Dear residents, county leaders, partners, and staff:

The mission of Tri-County Health Department is to promote, protect and improve the lifelong health of individuals and communities in Adams, Arapahoe, and Douglas Counties through the effective use of data, evidence-based prevention strategies, leadership, advocacy, partnerships, and the promotion of health equity. In line with our mission, the Centers for Disease Control and Prevention’s Essential Public Health Services, and Colorado’s Public Health Improvement Act of 2008, every five years Tri-County Health Department completes a Community Health Assessment. The COVID-19 pandemic has undoubtedly impacted us all; in order to strategically inform and assist the prioritization of health issues in Adams County, this assessment, completed ahead of the five-year cycle, provides an overview of the current health status of the residents of Adams County.

As part of this Community Health Assessment, we worked closely with community-based organizations and partners to gather feedback from and speak with our community members, partners, county leaders, and staff. Through focus groups and surveys, they told us that health in their communities is highly influenced by economic security, employment, public health policy, social connection, access to affordable health and wellness services, and safe places to live and grow. We organized the report around these concepts, focusing on what influences our health and how a community supports an individual’s health. As did the 2018 regional assessment, this report aims to talk about health outcomes and behaviors in the context of the social, economic, and environmental factors in Adams County that provide the context in which we live our lives.

“Public Health is what we do together as a society to ensure the conditions in which everyone can be healthy.”

Working together strategically to make data- and community-informed decisions has never been so important. As the 2021 bipartisan report, “Public Health Forward” reminds us: “Although a disproportionate amount of attention is placed on medical care and the treatment of diseases, illnesses, and injuries, public health takes a community-wide approach to improving health and the social factors that contribute to good health. Healthy behaviors, social and economic factors, the physical environment, and other issues account for 80% of health outcomes.” While we absolutely must have access to affordable, timely health services, public health aims to prevent illness and disease by fostering and bolstering the systems and factors that support health and strategically addressing the systems that do not.

We hope that the information contained in this Community Health Assessment will provide a useful synopsis of the health status in Adams County and increase the understanding of a healthy community and the role we all play in supporting health. With that, I am pleased to present the 2022 Adams County Community Health Assessment.

Sincerely,

John M. Douglas, Jr., MD
Executive Director

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<th>Page Range</th>
<th>Section Title</th>
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The purpose of this community health assessment (CHA) is to learn about the community: the health of the population, contributing factors to higher health risks or poorer health outcomes of identified populations, and community assets and resources that can be mobilized to improve population health.

Process

This assessment is a component of the Colorado Health Assessment and Planning System (CHAPS) which provides step-by-step guidance on how to carry out an 8-phased collaborative community health assessment and a public health improvement planning process on a 5-year cycle. The process hinges on engaging the community to increase the availability and quality of public health services and ultimately improve health outcomes.

Community Engagement

Our most robust engagement effort to date, community and partner input for this assessment was sought in several ways: direct outreach to partners, staff, clients, and county leaders, as well as thoughtful partnership with local organizations.

In May 2021, Tri-County Health Department (TCHD) issued a Request for Proposals to solicit community-based organizations (CBOs) to assist with community engagement, through focus group or survey outreach, focusing on populations with whom they were already connected: Black, Indigenous, and People of Color (BIPOC); low-income, essential service workers; unemployed; LGBTQI+; seniors; youth; Non-English, Non-Spanish speakers; refugees and immigrants; single-parent households; and, people experiencing homelessness. Using the Centers for Disease Control and Prevention’s Social Vulnerability Index to map higher-need census tracts, TCHD contracted with four community-based organizations serving Adams County residents to
conduct focus groups and survey outreach: Almost Home, Inc.; Growing Home; Maiker Housing Partners; and the Aurora Economic Opportunity Coalition (Map 1). CBOs also completed one-on-one survey entry for community members with reduced technological accessibility or literacy.

In addition to the community focus groups, community member input was collected through online surveys (in English and Spanish). By utilizing both surveys and focus groups, we maximized participation from a diverse array of voices to capture unique needs from across the county. Generally, focus groups allow participants to hear from one another and discuss their communities conversationally, creating rich context. They provide a platform for community members to share anything on their mind, not just those items being asked about. They permit conversation. However, focus groups require coordination and generally garner fewer individual responses than surveys, which are easy to distribute and can be completed at any time. Because of this, surveys can result in a higher number of responses.

Tri-County Health Department’s partners, staff, and elected officials and county leaders also provided comments through surveys. Among the questions asked, there were two essential questions:

1) What are the characteristics of a happy, healthy, thriving community?
2) Identify the three most important health issues facing the communities in which you live, work and play.

These data were used to develop our image of a healthy community and guided the content of this assessment.

Nearly 1,300 people (n=1,259) participated in the Adams County surveys: 77% were completed by community residents and 20% of the community surveys were completed in Spanish. Our community-based, partner organizations facilitated seven focus groups, in English and Spanish, with 45 community members participating.

Map 1. TCHD-funded Community-Based Organizations doing CHA Community Engagement, by Social Vulnerability Index-mapped Census Tracts, 2019

TCHD Priority Neighborhoods are areas of high vulnerability and/or harder-to-reach populations
Selecting Indicators For This Assessment

The health behaviors and outcomes in this report reflect community priorities as stated in the input survey. In addition, a wide range of indicators were considered from a variety of sources including:

- Tri-County Health Department 2018 Community Health Assessment
- The Center for Disease Control and Prevention’s Winnable Battles
- America’s Health Rankings
- County Health Rankings and Roadmaps
- Indicators of Health Inequalities
- Colorado Health and Environmental Assessment 2013
- Colorado Health Indicator Set
- Community Health Assessments by other Local Public Health Departments
- Other Local and State Assessments

Tri-County Health Department’s epidemiologists routinely track and monitor over 200 indicators derived from a list developed through an extensive stakeholder process at the state level in which multidisciplinary partners used established criteria (i.e., feasible, understandable, relevant, valid, reliable, and comparable) to select core indicators. This list was further vetted and refined by TCHD staff.

The final indicator list resulted from community priorities, common key indicators at the national, state, and local level, and TCHD’s epidemiologic analysis of key health problems.

Data Used in this Report

The data presented in this report were compiled from a variety of sources and include both primary (collected for local health assessment purposes) and secondary data sources (collected for another purpose, usually by another organization/institution). Portions of the data used in this assessment were quantitative (information is described in terms of quantity of an item, e.g., the percent of people who graduate from high school), while the data from community, staff, and partner input surveys and community-based-organization focus groups were qualitative (information is described in terms of attributes, characteristics, properties, such as perceptions about what makes up a healthy community).
Primary Data Sources: Surveys and Focus Group Findings

In the fall of 2021, 968 community members, 43 partners and stakeholders, and 248 TCHD staff serving Adams County provided input into this assessment by responding to a survey which asked them to name the three most important characteristics of a happy, healthy and thriving community (Figure 1) and the three most important health problems in their communities (Figure 2). Forty-five community members also participated in local focus groups facilitated by community-based organizations; these results are also included in Figures 1 and 2 below. Community members were invited to participate in the survey through advertisements on TCHD’s website and Facebook, through links disseminated by the Public Information Officer Adams County and organizational partners, and, through outreach conducted by TCHD-funded partnering community-based organizations.

Figure 1: What are the three most important characteristics of a happy, healthy, and thriving community? Adams County, 2021

Figure 2: What are the three most important health problems in your community? Adams County, 2021
Secondary Data Sources

In addition to primary data sources, secondary sources were also used. At the time of this writing, the most recent data available from each source were used. Secondary data sources included:

- American Community Survey (ACS), U.S. Census Bureau
- Centers for Disease Control and Prevention
- Colorado Bureau of Investigations
- Colorado Department of Education
- Colorado Department of Human Services
- Colorado Department of Public Health and Environment (CDPHE)
  - Colorado Behavioral Risk Factor Surveillance System
  - Colorado Electronic Disease Reporting System
  - Colorado Vital Records
  - Colorado WIC Program (The Special Supplemental Nutrition Program for Women, Infants, and Children)
  - Health eMoms Survey
  - Healthy Kids Colorado Survey
  - Pregnancy Risk Assessment Monitoring System
  - STI/HIV/Viral Hepatitis Branch
  - Tuberculosis and Refugee Health Program
- Colorado Department of Transportation
- Colorado Discharge Data Set, Colorado Hospital Association
- Colorado Health Access Survey, Colorado Health Institute
- Colorado Health Foundation Pulse Survey
- Colorado Health Observation Regional Data Service
- Colorado Immunization Information System
- Environmental Protection Agency
- Feeding America
- Metro Denver Homeless Initiative
- State Demography Office, Colorado Department of Local Affairs
- U.S. Bureau of Labor Statistics
- United States Department of Agriculture
Data Limitations

There are limitations to all data. Although we have made every effort to ensure the quality of the data used in this report, some limitations and weaknesses exist.

Timeliness

There is often a lag between when data are collected and released. For instance, data collected in one calendar year may not be available for six months, or longer, after the close of that year. By combining years of data together, we can often create stable estimates or protect confidentiality; however, this can hide recent trends. At the time of this report, for example, 2020 American Community Survey (U.S. Census Bureau) data are not yet available for all data.

Completeness

Data can be incomplete for various reasons related to data collection, such as specific question or question wording changing year-to-year, specific populations not counted consistently or at all, or missing data elements due to errors in data entry.

Accuracy

Data can be inaccurate due to measurement errors, coding errors, or analytic errors. Response bias and recall bias can also affect accuracy. We do not know that people who respond to surveys are similar to those who do not respond; people who decide to respond may do so because of a motivation that someone else may not have. The error that may occur due to the people who respond — and their unknown motivations — is called response bias. Similarly, recall bias can occur when people are asked about things that may have occurred in the past.

Small numbers

Most of the data used in this report are based on samples of the population. If a sample is very small, it can create unstable estimates; caution must be used in their interpretation. Small samples or events that occur to a small portion of the population need to be displayed carefully so as not to identify an individual.

Geographic relevance

Most data are collected at particular geographic scales and therefore may be hard to apply to smaller or larger areas of interest. For example, most of the large, national surveillance systems in this country only collect data at the state level; therefore, data at the county, city, or neighborhood level may be limited or even unavailable.

Misrepresentation or underrepresentation

It is important to measure patterns of health among subgroups of the population. Years of research have established critical health differences among various populations. For instance, health conditions and risks can vary depending on age, race and ethnicity, and sex and gender. Race and ethnicity are usually measured because they are important determinants of access to societal resources. There are also important social and symbolic meanings conveyed by the concepts of race and ethnicity which can impact health.\(^1\) The categories of race and ethnicity used in this report do not reflect biological characteristics but rather self-perceived membership in a particular group, or assigned race/ethnicity in the case of birth and death data. Self-reporting is limited by the choices given the respondent; this has the potential to misrepresent one’s true identity. In the case of sex and gender, sex is assigned at birth (typically by the appearance of external genitalia and recorded on the birth certificate as male or female) and people who self-identify with their assigned sex are “cisgender.” “Transgender” individuals are those who do not self-identify with their assigned sex at birth. The term gender, or gender expression, refers to psychological dimensions of sexual identity, gender identity, social beliefs, and behavior, such as identifying as heterosexual, lesbian, gay, or bisexual.\(^2\) Most of the data systems used in this report only collect sex-assigned-at-birth data by self-report, visual inspection, or voice sound in the case of telephone surveys. Gender identity is infrequently measured; therefore, misidentification and/or underrepresentation may be weaknesses of these data.

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What is a Healthy Community?

Based on community input, the image below depicts the components of a healthy community. This assessment is designed to reflect the status of our communities in light of this image of a healthy community.
A Healthy Community is:

Where diversity and support for people of all ages, race and ethnicities, and abilities are valued

Where meaningful employment opportunities which offer a living wage are available to all residents

Where emotional and mental health are priorities, and services and supports to promote, maintain, and restore mental health are readily available

Where all residents can access safe, healthy, and culturally-appropriate food and are able to practice good eating habits

Where quality, affordable housing is available and people take pride in their neighborhood

Where people feel safe in their homes and walking in their neighborhoods, free from crime, violence and domestic abuse

Where lifelong learning is encouraged, and quality educational opportunities are available for all residents across the lifespan, meeting their needs and setting them up for success

Where building a sense of belonging and social connection is a priority

Where all people, regardless of their income, can access quality health care

Where everyone has access to parks, trails and open space, and affordable recreational opportunities

Where all residents enjoy clean air, safe water, and environments free from contaminants

Where residents have access to museums, libraries, houses of worship, and other amenities that contribute to quality of life

Where all people have the mental and physical energy, vitality, and resilience to live joyfully and face the challenges of their lives

These statements were drawn from various materials found on the World Wide Web and modified to reflect findings from TCHD’s Community Input Survey.
Community Characteristics

The demographic characteristics of the population are important in understanding the health risks and challenges, strengths and opportunities of the community. Characteristics such as age, gender, and genetic makeup are closely linked to health outcomes. Socio-economic factors such as education, socio-economic status, and household composition are likewise associated with health risk and protective factors and outcomes. The following section displays key demographics for Colorado as well as Adams County for comparison purposes.

<table>
<thead>
<tr>
<th>Population</th>
<th>2020</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>5,782,915</td>
<td>6,544,583</td>
</tr>
<tr>
<td>Population Change</td>
<td>+13% 2010 to 2020</td>
<td>+13% 2020 to 2030</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>2020</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Non-Hispanic</td>
<td>69%</td>
<td>64%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>22%</td>
<td>26%</td>
</tr>
<tr>
<td>African-American</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Asian</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>2020</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-17</td>
<td>22%</td>
<td>19%</td>
</tr>
<tr>
<td>18-64</td>
<td>63%</td>
<td>62%</td>
</tr>
<tr>
<td>65+</td>
<td>15%</td>
<td>18%</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Other Characteristics</th>
<th>2020</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disability</td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td>Includes hearing, vision, cognitive, ambulatory, self-care, and independent living difficulty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Born Outside US</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Households without broadband internet</td>
<td>9%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>2020</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than High School</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>High School (Diploma or Equivalent)</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td>Bachelor’s Degree or Higher</td>
<td>43%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Housing Costs</th>
<th>2020</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median Home Value (owner occupied housing units with a mortgage)</td>
<td>$402,600</td>
<td></td>
</tr>
<tr>
<td>Median Gross Rent: 1 bedroom</td>
<td>$1,196</td>
<td></td>
</tr>
</tbody>
</table>

1Source: Colorado Department of Local Affairs, October 2021 Estimates, 2030 Population Forecast
2Source: American Community Survey, 1-Year Estimates 2019
3Source: Vital Records Program, Colorado Department of Public Health and Environment
# Community Characteristics: Adams County

## Population

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Population Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>520,070</td>
<td>+15%</td>
</tr>
<tr>
<td>2030</td>
<td>612,898</td>
<td>+18%</td>
</tr>
</tbody>
</table>

## Race/Ethnicity

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>2020</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Non-Hispanic</td>
<td>49%</td>
<td>44%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>41%</td>
<td>46%</td>
</tr>
<tr>
<td>African-American</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Asian</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

## Age

<table>
<thead>
<tr>
<th>Age Group</th>
<th>2020</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-17</td>
<td>25%</td>
<td>21%</td>
</tr>
<tr>
<td>18-64</td>
<td>64%</td>
<td>65%</td>
</tr>
<tr>
<td>65+</td>
<td>11%</td>
<td>13%</td>
</tr>
</tbody>
</table>

## Income

- **Median Household Income**: $75,804
- **Individuals Living at or Below Poverty**: 9%
- **Children Living at or Below Poverty**: 12%
- **Unemployment**: 4%

## Households

- **Single-Parent Households with kids <18**: 8%
- **Residents Age 65 or Older Living Alone**: 7%
- **Limited-English-Speaking Households**: 4%

## Other Characteristics

- **Disability**: 10%
  - Includes hearing, vision, cognitive, ambulatory, self-care, and independent living difficulty
- **Born Outside US**: 16%
- **Households without broadband internet**: 10%

## Educational Attainment

- **Less than High School**: 15%
- **High School (Diploma or Equivalent)**: 30%
- **Bachelor’s Degree or Higher**: 25%

## Housing Costs

- **Median Home Value**: $369,000
  - (owner occupied housing units with a mortgage)
- **Median Gross Rent: 1 bedroom**: $1,158

## Top 5 Leading Causes of Death, 2020

<table>
<thead>
<tr>
<th>Cause</th>
<th>Age-Adjusted Rates per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart Disease</td>
<td>149.7</td>
</tr>
<tr>
<td>Cancer</td>
<td>140.3</td>
</tr>
<tr>
<td>COVID-19</td>
<td>116.4</td>
</tr>
<tr>
<td>Accidents (Unintentional Injuries)</td>
<td>65.6</td>
</tr>
<tr>
<td>Chronic Lower Respiratory Disease</td>
<td>58.1</td>
</tr>
</tbody>
</table>

1Source: Colorado Department of Local Affairs, July 2019 Estimates, 2030 Population Forecast
2Source: American Community Survey, 1-Year Estimates 2019
3Source: Vital Records Program, Colorado Department of Public Health and Environment
A healthy community is where building a sense of belonging and social connection is a priority and where diversity and support for people of all ages, race and ethnicities, and abilities are valued.
Overwhelmingly, our community members, partners, and staff said that community connection and belonging were not only key factors of a healthy, happy, and thriving community—but that they needed connection with others to be their happiest, healthiest selves. Specifically, they mentioned the importance of being with family and friends, kindness, social support, respect, and unity. While social connection was a key theme in the 2018 Community Health Assessment, isolation from others and fear felt by community members during the COVID-19 pandemic brought home the importance of belonging and support for many community members.

Social connection is related to health in several ways. First, simply being around people who watch out for each other can reduce the risk of poor health outcomes occurring or the chance that an accident will lead to serious injury or death. There is safety in numbers. Second, connection and belonging can be protective against the development of certain behaviors that increase risk for poor health outcomes. Social connection has long been recognized as a factor that can reduce the chance that people will engage in less-healthy behaviors such as heavy drinking, substance use, and overeating or eating unhealthy foods. In fact, research shows that social connectedness increases the chances that children will be engaged in school, and that people who do not want to become parents will use effective birth control; it also reduces the risk of suicide attempt. Finally, connection reduces the chance of experiencing isolation and loneliness. In their 1988 article, House, Landis, and Umberson show the relationship between poor social

“Social ties can instill a sense of responsibility and concern for others that then lead individuals to engage in behaviors that protect the health of others, as well as their own health. Social ties provide information and create norms that further influence health habits. Thus, in a variety of ways, social ties may influence health habits that in turn affect physical health and mortality.”


Key Insights

- Positive social relationships are important for mental and physical health, and overall wellbeing.
- The COVID-19 pandemic highlighted the importance of social connection for many Adams County residents.
- In our community survey, we heard from residents who felt disconnected from each other and from social, political, and economic systems in their communities.
“Social support is a communication behavior that plays a critical role in the maintenance or disruption of mental and physical health.”


integration and risk for mortality, and in their 2010 meta-analysis, Holt-Lunstad, Smith, and Layton found that “individuals with adequate social relationships have a 50% greater likelihood of survival compared to those with poor or insufficient social relationships.” That would mean that social support and connection is as good for your health as quitting smoking. It is important to note, however, that only positive social connection and relationships are associated with good health; negative, stressful relationships can have the opposite effects. Not only is positive social connection protective against the development of behaviors that can be detrimental to health, such as substance use, but research shows that social connection can reduce the risk of death in people with and without certain chronic conditions.

Unfortunately, data that measure social connection are rare. We can, however, glean some information from surveys that ask about social connection less directly. In 2019, before the COVID-19 pandemic, 15% of high school students in Adams County had been bullied on school property; of those, more than two in five were bullied due to race or ethnicity and two in three were bullied for physical appearance (Figure 1). Multiracial youth, females, bisexual youth, and those uncertain of their sexual orientation or gender identity were more likely to report bullying. Slightly fewer students reported electronic bullying (12.0%) compared to in-person bullying (14.9%). The majority of students in Adams County report having an adult to go to for help with a serious problem (70%) and 83% report being able to ask their parent or guardian for help with a personal problem. Student participation in extracurricular activities is also fairly high (52%), but lower than statewide (67%). However, only about one in four (26%) high school students report enjoying being in school during the past year.

