among adolescents in grades 8, 10, and 12 was 9.0% in Davis County, which was significantly better than the 10.3% in Utah and 21.2% in the U.S. (UDOH, 2021). Davis County is meeting the Healthy People 2030 target for percent of children and adolescents aged 2 to 19 years who have obesity (DCHD, 2022).

Adolescent obesity data by demographic group is limited at the county level. At the state level, obesity did not vary significantly by grade (IBIS, 2019 & 2021). However, it was significantly less common among adolescents who were female, non-Hispanic/Latino, and who identified as Heterosexual/Straight (Table 23). State data by race was unreliable.

The national health improvement initiative, Healthy People 2030, includes reducing childhood and adolescent obesity among its top objectives, called Leading Health Indicators (Healthy People 2030, n.d.). Davis County youth are meeting the target set by Healthy People 2030 for obesity. For more data, see Appendix 7.

Table 23: Prevalence of Adolescent Obesity by Demographic Group, Utah, 2019 & 2021

Grade	Percent Obese
9th	9.7%
10th	11.5%
11th	7.7%
12th	10.0%
Sex	Percent Obese
Female *	7.1%
Male	12.6%
Ethnicity	Percent Obese
Hispanic/Latino	15.6%
Non-Hispanic/Latino *	8.8%
Sexual Orientation	Percent Obese
Heterosexual/Straight *	9.3%
Gay, Lesbian, or Bisexual (LGB)	16.5%
Other or Don't Know	14.3%

Data: IBIS, 2019 & 2021

* Note: Significantly lower prevalence of obesity

Community Supports

Davis County carries out a number of programs to help increase nutrition, physical activity, and/or breastfeeding levels, all of which promote a healthy weight (CDC, n.d.; Liu et al., 2022). Davis School District implements the State of Utah's comprehensive state physical education classes that recommend students maintain at least 60 minutes a day of moderate physical activity through school, extracurricular, or community activities. The Davis County Health Department also participates in a statewide program called Teaching Obesity

Prevention in Early Child Care and Education Settings (TOP Star). TOP Star is an evidence-based program that strives to address childhood obesity by improving nutrition, physical activity, and breastfeeding environments through best practices and written policy change.

Local Chronic Disease Prevention & Management Resources

Diabetes Prevention, DCHD	Resources and self-management skills	daviscountyutah.gov/health/health-services/health-education-services/diabetes-prevention
TOP Star, DCHD	A continuing education program for child care providers designed to help providers improve the quality of the nutrition, physical activity, and breastfeeding environments in their child care facility	daviscountyutah.gov/health/community-health-services-division/top-star

State Chronic Disease Prevention & Management Resources

American Cancer Society Utah	Programs and services to help people manage cancer treatment and recovery and find the emotional support they need	cancer.org/about-us/local/utah.html
American Heart Association Utah Division	Information and resources	heart.org/en/affiliates/utah
Heart Health	Data and resources	heal.utah.gov/heart%20health/
Living Well Utah	Health and wellness workshop locator	livingwell.utah.gov
Prediabetes 101 Class	a free, two-hour, group session designed to help patients that have prediabetes begin engaging in diabetes prevention and reduce their risk of getting type 2 diabetes	intermountainhealthcare.org/classes-and-events/list/prediabetes-101-class

National Chronic Disease Prevention & Management Resources

Alzheimer's Association	Information and support	alz.org
American Diabetes Association	Information, tips, and events	diabetes.org
American Lung Association	Education, advocacy, research, and events	lung.org
American Stroke Association	News, support groups, and resources	stroke.org/en
Childhood Overweight & Obesity, Centers for Disease Control and Prevention	Learn what parents and caregivers can do to help prevent obesity at home, how healthcare systems can help families prevent and manage childhood obesity, and what strategies communities can use to support a healthy, active lifestyle for all	cdc.gov/obesity/childhood/index.html
Million Hearts	National initiative to prevent 1 million heart attacks and strokes within 5 years through evidence-based priorities and targets that can improve cardiovascular health for all	millionhearts.hhs.gov

Injuries

Injuries are physical damage to the body and are a leading cause of both hospitalization and death in Davis County, Utah, and the U.S. ([MedlinePlus](#), 2014; [CDC WONDER](#), 2020; [IBIS](#), 2022). Injuries can occur when a place is unsafe or when people engage in unsafe behaviors. Injuries may be intentional or unintentional. Intentional injuries are usually related to violence caused by oneself or by another. Unintentional injuries are accidental in nature ([CHR&R](#), n.d.).

Unintentional injuries can lead to severe health outcomes, such as hospitalization, traumatic brain injuries (TBIs), and/or death. Many injuries can be prevented by choosing safe behaviors, using safety equipment, and obeying safety laws. Preventable injuries include: poisoning, falls, motor vehicle crashes, suffocation, pedestrian injury, and drowning ([IBIS](#), 2022). Preventing injuries and deaths from injury can reduce trauma for families and communities along with increasing social and economic well-being ([CHR&R](#), n.d.).

This section does not focus on intentional injury due to violence. For violence and abuse data along with trauma prevention, see the Violence and Abuse section of the Social and Economic Factors chapter.

Injury Deaths

From 2019 to 2021, there were a total of 610 injury deaths in Davis County. Of those injury deaths, 385 (63.1%) were determined to be unintentional, 208 (34.1%) intentional, and 17 (2.8%) from unknown or undetermined intent ([IBIS](#), 2019-2021). Leading causes of injury deaths are provided in Table 24, led by unintentional poisoning and falls.

Refer to the Substance Use and Addiction section of the Health Behaviors chapter for more information about poisoning from drug overdose deaths.

In Davis County, there were 55 deaths per 100,000 people due to intentional and unintentional injuries combined. This was lower than the Utah combined injury rate of 67 deaths per 100,000 people and the U.S. rate of 76 deaths per 100,000 people ([CHR&R](#), 2022).

The unintentional injury rate is higher than the intentional injury rate in Davis County. Unintentional injuries were the 4th leading cause of death for all ages in 2020. The unintentional injury death rate was 41.3 deaths per 100,000 people, which was significantly lower than the Utah rate of 48.7 per 100,000 people. The intentional injury death rate was 20.4 deaths per 100,000 in Davis County ([IBIS](#), 2019-2021).

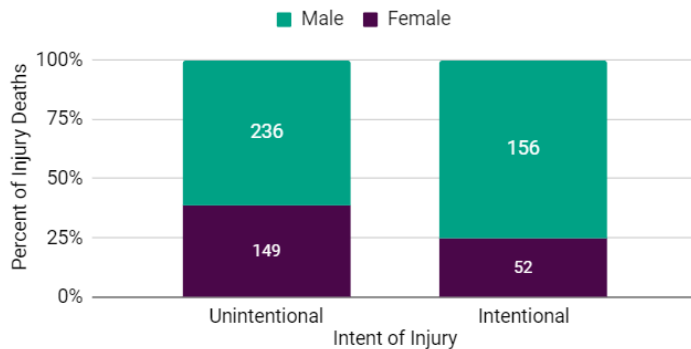
The Utah Poison Control Center (UPCC) is an important community resource given that unintentional injury deaths are the leading cause of injury death. In 2021, there were 4,286 calls to the Utah Poison Control Center from Davis County community members. In other words, for every 1,000 county residents the UPCC received 11.6 calls. Statewide, there were 12.3 calls per 1,000 people, which is almost double the national rate (UPCC, 2021).

Injury Deaths by Sex

Death from unintentional injury differs significantly by sex. In Davis County, the female rate of unintentional injury death is 31.3 deaths per 100,000 people, which is lower than the male rate of 51.6 deaths per 100,000 people.

Table 24: Leading Causes of Injury Death by Intent, Davis County, 2019-2021			
Rank	Intent of Injury	Cause of Injury	Death Rate per 100,000 People
1	Unintentional	Poisoning	12.6
2	Unintentional	Fall	11.0
3	Intentional	Firearm	9.5
4	Unintentional	Motor Vehicle Traffic Combined (occupant, motorcyclist, cyclist, pedestrian, other)	6.1
5	Intentional	Suffocation	5.2

Data: [IBIS](#), 2019-2021 (crude)

Figure 63: Proportion of Injury Deaths by Intent & Sex, Davis County, 2019-2021

Data: IBIS, 2019-2021

Females in Davis County also have a significantly lower rate of death from intentional injury (10.4 per 100,000 people) than males (30.3 per 100,000 people) ([IBIS](#), 2019-2021). The proportion of injury deaths by intent and sex can be seen in Figure 63.

The average age at time of death from unintentional injury is significantly younger for males (51.8 years) than females (61.7 years) in Davis County ([IBIS](#), 2019-2021). This trend between sexes is also seen at the State level.

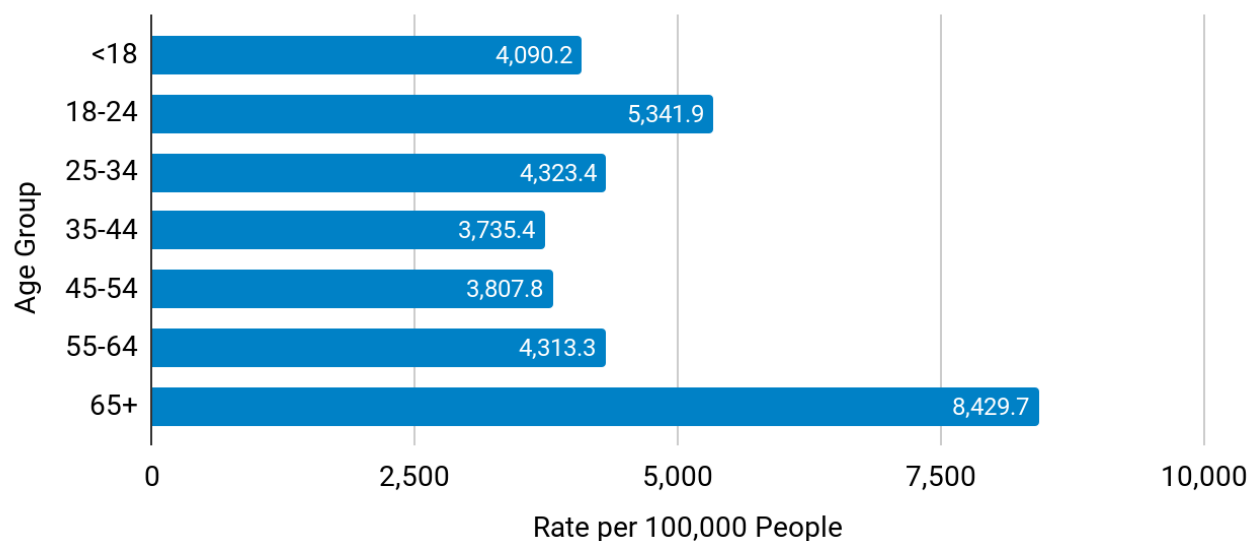
For more information about intentional injury deaths including firearms, suffocation, and poisonings, see the Suicide section of this chapter and the Overdose Deaths section of the Health Behaviors chapter.

Injury Emergency Department Visits

In Davis County, those ages 65 and older have the highest rate of emergency department (ED) visits due to injury (Figure 64). Falls are the leading cause of ED visits for all age groups ([IBIS](#), 2019-2021).

Traumatic Brain Injury (TBI)

In Utah, traumatic brain injury (TBI) is a leading cause of death and disability. The hospitalization rate for TBI in Utah is 7.21 per 10,000 people and lower in Davis County at 5.91 ([IBIS](#), 2016-2020). In 2020, rates of TBI hospitalizations in Utah were nearly double for males compared to females (9.03 to 4.95). Of sampled TBI cases in 2016 and 2017, more than half (52.8%) of TBI hospitalizations and deaths were the result of a fall. Motor vehicle traffic crashes (13.4%) were the second leading cause of TBI hospitalizations and deaths statewide. In Utah, over \$148 million were spent in TBI-related hospitalization charges in 2020 ([IBIS](#), 2022).

Figure 64: Emergency Department Visits for Unintentional Injury by Age Group, Davis County, 2019-2021

Data: IBIS, 2019-2021

Local Injury Prevention Resources		
Injury Prevention & Safety, DCHD	Information and resources to reduce the number of unintentional injuries and deaths in Davis County, including car seat checks, poison prevention, suicide prevention, and opioid safety	daviscountyutah.gov/health/about-dchd/divisions/community-health-services-division/injury-prevention-safety
Safe Kids Davis County Coalition	Dedicated to preventing childhood injuries and fatalities through raising community awareness, influencing policies, promoting safety, and establishing private and public partnerships	facebook.com/SafeKidsDavisCounty
Senior Services, DCHD	Aging and adult services to help older adults including fall prevention classes and home-based services	daviscountyutah.gov/health/aging-and-adult-services
State & National Injury Prevention Resources		
Adult Protective Services, UDHHS	Reporting service for abuse or neglect of an older adult	daas.utah.gov/adult-protective-services/
Child Protective Services, UDHHS	Reporting service for abuse or neglect of a child	dcfs.utah.gov/services/child-protective-services/
Healthy Aging Program	Evidence-based fall prevention classes and workshops	healthyaging.utah.gov
Highway Safety, Utah Department of Public Safety	Information about highway and vehicle safety	highwaysafety.utah.gov
Utah Occupational Safety and Health Division (UOSH)	Resources to ensure safety and health in the workplace	laborcommission.utah.gov/divisions/uosh/
Utah Poison Control Center	24/7 resource for poison information and educational resources	poisoncontrol.utah.edu
Violence and Injury Prevention, UDHHS	Information, resources, and strategies to prevent violence and injury	vipp.health.utah.gov

Brain Health

Brain health involves making the most of the brain's capacity and preventing risks that occur with aging. It refers to the ability to draw on the strengths of the brain to remember, learn, play, concentrate, and maintain a clear, active mind. Brain health is often referred to in relation to preventing dementia, including Alzheimer's disease and other age related cognitive decline. However, it also includes mental health and neurodevelopment ([Alzheimer's Association & CDC](#), 2018).

Brain health is key to overall health and well-being. The mind and body are affected by what goes into them. Keeping the body healthy helps the brain stay healthy, too. The nervous systems of the brain and gut are connected by neural pathways. For example, serotonin, a neurotransmitter, plays an important role in both digestion and mood. The same recommendations to promote physical health and reduce cardiovascular disease apply to promoting brain health and reducing cognitive impairment. Recommendations to improve mental, physical, and brain health can be seen in Figure 65 on the next page ([Mayo Clinic](#), 2022; [APA](#), 2012; [Ilardi](#), 2010).

Figure 65



Source: [Mayo Clinic](#), 2022; [APA](#), 2012; Ilardi, 2010

Brain Health Resources		
Crisis		
988	24/7 free and confidential support for people in distress, prevention and crisis resources	Call or text 988. Chat on 988lifeline.org
Davis County Receiving Center	24/7 crisis response site for individuals experiencing mental health, substance use or other behavioral crises	dbh.utah.gov/about/facilities/the-receiving-center/
Substance Abuse and Mental Health Services (SAMHSA) National Helpline	Free, confidential, 24/7 treatment referral and information service for individuals and families facing mental and/or substance use disorders	1-800-662-HELP (4357)
Prevention		
Davis Mindfulness Center, Davis Behavioral Health	Learn how to actively engage in and improve your ability to take better care of your own health and well-being	dbh.utah.gov/mindfulness
Prevention & Education Courses, Davis Behavioral Health	Prevention and education courses to help individuals and families	dbh.utah.gov/prevention
Support		
Davis County Behavioral Health Directories	Resources for all members of the community concerned about behavioral health, including the Behavioral Health Directory, Spanish Mental Health Directory, and LGBTQ+ Resource Directory	directories.davis4health.org
Make the Connection	Resources and support for veterans and their families	maketheconnection.net
Mental Health, Church of Jesus Christ of Latter-day Saints	Articles and resources for those living with mental health challenges	churchofjesuschrist.org/get-help/mental-health?lang=eng
Mental Health Screening, Mindwise Innovations	Online, free, anonymous self-assessment for emotional health	helpyourselfhelpothers.org
Mindweather 101	Online course exploring creative ways to work through mental and emotional distress	mindweather.org
NAMI Utah	Programs, advocacy, and support for Utah individuals and families impacted by mental illness	namiut.org
Parent Guidance	Education and therapeutic support for parents and their children	parentguidance.org
Psychology Today	Articles and provider locator	psychologytoday.com/us
Utah Maternal Mental Health Referral Network	Directory of professionals and support groups with training in perinatal mental health	maternalmentalhealth.utah.gov

Autism

Autism spectrum disorder (ASD) is a developmental disorder caused by differences in the brain that affect how people interact with others, communicate, learn, and behave ([CDC](#), 2022). It is important to note that those with ASD may excel in the following areas:

- Attention to detail
- Deep concentration
- Observant and thorough
- Strong long-term memory and recall
- Analytical yet creative
- Among other traits ([AAC](#), 2019)

Although ASD can be diagnosed at any age, it is described as a “developmental disorder” because symptoms generally appear in the first two years of life. To meet the diagnostic criteria for ASD, an individual must have persistent deficits in each of three areas of social communication and interaction plus at least two of four types of restricted, repetitive behaviors ([CDC](#), 2022).

Diagnosis is based on a doctor’s assessment of these elements plus age rather than a medical test ([CDC](#), 2022). Because assessments may vary between doctors, this can limit the accuracy of data.

Estimates of how common ASD is (prevalence) vary by data source due to different data collection methods, ages, and locations. For this reason, estimates from different data sources are not comparable. Nationally, recent estimates range from 13.6 to 23.0 ASD cases per 1,000 children while in Utah, rate estimates are slightly lower, ranging from 9.6 to 21.5 per 1,000 children ([CDC](#), 2018-2020).

National Trends

The CDC uses data from the National Survey of Children’s Health (NSCH), which relies on parent reports of diagnoses, to monitor prevalence and treatment trends among demographic groups in the age 3 to 17 population ([NSCH](#), 2020-21). Utah estimates from this source are too small to be reliable, but significant national ASD trends from 2020 to 2021 include:

- Prevalence of ASD is two times higher among households where English is the primary language (3.1%) compared to households where English is not the primary language (1.6%)
- As the number of adverse childhood experiences (ACEs) increases, the prevalence of ASD significantly increases
- Those with insurance have double the prevalence of ASD (3.0%) as those without insurance (1.3%)
- Those with both public and private insurance have the highest prevalence of ASD (7.9%) compared to only public (4.1%) and only private (2.1%)

The impact of access and quality of care on likelihood of diagnosis should be considered when exploring these trends further.

State Trends

The Autism and Developmental Disabilities Monitoring (ADDM) Network is one source that reviews health and special education records. It is a national program that collects data on the number and characteristics of children with ASD and other developmental disabilities at sites in 11 states, including the University of Utah ([CDC](#), 2022). In a three county area that included Davis County, ADDM estimated the following prevalences of ASD in 2018 ([CDC State Snapshot](#), 2021):

- 1 in 109 (0.9%) of the 4-year-old population, which is lower than average (1.7%) across all research sites nationally
- 1 in 46 (2.2%) of the 8-year-old population, which is similar to the average (2.3%) across all sites nationally
- Among the 8-year-old population, boys were identified with ASD at 3.6 times the rate of girls
- Among the 8-year-old population, half had been diagnosed by the age of 54 months (4.5 years)

Race & Ethnicity Trends

The Utah ADDM program also noted that, similar to national trends, racial and ethnic differences in diagnosis of ASD exist, but have been decreasing over time. In Utah’s three-county area, the 2018 rate of ASD per 1,000 children was 22.3 among non-Hispanic Whites, 17.8 among Hispanics, and 15.7

among Asian and Pacific Islanders. A 2018 rate was not available for non-Hispanic Black children ([CDC](#), 2018). When interpreting the differences in these rates, consider the small sizes of non-White populations in Utah, the impact of insurance coverage on likelihood of diagnosis, and difficulties in accessing diagnostic or educational services for those without an established disability.

Suicide Ideation

The Utah Registry of Autism and Developmental Disabilities (URADD) evaluated depression and suicidal ideation among Utahns with ASD by sex and presence of an intellectual disability. In 2017, they concluded that those with ASD were at higher risk of death by suicide than those without ASD. However, only half of cases with ASD and suicidal ideation also reported depression, meaning depression is not the only sign concerned loved ones should watch for. Among those with ASD, suicidal ideation was more common for females than males. The trend flipped when intellectual disability was also considered, meaning suicidal ideation was higher for males with both ASD and an intellectual disability than females with both diagnoses ([UDOH](#), 2022). Similar data is not available at the county level.

For resources and more data, see the Suicide section of this chapter.

Access to Care

Medication and behavioral treatments are offered for ASD. Nationally, 1 in 4 children ages 3 to 17 with ASD are taking medication for the condition. Over half (55.2%) of U.S. children with ASD are receiving behavioral treatment for ASD. These trends are mirrored in Utah, although state sample sizes are unreliable ([NSCH](#), 2020-21).

Families and schools who are responsible for caring for and educating children with ASD face challenges and frequently feel resources are not sufficient to meet their needs. In addition, individuals with ASD are often misunderstood and can have a difficult time navigating systems that were not designed for neurodiversity. Neurodiversity is the concept that differences in brain functioning within the human population are normal and that brain functioning that is not neurotypical should not be stigmatized

([Merriam-Webster](#), n.d.). The term neurodiversity is a growing movement to refer to the different ways our brains function, like with ASD, as a spectrum rather than normal versus abnormal.

During the 2022 Community Equity Assessment, a mother of a child with ASD spoke about her experience with finding services and resources to support her daughter's education:

"I struggle a lot with finding resources to help her. She's a higher functioning child, and so it's really hard to find because a lot of people don't see the need to find the assistance that we need for her... There is a lack of school resources, and I think there's a lack of school information too. There's not an understanding of the condition."

This mother moved her children to a charter school out of the county "because that is where they are accepted", she explained. This family has also had difficulty finding helpful therapies that are covered by insurance as well as informed healthcare providers who understand and practice patience with many of the behaviors associated with neurodiversity (DCHD, 2022).

Community Supports

In 2012, 2014, and 2017, the Utah State Legislature passed legislation to reduce the financial barriers to accessing ASD treatment. This improvement in the affordability of treatment may increase the number of children diagnosed with ASD over time ([CDC](#), 2022).

Several schools located in Davis County are specifically tailored to those with autism. They include:

- [Autism Solutions Academy](#)
- [Integrated Learning Strategies](#)
- [Spectrum Academy Elementary School](#)

Davis School District [Special Education](#) Department provides support for special needs students integrated throughout the district according to Individualized Education Programs (IEPs). The [Vista Education Campus](#) offers post high school classes, job training, and independent living programs for students with mild, moderate, and profound disabilities through age 22 ([DSD](#), n.d.).

Local & State Autism Resources		
Autism Council of Utah	<i>Collaboration, communication, and learning among families and agencies</i>	autismcouncilofutah.org
Autism System Development	<i>Seeks to advance, educate, and empower the lives of individuals affected by ASD in Utah by monitoring occurrence, reducing the age at first diagnosis, referring to services, facilitating research, and providing education and outreach</i>	health.utah.gov/cshcn/programs/autism.html
Child Development Program (CDP), University of Utah	<i>Provides developmental assessments, therapy, ongoing care, and case management for children with developmental needs or concerns</i>	healthcare.utah.edu/pediatrics/programs-services/udac/child-development
Davis School District Early Intervention	<i>Help for babies and toddlers who exhibit significant developmental delays</i>	davis.k12.ut.us/academics/early-childhood/early-childhood/early-interventionspecial-ed-preschool
Medicaid ASD Related Services	<i>Available to Medicaid members under 21 who qualify for the Child Health Evaluation and Care (CHEC) program, also offers resources to parents and providers</i>	medicaid.utah.gov/ltc-2/asd/
Utah Act Early	<i>Help parents learn about healthy development for their newborns and young children by offering a variety of tools and checklists on our Resources page</i>	idrpp.usu.edu/act-early-utah/index
Utah Parent Center	<i>Information, peer support, training, and advocacy for parents of children with disabilities</i>	utahparentcenter.org/about
Utah Stabilization & Mobile Response (SMR)	<i>For any child, parent, or caregiver with any problem at any time</i>	1-833-SAFE-FAM hs.utah.gov/smr
Utah State Office of Education	<i>Leadership and support for educators, parents, and students with disabilities receiving special education and related services throughout Utah public schools and communities</i>	schools.utah.gov/specialeducation
National Autism Resources		
Asperger/Autism Network (AANE)	<i>Provides individuals, families, and professionals with information, education, community, support, and advocacy</i>	aane.org
Autism Society of America	<i>Resources</i>	autismsociety.org
CDC Autism and Developmental Disabilities Monitoring Project	<i>Utah fact sheet</i>	cdc.gov/ncbddd/autism/states/addm-utah-fact-sheet.pdf

ADHD

Attention-Deficit/Hyperactivity Disorder (ADD or ADHD) is one of the most common brain development disorders affecting children (CDC, 2022). Symptoms of ADHD include inattention (not being able to keep focus), hyperactivity (excess movement that is not fitting to the setting), and impulsivity (hasty acts that occur in the moment without thought) (NIMH, 2022).

ADHD is typically diagnosed in childhood, where it may impact schooling, and carries into adulthood in 60% of cases (ADAA, 2023). Adults with ADHD can make for more curious, creative, imaginative, innovative, and inventive employees since they tend to think outside the box. Understanding the impact of symptoms on daily life, developing strategies to overcome them when appropriate, and identifying an individual's strengths along with treatment can minimize the effect of ADHD on a person's life (CHADD, 2022).

Childhood

The CDC uses a national survey that asks parents about their child's health to monitor the number of children with ADHD and the treatment patterns for these children. The data comes from the National Survey of Children's Health (NSCH) and relies on parent reports of ADHD diagnosis by a healthcare provider (NSCH, 2020-21). For 2020-2021, key Utah findings include:

- Utah (6.6%) is significantly lower than the U.S. (9.5%) for prevalence of ADD/ADHD among children ages 3 to 17
- Of Utah cases, 4.3% are rated as moderate or severe, similar to the U.S.
- Twice as many male (8.6%) as female (4.4%) children age 3-17 have ADD/ADHD in Utah, which reflects the national trend
- ADD/ADHD prevalence is 3 times higher among children with two or more adverse childhood experiences (ACEs) (15.4%) compared to those with none (4.3%), and twice as high as children with only one ACE (7.2%); this reflects national trends

County level data is not available for ADHD diagnoses and treatment.

Treatment

While there is no cure for ADHD, currently available treatments may reduce symptoms and improve

functioning. Treatments include medication, psychotherapy, education, training, or a combination of treatments (NIMH, 2022).

In Utah, about half of the children with ADD/ADHD are using medication for treatment, and just over one third receive behavioral treatment (NSCH, 2020-21).

The Utah Medicaid program has a policy that requires prior authorization for ADHD medications prescribed to children younger than age 18.

Adulthood

Despite there being data for childhood prevalence of the condition, data on ADHD in adulthood is lacking. The symptoms can cause difficulty with daily activities or with relationships. Symptoms may look different at older ages. For example, hyperactivity may appear as extreme restlessness (CDC, August 2022).

Community Supports

States can play an important role in treatment for children with ADHD. They can monitor how health resources are utilized, implement ADHD treatment policies, and shape access to behavioral health services. CDC promotes the use of effective treatments for children with ADHD, and a vital part of this effort is providing states with resources to guide decision-making.

Local & State ADHD Resources

Utah Act Early	<i>Help parents learn about healthy development for their newborns and young children by offering a variety of tools and checklists on our Resources page</i>	idrpp.usu.edu/act-early-utah/index
Utah Parent Center	<i>Information, peer support, training, and advocacy for parents of children with disabilities</i>	utahparentcenter.org/about
Utah Stabilization & Mobile Response (SMR)	<i>For any child, parent, or caregiver with any problem at any time</i>	1-833-SAFE-FAM hs.utah.gov/smr

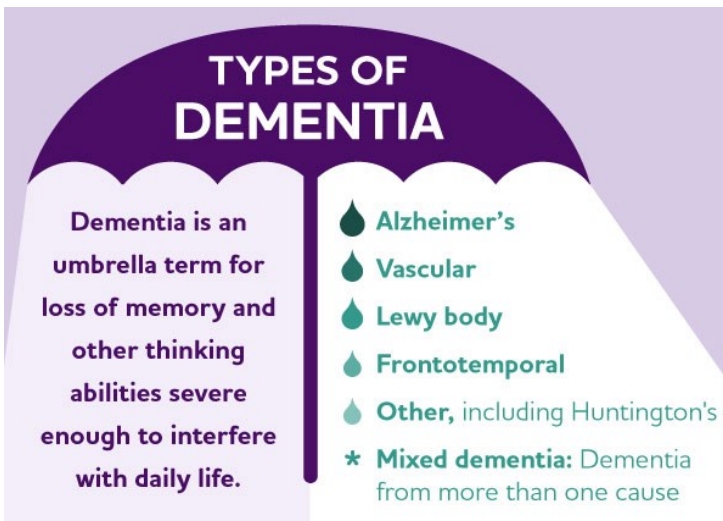
National ADHD Resources

ADDitude	<i>A trusted source of strategies and information about ADHD and related conditions</i>	additudemag.com
ADHD Healthy Habits Handbook, ADDitude	<i>Free handbook for adults with ADHD - a self-guided course with modules on developing routines and habits, improving time management, finding organization systems that work, staying physically and emotionally healthy, and more</i>	additudemag.com/download/healthy-habits-wellbeing-living-with-adhd/
CDC Attention-Deficit/Hyperactivity Disorder	<i>Information on ADHD symptoms, diagnosis, treatment, research, and recommendations</i>	cdc.gov/ncbddd/adhd/index.html
Children & Adults with ADHD (CHADD)	<i>Works to improve the lives of people affected by ADHD through education, support, and advocacy</i>	chadd.org

Dementia

Dementia is an umbrella term for a set of symptoms that include problems with memory, speaking, problem-solving, and handling complex tasks (Figure 66). Dementia is most commonly caused by Alzheimer's disease, but can also be caused by stroke, Parkinson's disease, or a combination of diseases. Persons with dementia often experience a loss of independence and/or a change in mood, behavior, and personality. Research suggests that addressing risk factors such as physical activity, smoking, education, social engagement, and diet may prevent or delay up to 40% of dementia cases ([Alzheimer's Association](#), 2022).

Figure 66



Source: [Alzheimer's Association](#), 2022

Data for the number of people living with all types of dementia are limited due to the majority of cases going undiagnosed. Among those who are diagnosed, over 1 in 3 report not being offered post-diagnosis support ([Alzheimer's Disease International](#), 2022). It is estimated that 11% of people age 65 and older in the U.S. have dementia. The total lifetime cost of caring for an individual with dementia in 2021 was \$377,621 with the majority of that cost shouldered by unpaid family members. In Utah, an estimated 119 million hours of unpaid care are provided to those living with dementia. The economic value of Utahns unpaid care is nearly two billion dollars ([Alzheimer's Association](#), 2022).

See Caregiving under the Family and Social Supports section of the Social and Economic Factors Chapter for more details.

Alzheimer's Disease

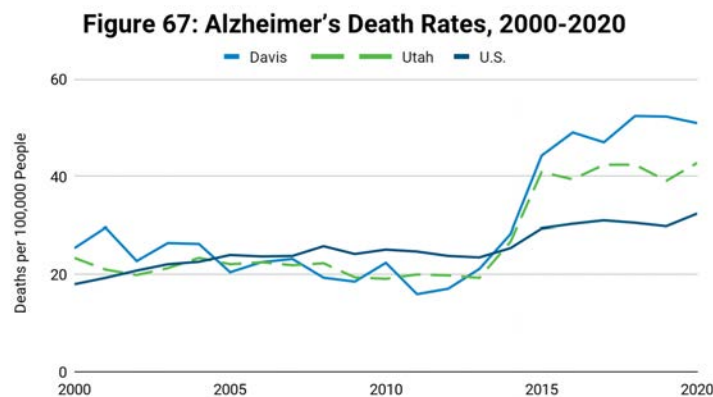
Alzheimer's disease, the most common form of dementia, is a brain disease caused by damage to the nerve cells that support memory, language, and thinking along with the build up of abnormal proteins in the brain. Symptoms include but are not limited to memory loss, confusion with time and place, difficulties with familiar tasks, decreased balance and coordination. These often appear after age 60, but the disease can begin 20 years or more before symptoms become noticeable ([CDC](#), 2020; [Alzheimer's Association](#), 2022). It continues to worsen over time until it damages the sections of the brain that control core bodily functions like breathing ([CDC](#), 2020). The main risk factors for Alzheimer's disease are advanced age, genetics, and family history.

The Alzheimer's Association estimates 6.5 million Americans aged 65 and older are living with Alzheimer's disease ([Alzheimer's Association](#), 2022). This estimate may be lower than the true number of Alzheimer's cases due to a formal diagnosis requiring a brain scan and underreporting on death certificates. The number of Americans with Alzheimer's is predicted to almost triple by 2060 due to the large aging population ([CDC](#), 2020). In 2020, an estimated 34 thousand older adults in Utah had Alzheimer's disease and a 23.5% increase in the number of Utahns with the disease is projected by 2025 ([Alzheimer's Association](#), 2022).

Death rates provide the only reliable picture of the disease at the local level, but do not indicate how many people are currently living with the disease. No system exists for tracking living cases in Utah. These cases cannot be inferred from hospitalization or emergency department data because those rates are small, likely due visits being coded as another cause, especially when formal diagnosis is lacking.

Over the last decade, Alzheimer's deaths have steadily increased in Davis County (Figure 67, next page). State trends have been more gradual than the county with a large jump in 2014 and 2015. It is unclear whether this jump is a true increase or due

to a change in data collection methods. National death rates have been slower to increase.



As shown in Table 25, Alzheimer's disease is the third leading cause of death for all Davis County residents. The average age of death for Davis County residents diagnosed with Alzheimer's disease is 85.4 years, similar to the Utah average. The Alzheimer's death rate in Davis County is 52.3 per 100,000 people, which is significantly higher than the Utah and the U.S. rates (IBIS, 2018-2021). Inpatient hospitalizations due to the disease are slightly higher in Davis County than Utah, but this difference is not significant and may be due to chance (IBIS, 2018-2020). With a median charge of \$29,562 per Alzheimer's-related hospital stay, Davis County is the fourth most expensive county in the state for hospital costs related to Alzheimer's disease. It is the first most expensive along the Wasatch Front (IBIS, 2018-2020).

Table 25: Alzheimer's Disease Burden, 2018-2020

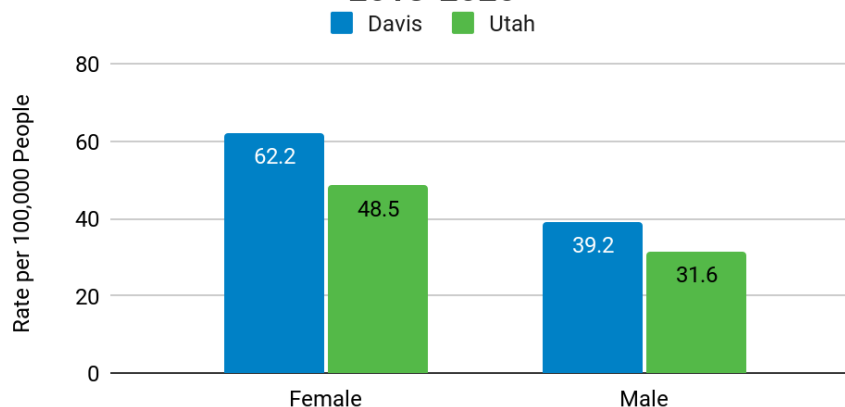
Alzheimer's Disease Indicators	Davis	Utah	U.S.
Rank as Leading Cause of Death	3	4	6
Hospitalization Rate per 100,000 People	7	6.7	-
Death Rate per 100,000 People	52.3	41.3	31.0
Median Inpatient Hospital Charge	\$29,562	\$27,168	-

Data: IBIS, 2018-2020; CDC WONDER, 2018-2020; IBIS, 2018-2020 (age-adjusted); IBIS, 2018-2020

When broken down by demographic group in Davis County, those age 75 and older, females, and non-Hispanic Whites have higher rates of death from Alzheimer's disease (CDC WONDER, 2018-2020; IBIS, 2018-2020). These demographic trends are also present at the state level.

As an example, Figure 68 shows the significant difference between sexes (IBIS, 2018-2020). Davis County females die at higher rates from Alzheimer's disease than Utah females and males. It is important to consider how a person being diagnosed and counted in these rates may be influenced by the age-related nature of the disease and their ability to or likelihood of accessing healthcare.

Figure 68: Rate of Alzheimer's Disease Deaths by Sex, 2018-2020



Data: IBIS, 2018-2020 (age-adjusted)

Six drugs have been approved by the U.S. Food and Drug Administration (FDA) that treat the symptoms of Alzheimer's disease but do not cure it or alter the course of the disease. Non-drug treatments are available to improve behaviors and quality of life for those living with Alzheimer's disease. [Alzheimer's Disease International](#) offers policy recommendations for improving diagnosis and care for these conditions.

Community Supports

[Dementia Friendly America](#) offers online toolkits to help organizers make their communities more inclusive for those living with all forms of dementia. In Davis County, community courses including Dementia Dialogues, and Dealing with Dementia are available through Senior Services to help Alzheimer's patients and their caregivers. Additional resources are available through the Utah Alzheimer's Association including support groups, information, and assistance.

Mental Health Conditions

Mental health includes emotional, psychological, and social well-being. It affects how people think, feel, and act. It also helps determine how a person handles stress, relates to others, and makes healthy choices. Mental health is important at every stage of life, from childhood and adolescence through adulthood ([CDC](#), 2022).

Many people experience changes in their mental health, but those changes become mental health conditions when signs and symptoms continue over time, causing frequent stress and impacting a person's ability to function. Mental health conditions, sometimes called mental illnesses, refer to disorders that affect a person's mood, thinking, and behavior ([Mayo Clinic](#), 2022).

There are over 200 forms of mental illness. The most common conditions include depression, anxiety, bipolar disorder, dementia, eating disorders, and schizophrenia ([MHA](#), n.d). According to the National Alliance on Mental Illness, mental health conditions are more common than data suggests due to underreporting related to fear, shame, and stigma ([NAMI](#), n.d).

Because mental health and physical health are closely connected, mental disorders like depression and anxiety can affect people's ability to engage in healthy behaviors. Similarly, physical health problems can make it harder for people to get treatment for mental disorders. Healthy People 2030 suggests that only half of all people with mental disorders get the treatment they need ([Healthy People 2030](#), n.d.).

About half of all Americans will be diagnosed with a mental disorder at some point in their lifetime. From 2019 to 2020, over 50 million U.S. adults reported experiencing a mental illness ([MHA](#), 2023). In a 2022 Mental Health America report, Utah ranked 43rd among the 50 states for combined youth and adult mental health measures due to having a higher prevalence of mental illness and lower rates of access to care ([MHA](#), 2022).

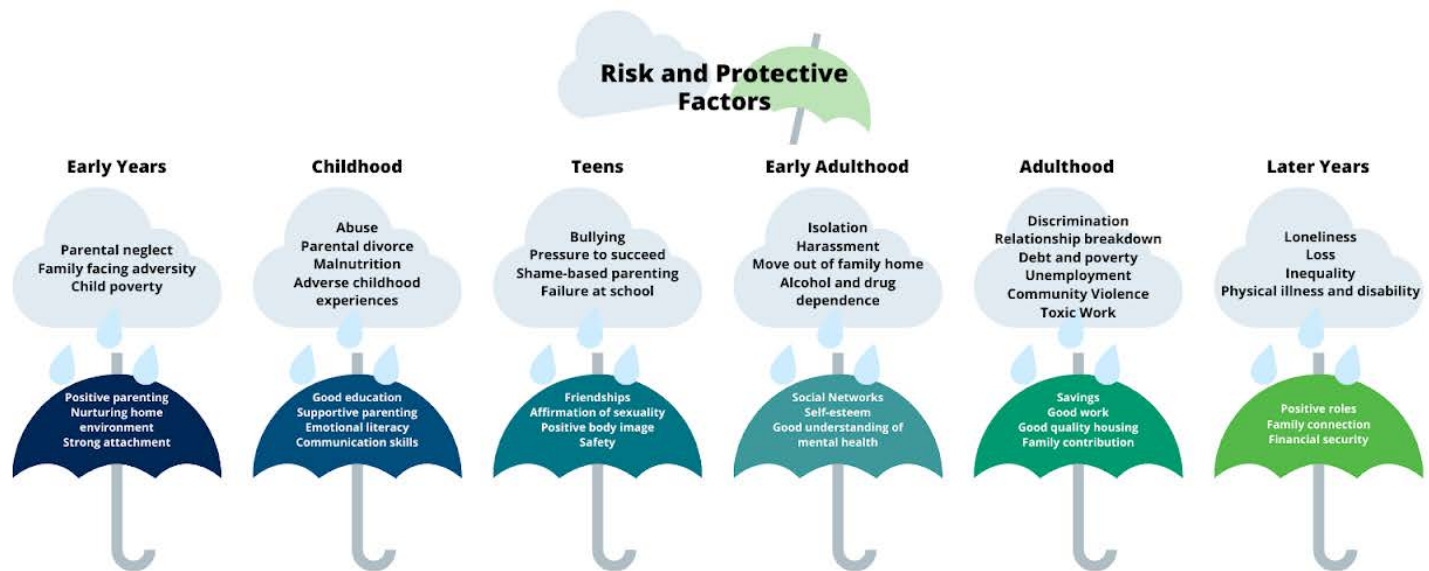
For more information, see the Access section of the Clinical Care chapter.

Factors Across the Lifespan

Mental health is influenced by social and environmental factors at every stage of life, as shown in Figure 69. Parental bonding and the home environment are highly impactful during infancy and early childhood. Factors such as neglect or abuse in childhood and unemployment, poverty, and physical health problems in adulthood can increase the likelihood of developing mental health conditions. Social and community connectedness later in life influences an individual's ability and opportunity to access mental health protections. These include things like positive relationships, quality employment, and healthy living conditions. The impact of childhood trauma and adversity suggests interventions that address root causes rather than focusing on symptoms are critical when addressing community mental health ([NCBI](#), 2021).

A person's mental health can change over time, depending on many factors. When the demands placed on a person exceed their resources and coping abilities, their mental health may be impacted. For example, working long hours, caring for a relative, or experiencing economic hardship may lead to poor mental health ([CDC](#), 2022).

Figure 69



Source: Adapted from [NCBI](#), 2021

Poor Mental Health Days

According to County Health Rankings and Roadmaps, Davis County adults reported poor mental health more frequently than poor physical health (Table 26). Poor mental health is measured by a Behavioral Risk Factor Surveillance System (BRFSS) question: "Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?" Adults in Davis County reported that their mental health was not good on an average of 4.0 days per month before the COVID-19 Pandemic, which was better than the Utah and U.S. averages ([CHR&R](#), 2022).

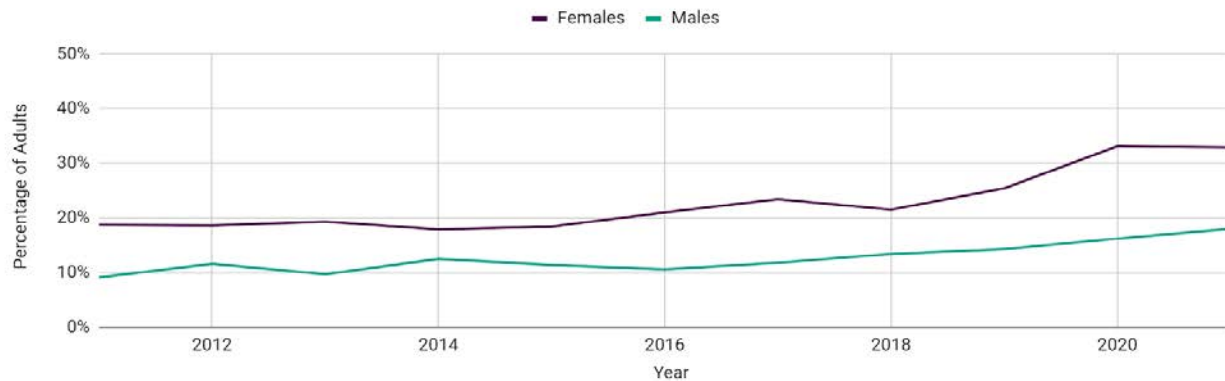
Table 26: Health Status Measures, 2022

Average Number of Poor Health Days per Month	Davis	Utah	U.S.
Poor Physical Health Days	3.4	3.8	3.9
Poor Mental Health Days	4.0	4.4	4.5

Data: [CHR&R](#), 2022 (age adjusted)

In Davis County, similar to Utah, some factors impacting the number of poor mental health days for adults include education, age, income, and sexual orientation:

- The percentage of college graduates reporting poor mental health days was significantly less than all other education categories.
- The number of poor mental health days decreased significantly as age increased. Ages 18-34 had the highest percentage of poor mental health days while those ages 65 and older had the lowest percentage.
- There is a higher prevalence of poor mental health days among people making less than \$50,000 annually compared to those making \$75,000 or more annually.
- Significant differences existed between sexual orientation groups. Adults identifying as heterosexual/straight reported the fewest poor mental health days.
- Sample sizes were too small to reliably compare mental health days among racial groups in Davis County. There were no significant differences by ethnicity ([IBIS](#), 2017-2021).

Figure 70: Percent of People Reporting 7+ Poor Mental Health Days per Month by Sex, Davis County, 2011-2021

Data: IBIS, 2011-2021 (age-adjusted)

Disparities in poor mental health status also exist by sex. Historically, females in Utah report a higher number of poor mental health days compared to females across the U.S. (KFE, 2021). This trend also exists in Davis County with females reporting a significantly higher prevalence of poor mental health than males (IBIS, 2017-2021). This gap has been widening since 2019 as shown in Figure 70.

Community Supports

Improving mental health and access to mental health services has been a community priority in the Davis4Health Community Health Improvement Plan (CHIP) since 2012. Community partners come together to coordinate prevention efforts and improve access to care through the Davis HELPS coalition and the Davis Behavioral Health Network. These coalitions have:

- Provided funding for mental health treatment to people who are uninsured or underinsured
- Coordinated youth mental health screening events
- Assessed and promoted evidence-based prevention programs
- Provided healthy relationship and mindfulness education to youth and adults across Davis County

Depression

Depression is a mood disorder that causes a nearly daily feeling of sadness and loss of interest for two weeks or longer. Major depression is defined as having severe symptoms that interfere with a person's ability to work, sleep, study, eat, and enjoy life. Symptoms of major depression may include fatigue or loss of energy, feelings of worthlessness

or guilt, impaired concentration, loss of interest in daily activities, appetite or weight changes, sleep changes, and recurring thoughts of death or suicide (Mayo Clinic, 2022). Risk factors for depression include:

- Personal or family history of depression or other mental health conditions
- Major life changes, trauma, or stress
- Abuse of alcohol or drugs
- Certain physical illnesses and medications

However, even the most severe cases of depression have varying treatment options. The earlier treatment begins, the more effective it can be (SAMHSA, n.d.).

Depression impacts all ages. In Davis County, youth depression indicators are lower than Utah and U.S. values (Table 27). In adults, history of diagnosed depression is higher in Davis County than in Utah and the U.S. while the prevalence of frequent mental distress is similar across all locations.

Table 27: Depression Among the Population by Age, 2021

Depression Indicators	Davis	Utah	U.S.
Students Who Felt Sad or Hopeless for 2+ Weeks	31.3%	35.1%	36.7%
Students with High Depressive Symptoms	9.9%	10.6%	11.5%
Adults Ever Diagnosed with Depression	25.9%	23.4%	20.1%
Adults Reporting Frequent Mental Distress	13%	14%	14%

Data: UDOH, 2021; YRBS, 2019 (grades 9-12); SHARP, 2021 (grades 6, 8, 10, & 12); MHA, 2023; IBIS, 2021; IBIS, 2021 (age-adjusted); CHR&R, 2022 (age-adjusted)

Over the last decade, the prevalence of adult depression has slowly increased in Davis County, Utah, and the U.S. (Figure 71). Davis County trends remain slightly higher than Utah trends and significantly higher than national trends. Since 2019, over 1 in 4 Davis County adults have been diagnosed with a depressive disorder.

Demographic Differences

A disparity exists between sexes at the local, state, and national level. In Davis County, over twice as many females (35.0%) as males (15.4%) have been diagnosed with depression (Figure 72). In Davis County, the difference between males and females is significant for all age groups except age 70 and older. The prevalence of diagnosed depression among Davis County females is higher than among Utah females for all age groups (IBIS, 2019-2021).

According to the Behavioral Risk Factor Surveillance System (BRFSS), the prevalence of diagnosed depression in Davis County adults is also significantly different among these demographic groups:

- People with incomes of \$50,000 or more reported less depression (22.1%) than those with incomes under \$50,000 (34.5%)
 - Members of The Church of Jesus Christ of Latter-day Saints (LDS) reported less depression (1 in 5 people) than members of non-LDS faiths (1 in 3 people)
 - Homeowners reported less depression (23.3%) than renters (34.6%)
 - Those who were employed had lower prevalence of depression (21.9%) than all other employment categories, including students (57.9%), unable to work (53.8%), retired (47.2%), unemployed (38.0%), and homemakers (31.3%)
 - Those who identify as lesbian, gay, or bisexual had a higher prevalence of depression (34.4%) compared to those who were heterosexual/straight (24.1%)
 - Having a college education was associated with having lower prevalence of depression (20%) compared to having only a high school education or less (26.3%)
- No significant differences existed in depression diagnosis by ethnicity, veteran status, or Utah Small Area. Estimates by race were too small to be reliable (IBIS, 2017-2021). When interpreting these results, consider the influence of access to care on likelihood of diagnosis.

Figure 71: Adults Ever Diagnosed with Depression, 2012-2021

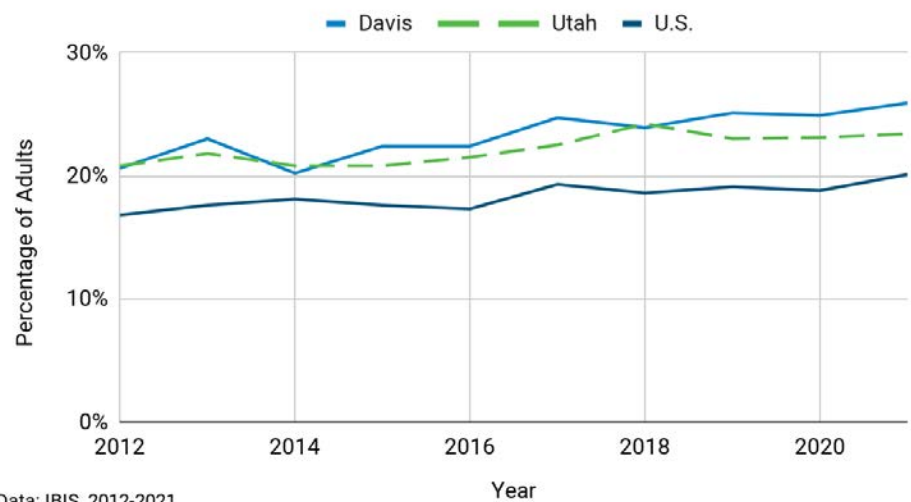
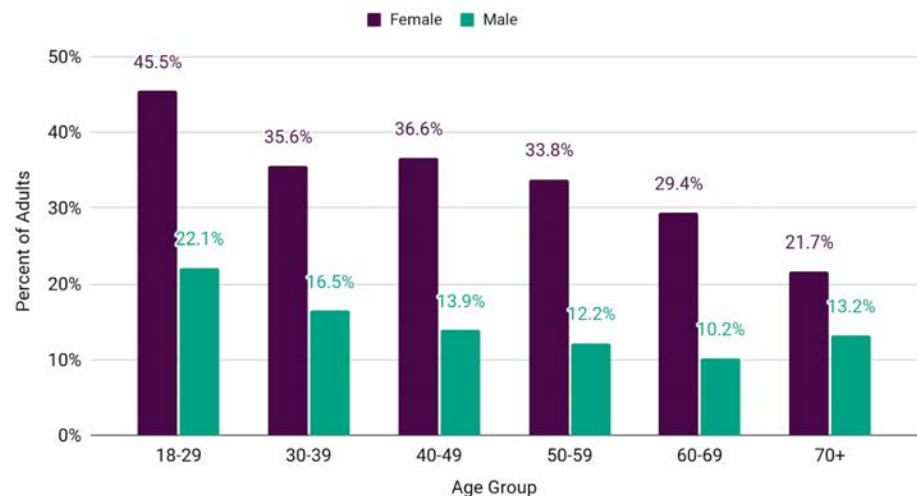


Figure 72: Adults with Diagnosed Depression by Age and Sex, Davis County, 2019-2021



Youth Depression

Data from the Student Health and Risk Prevention (SHARP) survey provides insight on mental health trends among Davis County youth in grades 6, 8, 10, and 12. It measures depression with these indicators: felt sad or hopeless for two or more weeks in the past year, and severity of depression symptoms (none, moderate, high).

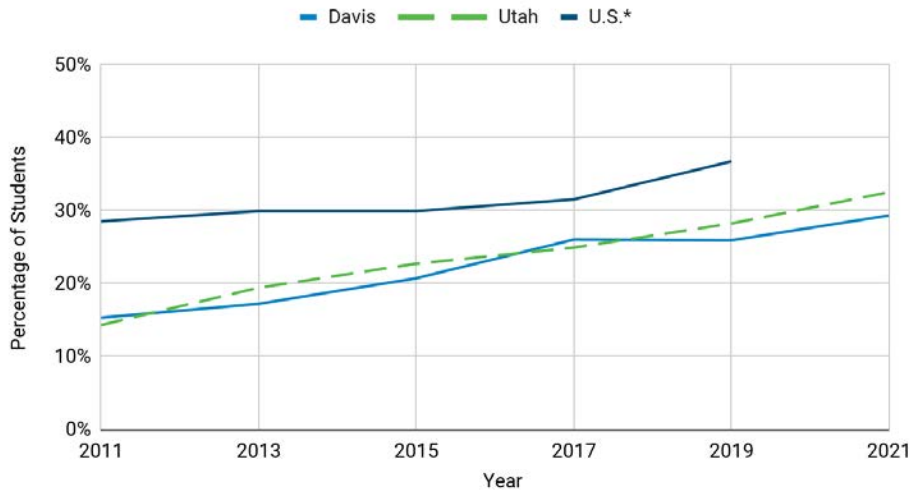
Nationally, reports of persistent feelings of sadness and hopelessness in adolescents (grades 8, 10, and 12) have increased by 40% over the last decade (CDC, 2021). Utah and Davis County data reflect this 10-year trend with rates nearly doubling for all grades (SHARP, 2011-2021). This suggests youth depression is trending in the wrong direction (Figure 73).

In 2021, 29.3% of all Davis County students reported experiencing depression in the past year, which is lower than in Utah (32.5%). As shown in Figure 74, depression is more common among tenth and twelfth graders than sixth or eighth graders in Davis County (SHARP, 2021).

The adult trend of more females reporting depression than males is also mirrored in Davis County students (SHARP, 2021). In 2021, 36.6% of female students reported persistent feelings of sadness or hopelessness compared to 21.0% of male students. This disparity is true across all grades (Figure 75).

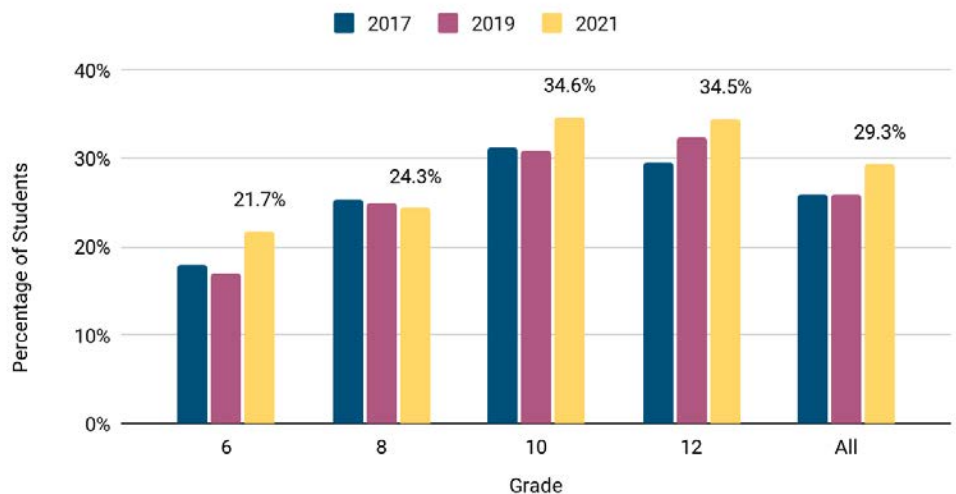
Regarding severity of depression among Davis students, 1 in 10 reported symptoms that were classified as high, nearly 2 in 3 as moderate, and over 1 in 4 reported no symptoms (SHARP, 2021).

Figure 73: Student Depression (Felt Sad/Hopeless for 2+ Weeks), 2011-2021



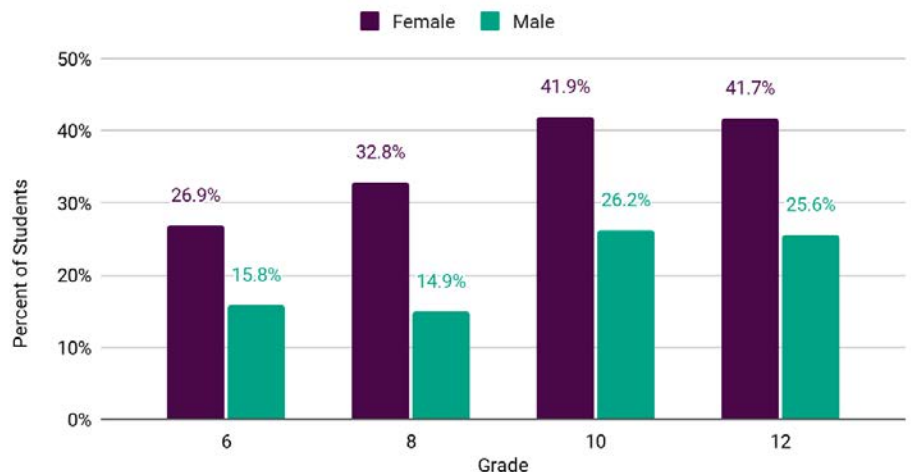
Data: SHARP, 2011-2021 (grades 6, 8, 10, & 12); YRBS, 2011-2019 (* grades 9-12)

Figure 74: Student Depression by Grade, Davis County, 2017-2021



Data: SHARP, 2021 (felt sad/hopeless for 2+ weeks)

Figure 75: Student Depression by Grade and Sex, Davis County, 2021



Data: SHARP Webtool, 2021

The SHARP Survey also estimates mental health treatment needs based on the K6 Scale. Scoring 0 to 6 points qualifies as low treatment need, 7 to 12 points as moderate need, and 13 or more as high need. Based on their responses about psychological distress, half of Davis County students scored as having low mental health treatment needs, 27.3% had moderate needs, and 22.1% had high needs ([SHARP](#), 2021). In 2021, high treatment needs among Davis County students were lower than the State (24.6%). However, Davis County is not meeting the Healthy People 2030 target for the percentage of adolescents aged 12 to 17 with major depressive episodes (MDEs) who received treatment in the past 12 months, indicating this is an area for improvement ([DCHD](#), 2022).

For more about treatment, see the Access section of the Clinical Care chapter.

Postpartum Depression

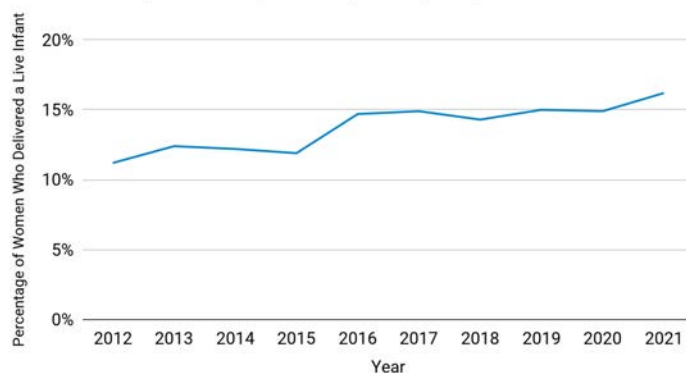
Postpartum depression is severe, long-lasting feelings of anxiety, hopelessness, and other depressive symptoms during and up to a year after giving birth. These feelings are more intense and persistent than the “baby blues”. These symptoms eventually interfere with daily tasks and one’s ability to care for their newborn, but prompt treatment can help manage symptoms and promote bonding between mother and infant ([Mayo Clinic](#), 2022). It is important to note that postpartum depression is not a character flaw or a weakness. It is the most common complication of childbirth ([IBIS](#), 2023).

According to the Pregnancy Risk Assessment Monitoring System (PRAMS), more than 1 in 3 Utah residents who delivered a live infant from 2017 to 2019 reported depression, anxiety, or both before pregnancy, while pregnant, or shortly after giving birth. Depression and anxiety during pregnancy and in the year after can be associated with preterm birth, low birth weight, and shorter breastfeeding duration. Maternal mental health challenges often go unidentified and underdiagnosed; therefore, prevalence is believed to be underestimated ([PRAMS](#), 2021).

As shown in Figure 76, postpartum depression symptoms in Utah have increased from 11.2% of women in 2012 to 16.2% in 2021 ([IBIS](#), 2012-2021). Utah is higher than the most recent national data

available, which indicates the U.S. prevalence of postpartum depression symptoms is 13.4% ([PRAMS](#), 2020). No county-level data is available for this indicator.

Figure 76: Postpartum Depression, Utah, 2012-2021



Data: IBIS, 2012-2021

When examined by age, Utah women 17 years old and under reported the highest rate of postpartum depression. This rate is reduced by half for those aged 25 to 29 and even lower for women aged 30 to 34. The rate increases at ages 35 to 39, but lowers again at the 40 and older age group. Women who are married also have lower rates of postpartum depression.

When comparing prenatal care insurance coverage, women with Medicaid as the payer had the highest rates of postpartum depression compared to those using other insurance payers for prenatal care. Women who experienced physical abuse during pregnancy also had higher rates of postpartum depression compared to those who did not ([IBIS](#), 2012-2020).

For more data on abuse, see the Violence and Abuse section of the Social and Economic Factors chapter.

Community Supports

Help is available for those with postpartum depression. Many providers screen for depression and provide treatment or help to manage symptoms. The [Utah Maternal Mental Health Network](#) is a directory identifying local professionals and support groups focused on perinatal mental health (perinatal means during pregnancy through postpartum). Recent state and federal legislation efforts have also brought postpartum mental health

issues to the forefront for improvement. During the 2023 Utah Legislative session Medicaid coverage for postpartum women was extended from 60 days to 12 months post-delivery ([KFE](#), 2023).

Anxiety & Depression

Mental disorders like depression and anxiety can affect people's ability to take part in healthy behaviors along with interfering with daily activities like job performance, schoolwork, and relationships. It is not uncommon for someone with depression to also have an anxiety disorder. Nearly half of those diagnosed with depression are also diagnosed with an anxiety disorder, according to the Anxiety and Depression Association of America ([ADAA](#), 2023). Occasional anxiety is a normal part of life, but anxiety disorders involve worry or fear that do not go away and may worsen over time ([NIMH](#), 2022).

In the U.S., an estimated 19.1% of adults are affected by anxiety disorders each year ([ADAA](#), 2023). From 2020 to 2021, the National Survey of Children's Health estimated that 12.0% of Utah children ages 3 to 17 had anxiety problems compared to 9.2% of U.S. children ([AHR](#), 2022). Anxiety is rarely measured separately from other mental health conditions at the state or county level, so local prevalence data beyond what is provided here is not available. Anxiety indicators should be considered in future data collection discussions given that anxiety disorders are the most common mental illness at the national level ([ADAA](#), 2023).

Suicide

Suicide and suicide behaviors are serious public health issues both locally and nationally. The scope of the issue extends beyond individuals to families, workplaces, places of worship, entire communities, and in every place throughout the State ([USPC](#), 2022). Suicidal behavior is a complex issue that takes an enormous toll on communities with both economic and human costs.

Fortunately, suicide is preventable. Guidance is available on how individuals and communities can address suicide. While current behavioral health infrastructure still falls short of the need and demand, more resources are available now than in the past. Local and state leaders, public health partners, and community members are more committed and have more tools than ever before to

focus on primary prevention, intervention, and postvention response. Many efforts are in place to bring hope and healing to the community ([USPC](#), 2022; Utah Medical Examiner, 2023).

Suicide Rates by Geography

On average, 655 Utahns die by suicide each year with 67 (10.2%) occurring in Davis County ([IBIS](#), 2017-2021). Suicide is the 9th leading cause of death in Davis County, Utah, and the U.S. ([CDC WONDER](#), 2020). Utah also had the 9th highest suicide rate among all 50 states. Utah traditionally has higher rates than most other states, but similar rates to neighboring Rocky Mountain states ([AHR](#), 2022).

From 2019 to 2021, the average rate of death by suicide per 100,000 people was 18.7 in Davis County and 20.6 in Utah. The U.S. rate was 13.9 deaths per 100,000 people from 2018 to 2020, the most recent data available ([IBIS](#), 2023). Davis County is not meeting the Healthy People 2030 target for suicides (12.8), indicating this is an area for improvement ([DCHD](#), 2022).

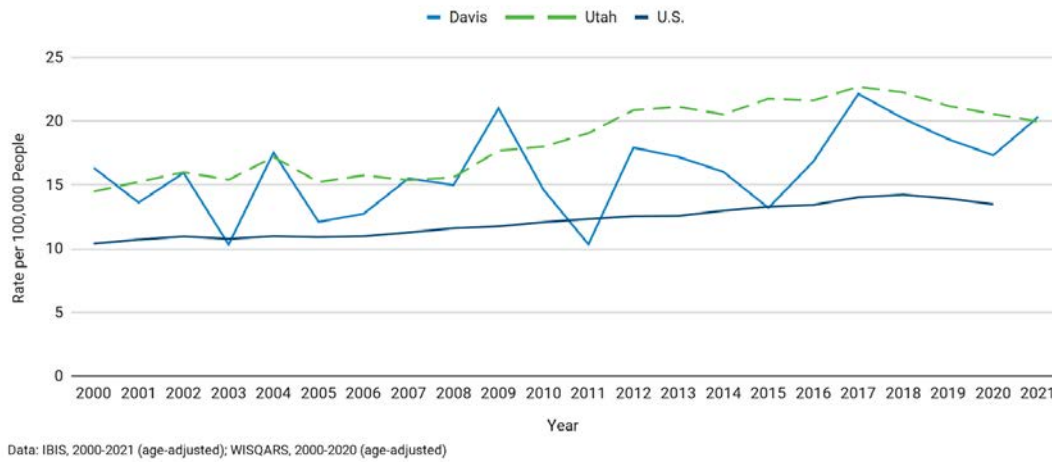
It is important to note that the Davis County suicide rate in Figure 77 (next page) appears to be much more inconsistent than the Utah and U.S. rates. This is common for data at the local level due to small counts. County suicide rates are typically reported as an average over several years as a reliable way to observe and report trends.

Suicide rates are available for nine Utah Small Areas (city or combined cities) within Davis County. This is the smallest geographical level of local data that is publicly available. In Davis County, rates range from 10 to 30 deaths per 100,000 people using five year averages. The data available represents small numbers and is unreliable for determining whether geographic disparities exist so the rates are not included in this summary ([IBIS](#), 2023).

Suicide Rates by Age & Sex

Suicide impacts all age groups in Davis County. Adults ages 18 to 65 had the highest rates of suicide, compared to those who are younger than 18 and older than 65. Utah data shows suicide rates increasing in the 75 and older age group, but Davis County data do not yet show this trend ([IBIS](#), 2017-2021).

Figure 77: Rate of Suicide Deaths, 2000-2021



By count, there are far fewer suicide deaths occurring in young people than adults. However, suicide is the leading cause of death for youth ages 10 to 17 in Utah and in Davis County, with 6.3 deaths per 100,000 people (IBIS, 2017-2021).

Among all ages combined, Davis County males had a significantly higher suicide rate (27.6 per 100,000 people) compared to females (9.4 per 100,000 people). This disparity between sexes also exists at the state level (IBIS, 2017-2021).

When rates for age and sex were examined together, working-age men had the highest rates of suicide in Davis County (Figure 78). All suicide prevention efforts should include engagement with that population.

Utah Health Indicator Suicide Reports for the years 2017 to 2020 summarize data for the following four age groups:

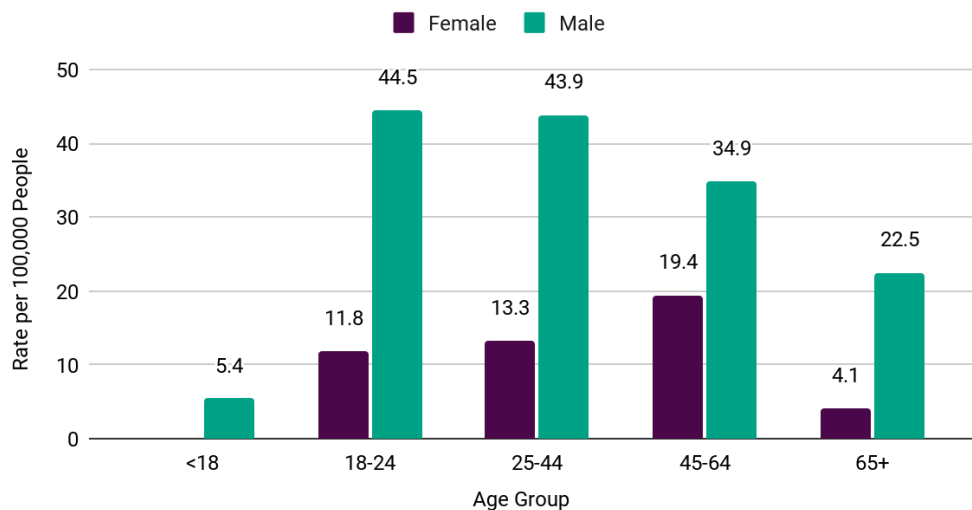
- Youth, aged 10 to 17
- Young adults, aged 18 to 24
- Adults, aged 25 to 64
- Older Adults, aged 65 and older

The reports are available at can be found at health.utah.gov/suicide-prevention-data.

Suicide Rates by Race/Ethnicity

When examined by ethnicity, suicide rates were significantly different between groups in Davis County, but similar to Utah trends (IBIS, 2017-2021).

Figure 78: Suicide Death Rates by Age & Sex, Davis County, 2017-2021

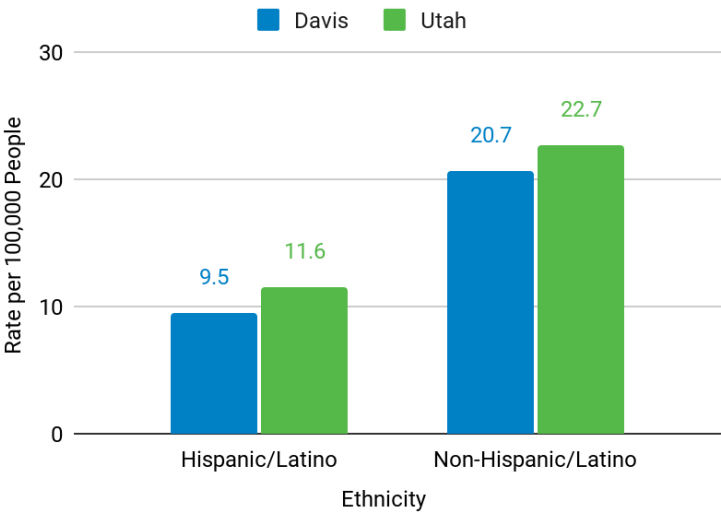


Those identifying as Non-Hispanic/Latino died by suicide at twice the rate of those identifying as Hispanic Latino (Figure 79). This is a disparity in health outcomes between ethnicity groups.

When examined by race, there were 312 deaths by suicide among the White population in Davis County between 2017 and 2021 compared to 19 deaths

among all other racial groups combined (IBIS, 2017-2021). These counts and population sizes are too small to generate reliable rate estimates for the county, but state estimates are available. As shown in Figure 80, Utahns who identified as Asian had the lowest rate of suicide (10.6 per 100,000 people) while those identifying as American Indian/Alaska Native had the highest rate (21.2 per 100,000).

Figure 79: Suicide Death Rate by Ethnicity, 2017-2021



Data: IBIS, 2017-2021 (age-adjusted)

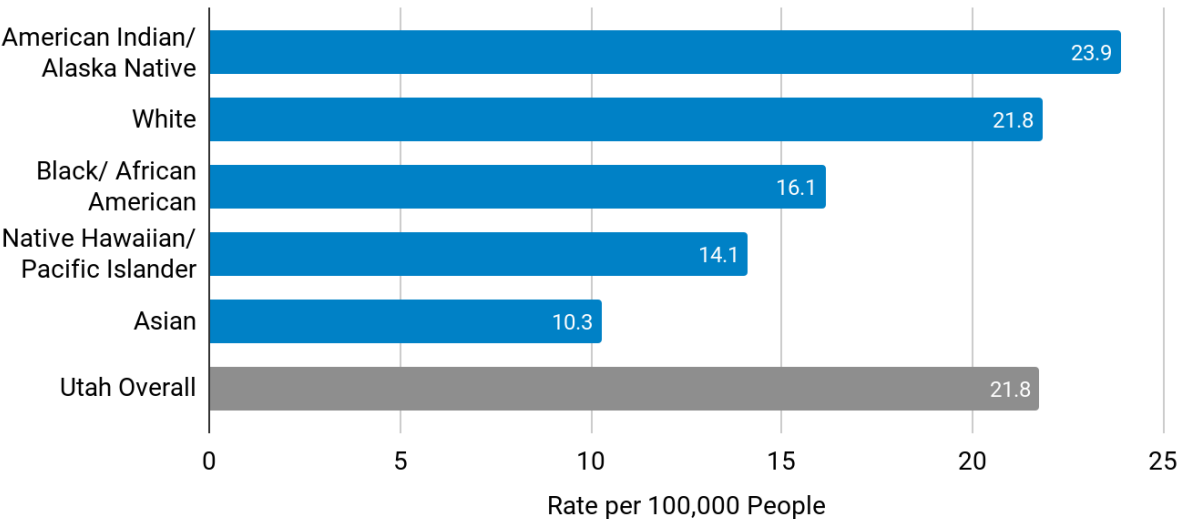
When considering differences between racial and ethnic groups, the influence of community and structural factors should be noted, such as access to and quality of care, stigma, and cultural norms around mental health.

Method of Injury

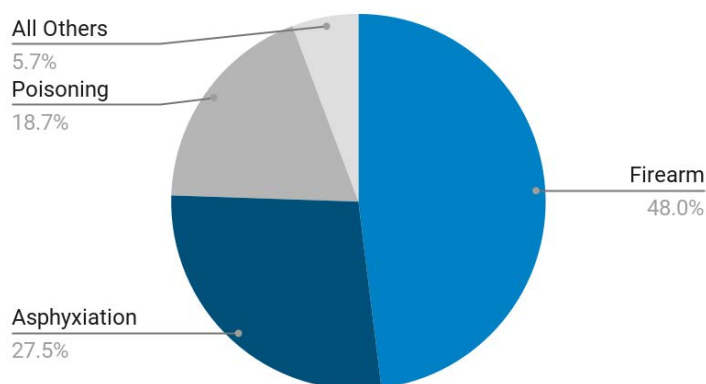
Firearms are the most common method of suicide deaths for all age groups. In Utah, 84% of all firearm deaths are suicides (UDOH, 2020). This trend is also reflected in Davis County. In Davis County, use of a firearm was involved in 48% of suicide deaths followed by asphyxiation (27.5%) and poisoning (18.7%), as shown in Figure 81, next page (IBIS, 2017-2021).

Homicide by gunshot is far less likely than suicide by gunshot (Figure 82, next page). Suicide by gunshot is more likely in Davis County and Utah than in the U.S.

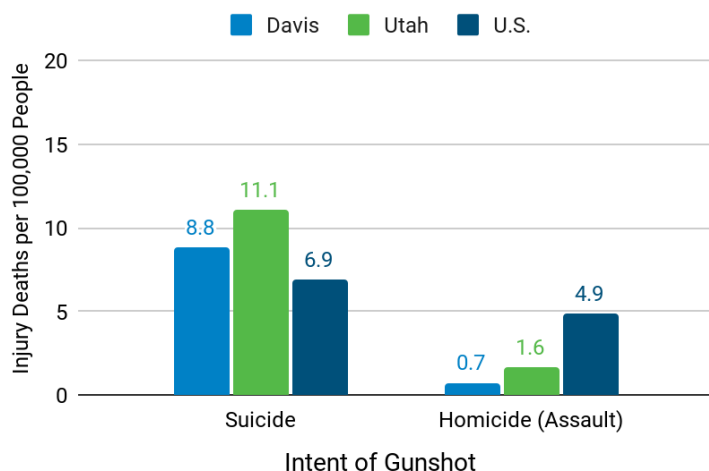
Figure 80: Suicide Death Rate by Race, Utah, 2017-2021



Data: IBIS, 2017-2021 (age-adjusted)

Figure 81: Suicide Deaths by Method, Davis County, 2017-2021

Data: IBIS, 2017-2021

Figure 82: Fatal Gunshot Rates by Intent, 2016-2020

Data: IBIS, 2000-2021; WIQARS, 2000-2020

Circumstances Present at Time of Death

The most common circumstances present at the time of death for those who died by suicide in Davis County include a crisis within two weeks and a history of mental or substance use problems (IBIS, 2015-2019). According to the National Violent Death Reporting System (NVDRS), a crisis is considered a current or acute event that occurred within 2 weeks of the death that is interpreted by the victim as a crisis (NVDRS, 2022). For example, a crisis could be divorce, loss of employment or finances, bullying, relationship problems, argument, or change in health status.

Table 28: Circumstances Surrounding Suicide Deaths, Davis County, 2015-2019

Circumstance	Percent
Crisis within the past 2 weeks	71.2%
Current diagnosed mental health disorder	59.4%
Ever treated for mental health/substance use	59.1%
Current mental health/substance use treatment	51.6%
Left a suicide note	41.6%
Current depressed mood	35.6%
Disclosed intent to die by suicide	34.2%
History of suicide attempts	30.6%
Alcohol use disorder	20.6%
Physical health condition	19.9%
Other substance use disorder	18.5%
Job problem	14.6%
Criminal justice involvement	12.8%
Civil legal problem	9.6%
Financial problem	8.2%
Non-suicide death of family or friend	7.8%
Eviction or loss of home	6.8%
School problem	3.9%*
Perpetrator of violence in the past month	3.6%*
Suicide of family or friend	3.6%*
History of abuse or neglect as a child	1.8%*
Other relationship problem	1.4%*
Anniversary of a traumatic event	1.4%*

Data: IBIS, 2015-2019

*Caution interpreting unreliable sample size

Table 28 shows types of circumstances collected by the NVDRS and the percentage of suicide deaths where each circumstance was present. Multiple circumstances could be associated with a death so the percentages will not total to 100.

Hospitalization & Emergency Department Visits

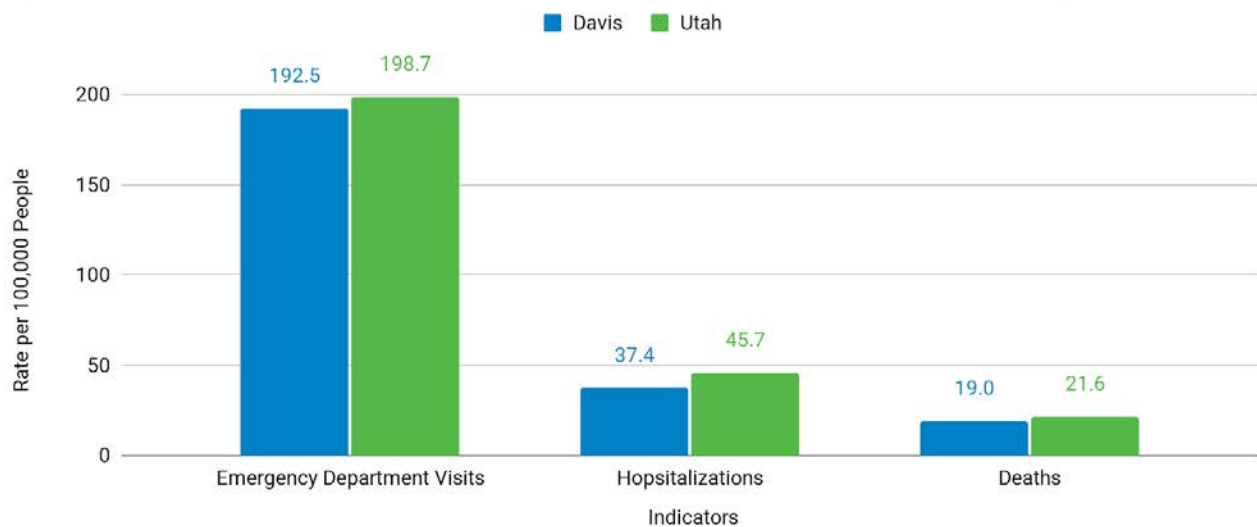
All suicide attempts should be taken seriously. Suicide attempt survivors may be seriously injured and are at an increased risk for suicide. Fortunately, people can and do recover from suicidal thoughts, feelings, and behaviors.

More Davis County residents are treated in an emergency department (ED) or hospitalized for

suicide attempts than die by suicide. Davis County hospitalization is significantly lower than the Utah rate (Figure 83) ([IBIS](#), 2016-2020).

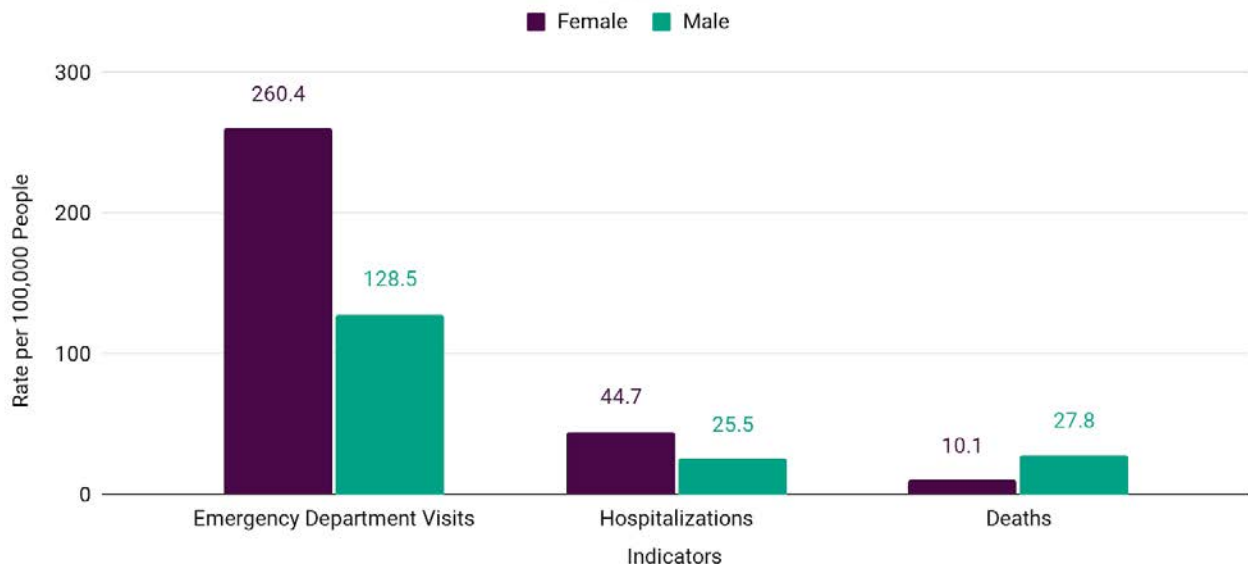
Davis County females have a higher rate of ED visits and hospitalizations compared to males (Figure 84). This is also true at the state level ([IBIS](#), 2016-2020).

Figure 83: Rates of Suicide Death, Hospitalizations, & Emergency Department Visits, All Ages, 2016–2020



Data: IBIS, 2016-2020 (age-adjusted)

Figure 84: Rate of Suicide ED Visits, Hospitalizations, & Deaths by Sex, Davis County, 2016–2020



Data: IBIS, 2016-2020 (age-adjusted)

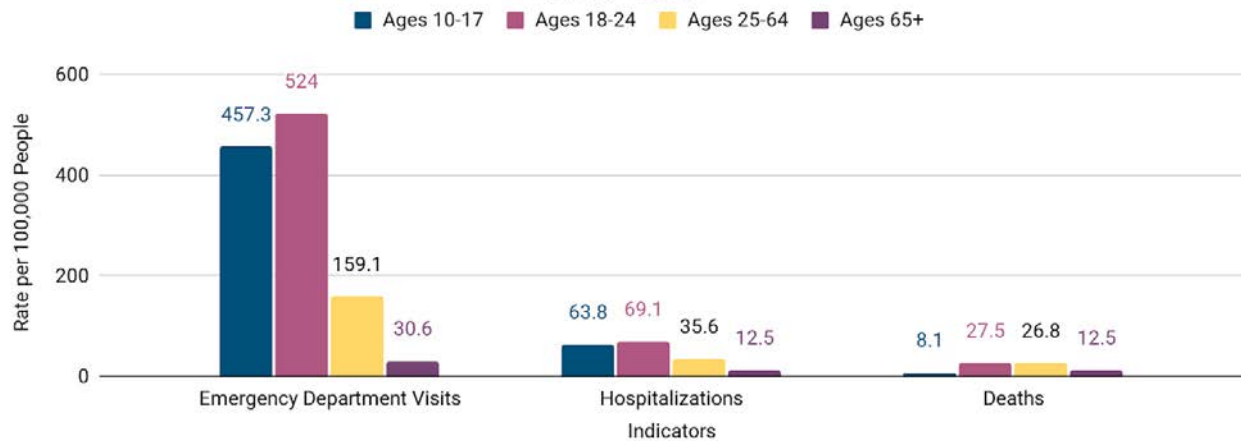
As shown in Figure 85, young adults that are ages 18 to 24, have the highest rate of ED visits for suicide in Davis County followed by those aged 10 to 17 (IBIS, 2016-2020). This is also seen in state level data.

When ED visits are examined by both age and sex, Davis County females have a significantly higher ED visit rate for suicide compared to males, especially among the adolescent and young adult age groups (Figure 86). Utah data also reflects this.

Exploring ED and hospitalization data in this way shows that:

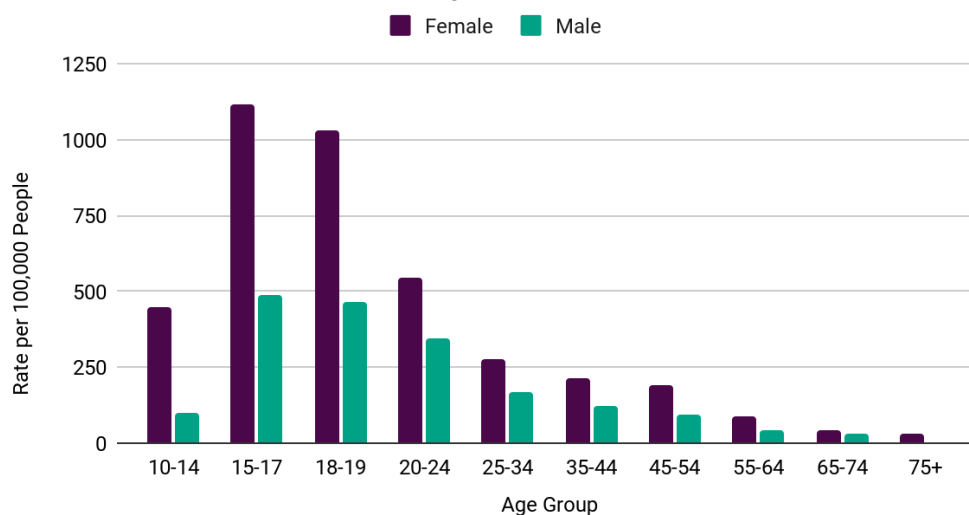
- Females attempt suicide more often than males, but die less frequently, mostly due to the method used
- Youth are taken to the ED far more often because they are monitored
- Adults are less likely to get help
- Suicide ideation and attempts persist at levels much higher than what is captured by ED visit data (Utah Office of the Medical Examiner, 2023)

Figure 85: Rate of Suicide ED Visits, Hospitalizations, & Deaths by Age Group, Davis County, 2016–2020



Data: IBIS, 2016-2020 (crude)

Figure 86: Suicide Emergency Department Visit Rates by Age and Sex, Davis County, 2017-2021



Data: IBIS, 2017-2021 (crude)

LGBTQ+

National data shows adults and youth who identify as LGBTQ+ experience elevated risk for suicide ideation and attempt. For example, lesbian, gay, and bisexual (LGB) adults are two times more likely to attempt suicide than their heterosexual counterparts ([SPRC, 2020](#)).

State and Davis County data for students in grades 8, 10, and 12 show that LGB students report more suicidal thoughts and attempts than heterosexual students (Figure 87) ([SHARP, 2021](#)). Similar data for adults who identify as LGBTQ+ are not available at the local level. Emergency department visit rates are the closest adult indicator available.

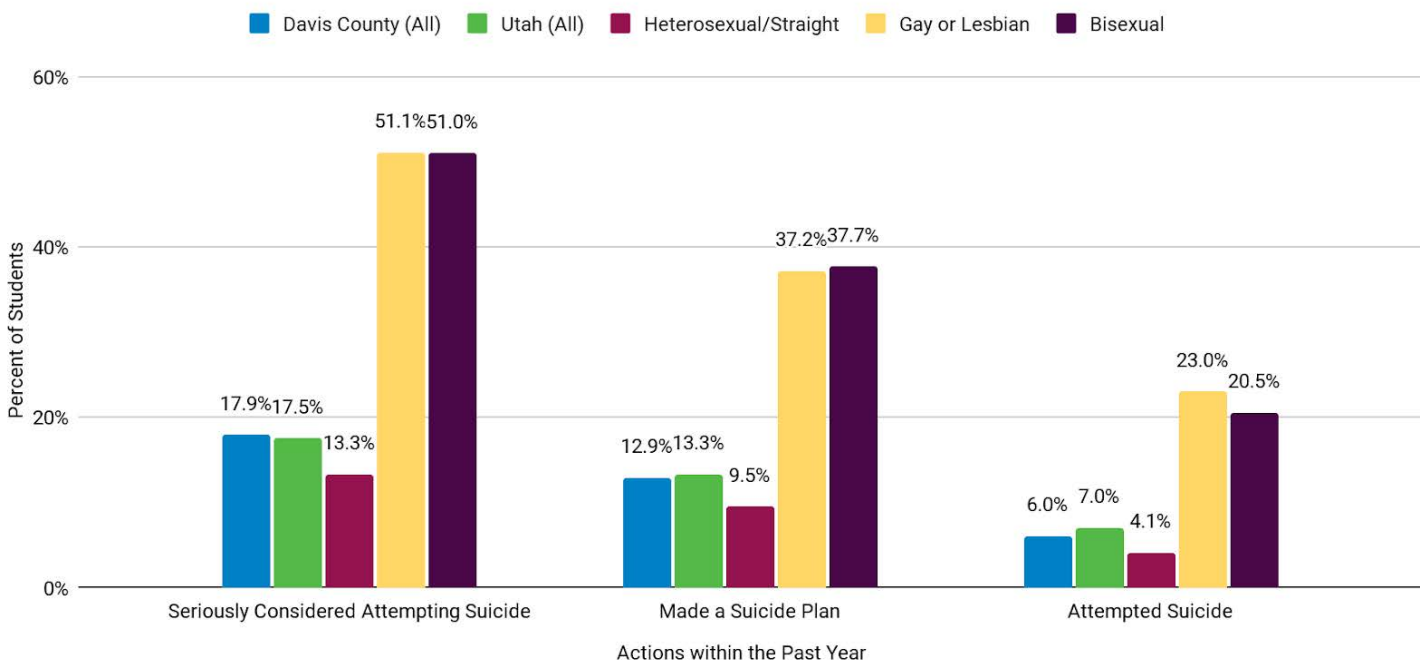
Inclusion is key to reducing suicide risk among LGBTQ+ people ([Family Acceptance Project, 2023](#)). During Davis County's 2022 focus groups, participants emphasized that a sense of belonging and acceptance is critical for everyone, especially youth. A parent who lost his gay son to suicide explained:

"I try to educate people about my own experience to recognize losing a child to suicide isn't what somebody wants to do. And I believe that [my wife] and I rapidly ascended to a conversation of inclusion... I certainly characterize myself as a committed ally, but even that wasn't enough. The reality is our church community, our educational community, and our neighborhoods are not affirming. We've got to figure out a way to do that" (DCHD, 2022).