Source: Healthy Kids Colorado Survey (2019), Colorado Department of Public Health and Environment

Figure 1: Connection and Belonging among High School Students, Adams County, 2019

7 Healthy Kids Colorado Survey, CDPE
“[H]aving a team of people to rely on for support, rather than a specific close other, may be protective of well-being during the pandemic.”


Positive perceptions of one’s community can help people feel connected; they can also encourage people to seek out others and build relationships with people and community groups. Overall, feelings of social connection, community, and belonging are important to health, and data indicate that “mortality is...two or three times higher in people with weak social links than in those with strong social networks.” In our community survey and focus groups, over two in five comments (42.7%) related to social factors; of those, about one in four (25.1%) mentioned family. As one community member mentioned, “[to be happy], another thing that is incredibly valuable is a community that is inclusive, supportive, diverse, and healthy.” The importance of positive social connection was mentioned often, including connection with friends and the faith community. Many community members noted how important their family and friends were; isolation and quarantine during the COVID-19 pandemic made this clearer to many people.

In our community survey, we also heard from residents who emphasized the importance of having an inclusive and supportive community. Residents described a healthy and thriving community as “equitable, diverse, justice oriented and safe for everyone in the community,” as well as “a strong support system” and “respect for all persons.” Residents voiced concern about problems including “structural racisms and other social determinants of health.”

It is clear that the COVID-19 pandemic has been difficult for everyone in many ways. It has forced communities in our county and throughout the United States to address what it means to be a community, to think about individual versus group responsibility, and to discuss the ways in which our societies are organized, make decisions, and prioritize values.

In their 2015 article, Case and Deaton found an increase in mortality rates for White, middle-aged adults that has occurred over the past 15-20 years is largely due to increases in suicides, drug overdoses, and alcohol-related liver disease. The researchers named these deaths...
“I would say one thing I need is having a support network. Family and friends where I can get help getting my needs met. Another thing that is incredibly valuable is a community that is inclusive, supportive, diverse, and healthy.”

Source: Tri-County Health Department, CHA Community Engagement Process, 2021

“deaths of despair” which are characterized by deteriorating economic, social and behavioral conditions, such as under- or unemployment, stress and hopelessness, isolation, family dysfunction, poor social support, and addiction.\(^9\) Enhancing social connection could have an effect in mitigating this increase in deaths of despair.

Finally, civic engagement is important to health. Voting is related to health in a few ways: by building community connectedness and civic engagement, by enhancing self-efficacy, and, more directly, by giving citizens the ability to vote on matters impacting health. Voting is one way that people can shape their environments rather than simply being shaped by them. Kawachi and Berkman (2000) note the relationship between political activities, like voting, and social capital – social resources, connection, and collective action. “Within the United States, levels of civic trust and group membership are strongly correlated with geographic variations in voter turnout at elections.”\(^11\) Voting is a social determinant of health and has been recognized by the U.S. government’s Healthy People 2020 as well as by the American Public Health Association, health research groups, health foundations, and health departments across the country. In the November 2020 election, 71.3% of people eligible to vote in Colorado were registered to vote, and 67.6% of people eligible to vote actually voted (94.8% of those who were registered voted).\(^12\) In Adams County, 85% of registered voters voted in the 2020 general election, up from 72% in 2016.\(^13\) Increasing the voter activity of registered voters and engaging eligible citizens to register to vote can help promote civic engagement and community connectedness and, ultimately, health in our communities.

Social connection, belonging, and engagement are important to our health. By supporting each other and our neighbors, we can improve the health and wellbeing of our communities.

\(^9\) Raising midlife morbidity and mortality, US whites. Anne Case, Angus Deaton. Proceedings of the National Academy of Sciences Dec 2015, 112 (49) 15078-15082; DOI:10.1073/pnas.1518393112


\(^12\) https://www.census.gov/data/tables/time-series/demo/voting-and-registration/p20-585.html

\(^13\) https://www.adamsvotes.com/past-elections/#Election

What Our Community Said

- Over two in five comments from the community (42.7%) related to social factors or social connection or connectedness.
- Of these comments, one in four (25.1%) comments specifically mentioned the importance of connection to family.
- Many community members noted how important their family and friends were; isolation and quarantine during the COVID-19 pandemic made this clearer to many people.
- Many people mentioned concern about the social, moral, and political fabric of society.
- Community members specifically mentioned racism as a social problem contributing to poor health.
A healthy community is where meaningful employment opportunities offering a living wage are available to all residents.
Tri-County Health Department

A healthy community is where meaningful employment opportunities offering a living wage are available to all residents.

Adams County

Key Insights

- Economic security has a direct, positive relationship to mental and physical health and wellbeing.
- Opportunities that lead to wealth are not equitably distributed in our communities.
- Income increases are not keeping pace with the increasing cost of living expenses, challenging upward economic mobility.
- The COVID-19 pandemic negatively impacted our economies and the economic security of our residents.

Economic security is a key to health.

Since our nation’s founding, the promise of economic opportunity has been a central component of the American Dream. “An economy that grew to be the world’s biggest and most dynamic also held out the promise that hard work, vision, and risk—regardless of family background—would be rewarded.”¹ In our community survey, partners and community members echoed this desire for the American Dream—the hope for a strong economy that benefits everyone in our communities and the ability of people to pursue opportunity, including meaningful employment that pays a living wage. Unfortunately, they noted that not all people in our communities are paid a living wage and able to meet their basic needs. Given the importance of income to not only meet basic needs, but also to access other services, resources, and opportunities, it is no surprise that economic security is a key to health.

Figure 1: Self-reported general health status by annual household income, 2018-2020, Adams County

Source: Behavioral Risk Factor Surveillance System, Colorado Department of Public Health and Environment

Income impacts health in several ways. In fact, self-reported health status has a direct relationship with income: the greater the income, the more likely people are to report being healthy. Figure 1 indicates percentages of people reporting health status by three income categories: less than $25,000 annual household income, between $25,000 and $49,999 annual household income, and greater than or equal to $50,000. In this figure we see that the greater the income, the greater the differences in health status.

Income is an important factor in one’s ability to access and/or pay for health care costs and resources: health services not covered by insurance, including one’s deductible, for example. It also influences one’s ability to access and/or pay for services and resources that can affect health and wellbeing, such as healthy housing or high quality childcare services. Indirectly, income is a key factor in many of the choices people make every day, from the kind of food they buy, to the way they exercise or recreate, to whether or not they can take a vacation. Figure 2 shows the relationship between annual household income and ability to participate in leisure time physical activity. The higher the income, the more likely one is able to participate in leisure time physical activity.

Similar to physical health, mental health is a combination of environmental, social, and biological factors. In Adams County, people with higher incomes are less likely to experience consistently poor mental health than people with lower incomes (Figure 3). As annual household income increases, the percentage of people experiencing 14 or more days of poor mental health decreases.

Source: Behavioral Risk Factor Surveillance System, Colorado Department of Public Health and Environment

“Closing the wage gap between current wages and the Self-Sufficiency Standard requires both reducing costs and raising incomes.”

Source: Colorado Center on Law and Policy

“[I need] a consistent job which pays decent wages as well as the support of my family and loved ones.”

Source: Tri-County Health Department, CHA Community Engagement Process, 2021

“A healthy community needs money, bills paid, safe home, heat, food...lots more.”

Source: Tri-County Health Department, CHA Community Engagement Process, 2021

household income increases, the percentage of people reporting 14 or more poor mental health days in the past 30 days decreases in Adams County and Colorado.

An individual’s income and ability to pay for living and health expenses is closely tied to the cost of living. It is more difficult for a person to live and thrive if their income is not steady or does not meet the costs of living. Poverty and unemployment rates can provide insights into the economic security of our communities. In Adams County, poverty rates vary across populations as well as by neighborhood. Our community members consistently noted that income, employment, and opportunities were necessary to lead happy, healthy, thriving lives. As one person stated, “[Necesito] estabilidad económica. (I need economic stability.)”

Research suggests that living wage is a more realistic measure of purchasing power (how far one’s income goes) related to income than poverty level. Using a market-based approach, the living wage model looks at income needed to afford minimum necessary costs. “The living wage draws on local cost elements and the rough effects of income and payroll taxes to determine the minimum employment earnings necessary to meet a family’s basic needs while also maintaining self-sufficiency.” The minimum wage in Adams County and Colorado is $12.56 per hour (beginning January 2022), equivalent to an annual full time salary of $26,125. This is less than the living wage calculation of $42,848 for a working adult without children. Figure 4 shows a comparison of the current Colorado minimum wage to the living wage for different family types in Adams County and in Colorado. In order to maintain self-sufficiency for all family types presented, each would need to make significantly more per hour than the current minimum wage in

Figure 4: Hourly Minimum Wage versus Hourly Living Wage by Family Type, Adams County and Colorado, 2020

<table>
<thead>
<tr>
<th>Family Type</th>
<th>Minimum Wage</th>
<th>Living Wage Colorado</th>
<th>Living Wage Adams</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 adult (working), no children</td>
<td>$12.00</td>
<td>$19.44</td>
<td>$20.61</td>
</tr>
<tr>
<td>1 adult (working), 1 child</td>
<td>$12.00</td>
<td>$37.96</td>
<td>$39.41</td>
</tr>
<tr>
<td>1 adult (working), 2 children</td>
<td>$12.00</td>
<td>$47.99</td>
<td>$49.43</td>
</tr>
<tr>
<td>2 adults (one working), 2 children</td>
<td>$12.00</td>
<td>$40.79</td>
<td>$42.24</td>
</tr>
<tr>
<td>2 adults (both working), 2 children</td>
<td>$12.00</td>
<td>$26.95</td>
<td>$27.67</td>
</tr>
</tbody>
</table>

$- $10.00 $20.00 $30.00 $40.00 $50.00 $60.00

4 http://livingwage.mit.edu/
“Though it is easy to imagine how health is tied to income for the very poor or the very rich, the relationship between income and health is a gradient: they are connected step-wise at every level of the economic ladder. Middle-class Americans are healthier than those living in or near poverty, but they are less healthy than the upper class.”

A thriving economy has the potential to improve health. In addition to its devastating physical and mental health impacts, the COVID-19 pandemic strained communities economically. Businesses navigated closures and capacity restrictions, people lost their jobs or were forced into early retirement, and consumers changed the way they shop and prioritize expenses. In a statewide survey, nearly one-third (31%) of respondents had hours cut back or wages reduced, one in five (19%) were required to go to work even though they had concerns about their health and safety, and 13% had been laid off – all due to the COVID-19 pandemic. Compared to the 2019 weekly average of unemployment insurance claims, the average number of weekly claims between the weeks of March 21, 2020 and December 29, 2020, increased 708% in Adams County. Figure 5 shows weekly unemployment claims in 2019 and 2020: new claims peaked the week of March 28, 2020, slowly declined in summer months, and rose again in late 2020.

In Adams County, increases in income are not keeping up with the increases in living expenses. While the median household income increased 36% in Adams County between 2012 and 2019, the median home value increased 97% (Figure 6). Similarly, the price of auto insurance coverage increased 80% from 2011 to 2021 in Colorado.

Examining differences in economic security, a greater percent of minority groups are in poverty than their White Non-Hispanic peers (Figure 7). While White Non-Hispanic people make up about 74% of the people below the federal poverty level (FPL) in the county, only 8% of all White Non-Hispanic people in Adams County are in poverty. While 11% of the total population in poverty is Hispanic, 52% of Hispanic people in Adams

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“Am I sick because I am poor, or am I poor because I am sick? It is both: it should be neither.”

Source: Paul Campbell Erwin, MD, MPH

“What total disease burden borne by people at the lower end of income distribution is greater irrespective of any specific medical condition.”

Source: American Community Survey, 2019

county live in poverty. In parallel with these trends, Hispanic and other Non-White racial groups often experience worse health outcomes than their White neighbors.

Improving health means improving the economic systems in which people live, learn, grow, and work, and expanding the opportunities available for all people, but particularly minority groups, to be financially secure and access the resources, services, and advantages that improve health and wellbeing.

What Our Community Said

- Nearly one in five (19.1%) comments from community members about health were related to economic factors.
- General economic security, personal finances, and job- or income-related comments made up 95% of all economic factor-related comments.
- Community members consistently mentioned the need for stable jobs and for employment that pays a “living wage”: enough to live on, pay for basic needs, and have a little to spare.
- The high cost of health care was mentioned by many community members as a barrier to care; this included regular doctor care, oral health, specialty care, and even emergency care.
- High cost of food and housing was also mentioned by community members.
- Healthy, thriving businesses were mentioned as important parts of a healthy economy.
- Racism, poverty, and systemic inequality were noted as root causes of economic stability.
- Community members also noted that economic strain negatively impacts their mental health.

A healthy community is where quality, affordable housing is available and people take pride in their neighborhood.
Community members and partners reported that finding affordable housing is a significant problem facing their communities. The cost of housing is outpacing wages in Adams County. Persons of color are disproportionately impacted by the affordable housing shortage. There was a 10% increase in the amount of persons experiencing homelessness in 2021 compared to 2020.

Adams County Median Home Sale Price January 2022

$505,000 +23.2% since 2021

Our community members and partners reported that finding affordable housing is a significant problem facing their communities and a key factor in a healthy, happy, thriving community. As of January 2022, Adams County saw a 23.2% increase in median home sale price compared to January 2021. Affordable, accessible housing was already an issue in Adams County prior to the COVID-19 pandemic, due in part to the county’s growing population (Map 1) and lack of housing throughout the Denver Metro Area. Between 2014 and 2019, the median monthly household income for residents in Adams County increased 27% while the median monthly rent increased 32%: the cost of housing continues to outpace increases in wages (Figure 1).

Map 1: Census tracts with an 8% or more increase in total population from 2017 to 2019

Figure 1: Percent change in average monthly income and average monthly rent costs between 2014 and 2019

Source: U.S. Census, American Community Survey 5-Year Estimates 2017, 2019

Source: U.S. Census, American Community Survey 5-Year Estimates 2014, 2019

https://www.redfin.com/county/363/CO/Adams-County/housing-market
A standard first promoted by the United States National Housing Act of 1937, and still in use today, is that households should not spend more than 30% of their income on rent or a mortgage, leaving enough remaining income to cover non-housing-related needs, such as food and transportation costs. Households spending more than 30% of their income on rent or a mortgage are considered cost burdened and tend to reduce other non-fixed expenses, such as food or health care, to make ends meet. As shown in Figure 2, 55% of renters in Adams County spend more than 30% of their monthly income on rent and nearly one-third of home owners spend above the 30% recommended standard. As housing costs rise and supply diminishes, more home owners, as well as renters, will spend larger percentages of their income on housing.

**Figure 2: Comparison of renters and home owners paying 30% or more of household income on housing, 2019**

Source: U.S. Census, American Community Survey 5-Year Estimates 2019
In Tri-County’s community survey, nearly every participant described how having a physical space of one’s own forms the foundation for all other areas of health.

Source: Tri-County Health Department, CHA Community Engagement Process, 2021

Low-income residents and communities of color experience a higher prevalence of substandard housing. In urban areas, this can be a result of historic redlining (a practice where banks refused to grant home loans in certain neighborhoods based on racial or ethnic composition) which was allowed by the Federal Housing Administration until the 1960’s. Neighborhoods of color were systematically denied access to government-backed home mortgages. This and other policies affecting economic and educational opportunities had generational impacts on economic prosperity, which continue to this day (see Figure 3). In Adams County, of occupied housing units by Black/African American and Hispanic or Latinx persons, fewer than 58% are homeowners. However, of occupied housing units by White, Non-Hispanic/Latinx persons, 74% are homeowners.

Figure 3: Percent of occupied housing units, by tenure and race/ethnicity, Adams County, 2019

High housing costs may result in overcrowding. As shown in Figure 4, renters in Adams County are three times more likely to have more than one occupant per room than homeowners. Research suggests that overcrowding can have a negative impact on children’s wellbeing and can cause stress for household members. Children may be particularly vulnerable to overcrowding because they use the space in the home to play, do homework, interact with family members, develop an identity, practice skills, and sleep. The COVID-19 pandemic has compounded the amount of time children spend at home, increasing their vulnerability to poor housing quality by attending school from home and mandating quarantining or isolation. As shown in Figure 3, more than half of Black/African American households are renters, exemplifying how communities of color may be at higher risk for overcrowding living.

Figure 4: Percent of households with more than one occupant per room, by tenure, Adams County, 2019

Source: U.S. Census, American Community Survey 5-Year Estimates 2019

3 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3805127/
Homelessness can be both a result of poor health as well as a cause of poor health outcomes. Health issues may lead to the inability to work, high medical bills, and exhaustion of savings which could result in homelessness. People who are experiencing homelessness are exposed to adverse conditions creating stress, which may lead to or worsen existing substance abuse and mental health issues. TCHD community members and partners mentioned the increase in homelessness as a key problem in the community. Each year, the Metro Denver Homeless Initiative conducts a point-in-time survey to estimate the number of people experiencing homelessness in the region. In Adams County, there was about a 10% increase in the number of people experiencing sheltered homelessness in 2021 (n=346) compared to 2020 (n=316). Figure 6 shows the number of persons experiencing sheltered homelessness in Adams County by ethnicity in 2021; Figure 7 shows the number of persons experiencing sheltered homelessness in Adams County by race in 2021. Persons of color make up a higher percentage of the population experiencing sheltered homelessness than they do the general population.4

Figure 6: Persons experiencing homelessness, by Ethnicity, Adams County, 2021

Figure 7: Persons experiencing homelessness, by Race, Adams County, 2021

4Point-in-Time Survey, Metro Denver Homeless Initiative, 2021

“People served by Almost Home need stable and affordable housing to be healthy. Our clients described a range of negative health consequences that resulted from housing instability.”

Source: Tri-County Health Department, CHA Community Engagement Process, 2021
Poor housing conditions are associated with a wide range of health conditions, including respiratory infections, asthma, lead poisoning, injuries, and poor mental health. The quality of housing includes structural soundness, handicap accessibility, and indoor air quality.

Housing can be a source of exposure to various carcinogenic air pollutants. Radon, a colorless, odorless radioactive gas that forms naturally in soil, is the second leading cause of lung cancer in the United States. Radon is common throughout Colorado and in Adams County (Map 2). Radon is measured in units of picocuries per liter (pCi/L) of air. The EPA recommends a radon reduction plan if radon levels are at or above 4 pCi/L. Testing homes for radon and mitigating exposure in settings with elevated levels can reduce the risk of lung cancer from radon exposure. Radon mitigation is available but may be too expensive for some families to afford.

Map 2: Home radon tests above the recommended action limit, tested for radon between 2005-2020, Adams County

Where we live is directly connected to our health and safety. Without adequate housing, people have trouble managing their daily lives. For most people, housing is their greatest monthly expense. Quality, affordable housing is central to individual and community wellbeing.

What Our Community Said

- Safe, affordable housing was often mentioned by community members as a basic human need, along with food, clothing, and access to health care.
- Availability of affordable housing was the most often mentioned concern and a key factor in a healthy, happy, thriving community.
- Community members mentioned the increase in homelessness as a key problem in the community.
A healthy community is where lifelong learning is encouraged, and quality educational opportunities are available for all residents across the lifespan, meeting their needs and setting them up for success.
Key Insights

- Education increases employment opportunities for community members which, in turn, impacts income and the likelihood of having employer-sponsored health insurance as well as other benefits that impact health and wellbeing.

- High school completion varies not only by district, but also by the characteristics of the students, the obstacles they face, and the situations of their lives.

- Education can also impact one’s health literacy, ability to navigate the health care system, and the confidence and determination it can take to do so successfully.

Figure 1: Percent of Children Ages 3 and 4 Enrolled in Preschool, 5-year rolling averages

Education provides us with the knowledge, skills, and reasoning we need to navigate the world around us. Learning stimulates human beings’ natural curiosity and provides us with the skills to explore new ideas, find meaning in complexities, and derive independent conclusions from facts. Education is deemed so important it is mandated by law. Article 9, Section 2 of the Colorado State Constitution requires “the establishment and maintenance of a thorough and uniform system of free public schools throughout the state, wherein all residents of the state, between the ages of six and twenty-one years, may be educated gratuitously.”

Starting early is important. Research tells us that “attending high-quality early childhood programs, such as preschool or Head Start, can help reduce significant disparities in achievement and development for children in poverty or from other disadvantaged backgrounds. High-quality child care has even been linked to better overall physical health in adults who participated in it as children. What’s
Educational attainment is associated with greater social support, including social networks that provide financial, psychological, and emotional support.


more, access to child care can help parents, especially mothers, access job and educational opportunities that can ultimately aid their own health and that of their families. Figure 1 (page 2) shows recent trends in the percentage of 3- and 4-year-olds enrolled in preschool. Adams County enrollment has been steadily increasing since 2012, although it is substantially lower than the statewide rate.

The Colorado General Assembly created the Colorado Preschool Program (22-28-102 C.R.S) in 1988 to serve the young children in Colorado who were most vulnerable to starting grade school unprepared. The legislature recognized that providing quality early childhood education would reduce dropout rates, put children on track to reach their full potential, reduce need for public assistance, and decrease the risk for future criminal activities. Each slot provides a half-day of preschool for one child. This program is funded through the Colorado Public School Finance Formula.

Formal educational attainment is one benchmark of learning and is often a requirement for certain professions. Most students in Adams County complete high school in four years (Figure 2). High school completion is the number of students receiving a regular diploma plus those completing with a non-diploma certificate or GED within a certain number of years after entering 9th grade. Figure 2, below, shows four-year completion rates over time by district.

Completion rates vary by student characteristics, including race and ethnicity, English proficiency, socioeconomic status, and persons with disabilities (Figure 3, page 4). Poverty is more common among minority students, and many neighborhoods continue to be segregated by race and income. Low-income neighborhoods often have more poorly-resourced schools (due, in part, to lower property taxes) than wealthier neighborhoods, and voters may be less likely to support bonds for school funding. In general, voters are more likely to support local schools than initiatives that support districts statewide. This can result in districts’ inability to offer attractive teacher salaries or properly maintain buildings, supplies, and school safety.

Figure 2: Trends in Four-Year High School Completion Rates by School District, Adams County, 2019-2021
**Health and Education**

*A healthy community is where lifelong learning is encouraged, and quality educational opportunities are available for all residents across the lifespan, meeting their needs and setting them up for success.*

**Adams County**

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**Figure 3: Four-Year High School Completion, by Student Characteristics and District, Adams County, Class of 2021**

![Bar chart showing high school completion rates by student characteristics and district.](chart.png)

Source: Colorado Department of Education

“The economic vulnerability that can arise from an inadequate education can affect health through a cascade effect on the ability to acquire resources that are important to health (e.g., food, stable housing, transportation, insurance, and health care).”

The link between education and income is well established. College graduates earn nearly twice as much as high school graduates over a lifetime (Figure 4). Higher-educated individuals are also more likely to have a job—one with healthier working conditions, better health insurance, and higher wages. A talented workforce attracts and retains employers, impacting local economies. A sustainable economy demands the trained human capital to support it. Individuals and families are more likely to achieve and maintain self-sufficiency if they are well-prepared for the jobs that pay a living wage and provide health insurance and other benefits (Figure 5).

**Figure 4: Median Annual Income by Educational Attainment, Adults Ages 25 and Older, 2019**

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>Adams County</th>
<th>Colorado</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; High School</td>
<td>$30,968</td>
<td>$32,479</td>
</tr>
<tr>
<td>High school or GED</td>
<td>$35,537</td>
<td>$34,880</td>
</tr>
<tr>
<td>Some college or Associate's</td>
<td>$40,819</td>
<td>$41,844</td>
</tr>
<tr>
<td>Bachelor's</td>
<td>$58,229</td>
<td>$58,852</td>
</tr>
<tr>
<td>Graduate/Professional</td>
<td>$71,616</td>
<td>$66,229</td>
</tr>
</tbody>
</table>

Source: American Community Survey 1-Year Estimate 2019

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“Individuals with lower health literacy had poorer health-related knowledge and comprehension, ability to demonstrate taking medications properly, and ability to interpret medication labels and health messages. They also had increased hospitalizations and emergency care, decreased preventive care, and, among the elderly, poorer overall health status and higher mortality.”


Educational attainment is correlated with a range of health issues. For example, self-rated health status has been linked to mortality; those who rate their general health status as fair or poor die earlier than those who rate their health more favorably. Fair or poor health status is also linked to chronic disease prevalence. This measure of health is correlated with educational attainment; the less education one has, the more likely they are to rate their health as fair or poor (Figure 6).

Figure 5: Adults with no health insurance coverage by educational attainment, 2018-2020

Source: Behavioral Risk Factor Surveillance System, Colorado Department of Public Health and Environment

Figure 6: Self-Reported General Health Status by Educational Attainment, 2018-2020

Source: Behavioral Risk Factor Surveillance System, Colorado Department of Public Health and Environment

Research also shows that education, learning, and curiosity throughout the lifespan can decrease one’s risk of developing dementia or cognitive decline. The Alzheimer’s Association believes that lifelong learning/cognitive training, healthy diet, regular physical activity, and management of cardiovascular risk factors may reduce the risk of cognitive decline as people age.6

Lifelong learning—that is, the opportunity to continue to acquire the knowledge, values, skills and understanding needed to participate fully in community life—has many benefits. It keeps the mind sharp and improves memory, helps individuals gain confidence, enhances interpersonal relationships, improves chances of career growth, and increases the ability to communicate. Providing formal and informal opportunities for all residents to learn throughout their lives enhances the health of individuals and communities.

What Our Community Said

- Of all comments from the community, 4.0% related to education.
- Of these, nearly half (46.3%) related to lack of information or the provision of accurate health information.
- One in ten (9.8%) related to lack of knowledge, usually about how to get healthy.
- Community members mentioned wanting information and education, in different languages, on various health topics, including health services, nutrition, health system navigation, and medical coaching.
- Low-cost education and training was also mentioned as needed to help create a more skilled workforce and increase employment opportunities

6 https://www.alzheimersanddementia.com/article/S1552-5260(15)00197-1/pdf
A healthy community is where all residents can access safe, healthy, and culturally-appropriate food and are able to practice good eating habits.
In 2020, middle-income households spent an average of $6,300 on food, representing 11% of their income, while the lowest income households spent $4,099 on food, representing 31% of their income.


Key Insights

- In 2020, approximately 1 in 8 people were food insecure in Adams County.
- In 2020, 17.3% of children were food insecure in Adams County.
- As a result of COVID-19, 63% of the Women, Infants, and Children Program (WIC) clients in Colorado stated they experienced household food insecurity.
- There is a higher density of food deserts in minority neighborhoods in Adams County compared to White, Non-Hispanic neighborhoods.

Eating a nutritious diet is an important part of good overall health; however, in reality, healthy eating is complicated by many factors, including one’s stage of life, circumstances, knowledge and attitudes, preferences or restrictions, access to food, culture, and traditions. Eating nutritiously is a challenge for many people and families, and accessing healthy foods became even more challenging during the COVID-19 pandemic. Not only did pandemic restrictions make it more difficult for people to get to the grocery store, but rising unemployment, school closures, limited access to in-school food, and product scarcity added additional challenges. This combination of factors increased food insecurity across the country.¹ The health benefits of a nutritious diet are clear. Adequate nutrition helps keep bodies functioning, improves maternal health, improves child health and their ability to concentrate, and reduces the risk for many health conditions like diabetes, heart disease, and some cancers.²

A key factor in healthy eating is access to affordable, nutritious food. As with housing, those with lower incomes face particular challenges affording food and other necessities. Food insecurity is defined as “the limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways (that is, without resorting to emergency food supplies, scavenging, stealing, or other coping strategies).”³ Retail food prices rose 6.3% from December 2020 to December 2021.⁴ The increased price of food combined with job loss due to COVID-19 impacted families...
In Tri-County’s community survey, community members talked about having to balance the cost of food with other basic needs, such as housing, healthcare, and bills. As a potentially more flexible budget item, people may try to save money on food by buying less-healthy, cheaper foods.

Source: Tri-County Health Department, CHA Community Engagement Process, 2021

in Adams County. In fact, nearly 1 in 8 people (12%) were food insecure in 2020 compared to 9% in 2019 (Figure 1).

Women play a large role in food production and preparation; because of their roles as child bearers and caregivers, women are especially impacted by food insecurity. Food insecurity has been associated with poor pregnancy outcomes, including low birth weight and gestational diabetes. Stress, anxiety, and depression in pregnant women have also been correlated with household food insecurity. In 2019, about 1 in 11 (9%) pregnant women in Adams County were considered food insecure (Figure 2).

Children are particularly vulnerable to food insecurity due to the importance of key nutrients for brain development, body functioning, and body growth and development. Research indicates that food-insecure children are more likely to be developmentally delayed, have higher rates of behavioral problems, and are in poorer general health than children who are not food insecure. Food insecurity is also associated with childhood obesity due to poorer quality diets and overeating related to unpredictable availability of food. Good nutrition for children is vital for the energy and focus necessary to fully participate in school, whether remote or in-person. In 2019, about 1 in 8 high-school-aged youth (13%) were food insecure in Adams County (Figure 2). In 2020, 17.3% of children in the county were food insecure.

Adults aged 65 years and older face a number of unique challenges, often related to health, mobility, or limited income, that put them at a greater risk of hunger. Many are forced to choose between buying food or medicine, and others struggle to access food without reliable transportation. Food-insecure seniors are 53% more likely to report a heart attack, 52% more likely to develop asthma, and 40% more likely to report an experience of congestive heart failure than seniors who are not food insecure. They are also 60% more likely to experience depression, reducing their overall quality of life. In 2019, 10% adults age 65 and older were food insecure in Adams County (Figure 2).

Figure 1: Food insecurity, All Ages, Adams County, 2018-2020
Figure 2: Food insecurity in vulnerable populations, Adams County, 2019

Source: Feeding America (2021)


As the baby boomer generation ages, there will be an ever increasing number of seniors in our communities, many of whom will struggle with food insecurity.
The United States Department of Agriculture (USDA) defines food deserts as areas lacking access to fresh fruit, vegetables, and other healthful whole foods. Due in part to a lack of nearby grocery stores, farmers’ markets, and healthy food providers, food deserts are usually found in lower-income neighborhoods. These areas tend to have local convenience stores that provide processed foods high in sugar and fat and very few, if any, fresh fruits and vegetables. Food deserts can also be defined, in multiple ways, depending on characteristics of the population. USDA Food Access data account for multiple conditions that may affect an individual’s ability to access healthy foods. Map 1 indicates the census tracts where proximity to a food retailer and/or household income (at the census-tract level) pose obstacles to accessing healthy food. Furthermore, Johns Hopkins University reports that food deserts are more abundant in minority neighborhoods. Map 2 shows the census tracts where the highest quartile (top fourth) of population is minority race and/or Hispanic/Latinx. Comparing Map 1 and Map 2 shows us that many minority race and/or Hispanic/Latinx communities are located in census tracts that are considered food deserts.

In Tri-County’s community survey, food access and food insecurity comprised over one-third (36%) of food-related comments followed by healthy eating and nutrition (33%).

Source: Tri-County Health Department, CHA Community Engagement Process, 2021
Community members appreciate programs like WIC, food pantries, and farmers’ markets that increase access to affordable food.

Source: Tri-County Health Department, CHA Community Engagement Process, 2021

Two federal nutrition programs—the Supplemental Nutrition Assistance Program (SNAP) and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)—provide assistance to low-income families for the purchase of healthy foods, among many other services. Unfortunately, not all those who are eligible for these benefits are enrolled in these programs. Not only would increasing SNAP and WIC enrollment help families access healthy food, but it would generate local economic activity from grocery store sales and result in a high return on investment in improved health outcomes and reduced health care costs.9

The number of Colorado families experiencing food insecurity was exacerbated by the COVID-19 pandemic; however, at the same time, there was a decrease in SNAP and WIC enrollment across the state.10 In coordination with the National WIC Association (NWA), Colorado distributed an online survey to their WIC clients about their experience during the COVID-19 pandemic. The majority (63%) of WIC clients in Colorado stated they experienced household food insecurity as a result of the pandemic.11 From 2019-2021, the number of Adams County families who applied for and received SNAP assistance grew by 34%, totaling 13.4 million dollars.12

Food insecurity persists in Adams County, disproportionately impacting low-income and minority communities. Healthy, abundant food is critical for the growth and development of children. Good nutrition helps prevent the development of chronic diseases. Access to affordable, high quality, culturally-appropriate food is an important characteristic of a healthy community.

What Our Community Said

- Access to healthy, affordable food was one of the key issues most mentioned by community respondents, making up over 10% of total responses.
- Food access and food insecurity comprised over one-third (36%) of food-related comments followed by healthy eating and nutrition (33%).
- Community members talked about having to balance the cost of food with other basic needs, such as housing, healthcare, and bills. As a potentially more flexible budget item, people may try to save money on food by buying less-healthy, cheaper foods.
- Respondents also noted the importance of culturally-appropriate food as well as the relationship between poor-quality food and obesity.

12 Colorado Department of Human Services (2020). SNAP Case, Client and Issuance reports.
A happy, healthy, and thriving community provides safe and clean outdoor spaces and living conditions, and is free from hazards or disease. A safe community is also free from crime, racism, and violence.
Key Insights

- Fatal car crashes, including impaired driving fatal crashes, increased in Adams County from 2010 to 2020, despite high seat belt usage.
- Hospitalizations for falls continue to rise, exceeding hospitalizations for motor vehicle accidents, suicide or self-harm, and drug poisoning.
- Auto theft arrest rates steadily increased from 11 to 123 arrests per 100,000 from 2010 to 2020.
- 76 people died in firearm-related incidents in Adams County in 2020: 90% were male.

Safety in the Community

Safety is a key social determinant of health: a condition of the environment where people are born, live, learn, work, play, worship, and age that affects their health and quality of life. In our recent community survey and focus groups, Adams county partners and community members often mentioned safety as key to healthy, happy, and thriving communities. People want to and should feel safe at school, at work, outside, inside, on the road – everywhere.

Our partners, community members, and staff believe safe living conditions, safe outdoor spaces, and communities free from disease, crime, and discrimination as necessary to maintain a happy, healthy, and thriving community. Among these participants, concerns about safety made up 15% of comments from Adams County community members. In addition to comments about safety in schools, the community, and homes, community members specifically mentioned concerns about crime rates, dangerous drivers, police presence, lack of safe streets and parks, and drugs.

Safety in Schools

Children and youth should feel and be safe at home, school, and in the community. In 2019, most high school students in Adams County (80%) report feeling safe at school, however 15% of youth in Adams County report having been bullied on school property in the past year, compared to 17% statewide. Consistently, more females and gay, lesbian, or bisexual youth report bullying, both on school property and online, than do males and heterosexual youth (Figure 1). In Adams County about 40% of students reported being bullied or teased because of their race or ethnicity and about 25% of students reported bullying because of their sexual orientation. About 13% of Adams County students did not go to school at least 1 day in the past 30 days due to feeling unsafe on their way to or from school, compared to 10% statewide.

Figure 1: Percent of High School Students Reporting Online Bullying, Adams County and Colorado, 2019

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2. Tri-County Health Department, CHA Community Engagement Process, 2021
3. Colorado Department of Health and Environment, Healthy Kids Colorado 2019
4. *Data suppressed (fewer than 50 total respondents in subgroup)

Source: Healthy Kids Colorado 2019, Colorado Department of Public Health and Environment
Adams County had the highest number of fatalities from motor crashes across Colorado in 2019.

Source: Colorado Department of Transportation

Health behaviors also relate to safety. People are more likely to take risks with their health and health behaviors if they feel the need to prove themselves to their peers or if social norms around health behaviors encourage riskier behaviors. In Adams County, one in fourteen (7%) high school students reported rarely or never wearing a seatbelt when riding in a car driven by someone else. Higher percentages of Hispanic, multiracial, bisexual and 9-10th grade youth reported rarely or never wearing a seat belt more than their White Non-Hispanic, Asian, heterosexual, and higher grade peers (Figure 2). Youth reporting riding in a car driven by someone who had been drinking alcohol was higher among Hispanic, White, and bisexual students. Older students, males, and Hispanic students were more likely to drink and drive than their younger, female, and White peers.3

Motor Vehicle Safety

In 2020, there were 48 fatal car crashes in Adams County, a third of which involved impaired driving of some kind. Figure 3 shows an 11-year trend in number of total and impaired driving-related fatal car crashes in Adams County. By counts alone, fatal accidents have generally risen over the last several years. However, population increases and changes in automobile traffic need to be considered to accurately assess the trend. Between 2010 and 2020, impaired driver-related fatal crashes have steadily increased in Adams County.4 In 2019, there were 69 crash-related fatalities in Adams County, of which 36% involved no restraint (e.g., seatbelt).5 In a 2020 statewide seatbelt usage study, Adams County ranked in the top third of counties, with an estimated seatbelt usage rate of 86.5%.6

Figure 2: Percent of High School Students who Never or Rarely Wore a Seatbelt When Riding in a Car Driven by Someone Else, 2019

Figure 3: Fatal Car Crashes, Adams County, 2010-2020

Source: Healthy Kids Colorado 2019, Colorado Department of Public Health and Environment
Source: Fatal Crash Data, Colorado Department of Transportation

4Colorado Department of Transportation, Fatal Crash Data
Age-adjusted hospital discharge rates for falls are higher than any other injury in Adams County.

Source: Injury Epidemiology Program, Colorado Department of Public Health and Environment

Hospitalizations

In 2020, more than one quarter of adults in Adams County over the age of 65 years experienced at least one fall in the previous 12 months, a decrease from 39% in 2018. In 2020, the age-adjusted rate for hospital discharges mentioning falls (235 per 100,000 population) was higher than any other cause of injury hospitalization and higher than the Colorado rate (201 per 100,000). The age-adjusted hospital discharge rate for falls from 2016-2020 was higher for females than males. To provide context, the age-adjusted hospital discharge rates in Adams County for motor vehicle traffic incidents during the same period was 64 per 100,000, intentional self-harm was 33 per 100,000, poisoning due to drugs was 62 per 100,000, and assault was 22 per 100,000 (Figure 4).

Abuse and Neglect

Abuse, neglect, and violence can happen at school, in the home, at work, and in a caregiving setting. In 2020, there were 5,536 child abuse allegations in Adams County, a 9% decrease from 2017. Nearly two 40% of those abuse claims were substantiated and the rest were unsubstantiated or pending as of April 2021. The majority of allegations in 2020 were for neglect (73%), followed by physical abuse (14%), sexual abuse (8%), medical neglect (2%), and psychological or emotional abuse (1%). Child abuse may include physical injuries as well as emotional and psychological abuse, which can lead to, among other things, impaired social-emotional skills or anxiety. Exposure to childhood abuse may increase the risk of future violence victimization or perpetration, substance use, delayed brain development, lower educational attainment, and more. Child abuse and neglect are preventable and it is important to understand and address the risk and protective factors associated with this form of violence.
Intimate Partner Violence

Intimate partner violence (IPV) – also called Domestic Violence – is “abuse or aggression that occurs in a romantic relationship.” IPV in adolescence may be called Teen Dating Violence. According to the Centers for Disease Control and Prevention (CDC), millions of people in the United States are impacted by IPV each year, with about one in four women and one in ten men having experienced sexual violence, physical violence, or stalking by an intimate partner in their lifetime. More than 43 million women and 38 million men have experienced psychological aggression, such as verbal and non-verbal communication with intention to mentally or emotionally harm or exert control over their partner, in their lifetime.

In 2019, Colorado had at least 60 incidents of fatal domestic violence resulting in the deaths of 70 people. Nineteen children were involved in 12 of these incidents. Among the 60 incidents, 10% of them occurred in Adams County. Nearly one in eight high school youth (12%) in Adams County report being physically hurt on purpose by someone they were dating and 8% report being physically forced to have sexual intercourse when they did not want to. Some groups are more likely to experience rape, including female, White non-Hispanic, and bisexual youth (Figure 5). The CDC indicates that teaching safe and healthy relationship skills to children of all ages and fostering supportive and protective environments that include trusted adults can reduce the risk of teen dating violence and intimate partner violence.

![Figure 5: Percent of High School Students Ever Physically Forced to Have Sex When They Did Not Want To, by Sex and Sexual Orientation, 2019](image)

*Data suppressed (fewer than 50 total respondents in subgroup)
Source: Healthy Kids Colorado 2019, Colorado Department of Public Health and Environment

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IPV can happen to anyone of any age or sexual orientation/identity.