In a national survey, LGBTQ youth who receive social support from their friends and family are less likely to report suicide attempts ([The Trevor Project, 2022](#)).

The Utah Suicide Prevention Coalition LGBTQ+ Work Group is dedicated to long-term suicide prevention efforts in the Lesbian, Gay, Bisexual, Transgender and Queer/Questioning people. More information can be found in the Utah LGBTQ+ Suicide Prevention Plan, 2021- 2026 found at this link: liveonutah.org/lgbtq-2.

Figure 87: Student Suicide Indicators by Sexual Orientation, Davis County, 2021



Data: SHARP, 2021 (grades 8, 10, & 12)

Protective & Risk Factors for Suicide

For an overview of youth risk and protective factors for other conditions, see the Family and Social Support section of the Social and Economic Factors chapter. Protective factors for adults are also discussed in the Culture of Health chapter.

Protective Factors

Protective factors are conditions or attributes in an individual, family, or community that increase health and well-being. The more protective factors someone has in their life, the more likely they are to be able to cope with adverse experiences.

Examples of protective factors for suicide include:

- Positive connections to family, peers, community, and institutions that foster resilience
- Skills in problem solving, conflict resolution, and nonviolent handling of disputes
- Having access to and receiving effective, timely mental health care or substance use treatment
- Limiting access to lethal means, such as firearms and medication, among people who are experiencing increased risk for suicide
- Cultural and religious beliefs that discourage suicide and support self-preservation

Risk Factors

Risk factors are conditions or attributes in an individual, family, or community that can increase risk for negative health and well-being, including suicide attempts, if not addressed or treated. The fewer risk factors someone has in their life, the less likely they are to have harmful health problems or outcomes, or engage in suicidal behavior.

Examples of risk factors for suicide include:

- Family history of suicide
- Child maltreatment, abuse, neglect, and exclusion
- An unwillingness to seek help
- Previous suicide attempt
- Mental illness, especially if left untreated or inadequately treated
- Alcohol or other drug use, especially increased alcohol or drug use
- Physical illness and chronic pain
- Hopelessness, drastic mood changes, irritability, or aggressiveness
- Isolation from social interaction
- Barriers to accessing mental health treatment
- Loss of important relationships, work, or financial support
- Easy access to lethal methods ([UDHHS, 2022](#); [USPC, 2022](#))

Student Risk Factors

In 2021, 16.5% of Davis County youth in grades 6, 8, 10, and 12 reported they seriously considered suicide, 12% reported they made a suicide plan, and 5.9% reported they attempted suicide one or more times. Figure 88 shows trends in these youth suicide indicators over the last decade ([SHARP](#), 2021).

In 2021, 17% of Davis County youth in grades 6, 8, 10, and 12 reported self harm in the last year. Students are considered to have engaged in self-harm if they reported doing “something to purposefully hurt yourself without wanting to die, such as cutting or burning yourself on purpose one or more times during the past 12 months.” One trend to note is that the rate of self harm is rising among 6th graders in Davis County (Figure 89) ([SHARP](#), 2021).

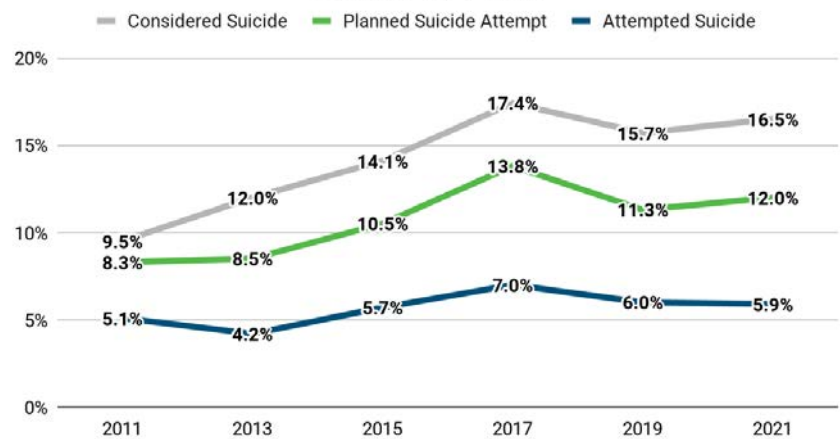
Additionally, therapists have noticed self harm becoming more common as they have met with students during community mental health screening events in recent years. They have reported the behavior is less hidden than in the past and is often influenced by peer groups (DCHD, 2022).

Community Supports

Suicide prevention has been a Davis County community health improvement priority since 2014. Multiple agencies address suicide prevention through coordinated efforts. Preventing suicide is a current focus of the Davis HELPS Coalition which meets monthly. County suicide prevention coordinators work to align and support the work that is happening throughout Davis County.

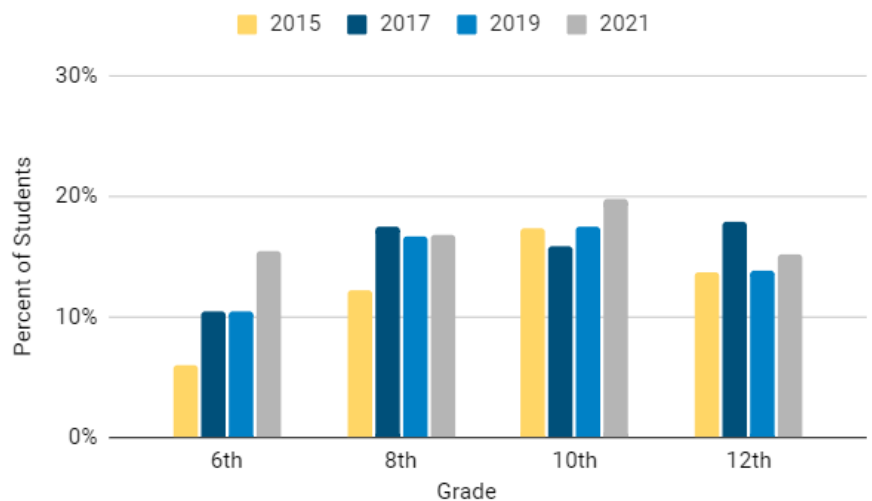
The statewide Live On campaign is one effort to prevent suicide by promoting education, providing resources, and changing the culture around suicide and mental health. With a mantra of hope that together we can get through, reach out, lift up, look ahead, and Live On ([Live On Utah](#), 2022).

Figure 88: Suicide-Related Indicators Among Students, Davis County, 2011-2021



Data: SHARP, 2011-2021 (grades 6, 8, 10, & 12)

Figure 89: Intentional Self-Harm (Non-Suicidal) by Grade, Davis County, 2015-2021



Data: SHARP, 2021

Some suicides are highly publicized events through the news media and social media. It is important for all community members to learn the principles of safe messaging for suicide prevention so that communication following a suicide promotes safety and healing.

Local Suicide Prevention Resources

988	<i>Provides 24/7, free and confidential support for people in distress, prevention and crisis resources for you or your loved ones, and best practices for professionals in the United States</i>	Call or text 988 988lifeline.org
24-Hour Crisis Response, Davis Behavioral Health	<i>Crisis Response</i>	801-773-7060 dbhutah.org
Community Suicide Prevention Training, DCHD	<i>Davis County Health Department Suicide Prevention Coordinators can assist in setting up a community suicide prevention training such as QPR, Safe Messaging, Mental Health First Aid, Youth Mental Health First Aid, Vital Cog, etc.</i>	801-525-5070 daviscountyutah.gov/health/health-services/health-education-services/suicide-prevention
Davis School District Family and Student Resources	<i>Site leads to multiple resources addressing mental health and suicide prevention</i>	davis.k12.ut.us/departments/student-family-resources
Receiving Center, Davis Behavioral Health	<i>Functions as a 24-hour crisis response site and offers brief crisis stabilization for individuals experiencing mental health, substance use or other behavioral crises</i>	dbhutah.org/about/facilities/the-receiving-center/

State & National Suicide Prevention Resources

AFSP - Utah Chapter	<i>Suicide survivor support groups</i>	afsp.org
Continue Mission, No Veteran Left Behind	<i>Serves Veterans and referred Service Members and families with physical, mental, and emotional injuries; Provide recreational and educational events that support and empower our participants, offer opportunities for healing and camaraderie, and result in improved mental health</i>	801-560-9889 continuemission.org
Framework for Successful Messaging, National Action Alliance for Suicide Prevention	<i>A research-based resource that outlines four critical issues to consider when messaging to the public about suicide</i>	suicidepreventionmessaging.org/safety
NUHOPE	<i>A coalition working to increase suicide awareness and prevention. Participates in community events and teaches school or community prevention curriculum</i>	nuhopeutah.org
Safe UT	<i>Provides real-time crisis intervention to youth through texting and a confidential tip program right from a smartphone</i>	833-372-3388 (833-3SAFEUT) safeut.org
Suicide Prevention and Ministering, The Church of Jesus Christ of Latter-Day Saints	<i>Resources for faith leaders to help others understand and heal from the pain of suicide</i>	churchofjesuschrist.org/get-help/suicide
Suicide Prevention Playbook, Live On Utah	<i>Suicide prevention course taught short lessons through Instagram</i>	liveonutah.org/playbook
Utah Suicide Prevention Coalition, Live On Utah	<i>Provides multiple resources for suicide prevention and postvention, including safe messaging</i>	liveonutah.org
Trevor Project	<i>Free 24-hour service is geared toward LGBT teens in crisis</i>	Call 1-866-488-7386 or text 'START' to 678-678 or chat on thetrevorproject.org
Veterans Crisis Line	<i>24/7, confidential crisis support for Veterans and their loved ones. Do not have to be enrolled in VA benefits or health care to connect.</i>	Call 988 then press 1 veteranscrisisline.net

Post Traumatic Stress Disorder (PTSD)

Post traumatic stress disorder (PTSD) is a mental health condition that can develop after someone experiences or sees a life-threatening event. It is normal to have stress reactions to these types of events, and most people start to feel better after a few weeks or months. However, if symptoms last longer than four weeks, cause great distress, or interfere with work or home life, it may be PTSD. There are four types of PTSD symptoms:

1. Reliving the event
2. Avoiding reminders of the event
3. Having more negative thoughts and feelings than before the event
4. Feeling on edge or irritable

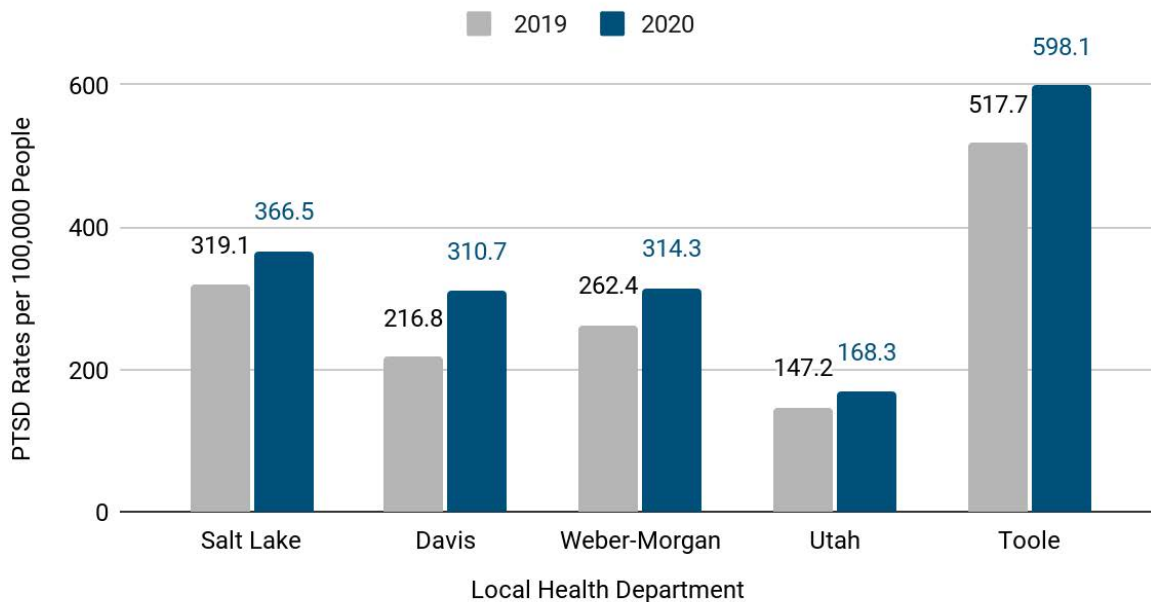
These symptoms are experienced differently by each person and may come and go over many years after a traumatic event ([National Center for PTSD, 2023](#)).

Although PTSD is generally associated with experiences of exposure to combat, other factors can increase risk or result in PTSD. These factors include but are not limited to childhood sexual abuse, community violence, and intimate partner violence. Additionally, lack of social support, extra stress, and feeling helpless after a traumatic event can increase risk of PTSD ([Letamendi & Scott, 2021](#)).

PTSD is often accompanied by depression, substance abuse, or one or more of the other anxiety disorders ([NIMH, 2022](#)).

Figure 90 compares PTSD diagnosis rates for local health districts along the Wasatch Front. Most local health district rates across Utah increased from 2019 to 2020. The Davis County rate of PTSD was 216.8 cases per 100,000 people in 2019 and 310.7 cases per 100,000 people in 2020. This represents a 43.3% increase, the largest increase among all local health districts in Utah ([Letamendi & Scott, 2021](#)).

Figure 90: PTSD Rates by Local Health District, 2019-2020



Data: Letamendi & Scott, 2021

With regard to PTSD by sex, females in Utah had higher numbers of PTSD diagnoses compared to males, as shown in Figure 91 ([Letamendi & Scott, 2021](#)). This reflects trends seen for other mental health conditions like depression where females have higher rates.

Figure 91: PTSD Rates by Sex, Utah, 2019-2020



Data: Letamendi & Scott, 2021

Utah rates of PTSD also varied by age group, race, and ethnicity. In 2020, the top three age groups with the highest rates of PTSD were ages 18 to 24 (538.6 per 100,000 people), ages 35 to 44 (493.7 per 100,000 people) and ages 25 to 34 (469.3 per 100,000 people). Among racial groups, those who identified as Another Race had the highest rates of PTSD (910.9 per 100,000 people) followed by those who were Black/African American (736.3 per 100,000 people). The rate of PTSD among those who identified as Hispanic/Latino 195.7 cases per 100,000 people compared to 320.5 cases per 100,000 people among non-Hispanic/Latinos ([Letamendi & Scott, 2021](#)). Similar demographic breakdowns were unavailable for county level data.

According to the National Alliance on Mental Illness (NAMI), several treatment options are available for those living with PTSD. These include psychotherapy, medications, and self-management strategies. Self-management strategies could include seeking out support from loved ones, joining a support group, and being able to act and respond effectively despite feeling fear.

Eating Disorders

Eating disorders are defined by the American Psychiatric Association as “a behavioral condition characterized by severe and persistent disturbance in eating behaviors and associated distressing thoughts and emotions.” The most important thing to note is that eating disorders are classified as a mental health condition and are treatable ([University of Utah, 2021](#)).

The impact of eating disorders affects those of all ages (as young as 5 years-old), their families, and society. All races, genders, and sexual orientations are affected, with females being two times more likely to have an eating disorder ([Harvard, 2020](#)).

A 2020 report from the Strategic Training Initiative for the Prevention of Eating Disorders (STRIPED) at Harvard University provides estimates of the direct cost of treatment for eating disorders and broader costs to society.

An estimated 9% of the U.S. population will have an eating disorder in their lifetime. In Utah, this is approximately 278,266 people, which has a great impact on social and economic costs:

- Cost of ER visits related to eating disorders (per year): \$283,098
- Loss by employers related to eating disorders (per year): \$157,491,260
- Total economic cost of eating disorders (per year): \$625,134,021

Over 10,000 individuals in the U.S. die as a direct result of eating disorders annually. In Utah, this number is much lower at approximately 98 people per year. In 2018 in Utah, an estimated 271 people visited the emergency department due to adverse events associated with dietary supplements ([Harvard, 2020](#)).

Eating disorder treatment and prevention has often been overlooked by public health and preventive medicine. Opportunities exist for advancing prevention, early detection, and evidence-based treatment for those impacted. In 2015, eating disorder questions were removed from the Youth Risk Behavior Surveillance System (YRBS). Some advocates are working to add questions measuring

unhealthy weight control practices back into the CDC's national student health survey ([Harvard, 2021](#)). Local student health surveys do not currently ask questions about eating disorders.

There are many national organizations dedicated to helping those affected by eating disorders. Utah is fortunate to have a few local treatment options which are listed below.

Community Supports

Eating disorders are a topic of interest to the residents of Davis County. Community advocates have reached out and provided encouragement to identify local data and resources to support individuals and families affected by the issue.

Local & State Eating Disorder Treatment Resources

Avalon Hills	<i>Offers in-depth assessments to treat root causes of eating disorders, committed to sustainable success for all clients</i>	avalonhills.org
Center for Change	<i>Specialized treatment center offering different programs for and therapies for all disorders, as well as facilities for those who are unable to overcome an eating disorder alone</i>	centerforchange.com
Tanner Clinic Eating Disorder Clinic	<i>Dietitians and eating disorder therapists that provide various treatment options to address concerns and needs</i>	tannerclinic.com/specialty/behavioral-health/eating-disorders

National Eating Disorder Treatment Resources

Eating Disorders Coalition	<i>Advances the recognition of eating disorders as a public health priority throughout the U.S.</i>	eatingdisorderscoalition.org
F.E.A.S.T.	<i>Global support and education community of and for parents of those with eating disorders</i>	feast-ed.org
National Association for Anorexia and Related Disorders	<i>Provides free peer support to anyone struggling with an eating disorder</i>	Eating disorders helpline: 1-888-375-7767 anad.org
National Center of Excellence for Eating Disorders	<i>Educates and trains healthcare providers to promote public awareness of eating disorders and eating disorder treatment</i>	nceedus.org
National Eating Disorders Association (NEDA)	<i>Supports individuals and families affected by eating disorders with a helpline and a screening tool</i>	Helpline (call or text): 800-931-2237 nationaleatingdisorders.org
Project HEAL	<i>Provides support for people who are experiencing prohibitive barriers in accessing eating disorder treatment</i>	theprojectheal.org
STRIPED	<i>A transdisciplinary training initiative that generates professionals with the depth and range of expertise and skills needed to take on the challenge of eating disorders prevention</i>	hsph.harvard.edu/striped/
The Alliance for Eating Disorders Awareness	<i>Provides a helpline, treatment locator, support groups, and education for those affected by eating disorders</i>	Helpline: 866-662-1235 allianceforeatingdisorders.com

Reproductive & Birth Outcomes

Conditions related to pregnancy and childbirth are the leading causes of hospital visits in Davis County and Utah (IBIS, 2020). However, reproductive and birth outcomes go beyond that to measures of maternal health and infant health at birth, as well as associated behaviors and ongoing conditions. These include measures related to the age of the mother, length of a pregnancy, how many babies are born annually, and the health of the baby at birth (CDC, 2020). Most birth outcomes include a safe pregnancy and delivery of a full-term, healthy baby. In the U.S., more than 3 million healthy babies are born annually. At times, genetic, social, environmental, and behavioral factors can negatively affect birth outcomes (CDC, 2020).

For information on preventing poor reproductive and birth outcomes, refer to the Preventative Care section of the Clinical Care chapter.

Birth Rates

The overall birth rate in Utah is the highest in the Nation, at over 14.0 live births per 1,000 people (Table 29). Davis County has a slightly lower overall birth rate compared to Utah at 13.5 live births per 1,000 people (IBIS, 2021). The general fertility rate (GFR) is a more precise measure of tracking birth rate patterns among populations than the overall birth rate because GFR is calculated using only females of reproductive age 15 to 44. Utah ranks

5th in the Nation for GFR (CDC, 2020) at 64.1 live births per 1,000 females of reproductive age. As with the birth rate, Davis County is slightly lower than the State at 62.9 live births per 1,000 females of reproductive age (Table 29).

Table 29: Birth Outcome Measures

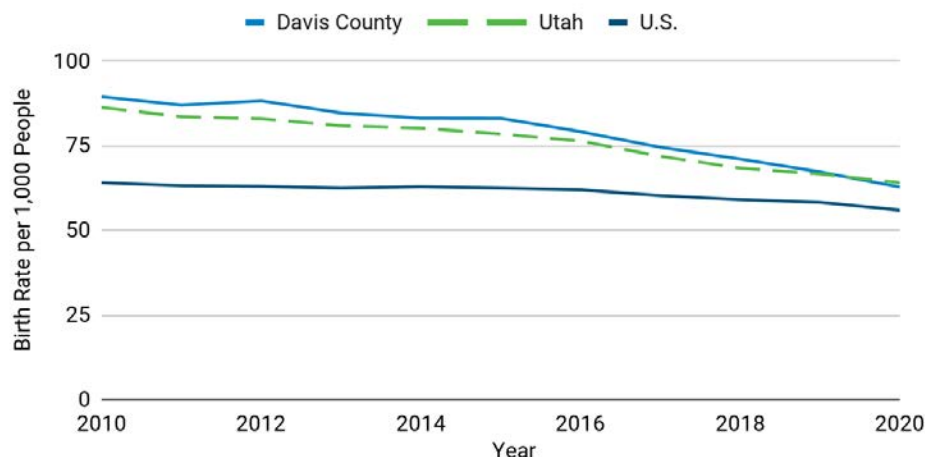
Birth Indicators	Davis	Utah	U.S.
Overall Birth Rate per 1,000 People	13.5	14.0	11.0
General Fertility Rate per 1,000 Females Aged 15-44	62.9	64.1	56.0

Data: IBIS, 2021 (crude); IBIS, 2020

As seen in Figure 92, the GFR has been gradually declining across the U.S., including Utah and Davis County (IBIS, 2010-2020). Note that 2020 was the first year where the GFR was lower in Davis County compared to Utah and that the gap between Utah and the U.S. appears to be getting smaller.

The number of births in the U.S. in 2020 was lower than it has been since 1980 (CDC, 2020). Social and economic reasons, such as delaying marriage and pursuing higher education and careers before building families, are possible reasons for the decline (PRB, 2021). Additionally, there is widespread availability of contraception and improved sex education which helps to reduce the likelihood of unintended pregnancies and teen pregnancies (PRB, 2021; Mark & Wu, 2022).

Figure 92: General Fertility Rate Over Time, 2010-2020



Data: IBIS, 2010-2020

Unintended Pregnancies

An unintended pregnancy is a pregnancy that was unplanned, unwanted, or mistimed. When a pregnancy is unintended, risk for health problems can increase for both the mom and baby because opportunities for early prenatal care are missed. Engaging in healthy behaviors prior to conception, such as taking folic acid or quitting alcohol or tobacco use can help prevent birth complications ([CDC](#), 2023).

In Utah, 19.4% of those who gave birth indicated their pregnancy was unintended compared to 22.4% in Davis County ([IBIS](#), 2019-2021). Unintended pregnancy is higher among younger age groups. In Utah, those aged 17 or younger (44.1%) and aged 18 to 19 (45.7%) had the highest prevalence of unintended pregnancies of any age group ([IBIS](#), 2019-2021).

Utahns who identified as Hispanic/Latina reported a higher prevalence of unintended pregnancies (30.6%) compared to all racial and ethnic groups (19.4%) ([IBIS](#), 2019-2021).

Teen Pregnancies

Over the past few decades, rates of pregnancy in females between the ages of 15 and 19 have declined in Davis County, Utah, and the U.S. ([IBIS](#), 2022; [CDC](#), 2021). Despite declining rates, the national rate is substantially higher than that of other westernized nations. There are also large disparities between groups, including by race and ethnicity, geography, education, income, and living situations ([CDC](#), 2021). In 2021, the teen birth rate in Davis County was 6.4 live births per 1,000 females aged 15 to 19. This was lower compared to Utah at 9.2 per 1,000 and the U.S. at 13.9 per 1,000. The previously mentioned disparities do exist across Utah with some racial and ethnic groups having significantly higher teen birth rates compared to the Nation ([IBIS](#), 2021). Children born to teens are more at risk for poor health outcomes including:

- Low birth weight
- Higher infant mortality
- Behavioral and medical problems

There can be both short and long-term social and economic costs for teens who become pregnant, their families, and the community ([Youth.gov](#), n.d.). Young parents may struggle to find affordable, quality child care and suitable transportation. They can face barriers to obtaining education above high school level, experience additional mental and physical stress, and chronic lack of community support ([CHR&R](#), n.d.). Understanding the community conditions that lead to disparities between groups can focus prevention efforts and ensure that adequate education and resources are provided to those at higher risk for teen pregnancy ([CDC](#), n.d.).

A 2018 study found that teenage girls who identify as lesbian or bisexual are more likely to report teen pregnancies than girls who identify as heterosexual. Teen girls who identified as bisexual had nearly five times the risk of pregnancy compared to teens who identified as heterosexual. This can be due to common maltreatment and bullying of youth who identify as lesbian or bisexual. This leads them to engage in sexual relationships with boys at a younger age and more frequently than heterosexual girls to avoid feeling stigmatized, which puts them at risk of pregnancy ([Charlton et al.](#), 2018).

As part of the 2022 Community Equity Assessment, a former student shared in a focus group that the sex education received in school did not include any discussion about same sex relationships or sexually transmitted diseases and they had to seek out that information for themselves (DCHD, 2022).

Maternal & Infant Health

Improving the well-being of mothers, infants, and children is an important public health goal. Their well-being determines the health of the next generation and can impact future public health challenges for families, communities, and the healthcare system ([Healthy People 2030](#), n.d.).

The pregnancy and postpartum periods can provide an opportunity to prevent future health problems for women and their children by identifying risky behaviors and existing health conditions ([Healthy People 2030](#), n.d.).

Disparities in maternal and infant health outcomes are related to a variety of social, economic, structural, systemic, and environmental factors. The intersectionality of race, gender, income, and other social factors affect an individual's experiences and outcomes. Historically marginalized groups continue to face injustices that drive the inequities

leading to unfair differences in birth outcomes ([KFE](#), 2022). This is reflected at all levels across the Nation, including in Davis County.

Infertility is defined as not being able to get pregnant after one year or longer of unprotected sex. In the U.S., about 1 in 5 married females aged 15 to 49 with no prior births are unable to get pregnant after one year of trying. Of those who experience this, 1 in 4 have difficulty getting pregnant or carrying a pregnancy to term. Fertility in females also declines steadily with age. However, both males and females can contribute to infertility ([CDC](#), 2023).

Common indicators to measure birth outcomes include the prevalence of preterm live births, low birth weight infants, births to females with gestational diabetes, and births that result in a cesarean among low-risk females with no prior births (Table 30).

Table 30: Comparison of Maternal & Infant Health Indicators

Reproductive Health Outcomes	Davis	Utah	U.S.
Preterm Live Births (<37 Weeks Gestation)	9.0%	9.3%	10.1%
Low Birth Weight of Live Births (<5lbs 8oz)	7.4%	7.4%	8.3%
Births to Female with Gestational Diabetes	7.0%	6.8%	7.7%
Cesarean Births Among Low-Risk Females with No Prior Births	—	18.8%	25.8%

Data: [IBIS](#), 2020; [IBIS](#), 2019; [IBIS](#), 2019-2021; [CDC WONDER](#), 2016-2020

Preterm Birth

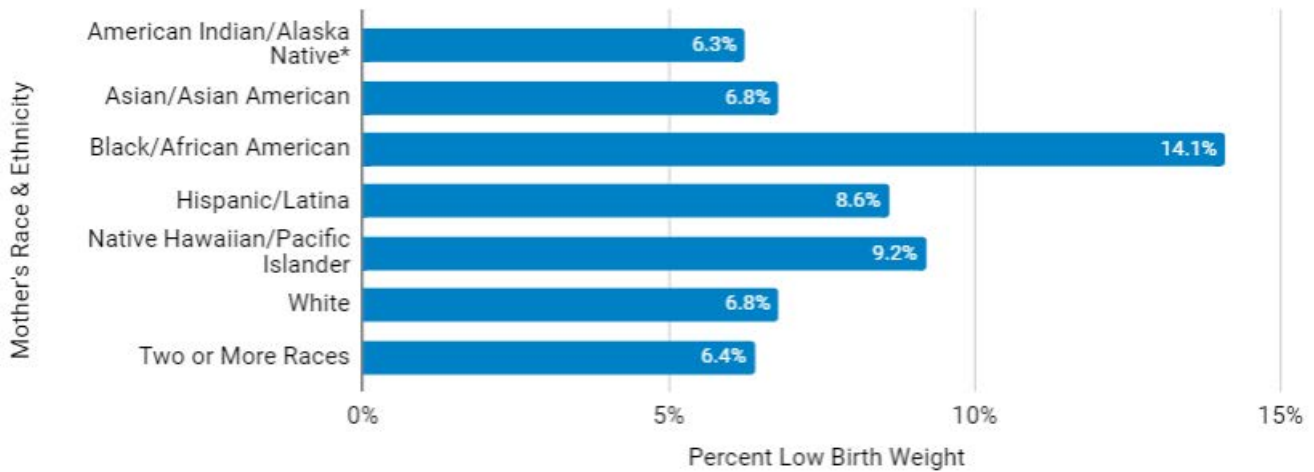
A preterm birth occurs when an infant is born prior to 37 weeks of gestation. Infants born too early have a higher risk of death and disability ([CDC](#), 2022). Preterm births are more common among teens, those over the age of 35, those who are underweight or obese, and who have had multiple prior pregnancies. Other conditions such as gestational diabetes and having more than one baby at a time can also increase the likelihood of a preterm birth ([IBIS](#), 2016-2020). In 2020, about 9.0% of live births in Davis County were preterm compared to 9.3% in Utah, and 10.1% in the U.S. While Davis County is doing well in this measure relative to the State and the Nation, racial and ethnic disparities are still

present with a significantly higher prevalence of preterm births occurring between 2016 and 2020 to mothers who are:

- Native Hawaiian/Pacific Islander (18.9%)
- Black/African American (16.5%)
- Hispanic/Latina (10.2%)

Low Birth Weight

A low birth weight infant is an infant born under 5 pounds, 8 ounces. Low birth weight can result in complications, such as low oxygen levels, difficulty feeding and gaining weight, and a higher risk of infections. The most common reasons for low birth weight include being born preterm and growth

Figure 93: Low Birth Weight Infants by Mother's Race & Ethnicity, Davis County, 2017-2021

Data: IBIS, 2017-2021; *Interpret with caution, small sample size

restrictions during development ([Boston Children's Hospital](#), 2023). In 2021, 7.4% of infants were born with low birth weights in Davis County. This is similar to Utah and lower than the U.S. As seen in Figure 93, Black/African American mothers are almost twice as likely to give birth to low birth weight infants ([IBIS](#), 2017-2021).

Gestational Diabetes

Gestational diabetes is defined as having abnormally high blood glucose levels during pregnancy. This usually goes away after pregnancy; however, about 50% of females with gestational diabetes develop type 2 diabetes later in life. Gestational diabetes can lead to having a large baby (about 9 pounds), increases the risk of needing a cesarean delivery, and increases adverse birth outcomes. Infants born to a female with gestational diabetes are more likely to develop diabetes and obesity ([IBIS](#), 2023).

For data on type 2 diabetes and obesity, see the Chronic Disease section of this chapter.

Gestational diabetes has become more common over the past two decades with more than a 250% increase among Utah births from 2000 to 2021. The most recent data suggests that gestational diabetes was present in 7.0% of Davis County births compared to 6.8% in Utah and 7.7% in the U.S. ([IBIS](#), 2019-2021).

In Utah, gestational diabetes prevalence increases with the age of the mother, and is higher among mothers who are Asian/Asian American (16.9%), American Indian/Alaska Native (12.2%), Hispanic/Latina (9.8%), and Obese (14.7%). A demographic breakdown is unavailable at the county level.

Cesarean Births

During the delivery process, the goal for care is to use the least possible level of intervention for a low risk birth to allow healthy outcomes for both the mother and child. There should be a valid reason to interfere with the natural process of birth. Cesarean deliveries are a major surgery for the mother that can result in complications that increase the risk of maternal mortality, problems with future pregnancies, postpartum depression, and more. Infants can also have adverse effects from cesarean deliveries, such as difficulty breastfeeding and breathing problems. Cesarean deliveries are more common today than ever before. In 1970, only about 5% of births in the U.S. resulted in a cesarean. In 2021, 1 in 3 infants were born by cesarean delivery.

Among low-risk females with no prior births, 18.8% had a cesarean birth in Utah compared to 25.8% in the U.S. Utah has consistently remained lower compared to the U.S. for this measure. Because of the low number of births in this category, this percentage is not available for Davis County or to compare by demographic group in Utah ([IBIS](#), 2021).

Mortality Rates

Maternal mortality has become an emerging issue in the U.S., with higher rates compared to many other developed nations and recent spikes in pregnancy-related deaths. There is not a consistent way to measure maternal mortality across different organizations and surveillance systems. The World Health Organization (WHO) and Healthy People 2030 define it as the death of a female while pregnant or within 42 days of the end of a pregnancy from a pregnancy-related cause. The CDC Pregnancy Mortality Surveillance System defines it as pregnancy-related deaths during pregnancy and up to 365 days after the end of the pregnancy (CDC, 2023). The Utah Perinatal Mortality Review Committee also includes only pregnancy-related deaths; however, criteria for what might be considered a pregnancy-related death can vary between Utah and the U.S (IBIS, 2023). All data in this section will be in reference to the U.S. and Utah definitions of maternal mortality depending on the level of data.

The leading causes of pregnancy-related death in the U.S. are cardiovascular conditions, infection or sepsis, and hemorrhage (CDC, 2017-2019). The maternal mortality rate has been increasing for decades across the nation, more than doubling since 1987, as can be seen in Figure 94 (CDC, 2023).

Table 31 displays the most comparable maternal mortality rates between Utah and the U.S. Due to the

Table 31: Maternal & Infant Mortality Rates

Mortality Rates	Davis	Utah	U.S.
Maternal Mortality Rate per 100,000 Live Births	*	25.6	17.6
Infant Mortality Rate per 1,000 Births	5.0	5.2	5.4

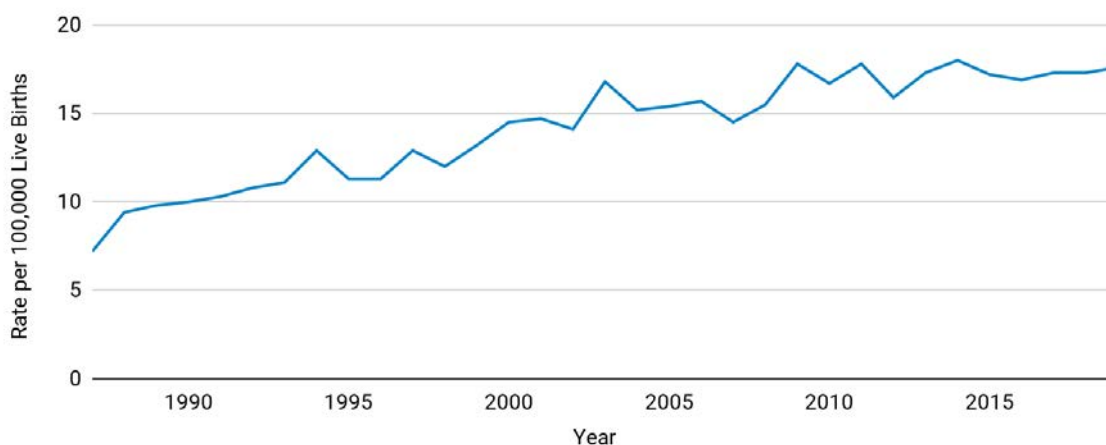
Data: IBIS, 2019; CDC, 2019; IBIS, 2019-2021; IBIS, 2020

* Maternal mortality rates are not reliable at the county level due to small numbers of deaths. It is measured slightly differently between Utah and the U.S. This is an area to address because national mortality rates are trending in the wrong direction.

small numbers of maternal mortality at the local levels, estimates are not available for Davis County. Maternal deaths is a Healthy People 2030 Leading Health Indicator with a target of 15.7 deaths per 100,000 live births. There is not a Davis County measure available to compare to the U.S. (DCHD, 2022). In 2019, the maternal mortality rate in Utah was higher than the U.S. at 25.6 pregnancy-related deaths per 100,000 live births compared to 17.6 per 100,000 live births.

There were also significant racial disparities at the national level with the highest maternal mortality rate among non-Hispanic, Native Hawaiian/Pacific Islanders at 62.8 pregnancy-related deaths per 100,000 live births followed by the non-Hispanic, Black/African American population at 39.9 per 100,000 live births. These disparities could not be checked in Utah due to small population sizes resulting in unreliable comparisons between groups.

Figure 94: Pregnancy-related Maternal Mortality Rate Overtime, U.S., 1987-2019



Data: CDC, 2023

Infant mortality is measured as the number of infants who died before their first birthday per 1,000 live births. The leading causes of infant mortality in Utah are:

1. Perinatal conditions which occur immediately before, during, or after birth such as preterm birth, maternal complications, and respiratory distress
2. Birth defects including structural changes that can affect how the body looks, works, or both
3. Medical conditions of the infant such as an infection
4. Sudden unexpected infant death (SUID) of which the cause is unknown before investigation ([IBIS](#), 2021)

Infant mortality rates can be seen in Table 31 (previous page) with Davis County at 5.0, Utah at 5.2, and the U.S. at 5.4 per 1,000 live births. The Healthy People 2030 objective aims to reduce the rate of all infant deaths to below 5.0 per 1,000 live births. Utah aims to reduce this below 4.6. Currently, Davis County is meeting the Healthy People 2030 target, but there is still room for improvements to meet the State target ([IBIS](#), 2019-2021).

Community Supports

Improving maternal and child health has been identified as an important issue in Davis County, however, at this time, minimal county and state collaboration is taking place to improve outcomes. Many Davis County Human Services partners currently provide and/or would like to provide services and education to new and expecting mothers. They have expressed interest in working together and learning what is currently being done by each agency (DCHD 2019, 2022).

See the Postpartum Depression section in this chapter for more information about maternal mental health. See the Screenings section in the Clinical Care chapter for prenatal visit and postpartum screening data. Related information can also be found in the Nutrition and Sexual Activity sections of the Health Behaviors chapter.

Some Maternal and Child Health Services are available through the Davis County Health Department (DCHD) for low-income families and those on Medicaid, including Baby your Baby; Women, Infants and Children (WIC); and the home visitation program. Immunizations are also available and costs vary by insurance coverage and out-of-pocket rates.

Maternal & Infant Health Resources

Baby Your Baby, DCHD	<i>Temporary medical coverage for pregnant women who are eligible that covers outpatient pregnancy related services while the Medicaid application is being processed. Offers education for a healthy pregnancy and encourages expectant mothers to see their health care provider before the 13th week of pregnancy</i>	daviscountyutah.gov/health/health-services/maternal-child-health-bureau
Comunidad Materna Support Groups	<i>Recursos, clases y apoyo para madres</i>	cmutah.org/nuestros_servicios/
Share Parents of Utah Helpline	<i>Support, education, and resources on the needs and rights of bereaved parents and siblings</i>	801-272-5355 sputah.org
Utah Maternal Mental Health Referral Network	<i>Directory of professionals and support groups with training in perinatal mental health</i>	maternal-mentalhealth.utah.gov
Utah Share Pregnancy & Infant Loss Support	<i>Resource and support group list</i>	nationalshare.org/utah/

Infectious Diseases

Infectious diseases, also known as communicable diseases, have a great impact on the health and well-being of the community ([MedlinePlus](#), 2018).

During the 20th century, advancements in testing and surveillance increased the ability to control and monitor infectious diseases. Nationally, infectious disease rates declined due to improvements in sanitation, hygiene, animal and pest control, vaccination, and the use of antibiotics and other medicines. These efforts helped to decrease the burden of disease, and in some cases, such as with smallpox, eradicate or nearly eradicate disease ([CDC](#), 2001). Measures to control infectious diseases have resulted in the primary burden of disease moving to chronic diseases in the 21st century ([CDC](#), 2021).

Despite the overall decline in disease rates, infectious diseases continue to affect all races, ethnicities, ages, and sexes. Some populations may be more at risk for contracting a disease compared to others due to how a disease is spread. How a disease is spread and the severity of its impact on a population is influenced by health behaviors,

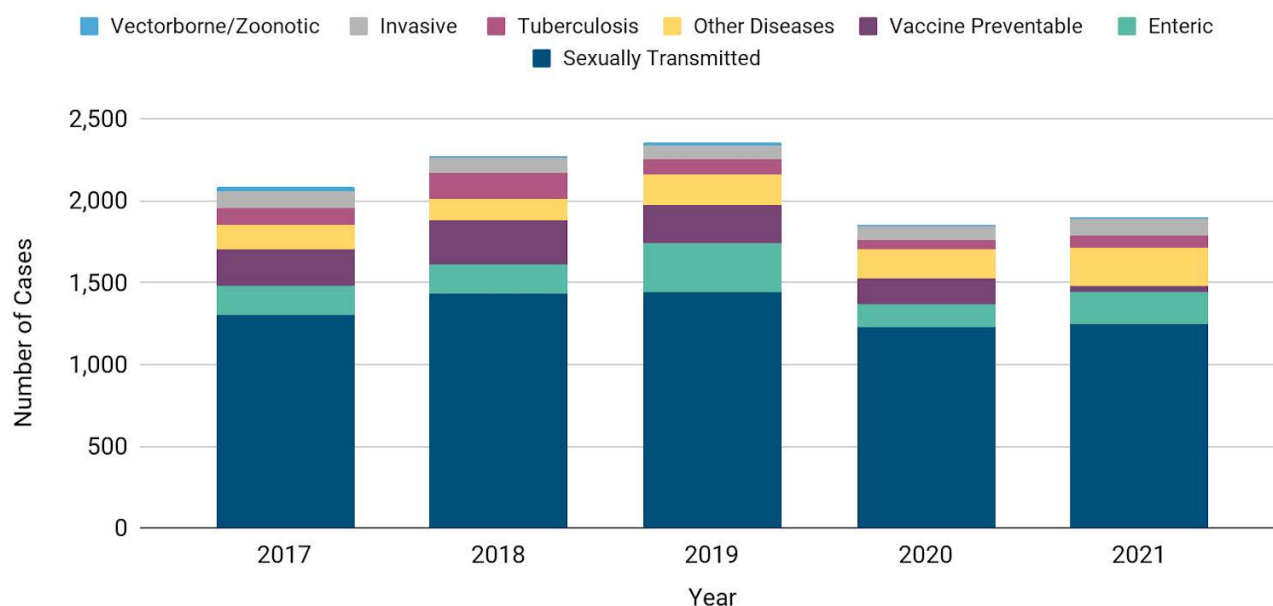
environmental conditions, social and cultural norms, and access to care. Controlling infectious disease is a key factor in increasing length and quality of life ([Ellwanger et al.](#), 2021).

There are many types/families of infectious disease. This section summarizes the most common infectious diseases reported in Davis County during the past five years (2017-2021). All rates reported within the infectious disease section are based solely on population size (crude rates) and are not adjusted for ages. COVID-19 infections are excluded from this section, but can be found in the COVID-19 chapter.

In 2020 and 2021, reported cases of most infectious diseases were lower than expected due to the widespread impacts of the COVID-19 Pandemic. When interpreting disease rates for this time period, prevention strategies and healthcare access should be considered.

Figure 95 shows the most common types of infectious diseases in Davis County (DCHD, 2017-2021). The greatest number of infectious disease cases in Davis County are due to sexually transmitted infections.

Figure 95: Reportable Infectious Diseases by Type, Davis County, 2017-2021



Data: DCHD, 2017-2021

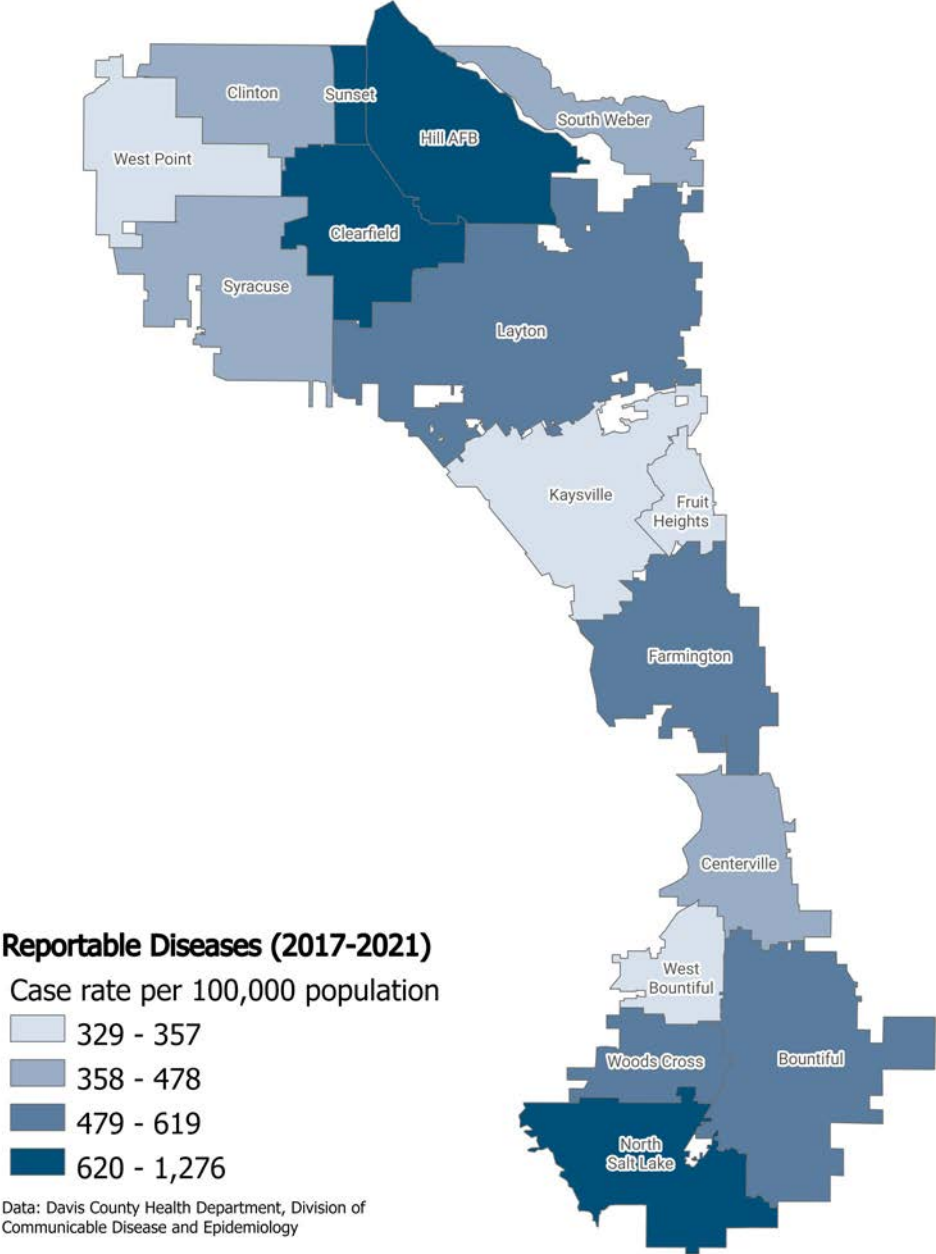
More about these diseases can be found throughout this section. A five year overview of rates for each infectious disease is available in Appendix 8.

As shown in Figure 96, the rate of newly diagnosed cases (incidence) of infectious disease varies by city. Many factors can affect these variations such as screening efforts, population density, and access to care. It does not suggest that one city is better or worse than another.

Enteric Diseases

Enteric diseases are caused by bacteria, viruses, or parasites. These are usually spread through contaminated food or water, person-to-person, or by contact with vomit or feces (CDC, 2022). In Davis County, enteric diseases are most commonly contracted during summer months primarily due to recreational activities, such as swimming, camping, and water skiing. Cases have been reported in every city.

Figure 96: Incidence of All Reportable Diseases by City, Davis County, 2017-2021



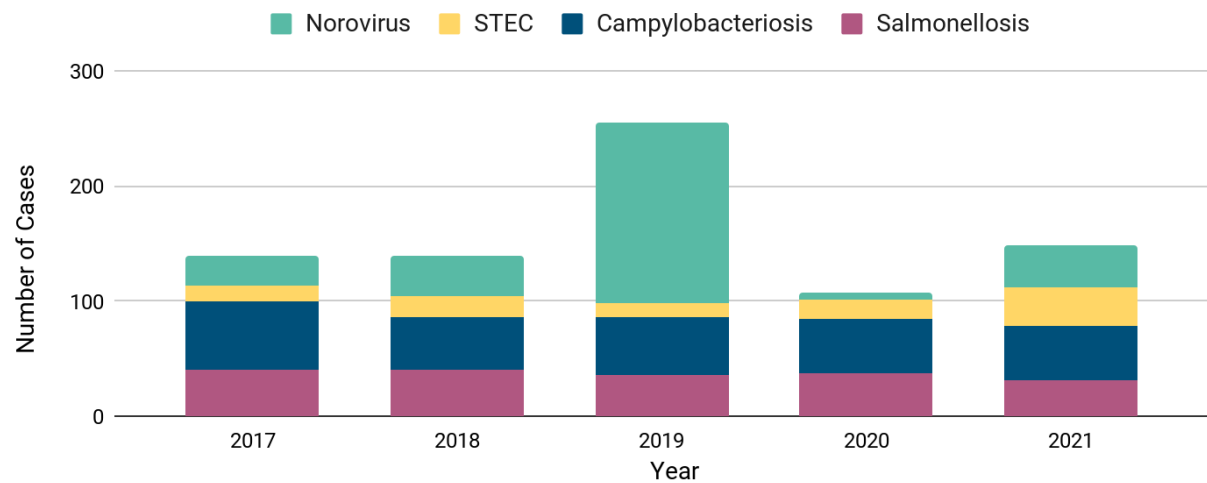
Source: DCHD, 2017-2021

Nationally, the highest infection rates for enteric diseases are among children under 10 and adults 60 years or older ([CDC](#), 2018-2020). Similar trends are seen in Davis County with the exception of those aged 50 to 59, who also have higher infection rates. As shown in Figure 97, the four most frequently reported enteric diseases were food borne illnesses including norovirus, campylobacteriosis, salmonellosis, and shiga toxin-producing *Escherichia coli* (STEC) (DCHD, 2017-2021).

Foodborne Illness

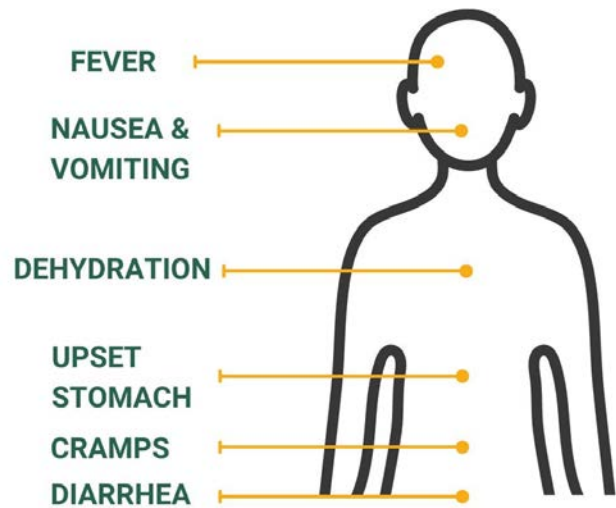
The CDC estimates 48 million people nationwide get sick from a foodborne illness each year ([CDC](#), 2022). Of those, about 125,000 require hospitalization, and nearly 3,000 die. While children, older adults, pregnant women, and people with weakened immune systems are the most susceptible to illness and death from food contamination, foodborne illness can affect anyone. Common symptoms relating to foodborne illness are shown in Figure 98.

Figure 97: Reported Enteric Diseases by Type, Davis County, 2017-2021



Data: DCHD, 2017-2021

Figure 98: Common Symptoms of Foodborne Illness



Source: ([USDA](#), 2021)

In the U.S., more than half of foodborne outbreaks are associated with restaurants, delis, banquet facilities, and schools ([CDC, 2022](#)). Contamination can occur at the point of production or distribution, in the home, or in a food service establishment. As a result, foodborne illness is often difficult to detect and track. To prevent foodborne illness, Davis County Health Department (DCHD) conducts routine inspections on facilities serving ready-to-eat food within the county. Table 32 includes details on the food facilities inspected in 2021.

Table 32: Inspected Food Facilities, Davis County, 2021

Facility Type	Count	Percent of Inspections
Brick & Mortar	774	65.3%
Mobile Food (i.e. Food Trucks)	123	10.4%
Seasonal Food	52	4.4%
Temporary Events	125	10.5%
Schools	111	9.4%
Total:	1,185	100.0%

Data: DCHD, 2021

Note: The count in this table could include reinspections of the same facility multiple times.

The items inspected can be found in the Food and Drug Administration's (FDA) Food Code ([FDA, 2022](#)). Items that are found in violation of the FDA Food Code are shared with the person in charge of the facility and documented as public record. If a facility has too many items, or repeats violations too frequently, then follow-up inspections or additional actions may be taken. DCHD aims to provide education and direction on how to improve. If improvements are not made or there is a poor inspection history, a facility may be closed.

In 2021, DCHD conducted 809 routine food service inspections (DCHD, 2022). Note that this is different from what appears in Table 32 as it does not include a count of additional inspections completed at single facilities. This number is considered lower than expected due to overdue inspections resulting from the COVID-19 efforts which redirected community priorities. Of those 809 inspections, 31 (3.1%) required a follow-up inspection because the inspector determined the facility was at an elevated risk for foodborne illness.

To obtain a permit in Davis County, a facility must submit plans, receive approval status, and pass an inspection according to FDA Food Code before a permit is issued. On average, DCHD issues 77 new permits to brick-and-mortar facilities per year while closing or not renewing the permit for an average of 55 facilities per year (DCHD, 2018-2022).

Community members in Davis County can submit foodborne illness complaints to DCHD. If there are multiple complaints for the same facility during a two week time period, an investigation is conducted. In 2021 for Davis County, 70 food related complaints were tracked and two lab-confirmed outbreaks were identified (DCHD, 2021).

Norovirus

Norovirus is the most commonly reported viral enteric disease in Davis County. It is primarily transmitted through the fecal-oral route, by consumption of food or water contaminated by fecal matter, or by direct person-to-person contact. In the U.S., norovirus causes 58% of foodborne illnesses. Outbreaks occur throughout the year but are most common from November to April ([CDC, 2021](#)).

In Davis County, norovirus outbreaks have been reported in a variety of settings, including congregate living facilities, a private event, and a local restaurant. In 2019, there were multiple outbreaks causing a large increase in norovirus cases. This is shown in Figure 97 (previous page) with 2019 having the tallest bar of all years on the graph (DCHD, 2017-2021).

Campylobacteriosis

Campylobacteriosis is one of the most common bacterial causes of diarrheal illness. People can be infected by eating raw or undercooked poultry, untreated water, or unpasteurized milk ([CDC, 2023](#)). From 2017 to 2021, on average, Davis County had lower rates of campylobacteriosis (14.1 per 100,000 people) than Utah (16.3 per 100,000 people) and the U.S. (18.5 per 100,000 people) (DCHD, 2017-2021).

Salmonellosis

Salmonellosis is another bacterial infection caused by the bacteria *Salmonella*. It is generally transmitted through ingestion of contaminated food, water, and direct contact with an infected human or animal. From 2017-2021, several nationwide outbreaks associated with different sources occurred, including contaminated onions, ground beef, contact with backyard poultry, and kratom products (opioid substitute) ([CDC](#), 2023). DHCD investigated and reported cases associated with some of those national outbreaks.

Despite the number of salmonellosis cases reported and investigated, Davis County had similar rates of salmonellosis (10.5 per 100,000 people) when compared to Utah (10.4 per 100,000 people) and lower rates when compared to the U.S. (13.7 per 100,000 people) (DCHD, 2017-2022).

Shiga Toxin-Producing *Escherichia coli* (STEC)

Some bacteria, such as *Escherichia coli* (E-coli), are harmless and normally live in the intestines of humans and animals. However, certain strains produce a toxin called shiga toxin or STEC. This can cause hemorrhagic colitis, resulting in bloody stools. It can be transmitted through consumption of undercooked, contaminated ground beef, unpasteurized milk, or eating unwashed fruits or vegetables. Person-to-person transmission can easily occur within households, child care centers,

and long-term care facilities ([CDC](#), 2022). It spreads easily and all reported cases are investigated thoroughly due to the potential severity of STEC.

The most common strain of E-coli reported in Davis County in 2017, 2019, 2020, and 2021 was O157:H7. On average, Davis County has similar rates of STEC (5.2 per 100,000 people) when compared to Utah (5.6 per 100,000 people) and higher rates than the U.S. (3.5 per 100,000 people) (DCHD, 2017-2022).

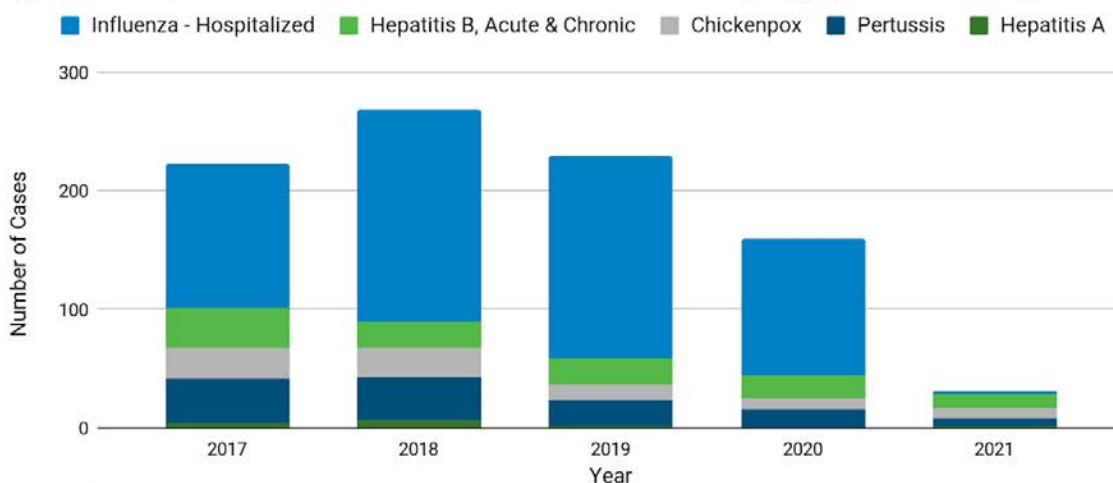
Vaccine-Preventable Diseases

Vaccine-Preventable Diseases (VPDs) are diseases caused by bacteria and viruses that can be prevented with immunization. Vaccines are available for the prevention of 18 deadly diseases ([CDC](#), 2016). Despite improvements in vaccine coverage rates in recent years, there is still much work to be done to achieve the Healthy People 2030 goal of preventing infectious diseases through increasing vaccination rates ([UDHHS](#), 2022; [Healthy People 2030](#), n.d.).

For more info and recommended vaccines by age group, see the Immunizations section of the Clinical Care chapter.

From 2017-2021, the average rate of VPDs in Davis County was 51.9 per 100,000 people. As shown in Figure 99, the most commonly reported VPD was influenza associated with hospitalizations, followed by pertussis, hepatitis B, chickenpox, and hepatitis A.

Figure 99: Reportable Vaccine-Preventable Diseases by Type, Davis County, 2017-2021



Data: DCHD, 2017-2021

When a VPD is diagnosed, it is important that public health measures are implemented to control the spread of the illness. These control measures include administration of prophylactic medications and vaccines, isolation of the infected individual, quarantine of exposed individuals, and public education.

Influenza

Influenza, also known as the “flu,” is an acute respiratory infection caused by an RNA virus. It is transmitted through respiratory droplets and direct contact. Flu can be transmitted year round but most illnesses occur during the flu season from October to May ([CDC, 2023](#)).

Davis County Health Department (DCHD) monitors the spread of the virus in the community with data from multiple sources and partners. School absentee data has shown that the 2020-2021 and 2021-2022 influenza seasons were mild due to control measures implemented to reduce the spread of COVID-19.

Of the 613 hospitalized flu cases from October 2016 to May 2021 in Davis County, more than 50% of the hospitalized cases were 60 years of age or older (DCHD, 2016-2021).

Pertussis

Pertussis, also known as whooping cough, is the next most reported VPD in Davis County. This disease is a concern in infants because of higher rates of hospitalizations, pneumonia, and death when compared with older children and adults. The population most often affected are those who are not vaccinated and under-vaccinated, including infants and children under five years old. Older children and adults may become infected due to lower vaccination rates and waning immunity ([CDC, 2022](#)).

Most infections occur during the school year. From 2017-2021, Davis County reported lower rates of pertussis (6.7 per 100,000 people) compared to Utah (8.3 per 100,000 people), but higher rates when compared to the U.S. (3.6 per 100,000 people) (DCHD, 2017-2021).

Hepatitis B

The hepatitis B virus (HBV) affects the liver and causes hepatitis B disease. It can be spread when blood, semen, or other body fluids from an infected person enters the body of someone that is not infected. This can happen through sharing needles or syringes, sexual contact, or from mother to baby at birth. When a person is sick for only a few weeks, it is known as acute hepatitis B, but when the disease progresses to lifelong illness, it is known as chronic hepatitis B ([CDC, 2023](#)).

From 2017-2021, Davis County had an average hepatitis B infection rate of 6.2 per 100,000 people, the majority of which were chronic infections (DCHD, 2017-2021).

Pregnant women who are infected with HBV are at serious risk of passing the virus to their child at birth. Approximately 40% of infants born to mothers that do not receive recommended post exposure treatment will develop chronic hepatitis B infection. Of these infants, about 25% of them will eventually die from chronic liver disease ([CDC, 2022](#)). To reduce mother to child transmission, 38 hepatitis B positive mothers were referred to Davis County Health Department (DCHD) Perinatal Hepatitis B Prevention Program from 2017-2021.

Chickenpox

Chickenpox (varicella) is a highly contagious disease caused by the varicella-zoster virus (VZV). It spreads mainly through close contact. The classic symptom is a rash that turns into itchy, fluid-filled blisters that eventually turn into scabs ([CDC, 2021](#)). The VZV can reactivate later in life causing herpes zoster, also known as shingles. In the U.S., nearly 1 in 3 Americans will develop shingles in their lifetime ([CDC, 2022](#)).

From 2017-2021, the average chickenpox rate in Davis County was 4.6 per 100,000 people. This is similar to Utah (4.9 per 100,000 people) and higher than the U.S. (1.9 per 100,000 people) (DCHD, 2017-2021). Chickenpox is seen more commonly in children and occurs more frequently during the school year ([CDC, 2022](#)).

Hepatitis A

Hepatitis A is a VPD caused by the hepatitis A virus (HAV), which targets the liver. It is transmitted via the fecal-oral route either by person-to-person contact or by consumption of contaminated food or water ([CDC, 2020](#)).

A nationwide person-to-person outbreak began in 2016 and Utah was impacted from 2017 to 2019 ([CDC, 2022](#)). Davis County reported six associated cases in 2017 and 2018. From 2017 to 2021, Davis County had lower hepatitis A infection rates (0.7 per 100,000 people) than Utah (2.1 per 100,000 people) and U.S. (2.9 per 100,000 people) (DCHD, 2017-2021).

Sexually Transmitted Infections (STIs)

Sexually transmitted infections (STIs), also known as sexually transmitted diseases (STDs), are caused by bacteria, viruses, and other organisms. STIs are transmitted from one person to another through vaginal, oral, or anal sexual contact. More than half of people diagnosed with an STI have no symptoms, so it is important for those who are sexually active to be tested regularly. Complications from STIs range from mild illness to infertility, chronic pain, cancer, and even death ([CDC, 2023](#); [CDC, 2021](#)).

STIs can be prevented through abstinence, mutual monogamy (if both partners are not infected with a STI), and vaccination. Using condoms, reducing the

number of sex partners, and getting tested can help to decrease transmission of STIs ([CDC, 2023](#)).

Common risk factors for STIs include multiple sex partners, anonymous partners, group living settings, injection drug use, and substance use ([CDC, 2023](#)). Anal sex is an inherently riskier sexual activity due to the thinner tissues in the rectum, increasing the likelihood of tearing and exposure to infected fluids ([CDC, 2023](#)). An understanding of recent trends in sexual behavior and how STIs are spread is critical to identifying populations with higher STI rates.

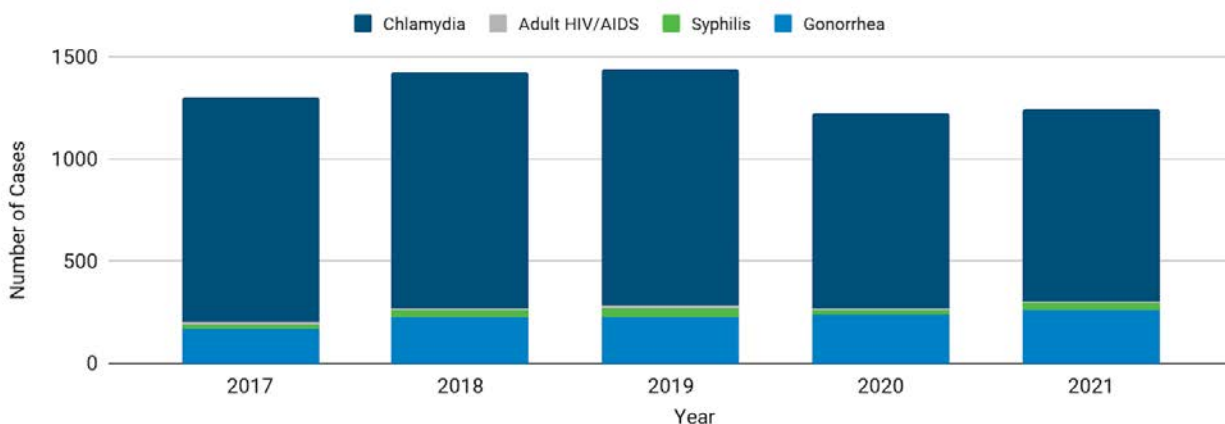
Bacterial STIs such as chlamydia, gonorrhea, and syphilis are curable.

Viral STIs generally cannot be cured, but treatments are available. Herpes simplex virus (HSV) and human immunodeficiency virus (HIV) have treatments available that can slow disease progression by reducing viral load (contagiousness) and improving quality of life. Some viral STIs such as human papillomavirus (HPV) and hepatitis B can be prevented by vaccination ([WHO, 2022](#)).

For more information regarding STI testing, please see the Sexual Activity section of the Health Behaviors chapter.

The most commonly reported STIs in Davis County are chlamydia, followed by gonorrhea, syphilis, and HIV, see Figure 100. In Davis County from 2017-2021, the average incidence rate of sexually transmitted infections was 376.9 per 100,000 people. STIs are more frequently reported in those

Figure 100: Reportable Sexually Transmitted Infections by Type, Davis County, 2017-2021



Data: DCHD, 2017-2021

ages 15 to 34 years old (DCHD, 2017-2022). In the U.S. in 2021, STI rates hit an all-time high for a sixth consecutive year (2014-2019) (CDC, 2021). Davis County saw a similar trend in cases during that period. Table 33 shows STI incidence rates in Davis County, Utah, and the U.S.

Table 33: Sexually Transmitted Infections, Rate per 100,000, 2017-2022

Disease	Davis	Utah	U.S.
Chlamydia	299.8	329.0	493.0
Gonorrhea	63.2	92.7	181.7
HIV*	4.2	5.1**	10.9**
Syphilis	8.9	3.4	10.8

Data: DCHD, 2017-2022 (crude rates) *Ages 13 and older **2020 only

Due to the high increase in case numbers, different approaches are required to stop the spread of STIs. One approach is called expedited partner therapy (EPT). EPT is when a healthcare provider prescribes medication to sexual partners of a patient diagnosed with chlamydia or gonorrhea without examining them. EPT has been legal in Utah since 2009 (UDOH, 2021). Other approaches include free rapid HIV clinics and education in secondary schools. Davis County Health Department has also implemented an evidence-based program to educate Clearfield Job Corps students on abstinence and contraceptives to prevent adolescent pregnancy and sexually transmitted infections (DCHD, 2017-2022).

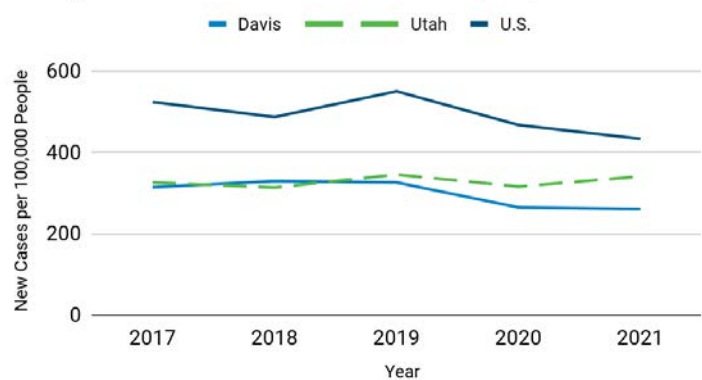
Chlamydia

The most commonly reported sexually transmitted infection in the U.S., Utah, and Davis County is chlamydia (CHR&R, 2022). Chlamydia is the largest disease burden in Davis County, accounting for around 50% of all reportable cases of disease on a yearly basis, excluding COVID-19 (DCHD, 2017-2021).

People infected with chlamydia often do not have obvious symptoms. However, if left untreated, serious complications including infertility, ectopic pregnancies, epididymitis, pelvic inflammatory disease (PID), and prostatitis may occur (CDC, 2022).

Although chlamydia is the highest reported STI, Davis County has lower incidence rates, or newly diagnosed cases, of chlamydia (299.8 per 100,000 people) when compared to Utah (329.0 per 100,000 people), as shown in Figure 101. Both of which are lower than the U.S. rate of 493.0 per 100,000 people (DCHD, 2017-2022). According to County Health Rankings and Roadmaps, chlamydia trends over the past two decades in Davis County have been getting worse, but the trend has improved in recent years (CHR&R, 2022).

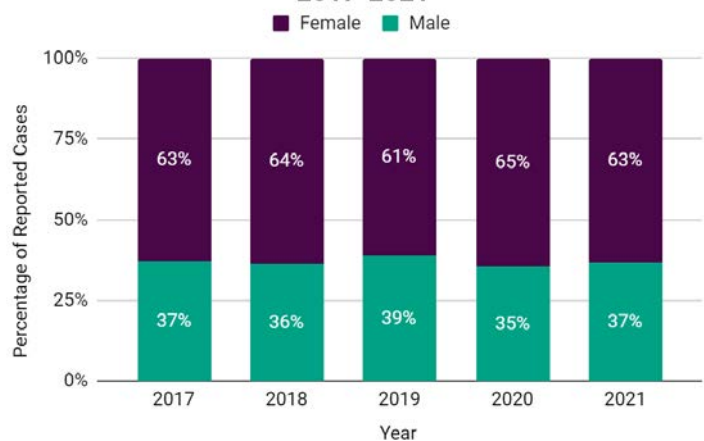
Figure 101: Incidence Rate of Chlamydia, 2017-2021



Data: DCHD, 2017-2021 (crude)

As shown in Figure 102, chlamydia infections are more commonly reported in females than males. The anatomy of the female reproductive system increases the risk for bacterial growth and potential infection (CDC, 2011). Females are also more likely to be tested during routine medical exams. Comparatively, males are typically diagnosed following contact investigations or if they become symptomatic (CDC, 2022).

Figure 102: Chlamydia Cases by Sex, Davis County, 2017-2021



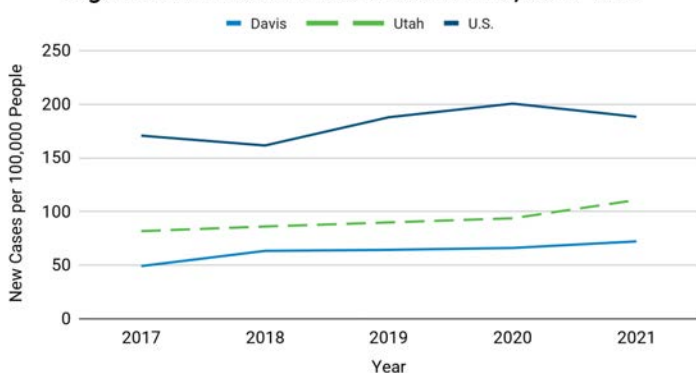
Data: DCHD, 2017-2021

Davis County Health Department (DCHD) conducts contact investigations to identify possible spread to partners. This helps to not only limit the spread of infection to other individuals, but can also decrease the likelihood of reinfection. DCHD offers free testing and treatment, provides disease education, and assists in the developing risk-reduction plans.

Gonorrhea

Gonorrhea is a bacterial STI. It can cause infection in the genitals, rectum, and throat. It frequently has no symptoms and is very common, especially among young people. If the infection is left untreated, it may result in serious complications including chronic pain, infertility, septic arthritis, hepatitis, endocarditis, and meningitis ([CDC, 2022](#)). As displayed in Figure 103, the Davis County gonorrhea incidence rate, or the rate of newly diagnosed cases, was 63.2 per 100,000 people. It continued to be well below Utah (92.7 per 100,000 people) and the U.S. (181.7 per 100,000 people) (DCHD, 2017-2022).

Figure 103: Incidence Rate of Gonorrhea, 2017-2021



Data: DCHD, 2017-2021 (crude)

Infections from gonorrhea are complex and can be resistant to antibiotics. As shown in Figure 104, infections in Davis County were more frequent in males. The primary ages of those affected were 15 to 34 years old (DCHD, 2017-2021).

Figure 104: Gonorrhea Cases by Sex, Davis County, 2017-2021



Data: DCHD, 2017-2021

Human Immunodeficiency Virus (HIV)

Human immunodeficiency virus (HIV) is a viral STI that attacks the body's immune system. It is mainly transmitted through: anal or vaginal sex; from mother to child during pregnancy, birth, or breastfeeding; and through sharing needles, syringes, or other drug injection equipment. HIV is a lifelong illness that does not yet have a cure.

Everyone from the ages of 13 to 64 should get tested at least once and those who are at higher risk should get tested more often ([CDC, 2022](#)). This can help individuals to start treatment early. If not treated, it can lead to acquired immunodeficiency syndrome (AIDS). However, proper HIV treatment can make the viral load very low to the point of being undetectable. Keeping an undetectable viral load is the best way to stay healthy, live longer, and protect others by reducing the likelihood of transmission ([CDC, 2022](#)).

From 2017 to 2021, the HIV/AIDS rate in Davis County for people 13 years old or older was 4.2 per 100,000 people (DCHD, 2017-2021). This was lower than both Utah (5.1 per 100,000 people) and the U.S. (10.9 per 100,000 people) rates in the same population during 2020 ([CDC, 2021](#)). Knowledge of HIV status is a Healthy People 2030 Leading Health Indicator. At this time there is no Davis County data available for the percent of persons aged 13 years and over living with HIV and who are aware of their HIV infection ([DCHD, 2022](#)).

HIV Prophylaxis

Pre-exposure prophylaxis (PrEP) is a human immunodeficiency virus (HIV) prophylaxis medication that can be taken by individuals who do not have HIV, but are at risk of getting it. This group includes persons who inject drugs, those with partners who are HIV positive, or those engaging in high-risk sexual activities. According to the CDC, PrEP reduces the risk of HIV transmission through sex by approximately 99% and by at least 74% from injection drug use (CDC, 2022).

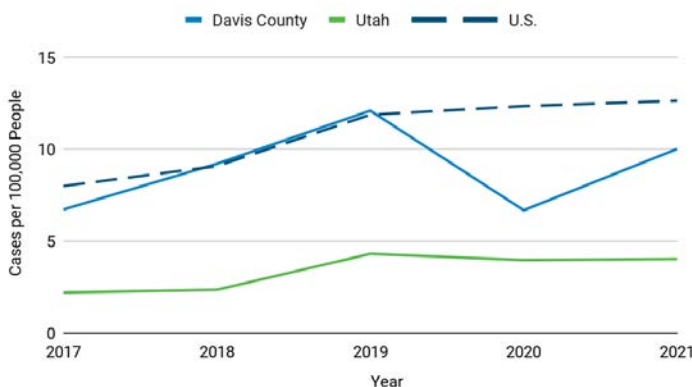
In 2021, 123 per 100,000 people used PrEP to prevent transmission of HIV in Utah. The number of PrEP users has been steadily increasing since 2014. Out of all users of PrEP in 2021, 95.4% were male and 86.2% were non-Hispanic White (AIDSVu, 2022).

Syphilis

Syphilis is a bacterial STI. It has been called “The Great Pretender” because its symptoms can mimic many other diseases. Syphilis is usually transmitted from person-to-person by direct contact with an infected sore. Pregnant women with syphilis can transmit it to their unborn child and it can also cause miscarriages, stillbirths, and death (CDC, 2022).

As shown in Figure 105, higher rates of syphilis infections (8.9 per 100,000 people) were reported in Davis County compared with Utah rates (3.4 per 100,000 people). However, both were lower than U.S. rate of 10.8 per 100,000 people (DCHD, 2017-2022).

Figure 105: Syphilis Rates, 2017-2021



Data: DCHD, 2017-2022 (crude rates, includes primary & secondary manifestations)

Invasive Diseases

Invasive diseases include infections of the bloodstream, as well as meningitis, sepsis, and encephalitis. Invasive disease means that germs invade parts of the body that are normally free from germs. When this happens, the disease is usually very severe, requiring care in a hospital and even causing death in some cases (CDC, 2022). The most common invasive disease reported in Davis County was invasive streptococcal infections, which included streptococcus group A, B, C, and G, streptococcus pneumoniae, and other streptococcal infections (DCHD, 2017-2022).

Invasive Streptococcal Infections

Invasive streptococcal infections are caused by a group of bacteria, usually found in the throat and the skin. These infections represent a public health concern due to a high rate of deaths among cases, also called fatality rate. From 2017 to 2021, the fatality rate in Davis County ranged from 1.9% to 9.3%.

The primary types of invasive infections reported belong to streptococcus group A, B, and streptococcus pneumoniae (MedlinePlus, 2016; CDC, 2022). Group A streptococcus infection (GAS) is transmitted person-to-person by contact with respiratory droplets (CDC, 2023). On average, 14 cases were reported per year in Davis County.

Group B streptococcus infection (GBS) is usually not harmful, but can harm babies if exposed during delivery (CDC, 2022). On average, 25 GBS cases have been reported per year in Davis County.

The bacteria Streptococcus pneumoniae is spread to others through direct contact with respiratory droplets (CDC, 2022). Davis County pneumococcal rates (6.0 per 100,000 people) have generally remained constant and lower than the Utah rate (6.5 per 100,000 people), but higher than the U.S. rate (4.8 per 100,000 people) (DCHD, 2017-2021).

Vector Borne & Zoonotic Disease

A vector-borne or zoonotic disease is one that can be passed between insects or animals to humans ([NIH](#), 2022; [CDC](#), 2021). These diseases do not occur often in Davis County and typically are contracted during international or out-of-state travel. Over the last few years, Davis County has not had a common trend in the number of diseases reported (DCHD, 2017-2022).

West Nile Virus (WNV)

West Nile virus (WNV) is a virus most commonly spread to humans and other animals through bites from an infected mosquito. WNV can be prevented by using a mosquito repellent containing DEET and wearing long-sleeved shirts and pants while outdoors, especially from dusk to dawn. Cases of West Nile virus occur during mosquito season (April to October) ([CDC](#), 2023).

An increased potential for mosquito populations to acquire WNV can occur in Davis County due to the natural landscape and large areas of prime habitat. DCHD works with Mosquito Abatement District-Davis (MAD-D) to conduct surveillance for WNV in mosquito pools throughout the county. There are 12 consistent locations to test pools and additional locations vary throughout the season. In 2022, over 300,000 mosquitoes were tested in 3,738 pools. Of those, 25 pools tested positive for West Nile virus (positive rate of 0.7%). MAD-D also controls mosquitoes by spraying throughout neighborhoods to kill adult mosquitoes and their larvae ([MAD-D](#), 2023).

In Davis County, 5 human cases of WNV infection were reported in 2019 and 2 cases in 2020. In 2021, there were 9 reported human cases with one resulting in death (DCHD, 2017-2021).

Zika

Zika virus is also transmitted by the bite of an infected mosquito, through sexual contact, and from mother to child during pregnancy. Infected fetuses can experience birth defects associated with the brain. The most common symptoms of Zika virus include rash, fever, and headache ([CDC](#), 2022). Davis County had one case of Zika yearly from 2017

to 2020. All cases were exposed outside the U.S. (DCHD, 2017-2021).

Lyme Disease

Lyme disease is caused by a bacteria and is transmitted to humans through the bite of an infected blacklegged tick (also known as a deer tick). A characteristic symptom is skin rash (erythema migrans). If left untreated, the infection can spread to joints, heart, and the nervous system. The steps recommended to prevent Lyme disease include using insect repellent, removing ticks promptly, applying pesticides, and reducing tick habitat ([CDC](#), 2022). Over the past five years, there have been an average of 4.4 Lyme cases annually in Davis County (DCHD, 2016-2020).

Spotted Fever Rickettsiosis

Another bacterial disease caused by the bite of an infected tick or mite is Spotted Fever Rickettsiosis. Common symptoms are fever, rash, headache, and muscle aches ([CDC](#), 2019). Davis County reported an average of 1.6 cases annually from 2017 to 2020 (DCHD, 2016-2020).

Tuberculosis (TB)

Tuberculosis (TB) is a bacterial disease caused by *Mycobacterium tuberculosis*, typically spread through airborne particles. People nearby may breathe in these particles and become infected. Tuberculosis spreads easily where people gather in crowds or where people live in crowded conditions. People with weakened immune systems have a higher risk of getting tuberculosis than people with typical immune systems ([Mayo Clinic](#), 2023). Not everyone infected with TB becomes sick. The most common reason for getting a TB test is due to a job or school requirement (DCHD, 2017-2021). There are two TB conditions: active TB disease (ATBD) and latent TB infection (LTBI) ([CDC](#), 2023).

Active TB Disease (ATBD)

ATBD occurs when bacteria begin to multiply in the body. If it manifests in the lungs it is known as pulmonary TB and if it manifests in other parts of the body, it is classified as extra-pulmonary TB ([CDC](#), 2023). Davis County typically investigates between one and six cases of ATBD per year.

Over the past five years, there have been an average of 2.8 cases of ATBD annually in Davis County (DCHD, 2016-2020).

Latent TB Infection (LTBI)

LTBI is characterized by the bacteria being alive, but inactive in the body. People with LTBI have no symptoms and cannot spread TB. However, active disease can develop in up to 10% of those who do not receive treatment (CDC, 2023). LTBI is not a reportable condition, but on average over 100 cases are identified in Davis County annually. DCHD provides education to these individuals and helps connect them to free or low cost services that are available in the community.

Other

This section highlights uncommon infections that were not part of prior disease categories.

Hepatitis C Virus (HCV)

Hepatitis C virus (HCV) is a blood borne pathogen caused by a virus that infects the liver. It is predominantly transmitted through sharing needles or syringes to inject drugs or by exposure to contaminated blood or blood products. Though uncommon, HCV can also be spread by sexual contact and from mother to child in pregnancy or childbirth. Common symptoms are joint aches, muscle aches, jaundice, loss of appetite, and abdominal pain. Over time, it can cause liver damage (CDC, 2020).

Approximately 15% to 25% of those infected with HCV will recover from the infection within the first six months. The remaining 75% to 85% develop chronic infection (Chen & Morgan, 2006). On average, 114.6 Hepatitis C (acute and chronic) cases were reported per year in Davis County (DCHD, 2016-2020).

Hepatitis of Unknown Cause

In October 2021, at a hospital in Alabama, five pediatric patients with hepatitis of unknown cause were identified in previously healthy children, between one and six years old. All of them had no known contact or common exposures. These were the first cases identified in the U.S. as part of a

worldwide investigation (NCRD-CDC, 2022). CDC issued a notice calling for state and local health departments to report potential cases. Two cases were identified in Utah, though neither were in Davis County (UDHHS, 2022).

Mpox

Mpox (formally called "monkeypox") is primarily spread from person to person through skin-to-skin contact, but other transmission modes are possible (CDC, 2023). The 2022 outbreak of Mpox was unique from past outbreaks because it mostly affected demographic groups with specific sexual and intimate contact practices (Spicknell et al., 2022). The first U.S. case associated with the 2022 outbreak was identified in May, and by October there were 27,881 cases across the Nation (CDC, 2022). Davis County reported 16 cases in 2022. Vaccinations were made available to eligible and exposed people through in-office appointments and two free vaccination clinics. DCHD administered 421 Mpox vaccine doses in 2022 (DCHD, 2022).

Legionella

Legionnaires' disease is a serious type of pneumonia caused by Legionella bacteria. People can get sick when they breathe in small droplets of water or accidentally swallow water containing Legionella into the lungs. It can become a health concern when it grows and spreads through human-made water systems in buildings (CDC, 2021). Over the past five years, there have been an average of 2.8 Legionellosis cases annually in Davis County (DCHD, 2016-2020).

DCHD received a Legionella prevention grant that led to the conducting of a Water Management Plan (WMP) survey among hospital and long-term care facilities. Of the facilities who completed the survey, 78% had a WMP, but only 39% of facilities had Legionella-specific prevention included in the plan. This was an opportunity to educate long-term care facilities that house older adults or immunocompromised patients about federal requirements for Legionella prevention (DCHD, 2022).

Community Supports

Disease surveillance, investigation, education, and treatment help to control and prevent the spread of infectious diseases in Davis County. Coordination of prevention efforts, training, and policy development can decrease rates of disease.

The list below highlights some resources available to the public through DCHD, the medical community, the Utah Department of Health and Human Services (UDHHS), and other agencies.

Local Infectious & Communicable Diseases Resources		
Communicable Disease and Epidemiology, DCHD	<i>Detect, control, and prevent communicable diseases in Davis County</i>	daviscountyutah.gov/health/communicable-disease-and-epidemiology-division
Davis County Mosquito Abatement	<i>Mosquito control services</i>	davismosquito.org
DCHD Restaurant Inspection Reports	<i>searchable results of food service inspections</i>	daviscountyutah.gov/health/environmental-health-division/services/restaurant-inspections
Food Handler Permit, DCHD	<i>In-person and online classes in English and Spanish</i>	daviscountyutah.gov/health/environmental-health-division/permits/food-handler-permit
Immunization Clinic, DCHD	<i>Routine and travel vaccinations</i>	daviscountyutah.gov/health/health-services/immunization-clinic
Midtown Community Health Center	<i>Low-cost comprehensive primary healthcare services, mental health services, and dental care accepting Medicaid, Medicare, and CHIP</i>	midtownchc.org/directory/listing/davis-county-medical-dental-clinics
STI Clinic, DCHD	<i>STI testing, screening, and treatment</i>	daviscountyutah.gov/health/health-services/disease-control-services/sexually-transmitted-diseases-testing-and-treatment
Tuberculosis Control Program, DCHD	<i>Support services related to TB, including screening, case management, and treatment</i>	daviscountyutah.gov/health/communicable-disease-and-epidemiology-division/tuberculosis-control-program
State & National Infectious & Communicable Diseases Resources		
CDC Food Safety Resources	<i>food safety resources</i>	cdc.gov/foodsafety/index.html
I Got Sick, UDHHS	<i>Report foodborne illness</i>	pubredcap.health.utah.gov/surveys/?s=AMR9NWM7YP8FFDF3
Planned Parenthood	<i>Reproductive health care, sex education, and information</i>	plannedparenthood.org/get-care/our-services/std-testing-treatment-vaccines
Preventing Perinatal Transmission of HIV	<i>Frequently asked questions about transmission of HIV during pregnancy</i>	hiv.gov/hiv-basics/hiv-prevention/reducing-mother-to-child-risk/preventing-mother-to-child-transmission-of-hiv/

Oral Health

Oral health encompasses the state of the mouth, including the teeth, tongue, and gums, as well as the face, throat, and surrounding bones and tissues, referred to as the oral-facial system or craniofacial complex ([Glick et al., 2016](#); [NIDCR, 2021](#); [CDC, 2022](#)). It includes the ability to chew, speak, smile, and express emotions ([Glick et al., 2016](#)). It impacts overall well-being throughout the lifespan and is “a key indicator of overall health, well-being, and quality of life” ([NIDCR, 2021](#); [WHO, 2022](#)).

Common oral health diseases include: dental caries (cavities/tooth decay), gum (periodontal) disease, and oral cancer ([NIDCR, 2021](#); [CDC, 2022](#)). Poor oral health can contribute to chronic diseases, including diabetes and heart disease. Tobacco use and high sugar intake increase the risk of these diseases ([CDC, 2022](#)).

Oral health data at the local and state levels are limited. Few measures, such as dental caries, routine visits, and sealants exist ([IBIS, 2020](#)). Small sample sizes for some groups and long time periods between data collection make it difficult to draw reliable conclusions on the scope of oral health needs. Nationally, children, older adults, people who are pregnant, those with lower incomes, and those with limited access to care are at higher

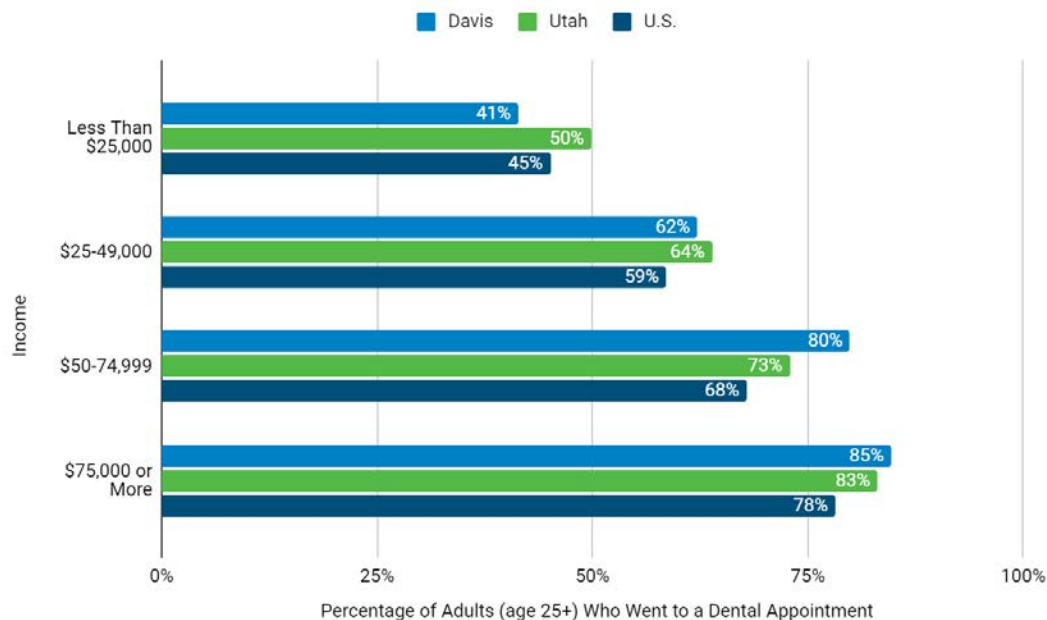
risk for oral health conditions ([IOM & NRC, 2011](#); [CDC, 2021](#); [CDC, 2022](#)).

Local data is not available for children; however, statewide, 80% of children aged 1 to 17 had at least one preventative dental visit between 2020-2021 and 12.5% had cavities ([HRSA, 2022](#)). Data after 2015 is not available for sealant rates at local or state levels.

In 2020, 76.1% of Davis County adults reported a routine dental visit in the past year compared to 73.1% in Utah and 66.7% in the U.S. ([IBIS, 2020](#); [CDC, 2020](#)). Davis County is meeting the Healthy People 2030 target for percent of children, adolescents, and adults who used the oral healthcare system ([DCHD, 2022](#)). Between 2019-2021, Davis County residents averaged two dental claims per year, one-third of which were for cavities (UDHHS, 2022).