Around 1 in 4 women and 1 in 10 men have experienced IPV during their lifetime.

More than 43 million women and 39 million men have experienced psychological aggression by an intimate partner in their lifetime.

Source: Violence Prevention, Centers for Disease Control and Prevention

“The community stays healthy when there is routine, predictability, purpose, and safety.”

Tri-County Health Department, CHA Community Engagement Process, 2021

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12 Colorado Domestic Violence Fatality Review Board, 2020 Annual Report
“Addressing exposure to crime and violence as a public health issue may help prevent and reduce the harms to individual and community health and well-being.”

Source: Office of Disease Prevention and Promotion, US Department of Health and Human Services

Crime

Many of our community members and partners mentioned crime as an important component of safety. Violent crime arrest rates (aggravated assault, homicide, robbery, rape) have remained consistent since 2010 in Adams County. Aggravated assault arrest rates increased from 182 to 247 arrests per 100,000 from 2010 to 2020. Property crimes arrest rates for burglary and arson remained fairly steady, while larceny/theft increased initially from 2010 to 2014 before steadily declining (Figure 6).\(^{13}\) Auto theft arrest rates were the only property crime to steadily increase from 11 to 123 arrests per 100,000 from 2010 to 2020.

Juvenile crime arrest rates remained steady from 2010 to 2020 in Adams County for aggravated assault, rape, arson, and burglary. Larceny/theft arrests have decreased, despite a peak in 2012. Robbery arrests increased steadily with a peak in 2018, but declined in 2020. Auto theft arrests increased steadily since 2010 with a peak in 2016. Annual homicide rates are based on a small number of events, making it difficult to identify trends. While drug violation arrest rates have decreased in recent years for both adults and juveniles, Figure 7 shows that arrest rates were higher for juveniles than adults prior to 2020.\(^{13}\) Addressing exposure to crime and violence as a public health issue may help prevent and reduce the harms to individual and community health and wellbeing.\(^{14}\)

Figure 6: Adult Property Crime Arrest Rates per 100,000,* Adams County, 2010-2020

*Note that Larceny/Theft rates are on the right-hand-side y-axis and on a different scale.

Source: Division of Criminal Justice, Colorado Department of Public Safety

Figure 7: Drug Violation Arrest Rates per 100,000, Adams County, 2010-2021

\(^{13}\)Colorado Department of Public Safety, Department of Criminal Justice, https://cos.colorado.gov/cos-crimestats

Between 2014 and 2019, firearm injury deaths in Colorado were greater than deaths due to car crashes, opioid overdoses, HIV, and colon cancer.

Colorado Violent Death Reporting System, Colorado Department of Public Health and Environment

Firearms

Firearm-injury-related deaths are an important and complex public health issue in Colorado. Between 2014 and 2019, the number of firearm-injury deaths in Colorado was greater than deaths due to car crashes, opioid overdoses, HIV, and colon cancer.¹⁵

Between 2000 and 2020, 46 youth aged 17 and younger died in Adams County due to firearm-related violence. Firearm-related violent deaths include deaths due to homicide, suicide, unintentional injury, and unknown intent. More than half of these deaths were due to suicide (57%) and more than a third were due to homicide (39%). Most of these deaths were male (80%). The map below shows homicide deaths of youth ages 0-17 between 2000-2020 (Map 1). Among all residents of Adams County, there were 73 firearm-related violent deaths in 2020, accounting for 2% of all deaths in 2020.¹⁶ Most of the people who died in a firearm-related incident are male (90%) and White, Non-Hispanic (56%). Reducing access to firearms and ensuring safe storage of firearms can decrease the likelihood of firearm-related deaths.¹⁷

Safety is a basic need for a happy and healthy life. When people feel safe at home, at school or work, on the road, and wherever they may be, they are able to better learn and participate in discussions, able to think more clearly and calmly, and able to make healthier decisions. Working together with each other, our communities, and our policymakers, we can help ensure safety for all people in all settings.

Map 1: Youth Firearm Homicide Deaths, Youth Ages 0-17 Years, Adams County, 2000-2020 (n = 46)

What Our Community Said

- Concerns about safety made up 15% of comments from community members.
- Most of the safety comments related to feelings of safety at home, on the streets, in parks, and in schools.
- Safety was used by community members to mean both “free from crime” as well as “clean, and free from hazards.” This was especially true in comments related to safe outdoor spaces and parks.
- Safety was also used to describe freedom from racism-based actions, bullying, domestic violence, and contentious dialogue.
- Some community members specifically mentioned neighborhood safety and crime rates, as well as lack of safe amenities in low income areas.

¹⁶Colorado Health Information Dataset, Colorado Department of Public Health and Environment
¹⁷Colorado Department of Public Health and Environment, Vital Statistics Program
A healthy community is one where everyone has access to a safe, green environment to live, work and play.
Key Insights

- Climate change poses a significant threat to the health and safety of our residents.
- As climate change continues, experts predict and increase in the number of excessive heat days as well as an increase in the frequency of other extreme weather events.
- Increasingly poor air quality poses health risks to our community members, especially older adults, young children, and people with respiratory and cardiovascular health problems.
- Like the natural environment, the built environment—infrastructure and design of homes, communities, and cities—impacts our behavior and our health.

“Climate change is intrinsically linked to public health, food and water security, migration, peace, and security. It is a moral issue. It is an issue of social justice, human rights and fundamental ethics. We have a profound responsibility to the fragile web of life on this Earth, and to this generation and those that will follow.”

Source: United Nations Secretary-General Ban Ki-moon

Climate Change

Climate change poses many challenges for population health. The increased frequency of extreme heat days and wildland fires, multi-year drought, floods, and poor air quality can all increase the incidence of poor health outcomes.

Extreme Heat Days

As global temperatures continue to rise, so do the number of extreme heat days: a period of high heat and/or humidity with temperatures above 90 degrees for at least two to three days. Extreme heat days can be dangerous for all, but especially for vulnerable populations such as children, older adults, and the outdoor workforce. Prolonged heat exposure can cause heat exhaustion, cramps, heat stroke and death.¹ Mitigation strategies for extreme heat days include heat wave early warning systems and proactive heat wave response plans, increased access to air conditioning in homes, increased hydration when

“Widespread scientific consensus exists that the world’s climate is changing. Some of these changes will likely include more variable weather, heat waves, heavy precipitation events, flooding, droughts, more intense storms, sea level rise, and air pollution. Each of these impacts could negatively affect public health.”

Source: The U.S. Centers for Disease Control and Prevention

In the Denver Metro Area, there is a positive, increasing trend in the annual number of high heat days. As shown in Figure 1, there is a steady increase in the number of extreme heat days over time, from 1950 through 2021. Looking forward, the number of extreme heat days is expected to increase. As seen in figure 2, the positive, upward trend in number of extreme heat days is projected to continue to rise steadily over the next sixty years.

Figure 1: Number of Days Air Temperature was over 95°F in the Denver Metropolitan Area, 1950-2021

![Figure 1: Number of Days Air Temperature was over 95°F in the Denver Metropolitan Area, 1950-2021](source)


Figure 2: Predicted Number of Annual Extreme Heat Days in Adams County, 2022-2082

![Figure 2: Predicted Number of Annual Extreme Heat Days in Adams County, 2022-2082](source)

Source: Centers for Disease Control and Prevention, North American Land Data Assimilation System data

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2 https://www.cdc.gov/climateandhealth/effects/default.htm
Since 2001, Colorado's 20 largest fires on record have occurred.

Source: Colorado Division of Fire Prevention & Control, https://dfpc.colorado.gov/wildfire-information-center/historical-wildfire-information

Wildland Fires

Burning over 6,200 acres, destroying 1,000 homes, and displacing more than 35,000 residents, the Marshall fire in December 2021 in the suburban areas of Boulder County was one of the most destructive fires in Colorado history.\(^4\) Colorado's largest fire to date, the Pine Gulch Fire, burned over 139,000 acres in July 2020.\(^5\) Global warming has extended fire seasons into the winter, and a historic, multi-year drought has expanded fire regions. The Colorado Forest Service reported in 2018 that over half the state’s population now lives in wildfire risk areas, a 50% increase in the past five years.\(^6\) The Forest Service estimates that approximately 45% of Adams County residents reside in wildland-urban interface (WUI) with potential impact by wildfire. Most of these residents (40%) are in a low-to-moderate risk areas,\(^6\) areas that have the same risk level as areas that burned during the Marshall Fire.

Soil in the Front Range and Eastern Plains of Colorado has also become drier in recent years, fostering an environment for fire to spread more quickly (Figure 4). Drier forests have also supported the bark beetle epidemic, increasing wildfire fuel.\(^7\)

In Adams County, poor air quality from wildfire smoke has become a summer staple and negatively impacts physical and mental health. As one resident commented, “Air Quality [is a key health problem] - 30+ days of poor air in the summer of 2021 is horrible for fitness and mental health.” Wildland fires pose several challenges to population health including immediate safety, housing displacement, decreased air quality due to smoke exposure, and the potential for water quality complications.
Air Quality

Smoke from wildland fires combined with increasing levels of ozone have created an environment for some of the worst air quality in Colorado history. Ozone at the ground-level forms from the combination of Volatile Organic Compounds (VOCs) and Nitrogen Oxides (NOx) (Figure 5). Heat and sunlight trigger this combination, leading to higher ozone levels in the summer. In the summer of 2021, ozone pollution in the Front Range reached dangerous levels: levels 48% higher than the federal health limit. More than just being unpleasant, poor air quality contributes to many adverse health outcomes, including respiratory disease, cardio-vascular disease, and cancer. It is particularly harmful to young children, older adults, and those who have an existing respiratory condition. Northwestern portions of Adams county had ozone levels spanning the 60th to 90th percentile in 2018 (Figure 6).

Living or working in Adams County, you may have seen the “Ozone Action-Day Alerts.” These notices are released when ozone exceeds healthy levels. Smoke exposure and ozone can lead to many adverse effects, including shortness of breath, eye irritation, the triggering of asthma symptoms, chronic obstructive pulmonary disease, and premature death. Ozone is one of the biggest contributors to poor air quality and comes from mobile emission sources such as cars, trucks, and buses. In 2020, the EPA designated the Denver Metro Area/Front Range as a “serious” nonattainment area for ozone. The area will be reclassified as “severe” in 2022 due to high ozone levels recorded during 2020 and 2021.

Figure 5: What forms ground-level ozone?

VOCs are natural (organic) emissions from plant material or related solvents from industrial processes.

Nitrogen Oxides (NOx)

A mix of nitric oxide and nitrogen dioxide, NOx are highly reactive gases primarily formed by high-temperature combustion processes such as those occurring in automobiles and power plants.


Figure 6: Ozone summer seasonal average of daily maximum 8-hour concentration in air in parts per billion, 2018, Front Range


8 https://www.reporterherald.com/2021/07/24/ozone-air-pollution-colorado-front-range/
9 https://www.niehs.nih.gov/health/topics/agents/air-pollution/index.cfm
10 https://www.epa.gov/ozone-pollution/health-effects-ozone-pollution
11 https://www.epa.gov/ozone-pollution/health-effects-ozone-pollution#:~:text=The%20effects%20of%20smoke%20from,especially%20vulnerable%20to%20smoke%20exposure.--%20smoke%20-%20premature-death
12 https://www.epa.gov/haps/hazardous-air-pollutants-sources-and-exposure
13 https://cdphe.colorado.gov/history-of-ozone-in-colorado#:~:text=Under%20the%20standard%2C%20the%20Denver%20set%20by%20the%20federal%20government,
Health problems as identified by the [focus] group participants were wildfires, drought, extreme weather conditions, pollution, clean water and air.

Tri-County Health Department, CHA Community Engagement Process, 2021

Water Quality and Drought

Contaminated water can lead to a variety of poor health outcomes, from infectious diseases to cancer. While many factors affect water quality, how we use and manage our land—whether it be for agriculture, oil and gas production, or industrial activities—can lead to groundwater contamination. Potable, “drinking,” water is treated to remove, and routinely tested, for contaminants. In June 2018, a power outage resulted in potential contamination of untreated water at Water World due to a broken water valve. Tri-County Health Department worked with the facility to flush, disinfect, and sample drinking water. While this is a rare occurrence, it brought home the importance of safe, healthy drinking water to residents. Tri-County Health Department community focus group participants and survey respondents mentioned water quality as an important public health issue.

Water supply impacts the quality of our groundwater. As the water supply decreases due to an extended, multi-year drought (Figure 7), the pollutant concentration increases, degrading the quality of our water resources. Colorado’s Water Plan projects that the state “faces the possibility of a significant water supply shortfall within the next few decades, even with aggressive conservation and new water projects.”

Figure 7: Percent of Area in Drought, Adams County, 2000-2021


13 https://www.nrdc.org/issues/protect-groundwater-supply
14 https://www.colorado.gov/pacific/cowaterplan/plan
Climate and Mental Health

In addition to negative physical health symptoms and outcomes, climate change can negatively impact mental health, community health, and connectedness. Figure 8 illustrates some of the ways rising temperatures, extreme weather, impacts to air quality, and vector-borne diseases—all possible outcomes of climate change—impact health. "The ability to process information and make decisions, without being disabled by extreme emotional responses, is threatened by climate change. An emotional response is normal; however, in an extreme case, it can interfere with our ability to think rationally, plan our behavior, and consider alternative actions. An extreme weather event can be a source of trauma and cause disabling emotions. More subtle and indirect effects of climate change can add stress to people's lives in varying degrees. Whether experienced indirectly or directly, stressors to our climate translate into impaired mental health that can result in depression and anxiety."

Helping people make personal or family preparedness plans, fostering social support, and building people's belief in their own ability to succeed can reduce the risk of negative mental health impacts resulting from climate change. Community health can also suffer from climate events. Increased personal aggression, disrupted sense of belonging, loss of community cohesion, increased violence and crime, and social instability are some of the potential impacts to a community. Preparing infrastructure, building social connection, developing community-wide plans, and paying special attention to people at higher risk for negative outcomes, can help communities to increase resiliency to the effects of a changing climate.

Figure 8: How climate change affects your health
Community members said that neighborhoods that promote public health are free from crime, are spaces in which people feel safe and comfortable, clean, and are free from environmental hazards, including pollution.

Tri-County Health Department, CHA Community Engagement Process, 2021

Climate and the Built Environment

The built environment is composed of physical and social elements that comprise the structure of a community which can influence a broad range of public health issues. Everyday actions and neighborhood-scale interventions can reduce the factors that negatively affect environmental quality and resilience to climate change. Creating opportunities for moving around a neighborhood on foot or on a bicycle can reduce the number of vehicle trips taken, thereby improving air quality, and increasing physical activity among residents. The majority of people in Adams county drive alone to work (Figure 10).

Figure 10: Means of Transportation to Work, Adams County, 2020

The Built Environment and Obesity

The obesity epidemic is a growing concern in Adams County; more than 6 in 10 individuals are overweight or obese in 2020. Neighborhood-scale environmental factors influence much more than environmental quality. The built environment has been shown to be related to physical activity and obesity. Trees along our roadways can provide much needed shade and cooling on a hot summer day. Having access to parks and open space provides mental health benefits, as well as opportunities for physical activity. A majority of community members in Adams County did not meet the physical activity guidelines of 150 minutes per week in 2019. Safety concerns, uneven and hilly terrain, limited recreational facilities and inadequate lighting have been associated with reduced outdoor activity of a community. Planning neighborhoods with daily health and wellness needs in mind—such as grocery stores and amenities within walking distance, safe sidewalks, designated bike lanes, and accessible and affordable public transit—can improve the health and wellbeing of county residents and all Coloradans.

17 Behavioral Risk Factor Surveillance System, 2019, 2020
As shown in Figure 9, residents in our municipalities have varying accessibility to publicly-owned local, state, and national parks, school parks, or privately-owned parks open to the public.

By focusing on community resilience and neighborhood design, we can continue to influence policies and programs that create healthier environments. This is critical in communities that currently face disparate environmental impacts. These neighborhoods are often low-income communities or communities of color. By putting equity and the community voice in the forefront, we can work together to ensure that everyone has access to a cleaner, more enjoyable environment.

*Data are not available for all municipalities in Adams County

Source: Trust for Public Land, https://www.tpl.org/parkserve

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What Our Community Said

- Neighborhood safety was noted as a concern by community members. Safe neighborhoods are clean, free from crime, comprise spaces in which people feel safe and comfortable, and free from environmental hazards, including pollution.

- The following were noted as important environmental factors in order for a community to be happy, healthy, and thriving:
  - Improved water, air quality
  - Reduction of chemicals in the environment
  - Safe space for outdoor activity
  - Open space to get fresh, clean air and exercise

- Climate change and its effects, including wildfires, drought, and extreme weather conditions, were mentioned by community members with much more frequency than in previous community outreach.

- Community members said that neighborhood environments that support health are clean, safe, offer parks or green space, and promote physical activity.
In a healthy community, all residents can access safe and healthy food, practice good health habits, and have the mental and physical energy, vitality, and resilience to live joyfully and face the challenges of their lives.
According to the Centers for Disease Control and Prevention (CDC), a few health behaviors, including tobacco use, poor nutrition, lack of physical activity, and excessive alcohol use, are the causes of many chronic diseases. In 2018, about half of U.S. adults had at least one chronic condition, and over a quarter of adults had two or more chronic conditions. Americans with three or more chronic conditions make up approximately 28% of the population but account for 66% of total health care spending. People with multiple chronic conditions spend more on going to office visits, inpatient visits, and prescriptions.

**Tobacco**

Tobacco use is the leading cause of preventable disease, disability, and death in the United States. Cigarette smoking can harm nearly every organ of the body. Smoking causes several chronic health conditions including cancer, heart disease, stroke, lung diseases, and type 2 diabetes.

Figure 1 shows the percentage of adults in Adams County who currently smoke cigarettes. Rates of smoking started to decline after 2018. Smoking was more common among people who lived in households with an income of less than $50,000 and among people with less than a college education.

**Figure 1: Percent of Adults who are Current Smokers, 2016-2020**

Source: Behavioral Risk Factor Surveillance System, Colorado Department of Public Health and Environment

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4 Behavioral Risk Factor Surveillance System, Colorado Department of Public Health and Environment
Among young people, cigarette smoking has been decreasing in the United States.\(^5\) The percentage of Adams County high school students who have ever smoked a cigarette was 19% overall, in 2019, and increased with grade level (Figure 2).\(^6\) Hispanic students and bisexual students were more likely to have smoked cigarettes.\(^6\)

In 2019, 43% of students in Adams County—over double the percentage who have smoked cigarettes—used electronic vapor products, also called "e-cigarettes" or "vaping."\(^6\) Figure 3 shows that the percent of vaping increased with grade level. Among students who had used vapor products, 13.7% perceived that they are less harmful than other tobacco products. However, e-cigarettes contain nicotine, which is addictive and can be harmful to brain development.\(^5\)

Exposure to secondhand smoke can also be problematic for children, adults, and pregnant women. In 2019, 16% of Adams County students were inside their home while someone was smoking a tobacco product or e-cigarette for one or more days in the past week.\(^6\)

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\(^5\)Centers for Disease Control and Prevention https://www.cdc.gov/tobacco/basic_information/e-cigarettes/about-e-cigarettes.htm
\(^6\)Colorado Department of Public Health and Environment, Healthy Kids Colorado Survey

Figure 2: Percent of High-School Students who have Ever Smoked a Cigarette by Grade Level, 2019

![Figure 2: Percent of High-School Students who have Ever Smoked a Cigarette by Grade Level, 2019](source: Colorado Department of Public Health and Environment, Healthy Kids Colorado Survey)

Figure 3: Percent of High-School Students who have Ever Used an Electronic Vapor Product by Grade Level, 2019

![Figure 3: Percent of High-School Students who have Ever Used an Electronic Vapor Product by Grade Level, 2019](source: Colorado Department of Public Health and Environment, Healthy Kids Colorado Survey)
Active living and exercise/recreation made up over one-third of all health behavior-related comments.

Source: Tri-County Health Department, CHA Community Engagement Process, 2021

Physical Activity and Nutrition

Improved access to affordable, healthy foods and drinks and physical activities in schools, workplaces, and communities can provide opportunities for people to improve healthy behaviors.7 Eating fruits and vegetables daily can reduce risk of chronic disease and help to prevent complications.7 Fewer than one third of Adams County high school students in 2019 ate fruits or vegetables one or more times per day per week. In 2019, 74% and 80% of adults in Adams County and Colorado, respectively, ate vegetables once a day.8 The percentage of adults that ate vegetables increased with increasing household income level statewide, but a higher percentage of Adams County adults in the lowest household income level (<$25,000) reported eating vegetables compared to the higher income levels.8 In 2019, 66% of Adams County students drank sugary beverages at least once per week.

People of all ages can benefit from more physical activity.9 Figure 4 shows percentages of female and male high school students who get the recommended amounts of physical activity per week. Adults with higher household incomes reported being physically active more than those with lower income (Figure 5). Higher income households may have more access to paid time off and leisure time for physical activity.

Figure 4: Percent of High School Students who were Physically Active for 60+ Minutes on 5+ Days per Week, 2019

<table>
<thead>
<tr>
<th></th>
<th>Adams</th>
<th>Colorado</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>32.2%</td>
<td>41.3%</td>
</tr>
<tr>
<td>Male</td>
<td>40.0%</td>
<td>48.0%</td>
</tr>
<tr>
<td>Total</td>
<td>51.1%</td>
<td>56.2%</td>
</tr>
</tbody>
</table>

Source: Colorado Department of Public Health and Environment, Healthy Kids Colorado Survey

Figure 5: Percent of Adults who were Physically Active Outside of Job, by Household Income, 2020

<table>
<thead>
<tr>
<th></th>
<th>Adams</th>
<th>Colorado</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;$25,000</td>
<td>57.6%</td>
<td>81.9%</td>
</tr>
<tr>
<td>$25,000-49,999</td>
<td>70.7%</td>
<td>83.5%</td>
</tr>
<tr>
<td>$50,000+</td>
<td>80.7%</td>
<td>89.6%</td>
</tr>
</tbody>
</table>

Source: Behavioral Risk Factor Surveillance System, Colorado Department of Public Health and Environment

8Behavioral Risk Factor Surveillance System, Colorado Department of Public Health and Environment
"Understanding opportunities and barriers to a healthy lifestyle in communities, homes, and workplaces is necessary to inform ways to promote healthy living."

Source: Centers for Disease Control and Prevention

**Obesity**

Achieving and keeping a healthy weight requires a lifestyle that includes healthy eating, regular physical activity, optimal sleep, and stress reduction.\(^{10}\) In the U.S., availability of grocery stores and fast food restaurants varies by racial makeup of neighborhoods and contributes to causing overweight and obesity.\(^{11}\) Additionally, good sidewalks, nearby trails, and accessible recreation centers are characteristic of communities with higher socioeconomic status (e.g., higher income and education).\(^{12}\) In addition to having access to exercise classes and parks, community members expressed needing time in their lives in order to take advantage of these resources and create "work-life balance."\(^{13}\)

Figure 6 shows the percentages of overweight and obese adults in Adams County and Colorado. Figure 7 shows differences in percent of overweight and obesity among high school students by race and ethnicity.

**Figure 6: Percent of adults who are overweight or obese, 2016-2020**

![Graph showing percentage of overweight and obese adults from 2016 to 2020 for Adams vs Colorado.](image)

**Figure 7: Percent of students who were overweight or obese by race/ethnicity, 2019**

![Bar chart showing percentage of overweight and obese students by race/ethnicity.](image)
Alcohol Use

Sometimes considered healthy—a glass of red wine, for example—alcohol use, and particularly excessive alcohol use, negatively impacts health.\(^{14}\) In Adams County in 2020, 6% of adults reported heavy drinking and 20% reported binge drinking. Heavy drinking consists of 8 or more drinks per week for women—15 or more per week for men. Binge drinking consists of 4 or more drinks during a single occasion for women or 5 or more for men. Excessive drinking differs by sex (Figure 8), age, race/ethnicity, and other factors, such as self-reported general health and poor mental health. (See Substance Use Section for more information.)

Heart Disease Risk Factors

Several factors are related to the risk of developing heart disease including family history, age, health behaviors, such as smoking, and chronic conditions, such as diabetes, high blood pressure, and prolonged stress.\(^{15,16}\) Figure 9 shows the percent of adults in Adams County and across Colorado who have these three conditions. A person cannot change their family history, age, and many environmental factors to reduce their risk of developing heart disease. While those significant factors are beyond control, some helpful behaviors include not smoking, exercising, eating a heart-healthy diet, and regularly monitoring their blood pressure, cholesterol, and blood sugar.

Chronic Disease Deaths

Improving healthy lifestyle behaviors across a life span decreases risk for chronic disease deaths and disabilities.\(^{17}\) Figures 10 through 15 show death rate trends from common chronic disease causes of death for Adams County and Colorado. During 2011 through 2020, cancer, heart disease, Alzheimer’s, and chronic lower respiratory disease (e.g., chronic bronchitis, emphysema, and asthma) death rates were steady or decreased. However, death rates for stroke and diabetes increased slightly since 2011.
Commonly mentioned behaviors were related to exercise, active living, heart health, diabetes, obesity, and substance use.

Source: Tri-County Health Department, CHA Community Engagement Process, 2021

Figure 10: Cancer deaths per 100,000 population, 2011-2020

Figure 11: Heart disease deaths per 100,000 population, 2011-2020

Figure 12: Chronic lower respiratory disease deaths per 100,000 population, 2011-2020

All rates are age-adjusted to the US 2000 standard population.

Source: Colorado Department of Public Health and Environment, Colorado Health Information Dataset (COHID), Mortality Statistics

In a healthy community, all residents can access safe and healthy food, practice good health habits, and have the mental and physical energy, vitality, and resilience to live joyfully and face the challenges of their lives.

Adams County
In a healthy community, all residents can access safe and healthy food, practice good health habits, and have the mental and physical energy, vitality, and resilience to live joyfully and face the challenges of their lives.

Adams County

Figure 13: Alzheimer’s disease deaths per 100,000 population, 2011-2020

![Alzheimer's disease deaths graph](image-url)

Source: Colorado Department of Public Health and Environment, Colorado Health Information Dataset (COHID), Mortality Statistics

Figure 14: Stroke deaths per 100,000 population, 2011-2020

![Stroke deaths graph](image-url)

Source: Colorado Department of Public Health and Environment, Colorado Health Information Dataset (COHID), Mortality Statistics

Figure 15: Diabetes deaths per 100,000 population, 2011-2020

![Diabetes deaths graph](image-url)

Source: Colorado Department of Public Health and Environment, Colorado Health Information Dataset (COHID), Mortality Statistics

All rates are age-adjusted to the US 2000 standard population.
A healthy community is where emotional and mental health are a priority, and services and supports that promote, maintain, and restore mental health are readily available.
Mental health is a state of balance in our thoughts, emotions, and behaviors. Positive mental health allows us to feel good about life, supporting our ability to participate in daily activities and accomplish our goals. Everyone, regardless of gender, age, race, income, or religion, faces challenges with their mood, emotions, and behavior from time to time. It is important to talk about our mental health with someone we trust and seek professional care when needed, just as we would with a physical injury or ailment. Challenges to positive mental health are nobody’s fault and the discussion applies to everyone, no matter how temporary or serious the mental health need.

In 2021 in Adams County, nearly 1 in 4 residents (22.8%) surveyed reported they were in poor mental health (Figure 1), an increase from 16.4% in 2019. Nationwide, 1 in 5 adults were living with a mental health disorder in 2020.

Mental health disorders are health conditions that are characterized by alterations in thinking, mood, and/or behavior that are associated with distress and/or impaired functioning.

Our mental health is a complex combination of experiences, biology, and social conditions. However, the majority of mental health issues go

Figure 1: Percentage of People Reporting 8+ Poor Mental Health Days in Past Month, 2013-2021

1 Colorado Health Access Survey, 2021, Colorado Health Institute
Our mental health is impacted by a complex combination of experiences, biology, and social conditions including exposure to racism and discrimination. 

untreated because people are afraid to talk about them due to shame, misunderstanding, negative attitudes, and fear of discrimination. One’s mental health is influenced by many factors. For example, we can see differences in self-reported mental health status by factors such as age, race/ethnicity, income, and educational attainment: all factors that influence people’s lives, opportunities, and environments. We also note differences in self-reported mental health by geographic area. Map 1 shows the percentage of people reporting mental health distress (14 or more poor mental health days of the past 30 days) by census tract. Census tracts are U.S. Census Bureau-designed areas of land with

Figure 2: Percentage of People Reporting 14+ Poor Mental Health Days in Past Month by Race/Ethnicity, Gender/Sexual Orientation, Adams County, 2020

Map 1: Mental Health Distress (14+ Poor-Mental-Health Days of past 30 Days) by Census Tract, 2020

These data represent predicted (modeled) prevalence estimates of frequent mental distress among adults for each Colorado census tract. Frequent mental distress is defined as experiencing 14 or more days where mental health was not good in the past 30 days. Mental health includes stress, depression, and problems with emotions.
“...the majority of mental health issues go untreated because people are still afraid to talk about them due to shame, misunderstanding, negative attitudes, and fear of discrimination.”

Source: Mental Health America, 2021

relatively similar populations of people. Darker areas on the map indicate tracts with greater percentages of people reporting mental health distress. We see greater percentages of mental health distress in Commerce City, Federal Heights, north Brighton, Welby, Aurora, and parts of south Thornton (Map 1).

Pregnancy-Related Depression

While many mothers experience some mild mood changes during or after the birth of a child, 20% of women in the U.S. experience more significant symptoms of depression or anxiety, making pregnancy-related depression the most common complication of pregnancy. In Colorado, one in seven pregnant or postpartum women experience pregnancy-related depression and anxiety. While often referred to as postpartum depression, pregnancy-related depression is depression that occurs during pregnancy or after giving birth, including after a pregnancy loss. Parents of every culture, age, income level and race can develop pregnancy related depression and anxiety disorders. While anyone who has been pregnant or given birth may experience these symptoms, parents are at increased risk if they have a history of depression or anxiety, have experienced complications in pregnancy, birth or breastfeeding, do not have supportive social connections, or experience financial stress.

In Colorado and in Adams County, more women with lower incomes report postpartum depression (PPD) than women with higher incomes (Figure 3). While nearly one in five (18.4%) low-income women in Adams County report PPD, one in fourteen (7.1%) higher income women do. Having a lower income may be associated with higher stress levels, placing these women with new babies at greater risk for postpartum depression. Postpartum depression is also more common among women who report more stress (of various kinds) in their lives in the year before their child was born.

Women with lower incomes have higher rates of postpartum depression than women with higher incomes.

PRAMS, Colorado Department of Public Health and Environment

Figure 3: Postpartum Depression by Household Income, 2016-2020

Source: Mental Health America, 2021

https://www.postpartum.net/colorado/
Nearly one in three (32%) high school students in Adams County reported feeling so sad or hopeless they stopped doing usual activities almost every day for 2+ weeks during the past 12 months.

Source: Healthy Kids Colorado Survey, 2019, CDPHE

Adolescent Mental Health

Adolescence is a critical developmental period in which youth grow, explore, learn, and develop important skills that prepare them for adulthood. While most youth navigate this period successfully, others may need additional support to be healthy and thrive.\(^7\)

One in five adolescents has had a serious mental health disorder, such as depression and/or anxiety disorder, at some point in their lives. Mood changes are common in adolescents but in some cases they can be a sign of deeper issues. Mental health disorders in children and teens can be diagnosed, treated, and managed.\(^8\)

In 2019, just 70% of Adams County high school students reported having an adult they could go to for help with a serious problem, an important protective factor for positive youth development. Nearly one in three youth reported feelings of depression impacting their daily activities, 17% reported seriously considering suicide, and 8% reported that they attempted suicide in the past 12 months (Figure 4). Females and gay, lesbian, or bisexual youth are more likely to consider and actually attempt suicide than males and heterosexual youth (Figure 5); however, males are more likely to die by suicide.

![Figure 4: Percentage of High School Students Experiencing Mental Health Distress or Suicidal Ideation, 2019\(^9\)](image)

<table>
<thead>
<tr>
<th></th>
<th>Adams</th>
<th>Colorado</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students who felt so sad or hopeless and stopped doing usual activities almost every day for 2+ consecutive weeks during the past 12 months</td>
<td>31.7%</td>
<td>34.7%</td>
</tr>
<tr>
<td>Students who seriously considered attempting suicide during the past year</td>
<td>16.7%</td>
<td>17.5%</td>
</tr>
<tr>
<td>Students who made a plan about how they would attempt suicide during the past 12 months</td>
<td>12.8%</td>
<td>13.4%</td>
</tr>
<tr>
<td>Students who actually attempted suicide one or more times during the past 12 months</td>
<td>8.0%</td>
<td>7.6%</td>
</tr>
</tbody>
</table>

![Figure 5: Characteristics of High School Students Experiencing Mental Health Distress, Adams County, 2019\(^9\)](image)

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Sex</th>
<th>Sexual Identity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>40.4%</td>
<td>65.1%</td>
</tr>
<tr>
<td>Black/African</td>
<td>33.5%</td>
<td>27.9%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>29.4%</td>
<td>37.9%</td>
</tr>
<tr>
<td>Multiracial</td>
<td>29.4%</td>
<td>37.9%</td>
</tr>
<tr>
<td>White, NH</td>
<td>39.5%</td>
<td>37.9%</td>
</tr>
<tr>
<td>Female</td>
<td>24.3%</td>
<td>37.9%</td>
</tr>
<tr>
<td>Male</td>
<td>24.3%</td>
<td>37.9%</td>
</tr>
<tr>
<td>Bisexual</td>
<td>27.9%</td>
<td>37.9%</td>
</tr>
<tr>
<td>Gay or Lesbian</td>
<td>27.9%</td>
<td>37.9%</td>
</tr>
<tr>
<td>Heterosexual</td>
<td>27.9%</td>
<td>37.9%</td>
</tr>
<tr>
<td>Unsure</td>
<td>27.9%</td>
<td>37.9%</td>
</tr>
</tbody>
</table>

*Data are suppressed due to low numbers; estimate is unstable.

\(^7\) Youth.gov Promoting Positive Adolescent Health Behaviors and Outcomes: Thriving in the 21st Century - PDF
\(^8\) https://www.hhs.gov/ash/oah/adolescent-development/mentalHealth/index.html
\(^9\) Healthy Kids Colorado Survey, CDPHE

“Our community needs youth intervention programs focused on safe spaces and trusted adults.”

Source: Community Mental Health and Suicide Prevention Summit participant, 2022
### Suicide

States in the Rocky Mountain West tend to have the highest rates of suicide in the country. In 2019, the suicide rate in Colorado was 22.5 per 100,000 people, the 5th highest rate in the country.\(^\text{10}\) Suicide rates differ by age group (Figure 6), race/ethnicity and sex (Figure 7). In 2020, rates increased for adults aged 15-24 and 65+, as well as youth 1-14. By race/ethnicity suicide mortality rates are highest for American Indian, Alaskan Native people in Adams County.

Suicide is a complex issue. There is no single cause for suicide and many factors can increase the risk for suicide or protect against it. Suicide and suicide attempts cause serious emotional, physical, and community impacts. The good news is that more than 90% of people who attempt suicide and survive never go on to die by suicide.\(^\text{12}\) Mental health conditions are often seen as the cause of suicide, but other problems often contribute to suicide. For example, people who have experienced violence, including child abuse, bullying, or sexual violence have a higher suicide risk. Certain aspects of communities and society also influence suicide risk. Being connected to family and community support and having easy access to health care can decrease suicidal thoughts and behaviors.\(^\text{13}\)

Healthy development in the early years provides the building blocks for lifelong health. However, over 45% of US children and two-thirds of adults have been exposed to at least one Adverse Childhood Experience (ACE)—such as physical or emotional neglect or abuse,

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**SUICIDE RISK FACTORS**\(^\text{14}\)

- previous suicide attempts
- substance abuse
- incarceration
- family history of suicide
- poor job security or low levels of job satisfaction
- history of being abused or witnessing continuous abuse
- being diagnosed with a serious medical condition, such as cancer or HIV
- being socially isolated or a victim of bullying
- being exposed to suicidal behavior

---
Mental Health

A healthy community is where emotional and mental health are a priority and services and supports that promote, maintain, and restore mental health are readily available.

Adams County

living with someone with a drug, alcohol or serious mental health problem, the death of a parent, or being exposed to violence or discrimination in the home or community. ACEs can activate the stress-induced fight-or-flight response system in the body. In children, more ACEs and toxic stress—repeated, unmitigated stress—can disrupt regular neurodevelopment and increase the risk for the development of chronic health problems in adulthood as well as mental illness and substance use. In Colorado, 40% of children and youth aged 0-17 have at least one ACE (Figure 8). Expectedly, the number of children with ACEs increases as children age: while only one-quarter of Colorado children aged 0-5 have experienced at least one ACE, half of youth aged 12-17 have experienced at least one ACE.

The Adams County community recognizes that life events and circumstances—such as concern over finances, stress, and isolation—impact one’s mental health. Reducing environmental, social, and economic factors that contribute to stress, breaking down stereotypes and stigma associated with mental health disorders, ensuring affordable access to mental health care services, and creating accepting, inclusive and supportive communities will help to bolster mental health for all, leading to higher productivity, safer communities, and optimal health and wellness.

Figure 8: Percentage of Colorado Children with ACEs, 2019-2020

If you or someone you know is in crisis or needs help dealing with one, call this toll-free number 1-844-493-TALK (8255) or text TALK to 38255 to speak to a trained professional. Visit coloradocrisisservices.org to learn more.

What Our Community Said

- One in ten (10.8%) comments related to mental health as either a problem (i.e., poor mental health) in the community or as an important part of a happy, healthy, and thriving person or community (i.e., good mental health).
- 13% of all comments related to mental health specifically noted that stress is a problem.
- Community members specifically noted concern for poor mental health among adolescents and young people.
- Focus group participants, in particular, noted that access to mental health resources and supports makes a difference.
- There was recognition that life events and circumstances – such as concern over finances, work-life imbalance, stress, and isolation – impact one’s mental health.
A healthy community is where residents are engaged in efforts to prevent the misuse of alcohol, tobacco, and other drugs and where treatment services are affordable, accessible, and culturally appropriate for those who need them.
Excessive use or misuse of substances impacts individuals, families, and entire communities. Substance use disorders, including opioid use disorder and alcohol use disorder, are chronic, reoccurring, relapsing diseases. There are multiple underlying causes and environmental factors that impact the likelihood of developing a substance use disorder as well as its severity and the potential for it to be fatal.

Access to substances and family, peer, and societal attitudes towards substance use greatly impact use, especially among young people. Substance use also shares many of the same risk factors (those that make a person more likely to engage in risky behaviors) and protective factors (those that make a person less likely to engage in risky behaviors) as community violence and suicidality.

Alcohol and Marijuana

Alcohol is the most commonly consumed substance among adults and teenagers in Colorado. In adults, negative health outcomes more often result from regular, heavy use or binge drinking (defined as four or more drinks for women and five or more for men in one sitting). In adolescents, even small amounts of alcohol can have lasting effects on both the structure and function of the still-developing brain, potentially leading to learning difficulties, memory impairments, and long-term addiction. In addition to the direct harms to the individual from excessive use, alcohol consumption also impacts communities through its influences on violence, injury, and impaired driving.

“[Necesitamos] ayuda para todas aquellas personas que se encuentran en las calles luchando por sobrevivir en [el] mundo de drogas.”

“We need help for the people that find themselves on the streets fighting to survive in the world of drugs.”

Source: Tri-County Health Department, CHA Community Engagement Process, 2021

About one in six (17%) Adams County adults reported binge drinking in 2020. About one in eight (13%) high school students in Adams County reported binge drinking in 2019 (Figure 1).

Figure 1: Percentage of People Reporting Binge Drinking, Adults and High-School-Aged Youth, Adams County, 2017-2020*

Marijuana is the second most commonly consumed substance among Colorado adults following alcohol and the third most commonly consumed substance by teenagers in Colorado, behind alcohol and nicotine. The direct health effects of marijuana on individual consumers are still being studied. However, impacts on communities have been established through secondhand smoke exposure and impaired driving. Like alcohol, marijuana also negatively impacts the still-developing brain of adolescents, putting young people who use marijuana at greater risk of

“Parents have a significant influence in their children’s decision to experiment with alcohol and other drugs. Although it may not seem like it, when parents talk about underage drinking and substance use, their children do hear them.”