Income and access to dental insurance play major roles in preventative dental care. Over a quarter of the U.S. population does not have dental insurance and Medicare coverage is very limited for adult dental needs in Utah and nationally ([CDC, 2021](#); [Freed et al., 2021](#)). As shown in Figure 106, adults ages 25 and older with low incomes are significantly less likely to visit a dentist annually than those with higher incomes in Davis County, Utah, and nationally ([ADA, 2015](#); [IBIS, 2020](#); [AHR, 2020](#)).

Figure 106: Routine Dental Visit by Income, 2020



Many oral health diseases can be prevented through daily care, routine dental cleanings, and screenings ([FDI World Dental Federation](#), 2016). Community interventions, such as sealant programs and community water fluoridation, can help increase access to care and prevent diseases ([CDC](#), 2020; [CDC](#), 2021). Since 2020, Big Smiles, a non-profit organization, has placed nearly 400 sealants on children at 17 different schools in Davis County (Big Smiles, 2022). Midtown Community Health Center

and the Pantry Smiles program at Davis Technical College have also provided dental services to county residents with limited incomes. Every city in Davis County, besides Woods Cross participates in community water fluoridation, a safe way to reduce cavities by almost 25% ([UDHHS](#), 2021; [CDC](#), n.d.). Fluoride has been regulated in drinking water in Davis County for over 20 years ([DCHD](#), 2020).

Oral/Dental Health Resources		
Big Smiles	<i>in-school dental care</i>	bigsmilesdental.org
Midtown Community Health Center	<i>Low-cost comprehensive primary healthcare services, mental health services, and dental care accepting Medicaid, Medicare, and CHIP</i>	midtownchc.org/directory/listing/davis-county-medical-dental-clinics
Utah Oral Health Program	<i>low-cost dental provider locator</i>	ruralhealth.health.utah.gov/oral-health/
University of Utah Dental Clinic	<i>root canals, dental implants, and more</i>	healthcare.utah.edu/dentistry
Weber State University Dental Hygiene Clinic	<i>low-cost dental clinic</i>	weber.edu/dentalhygiene/dentalclinic.html

Health Behaviors

Health behaviors are health-related practices, such as nutrition, physical activity, sleep, sexual activity, substance use, that can improve or damage the health of individuals or community members. Health behaviors are determined by the choices, resources, and opportunities available in the places where people live, learn, work and play. Not everyone has the money, access, and advantages needed to make healthy choices ([CHR&R](#), n.d.).

Nutrition

Nutrition refers to receiving the necessary energy and nutrients from food and beverages to allow the body to be healthy ([MedlinePlus](#), 2023). Eating nutrient-rich foods helps reduce one's risk of developing chronic disease, becoming overweight or obese, and having nutrient deficiencies ([CDC](#), 2023; [IBIS](#), n.d.).

The most recent U.S. Department of Agriculture Dietary Guidelines provide recommendations for nutrient-dense foods and beverages, such as vegetables of all types, fruits, grains, dairies (or fortified alternatives), proteins, and oils. Staying within calorie limits and limiting foods and beverages high in added sugars, saturated fats, and sodium is also recommended ([USDA](#), 2020).

Examples of individual factors that directly impact food choices include knowledge, food preferences, time, skills, beliefs, values, and income ([Downs et al.](#), 2020).

Food choices are impacted by the food environment, which in turn affects individual behaviors ([Downs et al.](#), 2020). Some environmental factors that influence food consumption include:

- Availability of food choices within a given distance or location
- How food items are presented, marketed, promoted, and labeled
- Affordability of food items
- Convenience of obtaining, preparing, and consuming food
- Food quality, such as its freshness, safety, nutritional value, and sensory appeal
- Environmental and social impact of food items

Table 34 compares nutrition indicators for adults and youth in Davis County to Utah and the U.S.

Nutrition Indicators	Davis	Utah	U.S.
Adults Eating 3+ Vegetables Daily	11.9%	12.6%	13.7%
Adults Eating 2+ Fruits Daily	40.3%	32.2%	28.6%
Adolescents Eating at Least One Family Meal 5+ Times a Week*	59.9%	57.9%	65.0%
Children Ages 1-5 Eating Vegetables Daily	--	47.5%	51.0%
Children Ages 1-5 Eating Fruits Daily	--	71.6%	68.0%
Children Ages 1-5 Drinking Sugary Beverages 1+ Times a Week	--	66.6%	57.0%

Data: [IBIS](#), 2019&2021 (age-adjusted); [IBIS](#), 2021 (age-adjusted); [IBIS](#), 2019 (age-adjusted). [UDOH](#), 2021; [HHS](#), 2018-2019; [CDC](#), 2023

* For county and state, adolescent family meals include Grades 8, 10, & 12 with student survey; for national level it includes ages 12-17 and includes those eating with all household members at least 4-6 days with a parent survey

Adult fruit and vegetable consumption in Davis County has decreased over the past 10 years ([IBIS](#), 2011-2021). Only 11.9% of Davis County adults eat the recommended amount of vegetables per day, fewer than the State and Nation ([IBIS](#), 2019 & 2021). Adults in Davis County are doing better than the State and Nation with eating the recommended daily amount of fruit. However, significant disparities exist in Davis County with 20.9% of people with one or more disabilities meeting the daily fruit recommendation compared to 45.6% of those without a disability ([IBIS](#), 2019 & 2021).

Youth fruit and vegetable data is unavailable at the county level. In Utah, over 7 in 10 children ages 1 to 5 eat fruit daily, but fewer than half eat a vegetable daily. Neither measure is significantly different from the U.S. However, significantly more children in Utah drink sugary beverages at least once a week compared to children across the U.S. ([CDC](#), 2023).

A number of studies indicate that eating meals as a family is associated with increased intake of fruits, vegetables, and whole grains. Adolescents who eat more meals with their families may drink fewer

sugar-sweetened beverages and have a lower body mass index (BMI) than their peers who eat fewer meals with their families (IBIS, 2021). In Davis County, 3 in 5 adolescents reported eating at least 5 meals a week with their families, which is better than in Utah but lower than the U.S. (UDOH, 2021; HHS, 2018-2019).

Based on existing data, no other significant disparities emerged for other healthy eating indicators in Davis County or Utah.

In 2022, the Davis Food Environment Workgroup distributed a survey to adults at 10 Davis School District (DSD) Summer Lunch Program sites to learn about local food and nutrition habits. There were 193 responses. Findings included:

- Almost all respondents purchased the majority of their food from a supermarket or grocery store, and more than 1 in 5 shopped for the majority of their food online or through an app

- The most commonly reported food categories in a typical meal included meat, poultry, and eggs (98%); vegetables, not french fries/ketchup (91%); grains (84%); fruits (81%); and dairy products (77%)
- Nearly 1 in 4 reported having sugary foods and/or drinks in a typical meal
- To learn about healthy food choices, the top sources reported were going online (52%), on social media (16%), at school (14%), or going to a health professional (10%)
- The top five barriers to eating healthy included time to prepare food (58%), cost of food (57%), taste preferences (28%), nothing prevented them (20%), and lack of motivation (20%)

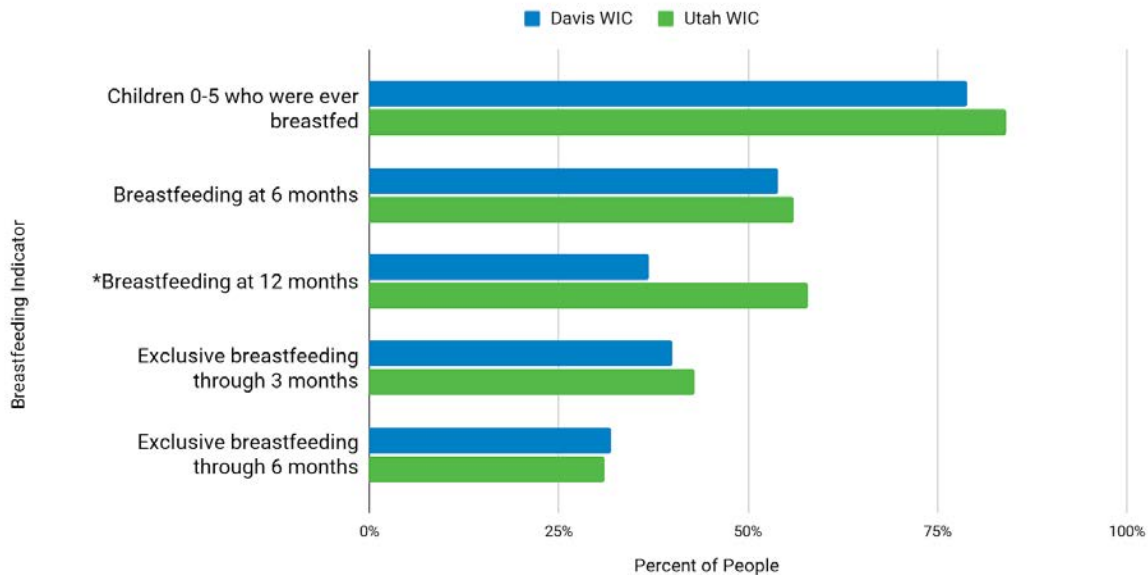
For more food data and resources, see the Food Environment section of the Physical Environment chapter and the Food Security section of the Social and Economic Factors chapter.

Local Healthy Eating Resources

Davis County Community Gardens, Farmers Markets, and Produce Stands	List and contact information	daviscountyutah.gov/health/health-services/health-education-services/nutrition-education/page/2
TOP Star, DCHD	Continuing education program for child care providers designed to help providers improve the quality of the nutrition, physical activity, and breastfeeding environments in their child care facility	daviscountyutah.gov/health/community-health-services-division/top-star
Women, Infants, and Children (WIC), DCHD	Information about WIC, nutrition, and breastfeeding	daviscountyutah.gov/health/health-services/women-infants-children-(wic)-2-0
USU Extension Davis County	Provides helpful information, resources, and events on topics including agriculture, gardening, home, family, and food	extension.usu.edu/davis

State & National Healthy Eating Resources

2020-2025 Dietary Guidelines for Americans	USDA nutrition guidelines	dietaryguidelines.gov/sites/default/files/2021-03/Dietary_Guidelines_for_Americans-2020-2025.pdf
Create Better Health	Information and healthy recipes	createbetterhealth.org

Figure 107: Breastfeeding Indicators for WIC Program Participants, 2021

Data: DCHD WIC, 2022. *For Utah WIC, the 12 month indicator may be overreported due to a system update.

Breastfeeding

Research shows breast milk provides all the nutrients that an infant needs for the first months of life. It continues to provide up to half or more of a child's nutritional needs from ages six to 12 months, and meets a third of nutritional needs from 12 months to two years of age ([WHO](#), n.d.). Infants who are exclusively breastfed for six months or more benefit the most from human breast milk because the composition of breast milk changes to meet the infant's nutritional needs as they grow. Due to this and other benefits, the American Academy of Pediatrics recommends exclusive breastfeeding (nothing other than breast milk) for all babies during the first six months of life, and encourages breastfeeding to continue for at least a year or longer as mutually desired by mother and baby ([AAP](#), 2022). Exclusive breastfeeding is defined as feeding an infant only breast milk without any other foods, formula, or liquids, except for medications or vitamin and mineral supplements ([CDC](#), 2022).

Both mothers and infants benefit from breastfeeding or pumping milk. For moms, it can help speed up recovery from childbirth. It can also reduce their risk for certain breast and ovarian cancers, type 2 diabetes, and high blood pressure. Breastfeeding may also help with losing weight after

childbirth ([USDA](#), n.d.). For infants, the antibodies in breast milk protect against common childhood diseases. Research has also shown breastfeeding protects from disease later in life. Breastfed infants have a lower risk of asthma, obesity, type 2 diabetes, ear infections, and severe diarrhea ([CDC](#), n.d.).

In Utah, 94.4% of mothers reported ever having breastfed or given breast milk to their new baby, which is significantly higher than the national average of 87.9%. When asked about their practices eight weeks after delivery, significantly more (76.8%) Utah mothers than U.S. mothers (68.5%) reported still breastfeeding or feeding breast milk to their infant ([PRAMS](#), 2020).

Breastfeeding data for Davis County is only available for children enrolled in the Women, Infant, and Children (WIC) Program (Figure 107). When comparing trends among WIC clients, a smaller percentage of clients enrolled in Davis WIC breastfed compared to the State WIC population (DCHD WIC, 2022).

In 2021, differences existed among Davis County WIC participants by race, ethnicity, and education level for various breastfeeding measures. These differences align with national trends that report significant disparities ([CDC](#), 2019).

Among the 5,669 women that were enrolled in Davis County WIC services, a larger percentage of White, non-Hispanic/Latino clients ever breastfed and breastfed for longer compared to clients who identified as Black, Indigenous, or People of Color (BIPOC). Additionally, for all indicators except the ever breastfed indicator, those with over 12 years of education had higher breastfeeding rates than those with 9 to 12 years of education (DCHD, 2022).

Several social, cultural, and individual factors may lead a mother to stop breastfeeding early, or to never initiate breastfeeding. In limited circumstances, such as when an infant is premature or when the health conditions of the mother may impact the infant, a healthcare provider may provide different recommendations for ensuring adequate nutrition (CDC, 2021). Given that circumstances vary by individual, prevalence data for these factors is limited. However, general factors associated with lower breastfeeding rates include hospital practices, education and encouragement, access to community resources and support, and workplace policies and support (CDC, 2022).

Community Supports

To address some of these factors, the 2010 Break Time for Nursing Mothers Law required workplaces nationwide to provide reasonable time and non-bathroom space for breastfeeding employees to pump during their shift. These benefits were extended to more workers in 2022 with the Providing Urgent Maternal Protections (PUMP) For Nursing Mothers Act. The updated law enables workers to sue employers who do not comply with the act and clarifies that pump time should be paid if the worker is not completely relieved of duty during that time (USBC, n.d.).

In Davis County, Lakeview Hospital and Intermountain Health Layton Hospital provide breastfeeding services to insured patients who have recently delivered a baby. The Utah Breastfeeding and Tongue Tie Center provides classes and support services at two locations in Davis County to mothers with Medicaid or private insurance. The WIC program at DCHD also provides support through peer counselors, certified lactation consultants, pumps, and classes in English and Spanish to eligible mothers (DCHD, 2022).

Refer to the Reproductive and Birth Outcomes section of the Health Outcomes chapter to learn more about the health of infants and mothers.

Breastfeeding Resources

Women, Infants, and Children (WIC), DCHD	<i>Information about WIC, nutrition, and breastfeeding</i>	daviscountyutah.gov/health/health-services/women-infants-children-(wic)-2-0
CDC Breastfeeding Promotion & Support	<i>Information and research</i>	cdc.gov/breastfeeding
La Leche League USA	<i>Breastfeeding support and tips</i>	llusa.org
Utah Breastfeeding and Tongue Tie Center	<i>Information and myofunctional therapy</i>	utahbreastfeedingandtonguetie.com

Physical Activity

Physical activity is any movement of the body during leisure time, while getting to and from places, or as part of work. Being physically active is one of the most important actions all people can take to maintain and improve their health. Physical activity fosters normal growth and development and can help people to feel, function, and sleep well. It reduces the risk of developing a large number of chronic diseases ([WHO](#), 2020).

Health benefits start immediately after activity, and even short episodes of physical activity are beneficial ([HHS](#), 2018). Figure 108 includes the physical activity guidelines from the U.S. Department of Health and Human Services for different age groups.

Figure 108



Source: [ABH](#), 2018

The guidelines recommend that adults get at least 150 minutes of moderately intense activity or 75 minutes of vigorously intense activity each week. Children and adolescents are recommended to get at least one hour of moderate-to-vigorous activity daily. Because muscle-strengthening activities of moderate or greater intensity can provide additional benefits, adults should engage all major muscle groups two or more days a week and youth three times a week ([HHS](#), 2018). When adults with chronic conditions or disabilities cannot meet these guidelines, it is recommended to engage in regular physical activity according to their abilities.

Table 35 (next page) provides the prevalence of adults and students who are meeting or are not meeting physical activity recommendations.

The availability of exercise opportunities can influence whether community members meet physical activity recommendations. In Davis County, 85% of the population has adequate access to locations for physical activity, such as parks and gyms. This is better than 83% in Utah and 80% in the U.S. ([CHR&R](#), 2022).

Adult Physical Activity

A higher percentage of Davis County adults are meeting recommended aerobic physical activity and muscle-strengthening activity levels compared to Utah and the U.S.; although, there is room for improvement (Table 35, next page). Davis County is not meeting the Healthy People 2030 target for percent of adults aged 18 years and over who met the guidelines for aerobic physical activity and muscle-strengthening activity ([DCHD](#), 2022).

Some people are less likely to meet physical activity recommendations due to barriers they encounter in daily life. In Davis County, a number of disparities emerged when comparing the percentage of adults meeting recommended aerobic activity levels (Figure 109). Populations significantly less likely to meet recommendations included:

- Those making less than \$25,000 annually
- Renters
- Those with one or more disabilities, especially those with an independent living disability ([IBIS](#), 2019)

Table 35: Percent of Population Meeting Physical Activity Recommendations

Activity	Davis	Utah	U.S.
Adults, Aerobic Physical Activity	58.9%	55.2%	50.6%
Adults, Muscle-Strengthening Activity	40.9%	38.0%	35.6%
Adults, Physically Inactive (No Leisure Time Activity)	16.5%	16.4%	22.4%
Students, Physical Activity*	17.6%	16.8%	23.2%

Data: [IBIS](#), 2019 (age-adjusted); [IBIS](#), 2020 (age-adjusted); [IBIS](#), 2020 (age-adjusted); [AHR](#), 2020 (age-adjusted); [IBIS](#), 2019 (age-adjusted); [IBIS](#), 2019 (age-adjusted); [UDOH](#), 2021 (grades 8, 10 & 12 - crude); [CDC](#), 2019 (grades 9-12 - crude)

*Davis County and Utah are 2021 data and U.S. is 2019 data

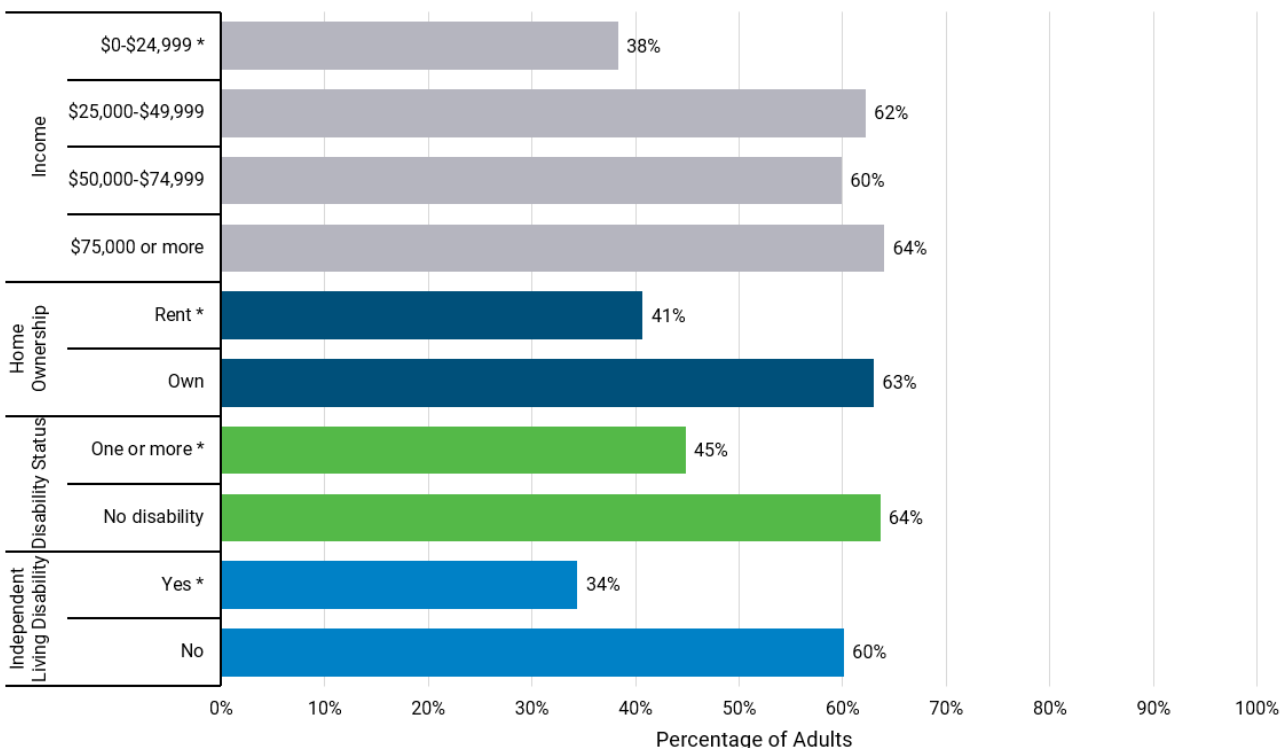
In Davis County, there was also a significantly higher prevalence of physical inactivity among adults who:

- Identified as lesbian, gay, or bisexual (LGB) compared to straight/heterosexual
- Were Hispanic/Latino compared to non-Hispanic/Latino

- Had a high school diploma/GED compared to a post-high school education
- Had one or more disabilities compared to no disabilities ([IBIS](#), 2021)

For muscle-strengthening, adults in Davis County were significantly less likely to meet recommendations if they:

- Were female compared to male
- Made less than \$25,000 annually compared to those who made more
- Had no military service compared to those who served
- Were employed for wages compared to self-employed or retired ([IBIS](#), 2019)

Figure 109: Adults Meeting Recommendations for Aerobic Physical Activity by Demographic Group, 2019

Data: [IBIS](#), 2019 (age-adjusted)

* = Significantly lower physical activity than other categories within the demographic group

Youth Physical Activity

According to the 2021 Utah Adolescent Health Report, fewer than 1 in 5 Davis County students in grades 8, 10, and 12 combined reported meeting aerobic physical activity recommendations in 2021. This is similar to Utah and worse than the U.S. (Table 35). While the report did not include data by sex and grade at the county level, male students were significantly more likely to meet physical activity recommendations compared to female students in Utah. Additionally, students in grade 8 were significantly more likely to meet activity recommendations than those in grades 10 and 12. Since 2015, the prevalence of those meeting recommended physical activity guidelines has declined ([UDOH](#), 2021).

Community Voice

City recreation and sports programs for youth provide physical activity opportunities. During focus groups with Davis County residents, some parents discussed the importance of having access to sports for both younger and older children, noting that it can help focus their energy, connect with others, and stay in shape. The biggest barrier to these extracurricular activities was the cost, especially for families with multiple children (DCHD, 2022).

Community Supports

Policies, programs, and physical environments all affect activity levels. The Davis School District (DSD) Wellness Policy encourages employee wellness through a staff wellness committee. The committee implements an employee wellness program, which provides supports such as gym discounts ([DSD](#), 2019; [DSD](#), n.d.). The policy also encourages schools to use a variety of ways to help students receive the daily recommended amount of activity, such as integrating movement into classroom lessons, ensuring recess is held, and meeting physical education standards.

All elementary, middle, and junior high schools in Utah are required to create a safe routes plan for students within walking or biking distance ([SRU](#), n.d.). DCHD supports education on safe biking and walking through school assemblies in partnership with Safe Routes Utah (DCHD, 2022).

In 2022, DSD hosted its first Special Olympics Utah Unified Sports tournament in partnership with the Davis Education Foundation and Utah First Lady, Abby Cox. The statewide program pairs Special Olympics Utah athletes with partners without intellectual disabilities on teams for training and competition ([KSL](#), 2022).

Lastly, Davis County has a variety of features to promote physical activity, including trails, hiking, and other recreational opportunities.

Physical Activity Resources

Davis County Staycation Guide	<i>A guide to free and low-cost physical activities in Davis County</i>	daviscountyutah.gov/docs/librariesprovider5/community-health-services/staycation-guide-final-2022.pdf
Davis County Trails and Bikeways Map	<i>Interactive map of 500+ miles of trails in Davis County</i>	daviscountyutah.gov/trails
Get Healthy Utah	<i>Resources for active living</i>	gethealthyutah.org/areas-of-focus/active-living
Current Physical Activity Guidelines for Americans	<i>Current and past guidelines</i>	health.gov/our-work/nutrition-physical-activity/physical-activity-guidelines

Sleep

Sleep is an essential function that recharges the body and mind, allowing one to feel refreshed and alert once awake. Adequate amounts of sleep support the body's physical and mental performance. Research suggests less sleep reduces life expectancy due to the link between sleep and leading chronic diseases, such as heart disease, obesity, dementia, diabetes, and cancer. Not getting enough sleep also negatively impacts concentration, learning, emotional control, and immune system functions ([Walker](#), 2018). This can impair a person's ability to concentrate, think clearly, and process memories ([SE](#), 2022).

A healthy diet and positive lifestyle habits help ensure an adequate amount of sleep each night. The following can prevent individuals from receiving enough sleep ([SE](#), 2022):

- Work schedules
- Day-to-day stressors
- Medical conditions
- Disruptive nighttime routines (caffeine, alcohol, screen time, or large meals before bedtime)
- Bedroom environment (bright light)

How much sleep is needed changes with age. The CDC recommends higher levels of sleep per day initially with gradual decreases across the lifespan ([CDC](#), 2022). Daily sleep recommendations by age group include:

- Newborns (0-3 months): 14-17 hours
- Infants (4-12 months): 12-16 hours
- Toddlers (1-2 years): 11-14 hours
- Preschoolers (3-5 years): 10-13 hours
- School age (6 to 12 years): 9-12 hours
- Teens (13-18 years): 8-10 hours
- Adults (18 and up): 7 or more hours

Available data for youth and adults suggest that fewer Davis County residents are meeting sleep recommendations compared to Utah and the U.S. (Table 36).

Table 36: Percent of Population with Enough Sleep

Average Amount of Sleep per Night	Davis	Utah	U.S.
Students with 8+ Hours	34.6%	36.5%	–
Adults with 7+ Hours	67.3%	69.0%	67.7%

Data: [SHARP](#), 2021 (grades 6, 8, 10, & 12); DHHS, 2018 & 2020; [AHR](#), 2020

Adult Sleep

In Davis County, 67.3% of adults reported sleeping for seven or more hours a night on average, compared to 69.0% of Utah adults and 67.7% of U.S. adults (UDHHS, 2018&2020; [AHR](#), 2020).

The proportion of Davis County adults meeting sleep recommendations varied among demographic groups. Most notably, as income increased, adults meeting sleep recommendations also increased with a significant difference between the lowest and highest income groups. There was nearly a 20% gap in adequate sleep reported by those making less than \$25,000 a year and those making \$75,000 or above. The gap in sleep between these income groups at the state level (7%) and national level (8%) is much smaller (UDHHS, 2018 & 2020; [AHR](#), 2020).

Additionally, significantly more adults aged 65 and older got seven or more hours of sleep a night (78.3%) than any other age group. This trend is also reflected at the state and national levels. No significant differences were observed between sexes in Davis County or Utah (UDHHS, 2018 & 2020). County level race and ethnicity data for adult sleep was not available, but national trends suggest that fewer Native Hawaiian/Pacific Islanders and Black/African American adults get enough sleep compared with Asian/Asian American, White, and Hispanic/Latino adults ([AHR](#), 2020). When interpreting data by demographic group, it is important to consider the differing experiences in accessing resources and opportunities that may impact an individual's life.

Student Sleep

Among Davis County students in grades 6, 8, 10, and 12, 34.6% reported getting eight or more hours of sleep on an average school night. This is slightly lower than the State. When examined by grade, sex, and race and ethnicity, the students who were most likely to sleep for eight or more hours were those in grade 6, male, and American Indian/Alaska Native students. Davis County sample sizes were too small to compare sleep among LGBTQ+ students ([SHARP, 2021](#)).

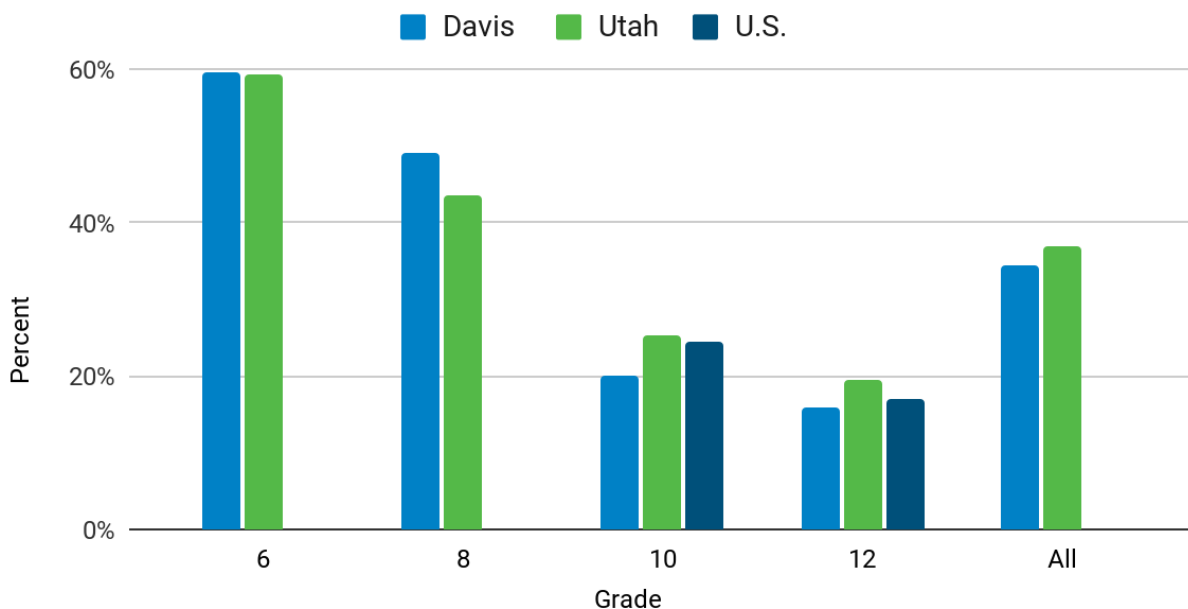
National sleep data for grades 9 through 12 show adequate sleep is decreasing over time, and that differences exist by sex, race and ethnicity, grade, and sexual orientation ([YRBS, 2019](#)). Fewer students got eight or more hours of sleep in 2019 (22.1%) compared to 2009 (30.9%).

National Youth Risk Behavior Survey (YRBS) data is comparable to local SHARP data for grades 10 and 12 only. In Davis County, fewer students in these grades reported getting enough sleep compared to Utah and U.S. (Figure 110).

Sufficient sleep during adolescence is prevention according to the Mountain Plains Prevention Technology Transfer Center:

- Insufficient sleep during adolescence has long-lasting effects on neurocognitive development
- There is significant correlation between sleep duration and mental and behavioral setbacks
- Early intervention in adolescents who have inadequate sleep patterns can improve long-term developmental outcomes
- Parental monitoring and engagement can be a protective factor by ensuring adolescents get the necessary sleep for development ([MPPTTC, 2023](#))

Figure 110: Percent of Students Who Reported Receiving 8+ Hours of Sleep on an Average School Night by Grade, 2021



Data: SHARP Webtool, 2021 (grades 6, 8, 10, & 12); YRBS, 2019 (grades 9, 10, 11, & 12)

Sexual Activity

Sexual health is fundamental to the overall health and well-being of individuals, couples, and families. It requires a respectful and positive approach to relationships, sexuality, and sexual experiences that does not include violence, discrimination, or persuasion. Sexual activity is a normal part of the human experience and behaviors associated with sex can be healthy or unhealthy. Sexual health-related issues are wide-ranging and can lead to unintended or unhealthy pregnancies, sexually transmitted infections (STIs), or sexual violence ([WHO](#), 2022).

Delaying the age of sexual activity reduces the risk of teen pregnancy, STI transmission, and increases high school graduation rates among girls ([HHS](#), 2020). Studies show that teens are more likely to delay sexual activity and use a condom when they have sex if their parents talk to them about sex ([CDC](#), n.d.).

Local data on the age of first sexual activity is limited. In a recent study of Utah State University students, 19% of respondents said they had penetrative sex and 34% said they had non-penetrative sex in middle or high school. In the same study, 44% of respondents reported they were aged 17 or older when they had any type of sex for the first time ([USU](#), 2021).

For data on health outcomes related to sexual activity, see the Reproductive and Birth Outcomes section of the Health Outcomes chapter.

Family Planning

Family planning is used to help people “achieve their desired number and spacing of children, increase the chances that a baby will be born healthy, and improve their health even if they choose not to have children” ([CDC](#), 2023).

Birth control (contraception) is any method, medicine, or device used to prevent pregnancy. Most data regarding contraception methods and usage is not available at county or state levels. This makes it difficult to know where to focus efforts in Utah. Also, most data regarding contraception is collected from women. It is important to collect

contraception use data from both sexes since it affects all parties involved. There are about 12 different forms of contraception, which are beneficial for different preferences, needs, and lifestyles.

Contraception & Condom Use

In an effort to improve access to contraception, Utah created a standing order that went into effect in March of 2019. This standing order allows any woman aged 18 or older to get hormonal contraception (birth control pills, contraceptive patches, or vaginal rings) without a prescription from a participating pharmacy ([UDOH](#), 2019).

The National Survey of Family Growth reported 65.3% of women aged 15 to 49 currently use contraception, with the most common type being female sterilization (18.1%), followed by birth control pills (14.0%). Women that have never been married most commonly use birth control pills (45.5%) as their primary form of contraception, whereas married women (38.5%) and formerly married women (61.9%) most commonly use female sterilization (tubal ligation). Emergency contraception use was reported by 25.1% of women in their lifetime. During their last sexual encounter, 81.1% of women report the use of contraception compared to 75.4% of men ([CDC](#), 2017-2019).

Condom use is the only method of contraception that can be protective against both sexually transmitted infections (STIs) and pregnancy. The national survey found that men (65.8%) were more likely than women (58.5%) to report having used a condom the first time they ever had sexual intercourse. Male condoms were the leading contraceptive used during first sexual encounters ([CDC](#), 2017-2019).

State and Davis County contraception data are not publicly available.

Abortion

A person may choose to terminate their pregnancy for a variety of reasons. Some reasons include the pregnancy endangering the mother's life, fetal malformation, drug or radiation exposure, rape, mental health, or socioeconomic reasons. In 2020, 56.2% of Utah residents who terminated their pregnancies reported that socioeconomic reasons led to their decision. Those ages 20 to 24 had the highest rate of abortion of any age group in Utah at 6.0 per 1,000 females ([UDHHS, 2022](#)).

Those seeking an abortion are provided education and have a mandatory waiting period of 72 hours to consider options before an abortion can be performed. Any patient under the age of 18 is required to have parental consent. Abortions after 18 weeks of pregnancy are not allowed, except in cases of life endangerment, if the woman's health is severely compromised, rape, incest, or in cases of fetal impairment ([Utah State Legislature, 2022](#)). There are limitations to when insurance policies will cover the cost of an abortion ([KFF, 2019](#)).

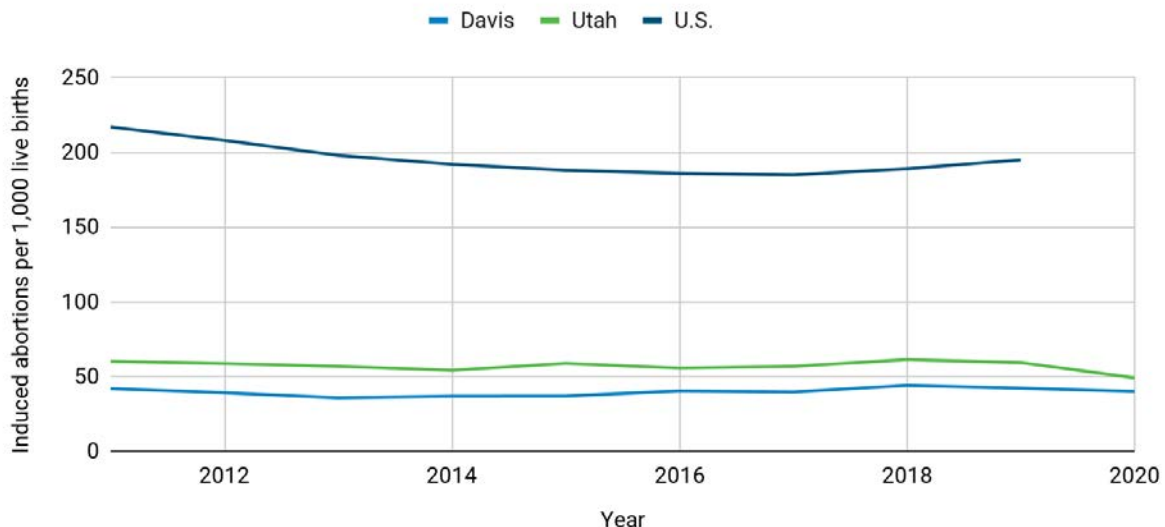
In 2019, 0.5% (2,776) of all abortions in the U.S. occurred in Utah ([CDC, 2021](#)). Of those, 215 took place in Davis County. In 2020, abortions decreased in Davis County (193) and statewide (2,244) ([UDHHS, 2022](#)).

As shown in Figure 111, despite Utah's increasing population, abortions have been declining from 60.2 per 1,000 live births in 2011 to 49.1 per 1,000 live births in 2020. Davis County's trend has remained steady and lower than the Utah trend during this time. In 2020, there were 40.0 abortions per 1,000 live births in Davis County ([UDHHS, 2022](#)). Both Davis County and Utah trends have remained significantly lower than the U.S. trend, which has also been decreasing ([CDC, 2021](#)).

In 2023, the Utah State Legislature attempted to clarify the State's abortion trigger law that could have gone into effect following the Supreme Court's overturning of *Roe v. Wade* in 2022 ([Utah Governor's Office, 2023](#)). In March 2023, a bill was passed and signed into law that prohibits license renewals and licensing of new abortion clinics beginning May 2, 2023. A full ban on abortion clinics will be instituted beginning January 1, 2024. The bill requires abortions to be performed in a hospital, with some exceptions ([Utah State Legislature, 2023](#)).

Most Utah patients receive abortion care in a clinic and most hospitals in Utah do not currently provide abortions, except in the most extreme circumstances. Utah law allows hospitals and individual providers to refuse care to patients seeking abortion ([Planned Parenthood, 2023](#)).

Figure 111: Abortion Ratios, 2011-2020



Data: UDHHS, 2022

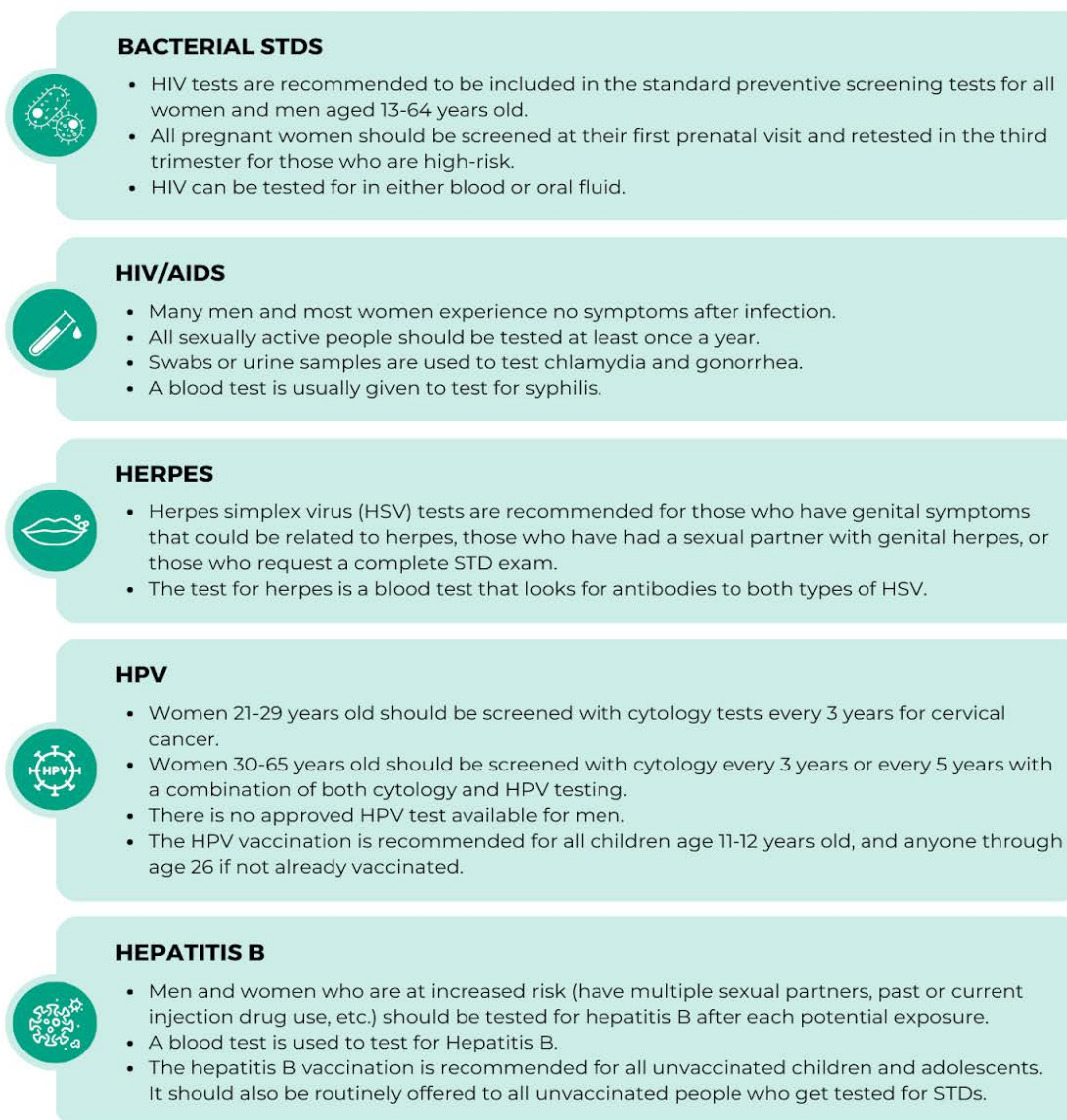
STI Testing & Prevention

The higher the number of sexual partners a person has, the higher their risk is for contracting a sexually transmitted infection (STI), also known as a sexually transmitted disease (STD). Testing and treatment of infections are important to stop the spread of disease. Regular screenings are important to prevent spread and long term health problems, especially since many STIs do not have any symptoms. Figure 112 summarizes testing recommendations by STI. Data on testing rates for these conditions is unavailable due to reporting requirements.

For rates of confirmed infections, see the Infectious Disease section of the Health Outcomes chapter.

Davis County Health Department (DCHD) offers low-cost STI testing and treatment. Midtown Community Health Center provides low-cost STI screening with a medical exam ([DCHD, 2022](#)). Other preventive measures include getting vaccinated against human papillomavirus (HPV), the most common STI in the U.S. ([CDC, 2022](#)). Cervical cancer screening like a Pap smear is also a preventative measure. For screening data, see the Preventative Care section of the Clinical Care chapter.

Figure 112



Source: [CDC, 2022](#)

Pornography

Very little data is available about the use of pornography (porn) in Utah and Davis County. According to a small national survey, 58% of adults have watched pornography in their lifetime and 27% have watched it in the last month. Of the men surveyed, 44% said they had watched pornography in the last month compared to 11% of women. This study found that men who watch pornography more commonly reported feeling lonely or isolated, unhappy about how they look, self-conscious, and less satisfied with their sex life compared to those who never watched it ([Survey Center on American Life](#), 2022).

According to Fight the New Drug (FTND), decades of studies from academic institutions have demonstrated the impacts of porn consumption on individuals, relationships, and society.

How Porn Can Impact Individuals

- Change the brain
- Affect the brain like a drug
- Can be difficult to quit
- Can become an escalating behavior
- Can contribute to an unhealthy cycle of stress

How Porn Can Impact Relationships

- Can negatively impact love and intimacy
- Can harm consumers' sex lives
- Can normalize sexual objectification
- Can impact mental health and increase loneliness

How Porn Can Impact Society

- Can fuel sex trafficking
- Can promote sexual violence
- The porn industry profits from non consensual content and abuse

There are still many unknowns regarding modern internet porn. It is difficult to guarantee that any piece of pornographic content is consensual, ethical, or legal. The industry profits from the most highly engaging content in which sexual extremes are portrayed ([FTND](#), 2023).

Utah Code Part 12 outlines laws related to Pornographic and Harmful Materials and Performances ([Utah State Legislature](#), n.d.).

Sexting

Sexting is a term used to describe the act of sending sexual messages (sexts) via phones, social media, and gaming devices. These messages may also involve sending partial or completely nude pictures or videos. When sexting includes nude or partial nude images of people under the age of 18, it is considered to be child pornography. Anyone, regardless of age, who shares these images could face child pornography charges ([Utah State Legislature](#), 2021). When all parties are ages 18 and older, sexting may not have legal consequences if there is consent between all parties. Adults who engage in sexting with other adults can discuss, create, and maintain boundaries and make a plan for keeping and deleting content ([WebMD](#), n.d.).

Studies show that 27.4% of teens have received a sext and 14.8% have sent one ([Madigan et al.](#), 2018). Having or sending explicit images can also lead to bullying, be sold to a website, or posted on social media ([WebMD](#), n.d.). In some cases the images are used for sextortion.

For more information on sextortion, see the Sexual Abuse section of the Social and Economic Factors chapter.

Community Supports

In 2018, House Bill 286, Reproductive Education Amendments, passed outlining updates to the law about instruction in health and sex education in Utah. It modified instruction to include instruction in refusal skills for unwanted sexual advances, sexual harassment, and electronic transmission of sexually explicit images. Instruction would also include information on the harmful effects of pornography. It directed local school boards to review data on teen pregnancy; child sexual abuse; STDs/STIs; and pornography every two years ([Utah State Legislature](#), 2018).

Since offenses of a sexual nature have been increasing, Davis School District (DSD) created an educational awareness course for students who are subject to corrective action due to pornography use, sexting/sextortion, or any lewd or sexual behavior. The online course is called Safety in the Digital Age. It addresses internet safety, sexting/sextortion, pornography, lewd and sexual misconduct, and healthy relationships. During the 2021 to 2022 school year, 166 students completed the course (DSD, 2023).

DCHD provides sexual health education classes geared for youth and their parents through a federal program known as the Personal Responsibility Education Program (PREP). With this funding, health educators have been trained to facilitate three evidence-based curricula:

- Making Proud Choices! promotes abstinence and contraception as methods to prevent STDs/STIs, HIV/AIDS, and teen pregnancy. DCHD currently teaches this course weekly at Clearfield Job Corps Center and hopes to expand to other youth-based organizations.
- Teen Outreach Program (TOP) focuses on social-emotional well-being through a 9-month youth development program. Participants also complete 20 hours of community service learning. DCHD has one active TOP Club at Mercy House's after-school program.

- Families Talking Together is a program directed for parents of teens, to build communication skills to promote conversations about sex between parents and adolescents and improve the parent-child relationship.

The SHARP survey is the primary way to measure health behaviors along with risk and protective factors in Davis County youth. Currently there are no measures on the survey for adolescent sexual health, such as sexual abuse, sexting, sextortion, or pornography.

Over the last two SHARP administration cycles, Davis4Health partners have recommended adding questions about sexting, pornography, and safe use of technology. Concerns about these issues have been a community theme in conversations with community leaders, law enforcement, mental health professionals, religious leaders, youth, and parents (DCHD, 2022). Prevention partners are interested in data similar to that of other risk factors on the survey, such as age of initiation and exposure, prevalence of regular use, and access. The Davis County Children's Justice Center requested questions about pornography and sexting be added to the survey in 2011 (DCHD, 2019).

An even broader community theme involves lack of awareness and resources about sexual health and sex education in families, schools, and faith communities. Community recommendations include the need to discuss sexuality in a healthy way and use correct names for body parts (DCHD, 2022).

Local & State Sexual Health Resources

Birth Control Choices, UDHHS	Information about types of birth control	mihp.utah.gov/wp-content/uploads/contr_choices.pdf
Midtown Community Health Center	Low-cost comprehensive primary healthcare services, mental health services, and dental care accepting Medicaid, Medicare, and CHIP	midtownchc.org/directory/listing/davis-county-medical-dental-clinics
HIV PrEP (Pre-Exposure Prophylaxis)	Free PrEP medications and consultations	healthcare.utah.edu/infectiousdiseases/hiv-prep/
Sexual Health Education Classes, DCHD	Evidence-based classes geared towards youth and their parents	801-525-5214
STI Testing, DCHD	Low-cost STI testing. Please call 801-525-5200 to schedule an appointment.	daviscountyutah.gov/health/health-services/disease-control-services/sexually-transmitted-diseases-testing-and-treatment

National Sexual Health Resources

Educate and Empower Kids	Provides resources for parents to teach digital citizenship, media literacy, and healthy sexuality - including education about the dangers of online pornography	educateempowerkids.org
Families Talking Together	Offers programs to teach communication skills, build parent/child relationships, help parents develop monitoring skills, and teach youth assertiveness and refusal skills	tppevidencereview.youth.gov/document.aspx?rid=3&sid=53
Fight the New Drug	Provides individuals the opportunity to make an informed decision regarding pornography by raising awareness on its harmful effects using only science, facts, and personal accounts	fightthenewdrug.org
National Coalition for Sexual Health	Advocacy, news, and resources	nationalcoalitionforsexualhealth.org
Planned Parenthood	Access and information	plannedparenthoodaction.org

Technology Use

Technology refers to tools and systems developed by science for practical use (CD, n.d.). Today, society relies on technology for many aspects of life, including work, school, and social connection. Use of the Internet, computers, smartphones, and other technology devices has greatly increased in recent decades. This increase is associated with both benefits and harms to users (WHO, 2018).

Benefits of technology use include the following:

- Access to unlimited amounts of information
- Ability to produce, process, and store large amounts of data
- Opportunity to interact and connect with each other (Hoehe & Thibaut, 2020)

Although technology is beneficial to society, concern arises when use becomes excessive or problematic. This means it interferes with daily activities like work or exercise, or creates similar behavioral symptoms to substance use and gambling disorders (WHO, 2018). Due to this, research and recommendations focus on the time, length, and purpose of technology use. For instance, problematic technology use of social networking sites, also known as social media, has been associated with poor sleep quality, attention disorders, depression, anxiety, and stress (Hussain & Griffiths, 2021).

The impact of technology use on health is an emerging issue, especially for youth. This means agencies like the World Health Organization and associations of mental health professionals are investigating the topic. More research is needed

before it is fully understood, especially whether technology use causes certain health outcomes or the other way around.

The Ledger of Harms published by the Center for Human Technology outlines the costs to society as a result of technology platforms and companies profiting from human attention ([CHT, 2022](#)). The content that gets the most attention or engagement includes:

- Conspiracy theories
- Propaganda and distorted dialogue
- Amplification of racism, sexism, homophobia, and ableism

Additionally, negative societal effects of this content include disrupted democratic processes, polarization, and lack of empathy.

Screen Time

The amount of screen time a person has per day is a common measure of technology use. However, available data is limited since technology use recommendations vary by agency, age, and purpose of use.

Nationally, the consumption of media on mobile devices and with TV is projected to increase. By 2023, the average U.S. adult is projected to spend 4 hours and 35 minutes per day on mobile devices, and 2 hours and 51 minutes with TV ([II, 2021](#)). Adult screen time data is not available at the local level.

Type of technology use varies among adults by age, as shown in Figure 113. However, smartphone and social media use has increased for all age groups nationally over the past decade.

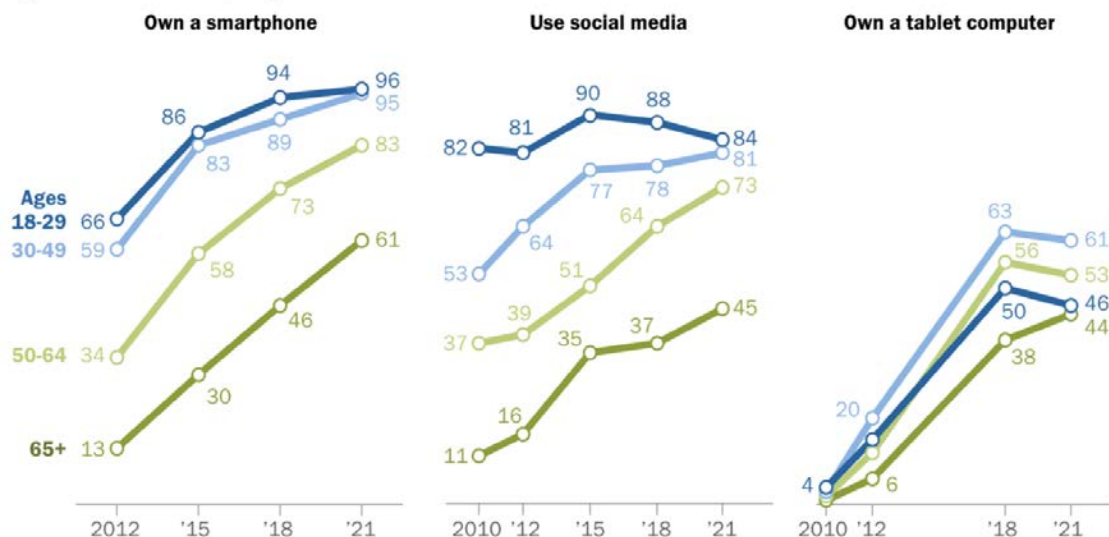
In Utah and Davis County, the Student Health and Risk Prevention (SHARP) survey began measuring screen time among students in grades 6, 8, 10, and 12 in 2019. The survey asks: "On an average school day, how many hours do you use an electronic device for something that is not school work? (Count time spent on things such as Xbox, PlayStation, texting, YouTube, Instagram, Facebook, or other social media)" ([SHARP, 2021](#)).

From 2019 to 2021, there was an increase in the amount of non-school related screen time in Davis County students, similar to Utah trends. Among Davis County students, 80.3% reported two or more hours of screen time daily, not related to

Figure 113

Smartphone ownership and social media use among older adults continue to grow

% of U.S. adults who say they ...



Note: Respondents who did not give an answer are not shown.
Source: Survey of U.S. adults conducted Jan. 25-Feb. 8, 2021.

PEW RESEARCH CENTER

Source: [Pew Research Center](#), 2022

schoolwork, compared to 78.8% of Utah students and 80.2% of U.S. students ([SHARP](#), 2021; [CDC](#), 2022). Screen time increased as age increased (Figure 114). No difference was observed between sexes. When interpreting 2021 trends, the impact of COVID-19 on technology use should be considered.

The American Academy of Child and Adolescent Psychiatry has identified the following health risks associated with screen time due to technology use:

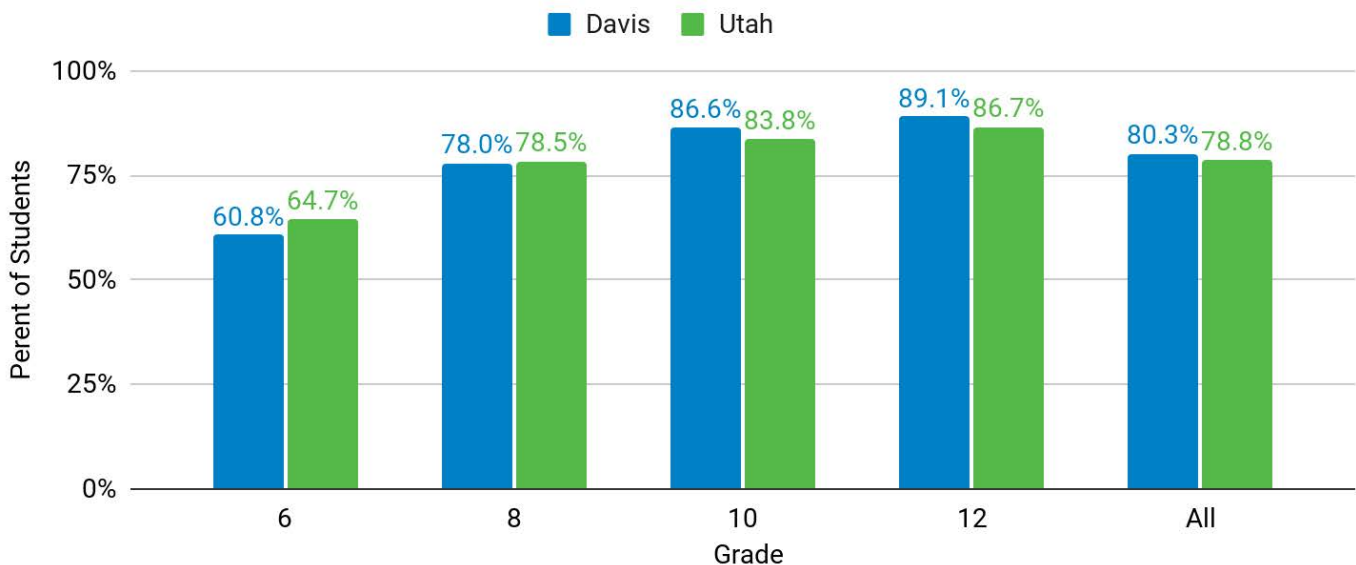
- Decreased physical activity and play, which may lead to weight problems
- Exposure to unhealthy behaviors, such as violence, unsafe stunts, substance use, and sex that may inspire unsafe behavior
- Content related to substance use or sex
- Cyberbullies and predators
- Targeted advertising along with misleading or inaccurate information
- Promotion of negative stereotypes or norms, which may lead to poor self-image and body image issues

- Disrupted sleep and relaxation routines, which may lead to mood and mental health problems along with poor academic performance
- Reduced time with family and friends ([AACAP](#), 2020; [AAP](#), 2001)
- Distraction from personal goals and values ([NAMI](#), 2018)

In 2021, Davis County Prevention partners developed and shared a [Family Media Plan Template](#). It is a tool to help families review, discuss, and make a plan for improving the intentional use of technology in the home. It provides a list of resources to help families be more informed about media use. This was a community response to a common theme during youth mental health screenings about family conflict as a result of youth technology use (DCHD, 2020).

During the 2023 Utah Legislative session, two bills passed aimed at regulating social media companies to prevent the negative impacts that social media has on youth ([Utah Governor's Office](#), 2023).

Figure 114: Students with 2+ Hours of Non-School Screen Time by Grade, 2021



Data: SHARP, 2021

Resources for Technology Use		
Family Media Plan Template, DCHD & Davis4Health	Tool to help families review, discuss, and make a plan for improving the intentional use of technology in the home	go.usa.gov/xejak
American Academy of Pediatrics	Online tool to create a personalized family media plan	healthychildren.org/MediaUsePlan
Center for Human Technology	Resources for many audiences to align technology with humanity's best interests	humanetech.com
Common Sense Media	Rates and shares reviews for movies, games, apps, books, and more with parents and families in mind	commonsensemedia.org
NetsmartzKids	Site for parents, teachers, and kids that includes activities, games, and videos to teach safety online	netsmartzkids.org

Driving

Driving motor vehicles is the main form of transportation used in Davis County, making it a common behavior. Operating a car can pose a risk to health when not done safely.

For additional health outcome data related to driving can be found in the Alcohol section of this chapter, the Transportation section of the Physical Environment chapter, and the Injury section of the Health Outcomes chapter.

Distracted Driving

Distracted driving is doing any activity that takes the driver's attention away from driving, increasing the chance of a motor vehicle crash ([CDC, 2022](#)). There are three main types of distractions:

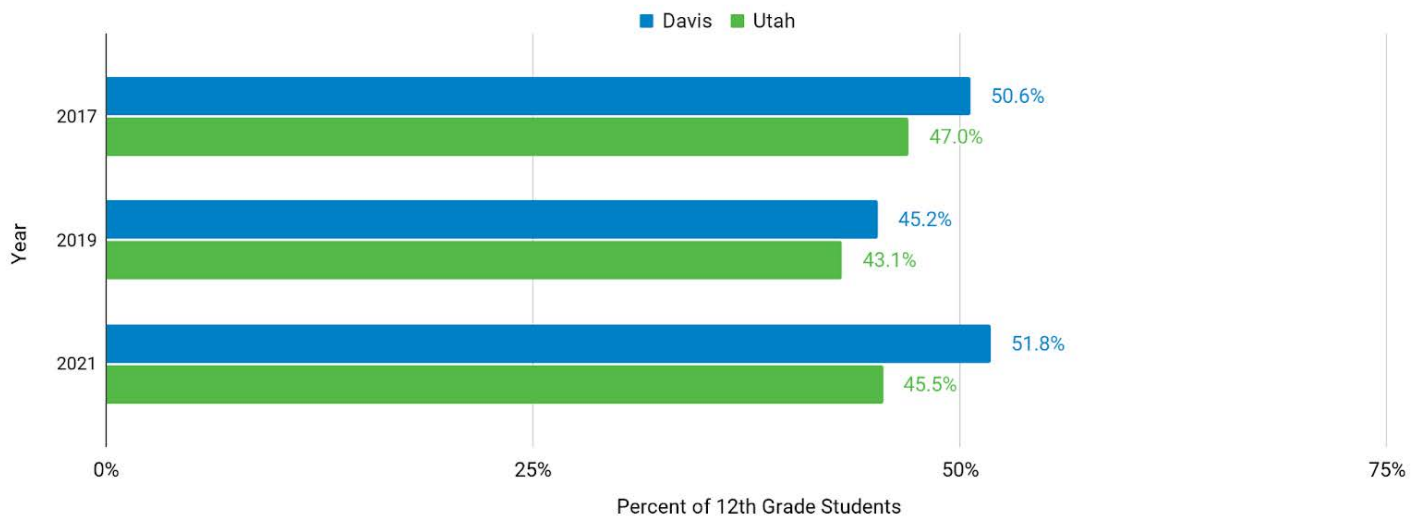
- Visual: taking your eyes off the road
- Manual: taking your hands off the wheel
- Cognitive: taking your mind off driving

Technology use, such as texting or looking at a phone, while driving involves all three types of distractions.

Nationally, over 3,000 people die in crashes involving a distracted driver during the average year ([CDC, 2019](#)). In Utah, distracted driving was involved in 5,483 crashes in 2021, with 429 occurring in Davis County. From these distracted driving crashes, Davis County had 214 related injuries and zero crash fatalities. The majority of crashes occurred in Layton (26%), followed by Farmington (13%), Clearfield (12%), and Kaysville (9%) ([UDPS, 2021](#)).

According to the CDC, 39% of high school students in the U.S. who drove in the past 30 days texted or emailed while driving. Texting or emailing while driving was more common among older students than younger students and among White students (44%) than Black (30%) or Hispanic students (35%) ([CDC, 2022](#)). Students who texted or emailed while driving were also more likely to report:

- Not always wearing a seat belt
- Riding with a driver who had been drinking alcohol
- Driving after drinking alcohol

Figure 115: Percent of 12th Grade Students Who Reported Texting or Checking Email While Driving in the Past 30 Days, 2017-2021

Data: SHARP, 2017, 2019, 2021

In Davis County, over half (51.8%) of 12th grade students reported texting or checking email while driving in 2021. Since 2017, technology use while driving has been more common among Davis County 12th graders than their Utah peers (Figure 115). Campaigns to promote focused driving can be considered to help alter distracted behaviors.

Seat Belt Use

Seat belt use is a driving behavior that has been shown to reduce injury and prevent death ([CDC, 2020](#)). Wearing seat belts and properly buckling children into appropriately sized car and booster seats can reduce the risk for serious injury and death in a crash by at least half ([CDC, 2020](#)). Using a seat belt while in a car is important for many reasons that include:

- Keeps individuals safe and secure inside the vehicle, whereas not buckling up can result in being ejected from the vehicle in a crash, increasing the risk of death
- Air bags do not provide enough protection and the force of an airbag can seriously injure or kill an individual if not buckled up
- Improperly wearing a seat belt, such as putting the strap below a person's arm, increases risk of injury during a crash

Seat belt use in passenger vehicles saved an estimated 14,955 U.S. lives in 2017 ([NHTSA, 2021](#)). Utah has a lower rate of vehicle occupant deaths than the U.S. for all age groups and sexes. Utahns aged 21 to 34 and male experienced the highest rates of vehicle occupant deaths ([CDC, 2020](#)).

In Davis County, 94.7% of adults reported wearing seat belts, slightly less than in Utah (95.8%). Davis County has consistently trended better than the State for seat belt use in prior years. Those with higher education levels were significantly more likely to wear seat belts than those with lower education levels. No other significant differences between groups were found at the county level ([IBIS, 2020](#)).

Among youth, seat belt use is measured by the Utah Student Health and Risk Protection (SHARP) Survey. The survey asks about seat belt use while riding in a vehicle driven by someone else. In Davis County, student seat belt use has remained relatively constant at around 95% since 2017. Davis County has remained higher than the State for these years ([SHARP, 2021](#)).

In 2021, Davis County students who identified as non-Hispanic/Latino were more likely to report always wearing a seat belt (73.6%) than their Hispanic/Latino peers (67.8%). Similar to adult trends, female students were slightly more likely to always wear a seat belt (73.5%) than males (71.6%). No other differences between demographic groups were found ([SHARP, 2021](#)).

Across Utah, seatbelt use is promoted through the ongoing Click It or Ticket campaign ([UDPS](#), n.d.). Utah has primary seat belt laws, meaning police officers can stop and ticket drivers and passengers age 16 and older for not buckling up. Additionally, Utah law requires that children ages 7 and younger be buckled into a car or booster seat ([CDC](#), 2020).

Substance Use & Addiction

Substance use is a behavior that can have a long-term impact on how the brain functions, altering decision making, learning, and memory, especially if used repeatedly. Substance use disorder occurs when a substance, such as alcohol or tobacco, is used uncontrollably despite negative consequences. This oftentimes interferes with everyday needs and responsibilities. The most severe substance use disorders are called addictions ([APA](#), 2020).

Substance use disorders are chronic diseases that can affect anyone ([CDC](#), 2022). Mental illness and other chronic diseases can often co-occur with substance use disorder ([SAMHSA](#), 2023). Substance use varies for individuals and populations based on differing backgrounds, beliefs, and experiences. For example, people who identify with the LGBTQ+ community experience discrimination, stigma, harassment, violence, and other challenges that lead to an increased risk of behavioral health issues ([Medley et al.](#), 2016). Figure

116 shows that lesbian, gay, and bisexual (LGB) adults in Davis County are more than twice as likely to vape, use cannabis, or binge drink and are also more likely to smoke cigarettes compared to those who identify as heterosexual/straight ([IBIS](#), 2021).

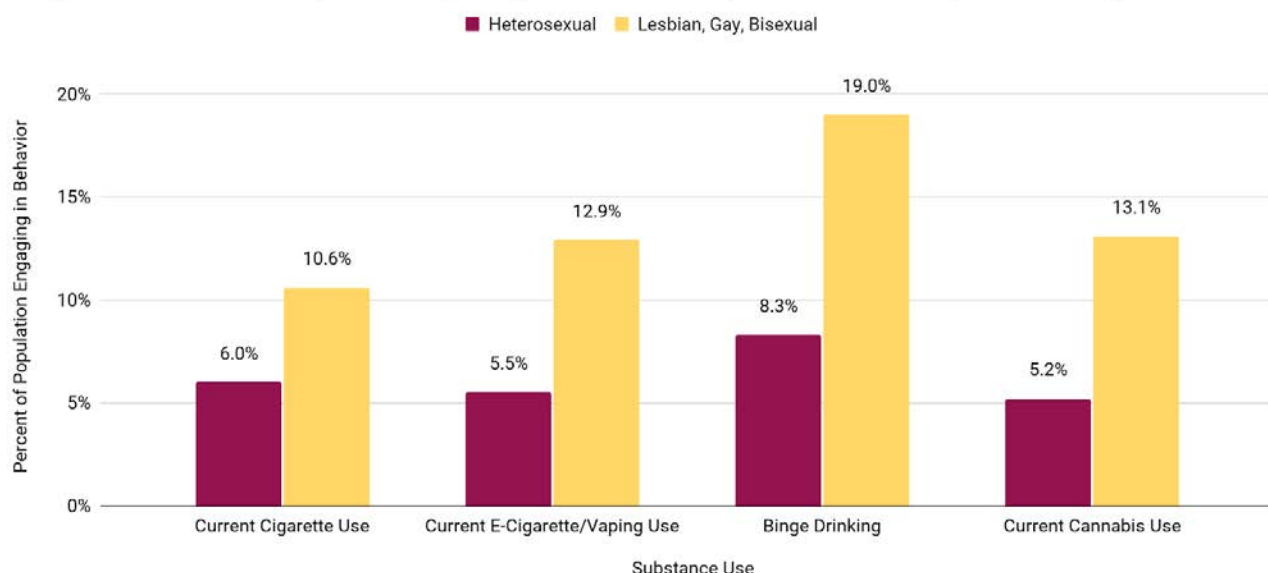
Prevention Science

Substance use disorder and other behavioral health problems can be prevented at both individual and community levels. Principles of prevention include:

- Reducing risk factors and enhancing protective factors at all levels of influence (individual, family, school, community, and society)
- Choosing policies and programs proven to work
- Combining evidence-based initiatives shown to work to prevent multiple behavioral health problems ([Hawkins et al.](#), 2015)

Prevention efforts are often aimed at youth and contribute to positive youth development ([Youth.gov](#), n.d.; [CDC](#), 2022). Data from the Student Health and Risk Prevention (SHARP) survey is one of the most valuable tools available to guide prevention efforts to protect the health and well-being of youth in Davis County and Utah. It is regularly used by public health, behavioral health, and education professionals to address identified needs and guide use of limited resources ([SHARP](#), n.d.).

Figure 116: Percent of Population Reporting Substance Use by Sexual Orientation, Davis County, 2017-2021



Data: IBIS, 2017-2021 (age-adjusted)

Questions about student substance use, as well as risk and protective factors present in their lives, are included in the SHARP survey. The survey is administered every two years in public and charter schools ([SHARP](#), n.d.). SHARP data is included throughout this section.

For more on youth risk and protective factors, see the Family and Social Support section of the Social and Economic chapter. For adult protective factors, see the Culture of Health chapter.

Prevention Resources		
Communities that Care Coalitions (CTCs)	<i>Organized to engage communities in substance misuse prevention efforts</i>	dbh.utah.org/ctc
Davis HELPS Prevention Coalition	<i>Leads in coordinating prevention efforts throughout Davis County</i>	facebook.com/davishelps
Davis Mindfulness Center, Davis Behavioral Health	<i>Learn how to actively engage in and improve your ability to take better care of your own health and well-being</i>	dbh.utah.org/mindfulness
Family Media Plan Template, DCHD & Davis4Health	<i>Tool to help families review, discuss, and make a plan for improving the intentional use of technology in the home</i>	go.usa.gov/xejak
National Strategic Prevention Framework	<i>Offers a comprehensive approach to understanding and addressing the substance misuse and related behavioral health problems facing their states and communities</i>	samhsa.gov/sites/default/files/20190620-samhsa-strategic-prevention-framework-guide.pdf
Parents Empowered	<i>Media and community education campaign with the goal to have every Utah child reach the age of 21 alcohol-free; Because parents play a fundamental role in protecting kids' healthy brains, the campaign is directed to parents</i>	parentsempowered.org
Prevention Resources, Davis School District	<i>Prevention resources for suicide, child abuse, human trafficking, and bullying</i>	davis.k12.ut.us/departments/student-family-resources/preventioncommunity
Prevention & Education Courses, Davis Behavioral Health	<i>Prevention and education courses to help individuals and families</i>	dbh.utah.org/prevention
Social and Emotional Learning, Davis School District	<i>Offers teacher toolkits, mindful videos, parent & family resources, to help students acquire and effectively apply personal and social attitudes, behaviors, and skills necessary to lead happy and fulfilling lives</i>	davis.k12.ut.us/departments/student-family-resources/social-emotional-learning
Student Health and Risk Prevention (SHARP) Survey, DCHD Reports & Assessments	<i>Survey presentation, risk & protective factors compared by race & ethnicity, and adolescent health profile</i>	daviscountyutah.gov/health/reports-and-assessments
Utah Student Health and Risk Prevention (SHARP) Survey, UDHHS	<i>Summary reports of the findings from the Utah Prevention Needs Assessment Survey</i>	sumh.utah.gov/data-reports/sharp-survey

First Time Use

Most adults who have a substance use disorder started using under the age of 18 ([CDC, 2022](#)). In 2020, 58.7% of people aged 12 and older in the U.S. reported using tobacco, alcohol, or an illicit drug in the past 30 days ([SAMHSA, 2021](#)). This can be seen in Davis County in Figure 117. In 2022, 71% of those who were admitted for treatment services reported using alcohol for the first time under the age of 18 and 44% report using other drugs ([UDHHS, 2022](#)).

As shown in Table 37, Davis County students in grades 6, 8, 10, and 12 had lower rates of experimental substance use, measured by lifetime use, than youth in Utah in 2021 ([SHARP, 2021](#)).

Table 37: Youth Substance Use, 2021

Lifetime Use	Davis	Utah
Alcohol	11.4%	14.0%
Marijuana	8.2%	9.8%
Prescription Drugs	4.4%	5.3%
Cigarettes	4.7%	6.3%
Vaping	12.2%	14.6%

Data: [SHARP, 2021](#) (Grades 6, 8, 10, & 12)

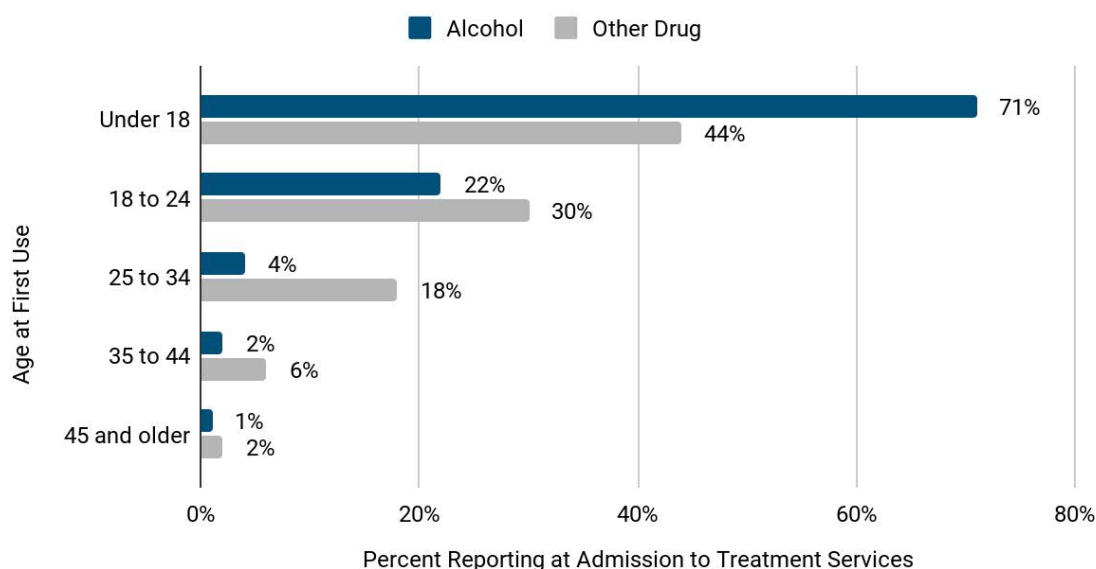
Substance Use Deaths

In 2021, 56 Davis County residents died by drug overdose. The rate of death due to overdose from any drug in Davis County is 16.3 deaths per 100,000 people. This is lower than the Utah rate of 20.5 per 100,000 people and the U.S. rate of 32.4 per 100,000 people ([IBIS, 2019-2021](#); [Healthy People 2030, 2021](#)). Davis County is meeting the Healthy People 2030 target for drug overdose deaths of 20.7 per 100,000 people ([DCHD, 2022](#)).

In Davis County, drug overdose rates are highest among those aged 35-44, males, and cases involving opioids ([IBIS, 2019-2021](#)).

Nearly half of those who died by drug overdose nationally were using multiple substances ([O'Donnell et al., 2020](#)). Additionally, 16% of overdose deaths involved a benzodiazepine with an opioid ([CDC, 2022](#); [NIH, 2022](#)). Due to this, increased efforts have been made to reduce co-prescribing of the opioids with depressants, such as benzodiazepines, because the combination increases risk of death ([HHS, 2019](#)).

Figure 117: Age at First Use for Alcohol & Other Drugs, Davis County, 2022



Data: UDHHS, 2022

Data on the circumstances behind overdose deaths in Davis County are not available. However, in Utah, 40.6% of those who died by overdose had a mental health diagnosis (Figure 118). A majority (81.8%) of overdose deaths had potential opportunities for

intervention or life-saving actions, including having a potential bystander present at the time of the overdose. Furthermore, 1 in 7 deaths involved an addressable circumstance, specifically pain treatment or housing instability ([CDC, 2022](#)).

Figure 118

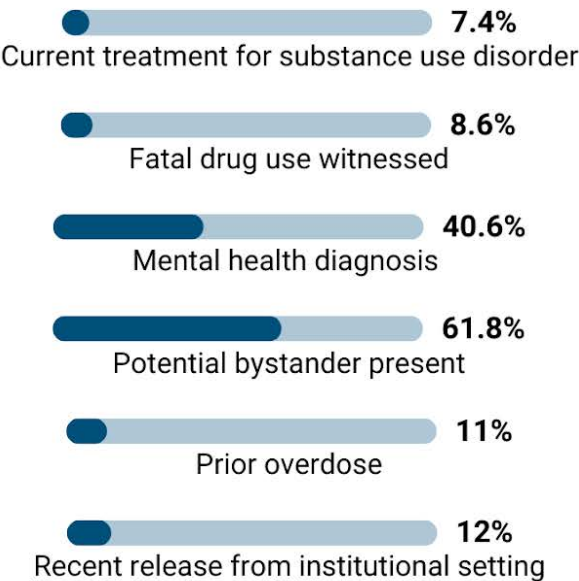
What were the circumstances surrounding overdose deaths in 2021 in Utah?

Potential opportunities for intervention

Potential opportunities for intervention include linkage to care or life-saving actions at the time of the overdose.



81.8% of drug overdose deaths had at least one potential opportunity for intervention



Additional circumstances surrounding overdose deaths

 15.2% Current pain treatment	 13.1% Experiencing homelessness or housing instability
 29.4% Naloxone administered	 6.5% Recent use of opioids

Source: [CDC, 2022](#)

Prescription Drugs

Prescription drugs that pose a risk for misuse or addiction are considered controlled substances ([DEA](#), 2022). Table 38 lists the most frequently prescribed controlled substances dispensed to Davis County residents of all ages from 2018 to 2021. The prescription of controlled substances varies by age group. For example, four of the top five controlled substance prescriptions filled for those under 18 are for the treatment of ADHD. Whereas substances for pain, anxiety, and insomnia are more common among the older age groups ([UDHHS](#), 2018-2021).

Psychotherapeutic drugs include pain relievers, tranquilizers or sedatives, and stimulants. Approximately 14.3 million (5.1%) people aged 12 and older reported misusing psychotherapeutic drugs in 2021 ([SAMHSA](#), 2021). In 2021, 4.4% of Davis County students grades 6, 8, 10, and 12 reported previously misusing or abusing a prescription drug and 1.6% reported misusing or abusing within the past 30 days. The most commonly reported abused prescription drugs were sedatives. The percentage of Davis County students who report abusing prescription drugs is decreasing over time ([SHARP](#), 2021).

Table 38: Top 20 Controlled Substance Prescriptions Dispensed, Davis County, 2018-2021

Rank	Drug	Type	Common Treatment Uses*
1	Oxycodone	Opioid	Moderate to severe pain
2	Hydrocodone	Opioid	Moderate to severe pain, cough suppressant
3	Zolpidem	Sedative	Insomnia
4	Amphetamine	Stimulant	ADHD, narcolepsy, obesity
5	Tramadol	Opioid	Moderate to severe pain
6	Alprazolam	Sedative	Anxiety and panic disorder
7	Clonazepam	Sedative	Seizures, anxiety and panic disorder
8	Lorazepam	Sedative	Seizures, anxiety, insomnia
9	Methylphenidate	Stimulant	ADHD, narcolepsy
10	Buprenorphine	Opioid	Pain, opioid use disorder
11	Lisdexamfetamine	Stimulant	ADHD, binge-eating disorder
12	Morphine	Opioid	Moderate to severe pain
13	Diazepam	Anxiolytic, Sedative	Seizures, muscle spasms, anxiety
14	Temazepam	Sedative	Insomnia
15	Hydromorphone	Opioid	Moderate to severe pain
16	Codeine	Opioid	Pain, cough
17	Fentanyl	Opioid	Severe pain
18	Carisoprodol	Muscle relaxant	Pain, muscle spasms
19	Methadone	Opioid	Moderate to severe pain, opioid use disorder
20	Dexmethylphenidate	Stimulant	ADHD

Data: [UDHHS-VIPP](#), 2018-2021

*Common Treatment Uses are not the only conditions these drugs can be used to treat and could be prescribed for other reasons.

Opioids

Opioids are a class of drugs used to reduce pain and include prescription medications, fentanyl, and heroin ([CDC](#), 2022). Anyone using opioids is at risk for developing an addiction or substance use disorder ([CDC](#), 2022). Opioids affect the area of the brain that controls breathing and misuse can result in overdose, oftentimes leading to death when not addressed in a timely manner ([MedlinePlus](#), 2019).

In the late 1990s, opioids were inaccurately promoted as being non-addictive by pharmaceutical companies, which led to increased prescribing rates and misuse ([HHS](#), 2021). In the 2000s, national and state prescribing guidelines were created to promote safe prescribing, with the most recent guideline released in November 2022 ([CDC](#), 2022; [UDOH](#), 2009).

Prescribing Practices

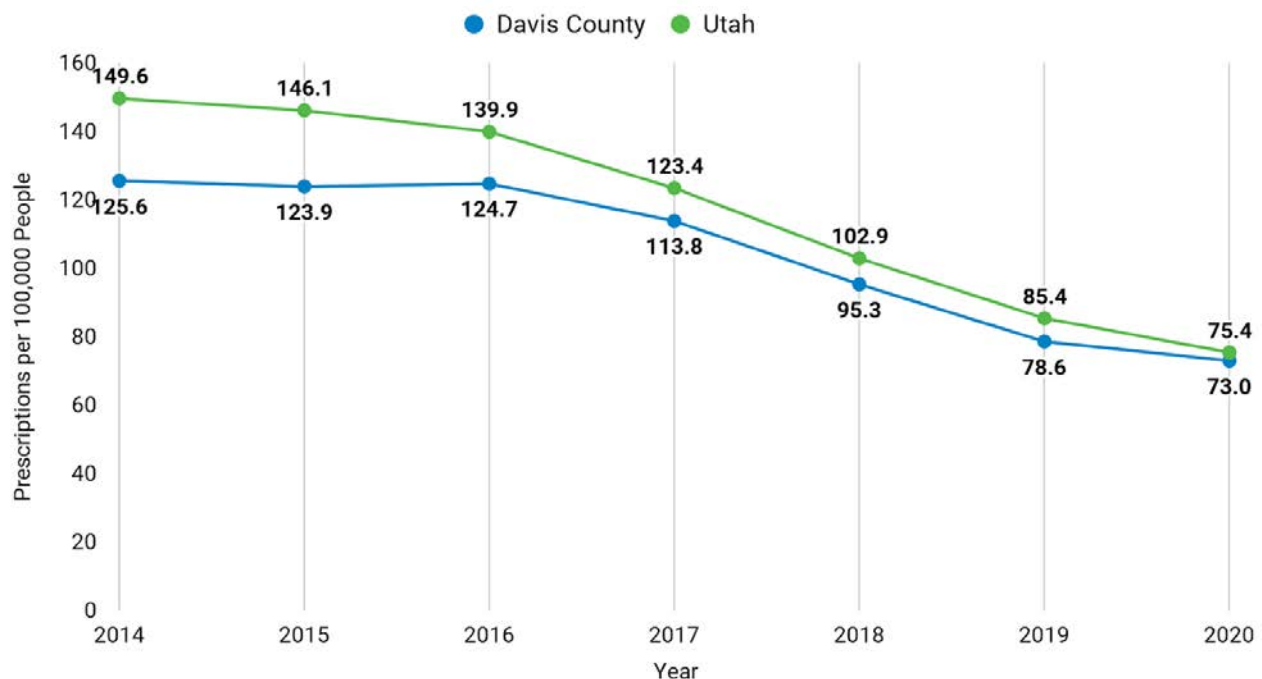
Over the last seven years, opioid prescribing rates have steadily decreased locally and statewide, as shown in Figure 119. In 2020, the rate of opioid prescriptions dispensed in Davis County was 73 per 1,000 people, a decrease of nearly 42% from 2014 ([UDHHS](#), 2022).

According to the All Payer Claims Database in 2021 some groups in Davis County were prescribed opioids more than others:

- Opioids were in the top five most frequently prescribed medications for those ages 25-79 in 2021 (UDHHS, 2022)
- Those ages 60-69 filled more opioid prescriptions than any other age group in 2021 (UDHHS, 2022); this is similar nationally ([Schieber et al.](#), 2020)
- Opioids were the third most frequently prescribed medication to females in 2021, whereas opioids were not a top prescription among males during that same year (UDHHS, 2022)

At the national level, women were more likely to fill opioid prescriptions than men between 2008-2018 ([Schieber et al.](#), 2020). From 2018-2019, older adults with lower incomes were more likely than those with higher incomes to fill five or more opioid prescriptions within a year ([Moriya & Fang](#), 2022).

Figure 119: Opioid Prescriptions Dispensed, 2014-2020



Data: Utah Opioid Health Data Dashboard, 2022 (MME ≥ 90)

Hospitalization & Emergency Department Treatment

In Davis County, opioid overdose rates for emergency department (ED) visits, hospitalizations, and deaths are significantly lower than Utah rates, see Figure 120 (IBIS, 2017-2021). The opioid overdose death rate is lower than the rate of ED visits for overdoses, suggesting a higher rate of non-fatal overdoses.

Neonatal Abstinence Syndrome

Neonatal abstinence syndrome is related to opioid hospitalizations. It can occur when a baby is exposed to an opioid in the womb, becomes dependent on the drug, and then experiences a withdrawal after birth (MedlinePlus, 2021). In the U.S., among women using opioids during pregnancy, 1 in 5 reported that they were misusing medications (Ko et al., 2020). In Utah, the rate of newborns that were born with neonatal abstinence syndrome in 2020 was 10.8 per 1,000 live births (UDHHS, 2022).

Opioid Overdose Deaths

Since the late 1990s, opioid overdose deaths have increased in the U.S. (CDC, 2022). As shown in Figure 121 (next page), this has occurred in three

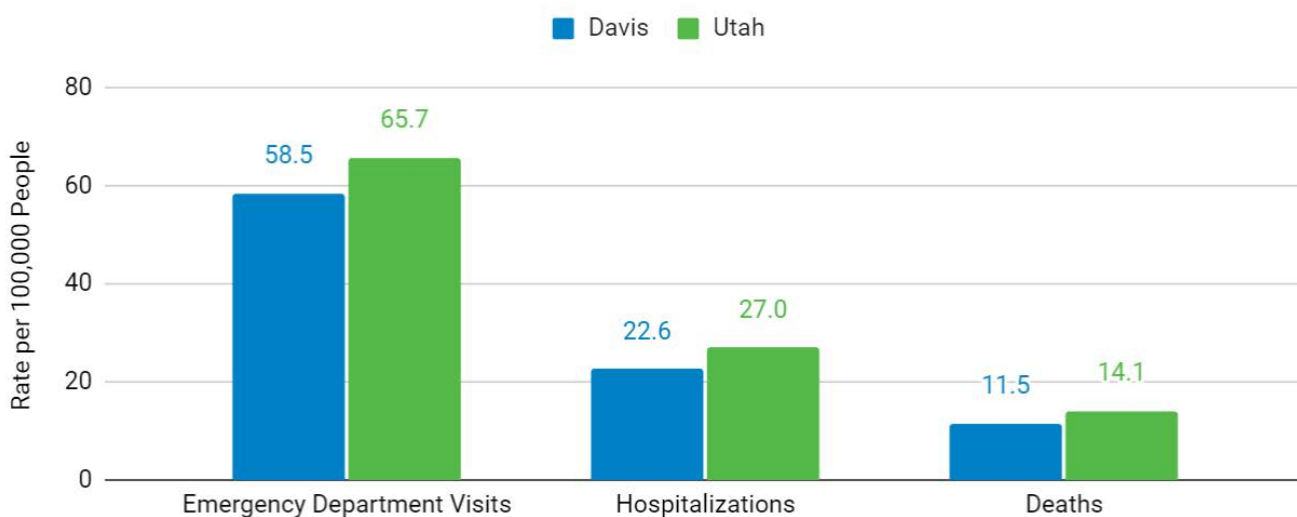
distinct waves caused by different types of opioids: prescription opioids (Wave 1), heroin (Wave 2), and synthetic opioids, such as fentanyl (Wave 3).

In more recent years, the use of opioids in combination with stimulants, such as methamphetamine, have contributed to the death toll in what one researcher is calling a "Fourth Wave" (HHS, 2022; Ciccarone, D., 2021).

As shown in Figure 122 (next page), deaths from prescription opioids in Utah have been decreasing over time, but in recent years, deaths from fentanyl and methamphetamine have increased. A majority of deaths from fentanyl involved another drug, primarily methamphetamine (UDOH, 2021).

In the U.S., drug overdoses were a leading cause of injury-related deaths in 2020. Prescription or illicit opioids played a role in almost 75% of those deaths (CDC, 2022). In Utah, a majority of drug poisoning deaths, including those from opioids, are unintentional. Prescription opioids are credited with causing 41% of the unintentional and undetermined drug poisoning deaths in the State (IBIS, 2021). In Davis County, 72.9% of drug overdose deaths involved an opioid, but data on whether those opioids were prescription or illicit is unavailable.

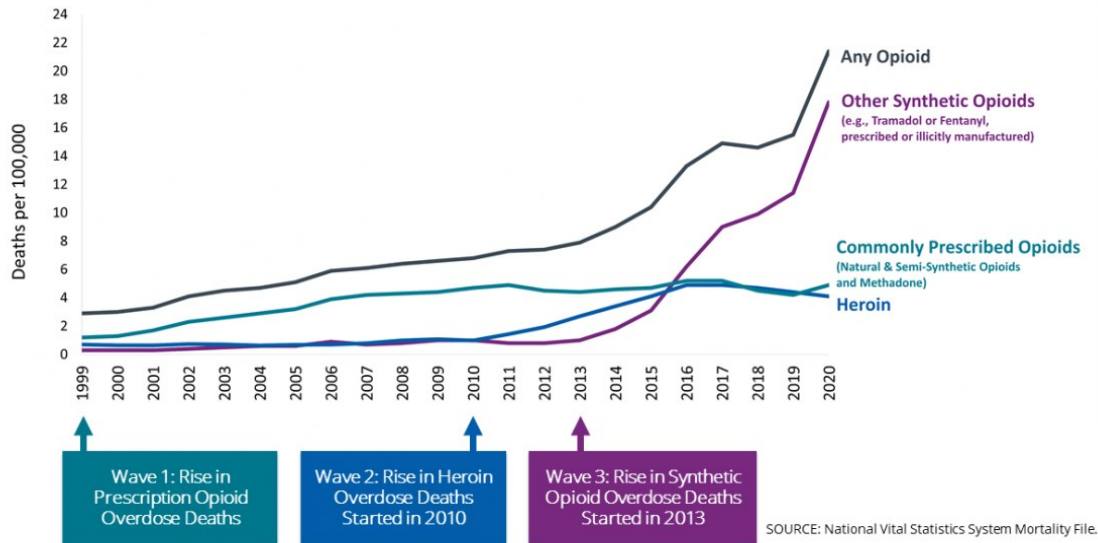
Figure 120: Rates of Opioid Overdose Deaths, Hospitalizations, & ED Visits, 2017-2021



Data: IBIS Injury, 2017-2021 (age-adjusted)

Figure 121

Three Waves of Opioid Overdose Deaths

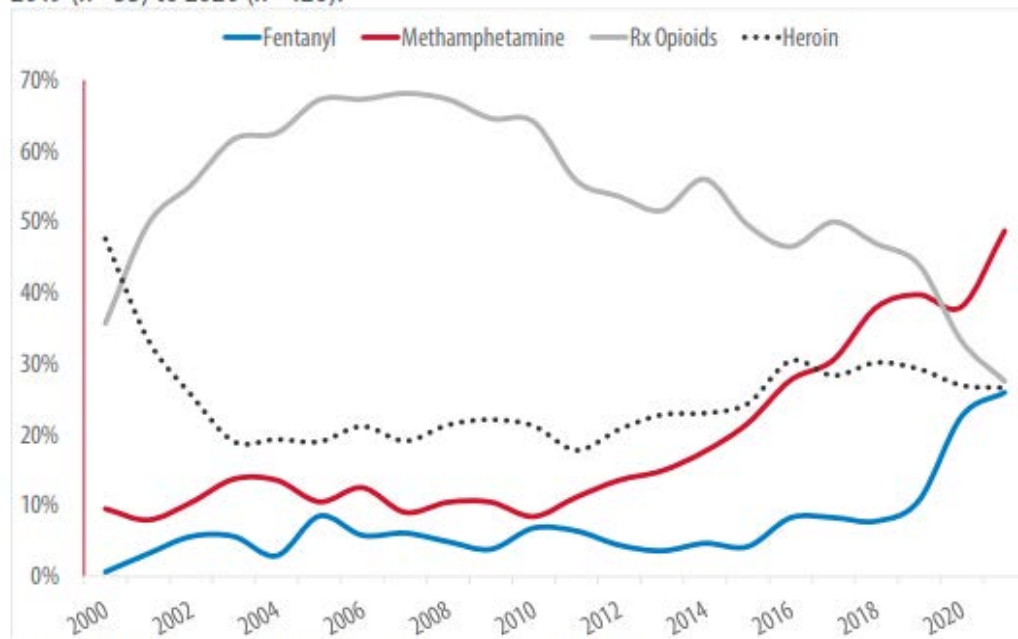


Source: [CDC](#), 2022

Figure 122

Percentage of Drug Involved Deaths In Utah, by Drug Type, Utah 2000–2021²

Figure 2. The number of deaths in Utah involving fentanyl more than doubled from 2019 (n=53) to 2020 (n=120).



* Data is only for January-June of 2021 and is preliminary and subject to change

Source: Utah Office of the Medical Examiner

Source: ([IBIS](#), 2021)

Populations Affected

In the U.S. and locally, certain populations are impacted by opioid overdoses more than others. Opioid overdose deaths were examined by age and compared to the age makeup of the total county population in order to identify potential disparities in deaths between age groups ([IBIS](#), 2017-2021). This approach showed that in Davis County:

- Those under the age of 20 account for a very small share of overdose deaths, suggesting that the majority of opioid deaths start after age 20
- The 20-34 age group accounts for 1.4 times their share of overdose deaths
- The 35-49 age group accounts for nearly double their share of overdose deaths
- The 50-64 age group accounts for double their share of overdose deaths
- Those 65 and older account for a small share of overdose deaths

The large burden of overdose deaths on working age groups (ages 20-64) should be considered when interpreting this data.

In Davis County, males are dying at a significantly younger age than females from opioid overdoses. The average age of death for males is 40.5 years old and 45.7 years old for females. This trend is also reflected at the State level ([IBIS](#), 2017-2021).

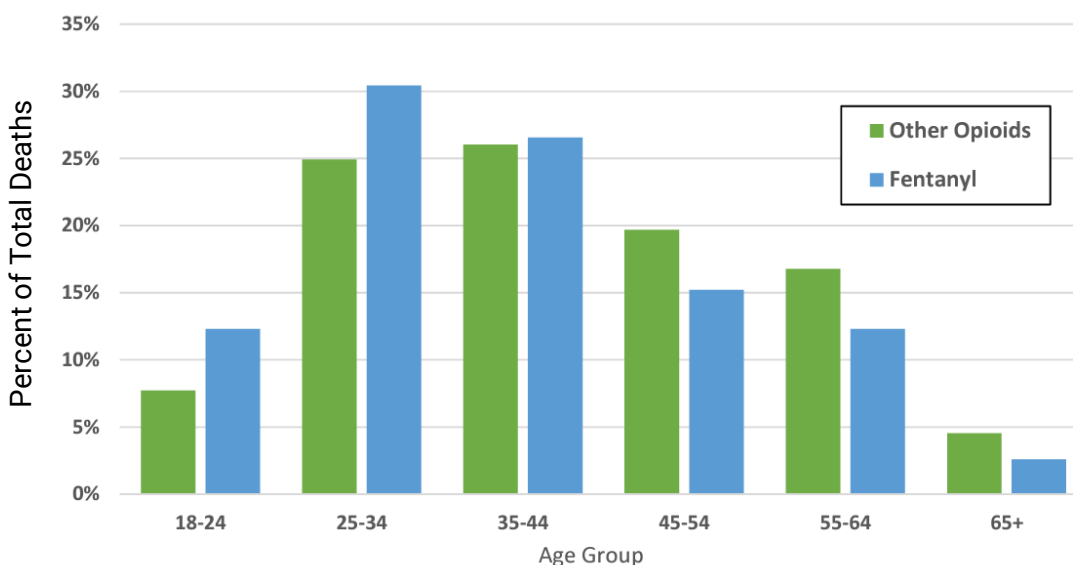
Fentanyl

Synthetic opioids, meaning they are created in a lab, are an emerging public health threat. Fentanyl is a synthetic opioid that is more potent and dangerous than any other type of opioids. Specifically, fentanyl is up to 50 times stronger than heroin and 100 times stronger than morphine. It is a major contributor to fatal and nonfatal overdoses in the U.S., especially because it is being mixed with other opioids. Recently, fentanyl-related overdoses have been linked to illicitly manufactured fentanyl, meaning it was not the type of fentanyl prescribed by a doctor to treat severe pain post-surgery ([CDC](#), 2022).

In Utah, the rate of overdose death from illicitly manufactured fentanyl was 5.0 deaths per 100,000 people compared to 25.0 deaths per 100,000 people in the U.S. in 2021 ([CDC](#), 2021). In Davis County, fentanyl rates are unavailable, but the rate of overdose death from all synthetic opioids combined, except methadone, was 5.1 deaths per 100,000 people in 2021 ([IBIS](#), 2021).

In Utah, those who died by fentanyl overdose in 2020 were younger, more likely to be male, and more likely to identify as Hispanic compared to those who died by other opioids, such as prescription opioids and heroin. Figure 123 demonstrates fentanyl's impact on younger groups compared to other opioids. Historically, the highest

Figure 123: Fentanyl vs. Other Opioid Deaths in Utah by Age Group, 2016-2020



Source: ([UDMI](#), 2021)

percent of opioid-related deaths were found in the 35-44 age group, but for fentanyl-related deaths, the 25-34 age group has the highest percent share of deaths ([UDMI](#), 2021).

Community Supports

Key ways to help address differences in overdose deaths between groups include using culturally appropriate practices, linking people to care and recovery, reducing stigma, and providing support groups ([CDC](#), 2022; [CDC](#), 2022).

In October of 2017, the U.S. Department of Health and Human Services declared the opioid crisis a national public health emergency ([HHS](#), 2017). The following year, opioids were made a priority in the 2019-2023 Davis4Health Community Health Improvement Plan (CHIP) with the goal of reducing poisoning deaths locally ([DCHD](#), 2019).

To align response efforts, a countywide opioid workgroup was formed in 2019 ([DCHD](#), 2019). Countywide efforts to address the opioid epidemic include education, naloxone distribution, and medication-assisted treatment (MAT).

Naloxone

Naloxone (Narcan®) is a life-saving medication that can reverse an opioid overdose when given in time. Over 4,900 naloxone doses were distributed in Davis County between 2017 and 2021 ([UDHHS](#), 2022). Anyone can get a naloxone kit from a pharmacy without a prescription; cost varies based on insurance coverage ([UDOH](#), 2021). Limited free kits can be requested through Utah Naloxone ([Utah Naloxone](#), 2022).

Prescription Drop Boxes and Take Back Events

Prescription drug drop boxes are located throughout the county to help with safe disposal and can be found at: [knowyourscript.org](https://www.knowyourscript.org). Davis County participates regularly in National Take Back Day, which happens in April and October every year. Events are held which allow community members to safely dispose of unused medications at designated sites ([DEA](#), 2023).

Medication-Assisted Treatment (MAT)

There are over 20 different MAT providers in Davis County ([Davis4Health](#), 2022). In late 2022, changes were made nationally that allow for medications, such as buprenorphine, to be administered by a provider without requiring a DATA-Waiver, increasing future access for those in need to receive MAT ([SAMHSA](#), 2023). Two receiving centers in Farmington and Layton are also available 24/7 to help those in crisis ([DBH](#), 2022).

Opioid Settlement Money

Davis County was involved in a statewide opioid settlement with pharmaceutical distributors Cardinal, McKesson, AmerisourceBergen, and Johnson & Johnson and will receive nearly \$12 million over 18 years towards opioid treatment and prevention efforts ([UAC](#), 2022).

Fentanyl Response

The Utah Drug Monitoring Initiative (DMI), a multi-agency program focused on collaboration and information sharing between Utah law enforcement and public health agencies, released a report in 2021 to alert Utah policymakers and other critical decision makers to the urgent problem presented by fentanyl and other synthetic opioids. The report recommended a public awareness campaign about the risks of fentanyl and counterfeit pills; increasing dose size and access to naloxone; and increasing access to fentanyl test strips, which has been shown to alter drug use behavior ([UDMI](#), 2021).

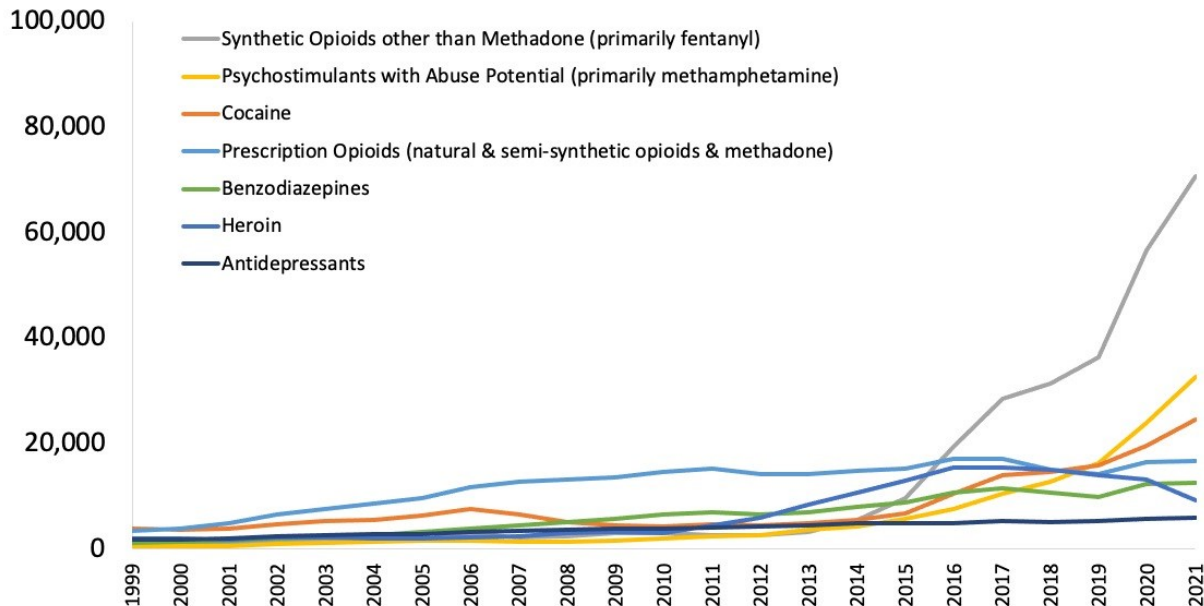
Methamphetamine

Methamphetamine, also known as meth, is an addictive stimulant drug that negatively impacts the central nervous system, increasing heart rate and blood pressure. Any use of meth is harmful and impacts mental and physical health ([NIH](#), 2019). According to national data, since 2015, overdose deaths have increased from not only opioids, but also meth and cocaine, as shown in Figure 124 ([NIH](#), 2022). The U.S. Department of Health and Human Services reported that since 1999, overdose deaths have increased 59-fold from psychostimulants, including methamphetamine ([HHS](#), 2022).

Among those who used meth in the U.S. between 2015 and 2018, co-use of another substance (including opioids) was common, as was having a mental illness. Additional common characteristics among users of meth included: being male, being age 26 to 49, receiving less formal education, living in a smaller geographic area, having limited or no access to healthcare, and having a lower income ([CDC](#), 2020).

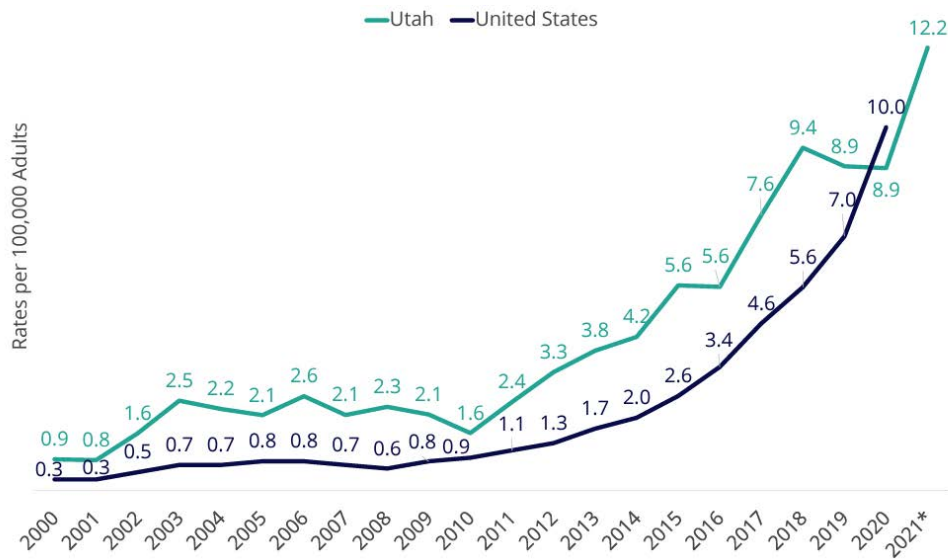
Meth was the primary substance at admission for 30% of the people admitted for substance use disorder treatment in Davis County in fiscal year (FY) 2022. Among those treated for meth-related substance use disorder in Utah, less than half were able to successfully complete treatment ([UDHHS](#), 2022).

Figure 124: National Drug-Involved Overdose Deaths*, Number Among All Ages, 1999-2020



*Includes deaths with underlying causes of unintentional drug poisoning (X40–X44), suicide drug poisoning (X60–X64), homicide drug poisoning (X85), or drug poisoning of undetermined intent (Y10–Y14), as coded in the International Classification of Diseases, 10th Revision. Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2021 on CDC WONDER Online Database, released 1/2023.

Source: [NIH](#), 2022

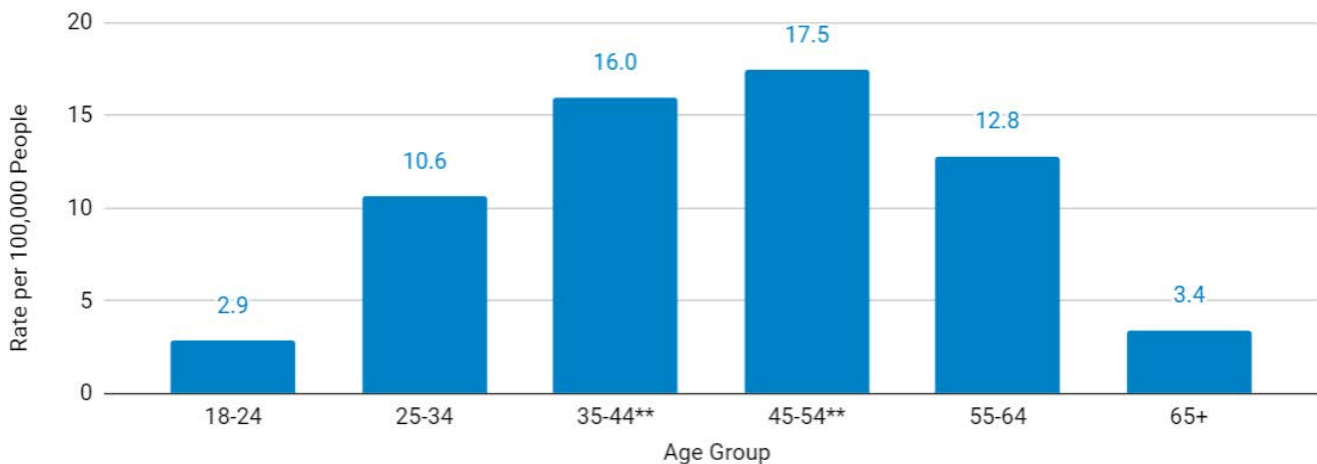
Figure 125: Death Rates for Methamphetamine-Involved Drug Overdoses, 2000-2021*Source: [UDHHS](#), 2022

Over the last two decades, Utah rates of meth overdose deaths have been higher than the U.S. rate (Figure 125). In Utah, there was a 51% increase in the rate of meth overdose deaths from 2015 to 2019 ([Pew](#), 2022).

Comparable data on the rate of death from meth overdose is unavailable at the county level. However, among Davis County adults, the rate of drug overdose deaths involving any psychostimulant, including meth, was 7.0 deaths per 100,000 adults ([IBIS](#), 2019-2021). Additionally, 0.2% of Davis County students in grades 6, 8, 10, and 12

reported using meth during their lifetime compared to 0.3% of Utah students ([SHARP](#), 2021).

As shown in Figure 126, Utah adults ages 45-54 had the highest overdose death rates from meth from 2020 to 2021, with a rate of 17.5 per 100,000 people. The 35-44 age group followed, with a rate of 16.0 per 100,000 people. This data should be interpreted with caution because it is preliminary ([UDHHS](#), 2022). Notably, age groups trends for meth are similar to opioid trends, highlighting the need to provide additional community supports for both substances to those ages 35-54, including education and treatment.

Figure 126: Meth-related Adult Drug Overdose Death Rates by Age, Utah, 2020-2021*

Data: CDC, UDHHS Office of Medical Examiner, *2021 data is preliminary. Interpret with caution **Statistically significant

Tobacco

Tobacco use is the leading cause of preventable death and disease nationally, causing chronic diseases such as heart disease, lung disease, diabetes, and cancer ([CDC, 2022](#); [CDC, 2022](#)). Tobacco use of any kind harms not only users, but other people around them, pets, and the environment. There is no risk-free or safe level of tobacco use or exposure ([CDC, 2021](#); [CDC, 2022](#); [FDA, 2022](#); [WHO, 2022](#)).

Tobacco products come in a variety of forms, including cigarettes, e-cigarettes (also known as vape products), smokeless tobacco, and alternative nicotine products, such as nicotine pouches. All forms contain chemicals that negatively affect health ([ACS, 2020](#)). Efforts to decrease tobacco use have been ongoing for decades, with a focus on addressing smoking as a cause of lung cancer since the 1960s ([CDC, 2021](#); [CDC, 2015](#); [ALA, 2022](#)). Measures for tobacco use, access to treatment, and exposure to secondhand smoke show disparities exist by age, income, ethnicity, and race ([CDC, 2022](#)). National campaigns and regulations are working to reduce use. This includes efforts to reach those who have been targeted by tobacco companies, including groups that are underrepresented, historically marginalized, and with lower incomes ([HPRH, 2022](#)).

Costs

Both short and prolonged tobacco use can reduce community productivity and health, as well as increase economic costs. The American Lung Association estimated economic costs of more than \$500 million in Utah due to smoking ([ALA, 2022](#)). As shown in Table 39, hundreds of millions of dollars are spent on healthcare costs for smoking alone and over a billion dollars are lost in productivity ([Campaign for Tobacco-Free Kids, 2022](#)).

Regulations & Permitting

In 2009, the Family Smoking Prevention and Tobacco Control Act allowed for FDA regulation of manufacturing, distribution, and marketing of tobacco products ([FDA, 2020](#)). In 2016, FDA regulatory abilities were granted through the Deeming Rule for tobacco products, such as e-

Table 39: Smoking-caused Monetary Costs, Utah, 2022

Community Costs	Dollar Amount
Annual health care costs in Utah directly caused by smoking	\$630 million
Medicaid costs caused by smoking in Utah	\$135.4 million
Residents' state & federal tax burden from smoking-caused government expenditures	\$488 per household
Smoking-caused productivity losses in Utah	\$1.3 billion

Data: [Campaign for Tobacco-Free Kids, 2022](#)

Note: Amounts do not include health costs caused by exposure to secondhand smoke, smoking-caused fires, or use of non-cigarette tobacco products. Productivity losses are from smoking-caused premature death and illness that prevent people from working. Tobacco use also imposes costs such as damage to property.

cigarettes, that contain nicotine, a highly addictive chemical. Most recently in 2022, non-tobacco nicotine products (NTN), such as e-liquids that contain synthetic nicotine, were also subject to regulation ([FDA, 2022](#); [NCI, 2022](#)).

In 2020 and 2021, new tobacco-related laws were passed in Utah to further limit tobacco availability, especially aimed to reduce youth access:

- The legal age to purchase tobacco products changed to 21
- Penalties were doubled for selling to underage buyers, including permit suspension for specialty businesses
- General Tobacco Retailers are restricted from selling flavored e-cigarette products, with the exception of mint, menthol, or tobacco flavors
- Specialty businesses are required to electronically verify proof of age for any individual that enters the store
- Nicotine content of disposable e-cigarette products cannot exceed 3% (DCHD, 2021)

In 2022, 97% of retailers did not sell tobacco to underage age buyers (DCHD, 2022).

Retailers can legally sell tobacco products in Davis County if they have a tobacco license from the Utah State Tax Commission, a General Tobacco Retailer or Retail Tobacco Specialty Business permit with Davis County Health Department, and are in

compliance with all national, state, and local tobacco regulations. There are currently 105 General Tobacco Retailers and 20 Retail Tobacco Specialty Businesses countywide. In Utah, taxes collected from the sales of e-cigarette products generate revenue for local health departments to conduct routine inspections to ensure tobacco retailers are in compliance with all laws pertaining to their tobacco retailer permit ([UDHHS](#), 2022).

Prevalence of Use

Utah has the lowest rate of smoking in the U.S. with 77.2% of adults reporting they have never smoked ([CDC](#), 2021). Additionally, only 7.9% of adults currently smoke cigarettes, which is half of the U.S. rate ([IBIS](#), 2019-2021; [CDC](#), 2019-2021). As shown in Table 40, Davis County has an even lower rate of cigarette use for adults than the State, at only 5.8% ([IBIS](#), 2022).

The national health improvement initiative, Healthy People 2030, identified current cigarette use among adults as a Leading Health Indicator with a target of reaching 6.1% by 2030. In 2020, Davis County was

Table 40: Adult Tobacco Use, 2021

Behavior	Davis	Utah	U.S.
Current Cigarette Use	5.8%	7.9%	15.3%
Current E-Cigarette Use	6.6%	6.7%	6.7%
Current Smokeless Tobacco Use	1.8%	2.9%	3.8%
Cessation Attempt Within Past 12 Months	49.2%	57.8%	55.1%*

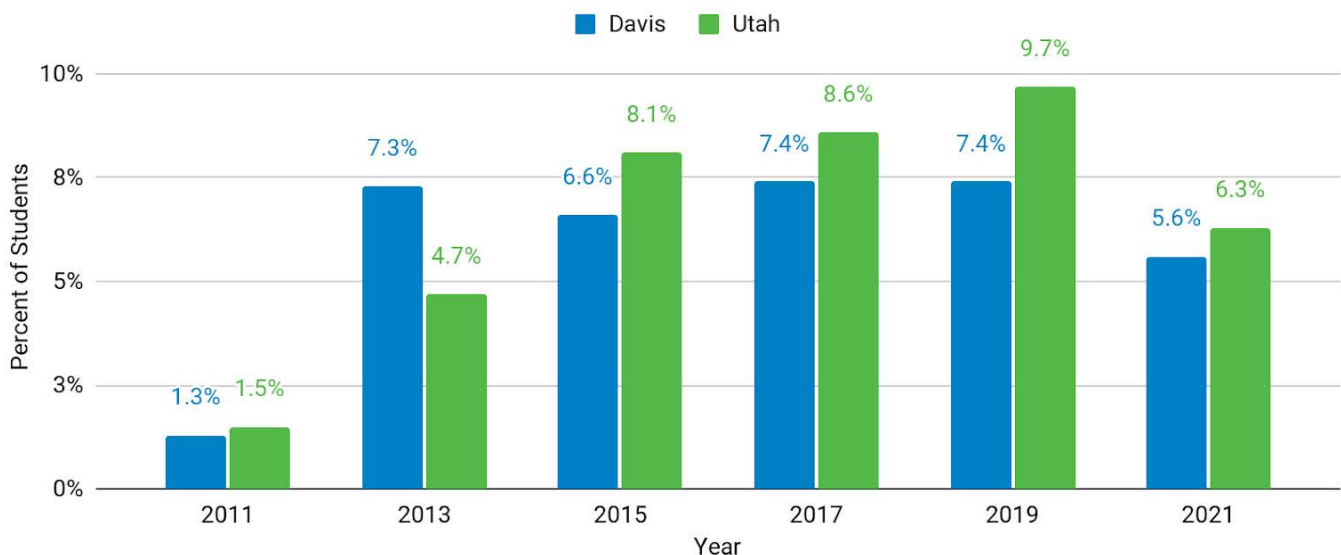
Data: [IBIS](#), 2019-2021 (age-adjusted); [CDC](#), 2019-2021; [CDC](#), 2022

* 2018 data

not yet meeting this goal ([DCHD](#), 2022). Due to small sample sizes for this measure, it is best to average multiple years of data to get a more accurate picture of county level trends. With this approach, Davis County is meeting the target when examining current cigarette use from 2019 to 2021.

While there has been a decline in cigarette use since the 1990s, there has been a sharp increase nationally since 2015 in e-cigarette use, also known as vaping. This trend is also true locally, especially among youth users, as shown in Figure 127 ([CDC](#), 2022; [SHARP](#), 2017-2021).

Figure 127: Past 30-Day E-Cigarette/Vape Use in Students, 2011-2021



Data: SHARP, 2011-2021 (grades 6, 8, 10, & 12)

In Davis County, 5.6% of students currently use e-cigarettes (Table 41). Davis County is meeting the Healthy People 2030 target for percent of students who used cigarettes, e-cigarettes, cigars, smokeless tobacco, hookah, pipe tobacco, and/or bidis in the past 30 days (DCHD, 2022).

Table 41: Youth Tobacco Use, 2021

Behavior	Davis	Utah	U.S.
Current Cigarette Use	0.5%	0.8%	1.5%
Current E-Cigarette Use	5.6%	6.3%	7.6%
Current Chewing/ Smokeless Tobacco Use	0.2%	0.4%	0.9%
Cessation Attempt Within Past 12 Months	-	-	60.2%

Data: [SHARP](#), 2021 (grades 6, 8, 10, & 12); [CDC](#), 2021

E-cigarettes are the most common substance used by youth in Davis County, followed by marijuana, which is sometimes used in e-cigarettes too ([CDC](#), 2022). In Davis County, 85% of students who have used tobacco used vape products first. The primary way youth obtain e-cigarette (vape) products in Davis County is by borrowing them from someone else ([SHARP](#), 2021).

Early exposure to nicotine in adolescence can impair brain development and have consequences on mental health, cognitive ability, and behavior. Nicotine also primes the brain for future addiction. Common reasons for using e-cigarettes reported by youth through the National Youth Tobacco Survey include friends using e-cigarettes; curiosity; feeling anxiety, stress, or depression; and seeking a high ([CDC](#), 2022 ; [Gentzke et al.](#), 2022; [U.S. Surgeon General](#), 2022).

Cessation

Over half of U.S. youth (60.2%) and adults (55.1%) who use tobacco products have tried quitting ([CDC](#), 2022; [CDC](#), 2021). Cessation resources include quit tools, like Way to Quit for adults and My Life, My Quit for youth. In 2021, 129 adults in Davis County utilized Way to Quit (DCHD, 2021).

During a local community focus group hosted by Davis County Health Department, one parent shared the following experience:

"[My son] had a major problem with vaping and I still don't know where to go to get help." Doctors told her to call a number, but it was important to have in person help. It took 6 months to see a psychiatrist. She notes "You can't smell it. You can't see it. It's such a problem....DARE doesn't work" (DCHD, 2022).

Cannabis

In Utah, Medical Cannabis is available for the treatment of a variety of conditions among people of all ages ([UDHHS](#), n.d.). The chemical makeup of cannabis, medicinal uses, and prescription details are outlined in the Medical Cannabis section of the Clinical Care chapter.

While cannabis use can have many benefits for those who use it medicinally ([UDHHS](#), n.d.), it can also have harmful short and long-term health effects. Effects can vary depending on how the cannabis is ingested, the age of the user, and predispositions to certain mental and physical health conditions ([SAMHSA](#), 2022). Cannabis can be addictive for approximately 1 in 10 adults who use it, and youth are at an even greater risk with 1 in 6 developing dependence ([SAMHSA](#), 2022).

In FY 2022, 15% of those who received substance use treatment in Davis County were using cannabis as their primary substance at admission ([UDHHS](#), 2022). While only about 5% of those who received treatment across the State were under the age of 18, more than 90% of this age group were using cannabis at admission.

Youth who use cannabis risk altering their brain development leading to a decreased intelligence (IQ) scores, trouble concentrating, poor memory, and impaired judgment ([University of Utah Health](#), n.d.; [SAMHSA](#), 2022). Reaction time, lack of coordination, and drowsiness have also been linked to cannabis use. Table 42 displays youth cannabis use data in Davis County and Utah.

Table 42: Youth Cannabis Use, 2021

Use	Davis	Utah
Lifetime use	8.2%	9.8%
Past 30 day use	4.1%	4.5%

Data: [SHARP](#), 2021 (grades 6, 8, 10, & 12)

While youth are at the greatest risk, adults can have these same impairments from cannabis use. See Table 43 for details on cannabis use for adults in Utah and Davis County.

Table 43: Adult Cannabis Use and Methods, 2019-2021

Use	Davis	Utah
Past 30 day use	5.9%	8.2%
Method	Davis	Utah
Smoked	53.0%	48.5%
Ate or drank	20.8%	25.4%
Vaporized	17.2%	15.9%
Another way of using	9.0%	10.1%

Data: [IBIS](#), 2019-2021

Use of cannabis during pregnancy or when breastfeeding can lead to health and developmental problems for the fetus or child ([SAMHSA](#), 2022). There are still many unknowns regarding cannabis use, including the effects of increased potency over the past 25 years; the relationship with mental health disorders and other substance uses; physical health risks related to the method of ingestion; and how dosage, frequency, and age of first use affect health outcomes ([University of Utah Health](#), n.d.; [SAMHSA](#), 2022; [NIH-NIDA](#), 2020).

Alcohol

Utah has some of the lowest alcohol use and binge drinking rates in the Nation ([CDC](#), 2021). In Davis County, 1 in 4 residents report currently using alcohol, which is less than the State and the Nation. According to the CDC, excessive drinking includes:

- Binge drinking: consuming 4 or more drinks on an occasion for women or 5 or more drinks for men
- Heavy drinking: consuming 8 or more drinks per week for women or 15 or more drinks a week for men
- Drinking any alcohol while pregnant
- Drinking any alcohol under the age of 21 ([CDC](#), 2022)

Figure 128 displays standard drink sizes, as defined by CDC ([2022](#)). Most people who excessively drink are not alcohol dependent, but excessive drinking still bears short-term health risks ([Esser et al.](#), 2014). Short-term risks can include injury, violence, alcohol poisoning, risky behaviors, and pregnancy complications. Long-term health risks can include chronic disease, cancer, and immune deficiencies along with cognitive, social, and mental health problems ([CDC](#), 2022). Refer to the Health Outcomes chapter for details on alcohol involved injuries and deaths.

Figure 128



Data: [CDC](#), 2022

Table 44 summarizes alcohol use and behaviors, showing that current and excessive drinking in Davis County is lower compared to Utah and U.S. levels. Davis County is meeting the Healthy People 2030 target for percent of persons aged 21 years and over who reported binge drinking in the past 30 days ([DCHD](#), 2022).

Table 44: Alcohol Use & Behaviors, 2021

Adult	Davis	Utah	U.S.
Current Alcohol Use	25.1%	32.7%	53.3%
Binge Drinking	8.5%	11.7%	15.4%
Heavy Drinking	2.5%	4.0%	6.3%
Youth	Davis	Utah	U.S.
Current Alcohol Use*	3.4%	4.3%	-
Binge Drinking*	1.8%	2.8%	-
Drinking & Driving*	1.1%	1.3%	-
Illegal Sales of Alcohol to Underage Buyers	-	7.1%	-

Data: [IBIS](#), 2021; [CDC](#), 2021; [SHARP](#), 2021; [UDPS](#), FY2022

Note: Data are within past 30 days of survey respondents answering the questions

* Youth data are for grades 6, 8, 10, & 12

However, there are still certain groups at a higher risk for many alcohol-related behaviors, such as binge drinking. Groups at higher risk include:

- Males
- People who identify as lesbian, gay, or bisexual (LGB)
- Those aged 18-49
- People whose highest education level is a high school diploma or less
- Those making less than \$50,000 a year ([IBIS](#), 2016-2020)

Of those who received substance use treatment in Davis County during fiscal year (FY) 2021, alcohol was the primary drug of use 25% of the time. While alcohol was not the most common primary drug of use for those under 18, it was used by more than half of those receiving treatment ([UDHHS](#), 2021).

Community Supports

Utah has some unique laws regarding alcohol that aim to reduce the rate of excessive drinking and alcohol involved injuries and deaths:

- Restaurants may only sell alcohol with food
- Alcohol on tap and sold in grocery stores and convenience stores must be 5% alcohol by volume (ABV) or less
- No one under the age of 21 is allowed in a bar even if they also operate as a restaurant
- Liquor and wine can only be found in state liquor stores
- State liquor stores are closed on Sundays, holidays, and evenings ([DABS](#), n.d.)

Utah is also the only state where the legal driving Blood Alcohol Content (BAC) is 0.05 instead of 0.08. This law was passed in 2017 aiming to save lives by preventing drunk driving ([UDPS](#), n.d). An evaluation by the United States Department of Transportation (USDOT) National Highway Traffic Safety Administration ([2022](#)) found that after its implementation, crashes and fatalities involving alcohol had gone down in the 21 months after the law passed and 12 months after it went into effect and had a positive effect on highway safety across the state.

Behavioral Addictions

Addictions can be more than a physical and psychological dependence to a substance, they can also be an addiction to a behavior or feelings related to the behavior ([Addiction Center](#), 2023). Substance and non-substance addictions have similar risk factors and consequences. A behavioral, or non-substance, addiction is characterized by a recurring inability to resist impulses or temptations to perform an act that can be harmful to the individual or others ([Potenza](#), 2013). Some of the more well-known behaviors that people could become addicted to include:

- Gambling
- Sex
- Pornography
- Gaming
- Stealing (Kleptomania)
- Food
- Plastic Surgery
- Risks/Adrenaline
- Exercise
- Working
- Shopping
- [Social Media](#)
- Tattoos

The fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* only recognizes gambling disorder as a behavioral addiction because of the research available ([APA](#), 2013). Others were considered but due to lack of research, were not officially recognized as behavioral addictions ([Potenza](#), 2013). More data is needed at the county, state, and national level to understand the scope of behavioral addictions.

Community Supports

Collaborative efforts are happening in Davis County to address substance misuse and addiction in youth and adults with gradual progress beginning to appear. From 2018 to 2021, Davis County saw a 35.7% reduction in drug equipment and narcotic violations, a 14.9% reduction in driving under the influence arrests, and a 37.3% reduction in liquor law violations ([UDPS](#), 2022).

Additionally, Davis School District (DSD) has some Educational Awareness (EA) courses for students who are subject to corrective action due to substance use. An E-cigarette and Marijuana course addresses vaping. During the 2021-2022 school year, 385 students completed the course. A Youth and Alcohol course has been newly developed for the 2022-2023 school year (DSD, 2023).

Coalitions

The Davis4Health coordinated prevention plan is being led by Davis HELPS coalition. Prevention strategies include:

- Conducting a prevention curriculum and program inventory assessment and evaluating effectiveness
- Engaging partners to develop a substance abuse prevention strategic plan
- Conducting teen and young adult focus groups
- Developing youth prevention advocates and leaders
- Increasing community awareness and use of the SAFEUT app
- Advocating for SHARP data improvements and use
- Developing prevention messaging and increasing public awareness (including messages about shame, connectedness and stigma)
- Incorporating media literacy, positive digital citizenship, screen time and use of technology in prevention efforts
- Prevention education for community decision makers and religious leaders
- Developing an online prevention toolkit
- Establishing evidence-based community prevention coalitions ([DCHD](#), 2019)

In Davis County, Communities That Care (CTC) coalitions are organized regionally to engage local communities across the county in substance misuse prevention efforts (DBH, n.d.). CTC coalitions aim to prevent problems in youth before they develop. CTC is an evidence-based structured process for communities to use to address youth issues, which focuses on risk and protective factors. It is a cooperative, community-driven process proven to reduce alcohol and substance use, violence, crime, and other problematic behaviors. CTC uses prevention science, the social development strategy, and tested and effective programs and policies to build a healthier life and environment for youth (DBH, n.d.).

Treatment & Diversion

Possession and misuse of substances can affect behavior and judgment, lead to legal consequences, and at times lead to criminal activity ([BJS](#), 2021; [Addiction Center](#), 2023). Convictions of crimes and living with a criminal record make it difficult to break the cycle of substance use.

To reduce the rates of incarceration in Davis County, Davis Behavioral Health, along with the criminal justice system and local law enforcement, started the Davis County Diversion Program ([Fowles et al.](#), 2021). The program allows for people who have committed certain misdemeanor offenses while suffering from substance use disorder and/or mental health problems to seek help at the Davis County Receiving Center. At the center, they are connected to treatment and recovery opportunities as opposed to being taken to jail to face criminal charges ([DBH](#), 2022).

Treatment options are available for those currently experiencing a substance use disorder. Davis County has multiple substance use treatment facilities, meetings, and programs where people who have a substance use disorder or addiction can get the help and support they need. In Davis County, 2,323 people received treatment service for substance use in fiscal year (FY) 2022, a 5.7% increase from FY2021 ([UDHHS](#), 2022).

During 2022 community focus groups, substance use was discussed a few different times with Davis County residents. Someone who participated in the 12 Step Program said it was “one of the most spiritual things ever experienced.” Another participant shared, “I had the power to change when I quit getting high.” It was mentioned that even after being sober for multiple years, it can still be difficult, especially when struggling to meet basic needs. There was also concern that addiction recovery for youth can be much more difficult to find and that DARE in schools is not achieving the desired outcome (DCHD, 2022).

Local Substance Use & Addiction Treatment & Recovery Resources		
Davis County Behavioral Health Directories	<i>Resources for all members of the community concerned about behavioral health, including the Behavioral Health Directory, Spanish Mental Health Directory, and LGBTQ+ Resource Directory</i>	directories.davis4health.org
Davis County Medication-Assisted Treatment (MAT) Providers	<i>List of licensed providers</i>	daviscountyutah.gov/docs/librariesprovider5/health-strategy/davis4health-docs/davis-county-certified-mat-providers.pdf
Medication-Assisted Therapy (MAT): Opioid Community Collaborative, Davis Behavioral Health	<i>Combats opioid use disorder by utilizing medications with counseling and behavioral therapies</i>	dbh.utah.gov/services/medication-assisted-therapy-opioid-community-collaborative/
Opioid Safety, DCHD	<i>Data dashboard, toolkit, and resources</i>	daviscountyutah.gov/health/health-services/health-education-services/opioid-safety
Receiving Center, Davis Behavioral Health	<i>Functions as a 24-hour crisis response site and offers brief crisis stabilization for individuals experiencing mental health, substance use or other behavioral crises</i>	dbh.utah.gov/about/facilities/the-receiving-center/
Substance Abuse Treatment, Davis Behavioral Health	<i>Screenings, therapy, and treatment</i>	dbh.utah.gov/services/substance-use-outpatient/
State & National Substance Use Disorder Treatment & Recovery Resources		
Addiction Recovery Program, Church of Jesus Christ of Latter-Day Saints	<i>Provider locator</i>	addictionrecovery.churchofjesuschrist.org
Know Your Script	<i>Statewide media and education campaign to prevent and reduce the misuse and abuse of prescription medications, includes a Drop Box Locator</i>	knowyourscript.org
SAMHSA's National Helpline	<i>A free, confidential, 24/7, 365-day-a-year treatment referral and information service (in English and Spanish) for individuals and families facing mental and/or substance use disorders</i>	1-800-662-HELP (4357)
Stop the Opioid Epidemic	<i>Data, strategies, and educational resources for community members and healthcare providers</i>	opidemic.org
Utah Naloxone	<i>Training, information, and resources</i>	utahnaloxone.org

Clinical Care

Based on the County Health Rankings and Roadmaps (CHR&R) Model, clinical care is a health factor that accounts for 20% of overall health and includes both Access to Care and Quality of Care. Diseases can be prevented and detected sooner when access to healthcare is affordable, timely, and of good quality. Clinical care can improve overall health and well-being and contribute to a longer lifespan. Access to care and quality can vary widely by place, race, income, and ethnicity ([CHR&R](#), 2014).

Nationally, Utah is ranked 13th among all states for the best healthcare systems ([WalletHub](#), 2022). Davis County is ranked 3rd among Utah counties for Clinical Care based on data measures for Access and Quality of Care ([CHR&R](#), 2022). Despite these high rankings, there are opportunities for improvements that will be further discussed in this chapter.

This chapter includes sections relating to access, quality of care, insurance and cost, leading prescriptions and claims, preventative care, and gaps and improvements.

Access

Access to care is multi-faceted and involves the ability to get needed services in a timely manner, the ability to afford services, and receiving quality healthcare ([Levesque et al.](#), 2013; [Andersen & Davidson](#), 2014). Oftentimes, people face barriers to accessing healthcare, which increases their risk of poor health outcomes. Common barriers include insurance, transportation, and limited resources ([Healthy People 2030](#), n.d.).

During local focus groups in 2022, Davis County participants shared that healthcare providers could be more accessible by being affirming of their concerns, knowledgeable of different cultures, understanding and supportive of mental and behavioral health disorders, and speaking the client's primary language (DCHD, 2022).

Healthcare Facilities

In Davis County, there is a variety of healthcare facilities:

- **3 hospitals**, including Intermountain Layton Hospital, Davis Hospital and Medical Center, and Lakeview Hospital
- **19 urgent care or instacare facilities** operated by 5 different healthcare systems or companies throughout the county
- **1 mobile urgent Care-A-Van** that serves Davis, Weber, and Morgan Counties
- **1 Federally Qualified Health Center (FQHC)**, Midtown Community Health Center and Dental Clinic, co-located in the same building as Davis County Health Department (DCHD)
- **5 teen centers**, which serve Davis County teens who may be experiencing homelessness
- **15 residential treatment centers** for those with behavioral health needs
- **35 long-term care facilities**, including 7 skilled nursing homes and 28 assisted living centers

Provider Ratios

Access to healthcare services such as, primary care, mental health, dentists, and school nurses is essential to preventative care. A sufficient primary care workforce for the population can help ensure the community's basic healthcare needs are met ([UDOH](#), 2021). Provider ratios are an indicator of access to care and the size of the healthcare system in relation to the population. Lower ratios represent fewer patients per provider, suggesting better access to care. As shown in Table 45, Davis County provider ratios vary by specialty.

Table 45: Health Care Provider to Patient Ratios

Provider	Davis	Utah	U.S.
Primary Care Physicians	2,040:1	1,740:1	1,310:1
Dentists	1,470:1	1,450:1	1,400:1
Mental Health Providers	430:1	280:1	350:1
School Nurses	2790:1	2789:1	-

Data: [CHR&R](#), 2022; [UDOH](#), 2020-2021

Over the past five years, improvements in Davis County provider to population ratios have occurred in all areas except primary care. Examples of primary care include family practice, internal medicine, women's health (obstetrics/gynecology), and pediatrics ([UDOH](#), 2021).

Davis County has a higher provider to patient ratio than Utah and the U.S. for primary care physicians and mental health providers. This ratio may create barriers, such as waitlists, for those in need of services. In Utah, only 56.9% of healthcare needs are being met by current primary care providers. There is an estimated shortage of at least 132 providers statewide ([KFE](#), 2022).

For dentists, Davis County has a similar provider to patient ratio to Utah and a slightly higher ratio than the national rate. Only 56.1% of community dental needs are being met statewide ([KFE](#), 2021).

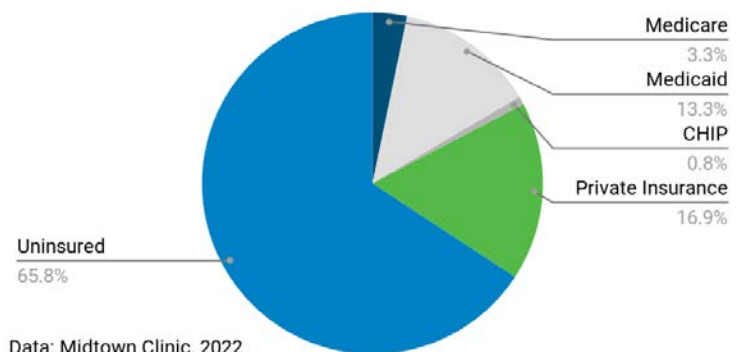
When examining needs between Utah Small Areas, the Clearfield Area and Layton/South Weber have more primary care needs than 50% of Utah's Small Areas across the State. The remaining seven Utah Small Areas in Davis County have less need and are better than the State average. Farmington has the least amount of need in Davis County. It is also among the top 10 Utah Small Areas for having a sufficient number of primary care providers. These primary care differences are closely linked to education and income factors between Utah Small Areas ([UDOH](#), 2021).

Recent Utah legislation has started to address primary care shortages by expanding the types of healthcare providers that are authorized to meet primary care needs. Senate Bill 36 adopted Full Practice Authority, meaning nurse practitioners are licensed to diagnose and treat patients without the oversight of a physician ([AANP](#), 2023). This expands access to care by increasing the number and type of providers available to patients. It also enhances Utah's ability to attract and retain nurse practitioners, which may improve provider ratios in the future.

Midtown Community Health Center

Midtown Community Health Center (Midtown) is a Federally Qualified Health Center (FQHC) located in Clearfield that provides affordable, needs-based healthcare to underserved communities. Midtown serves patients with insurance, including Medicaid, Medicare, Children's Health Insurance Program (CHIP), and Primary Care Network (PCN), as well as community members without insurance who are charged at the time of service on a discounted sliding fee scale based on income and family size (Figure 129).

Figure 129: Patient Insurance Type, Midtown Clinic, 2020-2022



Among those accessing services at Midtown, the uninsured population primarily uses dental and mental health services, compared to those with other insurance coverage. In 2022, those ages 40-59 received the most services for medical and dental needs (Midtown, 2022).

While 10.8% of the Davis County population identifies as Hispanic/Latino, more than half of Midtown clients in 2020 and 2021 (58.1% and 62.3%) were Hispanic/Latino ([U.S. Census](#), 2020; Midtown, 2020-2021).

Davis Volunteer Medical Clinic, a free clinic that assists those who are uninsured, is housed by Midtown. The clinic is open every Tuesday and Thursday in the evenings and offers limited services on a first-come, first-serve basis. In 2021, 54.6% of those served were Hispanic/Latino. Of those who received free care, 66.7% were above 200% federal poverty level (FPL) or income was not listed (Midtown, 2022).

The south end of Davis County does not have a FQHC or volunteer clinic. Increasing the number of clinics and services offered, as well as locations, may help to improve access to care for underserved groups ([Healthy People 2030](#), n.d.).

Mental & Behavioral Health

The State of Mental Health in America Report ranked Utah's mental health system 43rd out of 51 in the Nation. This ranking means that Utah has a higher prevalence of mental illness and lower rates of access to care ([MHA](#), 2022).

Only 55.1% of mental health care needs are being met in the State ([KFF](#), 2022). In Utah, 57.9% of children ages 3 through 17 with a mental or behavioral condition did not receive treatment or counseling compared to 48.4% nationwide ([NSCH](#), 2020-2021). Though the mental health provider ratio (430:1) improved in Davis County, access to mental health treatment continues to be a gap ([CHR&R](#), 2022).

In Davis County, difficulty accessing mental health resources has been identified as a community theme. Community focus groups held in 2022, revealed that oftentimes people who are struggling with mental health conditions or suicidal ideation are unable to get the help they need in a timely manner. As one service provider stated:

"When you speak to access, I have so many resources available, but some people can't even pick up the phone, or get out of bed because of the trauma, or PTSD, or the child being made fun of at school."

Even when someone is able to seek help on their own or with the support of family or friends, they still face barriers to receiving the care they need. Stories from the focus groups highlighted many of these barriers, including examples of being sent home during a crisis, inability to find care due to lack of insurance, waiting three to six months for available appointments with therapists, and paying tens of thousands of dollars out of pocket for adequate care (DCHD, 2022).

The Davis Behavioral Health Network was formed in 2013 to bring service providers, community-based organizations, and other interested partners together to work on improving access to behavioral health services in Davis County. Davis HELPS, the county's suicide prevention coalition, also supports coordinated prevention efforts and promotes positive mental health and well-being in the community. Many community partners and agencies participate in the two community collaborations to improve access to behavioral health services.

Some recent community successes include:

- Launching the Davis Behavioral Health Network funding program, an initiative to help uninsured and underinsured individuals with behavioral health concerns access services
- Conducting annual mental health screening events for youth in preschool through 12th grade
- Creating and updating the [Davis County Behavioral Health Directory and Spanish Mental Health Directory](#)
- Opening the [Davis Behavioral Health Receiving and Engagement Center](#), a 24-hour program that functions as a crisis response site and offers brief crisis stabilization for individuals experiencing mental health, substance use, or other behavioral crises; services include suicide assessment, physical health screening, an evaluation, detox services, peer services, medication management and medication-assisted treatment (MAT) if appropriate; gives individuals, families and law enforcement an alternative to receive services outside hospital emergency department or jail
- Launching of the national [988 Suicide & Crisis Lifeline](#) in July 2022, giving residents an easy to remember 3-digit number to use during a mental health crisis

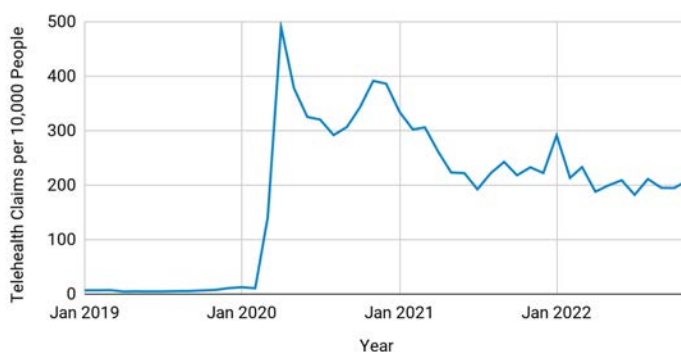
Telehealth

Telehealth, sometimes called e-health or m-health (mobile health), is a way of accessing healthcare services outside of a traditional office visit, such as online or by phone ([Mayo Clinic](#), 2022). Historically, females and those ages 25-44 have been the most likely to use telehealth services with males and those ages 60 and older being the least likely to use the services. These demographic trends have remained consistent over time, even as telehealth has become more popular ([UETN](#), 2022).

Telehealth has proven to be an effective means of delivering care when in-person visits are not possible. From January 2019 to January 2022, there was a 4,586% increase in telehealth claims across Utah due to the impact of the COVID-19 Pandemic ([UETN](#), 2022).

Davis County has consistently had the 3rd highest rate of telehealth claims among all local health departments in Utah ([UETN](#), 2022). In 2019, the average rate was 6.4 telehealth claims per 10,000 people. Rates peaked in April 2020 at 490.6 telehealth claims per 10,000 people. Since then, rates have gradually declined and stabilized. The average rate in 2022 was 211.5 telehealth claims per 10,000 people (Figure 130).

Figure 130: Rate of Telehealth Claims, Davis County, 2019-2022



Data: UETN, 2022

Telehealth claims vary by type of service provided. In January 2019, tele-behavioral health claims accounted for 10.9% of all telehealth claims in Utah, but by March 2022, accounted for the majority of telehealth claims (68.5%). Use of telehealth services by other healthcare specialties also increased during this time. Some of the largest increases in

telehealth use were for the specialties of social work, internal medicine, psychiatry and neurology, physical medicine and rehab, and pediatrics ([UETN](#), 2022).

The price of telehealth increased with demand due to the COVID-19 Pandemic and has remained similar to in-office visits since May 2020. The average allowed payment amount for telehealth visits in Utah as of June 2022 was \$112.16 compared to \$114.04 for an in-office visit ([UETN](#), 2022).

Before the COVID-19 Pandemic, telehealth claims were only paid by Medicare when a patient was in a rural area. This requirement has since been waived by Center for Medicare and Medicaid Services (CMS) and the service is now reimbursable regardless of location ([UETN](#), 2022). As the national COVID-19 Public Health Emergency ends in 2023, policy changes will have an effect on the use and flexibility of telehealth in the future ([HHS](#), 2023). The resulting impacts on access to care should be considered.

School-Based Health Centers

In Davis County, there are no school-based healthcare clinics in public schools. Community partners have shared that addressing this gap could help improve access to care for students, employees, and the community. Telehealth has been suggested as the most feasible model with which to start. These services have been recommended to be included as a component of newly opened Teen Centers in many Davis School District (DSD) high schools (DCHD, 2022).

Medical Transportation Services

Transportation is a key component of accessing healthcare. When transportation is unavailable or unreliable, it can cause delays in preventative and ongoing care, leading to poorer health outcomes ([AHA](#), 2017). In Utah, limited non-emergency medical transportation services are available through traditional Medicaid ([UDHHS](#), n.d.). For those ages 60 and older, medical transportation is available through DCHD Senior Services ([DCHD](#), 2022).

From July 2021 to June 2022, DCHD Senior Services Medical Transportation Program transported 213 individuals:

- 150 (70.4%) individuals were female
- The majority identified as White with small counts of other race groups being too few to report
- The age range of individuals using this service varied, with medical transportation needs increasing with age; the largest rider age group was those over 80 years old, making up 32.4% of the total rides (DCHD, 2021-2022)

In community focus groups, Davis County community members shared that navigating the medical transportation service has been difficult. The following themes arose: lack of timely service, inconsistent pick-up and drop-off times, feeling an obligation to pay even if unable to afford it and lack of communication between drivers and riders (DCHD, 2022).

In Davis County, gaps for medical transportation exist for those who do not qualify for non-emergency services and for those who are younger than 60 years old. Low fare services, such as UTA On Demand, could be used for transportation to and from medical appointments for those living on the south end of Davis County (UTA, n.d.). Some companies, such as Uber Health, provide transportation at a cost per use (Uber Health, n.d.). Medical transportation services are not available for emergency situations.

Quality of Care

Quality healthcare is effective and safe care at the right time and for the right person. The World Health Organization further defines quality of care as “the degree to which health services for individuals and populations increase the likelihood of desired health outcomes” (WHO, 2022).

The Institute of Medicine uses the following six domains or aims for defining the quality of healthcare:

- Safe
- Effective
- Patient-centered
- Timely
- Efficient
- Equitable (AHRO, 2018)

Quality Scores for Davis County Facilities

The Utah Department of Health and Human Services (UDHHS) Office of Health Care Statistics periodically releases quality of care data for all participating clinics in Utah. The most recent data available scores 553 unique clinics across the State, including 33 in Davis County, on 12 indicators that measure appropriateness of treatment received by patients (UDOH, 2017-2018). In Davis County, patients received appropriate care more frequently than the

Medical Transportation Resources

Senior Services, DCHD	<i>Medical transportation for seniors to appointments within Davis County</i>	801-525-5058 ext. 2 daviscountyutah.gov/health/aging-adult-services/senior-health/senior-medical-transportation
Non-Emergency Medical Transportation, UDHHS	<i>Available for those who are eligible for Traditional Medicaid services and do not have transportation to get to medical care, please visit website for more information</i>	801-538-6155 medicaid.utah.gov/non-emergency-transportation/
UTA On Demand	<i>Offers ride-share services at a low fare in South Davis County, and other areas in Salt Lake and Tooele; trips must start and end within the designated service area; corner-to-corner service allows riders to be picked up and dropped off close to their destinations</i>	rideuta.com/Services/UTA-On-Demand

State average for nine of the quality measures (Table 46). Davis County was similar or lower than the Utah average for indicators related to long-term antidepressant management, breast cancer screening, and colon cancer screening.

Preventable Hospital Stays

Preventable hospital stays are an indicator for both quality of initial care and access to primary care. They can represent the overuse of emergency rooms and urgent care facilities for conditions that could have been treated in an outpatient setting, such as a doctor's office or clinic, suggesting that quality outpatient care was not accessible.

In Davis County, 1,672 hospital stays per 100,000 people enrolled in Medicare might have been prevented by outpatient treatment in 2019 (Table 47, next page).

Historically, Davis County has had lower rates of preventable hospital stays than Utah and the U.S., and trends continue to improve for this measure (Figure 131).

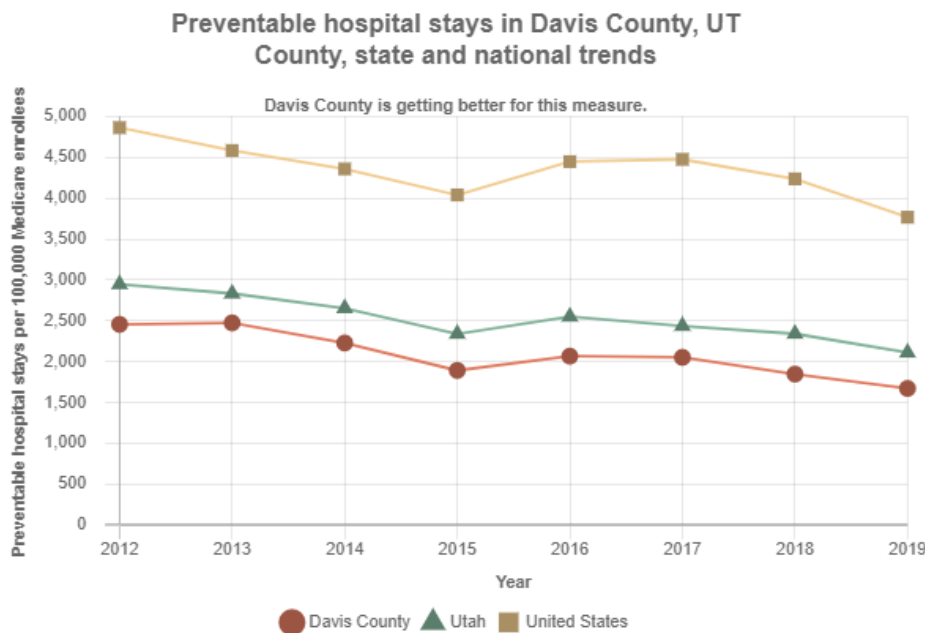
Nationally, emergency department utilization is higher for Black/African American and Hispanic/Latino patients. This may be caused by additional structural barriers to care such as insurance and

Table 46: Percent of Patients Who Received Appropriate Care, 2017-2018

Clinical Quality Comparison Measure	Davis	Utah
Effective Antidepressant Medication Management (12 weeks)	76.0%	74.8%
Effective Antidepressant Medication Management (6 months)	59.0%	59.5%
More Controller Medication than Emergency Medication for Asthma	75.1%	73.6%
Avoidance of Antibiotic Treatment in Adults with Acute Bronchitis	55.7%	53.9%
Breast Cancer Screening	64.4%	67.6%
Chlamydia Screening in Women	35.6%	34.4%
Colorectal Cancer Screening	54.3%	54.3%
Comprehensive Diabetes Care: Blood Sugar (HbA1c) Testing	89.1%	86.5%
Comprehensive Diabetes Care: Screening or Treatment for Declining Kidney Function (Nephropathy)	90.4%	87.3%
Adults Adhering to Cholesterol Medication	75.5%	73.2%
Well-Child Visits in the First 15 Months of Life (6 or More Visits)	77.3%	70.0%
Well-Child Visits at Ages 3-6 Years of Life (1 or More Visits)	77.2%	75.9%

Data: [UDOH](#), 2017-2018

Figure 131



Source: [CHR&R](#), 2022

network coverage ([Parast et al., 2022](#)). In Davis County, those who identify as Asian/Asian American or Hispanic/Latino have lower rates of preventable hospital stays than the White population ([CHR&R, 2022](#)). Data for additional race and ethnicity groups is not available at the local level.

Table 47: Preventable Hospital Stays Among Medicare Enrollees

Quality Indicator	Davis	Utah	U.S.
Rate of Preventable Hospital Stays per 100,000 People	1,672	2,110	3,767
Percent Readmitted Within 30 Days of Initial Hospital Discharge	10.5%	12.6%	18.1%

Data: [CHR&R, 2022](#); [Salud America, 2023](#)

Another quality measure related to preventable hospital stays is the percent of patients who return to the hospital within 30 days of their initial visit. Early readmission can result from poor care practices and is avoidable with supportive communication, education, and care coordination. Reducing readmissions lowers healthcare costs, improves quality, and increases patient satisfaction. Nationally, hospitals with high readmission rates experience a reduction in Medicare and Medicaid reimbursement payments in an effort to financially incentivize better quality care ([CMS, 2023](#)). Among Medicare beneficiaries, 10.5% in Davis County are readmitted to the hospital within 30 days of an initial hospital discharge compared to 12.6% in Utah and 18.1% in the U.S. (Table 47).

Healthcare-Associated Infections (HAI)

Healthcare-associated infections (HAIs) are infections that people can get while receiving healthcare services and can often be prevented. Reducing HAIs is a national priority and is necessary to improving quality of care. HAIs are not one type of disease. They can be due to a variety of causes, including bacteria, viruses, and fungi. HAIs can happen in any healthcare facility, including hospitals, surgical centers, and long-term care facilities. An estimated 1 in 31 patients in healthcare facilities have an infection related to hospital care. These infections can have serious emotional, financial, and medical consequences ([HHS, 2021](#)).

From 2017 to 2021, there were 128 HAI cases reported in Davis County with 7 of those cases resulting in death (Table 48). In 2019, multiple norovirus outbreaks in communal living settings caused a spike in HAIs, which has been a common trend nationwide (DCHD, 2017-2021).

Resources and guidelines for how to reduce, control, and prevent HAIs are available to assist clinicians, infection preventionists, administrators, and staff that work in healthcare facilities. State and local health departments also provide updated information on new and emerging infections.

Table 48: Healthcare-Associated Infection Outbreak Case and Death Counts, Davis County, 2017-2021

Year	Disease Type	Cases	Deaths
2017	Norovirus	4	0
2018	<i>Acinetobacter sp. - Carbapenem resistant</i>	2	0
2019	Norovirus	84	6
2020	Norovirus Campylobacteriosis <i>Acinetobacter sp. - Carbapenem resistant</i>	20	1
2021	<i>Acinetobacter sp. - Carbapenem resistant</i>	18	0

Data: DCHD, 2017-2021

Carbapenem-resistant Enterobacterales (CRE)

There is particular concern with the increased number of multidrug-resistant organisms (MDROs), including Carbapenem-resistant Enterobacterales (CRE), a type of HAI. CRE are bacteria that are resistant to antibiotics. CRE infections are difficult to treat, can spread quickly, and may contribute to death in more than 40% of patients ([Jacob et al.](#), 2013). Some CRE have complete antibiotic resistance ([CDC](#), 2019). In 2019, *Pseudomonas aeruginosa*, a CRE, was added as a reportable disease, and greatly increased the number of reported CREs. Davis County reported CRE cases annually with an average of 87.7 cases from 2019 to 2021. These infections are increasingly identified in healthcare facilities throughout the U.S. (DCHD, 2017-2021).

To learn more about these diseases in a non-healthcare setting, see the Infectious Disease section of the Health Outcomes chapter.

Barriers to Healthcare Quality

In 2022, the U.S. Surgeon General report identified health worker burnout as a threat to healthcare quality ([HHS](#), 2022). Burnout is caused by having heavy emotional exhaustion because of a job. It can lead to exhaustion, negativity, and feeling a lack of accomplishment in the workplace. It also can impact providers' decision making. Addressing burnout is crucial to improving safety in healthcare ([Garcia et al.](#), 2019). Also, a higher provider to patient ratio may lead to burnout due to the shortage of providers statewide, especially primary care providers.

Quality of care for historically underserved groups can be impacted by provider bias, racism, and a lack of cultural humility, which create barriers to trust. According to national studies:

- Implicit bias can affect the amount of time providers spend talking relative to the amount of time they spend listening to their patients, the types of questions providers ask, and the information obtained from patients. This can be especially harmful to those who are already disadvantaged or vulnerable ([Maina et al.](#), 2018,

[FitzGerald & Hurst](#), 2017).

- Decision-making based on provider biases is more likely to occur under certain conditions: time pressure, lack of solid knowledge and information to make a decision, cognitive overload, and fatigue ([Dehon et al.](#), 2017).
- Among households that received healthcare in the past year, 36% of Black/African American and 35% of Hispanic/Latino patients reported facing racism in care. Less than half of those who experienced racism reported having a great deal of trust in their healthcare provider ([Findling et al.](#), 2022).
- Despite significant efforts to improve racial and ethnic healthcare disparities, differences in care and health outcomes persist ([Dehon et al.](#), 2017). Integrating cultural humility and lifelong learning through asking questions and learning about background and culture can help providers overcome uneasiness ([Marcelin et al.](#), 2019).
- Utah Healthcare Access Survey stated 1 in 3 respondents reported experiencing discrimination when accessing healthcare in Utah. Respondents felt it was most often because of their race. In addition, those aged 35-49, Black/African American, or living in rural counties felt discriminated against in healthcare settings most often ([UDHHS](#), 2023).

In the 2022 Community Equity Assessment, the following experiences were shared in focus groups with Davis County residents: difficulty finding gender affirming care, difficulty finding providers for transition-age youth with Autism, feelings of judgment from doctors and hospital staff for having a felony record and living with a substance use disorder, receiving quick medical exams that didn't feel thorough, and providers not giving enough support for a family requesting in person services for a child who was vaping (DCHD, 2022).

Cultural humility and competence can help to address barriers to quality. Cultural competence is defined as "the integration and transformation of knowledge about individuals and groups of people into specific standards, policies, practices, and attitudes used in appropriate cultural settings to increase the quality of services with the intention of

producing better outcomes” ([American Hospital Association](#), 2023). Community Health Workers (CHWs), frontline public health workers who serve community members in culturally appropriate ways, are being integrated in a variety of primary care settings, including, FQHCs, managed health systems, patient-centered medical homes, and community pharmacies to improve the quality and cultural competence of service delivery ([CDC](#), 2020). They help with language and translation needs, provide health education, attend outreach events, and help connect people with resources ([DCHD](#), 2023).

Insurance & Cost

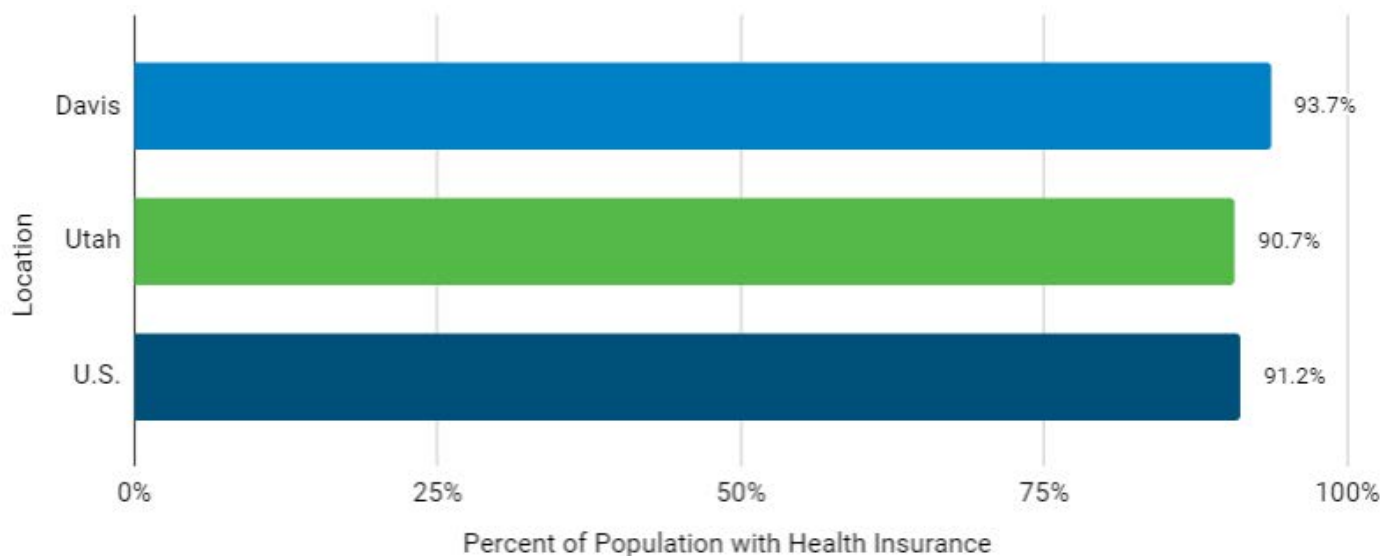
Health insurance is essential to accessing medical services and maintaining good health. People with insurance have better health outcomes, lower rates of death, less premature death, better quality of care, lower cost medical bills, and less complex emergency room visits ([AHR](#), 2022). This is largely due to increased use of the healthcare system, especially for services that prevent and detect

severe disease early, and the ability of insurance to reduce costs as a barrier to care. However, not everyone has the same opportunities to access insurance, specifically low-income families and people of color, who experience a higher risk of being uninsured ([KFF](#), 2020). Education, income, young age, and Medicaid expansion policies are also factors that influence health insurance rates ([AHR](#), 2022).

Regarding insurance coverage for adults, Davis County has healthier community conditions than 89.7% of other counties in Utah ([UT HPI](#), 2022). Over the last decade, roughly 9 in 10 Davis County residents had health insurance, which was slightly higher than the State and Nation (Figure 132).

Insurance coverage is Healthy People 2030 Leading Health Indicators (see Appendix 7). Davis County is meeting the Healthy People 2030 target for percent of people under age 65 with medical insurance. It is important to note that insurance coverage estimates vary by data source ([DCHD](#), 2022).

Figure 132: Health Insurance Coverage, 2017-2021

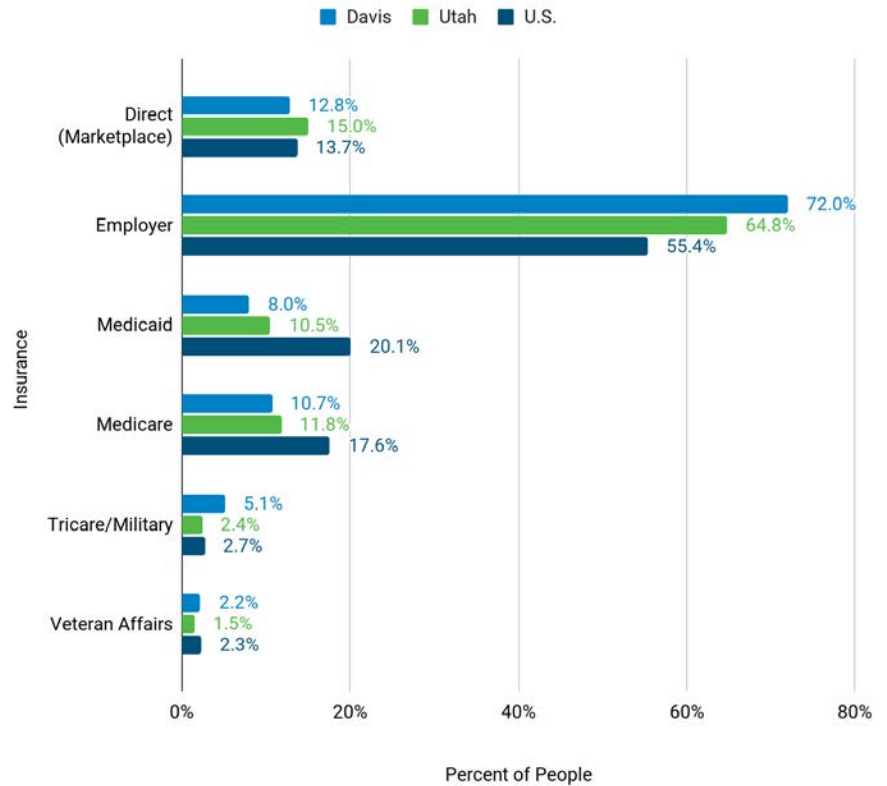


Data: U.S. Census, 2017-2021

The most common form of health insurance in Davis County is employer-based coverage (72.0%). A larger proportion of Davis County residents have this type of coverage compared to the Utah and U.S. populations ([U.S. Census](#), 2016-2020). Figure 133 shows insurance coverage by type locally and nationally. It is important to note that percentages may exceed 100% when summed because residents can have more than one type of health insurance.

A smaller percent share of the Davis County population has Medicaid or Medicare coverage compared to Utah and the U.S. ([U.S. Census](#), 2016-2020). Additionally, Tricare coverage is more common in Davis County than the State or the Nation, likely due to Hill Air Force Base being located in the county ([U.S. Census](#), 2016-2020). When broken down by age, employer-based insurance remains the leading type of coverage for working-age adults and children. Medicare was the most common source of coverage for those age 65 and older in Davis County ([CMS](#), 2020).

Figure 133: Percent of People Covered by Type of Health Insurance, 2016-2020



Data: U.S. Census, 2016-2020

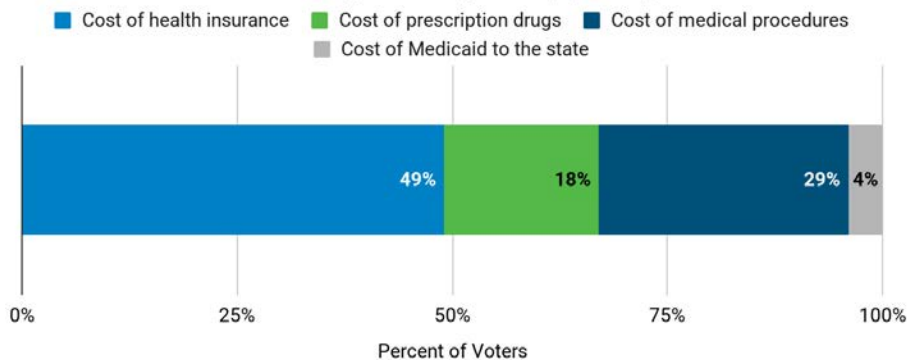
Cost as a Barrier to Care

For individuals and families in the U.S., healthcare costs factor into decisions about insurance coverage and care seeking ([KFF](#), 2022).

In 2020, cost of health insurance was the top priority for nearly half (49%) of Utah voters when thinking about healthcare costs. Figure 134 shows that voters were also concerned about procedures, prescriptions, and Medicaid burden ([Utah Foundation](#), 2020).

Personal healthcare expenditure, which is money spent for goods and services relating directly to patient care, such as hospital care, has increased over time ([CDC](#), 2019).

Figure 134: Utah Voters Response to "When thinking about health care cost, what is your top priority?"



Data: Utah Foundation, 2020

Healthcare spending in the U.S. grew 9.7% in 2020 and another 2.7% in 2021, reaching \$4.3 trillion, or \$12,914 per person ([CMS](#), 2021).

In 2021, 7.3% of the Davis County population was unable to get needed care due to cost. This is significantly lower than the State at 10.3% ([IBIS](#), 2021). Some groups are more likely to report cost as a barrier to accessing healthcare. Table 49 shows differences between age groups, ethnicity, sex, sexual orientation, education, income, and disability status in Davis County ([IBIS](#), 2017-2021). Significant differences were noted between:

- Hispanic/Latinos and non-Hispanic/Latinos
- Males and females
- Lesbian, Gay, or Bisexual (LGB) individuals and straight/heterosexual individuals
- People with one or more disabilities and no disabilities
- Those with a high school education or less and college graduates
- Households making less than \$50,000 annually, those making \$50,000 to \$75,000, and those making \$75,000 or more

In the 2022 Community Equity Assessment focus groups, Davis County Spanish-speaking community members shared that emergency department visits cost tens of thousands of dollars. Due to this high cost, a community member shared that they "held out for a long time," which almost resulted in loss of life (DCHD, 2022).

People who had been out of work for more than a year were at the greatest risk for encountering cost as a barrier to healthcare compared to other employment and student statuses, with 30.2% reporting they were unable to get needed care due to cost within the past year. Encountering cost as a barrier to care is significantly more likely if someone does not have health insurance, as can be seen in Table 50. People with fair or poor health are also significantly more likely to encounter this barrier (25.2%) compared to those with good, very good, or excellent health (7.4%) ([IBIS](#), 2017-2021).

Table 49: Population Reporting Cost as a Barrier to Care by Demographic Group, Davis County, 2017-2021

Age Groups	Percent
Ages 18-34	13.0%
Ages 35-49	10.3%
Ages 50-64	7.6%
Ages 65+	2.4%
Ethnicity	
Hispanic/Latino	16.3%
Non-Hispanic/Latino	8.6%
Sex	
Male	7.7%
Female	10.7%
Sexual Orientation	
Heterosexual	8.6%
Lesbian, Gay, or Bisexual	17.2%
Education	
High School Education or Less	13.3%
Some Post High School	9.7%
College Graduate	5.2%
Annual Household Income	
Less than \$50,000	20.2%
\$50,000 - \$75,000	9.7%
\$75,000 or more	5.7%
Disability Status	
Have One or More Disabilities	19.9%
No Disability	6.3%
Data: IBIS , 2017-2021 (crude); IBIS , 2017-2021 (age-adjusted)	

Table 50: Population Reporting Cost as a Barrier to Care by Insurance Coverage

Insurance Status	Davis	Utah	U.S.
Insured	7.6%	9.4%	8.9%
Uninsured	25.6%	32.2%	36.6%

Data: County and State from [IBIS](#), 2017-2021, ages 18+ (age-adjusted); [CDC](#), 2021, ages 18-64 (crude)

High Deductible Health Plans

A high deductible health plan (HDHP) is any health plan with a higher deductible cost and usually lower monthly premium than a traditional health insurance plan ([HealthCare.gov](https://www.healthcare.gov), 2022). After a healthcare visit, an individual with an HDHP pays more of their medical expenses out-of-pocket before the insurance company starts to pay its share of the medical bills. These plans are often the best option for those who do not need a lot of care aside from preventative services. However, this type of plan can delay people from getting care when needed for fear of a high bill, which can lead to debt in emergency situations and worsening health outcomes. To balance this, a HDHP can be combined with a health savings account (HSA). This allows individuals to pay for qualifying medical expenses with money free from federal taxes ([IRS](https://www.irs.gov), 2023).

Table 51 shows roughly 22.0% of patients in Davis County have HDHPs. Of those with HDHPs, 69.6% are under age 40, and 46.5% are younger than 25.

Table 51: High Deductible Health Plans (HDHP) by Age Group, Davis County, 2021-2022

Age Group	Count of HDHPs with HSA*	Percent Share of Population
Under 16	16,310	30.3%
16-24	8,757	16.3%
25-39	12,403	23.0%
40-49	8,200	15.2%
50-59	5,366	10.0%
60-69	2,720	5.1%
70-79	85	0.2%
80+	10	0.0%
All Ages:	53,851	100%

Data: UDHHS All Payer Claims Database, January 2021-March 2022
* HSA=Health Saving Account

The prices of high deductibles and premiums continue to rise over time. However, incomes have not kept pace, leading to health insurance taking up a larger percentage of household budgets. This creates a barrier for families needing timely healthcare and can be a risk for their financial security ([The Commonwealth Fund](https://www.commonwealthfund.org), 2022).

In the 2022 Community Equity Assessment, focus group participants shared that even with health insurance, there is a significant financial burden to receive care. There were examples shared of waiting to get needed care, preventable emergency room visits and hospital stays, and medical bills leading to years of debt. In addition, difficulty finding out what affordable services are available led to delays in accessing care in a timely manner (DCHD, 2022).

Medicare

Medicare is a federal health insurance program for individuals who are 65 years of age or older, have certain disabilities, or have end stage renal disease (ESRD). Medicare has different parts:

- Part A is hospital coverage
- Part B covers services from doctors, outpatient care, and medical supplies
- Part C refers to Medicare Advantage Plans. Advantage Plans are a type of Medicare health plan offered by private companies that contract with Medicare and bundle recipient Medicare benefits, Part A, Part C, and generally Part D.
- Part D generally helps cover the cost of prescription drugs

Figure 135

WHAT ARE THE PARTS OF MEDICARE?



Source: [Best Company](https://www.bestcompany.com), 2022

Refer to Figure 135 (previous page) for more information on these different parts. Often these plans provide a lower out of pocket cost than original Medicare. Those who choose to get benefits through an advantage plan will have to use providers within the plan's network ([Medicare.gov](https://www.medicare.gov), n.d.).

In 2021, there were 63,892,626 individuals in the U.S. enrolled in Medicare. In Utah there were 427,555 individuals enrolled in Medicare ([CMS](https://www.cms.gov), 2021).

In Davis County, at the end of December 2021:

- Approximately 11.9% of the county's population, 43,755 people, had Medicare insurance coverage
- Among those with Medicare, 38,434 people qualified based on age
- There were 4,321 people who had Medicare due to a disability
- There were 94 people had Medicare due to ESRD ([CMS](https://www.cms.gov), 2021)

Medicaid

Medicaid is a state and federal program that covers medical expenses for eligible individuals who have low income or limited resources. There are over 20 Medicaid programs in Utah, including programs for low-income adults, pregnant women, children, older adults, and people with disabilities, among others ([UDHHS](https://www.udhhs.gov), n.d.). The Children's Health Insurance Program (CHIP) and Compacts of Free Association (COFA) Program are two specific Medicaid programs that will be discussed later in this section.

To qualify for Medicaid in Utah, individuals must meet the rules for a specific program, U.S. citizenship or residency, Utah residency, income and assets, and maintain eligibility on a monthly basis. Table 52 shows the maximum Medicaid income guidelines following Utah's 2019 expansion of eligibility. Income guidelines vary between 55% and 138% of the Federal Poverty Level depending on the program ([UDHHS](https://www.udhhs.gov), n.d.; [UDHHS](https://www.udhhs.gov), n.d.).

Table 52: Medicaid Maximum Income Guidelines by Family Size, Utah

Family Size	Per Month	Per Year
1	\$1,616	\$19,392
2	\$2,186	\$26,232
3	\$2,756	\$33,072
4	\$3,325	\$39,900
5	\$3,895	\$46,740
6	\$4,465	\$53,580
7	\$5,035	\$60,420
8	\$5,604	\$67,278

Data: [UDHHS](https://www.udhhs.gov), n.d.

In December 2022, the Medicaid programs covered more than 92.3 million people in the U.S. ([Medicaid.gov](https://www.medicare.gov), 2022). When looking at Medicaid enrollment nationally:

- Children accounted for 46.3% of those enrolled in a Medicaid program in 2022 ([CMS](https://www.cms.gov), 2023)
- From 2018 to 2019, people with disabilities made up 12.8% of enrollees but had the highest share of expenditures at 33.6%
- Those aged 65 and older made up the smallest share of enrollees at 10.4%, but were the second largest share of expenditures at 22.1% ([CMS](https://www.cms.gov), 2022)

In Davis County, 39,411 people were enrolled in Medicaid at the start of June 2022. This represents about 10.7% of the total population, which is lower compared to the 14.2% of the Utah population enrolled in Medicaid. Of those enrolled in Davis County:

- 631 had CHIP Medicaid
- 9,101 had Adult Expansion Medicaid covering those that qualify between the ages of 19 and 64
- 463 had Targeted Adult Medicaid (TAM) serving those earning up to 5% of the federal poverty level and are chronically homeless or in need of substance abuse or mental health treatment
- 1,688 were "Medicare Crossover", which means they had both Medicare and Medicaid benefits
- 27,528 were enrolled in one of many other unspecified Medicaid programs (Utah State Medicaid Office, 2022)

Children's Health Insurance Program (CHIP)

Children's Health Insurance Program (CHIP) is a state health insurance plan for uninsured kids and teens under the age of 19 ([UDHHS](#), 2023). It is one of several Medicaid programs offered in Utah and is not the only source of Medicaid coverage for children.

Income guidelines for CHIP are slightly higher than the guidelines for Medicaid. A child's family income can be up to 200% of the federal poverty level. CHIP services vary by state ([HealthCare.gov](#), 2023). In Utah, CHIP covers services such as well-child exams, immunizations, doctor visits, hospital, emergency care, prescriptions, hearing and eye exams, mental health services, and dental care ([UDHHS](#), 2023).

Total enrollment in Utah CHIP has declined since 2017 ([medicaid.utah.gov](#), 2022). At the end of 2022, there were 34,021 CHIP enrollees in Utah ([CMS](#), 2022). Davis County totals are not publically available.

Medicaid for Eligible Compact Free Association (COFA)

The Compacts of Free Association (COFA) between the U.S. and the independent governments of the Freely Associated States (FAS) allows the U.S. to have exclusive military use and strategic positioning in the Pacific in exchange for the U.S. providing grants to fund education, healthcare, and infrastructure in the FAS. FAS governments include the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau. The COFA agreement enables citizens of these nations to receive healthcare through Medicaid, which was previously denied in the past. Previous denial of Medicaid benefits to COFA citizens has led to adverse health outcomes in those populations. Because the COVID-19 Pandemic worsened these health outcomes, the U.S. Congress passed a COVID-19 relief bill in 2020 that corrected a 25-year gap in healthcare coverage for COFA citizens. This allowed COFA citizens who had migrated to the U.S. to be eligible for Medicaid ([APIAHE](#), 2020).

A lack of health insurance coverage for COFA citizens is associated with higher rates of uninsured emergency room visits and likely delayed preventive services. People from COFA nations also face higher rates of diabetes, hepatitis, tuberculosis, and other conditions. U.S. influences on the cultures of the Pacific islands may contribute to these health outcomes due to nuclear testing in the area and the introduction of processed foods ([APIAHE](#), 2020).

In Davis County, from July to November 2022, over 30 COFA Medicaid applications were completed with the help of a Marshallese-speaking Community Health Worker (CHW) at DCHD and an Enrollment Specialist at Midtown Community Health Center (Midtown 2022; DCHD 2022). Local efforts are helping to bridge the gap for underserved community members who have not been able to access services in the past.

Dental Insurance

Dental insurance covers the cost of oral health visits, such as teeth cleanings and procedures. It is sold separately from health insurance, but often in combination with vision insurance. Unlike health insurance, data on the number of people with dental coverage is unavailable or outdated, especially at the local level. National estimates from 2017 suggest only half of U.S. adults aged 18 to 64 have dental coverage. Utah dental coverage is not significantly different from the Nation ([CDC](#), 2019).

Dental insurance is important to health because it makes preventative care affordable, allows problems to be addressed in a timely manner, and can reduce the severity of dental conditions. Overall health is greatly affected by dental health. Oral bacteria has been linked to endocarditis (infection of the inner lining of the heart), cardiovascular disease (heart disease), pregnancy and birth complications, and pneumonia ([Mayo Clinic](#), 2021). Emergency department visits for preventable oral health conditions cost Utahns nearly \$52 million between 2007 and 2017 ([UDOH](#), 2019).

In Utah, cost is the most common barrier to visiting the dentist ([ADA](#), 2015). Utah dental insurance premiums ranged from \$23 to \$101 per month for adults who purchased stand-alone or family dental plans through the marketplace exchange. Intermountain Healthcare Specialty Benefits reported the average monthly premium to be \$48.13 for a stand-alone family dental plan sold in Utah ([Healthinsurance.org](#), 2023).

In a local community focus group, one participant shared the following experience, which was translated from Spanish:

“My husband almost died on me. He had a bad tooth and we held out for a long time to get him help...he had a tooth pulled and was in the hospital about a week ago. The bills go up and you try not to be seen for the money because of low resources. For social security.. because we don't qualify for that....” (DCHD, 2022).

For Utahns without employer-provided dental coverage, adults enrolled in Medicaid are eligible for limited emergency dental services. Children enrolled in Medicaid who qualify for Child Health Evaluation Care (CHEC), which is Utah’s CHIP, are eligible to receive comprehensive benefits up to the age of 21. CHEC provides dental coverage to

uninsured children and pregnant women with income above the eligibility limits for Medicaid ([Healthinsurance.org](#), 2023).

In Davis County, there are two dental clinics that serve people with limited or no dental insurance: Midtown Community Health Center and Pantry Smiles. Between 2020 and 2022, clients who were uninsured were more likely to seek care at Midtown Community Dental Clinic than those with private insurance, Medicaid, or CHIP. The top treatments provided at the clinic included: x-ray, oral evaluation, extraction, fillings, crowns, and fluoride treatments (Midtown, 2022). Since 2013, the Pantry Smiles program has served nearly 850 uninsured clients and provided over \$1.1 million in donated services (Pantry Smiles, 2022).

Additionally, Big Smiles, an in-school dental program, has provided care for over 270 school-aged children with Medicaid or CHIP insurance in Davis County since 2020. Care included oral exams and evaluations, dental cleanings, fillings, and other procedures (Big Smiles, 2022).

For more information, refer to the Oral Health section of the Health Outcomes chapter.

Vision Insurance

Vision coverage is a health benefit that at least partially covers vision care, like eye exams and glasses ([HealthCare.gov](#), 2022).

As seen in Figure 136 (next page), in Utah, severe vision impairment is more common among individuals who report having poorer health compared to good health and among those who have less than a high school diploma ([CDC](#), 2022).

Under the Affordable Care Act (ACA), pediatric vision care is one of the essential health benefits for children under the age of 19. Kids have coverage for eye exams, glasses to correct vision problems, and vision screenings. For adults, the ACA does not mandate insurers to provide vision care coverage ([Healthinsurance.org](#), 2022).

Due to insufficient data at the local level, vision coverage and costs are unknown in Davis County and Utah.

Uninsured

Nationally, the primary reasons for lack of health insurance are cost of insurance plans, lack of access to jobs with health benefits, immigration status, and Medicaid eligibility criteria ([KFF](#), 2020). In Utah, those with lower socioeconomic status tend to have higher uninsured rates and reduced access to primary care and preventative services, which result in worse health outcomes ([UDOH](#), 2021).

In Davis County, approximately 20,443 residents are uninsured ([U.S. Census](#), 2016-2020). Davis County has a lower percentage of the population without health insurance compared to the State and the Nation for all age groups (Table 53).