Source: Substance Abuse and Mental Health Administration, https://www.samhsa.gov/talk-they-hear-you/about
19.2% of adults and 18.0% of teens in Adams County reported current (within the past month) marijuana use.

Figure 2: Past 30-Day Marijuana Use, Adults and High School Students, Adams County, 2019-2020*

- Adults
- Youth Aged 15-19

Learning, attention, and memory difficulties; development of mental illness later in life; and long-term addiction.²

Since retail sales were legalized in Colorado, use among adults has increased; however, use among young people has remained steady. About one in five adults (19.2%) and nearly one in five high school students (18.0%) in Adams County reported recent marijuana use in 2019-2020 (Figure 2).

Access to substances impacts community health by making substances more available and establishing use as normal in a community. Many substances are heavily marketed in communities of color and low-income communities, with more outlets and more advertisements in these neighborhoods. Figure 3 shows liquor store density in Adams County; Figure 4 shows areas within the county with the most marijuana licenses.

Impaired driving remains a public health concern due to the increased risk of crashes, injuries, and fatalities. Alcohol-impaired driving has been a well-publicized danger with many public awareness and law enforcement campaigns, leading to a dramatic decrease of alcohol-impaired driving over several decades. Marijuana-impaired driving remains a less-known risk, and as marijuana use increases in Colorado after the legalization of retail stores in 2014, marijuana-impaired driving has increased as well. There are also common misconceptions that marijuana makes one a better driver, though research has documented that marijuana use impairs motor skills and cognitive functioning.³ Reducing impaired driving is an important step to make roads and drivers safer.

Figure 3: Density of Stores with Liquor Licenses,* Adams County, 2022

Figure 4: Marijuana Licenses, by Zip Code, Adams County, 2022

*Excludes restaurants and hotels.
Source for both figures: Colorado Dept. of Revenue, February 2022
Over 10,000 people lost their lives in alcohol-impaired driving crashes in the United States in 2019. Each one of these deaths was preventable.

Alcohol, marijuana, opioids, and other substances impair one’s ability to drive safely.

One in twenty (5.6%) Adams County students who used alcohol in 2019 reported driving after drinking and one in nine (11.1%) who used marijuana reported driving after consuming marijuana (Figure 5). While driving after marijuana use among high school students has been decreasing, this is still dangerously high. Impaired driving is also responsible for more than one-third of fatal crashes across the state and in Adams County (Table 1). While arrests of impaired drivers have decreased over the last several years, the number of impaired-driving fatal crashes and the number of deaths resulting from those crashes have increased. The full reasons for these differences are unknown; they may be due to changes in enforcement practices, treatment and diversion programs in lieu of arrest, or changes in driving behaviors.

Figure 5: Driving After Consuming Alcohol and Marijuana among High School Students, Adams County, 2019

5.6% of Adams County high school students who drank alcohol and 11.1% of teens who used marijuana drove after use.

Table 1: Law enforcement arrests for driving under the influence (DUI) and impaired-related fatal crashes in Adams County, 2017-2020

<table>
<thead>
<tr>
<th>Year</th>
<th>DUI Arrests by Adams County Law Enforcement Agencies*</th>
<th>Impaired-Driving-Related Fatal Crashes (% of all fatal crashes)</th>
<th>Deaths in Impaired-Driving Related Crashes (% of all deaths in fatal crashes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>3,854</td>
<td>24 (40.0%)</td>
<td>25 (39.1%)</td>
</tr>
<tr>
<td>2018</td>
<td>3,274</td>
<td>17 (34.7%)</td>
<td>18 (35.3%)</td>
</tr>
<tr>
<td>2019</td>
<td>3,216</td>
<td>24 (37.5%)</td>
<td>28 (40.0%)</td>
</tr>
<tr>
<td>2020</td>
<td>2,188**</td>
<td>18 (37.5%)</td>
<td>20 (37.7%)</td>
</tr>
</tbody>
</table>

*Includes DUI arrests from the following law enforcement agencies, which may include some arrests in other counties based on agency jurisdiction: Adams County Sheriff’s Office, Aurora Police Department, Arvada Police Department, Brighton Police Department, Commerce City Police Department, Federal Heights Police Department, Lochbuie Police Department, Northglenn Police Department, Thornton Police Department, and Westminster Police Department. Does not include Colorado State Patrol arrests that occurred in Adams County.

**Response to the COVID-19 pandemic beginning in 2020 led to temporary closures of restaurants and bars, fewer people out on the roads, and fewer arrests for all infractions to reduce physical crowding in jails and booking facilities. These data should be considered an anomaly and not indicative of an actual reduction in impaired driving behavior.


Source: Healthy Kids Colorado Survey, Colorado Department of Public Health and Environment

Source: Healthy Kids Colorado Survey, Colorado Department of Public Health and Environment
Opioids

Over 20 million Americans struggle with addiction and, unfortunately, only about 10% receive treatment for their substance use disorder. Fragmentation in the healthcare system, lack of easy access, inability to pay, stigma, and too-few culturally-appropriate treatment options all combine to increase the barriers faced by those seeking treatment. In the United States, over 100,000 people died from opioid overdoses from April 2020 to April 2021, the largest number ever in a one-year period. Colorado and Adams County have not been immune to this rise in overdose deaths. It is unknown if this rise in deaths is due to an increase in use, a lower likelihood to engage with healthcare providers during the COVID-19 pandemic, or the rise of fentanyl – a synthetic opioid 50- to 100-times more potent than morphine often included in other drugs without the individual consumer’s knowledge – in the drug supply. The death rate from all opioids (including prescription opioids, heroin, and fentanyl) doubled in Adams County from 2019 to 2020. The death rate specifically due to fentanyl increased almost 200% in a single year from 2019 to 2020.

Individuals and communities can take steps to reduce overdose deaths, including safely disposing of medications at a medication drop-off site; learning to use and carry naloxone (NARCAN®), an opioid-agonist medication that can reverse the effects of an opioid overdose; advocating for improved access to and affordability of inclusive treatment options; and speaking openly about the disease of substance use disorder (addiction) to reduce stigma.

Figure 6: Age-adjusted death rates per 100,000 population for prescription opioids, heroin, fentanyl, and methamphetamine, Adams County, 2017-2020

Source: Vital Statistics Program, Colorado Department of Public Health and Environment

Source: Tri-County Health Department, CHA Community Engagement Process, 2021

A healthy community is where residents are engaged in efforts to prevent the misuse of alcohol, tobacco, and other drugs and where treatment services are affordable, accessible, and culturally appropriate for those who need them.
Attitudes about Substances Among Young People

While scare tactics and “just say no” educational strategies have proven ineffective in reducing use among young people, perceptions of harm and perceived acceptability among family and peers do influence the likelihood of young people experimenting with substances. Comprehensive health education and life skills are more effective than scare tactics to influence these factors and decrease use.

Important steps to protect young people from experimenting with and misusing substances include having clear rules about substances in the home; establishing opportunities for young people to discuss substances with parents, guardians, and other trusted adults; and creating cultural norms that do not favor acceptability of substances. In Adams County, young people believe their parents think use of substances is wrong and have clear rules in their homes, but less than half have talked with their parents or guardians about substances. Most young people also believe it is wrong to use prescription drugs without a prescription, but fewer believe it is wrong for teens to use alcohol or marijuana (Figure 7).

![Figure 7: Percentage of High School Students with Selected Protective Factors, Adams County, 2019](image)


If you believe you or someone you know may need help with substance misuse or abuse, call 1-844-493-8255 to speak for free with a trained professional and receive resources to help, including referrals to treatment.

What Our Community Said

- Alcohol misuse was the most commonly mentioned kind of substance misuse.
- Many community members referred to “drugs” or “drug use” as a major problem, but didn’t specify the kind of drug or circumstances of use.
- Substance use concerns were often mentioned alongside other concerns, such as homelessness, safety, and clean public spaces.
- There was acknowledgement that prevention as well as treatment services are needed to address substance use successfully.
In a healthy community, all people have access to high quality, culturally competent reproductive and sexual health services that support their needs and life goals.
The Centers for Disease Control and Prevention (CDC) considers family planning one of the ten great public health achievements in the 20th century.\(^1\)\(^2\) The ability to become pregnant when wanted and receive sexual and reproductive health services improves the lives and health of women, men, children, and families, and has both social and economic benefits to people and communities.\(^1\)\(^3\) Family planning and sexual and reproductive health services reduce the number of unintended pregnancies. Whereas an intended pregnancy is a pregnancy that, at the time of conception, was planned or wanted and the timing was chosen by the parent(s), unintended pregnancies are mistimed or unwanted at the time of conception. Unintended pregnancies can increase the risk of negative health outcomes for mother and child, including poor maternal mental health, inadequate/delayed prenatal care, premature birth, low birth weight, low rates of breastfeeding, reduced quality of the mother-child relationship, less than optimal child development, and the delaying of educational or professional opportunities by a caregiver (often the mother). When women and their partners are aware of choices to manage their reproductive and sexual health and have access to a wide range of contraceptive methods, they are better able to plan as well as space their births. This leads to positive health, social and economic outcomes for women, families, and communities.

**Key Insights**

- Reproductive and sexual health is an important part of overall health.
- Approximately two in five (40%) pregnancies in Adams County are unintended.
- While most women use highly effective methods of contraception, such as long-acting reversible contraceptives or sterilization, the most common method among high school students is condoms, which are only effective when used consistently and correctly.
- Syphilis cases are on the rise in Adams County, particularly among men (80%).

**Between 2016-2020, 37% of Colorado women stated that their pregnancy was unintended—that is, mistimed or unwanted.**

Source: Pregnancy Risk Assessment Monitoring System, Colorado Department of Public Health and Environment

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1. [https://www.healthypeople.gov/2020/topics-objectives/topic/family-planning#one](https://www.healthypeople.gov/2020/topics-objectives/topic/family-planning#one)
2. [https://www.cdc.gov/mmwr/preview/mmwrhtml/00056796.htm](https://www.cdc.gov/mmwr/preview/mmwrhtml/00056796.htm)
3. [https://www.cdc.gov/mmwr/preview/mmwrhtml/mm4847a1.htm](https://www.cdc.gov/mmwr/preview/mmwrhtml/mm4847a1.htm)
In 2019, the majority of women in Adams County using birth control were using a highly effective method: 30% relying on sterilization (theirs or their partners’) and 23% using Long-Acting Reversible Contraception (LARCs). Figure 1 shows contraceptive use by method type. Women who use a birth control method that best suits their needs are more likely to use it consistently and effectively and, thus, less likely to become pregnant.

Preventing an unintended pregnancy can profoundly impact adolescent quality of life, decrease the risk of poor infant health outcomes, and reduce the risk of long-term dependence on public assistance. The Colorado Family Planning Initiative (CFPI), launched statewide in 2008, continues to support access to low- or no-cost long-acting reversible contraception (LARC) and other highly effective contraceptive methods for women. CFPI has contributed to a 68% decrease in fertility rates among teens aged 15-19 years in Adams County during 2010-2020 (Figure 2). During the same time period, fertility rates for all women of reproductive age (15-44 years) also declined in Adams County (by 26%) and Colorado (by 21%).

Figure 1: Method of Contraception Used by Females of Reproductive Age Who Did Not Want to Become Pregnant, 2019

* LARC: Long-acting reversible contraception and includes intrauterine devices and contraceptive implants

Source: Behavioral Risk Factor Surveillance System, Colorado Department of Public Health and Environment

Source: Vital Records Program, Colorado Department of Public Health and Environment

Figure 2: Trends in Fertility Rates for Youth Aged 15-19 Years, per 1,000 population, 2010-2020

Source: Vital Records Program, Colorado Department of Public Health and Environment
Healthy People 2030 Goal:
Reduce sexually transmitted infections and their complications and improve access to quality STI care.

Source: Healthy People 2030, Office of Disease Prevention and Health Promotion, U.S. Department of Health and Human Services (HHS)

Almost one-quarter (23.5%) of the high school students in Adams County surveyed in 2019 reported having recent sexual intercourse (within the past three months). Most (76%) of these sexually-active students reported using some form of contraception. The most common form of contraception was condoms (54.0%) which must be worn properly and consistently to be effective and prevent pregnancy as well as prevent the transmission of sexually transmitted infections. Contraception use was consistently reported by students of all ages, races/ethnicities, and sexual identities. Social pressure to engage in sexual intercourse can be substantial for adolescents who may be exploring their own identities and learning about safe, consensual, healthy relationships. In 2019, 7.7% of high school students in Adams County reported making sexual comments, jokes, gestures or looks at someone when they knew they were unwanted. In addition, 8.0% of students reported being forced into sexual intercourse when they did not want to engage. Females (9.7%) were more likely to report unwanted sexual intercourse than males (6.2%). Students that were unsure of their sexual orientation (12.5%) and bisexual (20.9%) youth were more likely to report unwanted sexual intercourse than heterosexual youth (6.0%).

Sexually Transmitted Infections
Sexually transmitted Infections (STIs) are spread from one person to another through intimate physical contact or sexual activity (whether vaginal, oral, or anal sex). STIs can also be transmitted from infected pregnant women to their babies. Sexually active people can reduce their risk of getting an STI by using condoms or engaging a partner who does not have an STI. Chlamydia and gonorrhea are the most common STIs. Many men and most women with gonorrhea or chlamydia

Increases in Gonorrhea (2016 to 2020)
Adams County 9.4% Increase

Increases in Chlamydia (2016 to 2020)
Adams County 0.2% Increase

Increases in Syphilis (2016 to 2020)
Adams County 200% Increase

Source: STI/HIV/Viral Hepatitis Branch, Colorado Department of Public Health and Environment

Figure 3: Trends in gonorrhea rates (GC) and chlamydia rates (CT), per 100,000 population, 2013-2020
"Sexually transmitted infections still are rampant."

Source: Tri-County Health Department, CHA Community Engagement Process, 2021

Sexually transmitted infections still are rampant. Figure 3 shows that rates of chlamydia and gonorrhea increased in Colorado and Adams County from 2013 to 2020. It is unclear if the decline in chlamydia in 2020 was related to less access to health care or testing due to the pandemic. Chlamydia diagnosis rates in Adams County consistently exceeded the average statewide and gonorrhea diagnosis rates have increased at a similar rate statewide. In 2020, the highest percentage of both chlamydia and gonorrhea cases were among those people aged 20-29 years.

Figure 4 shows trends in syphilis infections between 2016 and 2020. Rates have increased sharply in Adams County and Colorado since 2016, surging 200% and 130% respectively. In Adams County, over half of syphilis infections occur among persons aged 20-34 and 80% are male. Studies suggest the increased incidence of syphilis infections is due to several behavior and social factors, particularly among young men who have sex with men (MSM) populations, including less condom use because of differing perceptions of HIV (Human-Immunodeficiency Virus) risk and advances in HIV prevention and treatment.

Rates of newly diagnosed Human-Immunodeficiency Virus (HIV) have decreased statewide from 7.7 in 2016 to 5.6 per 100,000 people in 2020. In Adams County, these cases peaked in 2017 at 13.1 per 100,000 and steadily declined to 7.9 per 100,000 in 2020. HIV can lead to acquired immunodeficiency syndrome (AIDS) if not treated. There is no cure for HIV or AIDS, but antiretroviral therapy (ART) is available and can significantly extend the lives of HIV-infected people as well as reduce the risk that the virus passes to others.

Ensuring easy, affordable access to sexual and reproductive health services, including family planning and STI testing, increases the likelihood that people of all ages are healthy and happy, and that all people of reproductive age are able to pursue their educational, professional, and wellness goals on their own timelines.

Figure 4: Trends in newly diagnosed Syphilis infection, rates per 100,000, 2016-2020

Source: STI/HIV/Viral Hepatitis Branch, Colorado Department of Public Health and Environment
A healthy community is where all people, regardless of their income, can access high quality health care.
The COVID-19 pandemic created unprecedented changes to the US health care environment in terms of access to physical and mental health care, health care utilization, health care delivery, and social and economic factors. The pandemic caused social changes resulting in loss of job-based health insurance coverage, loss of job and income or income reduction, and increased need for access to mental health care services. The pandemic caused shifts in health care delivery resulting in fewer people going in person to see their health care provider for routine care and a dramatic increase in telehealth visits. Health systems quickly overcame barriers to providing telehealth visits. Despite losses in job-based health insurance coverage, Colorado’s overall uninsured rate did not increase even as more people qualified for Medicaid coverage; however, the rate of uninsured in Adams County did increase slightly in 2021. The COVID-19 pandemic highlighted the continued importance of health care insurance coverage and equitable access to care and reminded us that the individuals most in need of care often are those without coverage. Being able to afford the physical and mental health services needed to be healthy continues to be identified as one of the most notable health problems identified by Adams County community members.

Key Insights

- The COVID-19 pandemic changed access-to-care needs and care usage patterns as access to testing services, vaccination appointments, and in-person and/or telehealth routine and specialty appointments became more important to community members.
- Cost remains a primary reason people go without care or services.
- Telehealth services have become an increasingly important way in which people access care, but not everyone has access to affordable telehealth services—not the literacy or technology to use them.
- Specialty care, oral health care, and mental and behavioral health care services are less utilized and less accessible than primary physical health care.

being able to afford the mental and physical health services needed to be healthy is one of the most important health problems identified by our community members, acknowledged as a basic human need, along with shelter, food, and clothing.

Source: Tri-County Health Department, CHA Community Engagement Process, 2021
Health insurance is the main way in which people pay for health services. There are two primary sources of health insurance: private insurance, usually provided/purchased through employers, and public insurance, which covers older Americans (Medicare), low-income and disabled Americans (Medicaid) and low-income children and pregnant women in Colorado (Child Health Plan Plus known as CHP+). As shown in Figure 1, the percentage of people without health insurance in Adams County steadily declined from 2013 to 2017, but has since increased. The sharp decline in the percentage of uninsured from 2013 to 2017 was largely due to the implementation of the 2012 Affordable Care Act (Figure 1). Over 15% of Adams County respondents from the community survey and focus groups identified access to physical and mental health care services as an important health issue and need.

Figure 1: Percent of Individuals without Health Insurance, 2009-2021

Cost of health care continues to be a persistent issue identified by community members. Even those with health insurance coverage struggle to pay for, or even go without, services. Insurance varies in type and quantity of coverage. People may need to purchase supplemental (additional) health insurance coverage for services like hospital care, dentistry, and vision care. In addition, the premium (the regular payment people make to pay for their coverage), deductibles and co-pays can lead to additional, high out-of-pocket costs, which force some people to choose between services, medications, or other basic necessities, like food or gas. Figure 2 indicates the proportion of people who were unable to obtain certain types of health care because of cost.

Not everyone who is eligible for public health insurance is enrolled in a plan. Nearly all adults ages 65+ are enrolled in Medicare, but fewer of those who are eligible for Medicaid or CHP+ are enrolled. Figure 3, below, shows those eligible but not enrolled in Medicaid, CHP+, and the advance premium tax credits (APTC) health coverage plans.
Access is influenced by many factors: insurance, cost, ability to navigate the health system, ability to be seen by a provider, the time it takes to get an appointment, and transportation to and from appointments and services.

Source: Tri-County Health Department, CHA Community Engagement Process, 2021

Health care utilization shifted during the COVID-19 pandemic. The pandemic initially caused a reduction in non-essential procedures and concerns over exposure, transmission, and inundating health systems kept people from accessing different kinds of care. There was an overall decline in health care utilization, especially among the uninsured. Although overall health care utilization declined during the pandemic, use of mental health services increased. The way in which health care is delivered also drastically changed, as health systems and providers shifted to telehealth (phone- or internet-based) service delivery. Figure 4 shows health care utilization in Adams County and Colorado, and Figure 5 (page 5) shows the increase in telehealth visits over time in Adams County and Colorado.
“People in my community stay healthy when they are provided opportunities to improve their health. This includes access to healthy food, clean water, and primary care.”

Source: Tri-County Health Department, CHA Community Engagement Process, 2021

Almost a quarter (22.8%) of Adams County residents ages 5 and older have poor mental health: an increase of about 5% from the same measure in 2019. Mental health was an important issue prior to the COVID-19 pandemic, but became a second health crisis during the pandemic. In 2021, 14.7% of Adams County residents ages 5 and older were not able to get mental health care when they needed it in the past 12 months (Figure 6). While more people were reporting poor mental health during the pandemic, they also reported an increased use in mental health care utilization (Figure 7).
“Will I put food on the table for my family or will I go seek the necessary mental health services?”