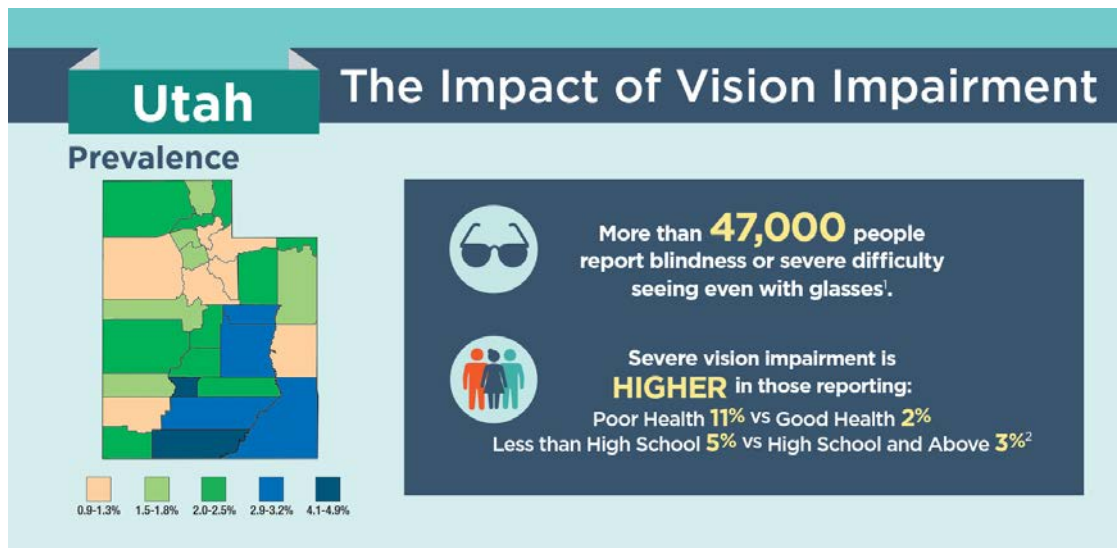
Table 53: Population without Health Insurance by Age Group, 2016-2020			
Age Group	Davis	Utah	U.S.
Total Population, All Ages	5.9%	9.0%	8.7%
Youth, Under Age 19	4.6%	6.9%	5.2%
Adults, Ages 19-64	7.6%	11.6%	12.3%
Older Adults, Ages 65+	0.8%	0.9%	0.8%
Data: U.S. Census , 2016-2020; U.S. Census , 2016-2020 (crude)			

Certain populations are burdened by lack of insurance more than others across the U.S. and locally. Using five-year estimates from the American Community Survey, the uninsured population's demographics were compared to the demographics of the county's total population to identify potential insurance inequities between groups ([U.S. Census](#), 2016-2020). The analysis revealed that the following populations are unfairly burdened by lack of insurance in Davis County:

- Foreign-born non-citizens
- Hispanic or Latinos
- Unemployed
- Natural resources, construction, and maintenance occupations
- 150-199% of the federal poverty level
- Self-employed in non-corporate business
- High school education or less
- Household income less than \$50,000
- Ages 26-34

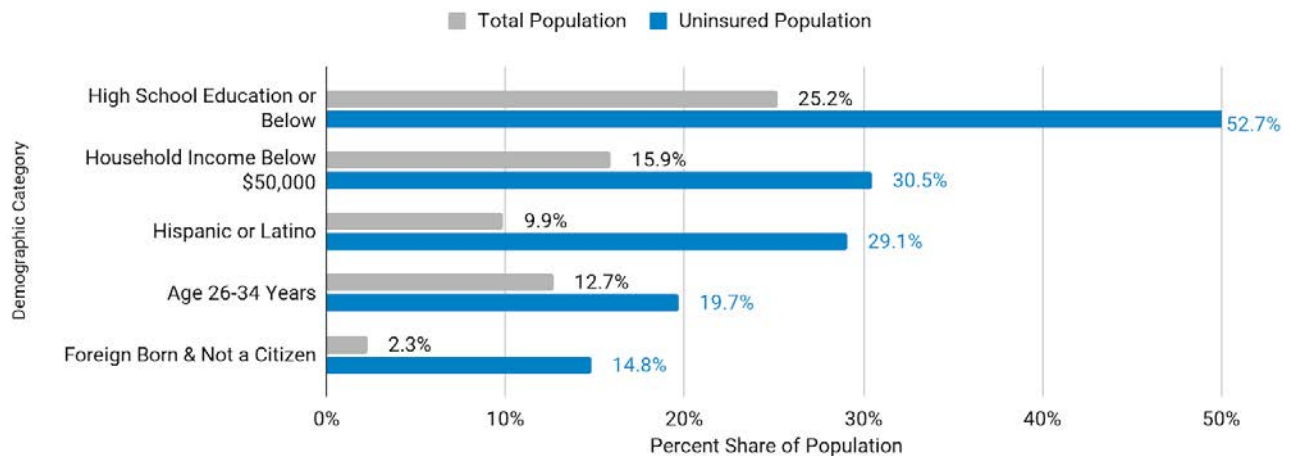
To further illustrate the excessive burden, Figure 137 (next page) shows the gap between a selection of the groups listed above ([U.S. Census](#), 2016-2020). If lack of insurance was fairly distributed across all demographic groups, the gray and blue bars would be close to the same length for each group.

Figure 136



Data: CDC, 2022

Figure 137: Demographic Disparities in Insurance Coverage, Davis County, 2016-2020



Data: U.S. Census, 2016-2020

Insurance & Care Cost Resources

Davis Volunteer Medical Clinic	Free clinic (housed by Midtown) that assists those who are uninsured, open every Tuesday and Thursday in the evenings and offers limited services on a first-come, first-serve basis	801-334-0030
Midtown Community Health Center	Low-cost comprehensive primary healthcare services, mental health services, and dental care accepting Medicaid, Medicare, and CHIP	midtownchc.org/directory/listing/davis-county-medical-dental-clinics
Good Rx	Prescription coupons	goodrx.com
Marketplace Healthcare Coverage	Healthcare plans	healthcare.gov
Medicaid	Online application portal	medicaid.utah.gov/apply-medicaid
Medicare	Application and information	medicare.gov
Take Care Utah	Health insurance application assistance	takecareutah.org

Preventative Care

Preventative care reduces the risk of diseases like cancer, type 2 diabetes, obesity, heart disease, disabilities, and death ([University of Utah Health](#), 2023; [Healthy People 2030](#), n.d.). Such preventative care includes, but is not limited to:

- Immunizations that can help prevent diseases and other health problems
- Screening tests, which are medical-related tests to check for diseases early
- Education and counseling to help make informed health decisions ([CDC](#), 2022)

People who see their doctor regularly and have routine screenings are more likely to receive an early diagnosis if they develop a medical condition ([Johns Hopkins](#), n.d.). In Davis County, 72.4% of adults reported a routine medical checkup in the past year, which was significantly more than in Utah (69.5%) but lower than the U.S. median of 75.6% ([IBIS](#), 2019-2021; [CDC](#), 2021). Females and those age 65 and older were significantly more likely to report a routine checkup within the past year in Davis County ([IBIS](#), 2019-2021).

Immunizations

Immunizations, also known as vaccines, are designed to help protect people and populations against certain diseases ([CDC](#), 2022). Different types of immunizations work in different ways, and can:

- Help the body fight off a virus completely
- Prevent or reduce the symptoms of a virus
- Reduce the likelihood of being hospitalized or dying from a virus
- Reduce the likelihood of a virus spreading from one person to another

Davis County populations have higher vaccination rates for most indicators than Utah and the U.S. (Table 54). However, the percent of people aged 6 months and over who were vaccinated against seasonal influenza was 52.9% in Davis County (2020). This does not meet the Healthy People 2030 target of 70.0%, indicating this is an area for improvement ([DCHD](#), 2022).

In Utah, 78.7% of children have received their complete childhood immunization series by age 2 (24 months). Utah ranks 19th among the other states for this measure, which is a huge improvement from being in the bottom 10 states 5 years ago ([UDHHS](#), 2021).

Table 54: Population with Immunizations and Exemptions

Adult Immunizations	Davis	Utah	U.S.
Influenza, Past Year, Ages 18-64	48.3%	41.5%	43.0%
Influenza, Past Year, Ages 65+	77.1%	69.9%	75.2%
Pneumococcal, Ever, Ages 65+	77.4%	73.4%	70.9%
Shingles or Zoster, Ever, Ages 50+	38.3%	38.5%	28.9%
Tetanus, Past 10yrs, Ages 50+	75.6%	70.9%	67.1%
Youth Immunizations	Davis	Utah	U.S.
Combined 7 Series, Age 2 (24-35 months)	78.8%	78.7%	73.2%
Kindergarten Adequately Immunized	90.0%	90.2%	-
7th Grade Adequately Immunized	88.2%	86.5%	-
Youth Exemptions	Davis	Utah	U.S.
Kindergarten Immunization Exemptions	3.3%	3.6%	-
7th Grade Immunization Exemptions	3.9%	4.7%	-

Data: [IBIS](#), 2021; [CDC](#), 2021; [IBIS](#), 2020; [CDC](#), 2017; [IBIS](#), 2019; [CDC](#), 2019; [UDHHS](#), 2021; [CDC](#), 2021. (all crude)
 Note: School adequate immunizations and exemptions are for district schools only. Each state has different "adequacy" requirements for grades and exemptions, so national statistics are not calculated.

Adequate school immunizations and exemptions fluctuate from year to year. However, in Davis County, Kindergarten adequate immunizations have declined annually with a high of 94.0% being adequately immunized in the 2013-2014 school year to as low as 90.0% being adequately immunized in the 2020-2021 school year ([UDHHS, 2021](#)). This leads to an increased vulnerability to diseases such as Polio, Measles, Mumps, Rubella, Hepatitis A, and Hepatitis B. Figures 138 and 139 show recommended immunization schedules for children ages 0 to 18.

Davis County Health Department Immunization Clinic participates in a program called Vaccines For Children (VFC). It is a federally funded program that helps 18 and younger with no insurance or with Medicaid receive vaccines at no cost ([CDC, 2022](#)). Starting April 2023, a new program will be implemented called Limited Adult VFC, which will help those 18 and older receive immunizations at a lower cost. Community Health Workers (CHWs) have an integral part in increasing childhood immunization rates ([CHR&R, 2023](#)). DCHD CHWs help to educate and share information with the community on the importance of immunizing and advocate for those who could greatly benefit from immunizations but can not afford them.

Figure 138

2023 Recommended Immunizations for Children from Birth Through 6 Years Old

VACCINE	Birth	1 MONTH	2 MONTHS	4 MONTHS	6 MONTHS	12 MONTHS	15 MONTHS	18 MONTHS	19-23 MONTHS	2-3 YEARS	4-6 YEARS
HepB Hepatitis B	HepB	HepB			HepB						
RV* Rotavirus			RV	RV	RV*						
DTaP Diphtheria, Pertussis, & Tetanus			DTaP	DTaP	DTaP		DTaP				DTaP
Hib* Haemophilus influenzae type b			Hib	Hib	Hib*		Hib				
PCV13, PCV15 Pneumococcal disease			PCV	PCV	PCV		PCV				
IPV Polio			IPV	IPV		IPV					IPV
COVID-19** Coronavirus disease 2019											
Flu* Influenza											
MMR Measles, Mumps, & Rubella						MMR					MMR
Varicella Chickenpox						Varicella					Varicella
HepA* Hepatitis A						HepA*		HepA*			

FOOTNOTES

RV* **Hib***
Administering a third dose at age 6 months depends on your child's age and type of Hib or rotavirus vaccine used for previous dose.

COVID-19** Number of doses recommended depends on your child's age and type of COVID-19 vaccine used.

Flu* Two doses given at least 4 weeks apart are recommended for children age 6 months through 8 years of age who are getting an influenza (flu) vaccine for the first time and for some other children in this age group.

HepA* Two doses of Hep A vaccine are needed for lasting protection. The 2 doses should be given between age 12 and 23 months. Both doses should be separated by at least 6 months. Children 2 years and older who have not received 2 doses of Hep A should complete the series.

ADDITIONAL INFORMATION

1. If your child misses a shot recommended for their age, talk to your child's doctor as soon as possible to see when the missed shot can be given.

2. If your child has any medical conditions that put them at risk for infection (e.g., sickle cell, HIV infection, cochlear implants) or is traveling outside the United States, talk to your child's doctor about additional vaccines that they may need.

Talk with your child's doctor if you have questions about any shot recommended for your child.



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

FOR MORE INFORMATION
Call toll-free: 1-800-CDC-INFO (1-800-232-4636)
Or visit: cdc.gov/vaccines/parents

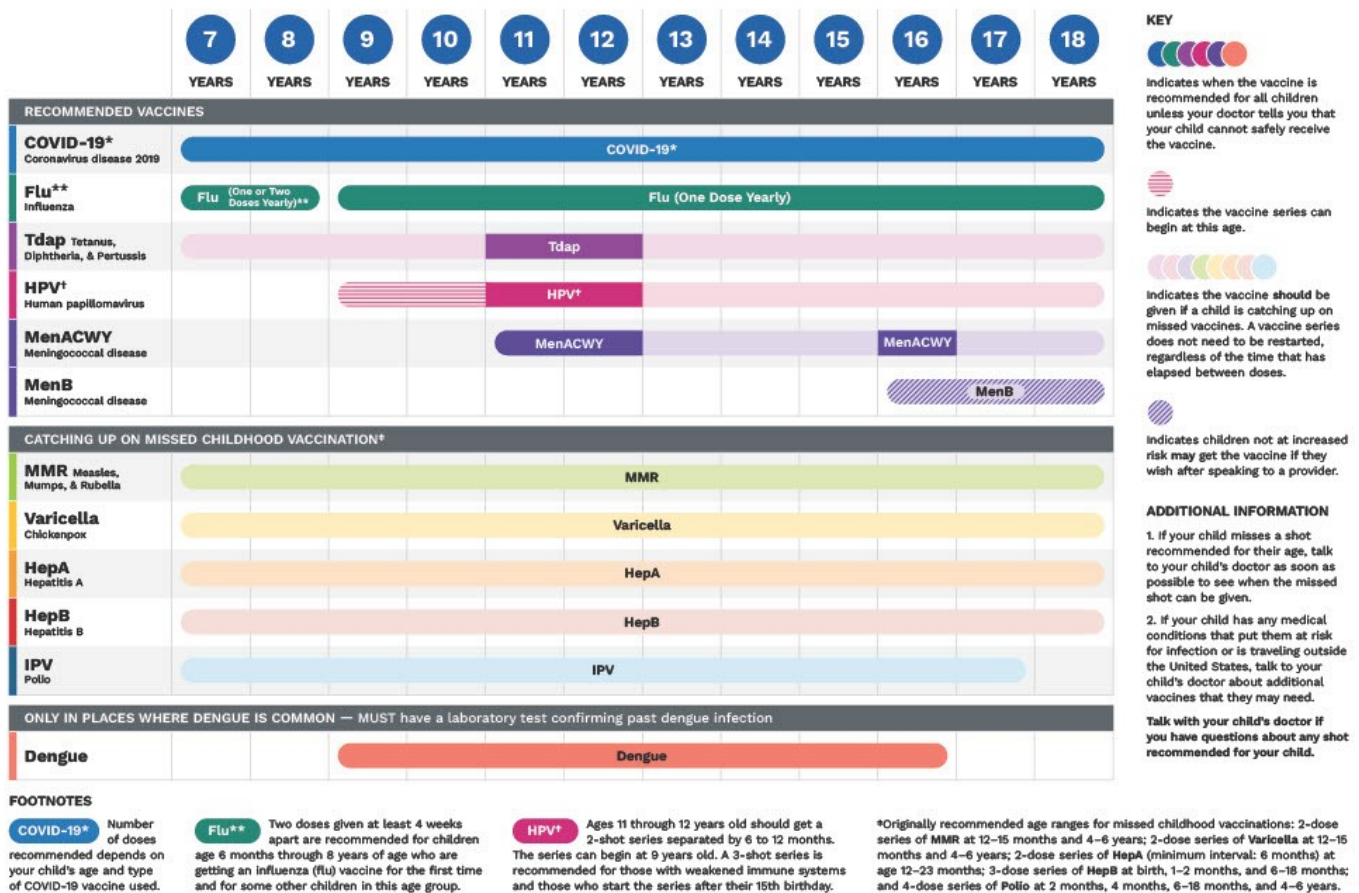


American Academy of Pediatrics
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Figure 139

2023 Recommended Immunizations for Children 7–18 Years Old

Source: [CDC](https://www.cdc.gov), 2023

Prenatal & Early Childhood Visits

Prenatal Care is the healthcare a person receives while pregnant. Regular doctor visits allow health conditions to be identified and treated early during pregnancy. Babies of mothers who do not get prenatal care are three times more likely to have a low birth weight and five times more likely to die than those born to mothers who do get care ([OASH](https://www.oash.org), 2021).

The frequency of prenatal visits may vary by age, insurance status, and personal history, but for most, the recommended prenatal visit schedule is:

- Weeks 4-28: about once per month

- Weeks 28-36: twice per month
- Weeks 36-birth: once per week ([OASH](https://www.oash.org), 2021)

Table 55: Mother's Reporting Prenatal Care Among All Live Births, 2019-2021

Prenatal Care	Davis	Utah	U.S.
Started in First Trimester	82.2%	77.1%	78.3%
Started in Third Trimester	2.6%	3.4%	4.3%
No Prenatal Care	0.8%	0.7%	1.3%
Average Number of Visits	11.3	11.0	--

Data (crude): First ([IBIS](https://www.ibis.org), 2021); Third ([IBIS](https://www.ibis.org), 2019-2021; [CDC](https://www.cdc.gov), 2020); No Care ([IBIS](https://www.ibis.org), 2019-2021; [CDC](https://www.cdc.gov), 2020); Average Visits ([IBIS](https://www.ibis.org), 2019-2021)

As shown in Table 55 (prior page), Davis County is doing better than Utah for most prenatal care outcomes. Prenatal care is measured by the month that care begins, meaning no care was received until the indicated trimester ([IBIS](#), 2022). Mothers in Davis County reported receiving prenatal care during the first trimester of a pregnancy for over 8 in 10 live births. This is significantly better than in Utah and the U.S. On average, Davis County mothers reported 11.3 prenatal visits over the course of a pregnancy. Less than 1% of births in Davis County and Utah had no prenatal care.

When broken down by race and ethnicity, disparities in prenatal care exist in Davis County between groups and are also reflected at the state level. As shown in Figure 140, two groups reported more prenatal visits on average than the Davis County average of 11.3. Those identifying as Native Hawaiian or Pacific Islander of non-Hispanic ethnicity reported significantly fewer prenatal visits than all other groups in Davis County ([IBIS](#), 2019-2021).

Additionally, after a child is born, regular checkups are essential to ensuring they stay healthy ([CDC](#), 2023). These visits are often referred to as “well-child” visits and include:

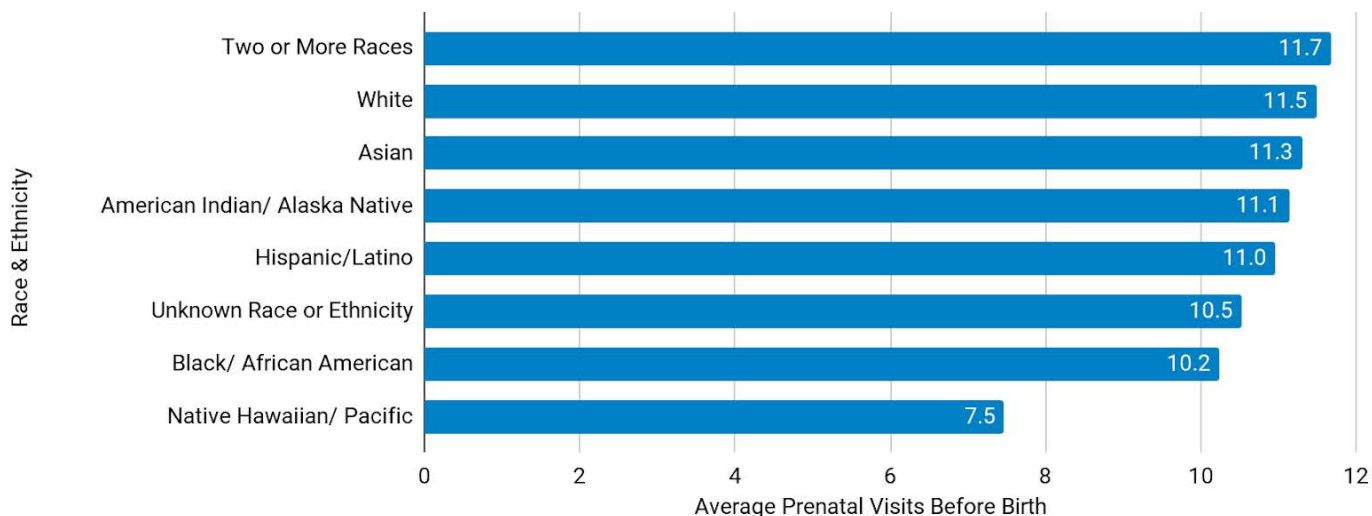
- Tracking growth and developmental milestones
- Discussing any parental concerns about a child’s health
- Getting scheduled vaccinations to prevent illnesses like measles and whooping cough (pertussis) and other serious diseases

The frequency and type of care from infancy to adolescence can be complex. Appendix 9 outlines what type of preventative care is needed and when to seek it for each age group according to the American Academy of Pediatrics ([AAP](#), 2023).

In Utah, 3 in 4 children have visited a healthcare provider for a preventive checkup in the past 12 months, which is similar to the U.S. average ([NSCH](#), 2020-2021). Well-child visit data was not available at the county level.

For maternal and infant health outcome data, see the Reproductive and Birth Outcomes section of the Health Outcomes chapter.

Figure 140: Average Number of Prenatal Visits by Mother's Non-Hispanic Race & Ethnicity, Davis County, 2019-2021



Data: IBIS, 2019-2021

Chronic Disease Screenings

Screenings are medical tests that doctors use to check for certain disorders before there are any symptoms ([IBIS](#), n.d.). This is important for the prevention and management of chronic diseases that are leading causes of death, such as heart disease, cancer, stroke, and diabetes ([CDC WONDER](#), 2020).

As shown in Table 56, a similar proportion of adults report preventative screenings for chronic disease in Davis County as in Utah.

Table 56: Prevalence of Chronic Disease Screenings

Screening Indicators	Davis	Utah	U.S.
Cholesterol Screening Within the Past 5 Years	84.5%	81.7%	85.2%
Diabetic Adults with Hemoglobin A1C Tests in the Past Year	73.3%	70.2%	70.4%
Diagnosed High Blood Pressure	27.6%	27.3%	32.4%
Diagnosed Hypertension	27.4%	27.6%	30.3%

Data (age-adjusted): Cholesterol ([IBIS](#), 2019&2021; [CDC](#), 2021); A1C ([IBIS](#), 2015-2019; [CDC](#), 2017 & 2019); Blood Pressure ([IBIS](#), 2019 & 2021; [CDC](#), 2021); Hypertension ([IBIS](#), 2021)

For data on chronic disease rates, see the Chronic Disease section of the Health Outcomes chapter.

Cancer Screenings

Cancer screenings are essential to detecting cancer at an early stage and before a person has any symptoms. Finding some cancers at an early stage may help decrease the chance of dying from those cancers ([NCI](#), 2020). Individuals who are not up-to-date with cancer screening recommendations experience negative health outcomes, including historically underserved groups ([AACR](#), 2022). Table 57 shows the percent of the population that have had recommended cancer screenings in Davis County compared to the State and Nation.

For more data on cancer rates, see the Chronic Disease section of the Health Outcomes chapter.

Table 57: Percent of Population Having Recommended Cancer Screening, 2020

Screening and Population	Davis	Utah	U.S.
Had a Mammogram in the Past 2 Years Women 40 and older	68.1%	63.4%	71.5%
Ever had a Colon Cancer Screening Ages 50 to 75	78.2%	74.2%	74.3%
Ever had a Prostate-Specific Antigen Screening Men 40 and older	36.8%	37.7%	31.8%
Had a Pap Test in the Past 3* Years Women 18 and older	66.8%	62.9%	77.7%

Data: [IBIS](#), 2020 (crude); [CDC](#), 2020 (crude)

* Pap Test frequency guidelines vary but BRFSS reports it for 3 years

Breast Cancer Screening

Breast cancer is the most commonly diagnosed cancer among women in Davis County ([NIH](#), 2015-2019). A mammogram, an X-ray of the breasts, is the best way to detect breast cancer at an early stage before it has spread to other organs. Early detection increases the likelihood of breast cancer being treated and cured ([NCI](#), 2022).

It is recommended for women aged 50 to 74 who are at average risk of developing breast cancer to receive a mammogram every two years. Women aged 40 to 49 should talk with their doctor as to whether they should get mammograms depending on their risk ([CDC](#), n.d.). Additional breast cancer screening recommendations vary by agency. Screening frequency should be based on provider-patient discussions of risk, including personal medical history, family history, age, and genetic mutations ([ACS](#), 2022).

As seen in Table 57, in Davis County in 2020, 68.1% of women aged 40 and older had a mammogram in the past two years. This is a slightly higher share of the population compared to the State. It should be noted that while Davis County and Utah are screening a lower proportion of women aged 40 and older compared to the U.S., 78.8% of women aged 50 to 75 in Davis County received a mammogram in the past two years compared to

71.6% in Utah and 78.3% in the U.S. This indicates that there may not be a need for as many women in Utah and Davis County to receive a mammogram before the age of 50 when compared to the U.S. From 2016 to 2020, women aged 40 and older in Utah were significantly more likely to have had a mammogram in the past two years if they had a college degree or if they were making \$75,000 annually compared to all other education and income levels. Similar trends were noted at the county level ([IBIS](#), 2016-2020).

Cervical Cancer Screening

In Davis County, 4.7 new cases of cervical cancer per 100,000 females occur annually ([NIH](#), 2015-2019). The county incidence of cervical cancer is similar to the Utah rate (5.5) and significantly lower than the U.S. rate (7.7). It is estimated that 93% of cervical cancer cases could be prevented by screening and HPV (human papillomavirus) vaccination ([CDC](#), 2020).

A Pap smear, also known as a Pap test, is commonly used to screen for cervical cancer early along with any abnormal cell development. Typically, a Pap test is done with a pelvic exam. Pap testing is recommended every three years for women aged 21 to 65 unless results are not normal. Women over 30 can consider a Pap test every five years if the procedure is combined with testing for HPV ([Mayo Clinic](#), 2022).

In 2020, 66.8% of women in Davis County aged 18 and over had a Pap test in the past three years (Table 57). Davis County had similar screening rates to the State, but lower than the Nation.

There were racial and ethnic differences in cervical cancer screening from 2010 to 2020 in Utah, where the Hispanic/Latina population was significantly more likely to have received a Pap test in the past three years (71.1%) compared to the general population ([IBIS](#), 2010-2020). In the U.S., Hispanic/Latina women are 40% more likely to be diagnosed and 30% more likely to die from cervical cancer. Higher screening rates in Utah show that this population is being adequately served ([HHS](#), 2021).

In Utah, the Native Hawaiian/Pacific Islander population was significantly less likely (51.0%) than

the general population to have had a Pap test in the past three years ([IBIS](#), 2010-2020). Due to smaller population sizes, current data is unable to show if this inequity is leading to disparities in cervical cancer incidence and mortality rates. Population sizes are also too small to compare between groups at the local level.

Colon Cancer Screening

In the U.S., colorectal cancer is the third leading cause of death. Colorectal cancer screening can help detect cancer and any abnormalities at an early stage. There are multiple ways to screen for colon cancer with the most common being sigmoidoscopy, colonoscopy, or fecal occult blood test. This cancer is found more often in males than in females ([NCI](#), 2022). In Davis County, 78.2% of those aged 50 to 75 have had a recommended colon cancer screening (Table 57). Davis County is meeting the Healthy People 2030 target for this measure ([DCHD](#), 2023).

From 2016 to 2020 in Utah, different demographic groups receiving recommended colon cancer screenings varied significantly by education and income, including:

- 63.6% of those who are Lesbian, Gay, or Bisexual compared to 73.9% of those who are heterosexual
- 58.8% of American Indian/Alaska Natives compared to 74.0% of the general population
- 60.5% of Hispanic/Latinos compared to 74.7% of non-Hispanic/Latinos ([IBIS](#), 2016-2020)

Similar trends were present at the county level; however, due to smaller population sizes, reliable estimates are not available.

Prostate Cancer Screening

Among men, prostate cancer is the most common cancer ([ACS](#), 2022). There is no standard test to screen for prostate cancer. Two commonly used tests are prostate specific antigen (PSA) and digital rectal examination (DRE) ([CDC](#), 2022). As seen in Table 57, 36.8% of Davis County men aged 40 and older reported ever having a PSA test. This is not statistically different from the State, but is slightly higher than the Nation.

As with other cancer screenings, from 2016 to 2020, significant educational and income related differences were present at the State level. The Hispanic/Latino population was significantly less likely to have ever had a PSA, at 29.1% of men 40

and older, compared to 41.4% of non-Hispanic/Latino men 40 and older. No other significant demographic differences were present ([IBIS](#), 2016-2020).

Preventative Care Resources

Diabetes Prevention, DCHD	<i>Diabetes education and management</i>	daviscountyutah.gov/health/health-services/health-education-services/diabetes-prevention
Immunization Clinic, DCHD	<i>Routine, travel, and seasonal vaccinations</i>	daviscountyutah.gov/health/health-services/immunization-clinic
Midtown Community Health Center	<i>Low-cost comprehensive primary healthcare services, mental health services, and dental care accepting Medicaid, Medicare, and CHIP</i>	midtownchc.org/directory/listing/davis-county-medical-dental-clinics
Big Smiles Dental	<i>Offers in-school preventative and restorative dental care for children; no child is turned away due to an inability to pay</i>	bigsmilesdental.org
Docket	<i>Digital vaccination records</i>	docket.care
Eyecare 4 Kids	<i>Eye care for low-income visually-impaired children and underserved families in Utah</i>	eyecare4kids.org
Friends for Sight	<i>Vision screenings</i>	friendsforsight.org

Leading Prescriptions & Claims

Capturing the most common prescription drugs and claims billed to insurance is one way of assessing the types of treatment sought by a population when accessing the healthcare system. It provides insight into which ailments may be driving healthcare expenditures and impacting a community's well-being ([AAA](#), 2018).

Leading Claims

As shown in Table 58, the leading services sought by Davis County residents from healthcare providers in 2021 were preventative, specifically dental and office visits. Substance misuse services were the fourth most common claim type among county residents (UDHHS, 2021-2022). This is worth exploring in future assessments.

Table 58: Top Insurance Claims Made by Davis County Residents, 2021

Rank	Claim Type	Examples
1	Dental (all types)	Preventative, diagnostic, surgical, orthodontics
2	Office Visits	Exam, medical history, advice/counseling
3	Tests*	Diagnostic, genetic, chemistry, disease panels
4	Outpatient Psych: Alcohol/Drug Abuse	Rehab, treatment, counseling, evaluation, supported housing
5	Non-Oral Drug Administration	Infusion (IV), injection, chemotherapy, contraceptive
6	Therapeutic Procedures	Wheelchair, self-care training, aquatic or massage therapy
7	Durable Medical Equipment	Crutch, cane, walker, bed modifier
8	Temporary Codes	Case management, screenings, interpreter, home assessment

Data: UDHHS All Payer Claims Database, January 2021-March 2022

* Combined procedure codes for chemistry, organ or disease-oriented panels, molecular diagnostics

Leading Prescriptions

A prescription drug is a substance prescribed by a doctor, intended to be used by one person, bought at a pharmacy, and regulated by the U.S. Food and Drug Administration (FDA, 2017). Prescription drugs are used to treat a variety of illnesses and their cost can often be billed to insurance.

Prescription costs are a common factor in overall healthcare expenditures.

Nationally, 48.6% of Americans used at least one prescription drug in the last 30 days, and 12.8% used five or more drugs during that time.

Prescription drug use is most common among females, Non-Hispanic Whites, and those aged 65 and older (CDC, 2015-2018).

Certain groups are more likely to report struggling to afford medications, including those who take four or more prescription drugs, those with chronic conditions in the home, and those with an annual household income less than \$40,000 (KFF, 2022).

As shown in Table 59, among Davis County residents, the most frequently filled prescriptions in

2021 were related to mental health, pain relief, and chronic disease (UDHHS, 2021-2022). Based on insurance claims data and prescription counts, the most expensive prescription drug category for consumers is the ADHD, Anti-Narcolepsy, Anti-Obesity, and Anorexiants category. The most expensive drug category for insurers is the Vaccines category. Future exploration and additional data for these trends is needed.

When examined by sex and age, antidepressants were the leading type of drug prescribed to both males and females in Davis County. For those under age 16, the leading type of drug was the ADHD/Anti-Narcolepsy/Anti-Obesity/Anorexiants category. Antidepressants were the leading type of drug prescribed to all age groups between 16 and 59 years old. Cholesterol and blood pressure drugs were the leading types for the 60 and older age groups.

For more information on risks associated with controlled substance prescriptions, refer to the Substance Use and Addiction section of the Health Behaviors chapter.

Table 59: Top 10 Prescriptions Filled and Cost, Davis County, 2021

Rank*	Prescription Type	Common Uses**	Median Drug Cost to Patient	Median Drug Cost Paid by Insurance
1	Antidepressants	Treat clinical depression, anxiety, & long-term pain	\$4.13	\$3.65
2	Antihypertensives	Lower blood pressure	\$2.56	\$2.68
3	Antidiabetics	Manage diabetes; control blood sugar levels	\$4.06	\$17.75
4	Anticonvulsants	Epileptic seizures; mood stabilizer for bipolar disorder	\$3.70	\$8.34
5	Analgesics- Opioid	Moderate to severe pain relief	\$3.23	\$2.92
6	Antihyperlipidemics	Lower cholesterol	\$0.00	\$5.40
7	Vaccines	Strengthen immune response to disease	\$0.00	\$40.00
8	Ulcer Drugs	Lower bacteria or acid levels in the digestive system	\$3.70	\$3.13
9	ADHD/ Anti-Narcolepsy/ Anti-Obesity/Anorexiants	Treat attention deficit hyperactivity disorder (ADHD) & depression; control sleep, energy levels, & appetite	\$10.00	\$27.93
10	Antiasthmatic and Bronchodilator Agents	Control asthma & chronic obstructive pulmonary disease (COPD)	\$6.98	\$32.83

Data: UDHHS All Payer Claims Database, January 2021-March 2022

* Based on raw counts of filled prescriptions, not adjusted for length, size, or refill frequency

** Common Uses are not the only conditions these drugs can be used to treat and could be prescribed for other reasons.

Medical Cannabis

In 2018, Utah passed the Utah Medical Cannabis Act which allowed for the cultivation, processing, recommendation, and use of medical cannabis for the treatment of certain pains, diseases, and conditions ([Utah State Legislature](#), 2018). The distribution of medical cannabis is not tracked the same way as other prescription drugs. Medical cannabis can only be obtained at licensed medical cannabis pharmacies in Utah's system ([UDHHS](#), 2023).

The cannabis plant contains hundreds of chemical compounds. Medical cannabis utilizes two of the chemical compounds known as delta-9-tetrahydrocannabinol (THC) and cannabidiol (CBD). Both compounds have different effects on the brain and body. THC is psychoactive which means it can alter the mind. It can also increase appetite, reduce nausea, and is used as a treatment for chronic diseases and pain. CBD is non-psychoactive and reacts with the brain differently than THC. It is often used to treat mental health disorders, inflammation, seizures, and other diseases and conditions ([University of Utah Health](#), n.d.).

Cannabis is still considered a controlled substance under federal law and the use of the cannabis plant for medical purposes has not been FDA approved. However, one CBD-based extract for treatment of epilepsy and three synthetic THC compounds used to treat side effects from cancer treatment and loss of appetite with AIDS (acquired immunodeficiency syndrome) have been individually FDA approved ([FDA](#), 2023).

In order to use medical cannabis, patients must undergo an assessment from a registered qualified medical provider (QMP) to ensure they have a qualifying condition and could benefit from cannabis use ([UDHHS](#), n.d.). As of January 2023, there were 75 QMPs in Davis County. Eligible patients receive a medical card that must be renewed annually. Once a medical card is obtained, medical cannabis can be purchased from a licensed medical cannabis pharmacy. There is no age restriction on obtaining a medical card; however, only 0.2% of card holders are under the age of 21.

In Davis County, there is one licensed medical cannabis pharmacy located in West Bountiful. As of January 2023, there are 7,065 patients with medical cannabis cards in Davis County, which is just under 2% of the population. Cards are equally distributed across the county geographically when looking at Utah Small Area data. Approximately 2% of the population in each Utah Small Area has a card ([UDHHS](#), 2023).

Persistent pain is the number one qualifying medical condition in Utah, accounting for 75% of card holders. PTSD, cancer, and nausea are the next most common conditions.

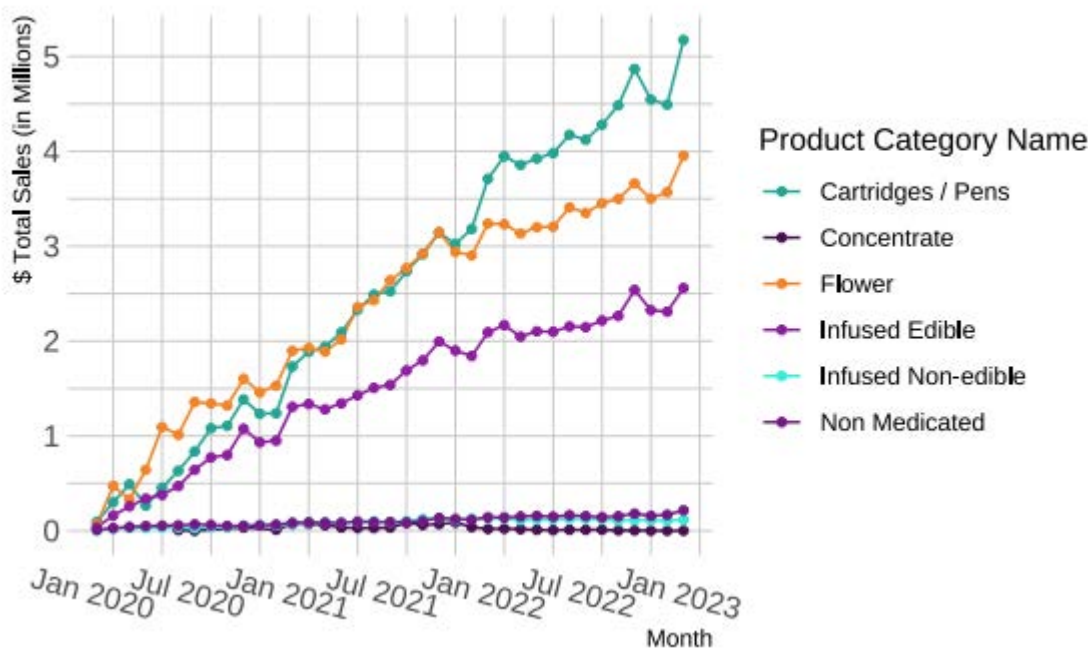
Medical cannabis is available in many forms that can be consumed orally, applied transdermally to the skin, or inhaled in a vaporized form. Utah law prohibits smoking or eating cannabis in the form of candies, cookies, brownies, or other edibles. Figure 141 (next page) comes from the January 2023 Utah Medical Cannabis Monthly Report showing the number of cannabis products sold by type. Vape cartridges and pens are most often sold, followed by flower and concentrate ([UDHHS](#), 2023).

The 2021 Annual Report from the Center for Medical Cannabis (CMS) released results from an ongoing survey of Utah medical cannabis patients who renewed their medical cards. Of patients who responded to the survey, 81% reported significant improvements of symptoms related to their condition with the use of medical cannabis ([UDOH](#), 2021). In the original Utah Department of Health (2020) survey conducted in October, card holders also reported:

- Improved sleep
- Decrease in using other medications such as Adderall, oxycodone, gabapentin, and clonazepam
- Decrease in alcohol, tobacco, and opioid use
- Improved mood and mental health
- Improved stomach and digestion problems

Among the survey respondents, 9% reported negative side effects including worsening of symptoms related to their condition, fatigue, anxiety, increased appetite, confusion, headaches, and dry mouth.

Figure 141: Number of Cannabis Products Sold by Type, Utah, 2020-2023



Data: [UDHHS](#), 2022

Even with a medical card in Utah, some people may still choose to purchase cannabis from out of state or off the street because of affordability, availability, and quality ([UDHHS](#), 2020). Additionally, not everyone who uses cannabis has a medical card. Adults may choose not to get a medical cannabis card for fear of violating federal laws including firearm use and ownership, employment restrictions, and cost. Others may not have a qualifying medical condition and instead use cannabis recreationally.

For more information on cannabis use and the associated risks, refer to Cannabis under the Substance Use and Addictions section of the Health Behaviors chapter.

Gaps & Improvements

The following strengths and gaps in Clinical Care are notable to highlight and explore in the future. Davis County strengths include:

- Use of Community Health Workers (CHWs)
- Increased use of telehealth
- Decreased preventable hospital stay trends
- Improved access to mental and behavioral health services

Healthcare gaps to explore include:

- Provider to patient ratios, especially for primary care and behavioral health
- Cost as a barrier to accessing and receiving care
- Differences in insurance coverage among demographic groups
- Cancer screenings, specifically prostate and Pap tests
- Declining school immunization rates, especially at Kindergarten entry

The last healthcare system assessment in Davis County was done in 2014. DCHD and community partners identified gaps and areas for improvement in the local healthcare system, including access to services. Gaps identified during that process are still present or unresolved. Future plans include an updated assessment. To read the 2014 assessment, visit Davis County Health Department [Reports & Assessments](#) webpage.

Social & Economic Factors

Social determinants of health (SDOH) are the community conditions in which people are born, live, learn, work, play, worship, and age that impact health, well-being, and quality of life. These circumstances are shaped by the distribution of money, power, and resources at the global, national, and local level ([CDC](#), 2021). SDOH examples include:

- Education, job opportunities, and income
- Safe housing, transportation, and neighborhoods
- Access to nutritious foods and physical activity opportunities
- Racism, discrimination, and violence ([Healthy People 2030](#), n.d.)

Understanding and addressing community conditions can improve community health and create an environment where everyone has the opportunity to reach their full health potential.

County Health Rankings and Roadmaps (CHR&R) uses data to rank counties according to how long and how well people live. As shown in Figure 142, according to CHR&R, social and economic factors

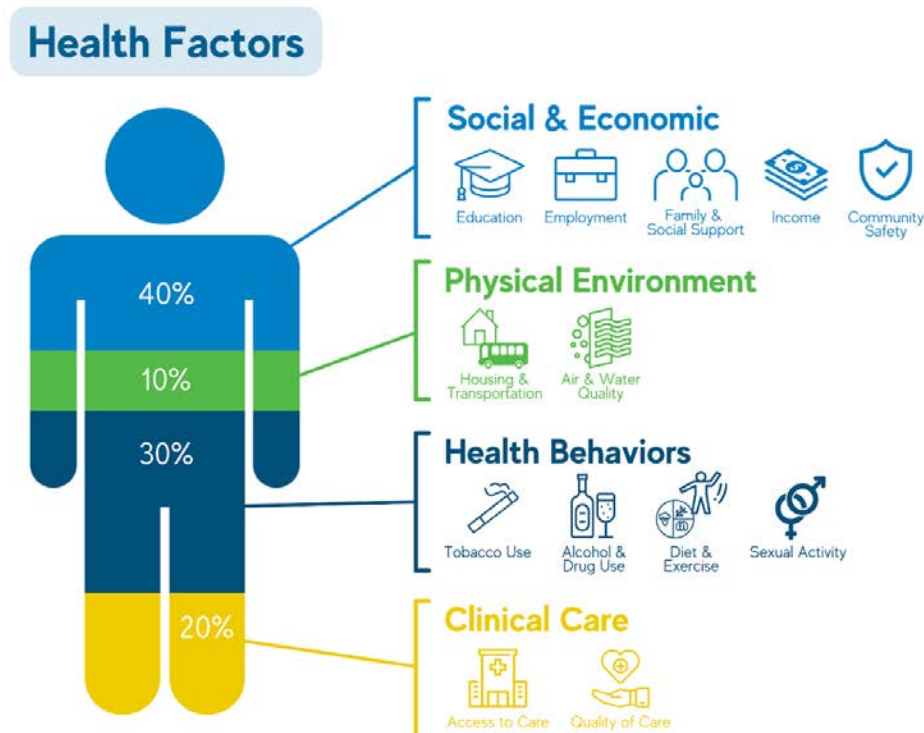
contribute most to health outcomes when compared to other health factors, such as health behaviors and clinical care.

In the past, Davis County has ranked second best of all counties in Utah for social and economic factors. In 2022, the ranking dropped from second to third for the first time since 2014. Focused work is needed in this area to improve these factors that contribute to a healthy community.

Education

Davis County is a well-educated community and ranks in the top 10% of all counties in the U.S. based on measures of high school graduation and completion of some college ([CHR&R](#), 2022). Davis County has healthier community education conditions than 92.6% of other Utah counties based on enrollment measures for preschool, high school, and college completion ([UT HPI](#), 2022). Table 60 (next page) compares levels of educational attainment in the Davis County population to Utah and the U.S.

Figure 142



Adapted by DCHD from County Health Rankings Model

Table 60: Education Attainment by School Level

Education Indicators	Davis	Utah	U.S.
Preschool Enrollment, Ages 3-4	41.2%	38.2%	40.2%
High School Graduation	94.2%	88.2%	85.3%
Some Postsecondary Education, Ages 25-44	76.0%	72.0%	67.0%
Bachelor's Degree, Ages 25+	38.2%	34.7%	32.9%

Data: [U.S. Census](#), 2021; [USBIE](#), 2020; [CHR&R](#), 2022; [U.S. Census](#), 2016-2020

To read more about educational opportunities and institutions in Davis County see the education section in the About Davis County chapter.

Preschool

Enrollment in a high-quality preschool program is associated with educational, economic, and health benefits across the lifespan ([UT HPI](#), n.d.). In Davis County, 41.2% of children ages 3 to 4 are enrolled in preschool, which is similar to the State (38.2%) and National rate (40.2%) ([U.S. Census](#), 2021).

Preschool attendance is not required in Utah, but is offered through private programs and public elementary schools, such as Head Start. The Utah State Legislature sponsors a free online preschool through [Waterford UPSTART](#).

K-12 Education

K-12 education encompasses schooling from Kindergarten to grade 12. Opportunities for schooling during youth can help improve health and well-being throughout the lifespan. Education can reduce the risk of chronic diseases and other health conditions. It also contributes to quality of life, provides opportunities for social connection, development of life skills, and preparation for the workforce. Individuals who graduate from high school often have better opportunities for quality work conditions and wages ([UT HPI](#), n.d.).

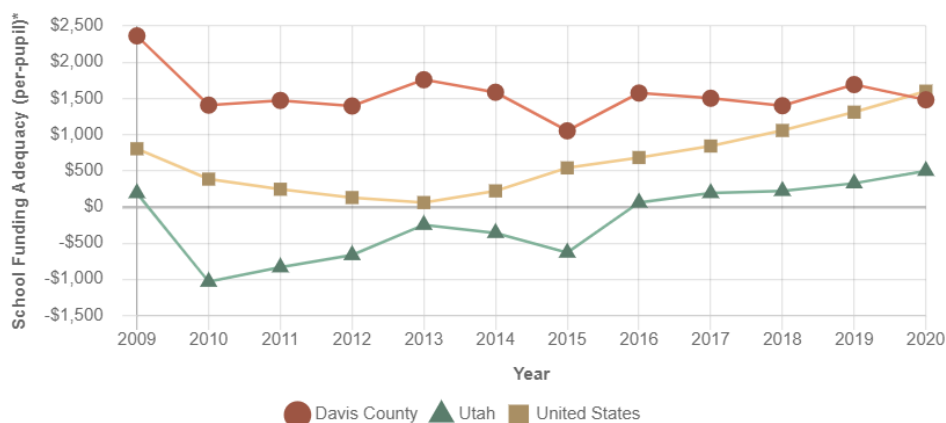
Public School Funding

Adequate funding for schools is important because it directly impacts educational opportunities for students, and education level is a determinant of health later in life. Well-funded schools are more likely to have smaller class sizes, more adults per school, and better qualified teachers ([CHR&R](#), n.d.). Since 2016, Utah has adequately funded schools above the recommended amount.

Davis County has been better than Utah funding trends for the past decade, as seen in Figure 143 ([CHR&R](#), 2022). School Funding Adequacy is the average gap in dollars between actual and required spending per student among public school districts. Required spending is an estimate of dollars needed to achieve U.S. average test scores in each district.

Figure 143

School Funding Adequacy in Davis County, UT County, state and national trends



Source: [CHR&R](#), 2022

Notes: *School Funding Adequacy is the actual per-pupil spending compared with an estimated amount that would need to be spent to achieve U.S. average test scores in each school district. The county value is the cross-district average of the spending surplus or deficit.

In Davis County, the average, per-pupil spending by the school district in 2020 was \$1,481 above the estimated amount needed to support students in achieving average U.S. test scores. The average per pupil spending in Utah was \$498 above the estimated amount needed and the average per pupil spending in the U.S. was \$1,599 above. For Davis County, the recommended spending per student is \$6,384. The actual spending per student is \$7,865 and has consistently been above recommended funding levels ([CHR&R](#), 2022).

Classroom Measures

Although related, class size and student-teacher ratios are not the same and are calculated differently:

- The **student-teacher ratio** is calculated by dividing the number of full-time students in a grade by the number of full-time teachers in that grade
- **Class size** is calculated by dividing the number of students enrolled by the number of classes.

Districts with similar student-teacher ratios may have different class sizes. For example, schools with large special education programs tend to have many teachers, but the regular class size is not reduced by the school’s lower student-teacher ratio. There is no national recommendation for the ideal ratio or class size. However, lower values are thought to indicate more support for students ([OECD](#), 2022). Table 61 shows the most recent data available for these classroom measures at the county and state levels.

Table 61: Classroom Measures for Public School Districts		
Measures	Davis	Utah
Student-Teacher Ratio	23.1	21.6
Median Elementary Class Size	24.0	20.2
Median Secondary Class Size	31.0	24.0

Data: Ratio ([USBE](#), 2022); Class Size ([USBE](#), 2023)

For School Year 2021-2022, the student to teacher ratio for Davis School District was slightly higher than the ratio for all public districts in Utah ([USBE](#), 2022).

In Davis School District, the median elementary class size was 24.0 students per class for School Year 2022-2023. The median secondary class size was 31.0 ([USBE](#), 2023). This is larger than the Utah average for public schools.

School Segregation

Even in 2022, school segregation continues to be an issue in the U.S. Segregation results in unequal educational opportunities for students. County Health Rankings and Roadmaps includes a school segregation index that ranges from 0 to 1. A lower index is preferred since it means there is less segregation and the race/ethnicity of the student population is similar in all schools. Davis County’s school segregation index is 0.05 compared to Utah’s at 0.15 and the U.S. at 0.25. The index range in Utah is 0.01 to 0.63 where rural schools tend to have higher index scores ([CHR&R](#), 2022).

Postsecondary Education

Education shapes many aspects of health and well-being. Individuals that have access to quality early education, graduate high school, and continue their education are more likely to thrive, contribute positively to the community, and be proactive about protecting their health. Education provides access to employment with living wages and healthcare, which influences health across the lifespan.

During focus groups with Davis County residents, a participant shared her experience with Davis Technical College. She had a history with the criminal justice system and often struggled to make ends meet. She expressed surprise at the opportunities offered at Davis Tech, including the resources that have helped her survive and thrive. This student has received an award, is a teacher’s assistant, and inspires and educates high school students on how they can pursue an education regardless of their circumstances:

“I feel like my school has been keeping me alive...All these people care and they don’t even know me” (DCHD, 2022).

Preschool Resources

Head Start	<i>Programs designed to promote school readiness for children from low-income families</i>	davis.k12.ut.us/academics/early-childhood/head-startearly-head-start-and-title-i-preschool
Waterford Upstart	<i>Free online preschool that teaches children the basic skills they need to be successful in kindergarten</i>	waterford.org/upstart

Adult Education Resources

Canyon Heights Adult Learning Center	<i>Offers various services and classes to help students and community learners further their educational goals</i>	canyonheights.davis.k12.ut.us/about-us
Clearfield Job Corps	<i>Offers hands-on career technical training in high-growth industries and can also help you get a GED or high school diploma if you don't already have one</i>	clearfield.jobcorps.gov
Davis Community Learning Center	<i>Offers ESOL classes, as well as classes to help you get a GED or high school diploma as an adult</i>	dclc.davis.k12.ut.us
Davis Technical College	<i>Offers competency-based education in an open-entry, open-exit environment which prepares high school and adult students with career and technical skills</i>	davistech.edu
Department of Workforce Services Career and Education Assistance	<i>Offers career counseling and funding for education costs</i>	jobs.utah.gov/jobseeker/career/index.html
USU Extension Davis County	<i>Provides helpful information, resources, and events on topics including agriculture, gardening, home, family, and food</i>	extension.usu.edu/davis
Weber State University Davis Campus	<i>Extension of Weber State University located in Layton</i>	weber.edu/wsudavis

Employment

Employment brings income and access to opportunities for benefits such as paid leave, health insurance, and retirement. Research shows that economic opportunity, especially having a job, is one of the most powerful predictors of good health ([UT HPI](#), 2022). Davis County is meeting the Healthy People 2030 target for percent of the working-age population aged 16 to 64 years who are employed ([DCHD](#), 2022). The unemployment rate is the percent of the population that is jobless, but is able and willing to work and is actively looking for employment. In December 2022, Davis County's unemployment rate of 2.2% was equal to Utah's rate but lower than the National rate of 3.5% ([DWS](#), 2022). Davis County's unemployment has followed the same pattern as Utah's with a steady decline

since 2010. During the COVID-19 Pandemic, unemployment spiked and has since returned to pre-pandemic rates.

While unemployment is low, there are other factors that the unemployment rate does not capture, such as workers who do not have secure employment, or those who may be in temporary, part-time, or other positions, as well as those who are not actively looking for work. Other concerns are under-employment or jobs that do not provide an adequate income to meet the needs of their families or a job that does not offer health insurance ([EPI](#), n.d.).

When the COVID-19 Pandemic began to impact the U.S. during 2020, the leisure/hospitality sector in Davis County lost over 1,250 jobs and the manufacturing sector lost 660 jobs from the disruption of supply chains. While some sectors

were losing jobs, professional/business services gained almost 1,500 jobs and education/healthcare gained around 500 jobs ([DWS, 2020](#)). Since March 2020, almost 4,000 jobs have been added overall yet the effects of the Pandemic continue to impact employment in many industries ([DWS, 2022](#)). Going beyond 2020, employment in Davis County is projected to increase 20.0%, totaling 236,180 jobs by 2030 ([Gardner Institute, 2022](#)).

Davis County has 55,369 residents that live and work in Davis County but the majority of workers commute to work in surrounding counties such as Salt Lake and Weber County ([DWS, 2019](#)). Because of the Pandemic, many employers transitioned to working from home if their industry would allow. This decreased the number of individuals commuting and contributed to better air quality. The percent of people working from home peaked during the Pandemic and then eventually decreased. In July 2021, 13% of Utah workers 16 and older were working from home ([DWS, 2021](#)).

Education is a strong indicator of who works from home. For example, 30% of workers with advanced degrees continue to work from home while a little over 20% of individuals with bachelor's degrees telework. High school graduates and those with some college experience and associate degrees are less likely to work from home, generally because of the nature of their work ([DWS, 2021](#)).

See the Transportation section in the Physical Environment chapter to learn more about how infrastructure influences travel behavior in Davis County.

Workforce

Davis County is one of Utah's most economically diverse counties. Long-term planning projections suggest its economy will continue to grow due to its large and well-trained workforce, Hill Air Force Base, and proximity to Salt Lake City International Airport ([KCGI, 2022](#)).

Davis County has around 168,737 residents in the workforce and is one of the youngest and most educated workforces in Utah. Government jobs account for 22% of all jobs in Davis County. This industry is followed closely by Trade, Transportation, and Utilities with 17% of all jobs ([DWS, 2020](#)).

As shown in Table 62, the economy is heavily influenced by Hill Air Force Base which is the largest single-site employer in Utah with more than 22,000 military and civilian personnel ([DOD, 2022](#)). The Freeport Center, located in Clearfield, is a major manufacturing, warehousing, and distribution center for the western U.S. It is home to more than 70 national and local companies that have a workforce of over 7,000 employees ([Freeport Center, 2023](#)). Lagoon, Utah's only theme park and the largest family-owned amusement park in the U.S., is centrally located in Davis County ([Discover Davis, n.d.](#)).

Table 62: Largest Employers, Davis County, 2021

Company	Industry	Employment
Department of Defense	Federal Government (Civilians Only)	10,000-14,999
Davis County School District	Education	7,000-9,999
Northrop Grumman Corp	Aerospace	3,000-3,999
Kroger Group Cooperative	Warehouse (Grocery, Supplies) Supercenters	2,000-2,999
Lifetime Products	Sporting & Athletic Goods Manufacturing	2,000-2,999
Wal-Mart Associates	Warehouse (Grocery, Supplies) Supercenters	1,000-1,999
Intermountain Health	Healthcare	1,000-1,999
Lagoon Corporation	Amusement & Theme Parks	1,000-1,999
Davis County Government	Local Government	1,000-1,999
Tanner Memorial Clinic	Healthcare	500-999

Data: [DWS, 2021](#)

As seen in Figure 144, in Davis County, males comprise 57% of the labor force and females 43%. Full time employment is 63.3% male and 36.7% female ([U.S. Census](#), 2021). The average age of male workers is 36.6 years and the female average age is 36.1 years ([DWS](#), 2015-2019; [DWS](#), 2019). In Davis County, the larger industries (more than 10,000 in the workforce) with the highest percentage of female workers include healthcare/social services (72.5%) and educational services (71.9%). The larger industries with the highest percentage of male workers include construction (79.5%) and manufacturing (73.5%) ([DWS](#), 2019).

Figure 144



Data: [U.S. Census](#), 2021, [DWS](#), 2015-2019; [DWS](#), 2019

The race and ethnicity of Davis County's workforce can be seen in Table 63. The Hispanic/Latino, Asian/Asian American, and Black/African American populations are overrepresented in the workforce compared to their makeup of the general population; whereas, those who identify with Two or More Races are underrepresented in the workforce. All other racial groups make up a similar proportion of the workforce as in the general population ([U.S. Census](#), 2020). These differences in representation could be related to the varying age distributions of racial and ethnic groups in Davis County, with a larger proportion of the Hispanic/Latino, Asian/Asian American, and Black/African American populations being of working age (15 to 64), and a smaller percentage of those identifying with Two or More Races being of working age ([IBIS](#), 2019).

Table 63: Workforce by non-Hispanic Race & Ethnicity, Davis County, 2019

Race & Ethnicity	Percentage of Workforce
White	79.6%
Hispanic/Latino	13.1%
Asian/Asian American	2.4%
Black/African American	2.0%
Two or More Races	1.6%
Native Hawaiian/Pacific Islander	0.8%
American Indian/Alaska Native	0.6%

Data: [DWS](#), 2019

Another facet of the workforce is considering men and women owned businesses. Women owned businesses in the U.S. are outpacing businesses owned and operated by any other demographic group ([WBCU](#), 2021). As of 2019, women-owned businesses represent an estimated 42% of all U.S. businesses (nearly 13 million), employ 9.4 million workers, and generate \$1.9 trillion in revenue ([NWBC](#), 2020). In Utah, 16% of businesses are women-owned, ranking it at 45th in the U.S. However, Utah ranks 2nd for the increase of women-owned businesses over the last two decades, showing a 77% increase. In a survey of Utah women-owned businesses, child care was mentioned as a concern for both the owner and staff ([UWLP](#), 2022).

Advantages of women-owned businesses include equitable pay which can help reduce the gender wage gap, creation of jobs, revenue going into the local economy, and an increase in the financial stability of families and communities ([UN](#), 2018).

Davis County and Utah's men, women, and Black, Indigenous, People of Color (BIPOC) owned businesses are in Table 64.

Table 64: Business Owners, Davis County, 2017

Owners	Davis	Utah
Men-owned Businesses	3,815	39,451
Women-owned Businesses	1,106	10,215
BIPOC-owned Businesses	416	4,238

Data: [U.S. Census](#), 2017; Note: BIPOC=Black, Indigenous, People of Color

Income

Income and financial resources greatly influence health. Households with higher incomes have more choices and opportunities when it comes to housing, access to quality schools, healthy foods, comprehensive medical care, and child care. In contrast, those with lower incomes have higher rates of heart disease, stroke, and other chronic conditions ([CSH](#), 2015).

Davis County's median household income is \$92,300 which is the highest among counties along the Wasatch Front ([CHR&R](#), 2020). It is higher than Utah's at \$77,800 and the U.S. at \$64,994 ([U.S. Census](#), 2016-2020).

Median household income by race and ethnicity is shown in Table 65, where an over \$30,000 difference between the highest and lowest median household incomes can be seen.

Wages

Wages include pay from employers and are the largest component of total income. Income includes other financial sources such as investments, retirement, and government assistance programs.

Utah adopted the federal minimum wage of \$7.25 per hour, which was last raised in 2009. The minimum wage law was designed to ensure people

had enough income to meet their basic needs such as food, shelter, and clothing.

Table 65: Median Household Income by Race & Ethnicity, Davis County, 2016-2020

Race & Ethnicity	Income
White	\$89,085
Asian/Asian American	\$83,049
Black/African American	\$77,875
Two or More Races	\$74,163
Native Hawaiian/Pacific Islander	\$72,253
American Indian/Alaska Native	\$70,795
Hispanic/Latino	\$65,503
Another Race	\$55,496

Data: [U.S. Census](#), 2016-2020
Note: Race categories could include Hispanic/Latino

Currently, the minimum wage is not high enough to meet basic needs ([MIT](#), 2016). Wages are not increasing at the same rate as cost of living expenses ([EPI](#), 2015).

In 2021, the average monthly wage in Davis County was \$4,332, an increase of 1.5% from the previous year. This is slightly lower than the average in Utah at \$4,745 ([DWS](#), 2022). Differences in monthly wages by race and ethnicity are shown in Table 66. The gap between the highest and lowest wage was over \$1,000 per month.

Table 66: All Industries Average Monthly Wage for Stable Jobs by non-Hispanic Race & Ethnicity, Davis County, 2021

Race & Ethnicity	Wage
White	\$3,987
Asian/Asian American	\$3,709
Native Hawaiian/Pacific Islander	\$3,275
Two or More Races	\$3,112
Hispanic/Latino	\$3,095
American Indian/Alaska Native	\$3,089
Black/African American	\$2,916

Data: [DWS](#), 2021

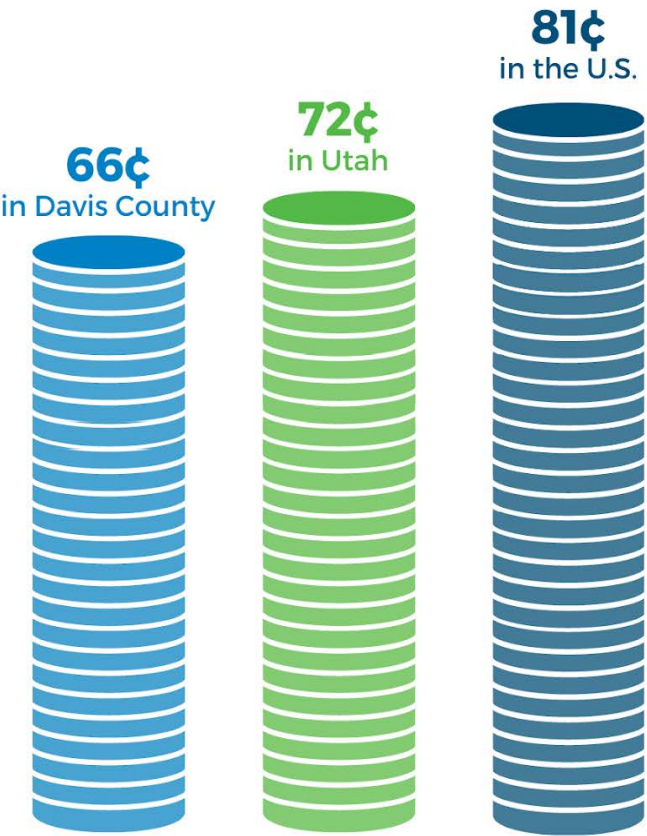
Gender Pay Gap

The gender pay gap is the difference between what women and men earn for performing full-time, year-round paid work, regardless of education, industry, or position ([U.S. Census](#), 2016-2020; [DWS](#), 2019). Utah has one of the largest gender pay gaps in the U.S. with women earning 70% of what men earn ([UWLP](#), 2021).

As seen in Figure 145, Davis County’s gender pay gap is worse than Utah’s with women earning 66 cents for every dollar men earn. Men’s median earnings for full time, year round employment was \$63,558 and women’s median earnings was \$42,136 ([CHR&R](#), 2022).

Figure 145

For every \$1.00 men earn in annual income, women earn:



Data: [CHR&R](#), 2016-2020

Often, the gender pay gap is related to the differences in pay between industries that are men dominated versus women dominated. However, in Davis County, even in women dominated industries such as healthcare and education, the average wage for men is about double that of women’s ([DWS](#), 2019).

The gender pay gap grows wider for racial and ethnic groups, as seen in Table 67.

Table 67: Women's Earnings by Race & Ethnicity as a Percent of White, non-Hispanic Men's Earnings, 2021		
Race & Ethnicity of Women	Utah	U.S.
American Indian/Alaska Native	52%	60%
Asian/Asian American	66%	87%
Black/African American	51%	63%
Hispanic/Latina	49%	55%
Native Hawaiian/Pacific Islander	55%	63%
White	68%	79%

Data: [UWLP](#), 2021

Equalizing pay can benefit the entire community. Women, most especially single women with children, will have opportunities to access needed resources such as housing, comprehensive healthcare, education, and child care ([CHR&R](#), 2022).

Income Inequality

Income inequality is a measure of how unevenly income is distributed across a population. The wider the spread between lowest and highest incomes, the more inequitable the distribution of income. In a given area, when a small group of people hold most of the wealth, the majority of people will have little wealth and the income inequality ratio will be closer to 10. This results in differences in social class and status and may lead to low levels of trust and decreased sense of community. Although Davis County ranks as one of the top ten percent best counties in the Nation with an income inequality ratio of 3.2 and Utah at 3.7, there is still room for improvement as shown by the median household income by race and ethnicity ([CHR&R](#), 2022).

Cost of Living

When compared to the U.S., Davis County has a high cost of living. Cost of living indicators can be measured using an index based on a U.S. average of 100. A cost of living index above 100 means an area is more expensive than the U.S. average. Davis County's cost of living is 114.6, slightly higher than Utah. Housing costs are the biggest factor in the cost of living difference. See Table 68 for comparisons between Davis County, Utah, and the U.S. ([Best Places](#), 2021).

Table 68: Cost of Living Comparison, 2021

Cost of Living Category	Davis	Utah	U.S.
Overall	114.6	114.2	100
Grocery	95.0	93.2	100
Health	100.5	102.7	100
Housing	161.2	157.3	100
Utilities	93.3	94.6	100
Transportation	85.8	91.2	100
Miscellaneous	110	91	100

Data: [Best Places](#), 2021

The living wage calculator is a tool to understand how much income is needed to meet basic needs without government support ([MIT](#), 2022). The household expenses considered are food, child care, healthcare, housing, transportation, clothing, broadband service, cell service, and taxes. For one adult working full time in Davis County, the living hourly wage is \$16.75. This is more than double minimum wage. That amount changes based on family size and whether one or two adults are working full-time (Table 69).

Some Davis County residents are feeling the strain of the cost of living outpacing wage increases. Conversations during community focus groups revealed that too often people are being paid less than a living wage and are struggling to make ends meet. Yet, resources can be difficult to access when making too much income to qualify for assistance. In one example, a participant shared:

"I was struggling with food, so I applied for food stamps. They told me because I don't work 20 hours a week and I'm a student, I can't get food stamps. But now I'm working. I'm making \$15 an hour and I'm working like 20-24 [hours] and now they're saying I make too much." (DCHD, 2022)

Table 69: Living Wage, Davis County, 2022

Adults	No children	1 child	2 children	3 children
1, working full-time	\$16.75	\$31.84	\$39.60	\$52.90
2, only 1 working full-time	\$25.80	\$31.07	\$36.72	\$40.96
2, both working full-time	\$12.90	\$17.71	\$22.70	\$27.00

Data: [MIT](#), 2022

Poverty

A good measure of a community's ability to meet basic needs in order to maintain health is an estimate of the community poverty level. Poverty is considered insufficient income to meet basic needs. Table 70 includes the percentage of the population experiencing poverty. Davis County has lower poverty rates than Utah and the U.S.

Table 70: Population Experiencing Poverty

Poverty Status	Davis	Utah	U.S.
Persons Experiencing Poverty	5.0%	7.3%	11.4%
Children Experiencing Poverty	5.0%	8.0%	16.0%

Data: [U.S. Census](#), 2016-2020; [CHR&R](#), 2020

Intergenerational Poverty

Intergenerational Poverty (IGP) for an adult means participating in public assistance for 12 months as a child and 12 months as an adult. Adults experiencing intergenerational poverty differ from adults experiencing situational poverty caused by job loss, divorce, injury, or death of a loved one. Children experiencing IGP have a parent in IGP and are at the highest risk of remaining in poverty since their family is already in the cycle of poverty ([DWS](#), 2022).

Utah's 11th Annual IGP Report shows the majority of adults experiencing IGP are women. Out of Utah's general population, American Indian/Alaska Native adults (20.6%) and children (29.0%) experience the highest IGP rates out of all racial groups compared to White adults and children (around 2%). The majority of children experiencing IGP are 10 years old and younger (73.0%) ([DWS](#), 2022).

In Davis County, 5,004 adults (2.3%) and 4,497 (4.0%) children are experiencing IGP. Another 15.0% of children are at risk of remaining in IGP as an adult. Of adults, 87.0% experiencing IGP do not have an education beyond high school. The average annual wages of those experiencing IGP is \$13,243 compared to Utah at \$13,022 ([DWS](#), 2017). Davis County cities with the highest numbers of IGP children and adults are Clearfield and Layton as seen in Table 71 ([DWS](#), 2022).

Table 71: Cities with Highest Children & Adults Experiencing IGP, Davis County, 2022

City	Number of Children	Number of Adults
Clearfield	1,766	1,503
Layton	1,270	1,043

Data: [DWS](#), 2022

Utah tracks four areas of child well-being that influence the progress of those experiencing IGP, including:

- Early childhood development
- Education
- Family economic stability
- Health

These areas were selected by the Intergenerational Welfare Reform Commission because of their connection and influence on a child's wellbeing and their impact on breaking the cycle of poverty ([DWS](#), 2022). The Davis County IGP dashboard can be found on the [Department of Workforce Services](#) webpage.

In Utah's 2022 legislative session, HB50 repealed the Utah Intergenerational Welfare Reform Commission, the Intergenerational Poverty Advisory Committee, and the Intergenerational Poverty Plan Implementation Pilot Program. Although these committees will no longer be functioning, the Department of Workforce Services will continue to provide an annual IGP report.

Davis County's IGP Committee began meeting in October 2018 and in September 2022, combined with the Human Services Directors Committee.

Wealth

Wealth is generally thought of as net worth which means what a person owns in assets minus what they owe ([CAP](#), 2021). Assets include things such as money in the bank, homes, properties, vehicles, and investments. Greater wealth is connected to better health. Wealth provides opportunities for healthier living conditions, access to healthcare, and less exposure to chronic stress ([RWJ](#), 2018).

Homeownership is the largest source of wealth for most people ([NAR](#), 2022). A systematic lack of access to opportunities for owning and maintaining assets makes it difficult for people to build wealth ([CAP](#), 2021).

Wealth Gap

Racial and economic inequities that exist today are in part a result of national policies enacted to provide economic relief and stabilize the economy during the Great Depression. Employment programs and banking laws gave rise to the middle class. However, they excluded people of color from wealth building programs and led to housing discrimination ([Rockefeller Foundation](#), 2020). These policies and

practices have impacted families for generations and can still be observed in the U.S. today with non-Hispanic White households having a median household wealth of \$187,300 compared to \$31,700 for Hispanic/Latino households and \$14,100 for Black/African American households ([U.S. Census](#), 2019).

Local Employment & Income Resources

Volunteer Income Tax Assistance (VITA)	<i>Free basic tax return preparation</i>	opendoorsutah.org/vita/
Davis Community Reentry Fair	<i>Provide resources for justice involved individuals including employment, peer support, mental and behavioral health, Medicaid, etc.</i>	Heidi Volt: 385-489-6021 Facebook Profile: Davis Reentry
Department of Workforce Services Career and Education Assistance	<i>Offers career counseling and funding for education costs</i>	jobs.utah.gov/jobseeker/career/index.html
Open Doors	<i>Davis County case management, crisis nursery, food pantry, and Circles peer mentoring program for those affected by intergenerational poverty</i>	opendoorsutah.org

State & National Employment & Income Resources

AARP Foundation	<i>Tax aid locator</i>	aarp.org/money/taxes/aarp_taxaide/locations/
Child Tax Credit	<i>Tax refund per child</i>	taxoutreach.org/tax-credits/child-tax-credit/
Employment Services, The Church of Jesus Christ of Latter-day Saints	<i>Job skills and assistance</i>	churchofjesuschrist.org/life/employment-services
People Helping People	<i>Helping low-income women and single moms reach their full potential in the workplace</i>	phputah.org

Food Security

Food security means that all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their food preferences and dietary needs for an active and healthy life (United Nations' Committee on World Food Security, 1996, as cited in [IFPRI](#), 2022). By contrast, food insecurity is a lack of consistent access to enough food for every person in a household to live an active, healthy life. Food insecurity can be temporary or last a long time ([Feeding America](#), n.d.).

Some of the factors affecting food security include:

- The availability of affordable, nutrient-dense food options which community members can easily access
- Policies and systems, including those that discriminate against populations
- The availability of affordable housing
- Household income and employment status
- Access to health care ([NICHM](#), 2022; [Healthy People 2030](#), n.d.)

Food insecurity can result in having to choose between spending money on food, rent, transportation, medicine, or healthcare, which can cause health issues for children and adults ([Feeding America](#), n.d.). It is associated with conditions such as depression, asthma, and cognitive problems in

children and diabetes, obesity, and poor sleep in adults ([NIHCM](#), 2022). Community focus groups held in 2022 found that some Davis County residents are having to make sacrifices when struggling to make ends meet. Most often these sacrifices include resorting to eating less healthy options, such as fast food, because they are more affordable. One woman pursuing higher education shared that she often does not have food for lunch due to other expenses:

"Do I want gas money to get to school, or do I want to eat lunch?" (DCHD, 2022).

Since 2008, the percentages of total households in the U.S. experiencing food insecurity (all ages) and households with children experiencing food insecurity have trended downward ([USDA](#), 2021). There was a temporary increase in the percentage of households with children experiencing food insecurity in 2020 because of the COVID-19 Pandemic. In 2021, the expanded Child Tax Credit, the Supplemental Nutrition Assistance Program (SNAP), and private donations have in part been attributed to the decline of food insecurity.

In Davis County, a lesser share of the county population experienced food insecurity in 2020 compared to the State and Nation (Table 72). In 2022, 7.8% of households were food insecure which is above the Healthy People 2030 target of 6%, indicating this is an area for improvement ([DCHD](#), 2022).

Table 72: Food Security Indicators

Measures	Davis	Utah	U.S.
Population Experiencing Food Insecurity	27,460 People (7.8%)	288,970 People (9.2%)	38,287,000 People (11.8%)
Population Experiencing Food Insecurity and Ineligible for Major Federal Nutrition Assistance Programs*	57%	43%	29%
Children Experiencing Food Insecurity	11,310 Children (10.1%)	104,840 Children (11.3%)	11,722,000 Children (16.1%)
Children Experiencing Food Insecurity and Ineligible for Major Federal Nutrition Assistance Programs*	49%	35%	21%
White, non-Hispanic/Latino Population Experiencing Food Insecurity	6%	8%	--
Hispanic/Latino Population Experiencing Food Insecurity	17%	19%	--

Data: [Feeding America](#), 2020; [USDA](#), 2020

Note: Data for some race/ethnicity combinations was not available. *Feeding America defines major federal nutrition assistance programs as SNAP, WIC, and others. People/households are ineligible if their income is above 130% of the Federal Poverty Level for SNAP and 185% for WIC.

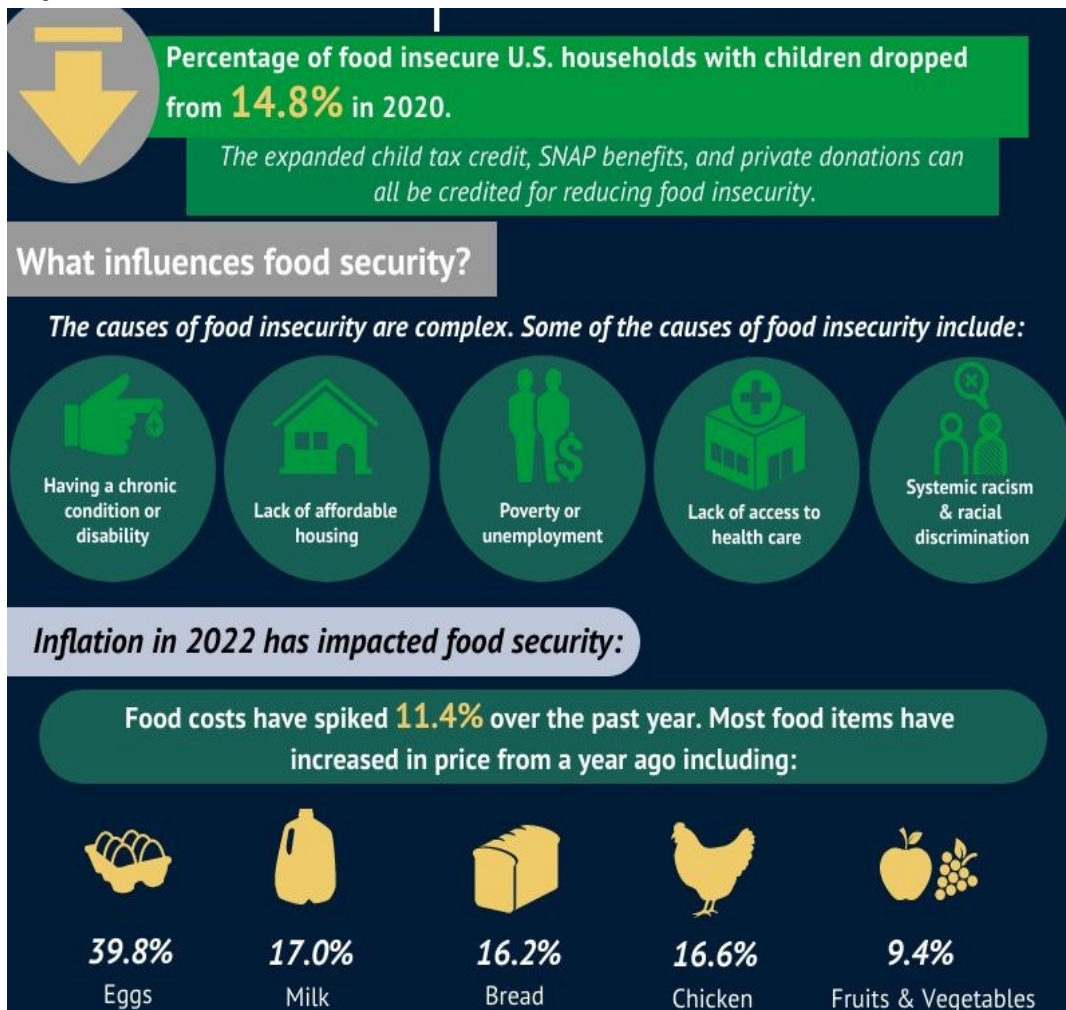
Food insecurity can look very different at community and neighborhood levels (UAH, 2023). In 2020, Black, Indigenous, and People of Color (BIPOC) communities were more likely to live in households experiencing food insecurity than the White population (Cision, 2022). Within Davis County, in 2020, the Hispanic/Latino population experienced food insecurity at nearly three times the rate of the White, Non-Hispanic/Latino population (Feeding America, 2020).

In Davis County, 57% of those who are food insecure have an income above federal poverty thresholds, which makes them less likely to qualify for major federal nutrition assistance programs. This is a significant gap that could create longer periods of

food insecurity for that demographic. For example, in local focus groups held in 2022, one participant who was experiencing homelessness shared her fear of losing SNAP benefits for working a full-time job that still does not fully support the family's finances (DCHD, 2022).

It is important to consider the potential impact of recent economic trends on future food insecurity. Inflation caused food costs to increase 11.4% between October 2021 to October 2022 (Figure 146). The percentage of Americans living paycheck-to-paycheck is also increasing at a time when employee income is not keeping pace with the rising cost of food, housing, and transportation (Lending Club, 2022, as cited in CNBC, 2022).

Figure 146



Source: [NIHCM](#), 2022

Community Supports

There are many federal, state, and local efforts to address food insecurity and provide nutrition education.

Food Assistance

Food assistance programs can help prevent or lessen food insecurity. Some examples of programs available to Davis County community members include:

- The Utah Food Bank and local food pantries
- Home-delivered meals for older adults ages 60 and older
- Meals given to groups of participants in a community (congregate) setting
- The United States Department of Agriculture (USDA) Supplemental Nutrition Assistance Program (SNAP), formerly known as food stamps

- USDA Child Nutrition Programs (National School Breakfast and Lunch, Summer Meals)
- The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)
- The Double Up Food Bucks Program, which provides SNAP participants with a match of up to \$30 to spend on fruits and vegetables per market day ([UAH](#), n.d.)
- The Commodity Supplemental Food Program (CSFP), a program for adults ages 60 and older struggling to make ends meet

Table 73 provides a summary of what is known about the amount of food assistance provided to people in Davis County. It is not possible to quantify the actual total food assistance due to unavailable data from some providers. Being able to quantify the total people served through food assistance programs is a data gap in Davis County.

Table 73: Food Assistance by Organization/Program, Davis County

Organization/Program	Time Period	Amount	Served
Utah Food Bank Donations*	Jan - Dec 2022	3,257,387 Pounds	--
Open Doors Food Pantry	Oct 2020 - Sep 2021	1,282,179 Pounds	9,411 Clients‡
Bountiful Community Food Pantry (BCFP)	Jan - Dec 2021	2,148,702 Pounds	28,818 Clients‡
Nations for Christ Food Pantry	Jan - Dec 2021	250,000 Pounds	--
Congregate Meals for Older Adults†	Jan - Dec 2022	19,519 Meals	998 People
Home-Delivered Meals for Older Adults†	Jan - Dec 2022	100,624 Meals	837 People
SNAP Benefits	Jan - Dec 2021	\$45,209,168.55	66,623 Households/ 142,457 Clients
SNAP Emergency Allotments	Jan - Dec 2021	\$11,576,153	61,190 Households
WIC Benefits	Jan - Dec 2021	\$1,919,161.03	34,178 Clients‡
BCFP School Pantry Packs	Aug 2021 - May 2022	93,265 Packs	--
School Lunches Served (Average Meals)	Aug 2021 - May 2022	33,297 Meals	--
School Breakfasts Served (Average Meals)	Aug 2021 - May 2022	5,751 Meals	--
Summer Lunch Meals Served	Jun 2021 - Aug 2022	131,272 Meals	--
Students Eligible for Free/Reduced Lunch/P-EBT	Aug 2021 - May 2022	15,386 Eligible	--

Data: Utah Food Bank donations (Utah Food Bank, 2022). Food pantry donation data provided by their respective organizations in 2022. Congregate meals/home-delivered meals for older adults (DCHD, 2023). SNAP data (Department of Workforce Services, 2022). WIC benefits (DCHD, 2022). School meals data (Davis School District, 2022).

*To select food pantries, mobile food pantries, mobile school food pantries, school summer feeding sites, and congregate meals in Davis County

† Provided by Davis Senior Services

‡ Includes repeat clients

Electronic Food Benefits

The Supplemental Nutrition Assistance Program (SNAP) provided more than \$45 million in benefits during 2021. This constitutes the largest food assistance program for residents, reaching 66,623 households in Davis County.

In response to the COVID-19 Pandemic, the federal government temporarily created the Pandemic Electronic Benefit Transfer (P-EBT) program and expanded SNAP benefits with emergency supplements ([USDA](#), n.d.; [DWS](#), 2023). P-EBT has allowed eligible school children to receive temporary emergency nutrition benefits loaded on EBT cards that are used to purchase food. This program will end in 2023 but will be replaced with a similar Summer EBT program that provides a set monthly benefit in the summer regardless of COVID-related absences (UAH, 2023). Expanded SNAP benefits ended February 2023 ([USDA](#), 2023).

The USU Botanical Center Farmers Market in Kaysville and Bountiful Farmers Market participate in the Double Up Food Bucks Program. While this program helps SNAP participants purchase needed produce, it is only offered when the farmers markets are in season during the summer to early fall ([DCHD](#), n.d.).

Some community focus group participants reported the positive impact food assistance programs have had in their lives:

“Thankfully, we have food stamps. I don’t have to worry about feeding my family. Plus, there’s the Bountiful Food Pantry, which is also a great resource.”

While these programs are helpful for many, the qualification restrictions by income and poverty level status create barriers for others. One single mother of three who also participated in community focus groups shared that while often struggling to make ends meet, she made \$100 too much in the previous year, so their family was unable to qualify for the P-EBT program (DCHD, 2022).

Food Pantries

There are 11 food pantries, as well as a few mobile pantries, in Davis County. More than 3.6 million pounds of food were provided to residents through food pantries in 2021. Six pantries serve the public and five primarily serve members of their church congregations ([UFB](#), n.d.; [FoodPantries.org](#), n.d.; [The Church of Jesus Christ of Latter-day Saints](#), n.d.). Pantries include:

- Apostolic Assembly of God (Asamblea Apostólica), *congregation-based*, Clearfield
- Bountiful Community Food Pantry, Bountiful
- Center of Hope, North Salt Lake
- Fish-n-Loaves, Layton
- Hope Center, Clearfield
- Nations for Christ, Clearfield
- Open Doors, Layton
- The Church of Jesus Christ of Latter-day Saints Bishops’ Storehouse, *congregation-based*, Layton, Kaysville, and Centerville
- True Vine Baptist Pantry, *congregation-based*, Kaysville

Bountiful Community Food Pantry (BCFP), which mainly serves the southern part of Davis County, served 177% more clients in November 2022 compared to the year prior. BCFP distributed 93,265 pantry packs for School Year 2021-2022 to K-12 students in participating schools each week ([BCFP](#), 2021). Pantry packs contain 3 pounds of food children can easily heat/cook by themselves. The need has increased significantly, and it is estimated that 112,000 total packs will be distributed in School Year 2022-2023 (BCFP, 2023).

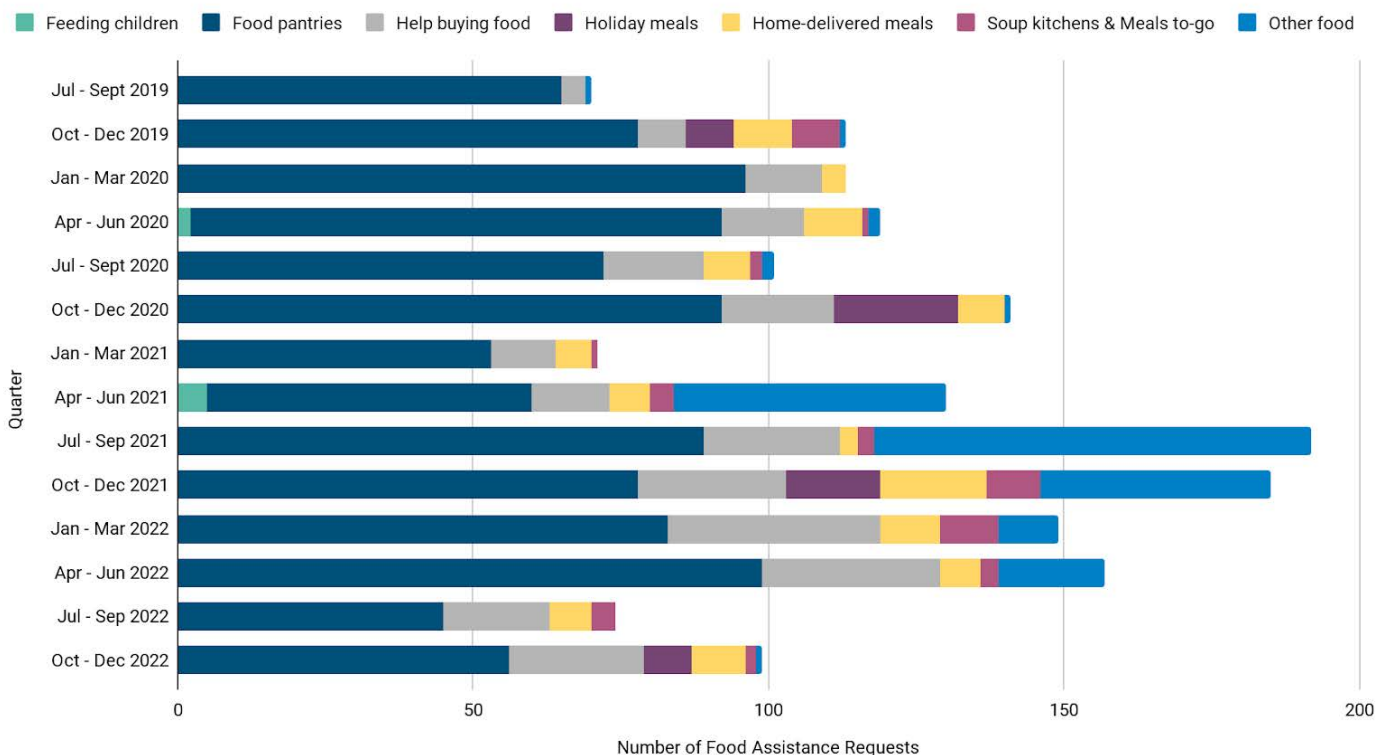
Food Assistance Trends

Data from 2-1-1, a statewide resource database and referral network for basic needs, showed common food assistance requests among Davis County residents. Requests included: help feeding children, finding a food pantry, help buying food, holiday meals, home-delivered meals, soup kitchens and meals to-go, and other food ([211](#), 2022). Figure 147 shows requests from July 2019 to December 2022. Demand for food assistance in Davis County increased during the COVID-19 Pandemic. During July to September 2021, 2-1-1 received 2.5 times more food assistance requests from Davis County than the same period in 2019 ([211](#), 2022).

There were some unique opportunities and challenges for food assistance during 2021 and 2022:

- A nationwide infant formula shortage that started February 2022 also affected mothers throughout the State and Davis County. Although the current supply of formula has greatly improved as of December 2022, Utah WIC reported that non-standard infant formulas still have not recovered completely from the shortage ([KSL](#), 2022).
- Avian flu outbreaks in 2022 led to a shortage of eggs, causing their price to sharply increase by nearly 40% ([USDA](#), 2022). This was the largest annual increase of food costs in over 40 years ([NIHCM](#), 2022). The Bountiful Community Food Pantry was no longer able to provide eggs consistently. Open Doors has relied on Food Rescue, a program that takes food that otherwise would go to waste, as a way to keep a consistent supply (Open Doors, 2023).

Figure 147: Food Assistance Request Type from Davis Residents to Utah 2-1-1 Counts, July 2019-December 2022



Data: United Ways of Utah 2-1-1 Counts, 2022

Knowledge About Food Assistance

Another challenge to receiving food assistance for some is due to lack of knowledge of where to find assistance. The Davis Food Environment Workgroup distributed a survey to 193 adults at Davis School District Summer Lunch Programs in 2022. The survey found that 24% of respondents did not know where to turn for food assistance should they not be able to afford food (DCHD, 2022).

In local focus groups held in 2022, many participants shared this same concern of not knowing what supportive services were available to them, including having difficulty locating a food pantry when in need. They were also unaware of coupon and membership programs at grocery stores that can be helpful in saving money (DCHD, 2022). Though these examples may not necessarily be representative of all adults in Davis County, it shows that resources are not widely known by the public, and many could benefit from information being more widely available.

Nutrition Education

Nutrition education programs are a way to support food security and navigate food assistance. The Utah State University Extension (USU Extension) in Davis County, in partnership with the Utah Department of Workforce Services, provides many nutrition education programs to individuals and families with lower incomes who are eligible for SNAP benefits.

USU Extension adult education classes include:

- Create Better Health, which educates on nutrition, cooking, food safety, budgeting, and physical activity, as well as helping Utahns find access to safe and nutritious food
- Create Farm Fresh Foods, which teaches how to take advantage of fresh produce throughout the summer
- Create Farm Fresh Gardens, which builds knowledge and skills necessary to grow participants' own gardens

USU Extension youth education classes include:

- Captain Create MyPlate for students grades 1 to 5
- Food, Fun, and Reading for upper preschool through second grade

In 2022, USU Extension reached 560 adults and 1,162 youth through these programs.

They also provide community outreach at farmers markets, on social media, at Summer Lunch Program sites, and through Create Healthy Choices Pantry newsletters. In 2022, these combined outreach efforts reached 146,117 people.

Other efforts by the organization include highlighting or increasing nutrient-dense options in pantries and schools, and food drives, through Buy Produce for Your Neighbor and Grow Produce for Your Neighbor (USU Extension, 2023).

Food Security Resources		
Bountiful Community Food Pantry	Food pantry	bountifulfoodpantry.org/get-help
Davis County Fresh Food Finder	Online map/locator for produce stands, farmers markets, greenhouses, and community gardens	gisportal-pro.daviscountyutah.gov/portal/apps/experiencebuilder/experience/?id=5a0cb287668044baba547fe9f11c0fcb&page=Home-Fresh-Food-Finder&views=Produce-Stands
Davis Food Environment Workgroup	Includes various partners that meet monthly to improve food access in Davis County.	tolsen@co.davis.ut.us
Davis School District Free and Reduced School Lunch Program	Food assistance for students and families	davis.k12.ut.us/departments/nutrition-services/free-reduced-price-school-meals
Davis4Health Resource Locator	Online directory of health resources located in Davis County, including active living, community programs, green solutions, health services, healthy eating, and human services	davis4health.org
Double Up Food Bucks Program	Dollar matching benefit offered to those on SNAP to help reduce the cost of purchasing produce at participating farmers markets	uah.org/get-help/snap-farmers-market
Find a Food Pantry Map, Utah Food Bank	Food pantry locator	utahfoodbank.org/find-a-pantry/
Home Storage Centers, Church of Jesus Christ of Latter-day Saints	Help people build a basic supply of food for their longer-term home storage needs	providentliving.churchofjesuschrist.org/self-reliance/home-storage-centers?lang=eng
Open Doors	Davis County case management, crisis nursery, food pantry, and Circles peer mentoring program for those affected by intergenerational poverty	opendoorsutah.org
Supplemental Nutrition Assistance Program (SNAP), USDA	Nutrition benefits to supplement the food budget of needy families	fns.usda.gov/snap/applicant-recipient
USU Extension Davis County	Provides helpful information, resources, and events on topics including agriculture, gardening, home, family, and food	extension.usu.edu/davis
Women, Infants, and Children (WIC), DCHD	Information about WIC, nutrition, and breastfeeding	daviscountyutah.gov/health/health-services/women-infants-children-(wic)-2-0

Housing

Housing and health are deeply connected. An affordable, safe, and stable home is a basic need and essential to good health. Everyone benefits from having access to a place to live regardless of race, socioeconomic status, disability, gender, or sexual orientation.

Housing instability and homelessness are major contributors to poor health among individuals and communities (FHSP, 2018). Specifically, high housing costs and instability are linked to increased stress and depression, communicable diseases like tuberculosis, and decreases in child well-being and educational outcomes (UT HPI, 2022).

Homeownership & Renters

Across Utah, home prices have been increasing since 1990 and drastically increased throughout the COVID-19 Pandemic. According to the Zillow Home Value Index, Utah housing prices increased 178% in the last decade due to job and population growth (NRE, 2022). For renters, the path to home ownership became more difficult as 72.8% of renters were priced out, or unable to afford homes (Gardner Institute, 2021). In Davis County, 22.3% of households are renters and 77.7% are homeowners as seen in Figure 148. Among renter households, 39.0% spend 30% or more of their income on housing (Table 74).

More than half of Utah households were unable to afford a median priced home in 2021 due to the rapid increase in home prices. As of April 2022, Utah’s median sales price for a single-family home had increased more than 23.1% from the previous year. For all types of homes, the median sales price was higher in Davis County than in Utah and the U.S. (UtahRealEstate.com, 2022).

Figure 148: Owner & Renter Occupied Households, Davis County, 2014-2018

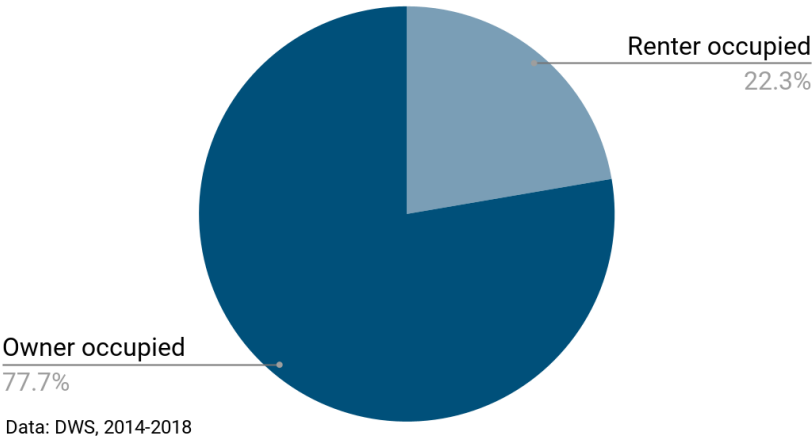


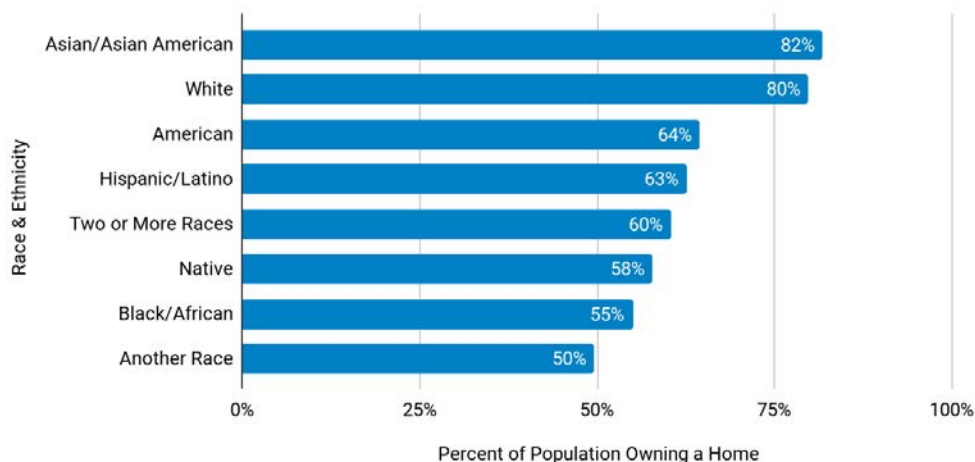
Table 74: Housing & Economic Stability

Housing Indicators	Davis	Utah	U.S.
Homeownership Prevalence	77.7%	70.5%	64.4%
Median Sales Price (Mid-2022)	\$541,185	\$534,807	\$449,000
Renter Housing Cost Burden	39.0%	44.5%	49.1%

Data: U.S. Census, 2016-2020; KUTV, 2022; HUD, 2022; U.S. Census, 2016-2020; Note: Housing cost burden is households spending 30% or more of income on housing.

Homeownership by race and ethnicity is shown in Figure 149. White and Asian/Asian American households are more likely to be homeowners. This is an area that should be explored further since housing is the main way people build wealth ([NAR, 2022](#)). Increasing homeownership for everyone can help reduce the wealth gap and increase overall community health ([CHR&R, n.d.](#)). Table 75 provides city data for many housing indicators in this section.

Figure 149: Home Ownership by Race & Ethnicity, Davis County, 2016-2020



Data: U.S. Census, 2016-2020

Table 75: Housing Costs & Ownership by City, Davis County, 2020

City	Median Owner Occupied Home Value	Owner Occupied Units with Mortgage	Median Monthly Mortgage	Median Monthly Rent	Cost Burden Household (Own)	Cost Burden Household (Rent)	Home-owners	Renters
Bountiful	\$343,900	66.9%	\$1,720	\$1,148	24.6%	40.5%	75.5%	24.5%
Centerville	\$349,400	64.7%	\$1,737	\$1,244	27.0%	32.3%	86.6%	13.4%
Clearfield	\$222,300	74.4%	\$1,257	\$1,117	17.8%	42.4%	59.1%	40.9%
Clinton	\$267,400	82.6%	\$1,452	\$1,441	21.0%	25.5%	88.4%	11.6%
Farmington	\$419,700	67.8%	\$2,017	\$1,215	22.7%	42.1%	82.1%	17.9%
Fruit Heights	\$436,400	73.1%	\$1,966	\$1,520	21.9%	25.7%	89.9%	10.1%
Kaysville	\$368,700	71.2%	\$1,894	\$1,077	13.3%	38.2%	86.8%	13.2%
Layton	\$285,100	71.4%	\$1,570	\$1,084	17.4%	38.4%	72.0%	28.0%
North Salt Lake	\$338,400	70.5%	\$1,665	\$1,268	19.1%	43.5%	68.9%	31.1%
South Weber	\$362,700	82.8%	\$1,985	\$1,227	25.0%	19.1%	93.0%	7.0%
Sunset	\$181,800	76.9%	\$1,134	\$962	18.5%	37.7%	69.4%	30.6%
Syracuse	\$340,900	84.5%	\$1,692	\$1,766	16.6%	48.2%	91.5%	8.5%
West Bountiful	\$342,600	73.6%	\$1,844	\$1,607	25.9%	47.2%	82.7%	17.3%
West Point	\$302,400	82.1%	\$1,591	\$1,505	13.3%	0.0%	90.1%	9.9%
Woods Cross	\$299,500	81.1%	\$1,573	\$1,184	17.6%	29.3%	77.6%	22.4%

Data: [U.S. Census](#), 2020

Housing Cost Burden

On average, Davis County households spend 24% of their income on housing costs (CNT, 2022).

If a household pays 30% or more of their income on housing, they are considered housing cost burdened. This means they may struggle to afford other basic needs such as food, transportation, healthcare, clothing, or related expenses. Households that are considered housing cost burdened in Davis County increased from 29.7% to 39.0% in a 5-year period (U.S. Census, 2016-2020). The proportion of households that are cost burdened in Davis County, Utah, and the U.S. can be seen in Table 73 (previous page).

A household that spends more than 50% of their income on housing is severely cost burdened. In Davis County, 8% of all households are severely burdened compared to Utah at 10% (U.S. Census, 2015-2019). Of low-income renters, 15.8% are severely cost burdened in Davis County compared to 18.3% across the State (UT HPI, 2022).

Rent

The high cost of single-family housing is increasing the demand for rentals, and therefore, the cost. In Utah, between 2010 and 2020, rent increased 2.6% annually, compared to 10.5% annually between 2020 and 2022.

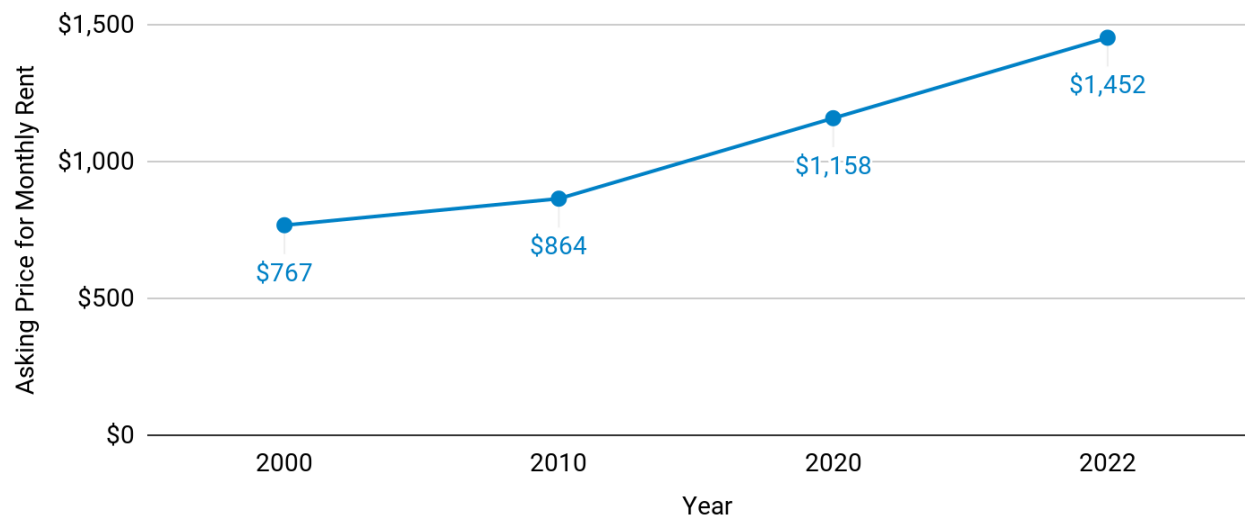
In 2000, Davis County’s average rent was \$767 and in 2022 the average climbed to \$1,452 (Figure 150) (Gardner Institute, 2022).

According to the 2021 National Low Income Housing Coalition report (NLIHC), Utahn’s must earn over \$20.21/hour to afford a modest two-bedroom apartment rental (NLIHC, 2021). Based on that estimate, a Utahn earning minimum wage (\$7.25/ hour) must work 112 hours per week to afford the same two-bedroom apartment rental (Minimum-Wage.org, 2022). That two-bedroom apartment would still be out of reach if the household contained two minimum-wage earners (80 hours/ week).

Fair Market Rents

Fair Market Rents (FMRs) are used to determine initial rental prices for housing assistance payment. Currently, Davis County is linked with Ogden in the Metropolitan Statistical Area (MSA) designated by the federal government (RentData.org, 2021). This is a barrier to people seeking rent assistance in Davis County since Ogden’s housing environment differs and rents are generally lower than Davis County. A more representative MSA for Davis County could increase housing assistance funding to be more in line with actual rent prices.

Figure 150: Average Cost of Rent Over Time, Davis County, 2000-2022



Data: Gardner Institute, 2022

Shown in Table 76, Fair Market Rents in Ogden-Clearfield MSA are very high compared to the national average and more expensive than 90% of other FMR areas nationally.

Table 76: Ogden-Clearfield Fair Market Rents (FMR), Fiscal Year 2021

Rental Size	FMR
Studio/Efficiency	\$721
1-Bedroom	\$812
2-Bedroom	\$1,021
3-Bedroom	\$1,432
4-Bedroom	\$1,707

Data: [RentData.org](https://rentdata.org), FY2021

FMR for a two-bedroom apartment in Ogden-Clearfield increased from \$1,024 to \$1,105 per month in one year (Figure 151). Compared to the rest of Utah, the Ogden-Clearfield FMR area is more expensive than 85% of the State ([RentData.org](https://rentdata.org), FY2021). Because rent is high, local service providers report situations where they need to relocate clients outside Davis County because of affordability.

Affordable Housing

Affordable housing is a major concern in Davis County. The county was listed as one of 26 places in

the Nation where homeownership is definitely unaffordable due to housing costs that are 73% of the median income, and home prices that rose 34% over a three year period ([MonkeyGeek.com](https://monkeygeek.com), 2022).

Common affordable housing terms and definitions include ([DWS](https://dws.org), 2020):

- Housing affordability is defined by Housing and Urban Development (HUD) as the costs not exceeding 30 percent of the household's gross income, regardless of the housing price. Reasonable utility costs are included in the definition.
- Area Median Income (AMI) is the median household income adjusted by county or metropolitan area.
- Low-income housing is housing that is affordable for households earning less than 80 of the AMI.
- Very low-income housing is housing that is affordable for households earning less than 50 percent of the AMI.
- Extremely low-income housing is housing that is affordable for households earning less than 30 percent of the AMI.

According to the National Low Income Housing Coalition, only 33 affordable and available rental homes per 100 exist for extremely low-income renter households in Utah ([NLIHC](https://nlihc.org), 2022).

Figure 151: Fair Market Rents Ogden-Clearfield MSA, 2006-2022

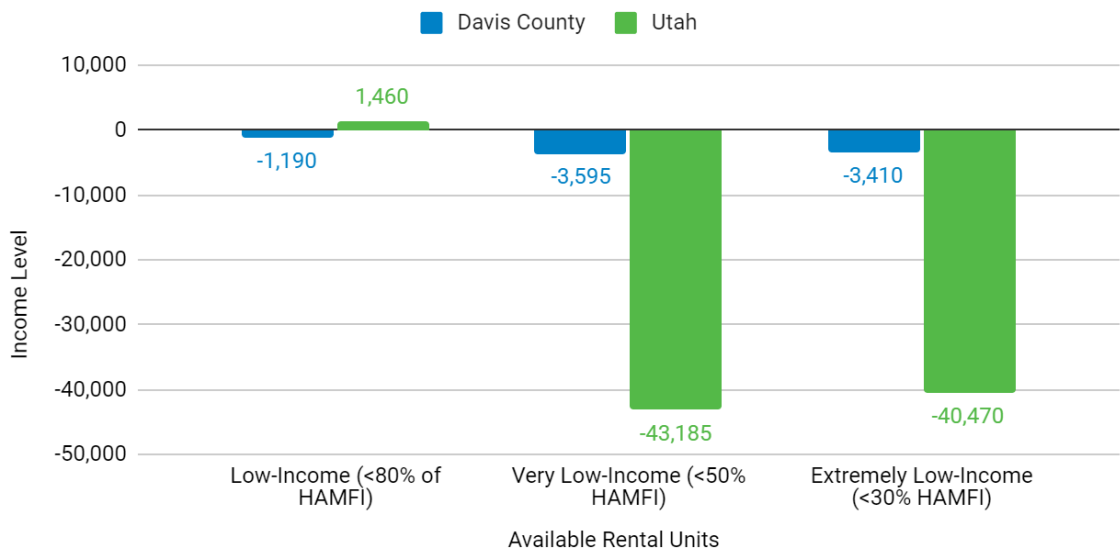


Data: rentdata.org, 2016-2022

Utah has a gap, or need, of 83,655 available units for low-income to extremely low-income renters. Davis County’s gap is 8,195 units for the same population. For affordable rental units, Utah has a 27,695 gap and Davis County has a 2,085 gap. Extremely low-income households in Davis County lack both available and affordable rental units (Figure 152 and Figure 153), ([DWS](#), 2020).

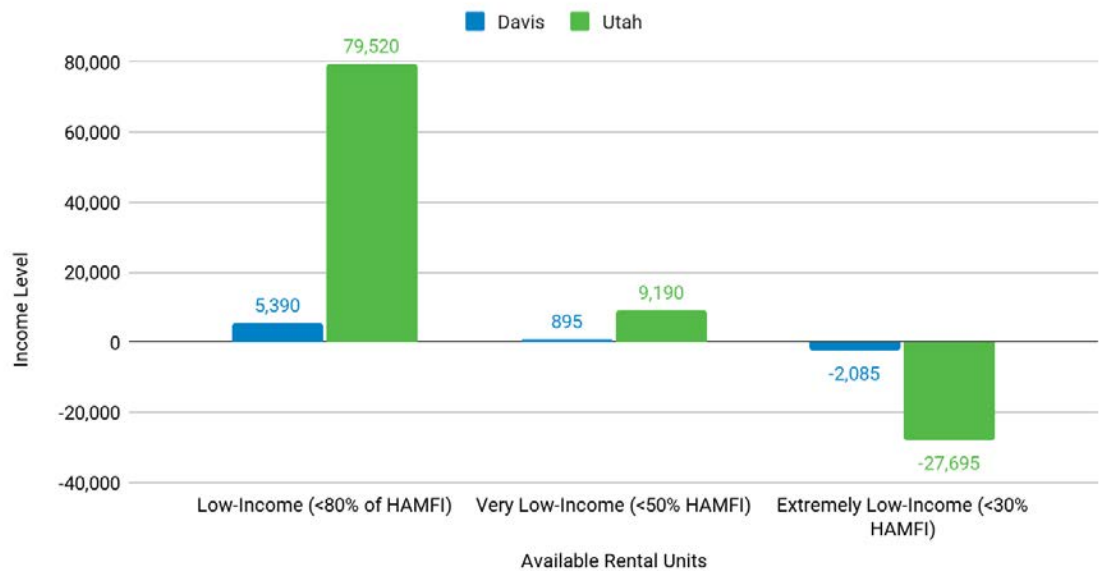
In 2022, Utah State University conducted the Utah Wellbeing Survey which tracks local perspectives on well-being around the State. Over 10,000 surveys were collected in 2022 across 35 cities including two Davis County cities, Bountiful and Layton. Affordable housing was one of the top concerns for residents in both Layton and Bountiful ([USU](#), 2022).

Figure 152: Available Rental Housing Gap, 2020



Data: DWS, 2020, HUD Area Median Family Income (HAMFI)

Figure 153: Affordable Rental Housing Gap



Data: DWS, 2020, HUD Area Median Family Income (HAMFI)

Community Supports

The 2019 legislative session included policy to promote affordable housing for the state. SB34 incentivized cities to adopt at least three of 23 possible affordable housing strategies. Those that don't meet the requirement stand to lose out on part of the state's \$700 million in annual transportation investment funds ([Metropolitan Research Center, 2020](#)).

State efforts are in addition to federal programs commonly used to develop affordable housing.

Housing Tax Credits

The federal government uses various tax credit programs to incentivize the construction and rehabilitation of low-income housing.

The Low-Income Housing Tax Credit (LIHTC) provides a federal income tax credit to private investors as an incentive to make equity investments in affordable rental housing. This program is critical to creating and maintaining affordable housing in the U.S. The tax credit was created by the Tax Reform Act of 1986 and gives state and local LIHTC-allocating agencies the ability to issue tax credits for the acquisition, rehabilitation, or new construction of rental housing targeted to lower-income households ([HUD, n.d.](#); [UI, 2018](#)). It is important to be aware that when these credits expire there is no requirement or incentive for the units to remain affordable.

Davis County currently has 2,604 affordable housing units. The majority, 1,908 (73%) used LIHTC funding. Other units are deed restricted, requiring them to remain affordable for a certain length of time. The majority of affordable units through these incentives are located in Clearfield, Layton, and Bountiful. Table 77 shows the number of LIHTC units per city in Davis County compared to the total number of affordable units. The largest share of affordable units designated as LIHTC are in Farmington and Clinton. Six cities have no affordable housing units (CED, 2022).

Three LIHTC properties expired in 2022 and one expires in 2023. This means less affordable housing is available.

Table 77: Affordable Housing & LIHTC Units, Davis County, 2022

City	Units	LIHTC Units
Bountiful	359	195
Centerville	2	0
Clearfield	918	681
Clinton	111	110
Farmington	129	129
Fruit Heights	0	0
Kaysville	226	144
Layton	610	469
North Salt Lake	248	180
Sunset	1	0
South Weber	0	0
Syracuse	0	0
West Bountiful	0	0
West Point	0	0
Woods Cross	0	0
Total	2,604	1,908

Data: CED, 2022; LIHTC=Low Income Housing Tax Credit

Housing Assistance

The Housing Choice Voucher Program, a federal program, helps very low-income families, elderly, and those who are disabled rent housing in a location of their choice. Very low-income is defined as a HUD area median family income of less than 50%. The Davis Community Housing Authority (DCHA) distributes 1,032 Housing Choice Vouchers per year. The wait period for this program is over 2 years and DCHA has closed the list at the recommendation of the Department of Housing and Urban Development. The extremely long wait time is a result of people staying on the program longer than usual and people coming from other states with vouchers (DCHA, 2022).

The Veterans Affairs Homeless Services also has five housing vouchers for Davis County veterans ([VA, 2021](#)).

Community Themes

2-1-1, an agency that connects the community to local resources, reported housing and shelter as the top resource request from Davis County from November 2021 to 2022. Housing requests included information on rental assistance, low-cost housing, and shelters ([211](#), 2022).

During focus groups with Davis County residents, some expressed frustration with the number of apartments being built without a portion for low-income households:

“I’m watching here in my little town of Clearfield, they’ve done this build up, every acre apparently is going into high rise apartments. But I’m not seeing anything, any mandate from the city, who allowed the building to occur, to ask for a percentage to be considered lower income or assets rent. I don’t think it needs to be the whole thing because people are doing this to make money...but at the same time, there should be some fairness or at least a proportion that would be available to help our community that are in the situations including senior citizens on fixed incomes, trying to survive off of Medicaid or Medicare... It’s ridiculous...there needs to be some sort of middle ground to help people survive.”

Another participant said:

“Why is the city not building affordable housing? Why [are] they not taking our tax dollars and building affordable housing for people?” (DCHD, 2022).

Affordable housing is a recurring theme among human services providers. A Davis County Housing Environment Assessment is being produced and will be available in 2023 on Davis County Health Department [Reports & Assessments](#) webpage.

Barriers to Housing

Housing agencies in Davis County report the biggest barriers to housing clients include:

- Lack of affordable housing
- Lack of one-bedroom apartments
- Lack of political will to zone land for public housing
- Lack of set-aside apartments
- High cost of rent
- Application fees
- Populations that encounter the most barriers to housing include individuals with criminal records, previous evictions, poor credit, disabilities, mental illness, and foreign-born non-citizens

During focus groups with Davis County residents, a participant shared her struggle to find housing for her brother living with a disability. Barriers they encountered included unavailability of affordable housing for minimal income and finding a rental that would approve someone with a criminal record:

“Housing is a problem...People still need a place to live.”

Foreign-born, non-citizens shared the barriers they encountered while seeking housing. They are less likely to have rental or homeownership history in the U.S. and a credit score. They often work for cash while they are still waiting for residency and citizenship paperwork to be completed. While they may have enough money to afford a rental, they don’t have pay stubs or a bank statement to provide proof. One focus-group participant said that even with proof of income, without a credit score they had a very difficult time finding a place to live; noting that it would be helpful if they could provide sources of recommendation in these situations (DCHD, 2022).

Homelessness

One of the causes of homelessness is a lack of affordable housing ([National Alliance to End Homelessness](#), n.d.) Homelessness is a concern across Utah and tends to be less visible in Davis County. Since there is no shelter for the general population, shelters in neighboring counties are utilized ([CED](#), n.d.). Methods of identifying individuals, families, and youth experiencing homelessness include the annual Point in Time Count and the McKinney-Vento Federal Act ([End Utah Homelessness](#), n.d.; [NCHE](#), n.d.).

Point In Time Count

A Point in Time Count (PIT) occurs nationwide every January and is mandated by the Department of Housing and Urban Development (HUD) ([HUD Exchange](#), 2023). Locally, the PIT Count is organized through the Davis County Local Homeless Council. The PIT Count captures the number of people experiencing literal homelessness as defined by HUD, which includes staying in emergency shelters, transitional housing, and a place not meant for human habitation. Utah's PIT Count numbers are reported in Utah's Annual Data Report on Homelessness ([DWS](#), 2022).

In 2022, Utah reported 3,556 individuals experiencing homelessness with 55 of those individuals located in Davis County. The report indicates that 7,712 Utahns experienced homelessness for the first time in Federal Fiscal Year (FFY) 2021, which is nearly 1,000 more than

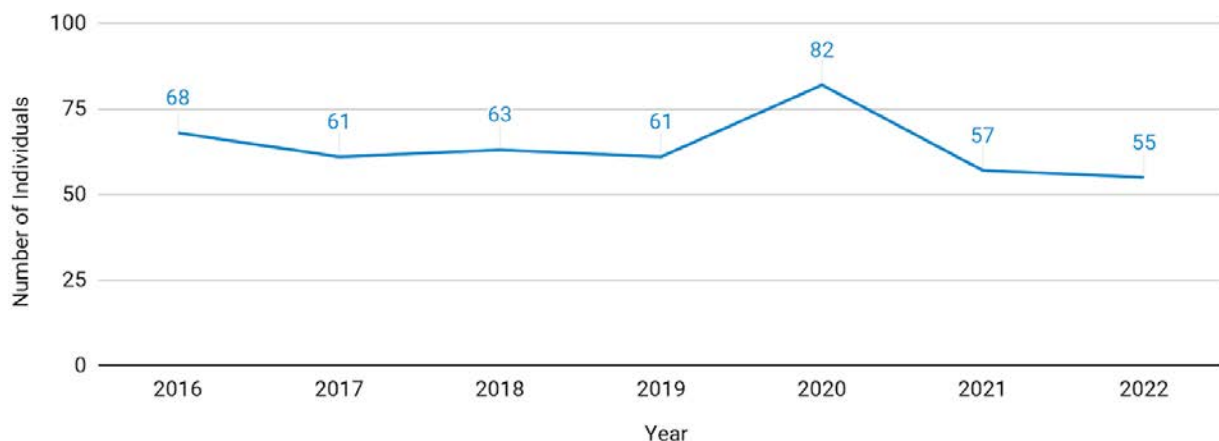
the previous FFY. In Davis County, 273 individuals experienced homelessness for the first time, an increase from 152 the previous FFY. This could be due to the effects of the COVID-19 Pandemic and the rising costs of housing and basic needs ([DWS](#), 2022). Davis County's PIT Count numbers for individuals sheltered and unsheltered from 2016-2022 are shown in Figure 154.

Homelessness Among Students

In October 2022, Davis School District (DSD) reported 1,429 students experiencing homelessness (DSD, 2022). According to the McKinney-Vento Act, this means they lack a fixed, regular, and adequate nighttime residence. This is most likely underreported since parents or guardians self-report at the beginning of every school year. In this population, homelessness looks like:

- More than one family living in a home (doubling up) due to loss of housing, economic hardship, or a similar reason
- Living in hotels, motels, trailer parks (i.e., camp trailer in KOA), campgrounds
- Living in emergency or transitional shelters
- Abandoned at hospitals (and any other location)
- Living in a public or private area not normally used to accommodate human beings
- Living in cars, parks, public spaces, abandoned buildings, bus or train stations, substandard housing
- Disaster victims

Figure 154: Point in Time Count, Unsheltered & Sheltered Individuals, Davis County, 2016-2022



Data: State of Utah Annual Report on Homelessness, 2022

Of the 1,429 students experiencing homelessness, 55% are in the 6th grade or younger and 164 youth are unaccompanied. The majority of students are doubling up in a living space. Homelessness disproportionately affects Native Hawaiian/Pacific Islander and Hispanic/Latino students compared to the county population ([DEF](#), 2022).

Six Teen Centers are operating at high schools throughout DSD to provide laundry and shower facilities, food assistance, study areas, internet access, mindfulness, and access to other resources for students experiencing homelessness and others who are under-resourced. Three additional Teen Centers are planned for 2023 ([DEF](#), n.d.).

During focus groups with Davis County residents, the following experience was shared in relation to homelessness from a lack of affordable housing. A mother and daughter with three children of her own were living in a hotel together. The daughter left an abusive husband and the mother had a history of substance use, two years sober, and a felony record

from many years ago. Because housing is unaffordable for a single mother making \$15 an hour, finding a place together was their best option; however, the rent was raised in their previous home and in an effort to find something more affordable they encountered many barriers because of the mother's felony. Ultimately, they ended up without a stable place to live. They were in the process of working with Open Doors to hopefully find some rental relief for the hotel (DCHD, 2022).

Community Supports

Davis County's Local Homeless Council meets regularly to coordinate between agencies and address the various needs of individuals and families who are at risk of homelessness and experience homelessness in Davis County. Davis County housing providers include Davis Behavioral Health which offers permanent supportive housing, Safe Harbor offers transitional housing, and Open Doors offers rapid rehousing.

Local Housing Resources		
Davis Behavioral Health Club House Program	<i>Provides safe places where people living with mental illnesses find friendship and avenues for employment, housing and education</i>	dbhutah.org/services/clubhouse-program
Davis Community Housing Authority	<i>Administer a wide variety of programs in a continuing effort to meet the local needs for affordable housing</i>	daviscommunityhousing.com
Davis School District Teen Centers	<i>Provide students with a safe place to shower, do laundry, study, receive one-on-one assistance from family service workers, and access critical resources</i>	davis.k12.ut.us/departments/student-family-resources/teen-center-advocates
Open Doors Homeless to Housing Program	<i>Assists individuals and families who are homeless or about to be homeless</i>	opendoorsutah.org/homeless-to-housing
Safe Harbor	<i>Provides shelter, supportive services, and advocacy to survivors of domestic violence and sexual assault, as well as education, awareness and resources to the community at no cost. Shelter and crisis line operate 24/7</i>	Crisis Line: 801-444-9161 Business Line: 801-444-3191 safeharborhope.org
State & National Housing Resources		
A Soldier's Home	<i>Provide aid for veterans in many areas: identify which benefits they are eligible for through the VA, raise credit scores or pay off debts as needed, apply for VA loan, find an eligible home, navigate the home buying process, and provide financial literacy courses</i>	asoldiershome.org
Department of Workforce Services Housing & Community Development	<i>Help communities improve their infrastructure, develop affordable housing, and fight hunger</i>	jobs.utah.gov/housing/index.html
Family Promise	<i>Locations in Ogden and Salt Lake; Provide prevention services before families reach crisis, shelter when they become homeless, and stabilization programs once they have secured housing to remain independent</i>	familypromise.org
Homeless Veterans Fellowship	<i>Offers a comprehensive set of services designed to address homelessness among veterans</i>	homelessveterans.org
Lantern House	<i>Provides food, shelter, and critical emergency services for those experiencing homelessness</i>	stannescenter.org
VA Supportive Housing (VASH) Program	<i>Services to help homeless Veterans and their families find and sustain permanent housing and access the health care, mental health treatment, substance use counseling, and other supports necessary to help them in their recovery process and with their ability to maintain housing in the community</i>	va.gov/homeless/hud-vash.asp
Youth Futures (Ogden, Cedar City, St. George)	<i>Provides safe shelter, collaborative resources, respective guidance, and diverse support to homeless, unaccompanied, runaway, and at-risk youth in Utah</i>	youthfuturesutah.org

Community Safety

A safe community is vital to the health of a community. When people feel safe in their neighborhoods, they are more likely to spend time outdoors recreating, interacting with neighbors, and accessing the services they need. Community focus groups highlighted that one of the things many people love about living in Davis County is how safe they feel in their neighborhoods (DCHD, 2022). Being exposed to violence and unsafe living conditions compromises physical safety and psychological well-being, which can lead to poor overall health ([CHR&R](#), n.d.).

Crime

Both violent and property crimes are ways to measure community safety. Violent crimes involve force or threat of force and include four main offenses: murder, rape, robbery, and aggravated assault. Property crimes involve stolen or destroyed property without the use of threat or force. The main property crimes include: burglary, larceny-theft, motor vehicle theft, and arson.

In the U.S., the violent crime rate has been steadily decreasing since 1990. Utah rates have always remained lower with minimal change over time. Property crime rates, on the other hand, have consistently been higher in Utah compared to the U.S., but both have been trending downward since 1990 ([FBI CDE](#), 2020).

Table 78: Crime Rates per 100,000 People

Offense Category	Davis	Utah	U.S.
Violent Crime	210.1	260.7	398.5
Property Crime	2351.7	2464.4	1958.2

Data: [UPDS](#), 2021; [FBI CDE](#), 2020

Note: Data for Davis should not be compared to Utah and U.S. as it is from a different year, crimes included may differ, and rates may be calculated differently. Davis rate was calculated using UPDS numbers with 2020 Decennial Census population estimate.

Davis County is considered a safe community due to its lower rates of violent crime than the State and the Nation, as seen in Table 78.

While property crime rates are relatively high, other crime rates in Davis County have stayed below Utah's rates and well below the U.S. rates for many

years. For example, some current crime rates are as follows:

- The homicide rate is 1 per 100,000 in Davis County compared to 2 per 100,000 in Utah, and 6 per 100,000 in the U.S. ([CHR&R](#), 2022). Davis County is meeting the Healthy People 2030 target for homicides ([DCHD](#), 2022).
- The firearm fatality rate is 9 per 100,000 in Davis County compared to 12 per 100,000 in both Utah and the U.S.
- The juvenile arrest rate is 23 per 1,000 juveniles compared to 31 per 1,000 in Utah. U.S. data is not available for this measure ([CHR&R](#), 2022).

The most common violent crime offense in Utah during 2020 was aggravated assault, which includes assault with substantial risk of bodily injury to another ([FBI CDE](#), 2020). In 2021, the most common violent offenses that occurred in Davis County were:

- Forcible fondling with 321 offenses
- Aggravated assault with 197 offenses
- Rape with 141 offenses ([UPDS](#), 2021)

The most common property crime in Utah in 2020 was larceny-theft, which is the unlawful taking of property from the possession of another ([FBI CDE](#), 2020). The most common property offenses in Davis County were:

- Destruction/damage/vandalism of property with 2,006 offenses
- Other larceny with 1,574 offenses
- Theft from a motor vehicle with 1,289 offenses ([UPDS](#), 2021)

On a national and local level, there are populations that experience higher rates of violent crime victimization (excluding homicide) than the general population. Nationally, these populations include the following:

- People with an annual household income less than \$25,000
- People ages 12 to 24 compared with other age groups
- People ages 12 and older who identify their race as Other, including Native Hawaiian/Pacific Islander, American Indian/Alaska Native, and multiracial persons ([AHR](#), 2019)

Hate Crimes

A hate crime is a criminal offense committed against a person or property with the intent to intimidate or terrorize another person because of their characteristics or identity. The crime is motivated, in whole or in part, by the offender's bias against race, religion, ethnicity, national origin, sexual orientation group, or disability ([Utah State Legislature](#), 2020; [U.S. DOJ](#), 2019).

The number of hate crime victims in Davis County from 2017 to 2022 is shown in Table 79.

Year	Number of Victims
2017	6
2018	13
2019	8
2020	10
2021	18
2022	10
Total	65

Data: [UDPS](#), 2022

Of the hate crimes committed, the top three offender biases were anti-Black/African American, anti-gender nonconforming, and anti-lesbian/gay/transgender ([UDPS](#), 2022).

Racial Harassment & Discrimination

In October 2021, the U.S. Department of Justice (DOJ) reached a settlement with the Davis School District (DSD) to remedy racial harassment of Black/African American and Asian/Asian American students. The DOJ started the investigation in 2019. Settlement terms required DSD to create an Office of Equal Opportunity and other items as outlined in the Summary of Agreement ([U.S. DOJ](#), 2021). This is evidence that racial harassment and discrimination are a problem in Davis County. It is unclear how widespread it is in the community.

While it is difficult to measure racism in general and in Davis County, there are proxy measures that are useful. These include residential and school segregation measures in County Health Rankings and Roadmaps ([CHR&R](#), 2022) and the Race/

Ethnicity Diversity Index in the Utah Healthy Places Index ([UT HPI](#), 2022).

For more details, see the Education section and Violence and Abuse section of this chapter as well as the Population Characteristics section of the About Davis County chapter.

Violence & Abuse

Violence is the intentional use of physical force or power, threatened or actual, that either results in or has a high likelihood of resulting in injury, death, poor mental health, delayed development, or hardship. This can be directed at oneself, another person, or against a group or community ([WHO](#), n.d.).

Violence and abuse occur in many forms and can happen to people of all ages. A combination of risk and protective factors make experiencing violence or committing acts of violence more or less likely to occur. Societal risk factors associated with violence include cultural norms that support aggression toward others, harmful norms toward masculinity and femininity, and media violence. Violence and abuse are preventable ([CDC](#), 2022).

Child Abuse

Child abuse is any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation; or an act or failure to act which presents an imminent risk of serious harm ([HHS](#), 2014).

Child abuse is an adverse childhood experience. Adverse childhood experiences (ACEs) are abuse, neglect, and household challenges that occur in a child's life before the age of 18. ACEs impact health and opportunity throughout a person's life ([CDC](#), 2021). For more information on ACEs, see Positive and Adverse Childhood Experiences in the Family and Social Support section of this chapter.

The Utah Division of Child and Family Services (DCFS) receives and investigates reports of child abuse and neglect. For fiscal year 2021, the top five confirmed allegations included domestic violence related child abuse, child endangerment, other neglect, sexual abuse, and physical abuse.

Substance use was the main reason children were removed from their home ([DCFS](#), FY21).

Utah law requires any person that suspects child abuse or neglect to report their suspicions to law enforcement or the Division of Child and Family Services. The majority of referrals came from law enforcement followed by family referrals, health services, and schools ([DCFS](#), FY21).

The race and ethnicity of Utah children confirmed as victims are as follows:

- 89.1% White
- 25.5% Hispanic/Latino
- 5.4% Black/African American
- 3.8% American Indian/Alaska Native
- 2.4% Native Hawaiian/Pacific Islander
- 1.2% Asian/Asian American
- 0.9% Unable to determine ([DCFS](#), FY21)

All races and ethnicities listed above are disproportionately impacted with the exception of White and Asian/Asian American.

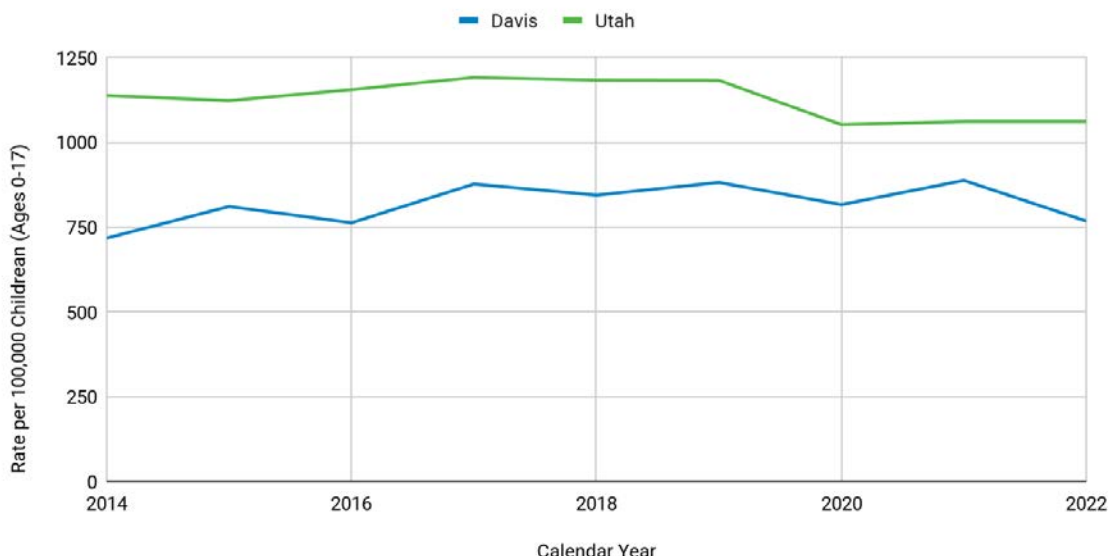
Figure 155 shows child abuse rates in Davis County and Utah from 2014 to 2022. Davis County rates have consistently been below the State's.

For fiscal year 2021, the Utah Division of Child and Family Services (DCFS) received 40,616 reports of child abuse and neglect, of which 20,193 (49.7%) were accepted for formal Child Protective Services assessment. A total of 6,348 confirmed reports of abuse and neglect resulted in 9,062 confirmed child victims ([DCFS](#), FY21).

In 2021, DCFS received 3,924 reports of child abuse and neglect in Davis County. Of the 3,924 reports, 1,913 (48.7%) were accepted for investigation and resulted in 1,005 confirmed child victims. As a result, 73 in-home cases were opened and 81 children entered foster care (DCFS, 2022).

The Davis County Children's Justice Center (CJC) offers a child-friendly environment for child victims of crimes to be interviewed by a forensic interviewer and have a medical exam performed. They also provide abused children and their families with referrals for support services, such as therapy, medical care, and victim resources. The CJC was established to serve victims of alleged physical and sexual abuse of children aged 17 or younger. There has been an increased need for services for internet child sexual exploitation in this age group.

Figure 155: Child Abuse Rates Over Time, 2014-2022



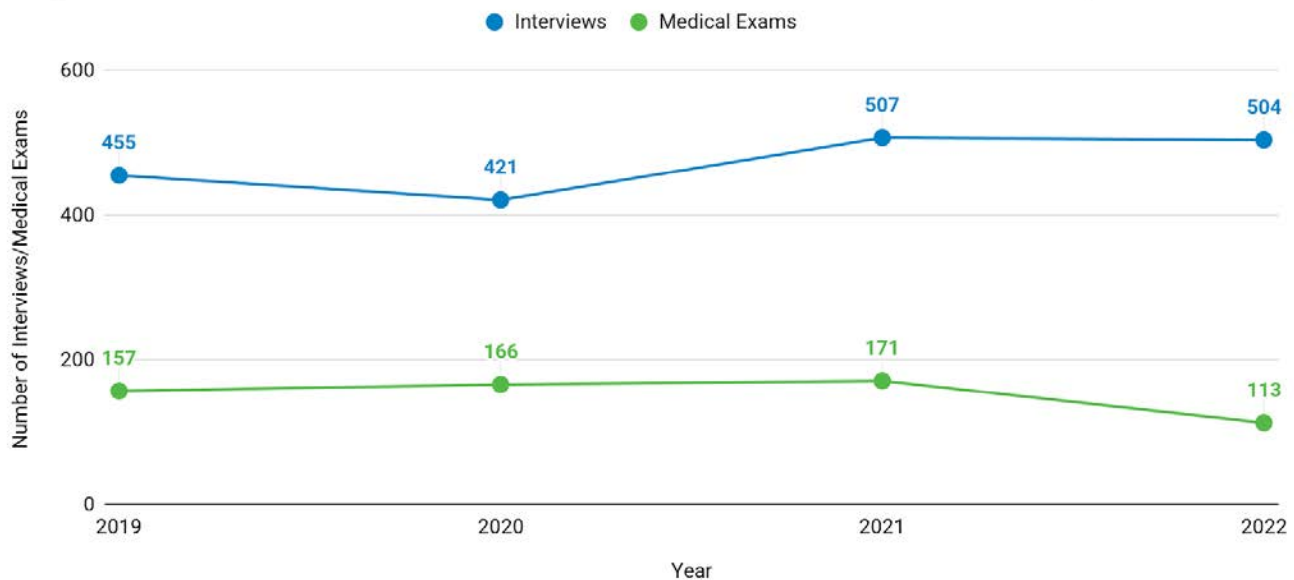
Data: DCFS, 2014-2022

In 2022, 504 child interviews were held at the CJC and 113 medical exams were conducted (CJC, 2022). Figure 156 shows the number of interviews and medical exams at the CJC from 2019 to 2022.

Head Start, an early childhood education provider in Davis County that serves low-income families, collects information regarding violence in students' homes. For the 2021-2022 school year, 562 intakes

were completed. Of those, 141 families reported experiencing domestic violence, 50 had current DCFS involvement, and 99 reported experiencing homelessness (Head Start, 2022).

Figure 156: Children's Justice Center Interviews and Medical Exams, Davis County, 2019-2022



Data: CJC, 2022

Resources for Victims of Child Abuse

Child and Family Services, UDHHS	<i>Focused on child safety and working to strengthen parents and caregivers who are otherwise unable to meet their own child's needs; Utah law requires any person who has reason to believe that a child has been subjected to abuse, neglect, or dependency to immediately notify the nearest office of Child and Family Services, a peace officer, or a law enforcement agency</i>	855-323-3237 dcfs.utah.gov/services/child-protective-services
Davis County Children's Justice Center	<i>Offers a comfortable setting to help children feel safe while they are meeting with investigators and other team members about allegations of abuse</i>	daviscountyutah.gov/cjc
Prevent Child Abuse (PCA) Utah	<i>Promote services that improve child well-being and develop programs that help prevent abuse and neglect before it occurs</i>	pcautah.org
Utah Internet Crimes Against Children (ICAC) Tip line	<i>Investigates and prosecutes individuals who use the internet to exploit children.</i>	801-281-1211

Bullying

Bullying is unwanted, aggressive behavior that involves a real or perceived power imbalance. Bullying includes actions such as making threats, spreading rumors, attacking someone physically or verbally, and excluding someone from a group on purpose ([SB](#), n.d.).

In order to be considered bullying, the behavior must be aggressive and include:

- **An Imbalance of Power:** Kids who bully use their power—such as physical strength, access to embarrassing information, or popularity—to control or harm others. Power imbalances can change over time and in different situations, even if they involve the same people.
- **Repetition:** Bullying behaviors happen more than once or have the potential to happen more than once.

Bullying is not simply conflict, which is a disagreement or argument in which both sides express their views. It is also not a one time event ([NBPC](#), nd). Also of note, bullying increases the year following a transition to a new school ([DSD](#), 2023).

Students

In 2021, 12.8% of Davis County students grades 6, 8, 10, 12 reported bullying more than once in the past year, which is less than the State at 14.4%. The question asked of students is: During the past year (12 months), how often (if at all) have you been picked on or bullied by a student on school property? ([SHARP](#), 2021).

This measure is trending downward overall and for most grades from 2017 to 2021. Sixth grade students had the highest rate of bullying at 21.5%. Decreases between 2019 and 2021 may be due to limited in-person school days during the COVID-19 Pandemic ([SHARP](#), 2021).

In 2021, 6.8% of Davis County students in grades 6, 8, 10, and 12 reported avoiding school because of bullying one or more days in the past 30 days. This is better than the State average of 9.2%. The question asked is: During the past 30 days, on how many days (if any) did you not go to school because

you felt you would be unsafe at school or on the way to or from school? Most Davis County grades experienced declines in not attending school due to safety concerns with the exception of 6th grade students ([SHARP](#), 2021).

In Davis School District, of safe school violations, harassment/bullying and threat/intimidation are the most common infractions that lead to disciplinary actions. Bullying is the top concern reported through the [SafeUT](#) app (DSD, 2021-2022).

Cyberbullying is willful and repeated harm inflicted through the use of computers, cell phones, and other electronic devices ([CRC](#), n.d.). For Davis County students, cyberbullying data trended upward for all grades between 2019 and 2021. In 2021, 1 in 4 students reported being cyberbullied ([SHARP](#), 2021). Virtual schooling due to the COVID-19 Pandemic may have contributed to this increase. Hispanic/Latino students and 10th grade females were more likely to report being victims than their counterparts. While this data is student specific, it's important to note that cyberbullying can occur with adults as well.

Adults

Nationally, 41% of adults in 2020 reported experiencing any type of online harassment. Although this was similar to 2017, a greater percentage of respondents reported more severe forms of harassment in 2020, including physical threats, stalking, sustained harassment, and sexual harassment. A growing percentage cited their gender or their racial and ethnic background as reasons why they believe they were harassed online ([Pew Research Center](#), 2021).

Community Themes

Children learn behaviors from watching and listening to the world around them including adults and older kids in their home, friends, students at school, and what they see on TV and the internet. In community focus groups held in 2022, participants shared stories of adults and children being discriminated against, bullied, and actively excluded because of language spoken, skin color, religious beliefs, sexual orientation and gender identity (SOGI), and disabilities. Examples of active social

exclusion and feelings of being rejected were related to all the reasons mentioned previously.

In cases of student to student bullying, parents sometimes justified the bully's behavior. In one instance a parent verbally agreed with derogatory statements toward a Hispanic student stating that they should return to their home country. Other examples included teachers and principals instantly blaming the victim without considering other possibilities. In other situations, school officials and law enforcement had been involved on multiple

occasions, yet no justice was ever enforced. One parent shared this experience which has been translated from Spanish:

"My son was attacked, they almost killed him, and the principal blamed my son... In reality, how you really feel, especially when you have children in school, is that you are playing a game in a place that is hostile to you, where they have the referee and they charge everything against you, where the vast majority of the stadium is full of fans of the other team." (DCHD, 2022)

Resources for Victims of Bullying

Prevention Resources, Davis School District	<i>Prevention resources for suicide, child abuse, human trafficking, and bullying</i>	davis.k12.ut.us/departments/student-family-resources/preventioncommunity
Cyberbullying Research Center	<i>Shares resources, laws, research, presentations, and more about cyberbullying</i>	cyberbullying.org
Pacer's National Bullying Prevention Center	<i>Actively leads social change to prevent childhood bullying, so that all youth are safe and supported in their schools, communities, and online by providing resources for students, parents, educators, and others</i>	pacer.org/bullying
stopbullying.gov	<i>Provides information from various government agencies on what bullying is, what cyberbullying is, who is at risk, and how you can prevent and respond to bullying</i>	stopbullying.gov

Elder Abuse

Elder abuse is the intentional act or failure to act by a caregiver or other individual in a relationship involving an expectation of trust that causes or creates a risk of harm to an individual age 60 or older. Common types of elder abuse include physical abuse, sexual abuse, emotional or psychological abuse, neglect, or financial abuse ([CDC](#), 2021). People over the age of 65 are considered vulnerable adults since they may experience sensory impairments, cognitive disorders, or mobility limitations ([CDC](#), 2012). According to Utah law, if a person suspects a vulnerable adult is being abused, neglected, or exploited, they are required to report their suspicions to law enforcement or Adult Protective Services ([DAAS](#), n.d.).

Unfortunately, many cases of elder abuse go unreported. A recent assessment gives the top five reasons why Utahns do not report, including:

- Fear of retaliation/fear for safety
- Not knowing what APS or law enforcement would do
- Perpetrator is a family member
- Not wanting to get a family member in trouble
- Wanting to resolve the issue themselves or with the help of family/friends
- Embarrassed/ashamed ([UDHS & USU](#), 2020-2021)

Adult Protective Services (APS) investigates cases of abuse, neglect, and exploitation of vulnerable adults in Utah. In 2021, they received 11,228 allegation reports. Of those reports, 4,659 (41%) cases were opened. The majority of allegations that were supported included financial exploitation, physical injury/harm, and emotional abuse.

In 2021, APS received 736 reports of elder abuse in Davis County, and 16 (2%) were supported. The others were found to be inconclusive, undetermined, or without merit. The two most common allegations were emotional abuse and financial exploitation, followed by caretaker neglect. The average age of the victim was 65 years old ([DAAS](#), 2021).

The Long-term Care Ombudsman Program advocates for residents living in long-term care facilities, including skilled nursing facilities, assisted living facilities, and short-term rehab. The Ombudsman investigates and helps to resolve concerns with quality care, resident rights, and federal and state regular requirements. They also educate staff, family members, residents, and the community about issues pertaining to long-term care ([UDHHS](#), n.d.; [DCHD](#), n.d.).

The Coalition for Abuse Prevention of the Elderly (CAPE) meets monthly to increase awareness of elder abuse and financial exploitation. The coalition goals include prevention, increase community awareness, share resources, and create a forum for case staffing. Along with Davis County's CAPE, nine additional multidisciplinary teams in Utah focus on collaborating with community agencies to meet the needs of vulnerable adults.

Resources for Victims of Elder Abuse

Adult Protective Services	<i>Investigates allegations of abuse, neglect, and exploitation of vulnerable adults. Anyone over the age of 65 and people between 18-64 years old with impairments that keep them from taking care of themselves are considered vulnerable adults. Reports can be made by telephone or online through the website</i>	Elder Abuse Reporting Line: 1-800-371-7897 daas.utah.gov/adult-protective-services
Coalition for Abuse Prevention of the Elderly (CAPE)	<i>Connects community case workers and partners together to share resources and discuss cases of concern</i>	801-525-5050 opt. 5
Davis County Ombudsmen Hotline	<i>Advocates for residents living in long-term care facilities, including skilled nursing facilities, assisted living facilities, and short-term rehab.</i>	801-525-5060

Domestic Abuse

Domestic abuse is abusive behavior used by one person over another to gain or maintain power and control in a familial or intimate relationship ([UDVC](#), n.d.) Abuse can be physical, sexual, emotional, psychological, financial, technological, spiritual, and stalking. This includes behaviors that intimidate, manipulate, humiliate, isolate, frighten, terrorize, coerce, threaten, blame, hurt, injure, or wound someone ([OLRGC](#), 2019). Many terms are used to describe abuse. It may also be referred to as: domestic violence, battery, or family, spousal, relationship, or dating violence.

The State of Utah specifies that domestic violence may be violence between one cohabitant against another ([Utah State Legislature](#), 2022). Domestic violence (DV) is also known as intimate partner violence (IPV). The term “intimate partner” includes current and former spouses and dating partners ([UDHHS](#), n.d.).

In Utah, 1 in 3 Utah women will experience domestic violence in their lifetime, which is slightly higher than the national average ([UWLP](#), 2017). Of Utah women who experience DV, 66% indicated the perpetrator was a current or former husband or male live-in partner, and 26% indicated the abuser was a former boyfriend. DV accounts for approximately 19 deaths per year in Utah and approximately 12% of suicides are DV-related. Experts believe DV is underreported ([UWLP](#), 2017).

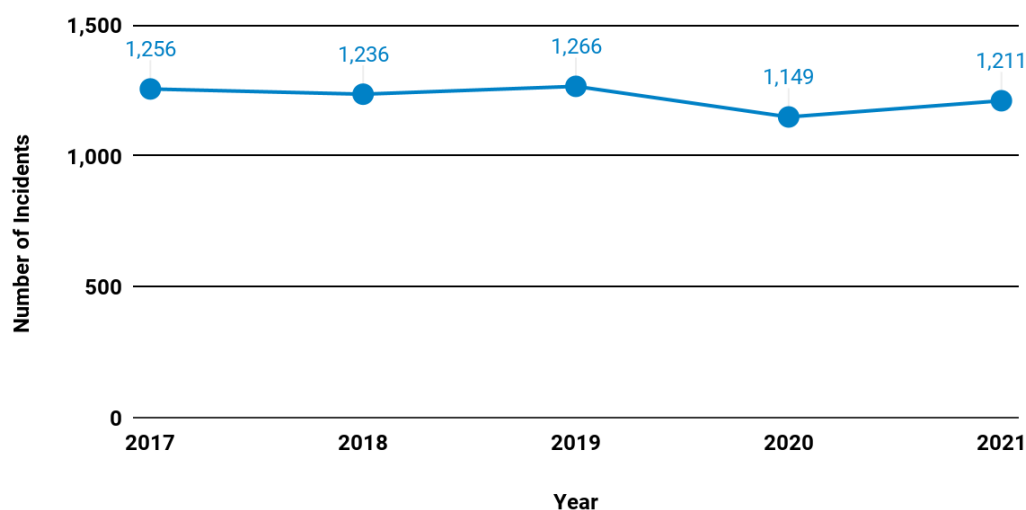
Utah’s Domestic Violence Fatality Review Committee ([UDOH](#), 2020) reports the following statistics related to DV and IPV homicides:

- In Utah, 22.7% of homicide victims died in an intimate partner or DV related incident
- Females accounted for 85.9% of victims in IPV related homicides
- IPV-related incidents impact all age groups in Utah
- 53.9% of victims had a known IPV history that was reported to authorities by friends, family members, neighbors, or someone else

The National Incident Based Reporting System (NIBRS) reports DV incidents in Davis County as reported by law enforcement. According to NIBRS, the number of DV incidents have remained fairly consistent since 2017 with a slight dip in 2020, as shown in Figure 157 ([NIBRS](#), 2021).

During community focus groups held in 2022, a woman talked about living with a mentally and physically abusive husband who would not let her have any friends. It was difficult for her to make connections and find support, and affected her mental health. She eventually filed for divorce which helped her feel empowered to create a better life for her and her children (DCHD, 2022).

Figure 157: Domestic Violence Incidents, Davis County, 2017-2021



Community Supports

Agencies and partnerships in Utah and Davis County are working on advocacy, education, collaboration, and leadership to prevent and reduce domestic abuse.

Safe Harbor Crisis Center

Safe Harbor Crisis Center, Davis County's domestic violence shelter, provides shelter, supportive services, and advocacy to survivors of DV and sexual assault. In 2021, they served 3,077 clients, 346 children, and 5,733 shelter nights were provided. In fiscal year 2021, they received 1,000 requests for emergency shelter (about 83 requests every month) and were able to fill 363 of those requests. Six hundred requests were not met because the shelter was full or individuals did not qualify for services ([Safe Harbor](#), 2021). Figure 158 shows the number of clients they served in all their programs beginning fiscal year 2017.

Throughout the COVID-19 Pandemic, they reported a rise in DV calls and an increase in call intensity. Because of increased demand for services, they plan to expand their emergency shelter and transitional housing ([Salt Lake Tribune](#), 2021).

Lethality Assessment

The Lethality Assessment Protocol (LAP) is a tool that has been used in Davis County for several years. Victims are asked a series of questions to assess risk. The screening helps determine if DV victims are at an increased risk of being injured or

killed by their perpetrator. It is also a tool to connect them to services ([UDVC](#), n.d.).

All Davis County law enforcement agencies are trained to administer LAP when they encounter DV situations. From January 2021 to September 2022, law enforcement completed 938 LAP screenings. Of the screenings, 70% were high danger, 46% indicated strangulation, and 50% accessed services at Safe Harbor (UDVC, 2021-2022).

During the 2023 Utah State Legislative session, SB 117 was passed formalizing lethality assessment policy statewide. It requires law enforcement officers who are responding to allegations of domestic violence against an intimate partner to complete a lethality assessment ([Utah State Legislature](#), 2023). Lethality assessments have the potential to prevent tragedies (Utah Governor's Office, 2023).

Renter Protections

During the 2023 Utah State Legislative session, HB 314, was passed outlining the circumstances under which a renter who is a victim of domestic violence can terminate their rental agreement ([Utah State Legislature](#), 2023). This step provides domestic violence victims with additional protections (Utah Governor's Office, 2023).

Davis County Domestic Violence Coalition

Davis County's Domestic Violence Coalition convenes monthly to raise awareness and prevent DV in Davis County. Partners from various community sectors participate in the coalition.

Figure 158: Clients Served in All Programs, Safe Harbor



Sexual Abuse

Sexual abuse affects people of all ages and backgrounds. Nearly 1 in 3 women will experience some form of sexual violence during their lives ([IBIS](#), 2021). Sexual assault is defined as any form of forced or coerced sexual contact without consent, including (but not limited to) rape, incest, molestation, oral sex, harassment, lewdness, forcing a person to take sexual pictures, or unwanted touching.

Rape is a specific form of sexual assault and is defined in Utah as sexual intercourse without the victim's consent ([UWLP](#), 2016). Data indicates that 1 in 6 women and 1 in 25 men experience rape or attempted rape during their lifetime. Rape is the only violent crime that Utahns experience at a higher rate than the national average, which has been the case for many years ([IBIS](#), 2020). On average, in 2020, one rape was reported every 6.75 hours in Utah ([UDPS](#), 2020).

The Utah Department of Health and Human Services ([2021](#)) reports:

- 3 out of 4 sexual assaults go unreported to police
- Those with a history of sexual violence have significantly worse health outcomes
- Utah rape rates are 33% higher than U.S. rape rates
- In 2018, 11% of Utah adults said someone either had sex or tried to have sex with them without consent
- Half of those arrested for sexual violence perpetration are under the age of 25
- While sexual violence is common, it is also preventable through primary prevention strategies and policies

National research estimates that 8 out of 10 rape victims report they were first raped before they turned 25 and 4 out of 10 rape victims report they were first raped before their 18th birthday ([IBIS](#), 2021). A 2019 survey of Utah high schoolers reported the following:

- 7.6% of high schoolers experienced forced sexual intercourse

- 14.3% of high schoolers experienced sexual violence in the last 12 months
- 9.5% of students who dated in the last 12 months experienced sexual dating violence one or more times ([UWLP](#), n.d.)

For the 2021-2022 school year, Davis School District students had the following Safe Schools Policy infractions: 325 sexual harassment, 254 sexting, and 23 sexual assault. Violations of a sexual nature are increasing in Davis School District (DSD, 2021-2022).

Davis County's rate of rape is 34.8 adults per 100,000, which is lower than the State rate of 39.6 ([IBIS](#), 2018-2020). In 2020, Utah police departments reported 1,515 rape incidents with 11% of those being reported in Davis County. The majority of rape victims were female (91%) and the majority of rape incidents occurred at the victim's residence by an acquaintance ([FBI CDE](#), 2020).

In Utah, populations that experience an increased risk of sexual violence include those who identify as a lesbian, gay, or bisexual, are from a low-income household, or do not have a college degree ([UDHHS](#), 2018).

Experiencing sexual violence can have a negative effect on one's health and behaviors later in life. Utahns who experienced sexual violence reported a higher prevalence of seven or more days of poor mental health in the past month (38.6% vs. 14.9%), seven or more days of poor physical health in the past month (22.7% vs. 13.2%), being an every day smoker (9.4% vs. 4.9%), and binge drinking (18.2% vs. 11.6%) compared to Utahns who had not experienced sexual violence ([UDHHS](#), 2018).

In addition to negative health impacts, sexual violence also impacts communities financially. In 2011, the costs resulting from sexual violence totaled nearly \$5 billion, almost \$1,700 per Utah resident. Utah's government spent more than \$92 million on people known to have perpetrated sexual violence and only \$569,000 was spent on preventing sexual violence ([IBIS](#), 2021).

Sextortion

Sextortion is a rising form of online sexual exploitation and occurs when threats are made to expose a sexual image in order to force a person to send sexual images, engage in sexual activity, or send money. This form of blackmail can occur online via messaging apps, social media platforms, and gaming systems ([NCMEC](#), 2016).

In 2021, the Internet Crime Complaint Center received over 18,000 sextortion complaints in the U.S. They report that cases have drastically increased in recent years. In Utah, the FBI has seen an increase in cases consistent with national statistics. On average, they receive a few new cases each week as opposed to a few years ago when they received one case a month. Children and teens are victims and in Utah, the FBI notes, boys between the ages of 14-17 are particularly susceptible ([KSL](#), 2022).

In April 2019, a tragic case of sextortion occurred when a Davis County teenage male was being extorted and died by suicide. His parents shared their story with the media to help others understand the dangers of sextortion ([Deseret News](#), 2019).

The Internet Crimes Against Children (ICAC) Task Force is a multi-jurisdictional task force that investigates and prosecutes individuals who use the internet to exploit children. It was created in 2000 under the direction of the Utah Attorney General's Office and is one of 61 ICAC task forces across the U.S. Utah's ICAC has 37 local, state and federal police agencies (affiliates) involved in the task force. There are also over 100 ICAC Task Force police officers throughout the State including two law enforcement agencies in Davis County and the Davis County Sheriff's Office ([ICAC](#), 2022).

Local Resources for Victims of Domestic & Sexual Abuse

Davis County Domestic Violence Coalition	<i>Seeks to raise awareness of domestic violence issues</i>	dcdvc16@gmail.com
Safe Harbor	<i>Provides shelter, supportive services, and advocacy to survivors of domestic violence and sexual assault, as well as education, awareness and resources to the community at no cost. Shelter and crisis line operate 24/7.</i>	Crisis Line: 801-444-9161 Business Line: 801-444-3191 safeharborhope.org

State & National Resources for Victims of Domestic & Sexual Abuse

Elizabeth Smart Foundation	<i>Bringing hope and ending the victimization and exploitation of sexual assault through education, healing, and advocacy</i>	elizabethsmartfoundation.org
Rape, Abuse, & Incest National Network (RAINN)	<i>Sexual assault hotline, victim services, public education, public policy, consulting and training</i>	800-656-4673 rainn.org
Report sextortion	<i>If young people are being exploited, they are the victim of a crime and should report it by calling or reporting online</i>	1-800-CALL-FBI tips.fbi.gov
Saprea	<i>Provides healing educational retreats, support groups, and online healing resources for survivors of child sexual abuse. Also provide online prevention resources and community education materials.</i>	saprea.org
StrongHearts Native Helpline	<i>A safe, confidential and anonymous domestic, dating and sexual violence helpline for Native Americans and Alaska Natives, offering culturally-appropriate support and advocacy.</i>	844-762-8483 strongheartshelpline.org
Utah Coalition Against Sexual Assault (UCASA)	<i>Education and resources</i>	ucasa.org/resources
Utah Domestic Violence Coalition (UDVC)	<i>Provide free and confidential support for victims and survivors of domestic and intimate partner violence.</i>	udvc.org
VetoViolence	<i>Resources for violence prevention</i>	vetoviolence.cdc.gov

Human Trafficking

Human trafficking is a modern-day form of slavery involving the illegal trade of people for exploitation or commercial gain. The three most common types of trafficking are sex trafficking, forced labor, and debt bondage. Every year, millions of men, women, and children are trafficked worldwide, including in Utah. Trafficking can happen in any community and victims can be any age, race, gender, or nationality (DHS, n.d.). Traffickers use violence, manipulation, force, fraud, coercion, or false promises of well-paying jobs or romantic relationships to lure victims into trafficking situations. Language barriers, fear of their traffickers, and fear of law enforcement frequently keep victims from seeking help. This makes human trafficking a hidden crime. It is estimated that human trafficking is a \$32 billion per year industry, second only to drug trafficking as the most profitable form of transnational crime (UOAG, 2018).

In 2020, during the COVID-19 Pandemic, the U.S identified 10,583 trafficking situations which remained consistent with previous years. The majority of cases (72%) were sex trafficking followed by labor. Because of the COVID-19 Pandemic, recruitment decreased at common recruitment sites such as strip clubs, foster homes, and schools but drastically increased on social media through Facebook and Instagram. In most

cases, victims were recruited by family members or an intimate partner, especially in sex trafficking situations (PP, 2020).

In 2020, the National Human Trafficking Hotline received 182 Utah tips via phone calls, texts, web chats, emails, and online with the majority coming from community members and victims. From those tips, 64 had evidence of potential human trafficking. The majority of tips were reporting sex trafficking (NHTHDR, 2020).

Davis County data was not available, but local trafficking cases have been in the media. For example, in October 2021, a Bountiful man was arrested on multiple felony charges for human sex trafficking involving multiple victims (Fox13, 2021).

Utah Trafficking In Persons Task Force (UTIP) was commissioned by Utah Attorney General Sean Reyes to combat modern slavery. The task force is composed of many entities, including SECURE Strike Force and other law enforcement agencies, nonprofit organizations, victim advocates and victim outreach groups. The task force offers presentations for citizens, churches, and community organizations to train, educate, and raise awareness of human trafficking. These trainings teach individuals what human trafficking is and how to recognize and respond to warning signs (UOAG, n.d.).

Resources for Victims of Human Trafficking

Aspen Magdalene House	A sanctuary for victims of human trafficking in Utah	aspenhouseslc.org
On Watch	A survivor-led training designed to empower you to spot, report, and prevent sex trafficking where you live, work, and play	iamonwatch.org
Operation Underground Railroad	Offers freedom and healing to survivors of human trafficking and exploitation through direct intervention and aftercare	ourrescue.org
Safe UT	Provides real-time crisis intervention to youth through texting and a confidential tip program right from a smartphone	833-372-3388 (833-3SAFEUT) safeut.org
Utah Trafficking in Persons Task Force (UTIP)	Focus on identifying victims of all human trafficking; investigating and prosecuting all forms of trafficking; providing comprehensive services to all trafficking victims; and providing training, increasing awareness, and community outreach	Report Human Trafficking: 801-200-3443 utip.taskforce.org

Community Supports

The [2019 Davis County Violence, Abuse, & Trauma Assessment](#) contains data; recommendations; a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis; and a resource directory. The report provides an overview of violence in Davis County and what can be done to reduce and prevent violence.

A Davis County Abuse Prevention Workgroup was convened in September 2022 to create an abuse prevention strategic plan focused on addressing the root causes of abuse that exist in the community.

Family & Social Support

Family and social support is the quality of relationships among family members, friends, and neighbors. Increased social support protects physical and mental health, which promotes healthy behaviors and choices ([CHR&R](#), n.d.).

For data on family size, see the Population Characteristics section of the About Davis County chapter.

Youth Risk & Protective Factors

A community's family and social support network influences the risk and protective factors experienced by its residents, including youth.

The Student Health and Risk Prevention (SHARP) Survey is a valuable tool for measuring the prevalence of risk and protective factors among youth at the local and state level. The survey is administered to Utah students in grades 6, 8, 10, and 12 every other year. It is the main source of data for risk and protective factors across four domains:

1. Community
2. Family
3. School
4. Individual and peer

Reports summarizing SHARP survey results include profiles for the prevalence of 10 protective factors and 22 risk factors among the student population. The lower the prevalence of risk factors and the higher the prevalence of protective factors, the more

supportive a community is for its youth. Based on the SHARP profiles for both types of factors, Davis County students had more protective factors and fewer risk factors compared to Utah students ([SHARP](#), 2021).

However, when profiles were examined by student race and ethnicity, there were differences in how common certain risk and protective factors were between groups ([DCHD](#), 2022). Appendix 10 summarizes these differences for Davis County.

Davis County Health Department compiles summary [slides of local SHARP data](#) annually, which can be found on Davis County Health Department [Reports & Assessments](#) webpage.

Complete reports of SHARP data for all counties in Utah are available at sumh.utah.gov/data-reports/sharp-survey.

Protective Factors

Protective factors are life experiences that have a positive influence on youth and reduce negative health outcomes. They create a buffer against the negative or risky life experiences and decrease the likelihood of adolescents engaging in unhealthy behaviors like drug use, violence, or delinquency. Research has identified strong bonding to family, school, community and peers as a protective factor. Bonding must involve opportunities for youth to contribute to their surroundings, give them the skills to contribute, and consistently recognize their efforts and accomplishments. A positive community climate with healthy beliefs and clear standards for behavior is also protective for youth ([SHARP](#), 2021).

According to the SHARP survey, the most common protective factors among Davis County students are:

- Opportunities for positive social involvement (in the school and family domains)
- Family attachment
- Belief in “right” or “wrong” (i.e., moral order)

The protective factors that have the most room for improvement in Davis County are:

- Positive social involvement, or participating meaningfully in important activities (peer/individual domain)

- Interaction with prosocial peers, meaning associating with peers who engage in positive behaviors (peer/individual domain)
- Rewards for positive social involvement, such as recognition, kudos, or incentives (community and family domains)

A framework for adult protective factors is summarized in the Culture of Health chapter.

Risk Factors

Risk factors are social and environmental characteristics known to predict poor health outcomes and increase the likelihood of drug use, delinquency, school dropout, and violent behavior among youth. These characteristics are related to school, community, and family environments along with interactions between students and their peer groups ([SHARP, 2021](#)).

For example, youth ages 16 to 19 who are not working or in school are at an increased risk of violence, substance abuse, and emotional and cognitive deficits. County Health Rankings and Roadmaps (CHR&R) reports that 4% of Davis County youth are in this risk group, which is lower than the national average of 11% ([CHR&R, 2022](#)).

Figure 159 summarizes the relationship between 20 youth risk factors and six negative health outcomes. Research has shown that when risk factors are reduced, it decreases risk for multiple health outcomes ([University of Washington, 2016](#)). Each risk and protective factor can be related to specific interventions proven to be effective in either reducing risk or enhancing protection for youth ([SHARP, 2021](#)).

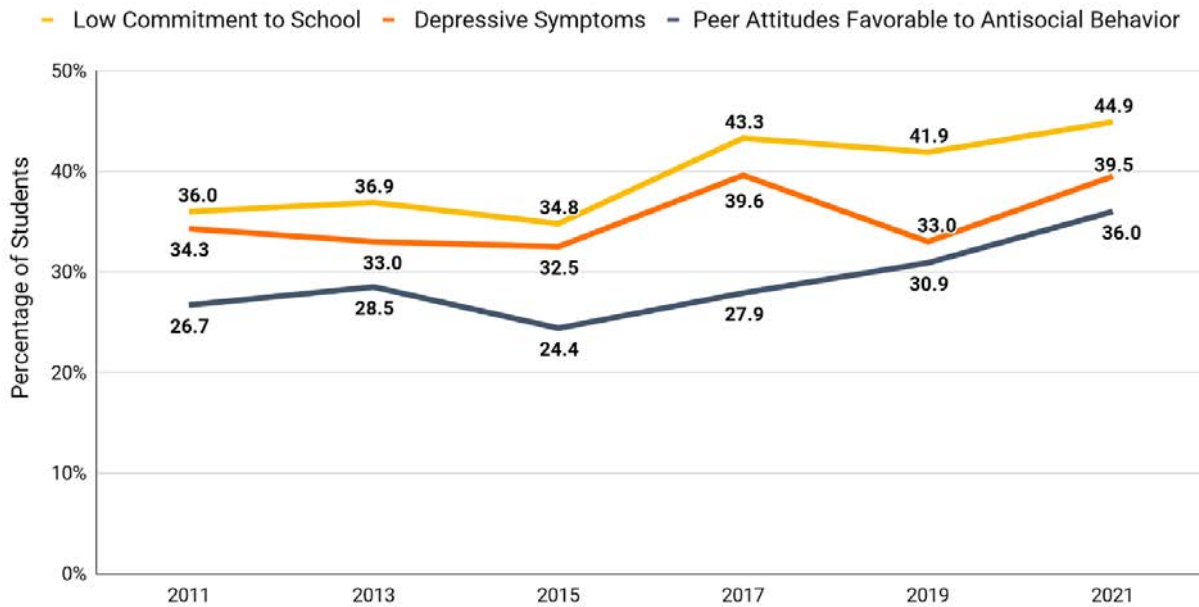
Figure 159

Risk Factors for Adolescent Problem Behavior (2016)

Adapted with permission from The Center of Communities that Care, University of Washington

Domain	Risk Factor	Outcome					
		Substance Abuse	Violence	Delinquency	School Drop-Out	Teen Pregnancy	Depression & Anxiety
Community	Availability of Drugs						
	Availability of Firearms						
	Community Laws & Norms Favorable Toward Drug Use, Firearms, & Crime						
	Media Portrayals of the Behavior						
	Transitions & Mobility						
	Low Neighborhood Attachment & Community Disorganization						
	Extreme Economic Deprivation						
Family	Family History of the Problem Behavior						
	Family Management Problems						
	Family Conflict						
	Favorable Parental Attitudes & Involvement in the Problem Behavior						
School	Academic Failure Beginning in Late Elementary School						
	Lack of Commitment to School						
Peer / Individual	Early & Persistent Antisocial Behavior						
	Rebelliousness						
	Gang Involvement						
	Friends Who Engage in the Problem Behavior						
	Favorable Attitudes Toward the Problem Behavior						
	Early Initiation of the Problem Behavior						
	Constitutional Factors						

Source: [University of Washington, 2016](#)

Figure 160: Leading Student Risk Factor Trends, Davis County, 2011-2021

Data: SHARP, 2011-2021 (grades 6, 8, 10, & 12)

Among Davis County students, the least common risk factors reported in 2021 were:

- Gang involvement
- Early initiation of drug use
- Friends who use drugs

The most commonly reported risk factors by Davis County students were:

- Low commitment to school
- Depressive symptoms
- Attitudes favorable to antisocial behavior

Figure 160 shows the prevalence of these three areas of concern over the last decade. The leading risk factors have been increasing over time in Davis County.

Risk and protective factor data related to specific outcomes can be found in the Suicide section of the Health Outcomes chapter and the Substance Use and Addiction section of the Health Behaviors chapter. Additional information on factors related to specific health outcomes can be found at youth.gov.

Adverse Childhood Experiences (ACEs)

Childhood experiences, both positive and negative, are a significant factor in brain development and lifelong health and opportunity. Because of this, early childhood experiences are an important public health issue. Much of the foundational research in this area has been referred to as adverse childhood experiences (ACEs). The wide-ranging health and social consequences of ACEs emphasize the importance of preventing them before they occur. ACEs have been linked to a variety of health factors and outcomes including:

- Suicide
- Depression
- Substance abuse
- Smoking
- Cancer
- Heart disease
- Intimate partner violence

- Unemployment
- Financial stress
- Stroke
- Sexually transmitted infections
- Diabetes
- Sexual violence
- Poor academic performance
- Asthma
- Frequent headaches
- Obesity
- Autoimmune diseases
- Teen pregnancy

As the number of ACEs increases, so does the risk for negative outcomes. They also have a tremendous impact on future violence, victimization, and perpetration.

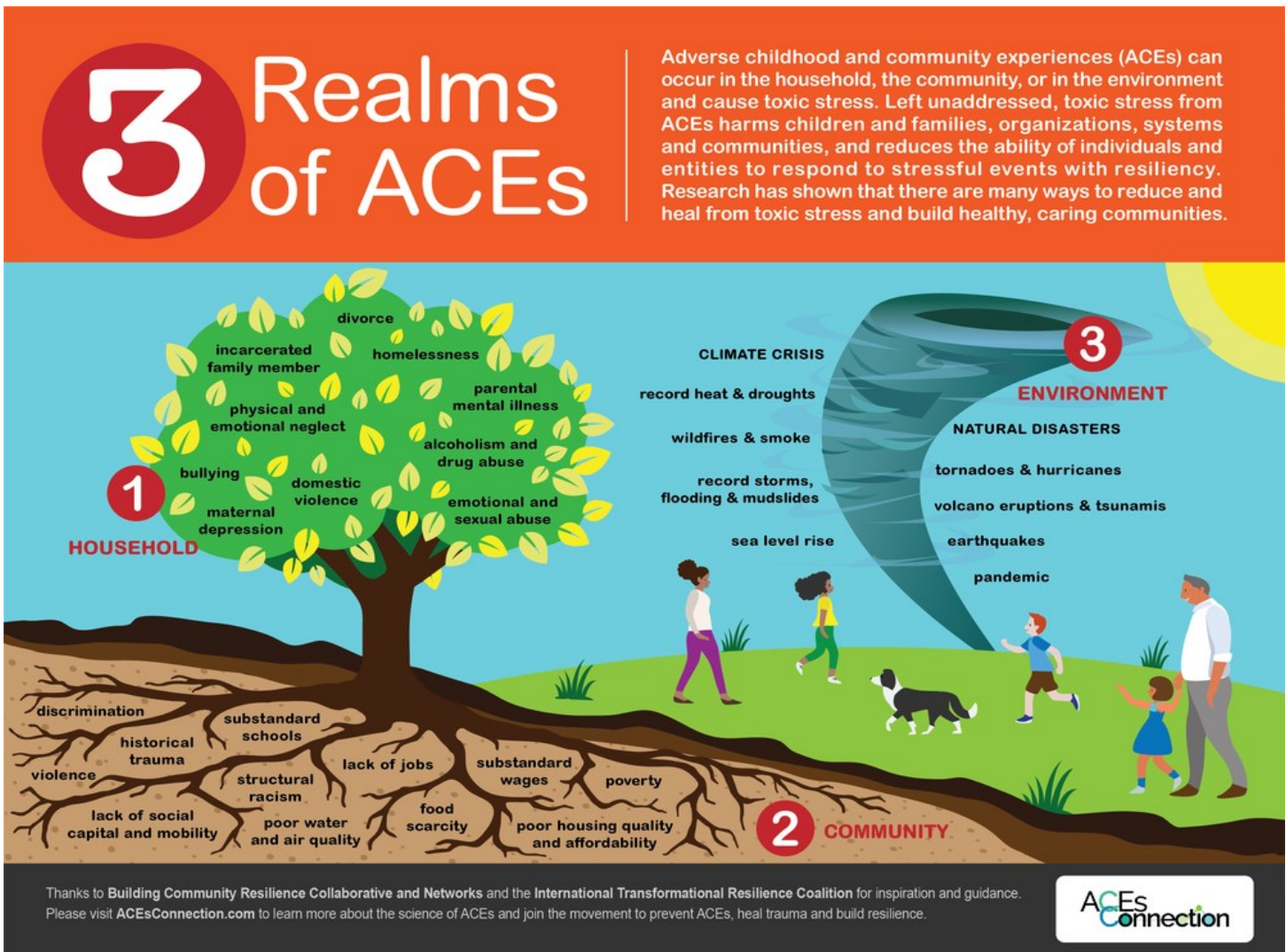
As defined in the original study, the ten ACEs are listed in Figure 161. They can be organized into three types: abuse, household challenges, and neglect ([CDC](#), 2021).

Figure 161

Abuse	Household Challenges	Neglect
Emotional Abuse: A parent, stepparent, or adult living in your home swore at you, insulted you, put you down, or acted in a way that made you afraid that you might be physically hurt. Physical Abuse: A parent, stepparent, or adult living in your home pushed, grabbed, slapped, threw something at you, or hit you so hard that you had marks or were injured. Sexual Abuse: An adult, relative, family friend, or stranger who was at least 5 years older than you ever touched or fondled your body in a sexual way, made you touch his/her body in a sexual way, attempted to have any type of sexual intercourse with you.	Mother treated violently: Your mother or stepmother was pushed, grabbed, slapped, had something thrown at her, kicked, bitten, hit with a fist, hit with something hard, repeatedly hit for over at least a few minutes, or ever threatened or hurt by a knife or gun by your father (or stepfather) or mother's boyfriend. Substance abuse in the household: A household member was a problem drinker or alcoholic or a household member used street drugs. Mental illness in the household: A household member was depressed or mentally ill or a household member attempted suicide. Parental separation or divorce: Your parents were ever separated or divorced. Incarcerated household member: A household member went to prison.	Emotional neglect: Someone in your family never or rarely helped you feel important or special, you never or rarely felt loved, people in your family never or rarely looked out for each other and felt close to each other, or your family was never or rarely a source of strength and support. Physical neglect: There was never or rarely someone to take care of you, protect you, or take you to the doctor if you needed it, you didn't have enough to eat, your parents were too drunk or too high to take care of you, or you had to wear dirty clothes.

Source: [CDC](#), 2021

Figure 162



Source: [PACES Connection](https://acesconnection.com), n.d.

Since the ACEs study was released in 1998, additional ACEs have been identified such as racism, bullying, and homelessness. See Figure 162 for a broader view of three realms of ACEs in households, the environment, and the community ([PACES Connection](https://acesconnection.com), 2020).

State and National Findings

In 2020, the Utah Department of Health released an ACEs report with the following key findings ([UDOH](https://udoh.utah.gov), 2020):

- 61.4% of Utah adults experienced at least one ACE and 24.3% experienced three or more
- Emotional abuse was identified as the most common ACE experienced by Utahns (36.9%)

- Utah women and the American Indian/Alaska Native population experience a significantly higher prevalence of four or more ACEs compared to Utah as a whole
- Utah households making less than \$25,000 a year are more heavily impacted by ACEs than other income levels and have a significantly higher prevalence of four or more ACEs compared to Utah as a whole
- ACEs are preventable and their negative impacts can be mitigated/redefined

The report also compared Utahns with national respondents:

- Utahns had higher percentages of household mental illness (22.3% vs 15.5% nationally)
- Utahns had higher percentages of sexual abuse (13.1% vs 11.6% nationally)
- Utahns had higher percentages of emotional abuse (36.9 vs 34.4% nationally)
- Utahns had higher percentages of physical abuse (19.0% vs 17.9% nationally)
- Nationally, there are higher percentages of divorce (27.6% vs 22.2% in Utah)
- Nationally, there are higher percentages of household substance abuse (27.6% vs 23.0% in Utah)
- Nationally, there are higher percentages of witnessing domestic violence (17.5% vs 15.2% in Utah)

Table 80: Percent of Adults Reporting Past Adverse Childhood Experiences (ACEs)

Number of ACEs	Davis	Utah
0	38.4%	36.7%
1 to 3	45.1%	46.1%
4 or More	16.5%	17.2%
Abuse & Neglect	Davis	Utah
Physical	20.3%	22.0%
Sexual	14.4%	14.7%
Emotional	38.1%	39.2%
Any Form of Abuse	48.1%	49.9%
Household Challenges	Davis	Utah
Mental Illness	26.6%	24.3%
Incarcerated Household Member	6.1%	8.2%
Domestic Violence	14.4%	16.2%
Substance Abuse	20.5%	23.8%
Parental Divorce or Separation	22.2%	22.3%

Data: [IBIS](#), 2016, 2018, & 2020

Davis County Findings

In Davis County, 3 in 5 adults have experienced at least one ACE and nearly 1 in 2 have experienced some form of abuse. Among adults, 16.5% have experienced four or more ACEs, which has increased significantly since the measure was added to the Behavioral Risk Factor Surveillance System survey in 2013. As shown in Table 80, the most common ACEs reported in Davis County are:

- Emotional abuse (38.1%)
- Living with someone with a mental illness (26.6%)
- Parental divorce or separation (22.2%)

For current child abuse data, see the Violence and Abuse section of this chapter.

Positive Childhood Experiences (PCEs)

Positive childhood experiences (PCEs) are essential to a child's development and help them become resilient adults who are able to cope with life's challenges. Studies show that PCEs protect adult mental health and buffer against the negative lifelong health effects caused by ACEs. Since every child does not come from a safe, stable, and nurturing home, other adults in a child's life can provide the caring and safe relationship they need.

Positive childhood experiences include:

- Feeling able to talk to their family about feelings
- Feeling their family stood by them during difficult times
- Enjoying participating in community traditions
- Feeling a sense of belonging in high school
- Feeling supported by friends
- Having at least two non-parent adults who took genuine interest in them
- Feeling safe and protected by an adult in their home ([HOPE](#), 2020)

Local Family/Social Support Resources		
Davis Mindfulness Center	<i>A place where community members can improve their ability to manage and enjoy life, and develop and strengthen inner resources for coping, growing, and healing</i>	dbh.utah.gov/mindfulness/
EveryDay Strong	<i>Provides a handbook, videos, and a podcast to help adults become supportive to the youth in their life</i>	unitedwayuc.org/get-involved/everyday-strong
Head Start	<i>Programs designed to promote school readiness for children from low-income families</i>	davis.k12.ut.us/academics/early-childhood/head-startearly-head-start-and-title-i-preschool
Open Doors	<i>Davis County case management, crisis nursery, food pantry, and Circles peer mentoring program for those affected by intergenerational poverty</i>	opendoorsutah.org
State Family/Social Support Resources		
Care About Childcare, Weber State University	<i>Helps families make informed choices about child care and identify providers that fit their needs and shares many different resources for parents and child care providers</i>	weber.edu/care-about-childcare/default.html
Caring Connections Grief Support Groups	<i>Provides information about coping with grief and loss, as well as a space for support between individuals who have experienced a similar loss</i>	nursing.utah.edu/grief-support-groups
Help Me Grow	<i>An information and referral helpline that provides parents, physicians, and providers with personal care coordination, free child development and perinatal screenings, connection to community resources, and answers to pregnancy, parenting and child development questions</i>	helpmegrowutah.org
Mindfulness Utah	<i>Community resource for finding highly trained mindfulness, meditation, and mindful movement instructors, courses, and practitioners in Utah</i>	mindfulnessutah.com
Strong Parents, Stable Children, USU Extension	<i>Online training on the five Strengthening Families Protective Factors, which promote optimal development by helping families succeed and thrive, even in the face of risks and challenges</i>	extension.usu.edu/relationships/spsc-training
Trauma-Informed Utah	<i>Helps organizations and businesses learn about, integrate, and adopt trauma-informed approaches at the organizational level</i>	traumainformedutah.org
Utah Act Early	<i>Help parents learn about healthy development for their newborns and young children by offering a variety of tools and checklists</i>	idrpp.usu.edu/act-early-utah/index
Utah Coalition for Protecting Childhood	<i>Focuses on addressing societal-level challenges like economic stability for all families, enhancing parenting skills and support systems for families, improving access to quality childcare and education, and creating systems of trauma-informed care that helps identify and support families that are struggling</i>	vippp.health.utah.gov/essentials-for-childhood/utah-coalition-for-protecting-childhood-ucpc/
Uplift Families	<i>Connects parents with programs, resources, and information that help them acquire the skills necessary to raise loving, responsible children</i>	upliftfamilies.org
Utah Marriage Commission, USU Extension	<i>Webinars, assessments, courses, and podcasts that can be used to strengthen relationships</i>	extension.usu.edu/strongermarriage

Community Supports

In 2018, ACEs & Trauma was chosen by Davis4Health partners as a priority issue and was included in Davis County's 2019-2023 Community Health Improvement Plan. The Human Services Directors Committee provides direction and input for this priority. Some of the ways in which community agencies are addressing ACEs, PCEs, and trauma include Davis County's Annual Community Resilience Symposium, the 2019 Violence, Abuse & Trauma Assessment which includes a resource directory, community Resilience documentary screenings, conducting ACEs screenings, and receiving funds to improve trauma-informed practices.

Trauma-informed approaches include working with publicly funded programs and systems to strengthen their understanding of the broad effects of trauma ([CCETIC](#), n.d.) Being trauma-informed means providing support and strengthening traumatized and distressed residents and communities. It involves addressing the effects of unresolved community trauma such as historical community disinvestment, poverty, inadequate and insufficient housing, violence, social isolation, and discrimination ([CHR&R](#), 2020). Connectedness and community support is important to prevent harm and increase community safety ([CDC](#), 2022).

National Family/Social Support Resources		
ACEs Aware	National effort to screen patients for Adverse Childhood Experiences (ACEs) to help improve and save lives	acesaware.org
Adverse Childhood Experiences (ACE's), CDC Violence Prevention	Works to understand ACEs and prevent them	cdc.gov/violenceprevention/aces
Center on the Developing Child at Harvard	Drive science-based innovation that achieves breakthrough outcomes for children facing adversity	developingchild.harvard.edu/science/key-concepts
Healthy Outcomes from Positive Experiences (HOPE)	Working to create a shift in systems of care, communities, and policies to value and actively bolster positive experiences and in turn, improve empathy, drive respect for human dignity, and foster trust among families	positiveexperience.org
No Hit Zone	Committed to the promotion of effective parenting techniques by instilling that no adult shall hit a child, no child shall hit another child, no adult shall hit another adult, and no child shall hit an adult. Offers a toolkit, parenting resources, and advocacy programs.	nohitzone.com
National Family Support Network	Works with families to enhance parenting skills, foster the healthy development and well-being of children, youth, and families, prevent child abuse, increase school readiness, connect families to resources, develop parent and community leadership, engage males and fathers, support healthy marital and couples relationships, and promote family economic success	nationalfamilysupportnetwork.org
Parent Guidance	Education and therapeutic support for parents and their children	parentguidance.org
Strengthening Families: The Protective Factors Framework	Research-informed approach to increase family strengths, enhance child development, and reduce the likelihood of child abuse and neglect	cssp.org/wp-content/uploads/2018/11/About-Strengthening-Families.pdf

Child Care

Access to affordable child care has many benefits for families, including increased earning potential for parents and guardians and life-long health, cognitive, and social development benefits for children. This is especially important for families and children with lower incomes and those that have been historically marginalized.

Investment in high-quality early childhood education for underserved children has one of the highest rates of return in public spending at 13% return on investment per child ([Heckman](#), 2012). A 2023 report finds that:

- Child care issues result in an estimated \$1.36 billion loss annually for Utah's economy
- Utah loses an estimated \$258 million annually in tax revenue due to child care issues
- Absences and employee turnover due to child care costs Utah employers an estimated \$1.1 billion per year ([U.S. Chamber of Commerce Foundation](#), 2023)

Some families in Davis County have had a hard time finding affordable child care. In community focus groups, a parent noted that because of her health she is unable to work often, but still has many reasons she might need child care like for medical appointments. Due to not working a required minimum hours per week she has had difficulty finding child care help because of qualification restrictions (DCHD, 2022).