Source: Tri-County Health Department, CHA Community Engagement Process, 2021

Oral Health

Oral health is central to a person’s overall health and well-being, and includes the health of the teeth, the mouth, and surrounding craniofacial (skull and face) structures. Significant improvement of the oral health of Americans over the past 50 years is a public health success story, and most gains are a result of effective prevention and treatment efforts. People who have the least access to preventive services and dental treatment have the greatest rates of oral disease, and many oral diseases have associations to a variety of chronic health conditions. Various barriers can limit a person’s use of preventative oral health care, including limited access to and availability of services, lack of awareness of the need for care, cost, and fear of dental procedures. Figure 8 shows recent oral health care utilization of Adams County residents.

Source: Colorado Health Access Survey 2021, Colorado Health Institute

Figure 6: Estimated number of people ages 5 and older who needed but didn’t get mental health care within the last 12 months, 2021

Figure 7: Mental Health Care Utilization, Adams County and Colorado, 2021

Figure 8: Oral Health Care Utilization, Adams County and Colorado, 2021
Medically-Underserved Areas

Lack of available and affordable primary care can result in the health of people with treatable or preventable conditions worsening to the point of needing inpatient hospital care, which is more costly. Individuals may also be hospitalized if they are unable to afford necessary prescriptions or other forms of basic care. The federal Health Services and Resources Administration determines geographic areas of unmet need. These include Medically-Underserved Areas (MUAs) and Health Professional Shortage Areas (HPSAs).\(^1\) Map 1 highlights the MUAs in Adams County. MUAs and HPSAs are not automatically designated, but require local request for designation. Having a federal designation can increase access to certain federal resources and services.

Access to affordable, high-quality mental and physical health care is necessary to prevent, manage, and treat health conditions. Preventive health care (such as immunizations and routine health checks and screenings) provides protection to those at risk, treats people who may not have symptoms but have unhealthy conditions detected through screening (such as for high blood pressure), and promotes positive health behaviors (such as diet and exercise) to keep people from developing illness. Emergency medical services are also crucial in ensuring better outcomes for those who are injured or seriously ill. Many mental health disorders and substance use disorders can benefit from preventive care, treatment, and support services. Affordable services help ensure that all people in our communities have the mental and physical energy, vitality, and resilience to obtain optimal health.

Map 1: Medically-Underserved Areas (MUAs), 2020\(^1\)

\(^{1}\) [https://bhw.hrsa.gov/workforce-shortage-areas/shortage-designation](https://bhw.hrsa.gov/workforce-shortage-areas/shortage-designation)

What Our Community Said

- Over one in seven (15.2\%) of all comments from the community surveys and focus groups related to access to physical or mental health care services.
- Access to care was often mentioned by community members as a basic human need, along with shelter, food, and clothing.
- Respondents noted that access is influenced by many factors, including insurance, cost, ability to navigate the health system, ability to be seen by a provider, the time it takes to get an appointment, and transportation to and/from appointments and services.
- In addition to accessible services, case management and care coordination were noted as important for effectively navigating services.
Together, we’ll overcome the COVID-19 pandemic, prepare to face those of the future, reduce the impact on the vulnerable, and address root causes of disparate impact.*

*Vision Statement adapted from quotation by Ursula von der Leyen, President of the European Commission, https://twitter.com/vonderleyen/status/1364245038570569736?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwtterm%5E1364245038570569736%7Ctwgr%5E7%7Ctwcon%5Es1_&ref_url=https%3A%2F%2Fwww.globalcitizen.org%2Fen%2Fcontent%2Frecovery-plan-world-leaders-inspiring-quotes%2F
Together, we’ll overcome the COVID-19 pandemic, prepare to face those of the future, reduce the impact on the vulnerable, and address root causes of disparate impact.*

Adams County

COVID-19 Summary Statistics, Adams County, March 2020—December 2021

Cases
Rates of COVID-19 infection were over 3.6 times higher for Hispanic/Latinx populations than rates among their White, Non-Hispanic, Black, and Asian neighbors.

Hospitalizations
Rates of COVID-19 hospitalization were nine times higher for those 75-years-old and older compared to those 18-44 years-old.

Deaths
47% of all COVID-19 deaths were individuals 75-years-old and older.

The Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. Common characteristics of COVID-19 disease include fever, cough, fatigue, shortness of breath, muscle aches, congestion, nausea or vomiting, diarrhea, and loss of taste and/or smell. The virus is transmitted through small, aerosolized droplets from an infected person’s mouth. There are several prevention measures that can reduce risk of transmission including social distancing, mask wearing, hand washing, isolation and quarantine, and vaccination.¹

Figure 1: COVID-19 Cases by Report Date, Adams County, Colorado, 2020-2021

Source: Tri-County Health Department, Colorado Department of Public Health and Environment (CDPHE)
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Adams County

The SARS-CoV-2 virus, the virus that causes the COVID-19 disease, was first identified in Wuhan, China in December 2019. Over the next few months, SARS-CoV-2 quickly spread across the globe, and has been detected in over 200 countries.² The first case of COVID-19 in Adams County was detected on March 1, 2020. After the initial wave in early 2020, global variants of concern have continued to cause waves of infections leading to spikes in case rates (Figure 1). Alpha was the dominant variant for the peak in early 2021, followed by Delta in Fall 2021, and Omicron which began in December 2021 (Figure 2). Omicron has been the most infectious variant to date, with peak seven-day infection rates two to three times higher than any other surge; however, cases from Omicron infection have had the lowest case-hospitalization rates (Figure 3).

²Johns Hopkins University, https://coronavirus.jhu.edu/data/mortality

Source: CO Dept of Public Health and Environment, Tri-County Health Department
Race and Ethnicity

COVID-19 has impacted the lives of everyone in Adams County, but some communities have been more affected than others. Social determinants of health contribute to risk of both infection and morbidity (illness) as well as severity (hospitalization) and mortality (death); these determinants include occupation, neighborhood and physical environment, access to testing, vaccine access and uptake, and discrimination within the health care system. They not only impact exposure to the virus, but trust in the health care and public health systems, and access to and utilization of services. People of color are overrepresented in essential industries, such as meat processing facilities, which are often overcrowded. A study of workplace-related outbreaks found that the industries with the most outbreaks in Utah were manufacturing, construction, and wholesale trade, which were disproportionately Hispanic/Latinx and/or non-White. Compared to White, non-Hispanic people, people from racial and ethnic minorities were more likely to experience crowded living conditions, increasing risk of transmission through isolation and quarantine. Differences in living and working conditions result in increased risk of COVID-19 exposure. In 2020 in Adams County, compared to White, non-Hispanic residents, Hispanic/Latinx residents were 3.6 times more likely to become infected with COVID-19 and 1.6 times more likely to be hospitalized (Figures 4, 5). The mortality rate for White, non-Hispanic residents was higher than for other race/ethnicities, but a larger portion of cases among White people were over the age of 65.

Figure 4: COVID-19 Incidence Rate (per 100k), by Year and Race/Ethnicity, Adams County

Figure 5: COVID-19 Hospitalization Rate (per 100k), by Year and Race/Ethnicity, Adams County

Figure 6: COVID-19 Mortality Rate (per 100k), by Year and Race/Ethnicity, Adams County

Source: CDPHE, Tri-County Health Department

5 U.S. Census Bureau, https://www.census.gov/content/dam/Census/programs-surveys/ahs/publications/Measuring_Overcrowding_in_Hsg.pdf
Older Adults

In Adams County, throughout the pandemic, COVID-19 infection rates, illness severity, and mortality varied by age. Due to a less robust immune system and increased likelihood of underlying disease, older individuals have been and continue to be at increased risk of hospitalization and death due to COVID-19. In Adams County in 2020, those aged 75 years and older experienced hospitalization rates 1.8 times higher than the next closest age group, 65-74, and mortality rates five times greater than those aged 65-74 years (Figures 7,8).

Youth

Infection rates among youth in Adams County have varied throughout the pandemic due, in part, to school district policies as well as vaccine availability and eligibility. During the 2020 spring and fall semesters, a majority of school districts in Adams County participated in remote learning; during that time, adults had higher infection rates (Figure 9). Once in-person learning began again in the 2021 spring semester, infection rates among youth aged 12-17 approached the adult rate. By fall 2021, 12-17 year-olds were eligible for vaccines and infection rates among that age group were slightly lower than the adult rate; however, during that time, the rate for 5-11 year-olds—those who were not yet eligible for vaccines and remained unvaccinated—surpassed the other groups.

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6 Centers for Disease Control; https://www.cdc.gov/aging/covid19/covid19-older-adults.html
Testing

Universal community access to COVID-19 testing has been an important public health focus throughout the pandemic. Testing allows individuals to make decisions around medical treatment, travel, and isolation and quarantine decisions. There are several barriers to access to testing, including insurance and employment status, geographic barriers such as distance to testing sites, and the ability to take time off work. As many of the free testing sites experienced large wait times when rates were high, people with insurance might have had increased access to testing through primary care.

Test Turnaround Time

Test turnaround time, the difference in time between specimen collection and test result availability, is another factor that affects an individual’s ability to quickly isolate and/or quarantine. There were several periods throughout the pandemic where the testing delay was four or more days (Figure 10).

Percent Positivity

The percent of SARS-CoV-2 tests that are positive (percent positivity) informs local public health professionals about the transmission level in the community, and whether enough testing is being performed to detect those who are infected. Figure 11 displays test positivity throughout the pandemic. We can see that high positivity rates were correlated with periods of higher incidence rates.

Figure 10: Test Turnaround Time- Percent of test results coming back within specified time frame, by testing week, Adams County

Figure 11: Number of tests, percent positivity by testing week, Adams County

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8 Science Direct; https://www.sciencedirect.com/science/article/pii/S1047279721000533
9 Johns Hopkins University; https://publichealth.jhu.edu/2020/covid-19-testing-understanding-the-percent-positive
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Adams County

Vaccination

Vaccinations are essential for reducing COVID-19 transmission and disease burden. In the United States, there are three main COVID-19 vaccines available: Moderna and Pfizer, which use mRNA technology that was not approved by the Food and Drug Administration (FDA) prior to the pandemic, and Johnson and Johnson, a vector-based vaccine. For most people aged twelve years and older, an initial completed series of a COVID-19 vaccination consists of two doses of mRNA vaccines or one dose of Johnson and Johnson. Any additional dose beyond the initial completed series is considered a booster dose with the exception of immunocompromised people for whom the initial mRNA series includes a third dose and the fourth jab is considered the booster shot.

The Pfizer COVID-19 vaccine was first approved by the federal FDA for emergency use authorization (EUA) December 11th, 2020. Over the next few months, a risk-based, tiered vaccine eligibility schedule was rolled out with higher-risk-for-infection groups, such as the elderly, immunocompromised and frontline workers, eligible to receive the vaccine first. In April, 2021, thirteen months after the first case was detected in Adams County, vaccines became available to all adults. Children aged five to eleven years were the last group to become approved, seven months later, in October 2021. There is currently no vaccine authorized for children under the age of five. Additional booster doses were approved for all adults in November, 2021, after research and surveillance indicated that protection from the initial completed series wanes after several months. As of 12/31/2021, 82.5% of individuals in Adams County had received at least one COVID-19 vaccine dose, 75.4% had completed their initial vaccine series (two doses of Moderna and/or Pfizer or one dose of Johnson & Johnson), and 55.7% had received an additional booster dose (any vaccine dose beyond the initial completed series) (Figure 13).

Vaccine Hesitancy

While vaccine availability impacted population-vaccination rates early in the pandemic, vaccine hesitancy continues to influence Adams County residents. A systematic review of vaccine studies

*This reflects the percentage of individuals 18+ who have received an additional vaccine dose after completing their initial vaccination series, regardless of their eligibility for a booster. Individuals 18+ are eligible for a booster 6 months after completing their RNA vaccination series, or 2 months after receiving a Johnson & Johnson vaccine. The percentage is calculated based on the number of individuals who are eligible for a booster. Other percentages are based on the most recent population estimates from the Colorado State Demography office.


Restoring trust in medical professionals and vaccines requires a strategic approach to overcome the racial injustice in the system, while timely implementation of vaccine delivery plans remains a challenge as new strains of coronavirus emerge as potential threats to the healthcare system.

Conducted through July 2021 revealed that—even before vaccine availability—vaccine hesitancy, particularly due to a lack of understanding of the COVID-19 vaccine development process—impacted vaccine uptake. The review found that in 2020 hesitancy was highest among Black/African American respondents, followed by Hispanic/Latinx individuals. Other research on vaccine acceptance among various sexual and gender minority groups found that the largest discrepancies in vaccine acceptance occurred among Black/African American individuals. Minority groups, especially Black/African Americans, have experienced a "deep-seated mistrust in the healthcare system." These sources of mistrust are rooted in historical racism, trauma, and unethical practices such as the Tuskegee Syphilis study, which studied the course of Syphilis disease in Black/African Americans without their knowledge or consent. Current immigration policies and practices also foster mistrust of government among some Hispanic/Latinx communities. Many current systems, policies, and practices feed mistrust of minority populations in government agencies and actions, such as the underrepresentation of minority groups in COVID-19 vaccine clinical trials and immigration practices. In addition to mistrust and lack of information, research and experience suggest that differences in vaccine uptake among racial/ethnic groups is not due to vaccine hesitancy alone, but that other factors, including belief in safety and efficacy of the vaccine, influence people’s decision to get vaccinated.

Looking at the percent of the population in Adams County who has received at least one dose by race and ethnicity, the rates for Hispanic/Latinx individuals were 32% lower than White, Non-Hispanic/Latinx individuals. Black/African Americans had rates 12% lower and Asians and Pacific Islanders were 17% lower (Figure 15) than White, Non-Hispanic individuals.

Figure 15: Percent of Individuals Vaccinated in Adams County by Race/Ethnicity, Ages 12+, through 12/31/2021

(Percent reflects the portion of that group that have received at least one dose.)

Source: Colorado Department of Public Health and Environment, Tri-County Health Department
Appendix

The following set of maps and tables highlight annual (2020 and 2021) data of interest. Data are visualized by census tract; darker colors indicate higher rates of infection, hospitalization, mortality, or vaccination. Similar colors do not indicate the same scale; look to each figure’s legend for its individual scale. The dotted lines indicate Adams County’s County Commissioner district boundaries. Note that comparisons between 2020 and 2021 are limited as 2020 does not include a complete year of data.

Infection Rates

Map 1: 2020 Annual COVID-19 Infection Rates (per 100k) by Census Tract, Ages 12+, Adams County

Map 2: 2021 Annual COVID-19 Infection Rates (per 100k) by Census Tract, Ages 12+, Adams County

Source: Tri-County Health Department, Colorado Department of Public Health and Environment
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Adams County

Hospitalization Rates

Map 3: 2020 Annual COVID-19 Hospitalization Rates (per 100k) by Census Tract, Ages 12+, Adams County

Map 4: 2021 Annual COVID-19 Hospitalization Rates (per 100k) by Census Tract, Ages 12+, Adams County

Source: Tri-County Health Department, Colorado Department of Public Health and Environment
Adams County

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Mortality Rates

Map 5: 2020 Annual COVID-19 Mortality Rates (per 100k) by Census Tract, Ages 12+, Adams County

Map 6: 2021 Annual COVID-19 Mortality Rates (per 100k) by Census Tract, Ages 12+, Adams County

Source: Tri-County Health Department, Colorado Department of Public Health and Environment
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Adams County

Vaccination Rates and Vaccine Data

Figure 16: Individuals Vaccinated, by Age Group, Adams County (Data as of 12/31/21)

Percent reflects the portion of that age group that has been vaccinated.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>% Initiated or Completed</th>
<th>% Completed</th>
<th>% Boosted* (eligible population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-11</td>
<td>38%</td>
<td>32%</td>
<td></td>
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<tr>
<td>12-15</td>
<td>71%</td>
<td>64%</td>
<td>31%</td>
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<tr>
<td>16-17</td>
<td>74%</td>
<td>68%</td>
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<td>50-59</td>
<td>87%</td>
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</tr>
<tr>
<td>60-69</td>
<td>92%</td>
<td>88%</td>
<td>77%</td>
</tr>
<tr>
<td>70+</td>
<td>92%</td>
<td>87%</td>
<td>78%</td>
</tr>
</tbody>
</table>

Map 7: 2021 COVID-19 Percent Vaccinated by Census Tract, Ages 12+, Adams County

Figure 17: Percent of Individuals Vaccinated, by Race/Ethnicity, Adams County (Data as of 12/31/21)

Percent reflects the portion of that age group that has been vaccinated.

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>% Initiated or Completed</th>
<th>% Completed</th>
<th>% Boosted* (eligible population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian or Alaskan Native</td>
<td>60%</td>
<td>62%</td>
<td>46%</td>
</tr>
<tr>
<td>Asian/Pacific - Non Hispanic</td>
<td>68%</td>
<td>63%</td>
<td>71%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>69%</td>
<td>63%</td>
<td>49%</td>
</tr>
<tr>
<td>Hispanic, All Races</td>
<td>54%</td>
<td>49%</td>
<td>49%</td>
</tr>
<tr>
<td>White - Non Hispanic</td>
<td>86%</td>
<td>81%</td>
<td>62%</td>
</tr>
</tbody>
</table>

*This reflects the percentage of individuals 18+ who have received an additional vaccine dose after completing their initial vaccination series, regardless of their eligibility for a booster. Individuals 18+ are eligible for a booster 6 months after completing their RNA vaccination series, or 2 months after Johnson & Johnson. The percentage is calculated based on the number of individuals who are eligible for a booster. Other percentages are based on the most recent population estimates from the Colorado State Demography office.

Source: Tri-County Health Department, Colorado Department of Public Health and Environment
An asset is a useful or valuable thing, person, or quality. Assets improve quality of life. Individuals, communities, and institutions all have assets that contribute to quality of life. In keeping with the feedback we received from community members, partners, and TCHD staff regarding the components of a healthy community, these assets are similarly organized. This is not an exhaustive list, but provides a starting point for understanding the strengths of our communities.