In Utah and the majority of other states, the cost of child care to families has exceeded the cost of in-state college tuition and makes up a larger proportion of families' budgets than housing ([UWLP](#), 2018).

The U.S. Department of Health and Human Services considers child care to be "affordable" if it requires less than 7% of a family's income. In Davis County,

the average cost of child care requires more than double the level of affordability at 15% of the median family income ([CHR&R](#), 2022). This measure does not reflect the cost to families with more than two children or families with infants, whose care is typically more expensive.

The availability of child care is limited. Early childhood professionals predict a decrease in access to child care in the coming years. A 2022 survey reports that lack of funding will lead more than 70% of programs to increase their tuition rates and 20% to permanently close in the next year ([VUC](#), 2022).

In Utah, 51% of children under the age of six live in families with a child care need ([IBIS](#), 2022). In Davis County there is one child care center per 1,000 children under the age of five, which is the same as the State but lower than the national average of 6 centers per 1,000 children ([CHR&R](#), 2022). However, this measure does not include unlicensed or in-home child care programs.

Community Supports

A recent change in Utah legislation aimed at improving child care access increased enrollment caps in programs operating without a license ([Utah State Legislature](#), 2022); around 40% of Utah child care programs are license exempt ([UDHHS](#), 2023).

Child Care Licensing has now moved under the umbrella of the Utah Department of Health and Human Services ([UDHHS](#), n.d.). As part of a federal subsidy plan, the Department of Workforce Services recently launched an optional Child Care Quality System rating system for child care programs ([DWS](#), 2021).

About 0.7% of Davis County residents receive child care tuition assistance ([DWS](#), 2022). The Care About Childcare Office at Weber State University is available to assist Davis County families finding and paying for child care ([WSU](#), n.d.).

Child Care Resources

Care About Childcare, Weber State University	<i>Helps families make informed choices about child care and identify providers that fit their needs and shares many different resources for parents and child care providers</i>	weber.edu/care-about-childcare/default.html
Department of Workforce Services, Office of Child Care	<i>Provides child care benefits, information on programs, and a child care locator</i>	jobs.utah.gov/occ

Caregiving

This section focuses on family caregivers, meaning adults who provide unpaid assistance to family and friends of any age with health conditions or disabilities to help them take care of themselves. Examples of this care include managing medications, finances, bathing, cleaning, and preparing food.

Caregiving is important to health in many ways. It can compensate for gaps in the healthcare system, promote social connection, and postpone individuals entering care facilities. However, it can take a toll on the caregiver's well-being and in turn, the quality of care they deliver. The Kem C. Gardner Policy Institute found that Utah caregivers, especially those who are also raising children, have worse mental and physical health outcomes compared to non-caregivers. The demand for caregivers is expected to increase faster than population growth by 2030, meaning "more Utah adults will require time, resources, and mental and physical health support to provide care to family members or friends with health problems or disabilities" ([Gardner Institute](#), 2022).

The percentage of Americans identifying as caregivers has increased over the last five years, partly due to the aging Baby Boomer population and healthcare shortages ([AARP](#), 2021). In Utah, 1 in 5 adults identify as a caregiver, providing an average of 832 care hours each per year, which is equal to \$5.1 billion of unpaid services ([Gardner Institute](#), 2022). However, researchers suspect that these estimates "are likely an underrepresentation, as not all persons who engage in caregiving identify as a 'caregiver.' Instead, many see themselves as simply fulfilling the roles and responsibilities of being a family member, friend, or neighbor" ([Gardner Institute](#), 2022).

In Davis County, 20.7% of adults said they were a caregiver for family or friends with a health condition or disability (Table 81). This is slightly higher than the Utah prevalence (19.0%) and slightly lower than the U.S. (21.3%) ([Gardner Institute](#), 2022; [AARP](#), 2021). Of those, 86.5% in Davis County reported that the care they provided was related to managing household tasks like cooking, cleaning,

and finances while 43.5% reported managing personal care, also known as activities of daily life, such as bathing, medications, feeding, and dressing. It is likely that some caregivers provided both types of care. When asked to look to the future, 20.6% of Davis adults expected to be a caregiver in the next two years, suggesting that its impact on the county's health will not fade (UDHHS, 2019-2020).

Table 81: Adult Caregivers & Type of Care Provided, 2020

Type of Care	Davis	Utah	U.S.
Adult Caring for Family or Friend	20.7%	19.0%	21.3%
Managed Personal Care	43.5%	48.1%	60.0%
Managed Household Tasks	86.5%	82.4%	99.0%

Data: UDHHS BRFSS dataset, 2019-2020; [Gardner Institute](#), 2022; [AARP](#), 2021

Caregiver Characteristics & Disparities

The majority of Davis County caregivers are female, younger than age 50, make \$50,000 or more annually, and have health insurance. Many of these common characteristics are reflective of the county's total population, which is young and high income. However, certain demographic groups are overrepresented among the caregiving population in Davis County:

- Significantly more caregivers are female (61.3%) than male (38.7%); this disparity is also present in state and national data
- Those aged 50 and up only make up 35.9% of the total county population but represent 47.5% of the caregiver population, suggesting an unfair burden
- Those with incomes under \$50,000 account for 35.3% of caregivers, which is more than their share of the total population (27.8%)

Local data for other demographic groups like race/ethnicity was not available.

Recipients of Care

Most caregivers across Davis County, Utah, and the U.S. reported caring for a parent or parent-in-law (Table 82). However, care for a parent in Davis County was higher than the Utah prevalence and lower than the U.S. In Davis County, a biological mother was the most common type of care recipient. Caring for a child was twice as common among Davis County and Utah caregivers as U.S. caregivers.

Table 82: Caregiver Relationship to Recipient of Care

Who Is Receiving Care	Davis	Utah	U.S.
Parent or Parent In-Law	40.4%	35.1%	50%
Other Relative (sibling, grandparent, other in-law)	21.3%	22.3%	21%
Child	14.5%	12.0%	6%
Spouse	13.4%	16.5%	12%
Non-Relative/Family Friend	10.4%	13.1%	10%

Data: Davis BRFSS, 2019-2020; Utah [Gardner Institute](#), 2015-2020; U.S. [AARP](#), 2020

Among those who specified the health problem of their care recipient, the most common condition was advanced age (Table 83). Reports of care recipients with mental illness in Davis County (12.8%) were twice as common as State (6.9%) and national (5%) reports. One-third of caregivers in the county and State did not specify a type of health problem.

Table 83: Top 5 Conditions Cared For by Caregivers

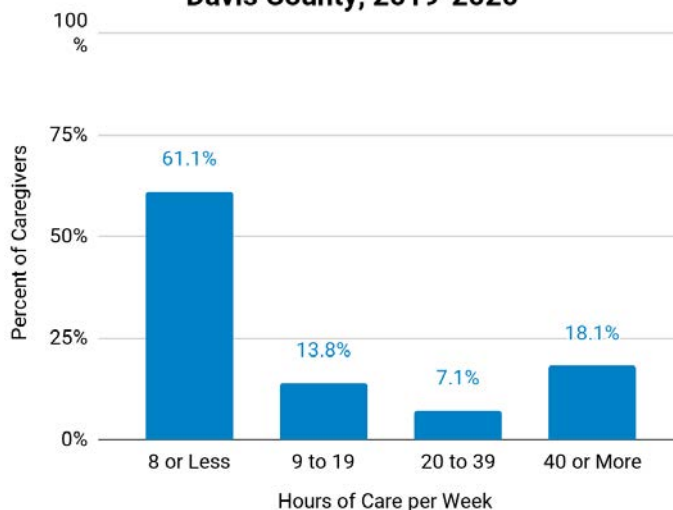
Health Condition of Care Recipient	Davis	Utah	U.S.
Old Age or Frailty	17.0%	15.4%	16.0%
Mental Illness	12.8%	6.9%	5.0%
Dementia, Alzheimer's, Cognitive Impairment	10.1%	7.8%	11%
Developmental Disabilities	5.7%	5.8%	--
Cancer	4.9%	6.1%	6.0%

Data: Davis BRFSS, 2019-2020; Utah [Gardner Institute](#), 2015-2020; U.S. [AARP](#), 2020

Amount of Care

When asked about frequency of care, the majority of Davis County caregivers (61.1%) reported providing eight hours or less of care per week, which is similar to the Utah prevalence (61.7%) but much higher than the U.S. (45%). The next most commonly reported amount of hours was 40 or more per week (Figure 163). Nearly 1 in 5 caregivers in Davis County reported providing care for 40 or more hours per week as compared to 1 in 6 for Utah caregivers. Forty hours is the equivalent of a full-time job.

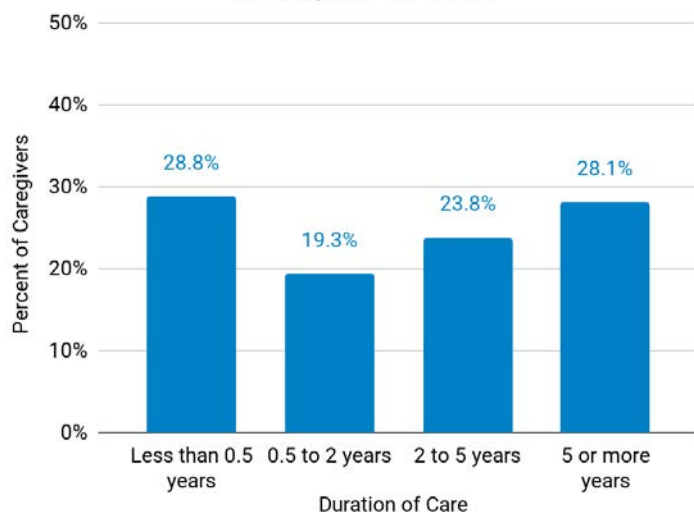
Figure 163: Hours of Care Provided per Week, Davis County, 2019-2020



Data: BRFSS, 2019-2020

Over half (51.9%) of caregivers in Davis County said they had provided care for two or more years for a family member or friend. On the other end of the spectrum, 28.8% reported providing care for less than six months (Figure 164, next page).

No significant differences existed in the duration or frequency of care by caregiver sex or age due to small sample sizes. Additionally, the number of care recipients per caregiver was not available locally.

Figure 164: Duration of Care Provided, Davis County, 2019-2020

Data: BRFSS, 2019-2020

Community Supports

In Davis County, there are several support programs for caregivers of older adults. DCHD offers the National Family Caregiver Support Program, which provides caregivers with needed information, resources, equipment and devices, and respite care services. A Caregiver Academy is also run through DCHD as a weekly 90-minute class. It teaches caregivers about accessing resources, burnout, resilience, and understanding care options. Additional resources are listed below. Refer to the Dementia section for more resources.

Local & State Resources for Caregivers

AARP's Utah Guide	<i>A list of resources for caregivers to help them find the services and support they need</i>	states.aarp.org/utah/caregiver-resources/
Grandfamilies, Children's Service Society of Utah	<i>A support, advocacy, educational, and crisis intervention program created to meet the needs of individuals and/or families that are caring for a relative's child</i>	cssutah.org/services/kinship-care
Homecare and Hospice Association of Utah	<i>Offers online training modules on multiple caregiving topics like personal care for various conditions, maintaining caregiver health, and managing finances</i>	hhau.org/ucare-training-modules
Utah Alzheimer's Association	<i>Offers helpful resources for those that provide daily caregiving, participate in decision making, or simply care about a person with Alzheimer's</i>	alz.org/help-support/caregiving
Veteran's Affairs (VA) Caregiver Support Program	<i>Offers clinical services to caregivers of eligible and covered Veterans enrolled in the VA health care system</i>	caregiver.va.gov

Volunteerism

Volunteering involves giving your time and resources to benefit others. It has wide-reaching economic and health benefits. Volunteering can improve well-being and promote a sense of unity among individuals, communities, and society. The U.S. Department of Health and Human Services felt volunteerism was so important to health that volunteerism was included in the Healthy People 2030 goals as a determinant of health related to civic participation ([Healthy People 2030](#), n.d.). Research shows volunteering lowers one's risk of chronic disease and mental health conditions along with increasing social connections ([AHR](#), 2021).

Nationally, 1 in 3 people aged 16 and older reported volunteering. Women, older adults, and those with higher education levels were the most likely to volunteer ([AHR](#), 2021).

Utah leads the Nation for both overall volunteerism and parent volunteering. Utah is ranked as the healthiest state for volunteerism with 51.2% of the population ages 16 and older that reported volunteering in the past 12 months. The Salt Lake City area ranks third for volunteerism among large metropolitan areas in the U.S. ([AmeriCorps](#), 2019).

According to the U.S. Census, over one million volunteers in Utah donated 133.9 million service hours worth \$3.2 billion dollars in 2019. Two-thirds of Utah residents also reported donating 25 dollars or more to charity, as seen in Table 84. Due to Davis County data being unavailable, Salt Lake City is used as a proxy in this comparison table.

Table 84: Volunteerism, 2019

Indicators	Salt Lake City	Utah	U.S.
Overall Volunteer Rate	45.0%	51.0%	33.4%
Parent Volunteer Rate	--	63.5%	39.9%
Donated \$25 or More to Charity	65.0%	66.9%	52.1%
Did Something Positive for the Neighborhood	32.9%	39.6%	20.9%

Data: U.S. Census, 2019, as cited in [AmeriCorps](#), n.d. Volunteering and Civic Life Supplement data summarized as crude rates

Estimates for volunteerism at the county level are unavailable from the U.S. Census Bureau. However, the 2022 Davis4Health Community Resilience Survey results for involvement in local activities and associations suggest that county volunteer rates may be similar to or higher than Utah rates (DCHD, 2022).

Resources for promoting volunteerism exist at the national, state, and local levels. In Utah, the Department of Cultural and Community Engagement maintains an online platform to connect residents with volunteer opportunities, called UServeUtah, while the Davis County government maintains a webpage of events and activities needing volunteers.

Resources for Volunteering

Davis County Volunteers	Volunteer opportunities in Davis County	daviscountyutah.gov/volunteer
Just Serve	Find opportunities to volunteer near you	justserve.org
UServeUtah	Utah's Commission on Service and Volunteerism, works to inspire, equip, and mobilize individuals and organizations to take action to transform their communities	userve.utah.gov
Volunteer Match	Platform that connects volunteers with nonprofits nationally	volunteermatch.org
Volunteer.gov	Volunteer recruitment and management portal for people who are passionate about supporting causes managed by federal agencies	volunteer.gov

Resilience

Resilience is the ability to bounce back from life's challenges. It helps avoid or reduce the effects of trauma and adverse experiences. Resilience is influenced by factors in three domains: individual, relationships, and community. These domains bring together frameworks already in use with youth by agencies and programs in Davis County along with research instruments used internationally with adults. Those include:

- CASEL social and emotional learning competencies used by the Davis School District ([DSD](#), n.d.)
- EveryDay Strong from United Way ([UW](#), n.d.)
- Strengthening Families Program used by Communities That Care ([SFP](#), 2020)
- Healthy Outcomes from Positive Experiences (HOPE) ([Tufts](#), n.d.)
- Resilience Research Center Adult Resilience Measure ([Liebenberg & Moore](#), 2018)
- Devereux Adult Resilience Survey ([Mackrain](#), 2008)
- Everyday Discrimination Scale ([Williams et al.](#), 1997)
- Subscales of Adult Personal Resilience ([Taormina](#), 2015)

Individual Needs & Characteristics

According to Maslow's theory of the hierarchy of needs, a person's needs must be met in a particular order before they can access higher levels of health. As illustrated in Figure 165, physiological needs such as shelter, rest, food, and healthcare are foundational. People who have these needs met have better access to supports found further up the pyramid and are more likely to feel fulfilled or to reach their full potential, also called self-actualization.

The 2022 Davis4Health Community Resilience Survey found that over 8 in 10 adults had all or most of their basic needs met all or most of the time. However, 15% of Davis County respondents felt like their income did not meet their basic needs (DCHD, 2022).

Additionally, most survey respondents felt confident that they had the individual skills to meet their own needs, such as knowing their own strengths (92.2%) and calming themselves down (93.1%). However, they were not as likely to ask for help (69.3%) or forgive themselves for their flaws (72.6%) (DCHD, 2022).

Figure 165



Source: [VeryWellMind.com](#), 2022

Natural Disaster Resilience

Resilience can also mean the capacity of individuals and households to absorb, endure, and recover from the health, social, and economic impacts of a natural disaster, such as a flood or pandemic. When disasters occur, recovery depends on a community's ability to bounce back from the event ([U.S. Census, 2019](#)).

To facilitate disaster preparedness, the U.S. Census Bureau developed resilience estimates based on individual needs and characteristics. These estimates identify neighborhoods with residents that would benefit the most from resources and information during a disaster, meaning they may need more help than others to bounce back. The estimates are based on 10 risk factors that reduce an individual's resilience during a disaster:

- Income to poverty ratio
- Single or zero caregiver household
- Crowding
- Communication barrier
- Households without full-time, year-round employment
- Disability
- No health insurance
- Age 65+
- No vehicle access
- No broadband internet access ([U.S. Census, 2019](#))

Based on these estimates, over half (51.7%) of county residents have no risk factors, meaning they will likely be highly resilient during a disaster. However, it is important to note that 1 in 10 residents have three or more factors that may reduce their ability to bounce back from a disaster and may need additional assistance (Table 85).

Table 85: Community Resilience Estimates, Davis County, 2019

Resilience Reducing Risk Factors	Percent of Population
0 Factors (Low Risk)	51.7%
1 to 2 Factors (Medium Risk)	38.3%
3+ Factors (High Risk)	10.0%

Data: [U.S. Census](#), 2019

When examined at the census tract (neighborhood) level, most Davis County neighborhoods are at significantly lower risk of being impacted by a disaster than the national average. Those that are similar to the national average and at higher risk than the rest of the county are located along the Interstate-15 corridor in Bountiful and Clearfield. They align with areas that have lower scores in the Utah Healthy Places Index ([UT HPI, 2022](#)).

For a map of UT HPI scores, see the Culture of Health chapter.

Preparedness Resources

Emergency Preparedness Guide, DCHD	<i>Guidance on preparing for emergencies including assistance in developing a 72-hour kit, plan templates, and additional resources</i>	daviscountyutah.gov/docs/librariesprovider5/community-health-services/preparedness-guide-final-2023.pdf
Be Ready Utah	<i>Prepares Utah's families, schools, businesses, and communities for emergencies and disasters with webinars, plan templates, kits and more</i>	beready.utah.gov
FEMA Are You Ready Guide	<i>Detailed information on how to best prepare for disasters within your family and in your community</i>	ready.gov/sites/default/files/2021-11/are-you-ready-guide.pdf

Relationships & Social Skills

People with strong social support networks are more likely to make healthy lifestyle choices ([CHR&R, 2022](#)). The social skills to build and maintain relationships can provide critical support in times of need.

The 2022 Davis4Health Community Resilience Survey found that most adults try to understand the perspectives of others (98.9%) and make it right when they have hurt someone (98.6%). The least common social skills reported were related to vulnerability. Respondents were less likely to feel safe talking to others about their feelings (77.5%) or feel safe being imperfect or making mistakes (82.2%) (DCHD, 2022).

Community Connectedness

Feeling connected and involved in one's community is associated with longer and healthier lives. Social isolation is a health risk as harmful as smoking cigarettes. People who live in highly connected neighborhoods have more access to social capital and greater access to support and resources. Policies and programs that encourage and support connection in neighborhoods and communities can have the greatest impact on health ([CHR&R, 2022](#)).

Data for social isolation among adults is not available at the county level. As a substitute for this, the 2022 Davis4Health Community Resilience Survey asked Davis County adults about ways they felt connected to the community where they lived. The most commonly reported connection indicators were feeling safe in their community (97.9%) and trusting their neighbors (91.1%). Respondents were less likely to report having opportunities to be involved in community decisions (73.5%) or feeling understood by others where they lived (75.6%). However, participants who reported that their income did not meet their basic needs were less likely to report feeling connected to their community for any of the indicators compared to other respondents (DCHD, 2022).

Social Associations

Social associations is another indicator of community connection. It is a measure in County Health Rankings and Roadmaps that is

recommended as an area to explore for Davis County. A total of 79 membership associations were identified in Davis County for this measure. These include civic, political, religious, sports, and professional organizations. In Davis County, there were 2.2 membership organizations per 10,000 people. With 3.5 membership organizations for every 10,000 people, Utah scores better than Davis County on this measure. The U.S. is much higher at 9.2 membership organizations per 10,000 people ([CHR&R, 2022](#)).

To begin exploring social associations, the 2022 Davis4Health Community Resilience Survey asked Davis County adults about how they get involved in their community. Results showed that 95% of participants engaged in some sort of community involvement in the past 30 days, and 68% of participants were satisfied with their level of involvement in the community. They reported that involvement was most commonly (71%) fostered through religious and spiritual associations and groups (DCHD, 2022).

More exploration is needed of why Davis County has lower social association rates than Utah, yet the majority of residents are involved in their community. How religious organizations contribute to rates should be considered during this future exploration.

For more information about the Davis4Health Community Resilience Survey, see the Community Voice section of the Culture of Health chapter.

Community Supports

Davis County has held an annual Community Resilience Symposium for the past five years (2019-2023). The purpose of the symposium was to build Adverse Childhood Experiences (ACEs) awareness, become a trauma-informed community, and increase self-care. The symposium is planned by a subgroup of Davis County's Human Services Directors Committee who provide direction and input for the ACEs and Trauma priority in the Davis4Health Community Health Improvement Plan. Three years of symposium recordings can be found at this link: youtube.com/@daviscountygovernment.

Physical Environment

The physical environment is where individuals live, learn, work, and play. People interact with their physical environment through the air they breathe, the water they drink, the homes in which they live, and the transportation they use ([CHR&R, 2022](#)).

Environmental quality is a measure of the condition of an environment relative to human, animal, and vegetation requirements and needs. Environmental quality includes the natural environment as well as the built environment.

The natural environment refers to the environment that would exist, even if humans were not present, such as plants, animals, soil, water, and air.

The built environment refers to human-made resources and infrastructure designed to support human activity. This includes buildings, roads, restaurants, grocery stores, pools, and other amenities. The built environment touches all aspects of community members' lives, encompassing the:

- Buildings they live in
- Distribution systems that provide them with water and electricity
- Roads, bridges, and transportation systems they use to get from place to place ([EPA, 2023](#))

The Utah Environmental Quality Code sets policy to safeguard public health and quality of life by protecting and improving environmental quality. It also considers the benefits to public health; the costs to the public and to industry; and the impacts on economic development, property, wildlife, tourism, business, agriculture, forests, and other interests ([Utah State Legislature, 2020](#)).

The Physical Environment has always been Davis County's lowest ranked health factor according to County Health Rankings and Roadmaps ([CHR&R](#)). Davis County ranks in the bottom quarter of Utah counties for this factor. Some other counties along the Wasatch Front and the I-15 corridor also rank low. Many of the ranked Physical Environment measures relate to air quality and commuting ([CHR&R, 2022](#)).

Land Use

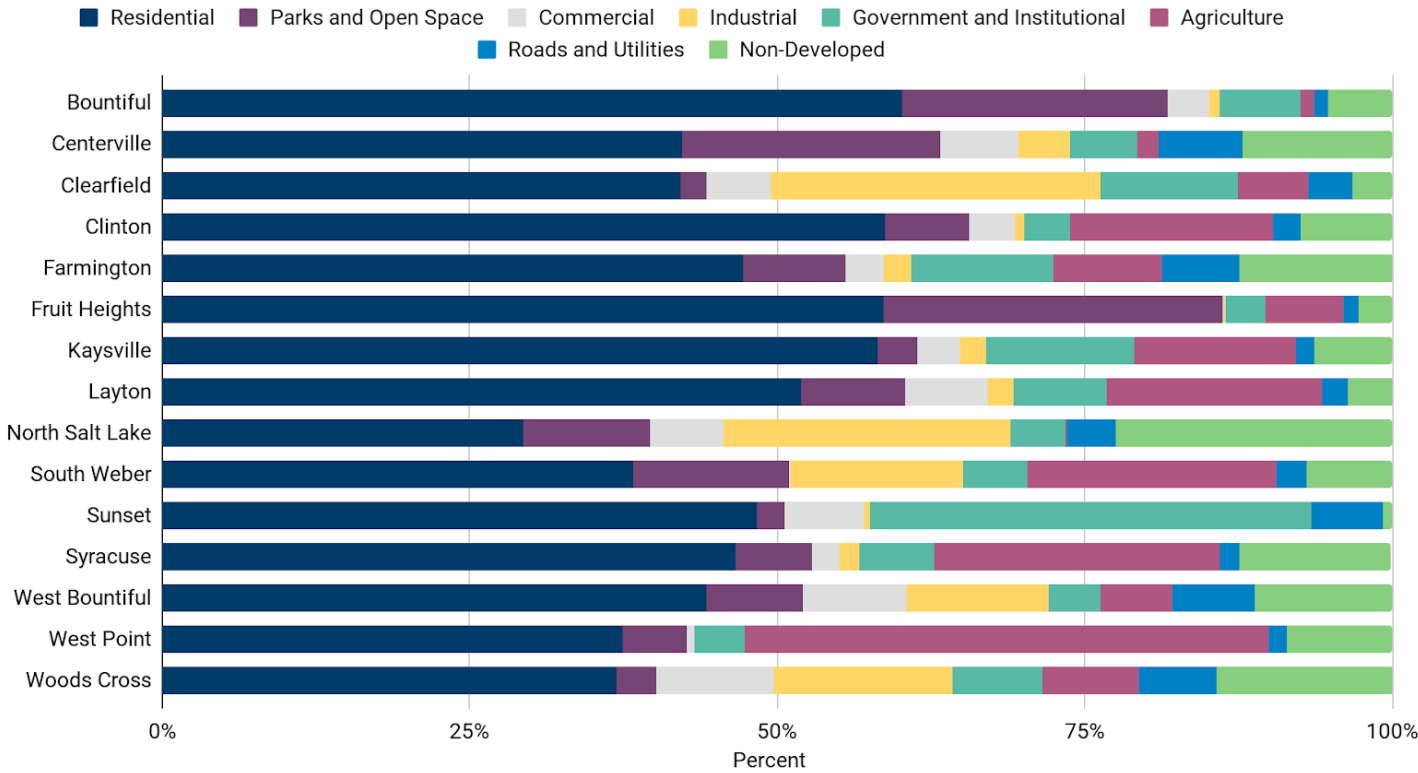
Land use refers to how land is modified from its natural environment and used by humans. Land use and development differs by type; public or private. How land is used influences health and community planning. The way a community is built can impact water quality, erosion, temperature, air quality, and spread of infectious diseases ([EPA, n.d.](#)). It also impacts a population's housing, transportation options, and access to resources and services.

Data on the health effects of land use is difficult to collect and interpret because air, water, and disease do not stop at jurisdictional boundaries. Other data limitations include differences in land use categorization, records, regulations, and varying practices by local government ([EPA, n.d.](#)).

There are different classifications of land use, also known as zoning. Locally, zoning types include residential (neighborhood), parks and open space (green space), commercial (business), industrial (manufacturing), government and institutional, agricultural (farming), roads and utilities, and non-developable land. Residential zoning accounts for 24.7% of the overall land use in Davis County, and 42.0% of the land is zoned as parks and open space. This is mostly due to the large amount of land covered by Antelope Island and the Wasatch Mountains, which are not assigned to a city (DCHD, 2023).

Figure 166 (next page) shows the proportion of each city's land that is zoned for each type of use. When examined by city, residential zoning accounts for the largest zoning type in each Davis County city, except West Point. In West Point, agriculture is the largest zoning type. Five cities have over 50% of their city zoned as residential (DCHD, 2023).

Figure 166: Land Zoning by City, Davis County, 2018



Data: DCHD, 2023

Open Space

Open space, or green space, is land that is publicly accessible and not zoned for business or other development. Some examples of green space include parks, playgrounds, community gardens, golf courses, and cemeteries. Green space benefits the environment. It helps reduce air and water pollution, protect areas from overdevelopment, preserve wildlife habitat, and help with temperature and climate control ([CDC, 2022](#); [EPA, 2023](#)). Tree canopy, one indicator of open space, is a measure of tree and plant life in an area, weighted by the number of people per acre. In Davis County, there is a tree canopy of 1.5%, which is similar to the State. This rate is better than 66.7% of all other counties in Utah ([UT HPI, 2023](#)).

Green space can foster community connections by providing a place for neighbors to meet and interact. It also provides physical and mental health benefits by promoting physical activity, which can reduce chronic diseases ([CDC, 2022](#); [EPA, 2023](#)). In Davis County, 31.9% of residents live within a 10-minute walk of a park. According to the Utah Healthy Places Index (UT HPI), Davis County has healthier

community conditions than only 3.7% of other counties in Utah when it comes to green space. Total green space per person, also referred to as park access, is a top policy opportunity for improving Davis County's overall HPI score of community conditions ([UT HPI, 2022](#)).

The amount of green space in Davis County varies by city. Table 86 shows the total acres of parks, public land, and public golf courses by city. Areas that border the Wasatch Mountains (including Bountiful, Centerville, Farmington, Fruit Heights, Layton, and South Weber) have trails or other recreation areas that are included in their total acreage estimates. The acres of green space for Davis County do not equal the sum total of all cities' green space. This can be attributed to Antelope Island acreage which is included in the county total, but not counted within a city ([UT HPI, 2022](#)).

In order to compare green space between cities of different sizes, total acreage was adjusted for population size. Based on this approach, Farmington has the most green space per 1,000 residents (161 acres) and Clearfield has the least (2 acres per 1,000 residents) ([UT HPI, 2022](#)).

Table 86: Green Space by City, Davis County, 2016-2020

City	Total Acres	Acres per 1,000 Residents
Bountiful	1,799.9	41
Centerville	1,253.1	72
Clearfield	65.9	2
Clinton	91.9	4
Farmington	3,839.4	161
Fruit Heights	876.4	142
Kaysville	409.4	13
Layton	1,219.2	16
North Salt Lake	673.3	33
South Weber	974.3	132
Sunset	14.3	3
Syracuse	287.4	10
West Bountiful	320.7	57
West Point	159.2	15
Woods Cross	147.4	13

Data: [UT HPI, 2022](#); Note: Green space is parks, public land, & public golf courses. This means if city boundaries include mountainside acreage, the city may score better than other cities.

Green space can be used to promote recreational and nature-based activities ([CDC, 2022](#); [USU, n.d.](#)). In Davis County, outdoor recreation is an important part of the community culture and economy ([CED, n.d.](#)). In the 2022 USU Well-being Survey, participants in two Davis County cities, Bountiful and Layton, were asked about ways that they participated in recreation and nature-based

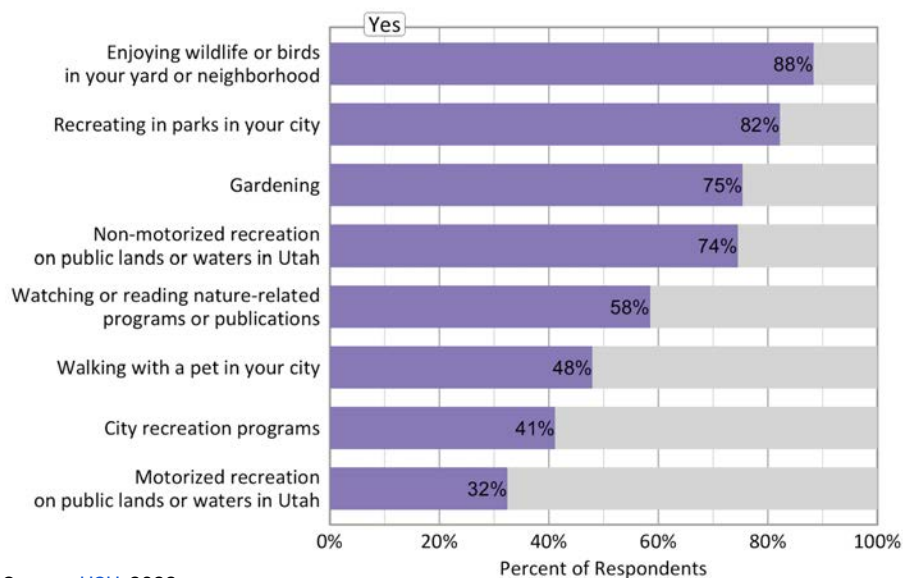
activities. As shown in Figure 167 and Figure 168, the top two responses for both cities were enjoying wildlife in their yard or neighborhood and recreating in a park in their city ([USU, 2022](#); [USU, 2022](#)).

In 2022, Utah became the first state in the Nation to create an Office of Outdoor Recreation, which promotes access to open spaces and recreation ([Utah DNR, n.d.](#)).

Figure 167

Participation in Recreation and Nature-Based Activities in Bountiful

Have you participated in any of the following activities during the past 12 months?

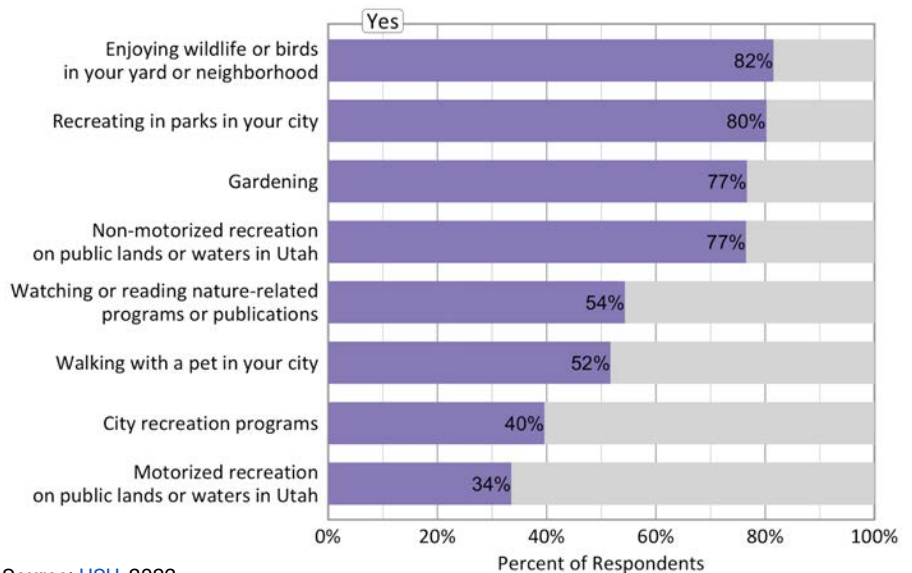


Source: [USU, 2022](#)

Figure 168

Participation in Recreation and Nature-Based Activities in Layton

Have you participated in any of the following activities during the past 12 months?



Source: [USU, 2022](#)

Hazardous Waste

Hazardous waste is a solid waste with characteristics that make it dangerous or potentially harmful to human health or the environment (EPA, 2022). There are 14 Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF) located in Davis County (EPA EJScreen, 2022).

Since 2018, there have been 230 environmental incidents reported in Davis County to the Utah Department of Environmental Quality. Examples include industrial waste water and oil spills, as well as miscellaneous substance complaints made by citizens (UDEQ, 2018-2023).

Superfund Sites

Superfund is a federal environmental program under the Environmental Protection Agency (EPA) that addresses locations requiring long-term response where hazardous waste has been dumped, left out in the open, or improperly managed. Superfund sites include manufacturing facilities, processing plants, landfills, and mining sites (EPA, 2022). The Superfund program aims to:

- Protect human health and the environment by cleaning up contaminated sites
- Hold responsible parties accountable for cleanup work costs
- Involve communities in the Superfund process
- Return Superfund sites to productive use

In 2022, there were three Superfund sites and one federal facility Superfund site in Davis County (Table 87). These sites were listed with a status of “Final” National Priorities List (NPL). This means the sites require further investigation due to a known or threatened release of hazardous substances,

pollutants, or contaminants that pose a continued threat to human health or the environment (UDEQ, 2022).

All Superfund sites in Davis County have undergone clean-up, however, additional analysis is required prior to being removed from the NPL (EPA, 2022). Each Superfund site conducts Five Year Reviews (FYR) to ensure that cleanup and monitoring efforts, also called remediation, continue to protect human health and the environment.

The Bountiful/Woods Cross 5th South PCE Plume site underwent a FYR in July 2018. It found that remediation continued to provide adequate protection. The EPA also adjusted goals of remediation to further improve the site’s protection (EPA, n.d.).

The Five Points PCE Plume in Woods Cross has undergone short-term remediation efforts, such as efforts to remove immediate threats to human health and the environment, but has not fully completed a plan for remediation designs. This plan is scheduled to be completed by 2024 (EPA, n.d.).

In September 2019, EPA announced the removal of the Intermountain Waste Oil Refinery Superfund site from the NPL (EPA, 2019). This means that FYRs and other evaluations have determined that sufficient remediation has occurred to protect human health and the environment. FYR will continue for the site and if it is discovered to be contaminated in the future, it could be reopened as a Superfund site.

The Hill Air Force Base Superfund site has 16 areas for remediation, which the EPA has called Operable Units (OUs). With EPA oversight, the Air Force conducts FYRs for each of these areas, and adjusts accordingly. The most recent FYR occurred in 2019,

Table 87: Superfund Sites, Davis County	
Site Name	Status
Bountiful/Woods Cross 5th South PCE Plume	Final NPL
Five Points PCE Plume, Woods Cross	Final NPL
Intermountain Waste Oil Refinery, Bountiful	Final NPL
Hill Air Force Base, Federal Facility	Final NPL
Data: Bountiful/Woods Cross (EPA, n.d.); Five Points (EPA, n.d.); Intermountain (EPA, 2019); HAFB (EPA, n.d.)	

and determined that remediation efforts were protective in five of the sites, while five additional sites were determined protective at least in the short-term. Two sites were determined to not be protective and needed adjustment to remediation. The remaining three sites had not yet started remediation and could not be evaluated ([EPA](#), n.d.).

Household Hazardous Waste

On a smaller scale, Household Hazardous Waste (HHW) can also harm the environment. HHW is any leftover and unwanted household product that contains corrosive, toxic, ignitable, or reactive ingredients. HHW includes, but is not limited to: gasoline, paints, cleaning products, oils, batteries, pesticides, repellents, antifreeze, and wood stains. HHW can pose a threat to sanitation workers at the landfills and can contaminate the environment if not disposed of properly. HHW can be taken to drop off or collection site facilities, or through collection events in Davis County ([DCHD](#), n.d.).

Household Hazardous Waste Resources

Recycling, DCHD	<i>Used oil disposal sites and recycling services in Davis County</i>	daviscountyutah.gov/health/environmental-health-division/additional-information/recycling
Waste Disposal, DCHD	<i>HHW Disposal Options in Davis County</i>	daviscountyutah.gov/health/environmental-health-division/permits/waste-disposal
Cleanups in My Community, EPA	<i>Hazardous waste cleanup locations throughout the U.S.</i>	epa.gov/cleanups/cleanups-my-community
Superfund Sites, EPA	<i>Sites in Davis County, Utah, and the U.S.</i>	epa.gov/superfund/search-superfund-sites-where-you-live

Housing Environment

The structures, or homes, where people live, as well as surrounding homes in the neighborhood, can greatly influence health and well-being ([Healthy People 2030](#), n.d.). Having a mix of housing types and price points in an area is important for the stability of the workforce and the health of a community ([Fair Housing Forum](#), 2021). Providing a range of housing types, styles, sizes, and price levels is a housing environment goal in many larger cities

in Utah. Housing for different life cycle stages and conditions is also an important consideration ([Metropolitan Research Center](#), 2020).

The most common housing type in Utah and Davis County is single-family homes. Other housing types include mobile homes, apartments, duplexes, townhomes, and housing for specific populations such as military, assisted living facilities, and seniors. ([U.S. Census](#), 2020). Table 88 shows types of housing in Davis County by city ([U.S. Census](#), 2020).

Table 88: Housing Characteristics by City, Davis County, 2020

City	Single Family Homes	Housing Units in Multi-Unit Structures (2 units or more)	Housing in Mobile Home, Boat, RV, Van, etc.
Bountiful	79.1%	20.8%	0.2%
Centerville	84.3%	14.5%	1.2%
Clearfield	64.0%	28.9%	7.1%
Clinton	94.6%	3.4%	0.1%
Farmington	86.9%	12.2%	0.8%
Fruit Heights	88.7%	7.6%	3.8%
Kaysville	91.6%	7.4%	1.0%
Layton	67.2%	19.6%	5.5%
North Salt Lake	67.2%	27.3%	5.5%
South Weber	97.0%	3.0%	0.0%
Sunset	87.8%	12.2%	0.0%
Syracuse	97.8%	2.2%	0.0%
West Bountiful	99.4%	0.0%	0.7%
West Point	99.3%	0.7%	0.0%
Woods Cross	80.7%	16.4%	3.0%

Data: [U.S. Census](#), 2020

Vacancy Rates

Across the U.S., vacancy rates for homes and rentals are at or near historic lows. This means there is less housing available to buy or rent ([U.S. Census, 2022](#)). This impacts the cost of housing. The homeowner and renter vacancy rates for Davis County and Utah are shown in Table 89.

Table 89: Vacancy by Household Type, 2020

Vacancy Indicators	Davis	Utah
Vacant Housing Units	3,518	107,024
Homeowner Vacancy Rate	0.9%	0.9%
Renter Vacancy Rate	3.2%	5.9%

Data: [U.S. Census, 2020](#)

During community focus groups several housing environment issues were mentioned and include:

- Worries about how the high concentration of apartments in certain areas will affect the neighborhoods such as fear of increases in population, worsening traffic, safety concerns, and strain on services and resources like water and groceries
- Current residents living in single family homes may consider leaving Davis County due to growth and increase in multi-unit complexes
- New apartments are not affordable to those who really need them which does not provide the housing support current residents of Davis County need
- Neighborhoods of single family homes feel less connected and appear not as well taken care of as the homes around them become rentals (DCHD, 2022)

Housing Conditions

Housing is much more than walls and a roof over one's head. Adequate and healthy housing means it is livable with safe drinking water, adequate sanitation, energy for cooking, heating, cooling, lighting, and free of toxins and environmental hazards such as lead, asbestos, mold, and carbon monoxide ([Raymond et al., 2021](#)).

Overcrowding occurs when the number of occupants exceeds the number of total rooms.

Children are particularly vulnerable to the effects of overcrowded housing because the home is where the majority of children's socialization, skill development, and identity formation occurs. These processes can be disrupted if the home environment is strained by overcrowded living arrangements. In addition, children in crowded housing have a higher probability of catching illnesses, which can interfere with their daily routine and interrupt their schooling ([Solari & Mare, 2011](#)).

Older homes are prone to issues that negatively impact health such as poor insulation, leaky roofs, mold damage, and toxic chemicals since they may have been built before building regulations were established. Davis County's median year that structures were built was 1991 as opposed to 1989 for Utah, and 1978 for the U.S.

According to the Utah Healthy Places Index (UT HPI), Davis County has healthier housing conditions than 77.8% of other counties in Utah ([UT HPI, 2022](#)).

Although the overall housing environment in Davis County is safe and in good condition, there are households that experience substandard living conditions. In Davis County, 10% of households experienced at least one of the following housing problems: overcrowding, high housing costs, lack of kitchen facilities, or lack of plumbing facilities. Housing condition data comparisons for Davis County, Utah, and the U.S. can be found in Table 90.

Table 90: Housing Conditions

Conditions	Davis	Utah	U.S.
Median Year Housing Structures Built	1991	1989	1978
Overcrowded Housing	1.8%	3.4%	3.3%
Households Lacking Complete Plumbing Facilities	0.2%	0.3%	0.4%
Households Lacking Complete Kitchen Facilities	0.6%	0.7%	0.8%
Households Lacking Telephone, Landline, or Cell Phone	1.0%	1.3%	1.6%
Severe Housing Problem	10%	14%	17%

Data: [U.S. Census, 2016-2020](#); [U.S. Census, 2016-2020](#); [CHR&R, 2013-2017](#); [U.S. Census, 2016-2020](#); [CHR&R, 2022](#)

In 2021, the Davis County Health Department received 50 housing complaints. Two resulted in a notice that required the owner to take action to remediate an issue. In addition, seven Letters of Findings were issued to tenants which provide documentation of their living conditions and can be used in legal cases. In some cases, Letters of Findings are preferred, rather than a notice, to prevent tenant eviction (DCHD, 2021).

Broadband

Access to reliable high-speed internet improves access to education, employment, healthcare, and social assistance programs. It also creates and fosters social connections, strengthens community ties, and decreases social isolation and feelings of loneliness. These effects are especially notable among older adults and members of historically underrepresented or marginalized groups ([CHR&R](#), 2022).

In the U.S., 90% of households have an internet subscription. This rate is higher in Utah (93.6%) and Davis County (91.9%), with the lowest local rate in Clearfield (85.5%). Households making less than \$20,000 are the least likely to have access (71.4%) ([U.S. Census](#), 2021).

Historically, low-income neighborhoods have been excluded from internet service through “digital redlining”, meaning network providers have excluded these areas from high-speed internet investments ([CHR&R](#), n.d.). However, this measure does not account for the reasons why a household does not have broadband access. Barriers to broadband access could be due to insufficient infrastructure, cost, or personal interest. For example, older adults are less likely to purchase home internet. The broadband indicator is not adjusted for these specific barriers.

The recent COVID-19 Pandemic illustrated the importance of internet access as many school and job opportunities relied on virtual meetings. The Broadband DATA Act was passed in 2020 to improve internet access nationwide. In Davis County, the Davis School District (DSD) provides several free or low-cost internet solutions for students and their families. For more information, visit: davis.k12.ut.us/parents-family/support-for-remote-learning/home-internet-solutions.

Food Environment

Food environment refers to the physical presence of food in an area, including systems in place that help people get food and affect a person’s eating pattern ([CDC](#), n.d.). Some environmental factors that influence the community’s ability to eat healthy include:

- Availability of accessible, culturally appropriate, and nutrient-dense food options
- Food cost
- Other social and political factors ([Downs et al.](#), 2020)

Nutrient-dense food is food that is high in nutrients but relatively low in calories. Nutrient-dense foods contain vitamins, minerals, complex carbohydrates, lean protein, and healthy fats ([NCI](#), n.d.).

Low-income, underserved, and underrepresented communities often lack convenient places that offer affordable, nutrient-dense foods ([CDC](#), n.d.).

Places or online venues that provide food can discourage or promote a healthy eating pattern depending on what food is sold. Examples of these locations include grocery stores, restaurants, fast food stores, convenience/corner stores, farmer’s markets, produce stands, community and school gardens, food pantries, school breakfast/lunch programs, and mobile/web apps.

Food Access

As shown in Table 91 (next page), Davis County has fewer grocery stores and supermarkets per 10,000 people than the State and the Nation as well as fewer SNAP and WIC-Authorized Food Stores ([U.S. Census](#), 2019; [USDA](#), 2022). However, Davis County is doing better than the State and Nation by providing grocery stores that are close to places where individuals with low incomes live ([CHR&R](#), 2022).

There are over five times more fast food restaurants and slightly more convenience stores per 10,000 people in Davis County than grocery stores/supermarkets ([U.S. Census](#), 2019). Fast food restaurants and convenience stores tend to have more expensive and less nutritious food options compared to grocery stores ([Setiono et al.](#), 2021; [USDA](#), 2021).

Table 91: Food Access Indicators

Measures	Davis	Utah	U.S.
Convenience Stores, Including Gas Stations/10,000 People	1.7	2.5	3.9
Fast Food Restaurants/10,000 People	7.3	7.8	7.8
Full-Service Restaurants/10,000 People	3.2	5.2	7.8
Grocery Stores and Supermarkets/10,000 People	1.3	2.6	4.8
SNAP-Authorized Food Stores/10,000 People	3.5	4.7	7.6
WIC-Authorized Food Stores/10,000 People	0.6	0.8	1.1
Limited Access to Healthy Foods (Individuals with Lower Incomes Who Live More Than 1 Mile Away from Grocery Store)	5%	6%	6%

Data: [U.S. Census](#), 2019; [U.S. Census](#), 2019; [USDA](#), 2022; [U.S. Census](#), 2020; Davis County WIC/[Utah WIC](#), 2022 (national estimate 2020); U.S. Census, 2020; [CHR&R](#), 2019; [WIC](#), n.d.

Note: Current national WIC-authorized food store data is difficult to obtain because every state monitors their own numbers and authorizes at different times

Culturally Preferred Foods

The term “culturally preferred foods” describes safe and nutritious foods that meet the diverse tastes and needs of the community based on their cultural identity. Offering affordable, culturally preferred food options that meet the Dietary Guidelines for Americans allows consumers to choose foods that meet their cultural and dietary needs. This expands opportunities for residents to select familiar and nutritious foods they prefer ([CDC](#), 2022).

Davis County has six markets that provide foods common in other countries including Azteca de Oro, Mi Ranchito Produce, Rancho Markets, Asian Foods & More, Garcia’s Market, and La Nueva Favorita. Rancho Markets in Clearfield and Garcia’s Market in Layton were two recent additions to the county. Beyond offering food to meet the needs and preferences of the residents from diverse backgrounds, they also help limit the distance county residents have to travel to access nutritious food. Currently, there are not many markets for those with diverse cultural preferences in the southern part of the county (DCHD, 2023).

During 2022 community focus groups, Spanish-speaking participants highlighted some needs of the Hispanic/Latino population: 1) Access to relatively affordable produce; and 2) Access to markets that cater to the preferences of the Hispanic/Latino population. They identified WinCo and Walmart as

places where they are regularly able to find affordable food specific to their cultures depending on their country of origin (DCHD, 2022).

Nutrient-dense Food Distribution

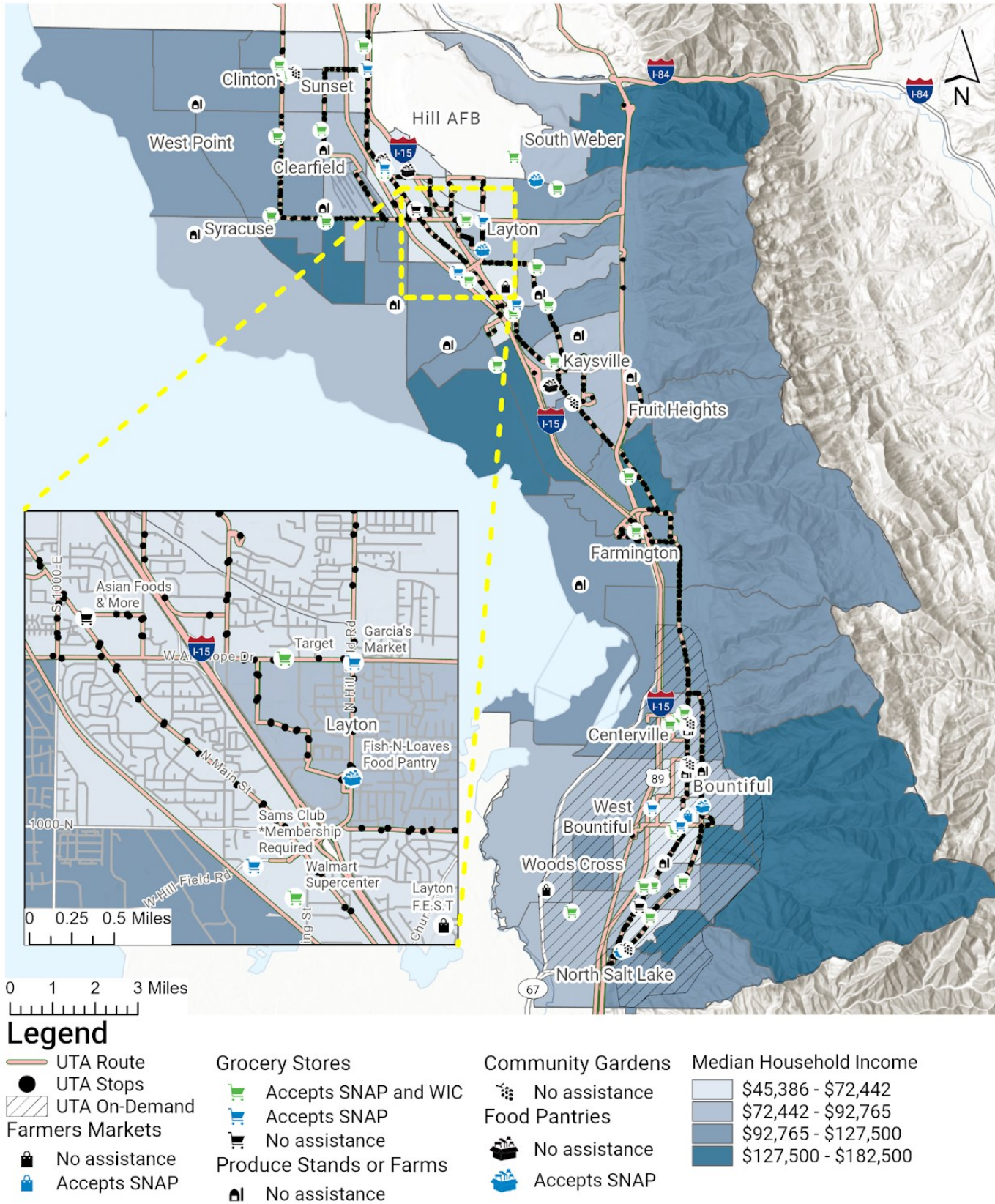
Figure 169 (next page) shows the presence of nutrient-dense food options in relation to public transportation facilities and median household income in Davis County.

In the legend, the black icon next to each nutrient-dense food option indicates that WIC or SNAP electronic food benefits are not accepted at a location. Part of the map is also zoomed in to highlight an area of need.

The following emerged from the map as strengths of the food environment:

- Grocery stores are spread throughout the county from north to south, with many accepting SNAP and WIC. Most are near public transportation services.
- The new UTA On-Demand service appears to improve access to all types of nutrient-dense food options in the southern part of the county, especially for those not living near a transit stop.
- Most neighborhoods where median household income is in the lower range are near nutrient-dense food options.

Figure 169: Access to Nutrient-Dense Foods in Davis County, 2022



Data: Median Household Income (U.S. Census-ACS, 2017-2021); SNAP authorized retailers (USDA, 2022); Food locations and WIC authorized retailers (DCHD, 2022); UTA (Utah Open Source Data, 2022).

Some areas of opportunity to improve the food environment include:

- There is a lack of public transportation to produce stands or farms in the central and northern parts of the county. This is also true for Open Doors, an important food pantry in Layton, which primarily serves northern Davis.
- Those living in the eastern and western parts of the county do not have access to public transportation, and there are limited publicly available nutrient-dense food options. The zoomed portion of the map provides one example of this where those living in northwestern Layton may have limited access to the options closest to them if they do not have a vehicle.
- The central part of the county appears to have few options for nutrient-dense foods, also requiring travel to reach what is available.
- Food pantries may not be adequately distributed across the county. Three pantries are closely concentrated to the north in Clearfield. There are very few options in central Davis, and none in Sunset where there may be a need.
- More community gardens are needed in Layton and the central part of the county.

Future food environment mapping would be helpful if it could also include places that tend to offer foods high in calories and low in nutrients, such as fast food restaurants and convenience stores in the analysis.

When comparing nutrient-dense food options that do not require membership by city, Layton and Bountiful, Davis County's two largest cities by population, have the most options. Layton has 17 total locations and Bountiful has 12 with grocery stores and produce stands being the most common options.

Syracuse is the fourth largest city by population; however, there are very few options available for nutrient-dense food including two grocery stores and one produce stand. Farmington is a larger city by population than Clinton, North Salt Lake, and Centerville; yet, the nutrient-dense options are also limited with just two grocery stores and one produce stand. South Weber has no nutrient-dense food options.

Membership-required stores such as Costco in West Bountiful and Sam's Club in Layton also offer healthy food options but only to a limited population. The Costco in West Bountiful is the only nutrient-dense food option available in that city.

Community Supports

In August 2022, the Davis Food Environment Workgroup coordinated a workshop with Utahns Against Hunger to learn more about the food environment in the county. There were 26 partners representing 10 agencies in attendance. Partners listed many barriers, including:

- Awareness and education
- Benefit amount
- Consistency
- Paperwork
- Senior food boxes and delivery
- Stigma
- Supply chain
- Transportation
- Volume of food

Opportunities identified for the food environment included:

- Americorp volunteers/Seniorcorp
- Basic needs coordinator for colleges
- Emergency transportation of food
- Healthy meals/healthy kids
- Legislation
- Livestock well-being
- Lyft/Uber programs
- Virtual appointments

More comprehensive information regarding the food environment in Davis County will be released in a separate assessment later in 2023. It will be published on Davis County Health Department [Reports & Assessments](#) webpage.

Transportation

The future of cities will be determined by how well community members can navigate them. Proper design and thoughtful infrastructure and connectivity help to ensure that all communities, especially the historically underserved or underrepresented, can access transportation modes that best suit their needs and the demands of their lives (Loayza & Dillman, 2022). Putting residential, commercial, and recreational uses in close proximity to one another makes alternatives to driving more possible and has been shown to increase transit use, biking, and walking. In contrast, suburban-type developments encourage vehicle use by one rider alone (SGN, 2015; WERC, 2023).

Much of the land in Davis County is zoned for separate uses, and many areas have single-family homes (WERC, 2018), which influence the county’s widespread driving culture. In 2021, Davis County had an average daily vehicle miles traveled (VMT) of 8,410,907 (UDOT, 2022). When broken down further, Davis County households drive over 21,000 miles per year and have two cars on average. The average annual cost to own an automobile is over \$13,000 (Table 92). In addition, both regular unleaded and diesel average gasoline prices in Utah reached an all-time record high of \$5.26 and \$5.76 per gallon in 2022, respectively (AAA, 2023). All of these factors combined make vehicle use an expensive transportation option that some may not be able to sustain.

Table 92: Transportation Indicators, Davis County, 2022	
Indicators	Davis
Automobiles per Household	2.1
Annual Vehicle Miles Traveled per Household	21,690
Annual Automobile Ownership Cost	\$13,118
Percent of Household Income Spent on Transportation*	22%

Data: Center for Neighborhood Technology, 2022. *Transportation includes the costs of auto ownership, auto use, and public transit

In 2022, community focus group participants expressed the impact of driving culture on their quality of life and access to services. In particular, older adults and those living with disabilities were concerned about their ability to connect and meet new people with limited accessibility to transportation if unable to drive. While some community members felt that their food, shopping, and transportation needs were being met, others shared examples of activities and events they would like to attend or services they need to access but were unable to because of when, where, and how transportation is available. One South Davis resident expressed frustration with many services located in the northern end of the county, saying:

“There’s still people who need services down here, and I just feel so...excluded.”

Another mentioned difficulty making healthcare appointments due to transportation issues (DCHD, 2022).

Highways

Interstate 15 (I-15) runs through the center of Davis County and is heavily used, since many citizens commute. The Utah Department of Transportation is currently conducting an Environmental Impact Statement of I-15 from Farmington to Salt Lake City to improve mobility for all transportation modes, improve safety, better connect communities, and strengthen the economy (UDOT, 2022).

I-15 runs north to south through the center of Davis County from South Weber to North Salt Lake. I-15 separates multiple cities in Davis County:

- South Weber, Centerville, Fruit Heights, and Bountiful are east of I-15
- Clinton, Syracuse, Sunset, West Point, and West Bountiful are west of I-15
- Layton, Clearfield, Kaysville, Farmington, Woods Cross, and North Salt Lake are split by I-15

In the U.S., the interstate highway systems have contributed to health and well-being in both positive and negative ways. Highways can increase access to resources, however, they can also create barriers between communities. In some cases, highways have contributed to inequities in where people live.

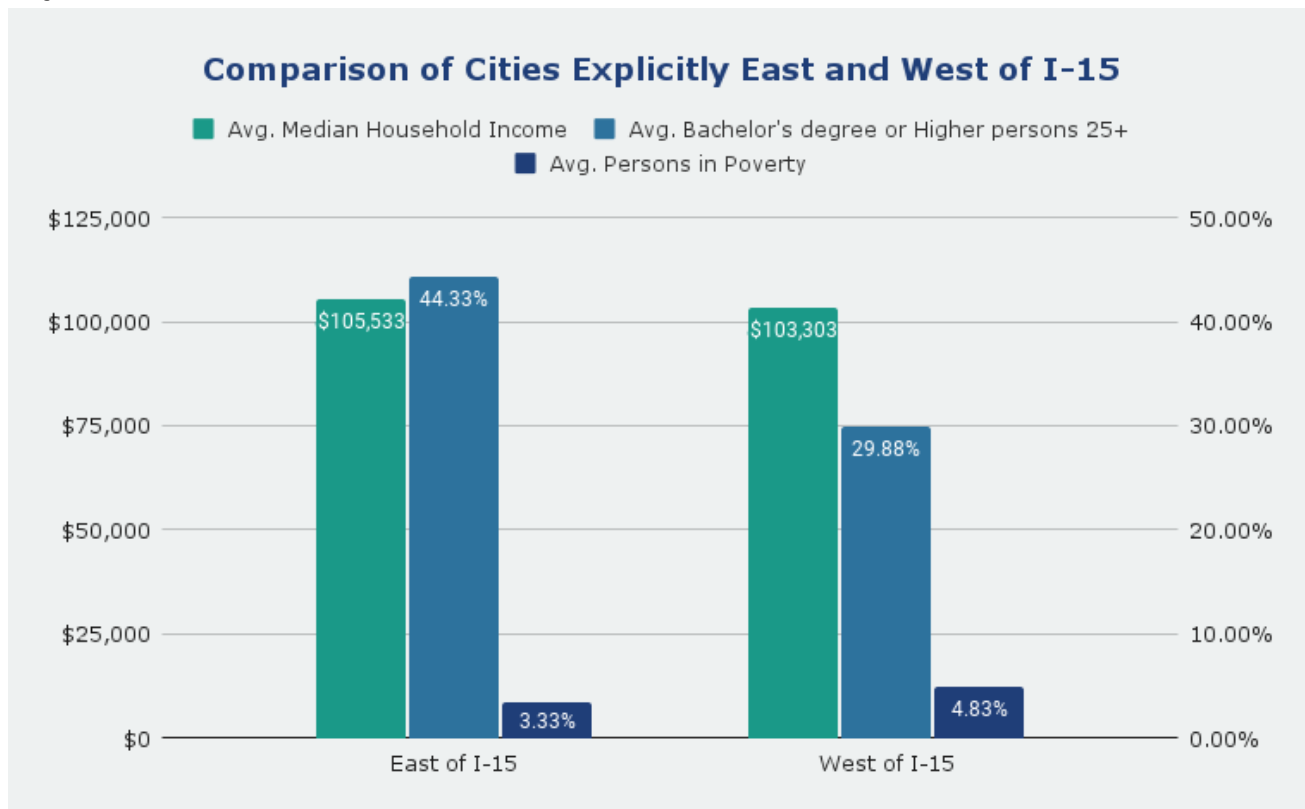
Historically, American interstate highway systems have been praised for their contributions to growing populations, expanding economies, and national security. They have also contributed to inequities among underserved, underrepresented, and marginalized groups. Due to the significant barriers freeways create, they have been negatively associated with encouraging segregation and closing off some groups and communities ([Federal Highway Administration](#), 2017; [NPR](#), 2021; [Evans](#), 2021).

As displayed in Figure 170, on average, cities residing east of I-15 share higher median household incomes, lower rates of poverty, and higher percentages of higher education (bachelor's degree or higher). South Weber, a city situated east of the I-15 divide has the highest median household income (\$120,365) and bears the lowest poverty rate (1.60%) in Davis County. Comparatively, Sunset, whose location is predominantly west of I-15, has

the lowest median household income (\$62,950) and Clearfield (also west of I-15) has the highest poverty rate (11.60%) in Davis County ([U.S. Census](#), 2017-2021, [U.S. Census](#), 2021). Figure 170 excludes data from cities bisected by I-15.

Other north to south routes include US-89, a smaller highway that is being widened and converted into a freeway and parallels I-15 to the east for the length of Davis County, while Legacy Parkway (UT-67) runs nearly parallel to the west from Farmington towards Salt Lake City. The West Davis Highway is under construction from Farmington north to West Point. East-west routes across the county are limited due to its narrow geography – bound by the Great Salt Lake on the west and the Wasatch Mountains on the east – which contributes to motor vehicle congestion.

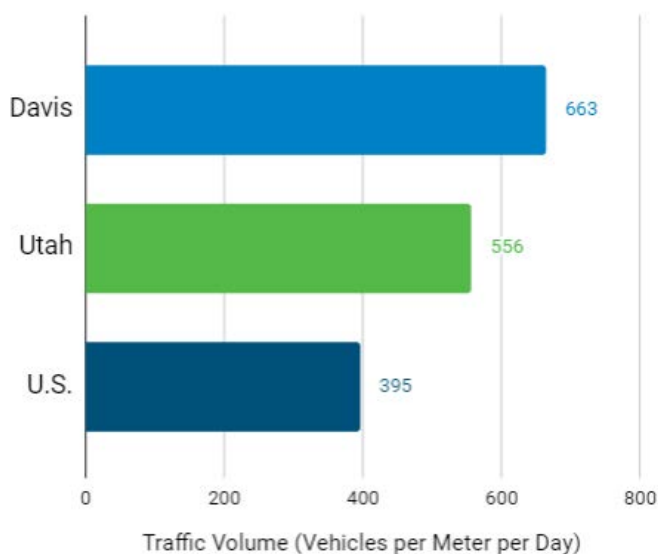
Figure 170



Source: DCHD, 2022; Note: avg=average

One way to measure traffic congestion in an area is average daily traffic volume, expressed as vehicles per meter of major roadway per day. For reference, a meter is equal to about three feet. As shown in Figure 171, Davis County roads have a higher traffic volume (663) than the State (556) and the Nation (395). Davis County has the second highest traffic volume score among Utah counties behind Salt Lake County ([CHR&R](#), 2022).

Figure 171: Traffic Volume on Major Roadways, 2019



Data: CHR&R, 2022

Public Transportation

Public transportation, also known as transit, is a system of vehicles that operate at regular times on fixed routes and are used by the public ([CD](#), 2022). Some examples include buses, light rail, commuter trains, paratransit services for senior citizens and people with disabilities, streetcars and trolleys, and vanpool services.

All people benefit from public transportation. It is a lifeline for millions of Americans, including historically underserved groups, connecting them to people, places, and possibilities. On a community and societal level, it builds thriving communities, creates jobs, eases traffic congestion, promotes a cleaner environment, and is safer than driving a car. Investment in public transportation stimulates both the local and national economies (APTA, 2022).

In Utah, the Utah Transit Authority (UTA) FrontRunner provides commuter rail service from Ogden to Provo and follows the I-15 corridor through Davis County. It has four stops in Davis County: Clearfield, Layton, Farmington, and Woods Cross. As of November 2022, nine bus routes also serve the county on varied schedules, with a total of 628 bus stops ([UTA](#), n.d.). Some gaps in service exist, including a lack of bus stops near schools in the east and west parts of the county ([USBE](#), 2022; [UTA](#), 2022) and organizations that provide food and/or housing resources, such as the Layton Open Doors facility along SR-193.

Community focus group participants shared varied experiences with using public transportation services in Davis County. Some expressed how it benefited them and their families, including direct service to a senior center and access to the free Midtown Trolley to get to the Layton shopping center. Others listed a variety of challenges they faced, such as:

- No access in some neighborhoods
- Paratransit service limitations
- No service on Sundays and limited hours of service on other days
- Inconvenience of existing services; for example, the amount of time it can take to reach destinations
- Not knowing how to use transit services
- Cost of services

One participant who spoke limited English waited at a bus stop for more than an hour before someone stopped by to tell them they were not in the correct location. These challenges can deter people who need these services from getting where they need to go and from trying again (DCHD, 2022).

UTA is trying to address service and other gaps in a number of ways. First, they recently introduced the On Demand service option for South Davis. It connects riders with other transit services like buses and FrontRunner, as well as to other destinations in the community. The app-based technology is a rideshare service that matches multiple riders headed in a similar direction into a single UTA vehicle, allowing for quick and efficient shared trips ([UTA](#), n.d.).

Second, the UTA Education Program provides community outreach and education for school groups and community organizations of all ages ([UTA](#), n.d.). This includes dedicated travel trainers who work with older adults, people with disabilities, and others to show them how to ride UTA services. They offer help in both one-on-one and group presentation formats, and the program is free ([UTA](#), n.d.).

Last, they partnered with other agencies to offer free fare for all Utah passengers the entire month of February in 2022, which resulted in increases in every type of ridership in the State: ridership on weekdays increased by 16%; FrontRunner grew by 35.7% for the month; and UTA On Demand saw a 23% increase ([KSL](#), 2023).

Walking & Biking

Physical environments that support active transportation—walking and biking—to destinations impact the health of communities. Benefits include heart, lung, and muscle health; access to job opportunities, housing, healthcare, social services, parks, recreation, healthy food options, and public transit; and decreased air pollution levels ([RTT](#), n.d.).

After the COVID-19 Pandemic greatly increased community levels of physical activity outdoors in Utah ([Papastamos et al.](#), 2021), the Legislature approved historic funding—\$35 million in 2021 and \$40 million in 2022—for regional active transportation improvements ([UUP](#), 2022; [WFRC](#), 2022).

The US-89 widening project will accommodate walkers and cyclists in a couple of ways. There will be sidewalks and crosswalks as well as a shared space for bicyclists along a new frontage road system. Three pedestrian underpasses are being constructed for future trail connections that will improve east-to-west travel ([UDOT](#), 2022).

Davis County has many trails and facilities that support walking and biking:

- There are 353 miles of non-motorized trails ([UGRC](#), 2022) and 41.7 miles of on-road bike facilities (Table 93, next page)
- Within the past couple decades, Davis County completed the Legacy Parkway Trail and Denver and Rio Grande Western Rail Trail (D&RGW); these paved, shared trails link cities north to south, and are popular among walkers, runners, and bikers
- The construction of over 10 miles of new trail that will connect Emigrant Trail to Legacy Parkway Trail is underway as part of the West Davis Highway project ([UDOT](#), 2022)
- There are currently five pedestrian overpasses or walkways over major highways: three at I-15, one at US-89, and one at Legacy Highway ([MA](#), 2022); most are centrally located in Davis County, leaving crossing gaps at both ends

See Table 93 (next page) for a comparison of miles of bike lanes, paved shared trails, hiking trails, number of trail heads, and Gold Medal Miles between cities in Davis County. Gold Medal Mile is a designation beginning in 2001 from a Utah coalition to promote physical activity in preparation for the 2002 Utah Olympics ([Deseret News](#), 2001).

In 2016, Wasatch Front Regional Council (WFRC) assessed the presence of sidewalks on important highways in Davis County, which is the most current data available ([WFRC](#), 2022). Because it is outdated, the results are not included.

Barriers that prevent walking and biking identified by this assessment include:

- Limited bike or pedestrian paths across freeways, highways, overpasses, and rail lines to access desired destinations
- Difficulty accessing public transportation on foot or by bike
- Lack of signage to direct people to trail systems, transit, and other destinations

One of the best ways to make sure biking and walking are prioritized in a safe, integrated way is through the development and adoption of active transportation plans, either as a standalone plan or as part of the city/county's general plan. Davis County has three standalone regional plans where cities are in various stages of adoption: North Davis, which includes Clearfield, Clinton, Sunset, Syracuse,

and West Point cities; South Davis, which includes Bountiful, Centerville, and North Salt Lake cities; and a combined Farmington-Kaysville cities plan. West Bountiful has its own standalone plan, and Layton is currently developing one as well. South Weber has a dedicated section within their general plan ([WFRC](#), n.d.).

Table 93: Trails by City, Davis County, 2022

City	Bike Lane Miles	Paved Shared Trail Miles	Hiking Trail Miles	Trail Heads	Gold Medal Miles
Bountiful	4.9	7.1	5.2	7	0
Centerville	3.4	8.6	1.9	6	1
Clearfield	0	10.4	0	6	1
Clinton	0.5	9.6	0	1	1
Farmington	0.2	21.1	9.1	18	0
Fruit Heights	0	0.1	5.6	4	0
Kaysville	1	17.7	3	1	1
Layton	5.8	14.9	0.8	25	1
North Salt Lake	5.3	8	6.3	4	0
South Weber	0.2	0.7	0.4	1	0
Sunset	0	0.6	0	0	1
Syracuse	6.8	13.4	0	5	0
West Bountiful	3.9	5	0.1	6	0
West Point	1.5	5.2	0	3	0
Woods Cross	1	4.3	0	2	0
Davis County (Unincorporated)	0.3	9.1	206.8	98	0
Antelope Island State Park	6.9	0	54.1	26	0
County Totals	41.7	135.8	293.3	213	6

Data: Bike Lane Miles, Paved Shared Trail Miles, Hiking Miles, Trail Heads (Davis County, 2022). Gold Medal Miles ([Davis4Health Resource Locator](#), 2023)

Commuting

The choice of how a person commutes to work is influenced by the community's infrastructure and the location of their worksite. The majority of workers living in Davis County commute to surrounding counties (Salt Lake County and Weber County) for their employment ([DWS, 2019](#)). In 2020, the average commute time for workers living in Davis County for all transportation means combined was 23.4 minutes, higher than the State average of 22 minutes ([U.S. Census, 2020](#)). More than 3 in 4 county residents drive alone to work, which is also higher than the Utah and U.S. averages. Among those who drive alone to work, commutes of 30 minutes or longer are more common among Davis County commuters compared to Utah commuters (Table 94).

Long commute times impact the health of individuals and communities. Individuals may have poorer health from prolonged sitting and are less likely to achieve recommended activity levels. On a community level, driving to work contributes to poor air quality and increased risk of traffic crashes.

There was a noticeable decline of those who reported driving to work as the primary transportation mode to work between 2019 and 2021 in Davis County. More people reported working from home between the same years. This most likely reflects a shift in working remotely as a result of the COVID-19 Pandemic (Figure 172).

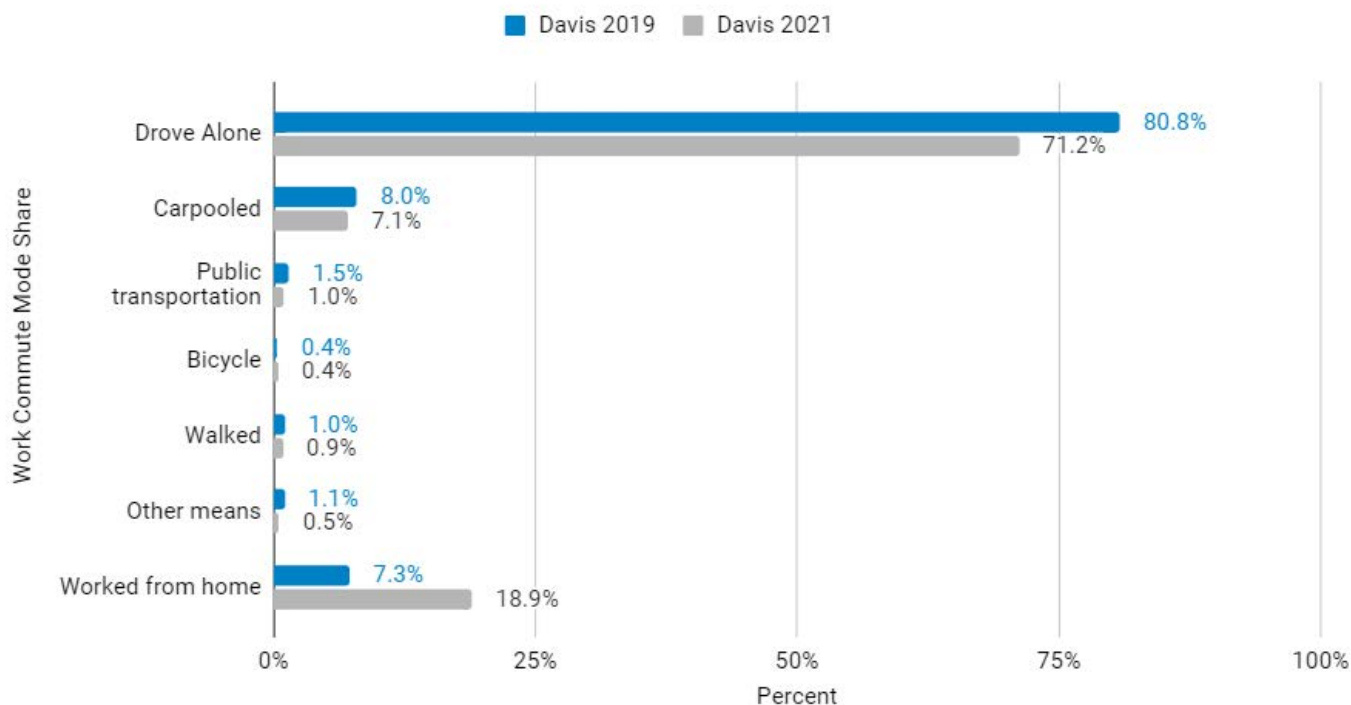
The Utah Household Travel Survey, which takes place every 10 years, will be underway next year and provide a breakdown of overall trips by primary transportation means (walking, biking, transit, auto, and other).

Table 94: Driving Alone to Work, 2016-2020

Indicators	Davis	Utah	U.S.
People Driving Alone to Work	78%	74%	75%
People Driving Alone to Work with Long (30+ Minutes) Commutes	29%	25%	37%

Data: [CHR&R, 2016-2020](#)

Figure 172: Primary Transportation Means to Work, Workers Ages 16+ Years, Davis County, 2019 & 2021



Data: U.S. Census, 2019 & 2021 (1-Year Estimates)

Emerging Transportation

In addition to traditional sources of transportation, emerging transportation options are becoming/will become available, such as electric scooters, electric motorcycles, and self-driving vehicles.

It is important for city planners, transportation planners, and others to monitor prevalence and trends as these new transportation options are introduced in the community and find ways to integrate these options within the existing landscape in a safe and efficient way.

Transportation Resources		
Transportation Services		
Senior Services, DCHD	<i>Medical transportation for seniors to appointments within Davis County</i>	801-525-5058 ext. 2 daviscountyutah.gov/health/aging-adult-services/senior-health/senior-medical-transportation
UTA On Demand	<i>\$2.50 on demand ride share (available in south Davis only)</i>	rideuta.com/Services/UTA-On-Demand
UTA Paratransit Services	<i>Paratransit service</i>	rideuta.com/Rider-Info/Accessibility/Accessible-UTA/Paratransit-Services
UTA Travel Training Program	<i>Travel trainers can assist anyone learning how to use public transit, including Spanish-speakers</i>	rideuta.com/Rider-Info/How-To-Ride/Travel-Training
Vehicle Repair		
Vehicle Repair and Replacement Program (VRRAP), DCHD	<i>Financial assistance toward the repair or replacement of vehicles that are unable to meet current emissions standards</i>	daviscountyutah.gov/health/environmental-health-services/vehicle_emissions/VRRAP
Transportation Planning		
Bike Utah Resources	<i>Resources, advocacy, and policy</i>	bikeutah.org/resources
Davis Active Transportation Committee	<i>Convenes county partners to discuss bicycle and pedestrian facility infrastructure, issues, and funding, focusing on regionally significant trails and projects</i>	Bartly Mathews: 801-451-3276
Utah Active Transportation Best Practices	<i>Best practices in promoting active transportation for commuting</i>	static1.squarespace.com/static/5b8b54d1f407b40494055e8f/t/5bdc81c9352f53c30ce42361/1541177815684/Utah+Active+Transp
Utah Active Transportation Plans Map	<i>Tracks the funding and completion of active transportation plans in local communities</i>	wfrc.maps.arcgis.com/apps/MapSeries/index.html?appid=87827ba730d44a09aeae83a8f9dc43e
Walkability & Measuring Urban Street Design, Wasatch Front Regional Council	<i>Map applications that relate to transportation and land use planning along Utah's Wasatch Front</i>	maps.wfrc.org

Air Quality

Outdoor and indoor air quality are important indicators of a community's livability. Having clean air to breathe is necessary for good health. Poor air quality is associated with chronic disease and premature death, and reduces quality of life. It can also create irritation and offensive odors that may limit people's ability to be physically active. Air pollution is a measure of poor air quality. It impacts the environment by increasing the acidity of water bodies, like lakes and streams, and changing soil nutrient ratios, which can affect agriculture operations.

Poor air quality has a negative impact on the economy as well as health. Direct and indirect costs of air pollution cost Utahns \$1.9 billion annually. Air pollution shortens the life of the average Utahn by 2 years (Errigo et al., 2020). When asked to think about their well-being in the future, air quality was a top health concern for Davis County residents (USU, 2022).

Each year, the Environmental Protection Agency (EPA), conducts an Air Toxics Screening Assessment (AirToxScreen). It provides

communities with data on health risks from toxic or hazardous air pollutants that may cause cancer or other serious health effects down to the neighborhood level (EPA, 2022). Based on recent assessment results of 72 pollutants, 20 cancer cases are expected for every one million people exposed over a lifetime in Davis County. Cancer risk is similar in Utah and slightly higher for the U.S. (Table 95).

Respiratory Hazard Index scores are used to indicate the likelihood of a negative health outcome not related to cancer among 14 organ systems in the body. A Hazard Index score of one or lower for an organ means exposure to toxic air pollutants is unlikely to cause negative health effects over a lifetime (EPA, 2023). The Respiratory Hazard Index score for Davis County is 0.2, similar to Utah and slightly lower than the U.S. (EPA, 2019).

Those who live in urban areas or are part of an underrepresented racial or ethnic group are more likely to be exposed to air pollution (AHR, 2022; EPA, 2023).

Table 95: Health Risk Scores for Exposure to Toxic Air Pollutants, 2019

Toxic Air Indicators	Davis	Utah	U.S.
Lifetime Cancer Risk (per 1 Million People)	20	20	30
Respiratory Non-cancer Hazard Score	0.2	0.2	0.3

Data: EPA, 2019

Air Quality Index (AQI)

The Air Quality Index (AQI) is used across the nation to measure air quality in relation to five major pollutants: ground-level ozone, particulate matter, carbon monoxide, sulfur dioxide, and nitrogen dioxide ([EPA](#), n.d.). AQI scores range from 0 to 500. Table 96 summarizes AQI scores and the corresponding levels for the two pollutants of concern in Davis County.

For more information, see the EPA Non-Attainment section of this chapter.

Scores correspond to color-coded categories that indicate which demographic groups may be affected most by each level of pollution and how to reduce exposure to unhealthy air. The six levels of health concern and what they mean for specific groups are:

- "Good" AQI is 0 - 50. Air quality is considered satisfactory, and air pollution poses little or no risk.
- "Moderate" AQI is 51 - 100. Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people. For example, people who are unusually sensitive to ozone may experience respiratory symptoms.
- "Unhealthy for Sensitive Groups" AQI is 101 - 150. Although the general public is not likely to

be affected at this AQI range, people with lung disease, older adults and children are at a greater risk from exposure to ozone, whereas persons with heart and lung disease, older adults and children are at greater risk from the presence of particles in the air.

- "Unhealthy" AQI is 151 - 200. Everyone may begin to experience some adverse health effects, and members of the sensitive groups may experience more serious effects.
- "Very Unhealthy" AQI is 201 - 300. This would trigger a health alert signifying that everyone may experience more serious health effects.
- "Hazardous" AQI greater than 300. This would trigger health warnings of emergency conditions. The entire population is more likely to be affected.

The higher the AQI score, the more air pollution is present and the larger the threat to health. An AQI value of 100 generally corresponds to the National Ambient Air Quality Standard (NAAQS) for each pollutant, which is the level EPA has set to protect public health ([IBIS](#), 2020).

Over the last decade, the majority of days in Davis County were good air days, with AQI scores from 0 to 50. However, the percent of the year spent in the low-risk green category has gradually decreased since 2013, as shown in Figure 173 on the next page. Red unhealthy days, with AQI scores between

Table 96: Summary of Air Quality Index Categories

Air Quality Index (AQI) Values	Levels of Health Concern	Colors	Fine Particulate Matter (PM _{2.5}) Conditions	Ozone Conditions
<i>When the AQI is in this range:</i>	<i>...air quality conditions are:</i>	<i>...as symbolized by this color:</i>	<i>Based on a 24-hour average of micrograms per cubic meter of air (ug/m3):</i>	<i>Based on an 8-hour average of parts per billion (ppb):</i>
0-50	Good	Green	0-12.0 ug/m3	0-54 ppb
51-100	Moderate	Yellow	12.1-35.4 ug/m3	55-70 ppb
101-150	Unhealthy for Sensitive Groups	Orange	35.5-55.4 ug/m3	71-85 ppb
151 to 200	Unhealthy	Red	55.5-150.4 ug/m3	86-105 ppb
201 to 300	Very Unhealthy	Purple	150.5-250.4 ug/m3	106-200 ppb
301 to 500	Hazardous	Maroon	250.5 ug/m3 & Above	201 ppb & Above

Data: [EPA](#), 2022; [UDEQ](#), n.d.

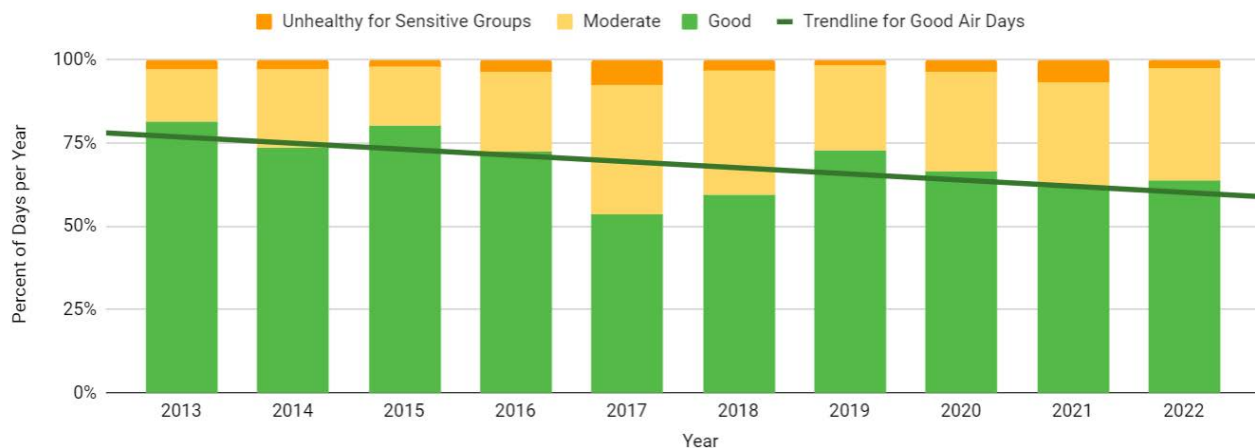
151 and 200, accounted for less than 1% of the whole year in 2018, 2020, and 2021 and are not visible in the figure. Zero days over the last decade had very unhealthy or hazardous days with AQI scores above 200 (EPA, 2013-2022).

Some populations are affected by poor outdoor air quality more than others. This is especially relevant in Davis County where many residents value access to nature and exercise opportunities for well-being (USU, 2022). According to the EPA, groups that are the most sensitive to health impacts from poor air quality include:

- Older adults and children
- People with heart or lung diseases
- Those who are active outdoors (EPA, n.d.)

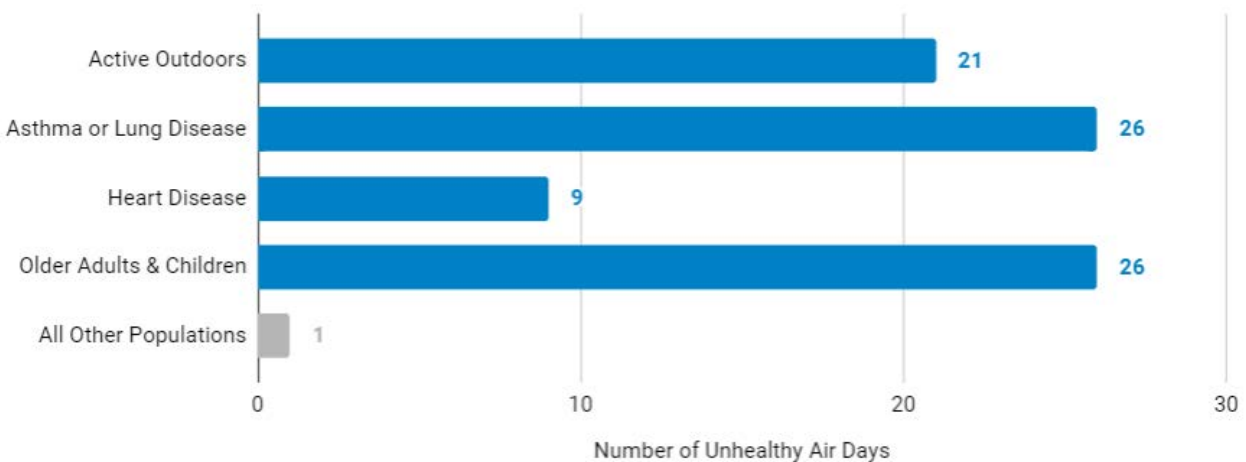
In Davis County, 2017 and 2021 were the most challenging years for those at a higher risk of health impacts from air pollution. Figure 174 shows the number of days in 2021 that were unhealthy for sensitive populations to be exposed to outdoor air, based on AQI scores. On these days, sensitive populations were advised to take precautions or stay indoors due to the level of pollutants in the county's air more often than all other populations (EPA, 2021).

Figure 173: Percent of Year Spent in Green, Yellow, & Orange AQI Categories, Davis County, 2013-2022



Data: EPA, 2013-2022 (Note: Unhealthy red, very unhealthy purple, & hazardous maroon AQI categories not shown due to small or zero counts)

Figure 174: Unhealthy Air Days for Sensitive Populations, Davis County, 2021



Data: EPA, 2021

The national initiative, Healthy People 2030, has included improving air quality among its Leading Health Indicators (LHIs). Most LHIs address important factors that impact major causes of death and disease across the lifespan in the U.S. ([Healthy People 2030](#), n.d.). The LHI for air quality is based on AQI scores and aims to reduce the number of days people are exposed to unhealthy air by 10% from 2020 to 2030. Based on the most recent data available, Davis County is meeting this goal ([EPA](#), 2018-2021). The reduction in commuter trends during the COVID-19 Pandemic should be considered when interpreting this data. This measure should continue to be monitored.

See Appendix 7 for Healthy People LHI data.

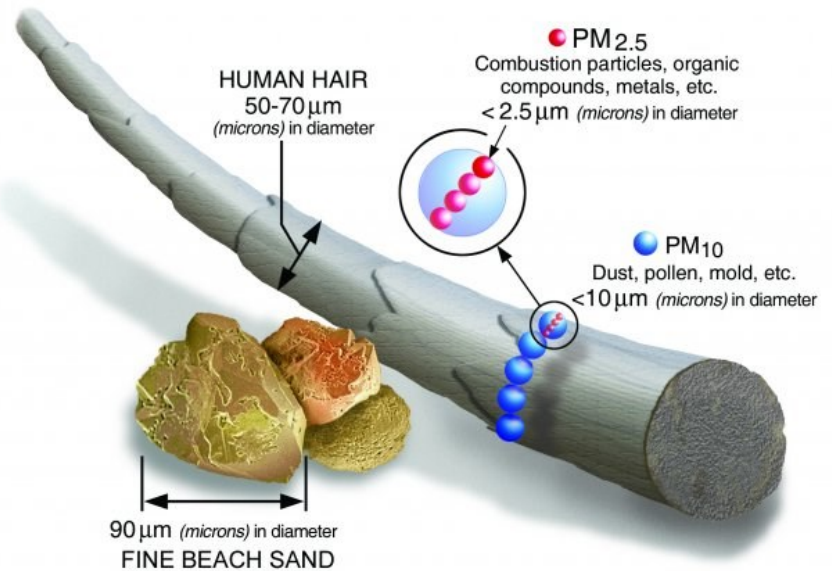
Particulate Matter

Particulate matter, also known as particle pollution, is a common indicator of poor outdoor air quality. It contributes to the haze seen on poor air days. Particles can be many sizes and shapes, and originate from different chemicals. They are emitted into the air by sources like refineries, vehicles, fires, and construction.