<table>
<thead>
<tr>
<th>Social Connections</th>
<th>Educational Resources</th>
<th>Health and Wellness Services</th>
<th>Neighborhood Conditions</th>
<th>Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts organizations</td>
<td>Economic development organizations</td>
<td>211</td>
<td>911</td>
<td></td>
</tr>
<tr>
<td>Boys and Girls Clubs</td>
<td>Faith-based organizations</td>
<td>City Planning Departments</td>
<td>Colorado State Patrol</td>
<td>Health Department Emergency Preparedness and Response</td>
</tr>
<tr>
<td>Citizen's Advisory Boards</td>
<td>Legal Assistance</td>
<td>Community gardens</td>
<td>County Sheriff’s Departments</td>
<td>Neighbors</td>
</tr>
<tr>
<td>Community gardens</td>
<td>Low-income Energy Assistance</td>
<td>Community markets</td>
<td>Emergency Management</td>
<td>School Resource Officers (SROs)</td>
</tr>
<tr>
<td>Community markets</td>
<td></td>
<td>Community newsletters/newspapers</td>
<td>Fire Rescue Services</td>
<td>Victims Assistance Programs</td>
</tr>
<tr>
<td>Community parks and public spaces</td>
<td></td>
<td>Community parks and public spaces</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counseling and support programs</td>
<td></td>
<td>County fair grounds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>County fair grounds</td>
<td></td>
<td>Family Resource Centers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girls on the Run and other after school clubs</td>
<td></td>
<td>Girls on the Run and Other after School Clubs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GLBT Community Center of Colorado</td>
<td></td>
<td>Recreation centers, including yoga</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GLBT Community Center of Colorado</td>
<td></td>
<td>Indoor/outdoor malls and public spaces</td>
<td></td>
<td>43</td>
</tr>
<tr>
<td>Colorado</td>
<td>Leadership groups</td>
<td>Libraries</td>
<td>Local &quot;Meet up&quot; events (literal website or things like the &quot;Denver Cruisers&quot; and running clubs)</td>
<td>44</td>
</tr>
<tr>
<td>Indoor/outdoor malls and public spaces</td>
<td></td>
<td></td>
<td>Local community events and festivals</td>
<td>45</td>
</tr>
<tr>
<td>Leadership groups</td>
<td></td>
<td></td>
<td>Neighbors and Next Door</td>
<td>46</td>
</tr>
<tr>
<td>Libraries</td>
<td></td>
<td></td>
<td>Places of worship—synagogues, mosques, churches</td>
<td>47</td>
</tr>
<tr>
<td>Local &quot;Meet up&quot; events (literal website or things like the &quot;Denver Cruisers&quot; and running clubs)</td>
<td></td>
<td></td>
<td>Recreation centers, including yoga</td>
<td>48</td>
</tr>
<tr>
<td>Local community events and festivals</td>
<td></td>
<td></td>
<td>12-Step Organizations (AA, NA, etc.)</td>
<td>49</td>
</tr>
<tr>
<td>Neighbors and Next Door</td>
<td></td>
<td></td>
<td>Colorado Access</td>
<td>50</td>
</tr>
<tr>
<td>Places of worship—synagogues, mosques, churches</td>
<td></td>
<td></td>
<td>Colorado Crisis Services</td>
<td>51</td>
</tr>
<tr>
<td>Recreation centers, including yoga</td>
<td></td>
<td></td>
<td>Colorado Quit Line</td>
<td>52</td>
</tr>
<tr>
<td>12-Step Organizations (AA, NA, etc.)</td>
<td></td>
<td></td>
<td>Community Health Centers</td>
<td>53</td>
</tr>
<tr>
<td>Community-centered boards</td>
<td>Early Childhood Councils</td>
<td>Community Health Centers</td>
<td>Community Mental Health Centers</td>
<td>Habitat for Humanity</td>
</tr>
<tr>
<td>Economic development organizations</td>
<td>English as a second language classes</td>
<td>Community Mental Health Centers</td>
<td>Community Recreation Centers</td>
<td>Housing Authorities (subsidized housing)</td>
</tr>
<tr>
<td>Economic development organizations</td>
<td></td>
<td>Community Recreation Centers</td>
<td>Community Recreation Centers</td>
<td>Local businesses</td>
</tr>
<tr>
<td>Economic development organizations</td>
<td>Graduate Equivalency Diploma programs</td>
<td>Community Recreation Centers</td>
<td>Community Recreation Centers</td>
<td>Local non-profit organizations</td>
</tr>
<tr>
<td>Economic development organizations</td>
<td></td>
<td>Community Recreation Centers</td>
<td>Community Recreation Centers</td>
<td>Meals on Wheels/Congregate Meals Program</td>
</tr>
<tr>
<td>Economic development organizations</td>
<td></td>
<td>Community Recreation Centers</td>
<td>Community Recreation Centers</td>
<td>OneHome</td>
</tr>
<tr>
<td>Economic development organizations</td>
<td></td>
<td>Community Recreation Centers</td>
<td>Community Recreation Centers</td>
<td>Parks and Recreations Departments, open spaces and trails</td>
</tr>
<tr>
<td>Economic development organizations</td>
<td></td>
<td>Community Recreation Centers</td>
<td>Community Recreation Centers</td>
<td>Regional Transportation District (RTD)</td>
</tr>
<tr>
<td>Economic development organizations</td>
<td></td>
<td>Community Recreation Centers</td>
<td>Community Recreation Centers</td>
<td>Resettlement agencies and refugee/immigrant-serving organizations</td>
</tr>
<tr>
<td>Economic development organizations</td>
<td></td>
<td>Community Recreation Centers</td>
<td>Community Recreation Centers</td>
<td>Ride Together, ALIFT</td>
</tr>
<tr>
<td>Economic development organizations</td>
<td></td>
<td>Community Recreation Centers</td>
<td>Community Recreation Centers</td>
<td>Schools and universities</td>
</tr>
<tr>
<td>Economic development organizations</td>
<td></td>
<td>Community Recreation Centers</td>
<td>Community Recreation Centers</td>
<td>Severe weather shelter networks</td>
</tr>
<tr>
<td>Economic development organizations</td>
<td></td>
<td>Community Recreation Centers</td>
<td>Community Recreation Centers</td>
<td>Theaters, restaurants, entertainment venues</td>
</tr>
<tr>
<td>Economic development organizations</td>
<td></td>
<td>Community Recreation Centers</td>
<td>Community Recreation Centers</td>
<td>Walking and biking groups</td>
</tr>
<tr>
<td>Economic development organizations</td>
<td></td>
<td>Community Recreation Centers</td>
<td>Community Recreation Centers</td>
<td></td>
</tr>
</tbody>
</table>
Appendix

Additional Indicators

Leading cause of death by age
Leading cause of death by race
Years of potential life lost (YPLL)
Life expectancy
Select death trends
Infant mortality by race
Communicable disease rates
Foodborne Illness rates
<table>
<thead>
<tr>
<th>Rank</th>
<th>All Ages</th>
<th>1 to 14 Years</th>
<th>15 to 24 Years</th>
<th>25 to 44 Years</th>
<th>45 to 64 Years</th>
<th>65+ Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Malignant neoplasms</td>
<td>Malignant neoplasms</td>
<td>Unintentional injuries</td>
<td>Unintentional injuries</td>
<td>Malignant neoplasms</td>
<td>Malignant neoplasms</td>
</tr>
<tr>
<td>2</td>
<td>Heart disease</td>
<td>Unintentional injuries</td>
<td>Suicide</td>
<td>Suicide</td>
<td>Heart disease</td>
<td>Heart disease</td>
</tr>
<tr>
<td>3</td>
<td>Unintentional injuries</td>
<td>Suicide</td>
<td>Assault</td>
<td>Malignant neoplasms</td>
<td>Unintentional injuries</td>
<td>Chronic lower respiratory diseases</td>
</tr>
<tr>
<td>4</td>
<td>Chronic lower respiratory diseases</td>
<td>Congenital malformations and chromosomal abnormalities</td>
<td>Heart disease</td>
<td>Heart disease</td>
<td>Chronic liver disease and cirrhosis</td>
<td>Alzheimer's disease</td>
</tr>
<tr>
<td>5</td>
<td>Cerebrovascular diseases</td>
<td>Assault</td>
<td>Malignant neoplasms</td>
<td>Chronic liver disease and cirrhosis</td>
<td>Suicide</td>
<td>Cerebrovascular diseases</td>
</tr>
<tr>
<td>6</td>
<td>Alzheimer's disease</td>
<td>Heart disease</td>
<td>Diabetes mellitus</td>
<td>Assault</td>
<td>Chronic lower respiratory diseases</td>
<td>Unintentional injuries</td>
</tr>
<tr>
<td>7</td>
<td>Suicide</td>
<td>Cerebrovascular diseases</td>
<td>Congenital malformations, deformations, and chromosomal abnormal</td>
<td>Diabetes mellitus</td>
<td>Diabetes mellitus</td>
<td>Diabetes mellitus</td>
</tr>
<tr>
<td>8</td>
<td>Diabetes mellitus</td>
<td>Influenza and pneumonia</td>
<td>Chronic lower respiratory diseases</td>
<td>Cerebrovascular diseases</td>
<td>Cerebrovascular diseases</td>
<td>COVID-19</td>
</tr>
<tr>
<td>9</td>
<td>Chronic liver disease and cirrhosis</td>
<td>In situ neoplasms, benign neoplasms, and neoplasms of uncertain or unknown behavior</td>
<td>Influenza and pneumonia</td>
<td>Influenza and pneumonia</td>
<td>Influenza and pneumonia</td>
<td>Influenza and pneumonia</td>
</tr>
<tr>
<td>10</td>
<td>COVID-19</td>
<td>Chronic lower respiratory diseases</td>
<td>Cerebrovascular diseases</td>
<td>Chronic lower respiratory diseases</td>
<td>Nephritis, nephrotic syndrome and nephrosis</td>
<td>Nephritis, nephrotic syndrome and nephrosis</td>
</tr>
</tbody>
</table>

Source: Vital Records Program, Colorado Department of Public Health and Environment
Table 2: Leading causes of death by race/ethnicity, Adams County, 2011-2020

<table>
<thead>
<tr>
<th>Rank</th>
<th>All Races</th>
<th>White, Non-Hispanic</th>
<th>Black, Non-Hispanic</th>
<th>Asian/Pacific Islander</th>
<th>American Indian/Alaska Native</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Heart disease</td>
<td>Malignant neoplasms</td>
<td>Heart disease</td>
<td>Malignant neoplasms</td>
<td>Malignant neoplasms</td>
<td>Malignant neoplasms</td>
</tr>
<tr>
<td>2</td>
<td>Malignant neoplasms</td>
<td>Heart disease</td>
<td>Malignant neoplasms</td>
<td>Heart disease</td>
<td>Heart disease</td>
<td>Heart disease</td>
</tr>
<tr>
<td>3</td>
<td>COVID-19</td>
<td>Chronic lower respiratory disease</td>
<td>Unintentional injuries</td>
<td>Cerebrovascular diseases</td>
<td>Chronic lower respiratory diseases</td>
<td>Unintentional injuries</td>
</tr>
<tr>
<td>4</td>
<td>Unintentional injuries</td>
<td>Unintentional injuries</td>
<td>Alzheimer’s disease</td>
<td>Unintentional injuries</td>
<td>Unintentional injuries</td>
<td>Cerebrovascular diseases</td>
</tr>
<tr>
<td>5</td>
<td>Chronic lower respiratory diseases</td>
<td>Alzheimer’s disease</td>
<td>Cerebrovascular diseases</td>
<td>Diabetes mellitus</td>
<td>Chronic liver disease and cirrhosis</td>
<td>Diabetes mellitus</td>
</tr>
<tr>
<td>6</td>
<td>Cerebrovascular diseases</td>
<td>Cerebrovascular diseases</td>
<td>Chronic lower respiratory diseases</td>
<td>Alzheimer’s disease</td>
<td>Alzheimer’s disease</td>
<td>Chronic lower respiratory diseases</td>
</tr>
<tr>
<td>7</td>
<td>Alzheimer’s disease</td>
<td>Suicide</td>
<td>Diabetes mellitus</td>
<td>Chronic lower respiratory diseases</td>
<td>Cerebrovascular diseases</td>
<td>Alzheimer’s disease</td>
</tr>
<tr>
<td>8</td>
<td>Chronic liver disease and cirrhosis</td>
<td>Diabetes mellitus</td>
<td>Assault</td>
<td>COVID-19</td>
<td>COVID-19</td>
<td>COVID-19</td>
</tr>
<tr>
<td>9</td>
<td>Diabetes mellitus</td>
<td>Chronic liver disease and cirrhosis</td>
<td>COVID-19</td>
<td>Nephritis, nephrotic syndrome and nephrosis</td>
<td>Suicide</td>
<td>Chronic liver disease and cirrhosis</td>
</tr>
<tr>
<td>10</td>
<td>Suicide</td>
<td>Influenza and pneumonia</td>
<td>Nephritis, nephrotic syndrome and nephrosis</td>
<td>Influenza and pneumonia</td>
<td>Influenza and pneumonia</td>
<td>Nephritis, nephrotic syndrome and nephrosis</td>
</tr>
</tbody>
</table>

Source: Vital Records Program, Colorado Department of Public Health and Environment
**Table 3: Years of Potential Life Lost, Age-Adjusted Rates for 10 Leading Causes of Death, Adams County, 2013-2015 & 2018-2021**

<table>
<thead>
<tr>
<th>Cause of Death</th>
<th>2013-2015</th>
<th>2018-2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unintentional injuries*</td>
<td>831</td>
<td>1,040</td>
</tr>
<tr>
<td>Suicide</td>
<td>444</td>
<td>565</td>
</tr>
<tr>
<td>Cancer</td>
<td>499</td>
<td>414</td>
</tr>
<tr>
<td>Heart disease</td>
<td>354</td>
<td>321</td>
</tr>
<tr>
<td>Perinatal period conditions</td>
<td>292</td>
<td>312</td>
</tr>
<tr>
<td>Congenital malformations</td>
<td>166</td>
<td>154</td>
</tr>
<tr>
<td>Chronic liver disease and cirrhosis</td>
<td>160</td>
<td>277</td>
</tr>
<tr>
<td>Assault</td>
<td>179</td>
<td>214</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>60</td>
<td>84</td>
</tr>
<tr>
<td>Cerebrovascular diseases</td>
<td>72</td>
<td>85</td>
</tr>
<tr>
<td>COVID-19</td>
<td>—</td>
<td>102</td>
</tr>
<tr>
<td>All Causes</td>
<td>3,932</td>
<td>4,450</td>
</tr>
</tbody>
</table>

*Unintentional injuries include causes such as drug overdose, motor vehicle crashes, falls, and other accidental events that may lead to a death.

1 Institute for Health Metrics and Evaluation
2 County Health Rankings

Figure 3: Cancer Age-Adjusted Death Rate (per 100,000 population), 2011-2020

![Graph showing cancer age-adjusted death rates for Adams and Colorado from 2011 to 2020.]

Figure 4: Heart Disease Age-Adjusted Death Rate (per 100,000 population), 2011-2020

![Graph showing heart disease age-adjusted death rates for Adams and Colorado from 2011 to 2020.]

Source: Vital Records Program, Colorado Department of Public Health and Environment
Figure 5: Unintentional injury age-adjusted death rate per 100,000 population, 2011-2020

![Figure 5: Unintentional injury age-adjusted death rate per 100,000 population, 2011-2020]

<table>
<thead>
<tr>
<th>Year</th>
<th>Adams</th>
<th>Colorado</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>45.6</td>
<td>46.2</td>
</tr>
<tr>
<td>2012</td>
<td>59.0</td>
<td>47.0</td>
</tr>
<tr>
<td>2013</td>
<td>52.8</td>
<td>46.3</td>
</tr>
<tr>
<td>2014</td>
<td>55.3</td>
<td>45.0</td>
</tr>
<tr>
<td>2015</td>
<td>53.3</td>
<td>49.5</td>
</tr>
<tr>
<td>2016</td>
<td>59.6</td>
<td>50.1</td>
</tr>
<tr>
<td>2017</td>
<td>63.0</td>
<td>53.1</td>
</tr>
<tr>
<td>2018</td>
<td>61.5</td>
<td>51.2</td>
</tr>
<tr>
<td>2019</td>
<td>56.5</td>
<td>51.3</td>
</tr>
<tr>
<td>2020</td>
<td>65.6</td>
<td>59.7</td>
</tr>
</tbody>
</table>

Source: Vital Records Program, Colorado Department of Public Health and Environment

Figure 6: Suicide age-adjusted death rate per 100,000 population, 2011-2020

![Figure 6: Suicide age-adjusted death rate per 100,000 population, 2011-2020]

<table>
<thead>
<tr>
<th>Year</th>
<th>Adams</th>
<th>Colorado</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>14.5</td>
<td>17.4</td>
</tr>
<tr>
<td>2012</td>
<td>19.1</td>
<td>19.7</td>
</tr>
<tr>
<td>2013</td>
<td>15.7</td>
<td>18.5</td>
</tr>
<tr>
<td>2014</td>
<td>18.1</td>
<td>19.4</td>
</tr>
<tr>
<td>2015</td>
<td>18.9</td>
<td>19.5</td>
</tr>
<tr>
<td>2016</td>
<td>16.1</td>
<td>20.3</td>
</tr>
<tr>
<td>2017</td>
<td>21.8</td>
<td>20.2</td>
</tr>
<tr>
<td>2018</td>
<td>21.1</td>
<td>21.6</td>
</tr>
<tr>
<td>2019</td>
<td>21.4</td>
<td>21.9</td>
</tr>
<tr>
<td>2020</td>
<td>22.0</td>
<td>21.4</td>
</tr>
</tbody>
</table>

Source: Vital Records Program, Colorado Department of Public Health and Environment
Figure 7: Chronic liver disease and cirrhosis age-adjusted death rate per 100,000 population, 2011-2020

![Chart showing chronic liver disease and cirrhosis death rates for Adams and Colorado counties from 2011 to 2020.]

<table>
<thead>
<tr>
<th>Year</th>
<th>Adams</th>
<th>Colorado</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>14.7</td>
<td>12.3</td>
</tr>
<tr>
<td>2012</td>
<td>16.9</td>
<td>11.7</td>
</tr>
<tr>
<td>2013</td>
<td>14.9</td>
<td>12.6</td>
</tr>
<tr>
<td>2014</td>
<td>16</td>
<td>12.5</td>
</tr>
<tr>
<td>2015</td>
<td>11.6</td>
<td>12.2</td>
</tr>
<tr>
<td>2016</td>
<td>17.1</td>
<td>12.3</td>
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<tr>
<td>2017</td>
<td>18.9</td>
<td>13.9</td>
</tr>
<tr>
<td>2018</td>
<td>16</td>
<td>13.1</td>
</tr>
<tr>
<td>2019</td>
<td>17.8</td>
<td>14.9</td>
</tr>
<tr>
<td>2020</td>
<td>25.1</td>
<td>17.7</td>
</tr>
</tbody>
</table>

Source: Vital Records Program, Colorado Department of Public Health and Environment

Figure 8: Chronic lower respiratory disease age-adjusted death rate per 100,000 population, 2011-2020

![Chart showing chronic lower respiratory disease death rates for Adams and Colorado counties from 2011 to 2020.]

<table>
<thead>
<tr>
<th>Year</th>
<th>Adams</th>
<th>Colorado</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>67.9</td>
<td>46.6</td>
</tr>
<tr>
<td>2012</td>
<td>76.9</td>
<td>46.5</td>
</tr>
<tr>
<td>2013</td>
<td>58.9</td>
<td>45.7</td>
</tr>
<tr>
<td>2014</td>
<td>59.6</td>
<td>46.3</td>
</tr>
<tr>
<td>2015</td>
<td>62.7</td>
<td>47.4</td>
</tr>
<tr>
<td>2016</td>
<td>59.6</td>
<td>45.8</td>
</tr>
<tr>
<td>2017</td>
<td>57.9</td>
<td>44.9</td>
</tr>
<tr>
<td>2018</td>
<td>58.9</td>
<td>43.2</td>
</tr>
<tr>
<td>2019</td>
<td>48.9</td>
<td>40</td>
</tr>
<tr>
<td>2020</td>
<td>58.1</td>
<td>38.5</td>
</tr>
</tbody>
</table>
Figure 9: Diabetes age-adjusted death rate per 100,000 population, 2011-2020

Source: Vital Records Program, Colorado Department of Public Health and Environment

Figure 10: Alzheimer's age-adjusted death rate per 100,000 population, 2011-2020

Source: Vital Records Program, Colorado Department of Public Health and Environment
Figure 11: Stroke age-adjusted death rate per 100,000 population, 2011-2020

Figure 12: Influenza and pneumonia age-adjusted death rate per 100,000 population, 2011-2020

Source: Vital Records Program, Colorado Department of Public Health and Environment
Figure 13: Infant Mortality Rate (per 1,000 births), by Race/Ethnicity, 2018 - 2020

Source: Vital Records Program, Colorado Department of Public Health and Environment; State Demography Office

Figure 14: Percent Received Flu Shot in Past 12 Months, Adults Aged 65 and Older, 2018-2020*

*Note: Question wording changed from 2018 to 2019. In 2018, the question asked: “During the past 12 months, have you had either a flu shot or a flu vaccine that was sprayed in your nose? (A new flu shot came out in 2011 that injects vaccine into the skin with a very small needle. It is called Fluzone Intradermal vaccine. This is also considered a flu shot.)” In 2019 and 2020, the question was worded: “During the past 12 months, have you had either flu vaccine that was sprayed in your nose or flu shot injected into your arm?

Source: Colorado Department of Public Health and Environment, Behavioral Risk Factor Surveillance System
Figure 15: Percent of Residents that Have Ever Received the Pneumonia Vaccine, Adults Aged 65+ and Older, 2018-2020

Figure 16: Percent of Residents that Have Ever Received the Shingles or Zoster Vaccine, Adults Aged 65+ and Older, 2018-2020

Figure 17: Percent of Residents that Have Received the Tdap* Vaccine Since 2005, Adults Aged 65+ and Older, 2019-2020

*Tdap: Tdap vaccine (tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis) protects against: Whooping cough (pertussis), Tetanus, and Diphtheria

Source: Colorado Department of Public Health and Environment, Behavioral Risk Factor Surveillance System