Some particles are small enough to be inhaled deep into the lungs and bloodstream ([EPA](#), 2022). This increases a person's chance of premature death, developing heart and respiratory diseases, and having poor birth outcomes ([UT HPI](#), 2022). These inhalable particles are often categorized by size into PM_{10} , or particles with a diameter of 10 micrometers or smaller, and $PM_{2.5}$, which are fine particles that are 2.5 micrometers or smaller in size. A human hair is 30 times larger than $PM_{2.5}$ particles (Figure 175). Although both are harmful, $PM_{2.5}$ poses the greatest risk to health and is the most commonly reported particle measure ([EPA](#), 2022).

According to County Health Rankings and Roadmaps (CHR&R), particle pollution is one of Davis County's largest opportunities for improvement ([CHR&R](#), 2022). Due to high levels of particle pollution, Davis County has healthier environmental conditions than only 11.1% of other Utah counties ([UT HPI](#), 2022). As shown in Figure 176 (next page), Davis County is doing

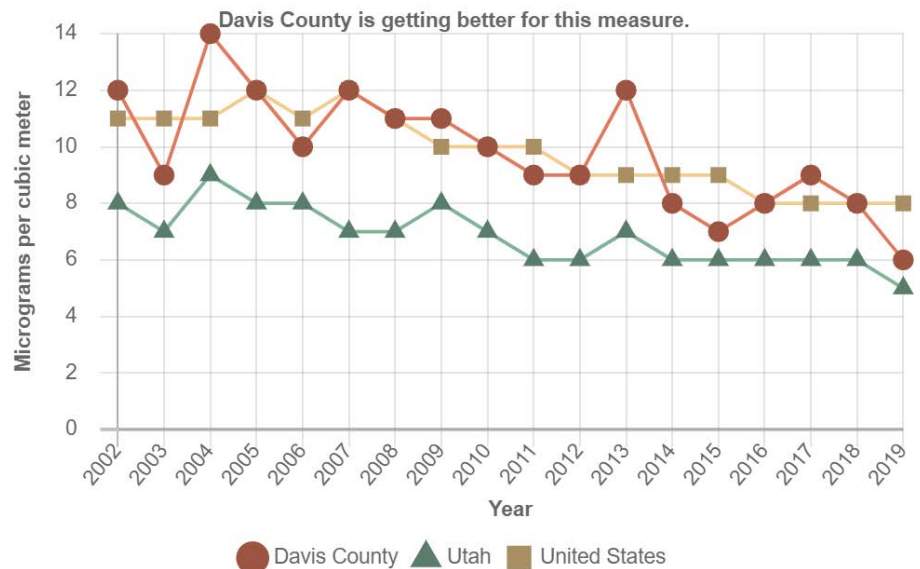
Figure 175



Source: [EPA](#), 2022

Figure 176

Air Pollution - Particulate Matter in Davis County, UT
Average daily density of fine particulate matter: county, state and national trends



Source: [CHR&R](#), 2022

worse than the State for annual averages of $PM_{2.5}$, but $PM_{2.5}$ pollution is currently trending in the right direction ([CHR&R](#), 2022). However, it is important to consider other pollutants, like PM_{10} , ozone, carbon monoxide, sulfur dioxide, and nitrogen dioxide in addition to $PM_{2.5}$ when evaluating overall county conditions. Weather patterns across locations may also skew trends.

Diesel Particulate Matter

Diesel particulate matter (Diesel PM) is a type of fine particulate matter generated by diesel engines or soot from industrial sources ([Breathe Utah](#), n.d.). Since Diesel PM is so small, it can reach deep into people's lungs, increasing the risk of cardiovascular and respiratory diseases, poor birth outcomes, and premature death ([CARB](#), n.d.).

According to the Utah Healthy Places Index, the average daily amount of particle pollution from diesel sources is highest in counties along the Wasatch Front ([UT HPI](#), 2022). Exploring this Diesel PM indicator further may improve Davis County's environmental ranking compared to other counties in Utah.

Ozone

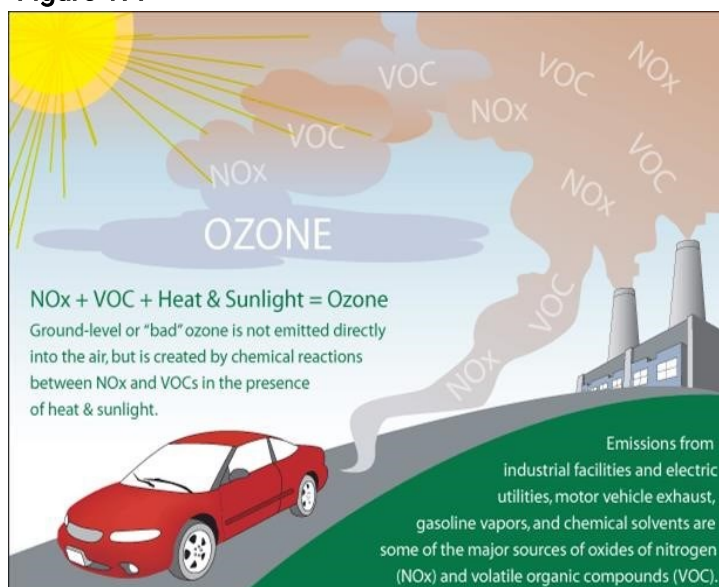
Ozone is a gas that occurs both in the Earth's upper atmosphere and in the air at ground level. Ozone can be good or bad, depending on where it is found ([EPA](#), 2022).

At ground level, it is formed when vehicle emissions and industrial pollution sources mix with sunlight and heat (Figure 177). Ozone is the main ingredient in "smog" and a harmful air pollutant because of its effects on the environment and people. Increased exposure to ozone can affect the growth of sensitive plants and ecosystems, including forests, parks, wildlife refuges, and wilderness areas. On hot summer days, ozone can rise to unhealthy levels and trigger a variety of symptoms, including coughing, throat irritation, and chest pain. Exposure over a long period of time can lead to lung damage ([EPA](#), 2022; [UDEQ](#), 2022).

Ozone is measured as an average amount in the air during the most polluted eight hours on summer days. Parts per million (ppm) is the unit of measure for ozone. The most recent Environmental Protection Agency (EPA) standard for ozone states that an 8-hour average for ozone should be 0.07 ppm or lower in order to protect the public's health. This is stricter than the prior standard ([EPA](#), 2020).

The Utah Department of Environmental Quality (UDEQ) monitors ozone concentrations at several sites along the Wasatch Front, including one in Davis County. Since the EPA standard changed in 2015, the Davis County site has been above the ozone standard (Figure 178, next page). In 2022, all monitored counties along the Wasatch Front exceeded the EPA standard; however, fewer days over the standard occurred in 2022 than 2021, likely due to fewer days of wildfire smoke ([UDEQ](#), 2022).

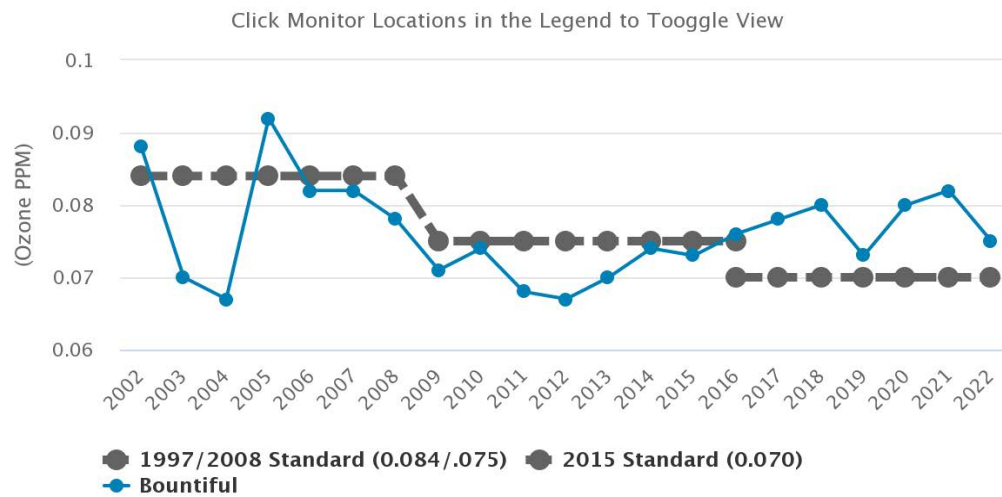
Figure 177



Source: [EPA](#), 2022

Figure 178

Ozone 4th Highest 8-hr Concentration Wasatch Front



Source: [UDEQ](#), 2023

Since the Wasatch Front has not met the EPA standard for the past several years and is not on track to meet the EPA's requirements by 2024, it has been designated as a non-attainment area and its level of non-attainment has been reclassified multiple times. For more about non-attainment, see the EPA Non-Attainment section later in this chapter.

The Environmental Protection Agency (EPA) recommends actions for states to take for reducing ozone pollution, such as vehicle and transportation standards, regional haze and visibility rules, and regular reviews of national air quality standards ([EPA](#), 2022).

UDEQ has additional ozone research planned and the Utah State Legislature designated \$3.2 million for the purchase of new ozone monitors. The information from these new monitors will help understand how and what factors are interacting in the atmosphere to cause ozone production in Utah. This will support targeted pollution control strategies in the future and improve regulatory activities.

Emissions

Emissions are air contaminants produced by three types of sources:

- **Point:** Industrial or commercial sites like power plants and refineries

- **Area:** Small, stationary sources like home heating, construction, agricultural burning and harvesting, energy production, wildfires, releases from natural vegetation
- **Mobile:** Vehicles or equipment used for on or off road purposes, such as cars, trains, construction equipment, lawnmowers, snowblowers, and aircraft

Due to federal law, statewide emission amounts for six pollutants are collected and reported every three years from 551 point sources (including oil and gas), 128 area sources, and 247 mobile sources across Utah. According to this data, the largest source of emissions for the following pollutants in Utah was:

- Carbon Monoxide (CO): forest fires (38%)
- Coarse Particulate Matter (PM₁₀): area sources (69%)
- Fine Particulate Matter (PM_{2.5}): forest fires (49%)
- Nitrogen Oxides (NO_x): on-road mobile sources (39%)
- Sulfur Dioxide (SO₂): point sources (80%)
- Volatile Organic Compounds (VOCs): vegetation emissions (77%) ([UDEQ](#), 2022)

The most recent emissions data available by county is from 2017 and is reported by pollutant type, as shown in Table 97 (next page) for counties along the Wasatch Front.

Table 97: Tons per Year of Emissions by Pollutant Type, Wasatch Front Counties & Utah, 2017

Pollutant	Davis County	Salt Lake County	Utah County	Weber County	State Grand Total
Carbon Monoxide (CO)	29,981.8	109,545.2	76,136.6	25,336.1	869,502.7
Nitrogen Oxides (NOx)	6,564.2	23,468.4	11,431.5	4,378.8	145,170.5
Course Particulate Matter (PM10)	3,400.0	17,049.2	17,361.4	4,394.0	186,507.85
Fine Particulate Matter (PM2.5)	928.0	4,334.7	4,890.1	991.6	56,535.4
Sulfur Dioxide (SO2)	165.4	2,486.4	312.0	34.8	14,846.9
Volatile Organic Compounds (VOCs)	11,780.9	29,513.0	36,528.8	10,764.6	965,022.3

Data: [UDEQ](#), 2022

Note: Consider the number of point sources that may be located in a county along with how population size and highway systems may influence emission totals

Mobile Sources of Emissions

Vehicles or equipment used for on or off road purposes are considered mobile sources of emissions. Nationally, mobile sources are the largest pollution emission source in areas that do not meet air quality standards. Along the Wasatch Front, on-road mobile sources, like cars and trucks, produce about 39% of the annual man-made pollution, and heavy-duty diesel vehicles account for one-third of that pollution. However, the impact of mobile sources is predicted to decrease due to changes to federal emission standards and Utah requiring refineries to produce Tier 3 gas, a lower-sulfur fuel intended to reduce the impact of vehicles on air quality and public health, starting in 2019 ([UDEQ](#), 2022; [UDEQ](#), 2020).

Preliminary findings from two months of reduced traffic along the Wasatch Front in 2020 (as a result of the COVID-19 Pandemic stay at home measures) show that there are immediate air quality benefits from reducing vehicle emissions. Electric vehicles could help with ongoing emission reduction efforts ([Mitchell](#), 2020; [UDEQ](#), 2022).

Vehicles that do not comply with local emissions standards; that emit excessive smoke; or fail an emissions test, contribute to poor air quality. A vehicle that fails emissions standards can pollute up to 150 times more than one that is properly maintained and in good repair ([UDEQ](#), 2021). In Davis County, 18,511 vehicles failed their initial emissions test in 2021. This number represents 7.8% of all vehicles tested in the county during the year (DCHD, 2021).

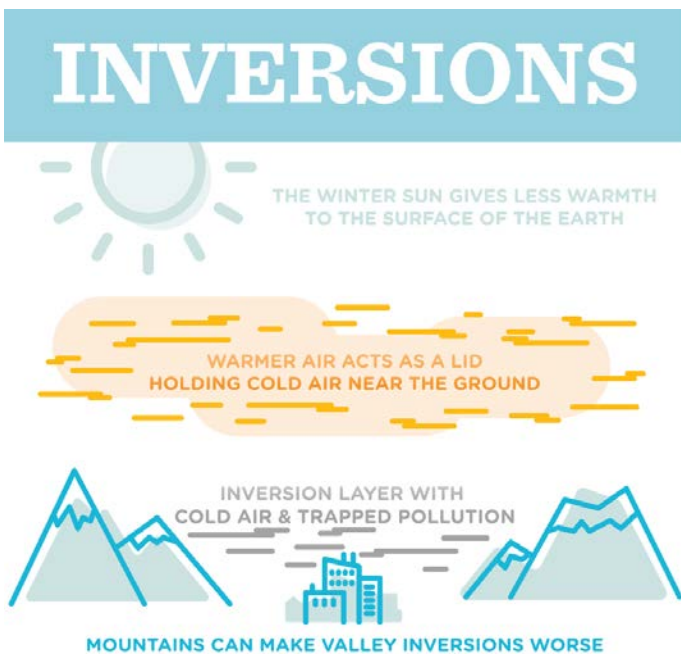
In Davis County, a certificate of waiver may be issued to the owner of a vehicle to accommodate economic inequities if that owner has attempted to repair their vehicle to comply with emissions standards. Oftentimes requiring emission testing in the county yields additional air quality benefits, such as motorists fixing their vehicles when they see a "Check Engine" light on their car before they receive an emissions test (DCHD, 2022).

For more vehicle data, see the Transportation section earlier in this chapter.

Inversions

Many high pollution periods occur during temperature inversions, which are common in valleys along the Wasatch Front. Inversions happen during the winter when warmer, high pressure systems trap colder air in valleys and hold it there (Figure 179). Emissions from cars, heating sources, and industrial processes form fine particulate matter (PM_{2.5}) in the atmosphere. Because the air is not moving, the pollution has nowhere to go and begins to build up. The air can even appear hazy. An inversion will linger until wind or a storm front comes through (UDEQ, 2021).

Figure 179



Source: UDEQ, 2021

For over 75% of days in the year, the air quality in Davis County poses little to no threat to health (EPA, 2020-2022). However, there are times of inversion during the winter when Davis County experiences high levels of air pollution due to fine particulate matter (PM_{2.5}). Pollution levels in the county are also elevated in the summer due to fireworks, forest fires, and ozone. As shown for the last three years in Figure 180 (next page), most spikes in PM_{2.5} levels occurred during the winter months while most spikes in ozone levels occurred during the summer months (EPA, 2020-2022).

EPA Non-Attainment

Non-attainment means an area does not meet national standards for outdoor air quality related to harmful pollutants as required by the Clean Air Act (EPA, n.d.). To improve air quality, states must draft a plan, called a State Implementation Plan (SIP), to improve the air quality in non-attainment areas. The plan outlines the steps that the State will take to improve air quality. Once a non-attainment area meets the national air quality standards again, EPA will designate the area as a "maintenance area" (EPA, 2022).

Davis County is covered by two air pollutant non-attainment areas: PM_{2.5} (Figure 181, next page) and ozone. Davis County has had its PM_{2.5} nonattainment designation since 2009 and the ozone designation since 2018 (EPA, 2023). The severity level of these two non-attainment areas have been reclassified in the last five years, likely due to the increasing population in Davis County and national standards becoming more strict. Davis County is also sandwiched between, but not part of, non-attainment areas for PM₁₀ in Ogden and Salt Lake (UDEQ, n.d.).

In response to the designations of non-attainment, the Utah Department of Environmental Quality (UDEQ) has created a State Implementation Plan (SIP) to identify control strategies for reducing pollutants. One of the control strategies identified is a vehicle inspection and maintenance (I/M) program, which provides emissions standards. In the SIP, counties located in non-attainment areas are tasked with the implementation and administration of an I/M program. Davis County has had an I/M program since 1984 when it received its first nonattainment designation. Four other counties along the Wasatch Front have an I/M program: Utah, Salt Lake, Weber, and Cache.

Figure 180: Daily AQI Scores for PM2.5 & Ozone, Davis County, 2020-2022

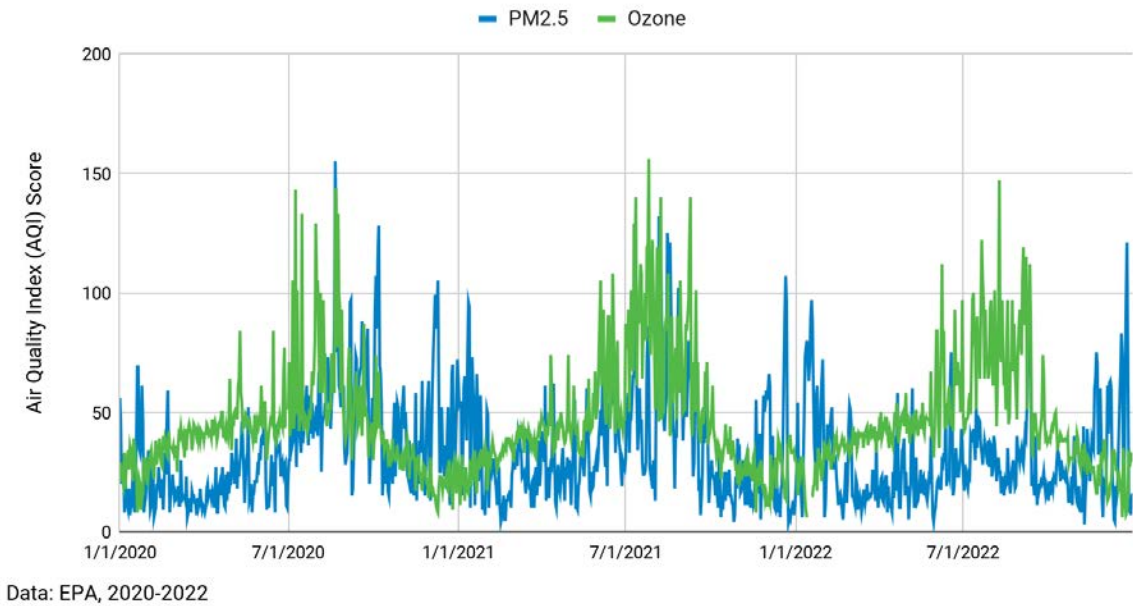
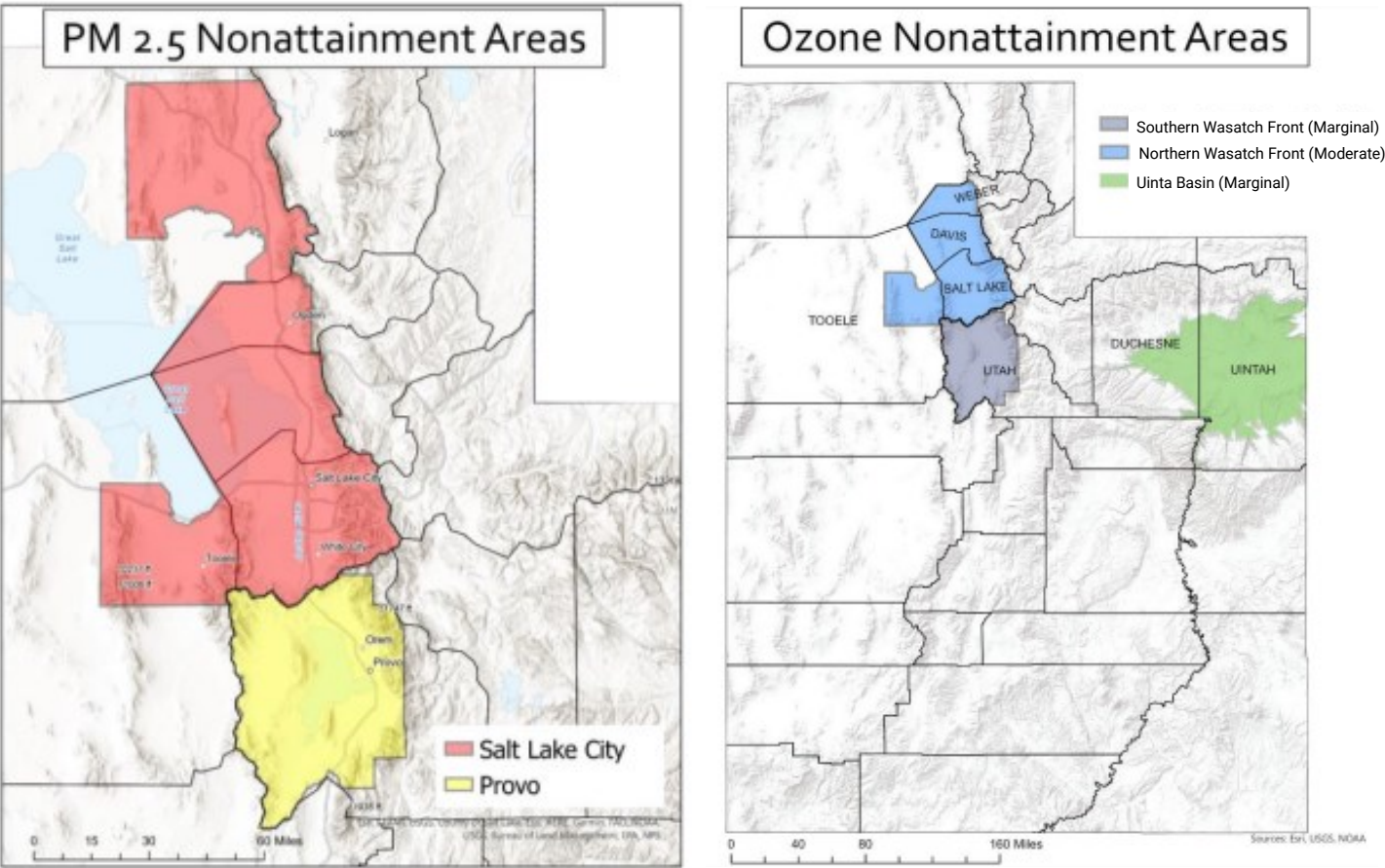


Figure 181



Source: UDEQ, 2022

Community Supports

There are several state and county initiatives to improve air quality.

PurpleAir Monitors

Davis County began a local air monitoring effort by installing PurpleAir Monitors in 2019. PurpleAir sensors measure airborne particulate matter (PM) and report it using the Air Quality Index (AQI) color-coded categories. PurpleAir sensors allow the general public to access real-time air quality data in their neighborhood. Davis County Health Department (DCHD) worked with the Davis School District (DSD) to strategically place PurpleAir sensors to provide air quality mapping for residents. Figures 182 and 183 (next page) are examples of publicly available PurpleAir readings from high schools in northern and southern Davis County.

It is important to note that conversion factors from the University of Utah (AQandU) have been applied to the data in the figures. This is because research has shown that PurpleAir sensors overestimate $PM_{2.5}$ concentrations during cold air pools, which are what many Utahns refer to as inversions ([Kelly et al., 2017](#)).

By the end of 2022, 63 monitors were installed across Davis County ([PurpleAir, 2023](#)). To explore PurpleAir monitoring results for your area, visit map.purpleair.com/.

Data collected by these sensors has helped guide informed decisions to decrease $PM_{2.5}$ pollution in Davis County. Commonly, Davis County has used PurpleAir monitors to advise DSD about air quality allowing the district to make informed decisions about recess and other outdoor activities.

Figure 182: PM_{2.5} AQI Data from PurpleAir Monitor at Clearfield High School

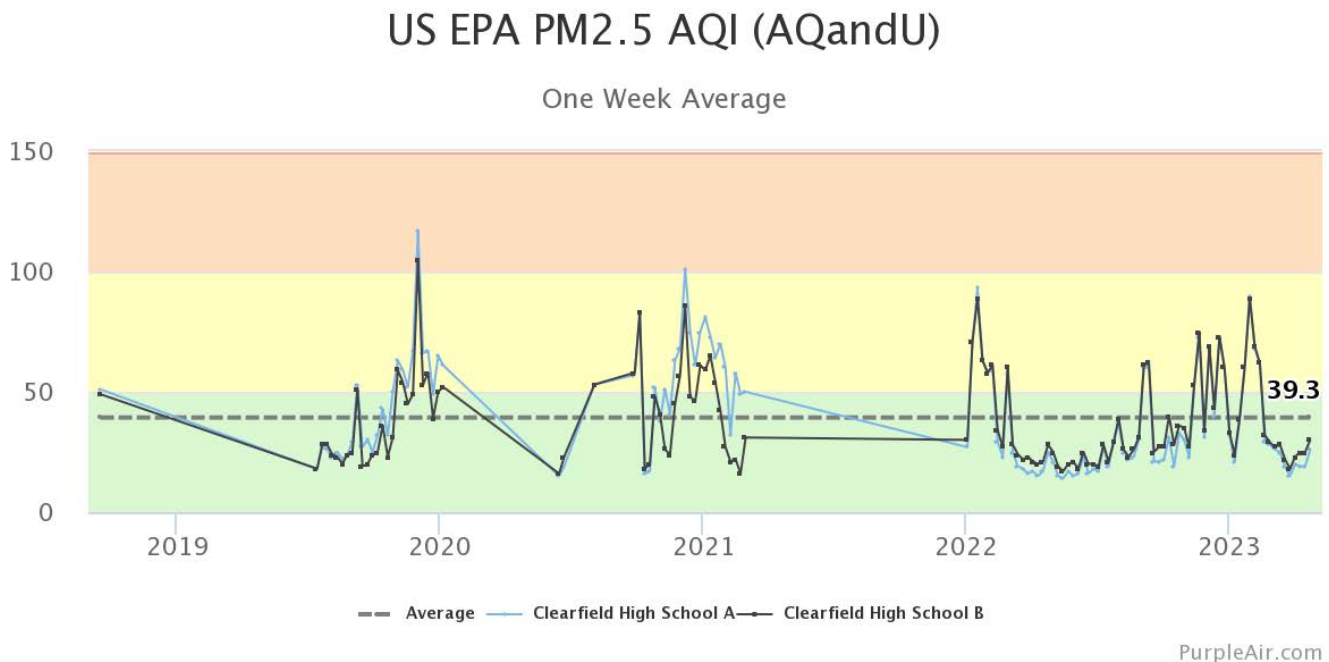
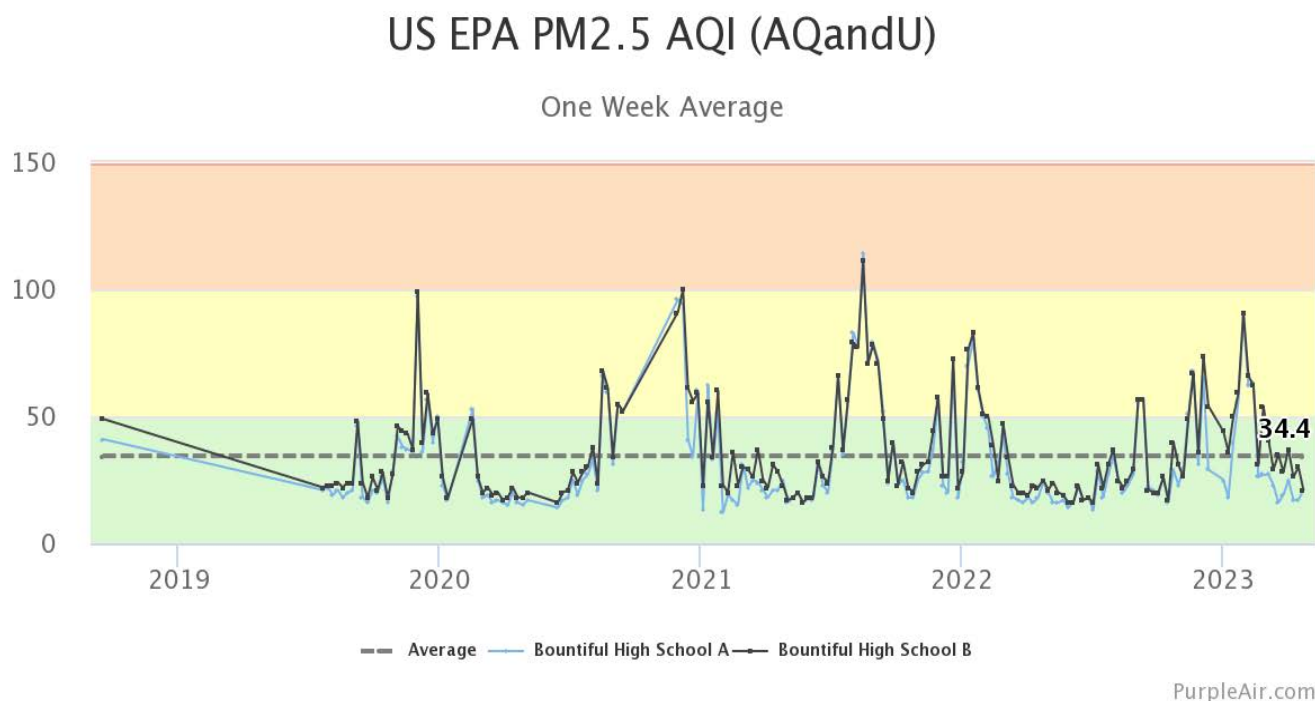


Figure 183: PM2.5 AQI Data from PurpleAir Monitor at Bountiful High School



Vehicle Repair & Replacement Assistance Program

In 2019, an EPA Targeted Airshed Grant was awarded to Davis, Weber, and Salt Lake Counties to address air quality. Davis County was sub-awarded \$1,219,911 to be distributed over the course of five years. The funding allowed for the creation of the Vehicle Repair and Replacement Assistance program (VRRAP), which provides financial assistance to persons at or below 300% of the federal poverty level. Financial assistance may be used to repair vehicles that have failed an emissions test or to replace vehicles with a newer, cleaner vehicle. The amount of funding provided to each person is determined based on the person's household income level, and for vehicles being replaced, the EPA emissions rating of the replacement vehicle (DCHD, 2022).

Smoking Vehicles

When a vehicle emits visible emissions, that vehicle is emitting excessive pollutants into the air and degrading the air quality at a much higher rate than vehicles with a properly operating emissions system. A smoking vehicle is a motor vehicle that emits visible emissions above permitted levels (EPA, 2020). This is often viewed as white or black smoke coming from the vehicle. These emissions are concerning because fossil fuel combustion, particularly as it occurs in motor vehicles, is the largest contributor to air pollution in the world (EPA, 2023).

Smoking vehicles impact the environment by increasing haze or inversion in communities, as well as acidification of lakes and streams (EPA, 2021). On a larger scale, smoking vehicles contribute to climate change by affecting temperatures, precipitation, and weather conditions.

To help keep smoking vehicles off of the road, anyone can submit a smoking vehicle report to Davis County Health Department (DCHD) (Figure 184). If a vehicle is reported by DCHD staff or members of law enforcement, or if there is more than one report from a member of the public, the owner of the vehicle is issued a notice. The notice requires the vehicle owner to pass an emissions test at DCHD Tech Center located in Kaysville.

In 2022, Davis County received 248 reports of smoking vehicles. Of those reports, 14 notices were issued and 80 letters of information were distributed (DCHD, 2022).

To report a smoking vehicle, call the Smoking Vehicle Hotline at 1-385-GOT-SMOG or visit [daviscountyutah.gov/health/environmental-health-division/complaint/smoking-vehicle-report](https://www.daviscountyutah.gov/health/environmental-health-division/complaint/smoking-vehicle-report).

No Burn Days

The Utah Division of Air Quality issues mandatory no burn actions when fine particulate pollution builds up to unhealthy levels during winter inversions. While these no-burn days are typically called during the winter inversion season of November 1st to March 1st, they may be called anytime throughout the year. State regulations prohibit residents from burning wood or coal on no burn days, unless they are registered as using wood or coal as their sole source of heat. Regulations cover Davis County along with six others (UDEQ, 2022).

Prohibited on No Burn Days:

- Wood fireplaces
- Wood stoves (both EPA certified and non-certified)
- Pellet stoves
- Coal burning stoves

Acceptable on No Burn Days:

- Natural gas appliances and propane stoves

Figure 184



Source: DCHD, 2023

Utah Clean Air Partnership

UCAIR (UCAIR) is a statewide clean air partnership created to make it easier for individuals, businesses, and communities to make small changes to improve Utah's air. Every small change adds to a collective bigger step toward better health, a better economy and better overall quality of life for all Utahns (UCAIR, n.d.).

UCAIR provides a list of ways that each resident can help to improve air quality:

- Don't idle
- Carpool
- Telework
- Use public transit
- Adjust your home thermostat to conserve energy
- Bike or walk
- Switch to an electric vehicle or a more fuel efficient vehicle
- Trip chain (multiple errands at the same time)

Air Quality Social Media Toolkit

The Utah Department of Health and Human Services (DHHS) has provided a community communication toolkit to help facilitate productive and non-confrontational conversations among community members about air quality issues (UDHHS, n.d.).

Air Quality Resources		
Breathe Utah	Advocacy and education	breatheutah.org
Current Air Quality Conditions	Current air quality conditions	air.utah.gov/currentconditions.php?id=bv
Davis County Smoking Complaint Form	Report smoking vehicles in Davis County	daviscountyutah.gov/health/environmental-health-services/vehicle_emissions/smoking-vehicle-report
EPA Air Quality Flag Program	Toolkits for schools	health.utah.gov/asthma/airquality/flag.php
KSL Air Quality Network	Air Quality Index current conditions	ksl.com/weather/airQuality
PurpleAir	Current air quality conditions	mylocation.purpleair.com
UCAIR	Advocacy and strategies	ucair.org
Utah Clean Cities	Alternative fuels advocacy	utahcleancities.org
Utah DEQ	Clean land, air and water for a healthy, prosperous Utah	deq.utah.gov
Utah Recess Guidance	Air quality guidance for schools	health.utah.gov/asthma/airquality/recess.php

Radon

Radon is a naturally occurring radioactive gas which worsens indoor air quality when it becomes concentrated in buildings and homes. It is a colorless and odorless gas and the only way to know if dangerous amounts of radon are present is to test indoor levels. In the U.S., it is estimated that 1 out of 15 homes have elevated radon levels ([CDC](#), 2022). In Utah, 1 in 3 homes have unhealthy radon levels ([UDEQ](#), 2022). The Environmental Protection Agency (EPA) recommends taking measures to reduce radon in a building or home if levels are above 4 picoCuries per liter of air (pCi/L). Levels above this are considered unsafe for human health ([EPA](#), 2022). In 2018, the radon susceptibility map in Figure 185 was completed for Davis County. This mapping indicated that the majority of Davis County was susceptible to levels of indoor radon above 4.0 pCi/L, shown in red. Areas highlighted in yellow on the map indicated susceptibility to still fall between 2 to 4.0 pCi/L of indoor radon levels (DCHD, 2018).

Indoor radon test results vary across Utah Small Areas in Davis County (Table 98). From 2017

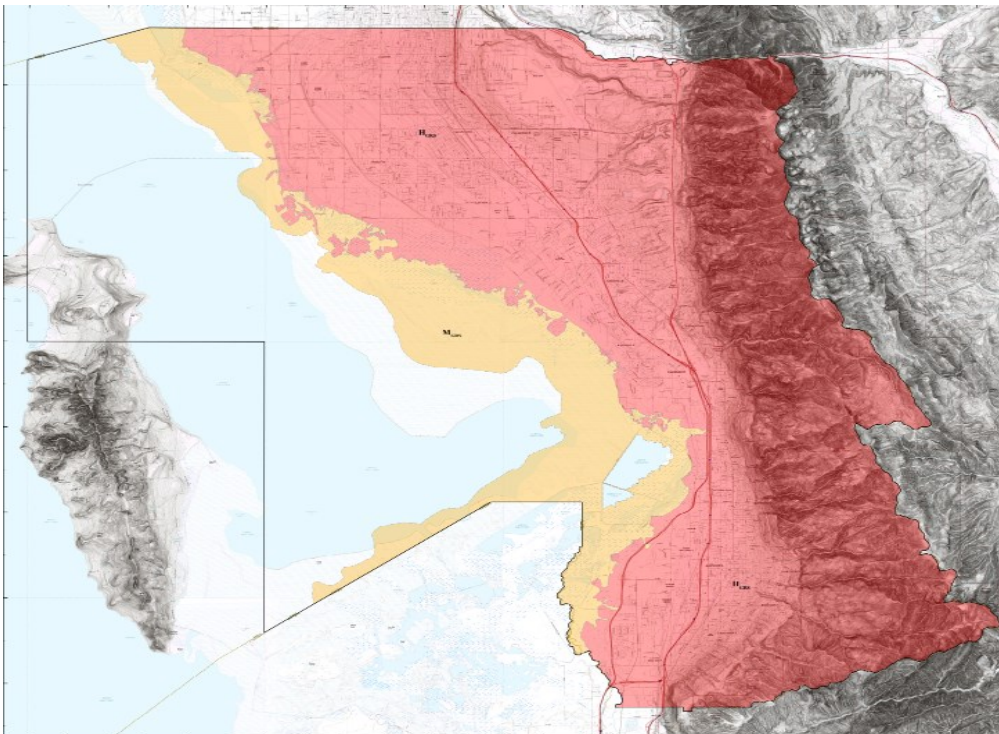
through 2019, greater percentages of indoor tests from Utah Small Areas in the southern half of the county reported unsafe radon levels. Farmington and Centerville had more tests above 4 pCi/L than over 90% of other Utah Small Areas ([UT HPI](#), 2022).

Table 98: Percentage of Indoor Radon Tests Levels Above Safe Levels, Davis County 2017-2019

Utah Small Area	Radon Tests Above 4 pCi/L
Bountiful	50.5%
Centerville	50.4%
Clearfield Area	7.5%
Farmington	42.8%
Kaysville/Fruit Heights	18.9%
Layton/South Weber	18.8%
North Salt Lake	18.4%
Syracuse	17.0%
Woods Cross/West Bountiful	36.3%

Data: [UT HPI](#), 2022

Figure 185



Source: DCHD, 2018

Radon exposure is the second leading cause of lung cancer in the U.S. behind smoking. Annually, radon causes over 21,000 lung cancer deaths ([CDC](#), 2022). The Utah Geologic Society (UGS) considers radon to be Utah's most deadly geologic hazard, accounting for 97% of all geologic hazard fatalities in the state since 1847 ([UGS](#), n.d.).

Community Supports

From November to April each year, Davis County Health Department offers free short-term radon testing for Davis County residents. Free do-it-yourself test kits are also offered. Since 2019, over 164 test kits have been distributed.

Radon testing services were disrupted in 2020 through 2022 due to COVID-19.

Low-cost radon test kits are also available through the Utah Department of Environmental Quality Program and can be ordered by visiting: deg.utah.gov/waste-management-and-radiation-control/radon/radon-program.

Learn more about what to do if your home tested high for radon here: deg.utah.gov/waste-management-and-radiation-control/high-radon-levels-whats-next.

Radon Resources		
Certified Radon Professionals in Utah	Measurement and mitigation professional locator	certifiedradonpros.org/ut.html
Healthy Housing, DCHD	Information and testing	daviscountyutah.gov/health/environmental-health-services/healthy-housing
Radon Resource	Information, programs, and initiatives	epa.gov/radon
Utah Department of Environmental Quality Radon Program	Test kits and information	deg.utah.gov/waste-management-and-radiation-control/radon/radon-program

Water Quality

Water is a precious resource in Utah and is essential to sustainability of individuals, families, communities, and the economy ([Utah Division of Water Resources](#), n.d.). Healthy living requires an adequate supply of quality water for drinking and domestic uses.

Drinking Water

In the U.S., drinking water is primarily accessed through regulated community water systems, which provide some of the safest water in the world ([CDC](#), 2020; [EPA](#), 2022). Drinking water is water that can safely be consumed or used in food or drink preparation and for various daily tasks. Safe and readily available water is vital for public health. It is used in households, schools, and workplaces ([CDC](#),

2022). Community water systems are regulated by the EPA Safe Drinking Water Act. These regulations set standards for treating and monitoring the drinking water that is delivered by community water systems ([EPA](#), 2022).

Contaminants in drinking water have the potential to affect many people. The EPA has set water quality standards and monitoring requirements for over 90 contaminants ([EPA](#), 2022). If a person is exposed to a contaminant in high doses or for long periods of time, they may become ill. Effects can be short-term or long-term depending on the specific contaminant, the level of contaminant in the water, the amount of exposure, and the person's individual susceptibility. Drinking water protection programs perform a critical role in ensuring high quality drinking water and protecting public health ([EPA](#), 2021).

Most Davis County residents get their drinking water from a community water system rather than a private well (DCHD, 2022). There are 28 public water systems in Davis County, ranging from a small U.S. Forest Service water system to a large wholesale water provider.

From November 2021 to October 2022, Davis County Health Department (DCHD) processed 3,095 drinking water samples from public water systems throughout Davis County. Of those, only 10 samples (0.3%) tested positive for coliform, a bacteria indicator. In each of these circumstances, efforts were taken to mitigate the issue as quickly as possible. Six systems were impacted by these positive bacterial results (DCHD, 2022).

In Davis County, all community water systems are inspected every three years to evaluate their construction, operations, and record keeping. The inspections identify conditions that may present a sanitary or public health risk, and are reported as minor deficiencies or significant deficiencies. Depending on the type of deficiency, the Utah Division of Drinking Water determines a timeline to get them fixed, or assigns an unapproved status on the water system.

In Davis County, there are 12 water systems (42.8%) that have minor deficiencies, 0 with significant deficiencies, and all water systems have an approved status (DCHD, 2022). Drinking water system indicators can be seen in Table 99.

Table 99: Drinking Water System, Davis County, 2022	
Indicators	Percent
Systems with Initial Coliform Positive Samples	0.3%
Systems Surveyed with Minor Deficiency	42.8%
Systems Surveyed with Significant Deficiency	0.0%
Population with Fluoridated Water Supply	96.5%

Data: DCHD, 2022

Fluoride

Fluoride is a mineral that can safely prevent tooth decay when given at an appropriate level (CDC, 2021). Fluoridation of drinking water is the most cost effective and equitable way to reduce the occurrence of tooth decay in a community. It is especially important for community members who may not have access to regular dental care (CDC, 2021). Nationally, fluoridation of drinking water has majorly improved dental health since the last half of the 20th Century. It is considered to be a top public health achievement for reducing preventable disease (CDC, 1999).

In 2001, community water fluoridation was implemented in Davis County through a community vote and Board of Health Drinking Water Fluoridation Regulation (DCHD, n.d.). Of the 28 water systems in Davis County:

- Eight water systems are fluoridated by the Weber Basin Water Conservancy District
- Nine water systems directly add fluoride to meet the fluoride levels required by the regulation
- Nine water systems are not fluoridated. Eight of the nine non-fluoridated water systems are not community water systems serving residential connections (i.e. campgrounds, amusement parks, etc.) and therefore exempt from the requirements of the regulation
- Woods Cross City maintains a legal exemption and does not add fluoride to its water systems

Due to these efforts, 96.5% of the Davis County population has access to fluoridated water as compared to 52.2% of Utah and 73.0% of the U.S. population (DCHD, 2021; AHR, 2022).

Recreational Waters

Recreational waters include rivers, lakes, and similar bodies of water where people can fish, swim, boat, raft, and other related activities ([EPA, 2022](#)). In Davis County, DCHD routinely monitors 31 stream sites, 14 pond sites, and 2 designated locations within the Great Salt Lake to protect water quality. Samples are collected to assess the levels of coliform bacteria, E.coli, total water chemistry, nutrients, and metals. Additional measures include pH, flow rate, and specific conductivity (DCHD, 2022).

Stream sites are visited monthly on a 3-year rotating cycle, while pond sites are sampled monthly during the recreational season from May through October. Water bodies that exceed the standards are placed on the Clean Water Act 303(d) list as either impaired or threatened with regards to a specific pollutant. The Utah Division of Water Quality (DWQ) reports the results and findings in their biannual Integrated Report. The most recent 2022 Integrated Report has listed the following water bodies as impaired for varying pollutants:

- North Salt Lake: North Canyon Creek
- Bountiful: Mill Creek, Stone Creek
- Centerville: Barnard Creek, Parrish Creek, Ricks Creek
- Farmington: Baer Creek, Davis Creek, Farmington Creek, Rudd Creek, Steed Creek
- Layton: Holmes Creek, Kays Creek (including Mid Fork, North Fork and South Fork), Snow Creek

In 2022, North Canyon Creek was delisted for the pollutants E. coli and total dissolved solids ([DWQ, 2022](#)).

During the recreational sampling season of 2022, 235 bacteriological samples were collected at recreational pond sites in Davis County. Only 10 sites exceeded the established criteria. DCHD resamples sites that exceed the established criteria within 24 hours. Oftentimes, a precipitation event or other circumstance will cause the initial exceedance. If the follow-up samples fall below the criteria, then it is considered unnecessary to post a health advisory. None of the 10 sites received a health advisory posting for waterborne pathogens (DCHD, 2022).

Harmful Algal Blooms (HABs)

Harmful algal blooms (HABs) develop when naturally occurring cyanobacteria multiply quickly, forming green to blue/green water, mats, and/or scum in a body of water. These blooms may produce very potent toxins that can be harmful or even fatal to persons or animals that contact or ingest affected water. Due to the toxicity and danger presented during a HAB, it is imperative that actions are taken quickly to protect public health ([CDC, 2022](#)). An example of a HAB can be seen in Figure 186, an image of Andy Adams Reservoir in 2020 ([DWQ, 2020](#)).

Figure 186



Source: [DWQ, 2020](#)

Nutrient pollution, which happens when there is an excess of nitrogen and phosphorus, is of particular concern because it allows a HAB to thrive. Nutrient pollution has impacted every state in the country, with about 15,000 bodies of water having nutrient-related problems. Common sources of nutrient pollution include fossil fuels, stormwater runoff, industrial waste, and agricultural fertilizers (EPA, 2022).

In 2019, Davis County became more involved in statewide active HAB monitoring efforts in partnership with the Utah Division of Water Quality. During that time, three secondary water bodies in Davis County had HABs: two in Layton (Andy Adams and Holmes Creek Reservoirs) and one in Syracuse (Syracuse Pond). Other bodies of

water throughout Davis County are monitored and sampled when a HAB is identified. During the 2022 season, there were seven HAB Health Watch listings, three of which were upgraded to warnings. The warnings were posted at Bountiful Pond, Clinton City Pond, and Andy Adams Reservoir (DCHD, 2022).

Health watch and warning signs (Figure 187) are physically posted at each water body in a noticeable location, and the water bodies are listed on the DWQ website to alert the public. After a HAB has been identified through sample results, DCHD follows up weekly to collect samples. The health watch or warning signs are removed only after two consecutive samples have indicated that the HAB is no longer present (DCHD, 2022).

Figure 187



Source: [DWQ](#), 2023

Public Pools

Public pools are bodies of water that are permitted by DCHD and accessed by a community. Public swimming pools are located in a variety of places, including apartment complexes, townhomes, HOAs, hotels, spas, and recreational facilities.

Public pools with good water quality can promote health in the community. Pools provide a great location for people, both young and old, to learn how to swim in a safe environment. Knowing how to swim can help prevent accidental drowning in other pools or recreational waters ([CDC](#), 2022).

There are both physical and mental benefits to using swimming pools and hot tubs for exercise and therapy. Aerobic exercise, such as swimming, can help decrease the risk of chronic illnesses. Pools can also provide a low impact exercise option for those with joint or muscle pain ([CDC](#), 2022).

In Davis County, the Board of Health Public Pool Regulation has been in effect since 1964. In order to operate a public pool, owners must have a valid operating permit and follow health and safety practices ([DCHD](#), n.d.). Maintaining appropriate disinfectant levels in public pools can help to reduce recreational water illnesses, such as diarrhea ([CDC](#), 2022).

DCHD conducts routine pool inspections on an annual basis and routine sampling on a monthly basis. From November 2021 through October 2022, DCHD conducted 234 routine inspections and collected 1,365 samples (Table 100). Of the pool samples taken, 7.2% required repeat sampling to verify that corrections had been addressed and that water quality standards were being achieved. During

this time period 78 pools were closed. Of the pools that were closed, 69% of the closures were due to the disinfectant being below regulatory requirements (DCHD, 2022).

Table 100: Pool Statistics, Davis County, November 2021-October 2022

Indicators	Numbers
Pool Permits Issued	245
Routine Inspections Conducted	234
Routine Water Samples Taken	1,365
Repeat Water Samples Taken	99
Follow-Up Inspections Conducted	76
Total Number of Pool Closures	78
Closures Due to Low Disinfectant	54
Plans Submitted for New Construction	15

Data: DCHD, 2021-2022

An increase in new pools installed was seen throughout Utah in 2021 and 2022. From 2012 through 2020, an average of 8 plans were submitted per year. In Davis County in 2021, DCHD received 14 plans for new construction and in 2022, there were 15 sets of plans submitted for new construction (DCHD, 2022).

Oversight of the day to day operations is the responsibility of a Certified Pool Operator (CPO). A minimum of one CPO is required to oversee each pool location within Davis County. A Certified Pool Operator course is offered through DCHD every spring which allows pool operators to receive or renew their certification to remain in compliance.

Water Conservation & Quality Resources

Harmful Algal Blooms	Information and monitoring station locator	deq.utah.gov/water-quality/harmful-algal-blooms-home
Save Our Great Salt Lake	A group of organizers, artists, business owners, and concerned citizens working together to prevent the ecosystem collapse at the Great Salt Lake	saveourgreatsaltlake.org
Utah DEQ	Clean land, air and water for a healthy, prosperous Utah	deq.utah.gov
Weber Basin Water Conservancy District	Provides a wide variety of water supplies within the community and is continually developing new strategies for water conservation	weberbasin.com

Conclusion

This Davis4Health Community Health Assessment (CHA) brings together indicators from a variety of data sources to summarize the community strengths, resources, and areas for improvement in Davis County, Utah. Assessing community needs and resources is the crucial first step of the Take Action Cycle. The cycle provides a path and steps to move partners from data to action. The CHA provides the information Davis4Health partners will use to prioritize issues, choose strategies, and direct resources to improve the health of the population and environment.

There are thousands of indicators available for measuring health because there are a wide range of factors that influence how long and how well people live. This report presents a sufficient selection of those indicators to understand the health outcomes and factors that impact the health status of Davis County residents. It should be used in combination with tools that provide a deeper understanding of the issues, such as the [Utah Healthy Places Index](#), in order to identify differences in health and opportunity between communities in Davis County.

Data Gaps

It is important to be aware of data gaps because knowing what data is missing can guide future assessment projects. Collecting or finding new data helps provide a clearer and more complete picture of community conditions and ensure decisions are data driven. For the purpose of this assessment, data gaps are indicators that were unavailable at the county level or older than five years when this report was compiled. Additionally, some indicators were unreliable for specific demographic groups, often due to sample size. The identified gaps are organized below by chapter. Unlisted chapters did not have apparent data gaps. However, it is important to note that this is not a comprehensive list given that more gaps may arise or be resolved after this report's publication.

About Davis County:

- Refugee population

Culture of Health:

- Life expectancy by neighborhood (after 2015)

Health Outcomes:

- Oral health outcomes
- Maternal health outcomes: Mortality, breastfeeding, cesarean birth, postpartum depression
- Brain health: Prevalence of conditions and treatment, co-occurring conditions, autism, eating disorders, Alzheimer's and other dementias, ADHD, anxiety, PTSD rate for demographic groups
- Heart disease diagnosis by race
- Obesity in youth by demographic group

Health Behaviors:

- Nutrition for all ages: Fruit and vegetable consumption, sugary beverages
- Technology use outcomes for all ages: Screen time and additional technology indicators
- Hours of sleep by race/ethnicity
- Sexual activity prevalences in youth: safety practices and age of first sexual activity, abuse, sexting, sextortion, porn exposure
- Sexual activity prevalences in adults: contraception methods and frequency of use, porn use
- Substance use and addictions: Overdose circumstances and drug type, especially fentanyl and methamphetamine, prevalence of other behavioral addictions

Social & Economic Factors:

- Reading level among fourth graders ([Healthy People 2030](#), n.d.)
- Human trafficking cases
- Total people served through food assistance programs
- Family and social support: Number of people each caregiver is responsible for, caregiving by race/ethnicity, volunteerism, social isolation in adults, social associations for all demographic groups

Clinical Care:

- Well-child visits
- Chronic disease screenings for more demographic groups
- Sexually Transmitted Infection (STI) screenings: Testing frequency (negative and positive results), Knowledge of HIV status among those with HIV ([Healthy People 2030](#), n.d.)
- Specialty insurance coverage and enrollment counts: Dental and vision, Medicaid programs and CHIP
- Unresolved gaps from the 2014 Access to Healthcare Assessment ([DCHD](#), 2014)

Physical Environment:

- Additional standardized water and land use indicators for comparing Davis County to Utah and U.S.
- Comprehensive sidewalk existence and quality

Hot Topics

After reviewing the quantitative and qualitative data sources that were combined to create this assessment, the topics in Table 101 (next page) arose as common concerns or areas for improvement across sources. They are highlighted for future exploration and to inform prioritization of health issues. Mental health, air quality, social and economic factors, obesity, heart disease, and substance use were mentioned across multiple data sources.

Table 101: Common Health Topics Across Community Health Assessment Data Sources, Davis County, 2019-2023

Chapter	Topics *	Type of Data Source							
		Community Voice	Community Partner Inputs	Hospital Assessments	County Health Rankings & Roadmaps	Utah Healthy Places Index	Unmet Healthy People 2030 Leading Health Indicators	Leading Causes of Death & Hospitalization	Worse than the State of Utah
Demographics	Health Disparities								
	Aging								
	Population Growth								
Culture of Health	Resource Access & Awareness								
	Arts & Cultural Expression								
	Diverse Engagement								
Health Outcomes	Mental Health & Suicide								
	Heart Disease & Stroke								
	Obesity								
	Cancer								
	Diabetes								
	Infectious Diseases								
	Alzheimer's								
	Chronic Lower Respiratory Diseases								
	Maternal Health								
	Unintentional Injury								
Health Behaviors	Arthritis								
	Substance Use								
	Nutrition								
	Physical Activity								
	Sleep								
	Sexual Health								
Clinical Care	Healthcare Access								
	Vaccines & Immunizations								
	Dental Care & Oral Health								
Social & Economic Factors	Food Insecurity								
	Connection & Resilience								
	Education Programs & Performance								
	Income, Wages, & Wealth								
	Housing								
	Social Determinants of Health (SDOH) Violence, Abuse, & Trauma								
Environment	Air Quality								
	Transportation								
	Water Quality & Access								
	Park Access								

Data: [UT HPI](#), 2022; [University of Utah Health](#), 2023; [Intermountain Healthcare](#), 2022; [DCHD](#), 2022; [CHR&R](#), 2022; [BIS](#), n.d.

* Note: Topics are not mutually exclusive and may overlap each other

Appendix

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Appendix 1: List of Common Acronyms

- ACE: Adverse Childhood Experiences
- ADHD: Attention-Deficit/Hyperactivity Disorder
- AQI: Air Quality Index
- BIPOC: Black, Indigenous, and People of Color
- BRFSS: Behavioral Risk Factor Surveillance Survey
- CDC: Centers for Disease Control and Prevention
- CHR&R: County Health Rankings and Roadmaps
- COPD: Chronic obstructive pulmonary disease
- COVID-19: Coronavirus Disease 2019
- DCHD: Davis County Health Department
- DV: Domestic violence
- ED: Emergency department
- EPA: Environmental Protection Agency
- FDA: United States Food and Drug Administration
- HHS: United States Department of Health and Human Services
- HIV: Human immunodeficiency virus infection
- HUD: United States Department of Housing and Urban Development
- IBIS: Indicator Based Information System
- IGP: Intergenerational poverty
- IPV: Interpersonal violence
- K-12: Kindergarten through twelfth grade
- LGBTQ+: Lesbian, Gay, Bisexual, Transgender, and more people
- N.d.: No date available
- NIH: National Institutes of Health
- PCE: Positive Childhood Experiences
- PTSD: Post Traumatic Stress Disorder
- SHARP: Student Health and Risk Prevention
- SNAP: Supplemental Nutrition Assistance Program
- STI/STD: Sexually transmitted infection or disease
- TB: Tuberculosis
- UDHHS: Utah Department of Health and Human Services (post-2022 merger)
- UDOH: Utah Department of Health (pre-2022 merger)
- U.S.: United States
- USDA: United States Department of Agriculture
- UT HPI: Utah Healthy Places Index
- WIC: Women, Infants, and Children
- YRBS: Youth Risk Behavior Survey

Appendix 2: Utah Small Area Map

Utah Small Areas are a type of geographic boundary unique to the State of Utah. Utah Small Areas are determined by specific criteria, including population size, political boundaries of cities and towns, and economic similarity. They were created by the Utah Department of Health to provide a clearer picture of health trends at the community level. There are significant disparities in health outcomes between Utah Small Areas in urban counties that are hidden when looking at only countywide data.

The Utah Public Health Indicator Based Information System (IBIS) allows for the breakdown of most data measures by Utah Small Area. The health measures with data available by Utah Small Area are those with events occurring with sufficient frequency or large enough sample size to be meaningful and reliable ([IBIS](#), 2020; [UDOH](#), 2021) .

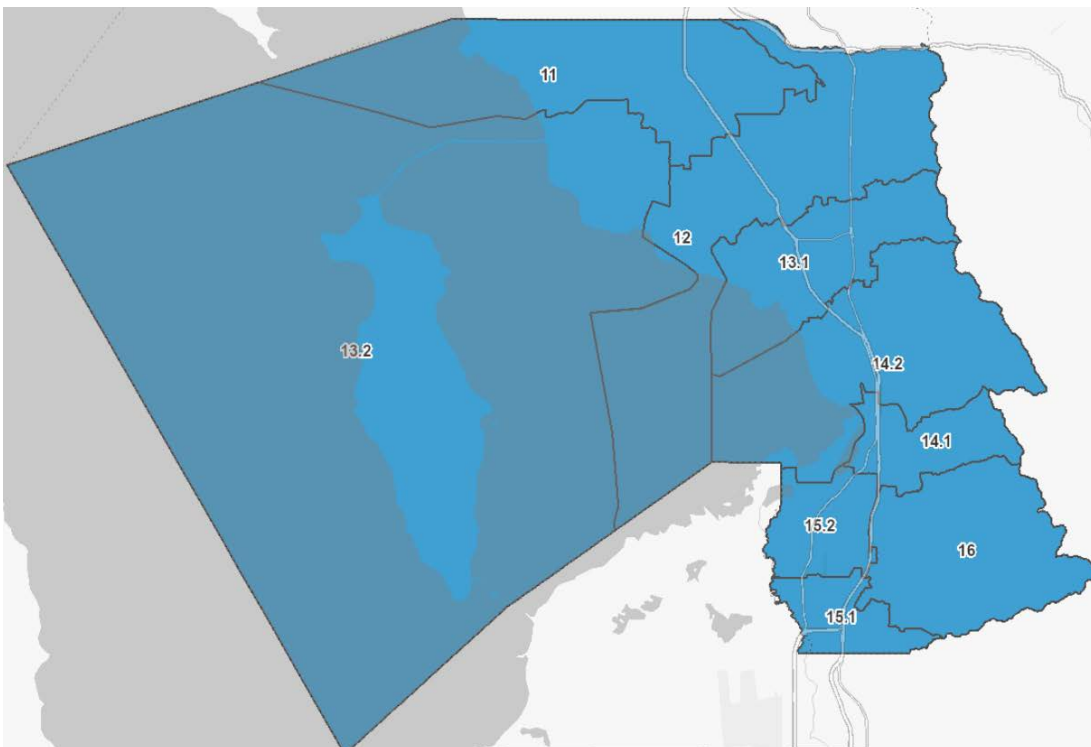
As shown in Table 102, Davis County is divided into nine Utah Small Areas. Figure 188 shows the boundaries of these Utah Small Areas within Davis County.

Table 102: Utah Small Areas in Davis County

Number	Name	Zip Codes Included
11	Clearfield Area [^]	84015, 84016, 84056*, 84089
12	Layton/South Weber	84040, 84041, 84405**
13.1	Kaysville/Fruit Heights	84037
13.2	Syracuse	84075
14.1	Centerville	84014
14.2	Farmington	84025
15.1	North Salt Lake	84054
15.2	Woods Cross/West Bountiful	84087
16	Bountiful	84010, 84011

Data: [IBIS](#), 2020; * Hill Air Force Base; ** Only part of this zip code that falls within Davis County boundaries; [^] Unincorporated parts of Hooper City are in Davis County and included in the Clearfield Area, but the incorporated majority of the city is in Weber County

Figure 188



Appendix 3: Adolescent Health Profile

2021 Adolescent Health Profile

	DAVIS	UTAH
Demographics (2020)	%	%
Adolescent (Ages 10-19) Population Size (%)	61,990 (17.2)	526,744 (16.2)
Hispanic or Latino, Any Race	11.8	17.7
Identified as Bisexual, Gay, Lesbian, or Unsure/Other (2021)	15.5	17.1
Uninsured (Ages 6-18) *	4.8	7.3
Below Poverty Level (Under Age 18) *	6.8	9.9
Participated in Free/Reduced Lunch (2021) ^	19.1	37.4
Living with Any Disability (Ages 5-17)	4.9	5.0
High School Graduation Rates *	95.9	93
Behaviors (2021)	%	%
Met Physical Activity Recommendations (1 Hour Daily)	17.6	16.8
Met Sleep Recommendation (8+ Hours per Average School Night)	34.6	36.5
Seat Belt Use *	72.8	66.5
Non-School Screen Time, 2+ Hours Daily (Gaming, Texts, YouTube, Social Media)	80.3	78.8
Texted or Emailed While Driving in Past Month	38.7	36.3
Car Crashes Involving a Teenage Driver (Ages 15-19)	25.8	22.2
Current Substance Use (2021)	%	%
E-Cigarette/Vaping	6.9	7.8
Secondhand Cigarette Smoke Exposure *	9.9	11.6
Alcohol Use	4.3	5.3
Marijuana Use	5.3	5.9
Risk & Protective Factors (2021)	%	%
Family Meals, 5+ Weekly	59.9	57.9
Can Access Gun and Bullets in the Home	20.4	22.3
Low Commitment to School ^	44.9	48.8
Family Conflict (Household Arguing or Yelling)	27.0	28.2
Youth Attitudes Favorable to Drugs, Violence, & Crime	36.0	39.1
Mental Health (2021)	%	%
Depressive Symptoms	39.5	43.1
High Need for Mental Health Treatment *	24.6	27.2
Purposeful Self-Harm Without Suicidal Intention	17.3	18.6
Serious Thoughts of Suicide	17.7	19.0
Suicide Attempt in Past Year *	6.0	7.0
Violence & Abuse (2021)	%	%
Experienced Dating Violence in Past Year	11.5	11.0
Experienced Electronic Bullying in Past Year	26.0	27.2
Child Abuse Rate (per 100,000 People Under Age 18) (2019-2021)	862.2	1,099.0
Disease & Health Conditions (2021)	%	%
Teen Birth Rate per 1,000 Females Ages 15-19 (2020)	8.7	10.7
Obesity *	9.0	10.3
Current Asthma	12.1	11.1
Adequately Immunized 7th Graders	88.2	85.4
Chlamydia (per 100,000 People Ages 14-19) ^	618.1	785.4

* Statistically significant difference between county and state

^ Impacted by COVID-19, may not reflect true trend due to reporting disruptions

Sources: 2021 Utah Adolescent Health [Profile](#); 2021 SHARP [Survey](#); Utah's Public Health Indicator-Based Information System (IBIS); 2021 Immunizations Coverage [Report](#); Kids Count Utah [Report](#); U.S. Census Data [Portal](#); Utah Division of Child & Family Services; Davis County Health Department

Updated: January 25, 2023

Strengths:

- Davis County adolescents were doing significantly better (*) than the state on 9 indicators
- Substance use is lower among Davis students than the state and nation
- More Davis youth graduate, have health insurance, and are above the poverty level than the state
- Teen births are decreasing; Davis is lower than the state and nation
- The majority of adolescents regularly eat meals with family

Challenges:

- Suicide is the leading cause of death for ages 10-17 in Davis County and Utah. Mental health indicators are trending in the wrong direction
- The majority of students are not meeting sleep and physical activity recommendations
- In Davis, 1 in 4 car crashes involves a teen driver, which is higher than the state
- Over 1 in 4 Davis adolescents have experienced electronic bullying in the past year
- Non-school screen time and phone use while driving have increased and are higher than the state rates
- Low commitment to school is trending in the wrong direction

Appendix 4: Senior Health Profile

Older Adult Health Profile, Age 60+

	DAVIS	UTAH
Demographics (2020)	%	%
Population Size (%)	54,532 (15.2)	531,808 (16.4)
Live Alone, Age 65+	19.2	22.1
Veteran Status (2019)	17.1	15.2
Households Receiving Food Stamps/SNAP	27.5	29.4
Employment Rate	33.3	31.6
Health Status (2019-2021)	%	%
Good Physical Health (less than 7 poor days)	80.9	80.9
Good Mental Health (less than 7 poor days)	87.1	87.8
Overweight or Obese (BMI 25+)	69.3	69.0
Prevalence of Asthma	10.2	9.3
Prevalence of Arthritis	51.4	48.3
Limited Activities Due to Arthritis or Joint Symptoms (2019)	37.2	38.7
Prevalence of High Blood Pressure (2019)	48.8	50.9
Prevalence of High Cholesterol (2019)	49.3	47.2
Prevalence of Diabetes	19.0	19.0
Prevalence of Depressive Disorder	18.9	18.3
Living With Any Disability	35.7	36.8
Disability Prevents Independent Living	6.3	7.2
Alzheimer's Disease Deaths (per 100,000 Population) (2020)	245.7	209.5
Fallen in the Past Year	30.9	29.6
Health Behaviors (2019-2021)	%	%
Current Cigarette Smoking	5.2	5.2
Heavy Drinking (2018-2021)	2.4	2.5
Met Daily Fruit Consumption: 2+ Servings	32.3	33.0
Met Daily Vegetable Consumption: 3+ Servings	8.7	11.0
Met Aerobic and Muscle Strengthening Recommendations (2019)	24.0	26.8
Physical Inactivity	25.2	23.6
Access to Healthcare (2018-2020)	%	%
No Health Insurance	3.0	3.7
Routine Medical Checkup in the Past Year	86.1	85.7
Routine Dental Healthcare in the Past Year	79.3	75.2
Screening & Prevention Services (2020)	%	%
Cholesterol Screening (2019, 2021)	95.6	95.4
Influenza Vaccination in the Past Year	66.9	65.7
Mammogram in the Past 2 Years	69.5	69.1
Pap Test in the Past 3 Years	54.0	49.0
Pneumococcal Vaccination, Ever Had	64.6	63.1
Shingles or Zoster Vaccine, Ever Had	48.8	48.7
Sigmoidoscopy or Colonoscopy, Ever Had	85.6	86.5
Communicable Disease (2019-2021)	Rate	Rate
COVID-19 Deaths (per 100,000 Population)	152.2	217.4
Influenza Hospitalizations (per 100,000 Population)	26.9	30.0
Norovirus Cases (per 100,000 Population)	5.1	6.9
Sexually Transmitted Infections (per 100,000 Population)	19.6	6.0
Streptococcus Infections (per 100,000 Population)	27.5	31.3

Strengths:

- 83% of older adults (age 60+) in Davis reported good to excellent overall health
- The average age at death in Davis County is 72.2 compared to 71.4 in Utah
- 97% of older adults in Davis have health insurance
- Cigarette smoking and heavy drinking in Davis County and Utah are lower than the U.S.
- Death rates from COVID-19 were significantly lower among older adults in Davis County than in Utah

Challenges:

- Alzheimer's death rates are higher in Davis than in both Utah and the U.S.
- Nearly half of older adults have one or more risk factors for heart disease and stroke
- The rate of sexually transmitted infections for Davis older adults is triple the Utah older adult rate
- 1 in 4 older adults met the recommendations for physical activity
- 1 in 10 older adults met vegetable recommendations
- Nearly 1 in 5 older adults have a depressive disorder
- The older adult population in Davis County is projected to more than double by 2060 suggesting future high demands on the healthcare system and caregivers

Appendix 5: 2022 CHR&R Snapshot Report

	Davis County	Utah	United States	Rank (out of 27)
Health Outcomes				4
Length of Life				5
Premature Death	5,200	6,000	7,300	
Quality of Life				3
Poor or Fair Health	15%	15%	17%	
Poor Physical Health Days	3.4	3.8	3.9	
Poor Mental Health Days	4.0	4.4	4.5	
Low Birthweight	7%	7%	8%	
Health Factors				4
Health Behaviors				2
Adult Smoking	8%	8%	16%	
Adult Obesity	34%	30%	32%	
Food Environment Index	8.6	7.8	7.8	
Physical Inactivity	20%	19%	26%	
Access to Exercise Opportunities	85%	83%	80%	
Excessive Drinking	11%	12%	20%	
Alcohol-Impaired Driving Deaths	23%	22%	27%	
Sexually Transmitted Infections Rate	305.8	345.5	551.0	
Teen Birth Rate	11	15	19	
Clinical Care				2
Uninsured	8%	11%	11%	
Primary Care Physicians Ratio	2,040:1	1,740:1	1,310:1	
Dentists Ratio	1,470:1	1,450:1	1,400:1	
Mental Health Providers Ratio	430:1	280:1	350:1	
Preventable Hospital Stays Rate	1,672	2,110	3,767	
Mammography Screening	43%	42%	43%	
Flu Vaccinations	52%	49%	48%	
Social & Economic Factors				3
High School Completion	96%	93%	89%	
Some College	76%	72%	67%	
Unemployment	4.1%	4.7%	8.1%	
Children in Poverty	5%	8%	16%	
Income Inequality Ratio	3.2	3.7	4.9	
Children in Single-Parent Households	13%	15%	25%	
Social Associations	2.2	3.5	9.2	
Violent Crime Rate	103	229	386	
Injury Deaths Rate	55	67	76	
Physical Environment				15
Air Pollution - Particulate Matter	8.4	5.7	7.5	
Drinking Water Violations	No			
Severe Housing Problems	10%	14%	17%	
Driving Alone to Work	78%	74%	75%	
Long Commute - Driving Alone	29%	25%	37%	

All health measures, interactive maps, and trend graphs can be found at countyhealthrankings.org.

Appendix 6: Intermountain Healthcare 2022 CHNA, Layton Hospital Summary

Located in Layton, Utah, a suburb in North Davis County, Layton Hospital is Intermountain Healthcare's newest facility and has 43 staffed beds, offering a spectrum of inpatient and outpatient services. In 2022, they participated in a community health needs assessment to understand how to help people live the healthiest lives possible®. This hospital participated in a collaborative, system approach to identify health indicators, gather community input, and determine the significant health needs to address over the next few years. Layton Hospital identified the significant health needs as: **Improve Mental Well-Being, Improve Chronic & Avoidable Health Outcomes, and Address & Invest in the Social Determinants of Health.**

What we heard from this community - participants in the community input meeting identified the following issues as key health needs in their community, specifically in the context of equity:

People are unfamiliar with what is different since this community is so homogenous

- Religious discrimination
- Feeling discrimination if not from Utah
- Considerations around senior centers where dominant religion is "preferred"

Socioeconomic inequities

- See lack of accessibility to resources – when you don't have your basics it is hard to go above and beyond.
- Distrust with government or local agencies
- Limited public transportation options
- Healthcare costs and making choices not to seek care
- Examples of what are we doing for people without digital access to receive access to care – COVID testing, etc. need a phone to access QR code, screening.
- Denied services due to not having digital resources

Housing

- Nowhere to send homeless individuals, resource desert
- Rising cost of mortgages and rent, too many people paying 50% of income for housing
- Tough choices, do I pay my mortgage or my prescriptions? Which do I prioritize?
- Even less available for those who need affordable AND accessible housing, more and more
- seniors are in disability housing, young people with physical disabilities – less housing
- Landlords increasing rents so even housing voucher won't cover the cost of housing
- Finding double and triple families in houses – too many people in one location to be sustainable or healthy
- Gentrification/mobile park closure in Layton, not an affordable swap

Lack of understanding, especially of unknown (not necessarily ignorant)

- LGBTQ+ support
- Need safe places to speak or work through understanding along with educate
- Challenge of media polarization
- It is often easier to build boards or decision-making groups of similar people, lack of representation
- Education - People don't see or believe that we have a problem. People experiencing the problem don't know where to turn for help, we might not be the right person to do the educating (need to find and employ the right ones)
- Community can't agree on what inequities are – they look different to different people and something triggers a person's thoughts toward inequity
- People with positions of power and what they chose to do/or not to do
- Takes more effort to address inequities
- History and precedence - "easier to keep status quo"
- Limited resources so equity efforts don't get prioritized

A snapshot of health-related indicators and outcomes can be accessed through this link:

<https://ibis.health.utah.gov/ibisph-view/community/snapshot/report/AllIndicators/GeoLHD/4.html?ageName=>

2023-2025 Community Health Priorities



1. Improve mental well-being



2. Improve chronic & avoidable health outcomes



3. Address & invest in social determinants of health

Within each priority area a framework including key health outcomes, equity, access, and value will be created:



Overall performance on key community and system outcome metrics



Disparities in outcomes by equity measures



Level of access to services/programs



Value to the health system and community



The full report is available at this link: <https://intermountainhealthcare.org/about/who-we-are/chna-reports/>

Appendix 7: Healthy People 2030 Infographic

Healthy People 2030 Baseline Summary, Davis County, Utah

Healthy People 2030 provides a comprehensive set of data-driven national objectives to improve health and well-being over the next decade. A smaller group of high-priority objectives, known as Leading Health Indicators (LHIs), address important factors that impact major causes of death and disease. Healthy People 2030 has a strong focus on eliminating health disparities and creating equitable opportunities for people to live healthy lives. This summary provides a baseline for Davis County at the start of the decade. Data may have changed since its release. **Out of the 23 LHIs, Davis County is meeting targets for 10 (✓) indicators, is not meeting targets for 8 (✗) indicators, and county data is lacking for 5 (*) indicators.**

	Healthy People 2030 Target	Davis County 2020 Baseline	Status
 Access to Health Services			
Persons with medical insurance	92.1%	92.6% ^ (IBIS, 2020)	✓
 Clinical Preventative Services			
Newly diagnosed diabetes cases (per 1,000 adults)	4.8	7.8 (CDC, 2018)	✗
Older adults receiving colorectal cancer screening	74.4%	78.2% ^ (IBIS, 2020)	✓
Population receiving flu vaccine	70.0%	52.9% ^ (IBIS, 2020)	✗
 Environmental Quality			
Days exposed to unhealthy air	7,953,638 AQI	6,946,512 AQI ^ (EPA, 2018-2021)	✓
 Injury & Violence			
Homicide deaths (per 100,000 persons)	5.5	1.3 (IBIS, 2011-2020)	✓
 Maternal, Infant, & Child Health			
Maternal deaths (per 100,000 live births)	15.7	Utah: 25.6 * (CDC, 2019)	✗
Infant deaths (per 1,000 live births)	5.0	6.0 (IBIS, 2018-2020)	✗
 Mental Health			
Adolescents with depression getting treated	46.4%	41.7% (SHARP, 2021)	✗
Suicide deaths (per 100,000 persons)	12.8	17.5 (IBIS, 2020)	✗

	Healthy People 2030 Target	Davis County 2020 Baseline	Status
 Nutrition, Physical Activity, & Obesity			
Adults meeting physical activity objectives	28.4%	27.7% (IBIS, 2019)	✗
Obesity among children & adolescents	15.5%	8.8% † (IBIS, 2019)	✓
 Oral Health			
Persons who visited the dentist in the past year	45.0%	76.1% ^ (IBIS, 2020)	✓
 Reproductive & Sexual Health			
Knowledge of HIV status	95.0%	Utah: 84.6% * (CDC, 2019)	✗
 Social Determinants			
Employment in working-age people	75.0%	75.7% (ACS, 2020)	✓
Food insecurity & hunger	6.0%	7.8% (FA, 2020)	✗
4th graders who are at or above reading level	41.0%	Utah: 40.0% * (NAEP, 2019)	✗
 Substance Abuse			
Adults binge drinking in the last month	25.4%	8.4% (IBIS, 2020)	✓
Drug overdose deaths (per 100,000 persons)	20.7	16.3 (IBIS, 2017-2020)	✓
 Tobacco			
Cigarette smoking in adults	6.1%	6.9% (IBIS, 2020)	✗
Current adolescent tobacco use (vaping)	11.3%	5.6% † (SHARP, 2021)	✓

Notes

* County data unavailable; state rate used when available. Two LHIs had no state data (sugary drink calories consumed & controlled hypertension).

† Available local/state data definition does not exactly match Healthy People definition.

^ Impacted by COVID-19, may not reflect true trend.

Sources

- Utah Public Health Indicator Based Information System (IBIS): ibis.health.utah.gov
- Centers for Disease Control and Prevention (CDC): wonder.cdc.gov
- Environmental Protection Agency (EPA): epa.gov/outdoor-air-quality-data
- Feeding America (FA): map.feedingamerica.org
- National Assessment of Educational Progress (NAEP): nationsreportcard.gov
- American Community Survey (ACS): data.census.gov

More Information on LHIs

health.gov/healthypeople

Contact for Questions

healthstrategy@co.davis.ut.us



Appendix 8: Top 20 Infectious Disease Report

Disease	2016	2017	2018	2019	2020	2021	5 Yr Ave (2016-20)
Chlamydia	934	1,094	1,158	1,160	954	940	1,060.0
Gonorrhea	129	171	223	229	238	260	198.0
Influenza, hospitalized	133	122	178	171	115	3	143.8
Hepatitis C, acute & chronic	166	130	118	97	101	127	122.4
Tuberculosis, latent infection	112	102	163	91	51	74	103.8
Streptococcal disease, invasive	91	103	92	84	86	107	91.2
Norovirus	69	26	35	157	7	36	58.8
Campylobacteriosis	41	59	46	50	46	48	48.4
Carbapenem-Resistant Enterobacteriaceae (CRE)	14	19	12	86	73	104	40.8
Salmonellosis	42	41	40	36	38	31	39.4
Syphilis – all stages	19	23	36	42	24	36	28.8
Pertussis	24	37	37	22	16	7	27.2
Hepatitis B, acute & chronic	34	34	23	22	19	11	26.4
Giardiasis	27	18	22	20	15	20	20.4
Chickenpox	23	26	24	13	9	9	19.0
Meningitis, aseptic/viral	7	24	30	19	1	5	16.2
Cryptosporidiosis	27	11	9	15	14	20	15.2
Shiga toxin-producing <i>E. coli</i> (STEC)	11	13	18	12	17	33	14.2
HIV/AIDS	7	14	12	11	8	12	10.4
Coccidioidomycosis	7	5	3	15	6	10	7.2
<i>H. influenzae</i> , invasive disease	6	5	4	7	4	3	5.2
Shigellosis	9	3	4	7	3	6	5.2
Lyme disease	2	9	1	7	3	0	4.4
Meningitis, bacterial & other	0	6	4	6	1	3	3.4
West Nile virus infection	0	8	0	5	2	9	3.0
Legionellosis	1	4	3	3	3	1	2.8
Tuberculosis, active disease	2	3	0	3	6	1	2.8
Hepatitis A	1	4	6	1	0	1	2.4
Cyclosporiasis	1	3	2	2	1	1	1.8
Mumps	1	2	3	3	0	0	1.8
Spotted Fever Rickettsiosis	1	2	3	1	1	0	1.6
Encephalitis	1	0	1	1	3	0	1.2
Zika virus	2	1	1	1	1	0	1.2
Vibriosis	0	2	1	2	0	2	1.0
Dengue Fever	0	2	1	1	0	0	0.8
Chikungunya	1	0	1	0	0	0	0.4
Creutzfeldt-Jakob Disease (CJD)	0	1	1	0	0	0	0.4
Leptospirosis	0	0	1	1	0	0	0.4
Listeriosis	1	0	0	0	1	0	0.4
Malaria	0	0	2	0	0	1	0.4
Q fever, chronic	0	0	1	1	0	0	0.4
Brucellosis	0	0	0	1	0	0	0.2
Botulism, infant	0	0	0	0	1	1	0.2
Hansen's disease (Leprosy)	0	1	0	0	0	1	0.2
Hantavirus Pulmonary Syndrome (HPS)	1	0	0	0	0	0	0.2
Amebiasis	0	0	0	0	0	0	0.0
Botulism, wound	0	0	0	0	0	1	0.0
Colorado Tick Fever	0	0	0	0	0	1	0.0
Hepatitis C, perinatal	0	0	0	0	0	1	0.0
Hepatitis E	0	0	0	0	0	0	0.0
Meningococcal disease	0	0	0	0	0	0	0.0
Coronavirus, Novel (COVID-19)	-	-	-	-	25,297	41,079	-
E-cigarette or vaping use-associated lung injury (EVALI)	-	-	-	13	0	0	-
Total	1,947	2,128	2,319	2,418	27,165	43,061	7,195.4

Appendix 9: Preventative Pediatric Healthcare Recommendations



Recommendations for Preventive Pediatric Health Care Bright Futures/American Academy of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN®

Each child and family is unique; therefore, these Recommendations for Preventive Pediatric Health Care are designed for the care of children who are receiving nurturing parenting, have no manifestations of any important health problems, and are growing and developing in a satisfactory fashion. Developmental, psychosocial, and chronic disease issues for children and adolescents may require more frequent counseling and treatment visits. Separate preventive pediatric visits are recommended for children ages 1 to 4 years and for adolescents ages 12 to 18 years. The AAP continues to emphasize the great importance of continuity of care in comprehensive health supervision and the need to avoid fragmentation of care.

Refer to the specific guidance by age as listed in the *Bright Futures Guidelines* (Hagan JF, Shaw JS, Duncan PM, eds. *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents*, 4th ed. American Academy of Pediatrics 2017).

The recommendations in this statement do not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate. The Bright Futures/American Academy of Pediatrics Recommendations for Preventive Pediatric Health Care are updated annually.

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	AGE	INFANCY				EARLY CHILDHOOD						MIDDLE CHILDHOOD						ADOLESCENCE														
	History	Newborns ¹	3-5 yr ¹	By 1 mo	2 mo	4 mo	6 mo	9 mo	12 mo	15 mo	18 mo	24 mo	30 mo	3 yr	4 yr	5 yr	6 yr	7 yr	8 yr	9 yr	10 yr	11 yr	12 yr	13 yr	14 yr	15 yr	16 yr	17 yr	18 yr	19 yr	20 yr	21 yr
HISTORY	Initial History	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Update History	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Family History	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Review of Systems	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Immunization History	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MEASUREMENTS	Length/Height and Weight	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Head Circumference	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Weight for Length	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Body Mass Index ²	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Blood Pressure ³	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SENSORY SCREENING	Vision ⁴	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Hearing ⁵	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Speech ⁶	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Intellectual Function ⁷	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Emotional/Behavioral Function ⁸	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DEVELOPMENTAL, SOCIAL, BEHAVIORAL, MENTAL HEALTH	Maternal Depression Screening ⁹	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Autism Spectrum Disorder Screening ¹⁰	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Developmental Surveillance ¹¹	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Behavioral/Social/Emotional Screening ¹²	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Tobacco, Alcohol, or Drug Use Assessment ¹³	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PHYSICAL EXAMINATION ¹⁴	Depression and Suicide Risk Screening ¹⁵	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Neck ¹⁶	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Newborn Blood ¹⁷	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Newborn Bilirubin ¹⁸	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Critical Congenital Heart Defect ¹⁹	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PROCEDURES ²⁰	Immunization ²¹	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Anemia ²²	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Lead ²³	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Tuberculosis ²⁴	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Dyslipidemia ²⁵	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SEXUALLY TRANSMITTED INFECTIONS ²⁶	Sexually Transmitted Infections ²⁶	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	HIV ²⁷	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Hepatitis B Virus Infection ²⁸	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Hepatitis C Virus Infection ²⁹	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Sudden Cardiac Arrest/Death ³⁰	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
ORAL HEALTH ³¹	Cervical Dysplasia ³²	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Fluoride Varnish ³³	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Fluoride Supplementation ³⁴	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Anticipatory Guidance ³⁵	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Anticipatory Guidance ³⁵	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

This schedule of recommendations and more information can be accessed online at aap.org/periodicityschedule.

Appendix 10: 2021 Adolescent Risk & Protective Factors Compared by Race/Ethnicity

Youth Risk Factors

Youth with...

 of risk compared to their peers in other race/ethnicity groups.

		Student Race/Ethnicity (sample size)						
Domain	Risk Factor	African American / Black (125)	American Indian / Alaska Native (118)	Asian (133)	Hispanic or Latino (1,033)	Multiracial (440)	Native Hawaiian / Pacific Islander (85)	White (9,510)
Community	Low neighborhood attachment	48.0	44.2	52.9	46.0	39.9	39.6	25.0
	Laws and norms favorable to drug use	26.3	29.6	28.4	30.0	16.7	15.6	16.7
	Perceived availability of drugs	27.7	31.9	31.5	31.2	23.2	17.7	16.1
	Perceived availability of handguns	30.8	27.5	22.9	25.4	21.9	20.5	26.8
Family	Poor family management	34.0	35.7	26.4	29.6	16.4	33.0	14.4
	High family conflict	36.3	38.8	41.6	37.3	35.6	24.7	24.8
	Family history of antisocial behavior	18.8	30.4	16.0	32.4	22.6	25.7	15.3
	Parental attitudes favorable to antisocial behavior	34.0	41.5	37.6	42.3	38.0	3.0	31.0
	Parental attitudes favorable to drug use	15.4	8.0	17.6	17.4	12.3	6.0	8.9
School	Academic failure	34.0	39.3	24.3	43.0	27.9	43.2	22.3
	Low commitment to school	58.6	46.8	51.8	51.3	53.3	50.3	43.5
Peer-Individual	Rebelliousness	30.7	21.4	38.2	24.2	24.1	33.0	18.3
	Early initiation of problem behavior	30.4	25.7	15.0	24.9	20.3	23.3	15.9
	Early initiation of drug use	12.1	12.6	11.0	20.1	13.1	16.4	5.7
	Attitudes favorable to antisocial behavior	41.0	39.0	43.7	44.8	47.5	52.8	34.1
	Attitudes favorable to drug use	24.4	12.4	24.0	29.8	24.3	19.4	17.8
	Perceived risk of drug use	43.0	47.2	41.4	46.3	39.8	37.8	31.1
	Interaction with antisocial peers	24.7	25.9	13.3	18.3	13.9	26.7	10.1
	Friend's use of drugs	24.6	12.9	10.9	17.0	11.0	19.5	7.0
	Rewards for antisocial behavior	30.5	24.6	17.7	33.3	26.8	37.3	24.0
	Depressive symptoms	53.5	37.4	50.7	56.2	48.6	53.8	36.4
	Gang involvement	5.6	0.8	0	3.1	1.4	3.7	0.8

Background: The Student Health and Risk Prevention (SHARP) Statewide Survey is given every two years to students in grades 6, 8, 10, and 12. It measures life experiences that **predict a youth's risk of engaging in unhealthy behaviors** like drug use, violence, or delinquency. Survey results are used to create risk and protective profiles for the county.

Methods:

- In 2021, Davis County had 11,614 participants and respondents self-identified their preferred race/ethnicity group
- Scores are percentages ranging from 0 to 100; the **closer a score is to 100, the greater the risk** and an area of potential concern
- Average scores for race/ethnicity groups were color formatted per row from **low (green) to high (red) to compare peers on each risk factor to identify disparities**; note, this color scale is opposite of the protective profile scale
- This was a peer comparison within the county; race/ethnicity groups were compared to each other for the same year, thus a score may be red but better than the state value and/or a prior year's score
- To find trends**, look down columns or across domains (row groups) for color patterns; also compare how close or far apart scores are per row
- When interpreting trends, **consider the impact COVID-19 and policy changes** may have had on student experiences and risk

Conclusions:

- Overall, students identifying as White had lower risk (green) and students identifying as Hispanic/Latino had higher risk (no green) than their peers in Davis County suggesting a disparity; however, **race/ethnicity is not the cause of scores; these trends are likely influenced by structural factors beyond an individual's control, like access to opportunities**
- Three race/ethnicity groups had lower risk (green) in the Community domain
- Of all the factors, gang involvement had the lowest risk score for all groups
- Among four race/ethnicity groups, over half of students reported depressive symptoms
- Among five race/ethnicity groups, over half of students reported low commitment to school
- Disparities and high risk scores emphasize the **continued need for community prevention efforts and partnership**

Youth Protective Factors

Youth with...
 Low % High %
 of protection compared to their peers in other race/ethnicity groups.

		Student Race/Ethnicity (sample size)						
Domain	Protective Factor	African American / Black (125)	American Indian / Alaska Native (118)	Asian (133)	Hispanic or Latino (1,033)	Multiracial (440)	Native Hawaiian / Pacific Islander (85)	White (9,510)
Community	Rewards for prosocial involvement	46.8	49.0	45.6	37.4	52.9	66.9	69.2
	Family attachment	49.7	71.2	47.9	57.1	65.4	72.5	78.2
Family	Opportunities for prosocial involvement	59.1	66.9	57.9	61.1	71.6	62.4	79.0
	Rewards for prosocial involvement	53.6	58.0	46.8	47.4	57.2	67.1	71.0
School	Opportunities for prosocial involvement	74.1	73.0	86.2	80.2	76.9	84.8	80.4
	Rewards for prosocial involvement	49.0	62.9	67.5	57.7	62.2	64.5	65.5
Peer-Individual	Belief in the moral order	51.2	57.3	48.3	56.7	66.0	53.7	73.2
	Interaction with prosocial peers	30.7	41.0	52.0	32.6	52.5	49.0	65.7
	Prosocial involvement	49.8	42.1	43.7	38.4	53.1	36.8	56.0
	Rewards for prosocial involvement	41.9	57.0	60.6	55.6	61.7	77.5	66.6

Background:

- The Student Health and Risk Prevention (SHARP) Statewide Survey is given every two years to 6th, 8th, 10th, and 12th graders
- The SHARP survey measures life experiences that predict a youth's risk of engaging in unhealthy behaviors like drug use, violence, or delinquency
- Survey results are used to create risk and protective profiles for the county. All domains (settings) of the protective profile heavily feature prosocial involvement, meaning participation in activities that are cooperative and helpful to others

Methods:

- In 2021, Davis County had 11,614 participants and respondents self-identified their preferred race/ethnicity group
- Scores are percentages ranging from 0 to 100; the closer a score is to 100, the greater the protection
- Average scores for race/ethnicity groups were color formatted per row from low (red) to high (green) to compare peers on each protective factor to identify disparities; note, this color scale is opposite of the risk profile scale
- This was a peer comparison within the county; race/ethnicity groups were compared to each other for the same year, thus a score may be red but better than the state value and/or a prior year's score
- To find trends, look down columns or across domains (row groups) for color patterns; also compare how close or far apart scores are per row
- When interpreting trends, consider the impact COVID-19 and policy changes may have had on student experiences

Conclusions:

- Overall, students identifying as White had greater protection (green) while those identifying as Hispanic/Latino or Black/African-American had the least protection (less green) compared to their peers in Davis County suggesting a disparity
- Students identifying as Native Hawaiian/Pacific Islander had lower protection from peer-individual factors than from other domains
- Students identifying as Asian had greater protection from school factors than from other domains
- Race/ethnicity is not the cause of scores;** these trends are likely influenced by structural factors beyond an individual's control, like access to opportunities
- Disparities and low protective scores emphasize the **continued need for community prevention efforts and partnership**

Acknowledgments: Bach Harrison LLC, Davis Behavioral Health, Davis School District

Navigation Index

The purpose of this index is to assist with the navigation of this report by listing the subtopics covered in each chapter and the page on which they are located. It provides more details about the assessment's content than the Table of Contents. This index is organized by the order in which topics appear in each chapter. Community supports and resources can be found throughout each chapter as well, but are not listed in this index.

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