The Status of Children in Boulder County summarizes child health and well-being in Boulder County over time and across developmental stages, providing critical information for community members and decision makers. The data is the most recent information available and focuses on county- and state-level information whenever possible. New sections have been added to address today's pressing issues, such as child care access, adolescent mental health, and juvenile justice. In addition, we have included analysis of equity and the impact of social, economic, and environmental factors on our children's health.

Equity is when everyone, regardless of who they are or where they come from, has the opportunity to thrive. This requires eliminating barriers to health, like poverty, and repairing injustices in systems, such as education, health, criminal justice, and transportation.\(^1\) Equity is different from equality, which calls for providing the same opportunities to all without consideration of barriers.

Health and well-being are determined by more than just health care. In fact, 80% of an individual's health is determined by who they are (e.g. genetics, behaviors, and preferences) and where they live; this includes where they work, learn, or play.\(^2\) These factors are called "social determinants of health," and they influence a person's opportunity to be healthy.

Social determinants include whether individuals and families have adequate and stable income and housing; opportunities for education; social and community support; access to quality health care services; and an environment that is safe and allows for physical activity. These conditions and opportunities are not the same for everyone and, subsequently, can result in avoidable and unjust differences in health outcomes (e.g. health inequities) between different groups of people. Bias and discrimination can further compound inequities. Unfortunately, there are many examples of inequities among children in both Boulder County and Colorado. This report focuses on inequities in economic security, education, and health.

To ensure that every child in Boulder County, regardless of who they are or where they live, has the support and resources they need to thrive it's imperative that these inequities are addressed. According to the National Equity Atlas, 2018, individuals and organizations can take action to support children and families by investing in affordable preschool education for all; creating training opportunities for low-wage workers to move into higher-paying jobs; increasing the minimum wage to a living wage; and removing barriers to hiring, such as credit checks and discrimination.
Boulder County Demographics

In 2017, 1 in 5 people in Boulder County (20%) were children under the age of 18 years; that’s a net 0.3% increase (169 children) since 2010 (Table 1). The total Boulder County population, however, has grown 9.5% (28,066 people) during the same period. The child and total populations grew slightly faster in Colorado (3.2% and 11.5% respectively) from 2010 to 2017 than in Boulder County.

The Boulder County child population is projected to decrease 3.3% to 60,836 children in the next decade. In contrast, the total Boulder County population is projected to increase by 11.4% to 359,453 over the same period (Colorado Department of Local Affairs, State Demography Office).

In 2016, most children in Boulder County lived in the cities of Longmont (22,704) and Boulder (13,674). Using five-year estimates, Lafayette (6,320), Louisville (4,780), and Superior (3,637) had the next largest populations of children.

### Boulder County’s child population is shifting in age

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2017</th>
<th>Change 2010-2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population</td>
<td>294,567</td>
<td>322,633</td>
<td>9.5%</td>
</tr>
<tr>
<td>All children younger than 18</td>
<td>62,754</td>
<td>62,923</td>
<td>0.3%</td>
</tr>
<tr>
<td>Children aged 0-5 years</td>
<td>20,089</td>
<td>17,687</td>
<td>-12.0%</td>
</tr>
<tr>
<td>Children aged 6-11 years</td>
<td>21,623</td>
<td>21,340</td>
<td>-1.3%</td>
</tr>
<tr>
<td>Children aged 12-17 years</td>
<td>21,042</td>
<td>23,896</td>
<td>13.6%</td>
</tr>
</tbody>
</table>

As of 2014, the U.S. population of children younger than five years was composed of mostly non-white individuals. Boulder County trends suggest a similar pattern, as the racial and ethnic demographics of the community continue to change.

In 2016, 63% of children in Boulder County were white, non-Hispanic; 22% were Hispanic; and 15% identified as “other” (Asian, African American, mixed race) (Figure 1). The number of Hispanic children in Boulder County has grown from 14,100 in 2010 to 14,936 in 2016, a 6% increase. During the same period, the proportion of black children in the community increased by 23%, and the proportion of Asian children increased by 11% (Figure 2).

The racial and ethnic demographics of Boulder County continue to change.
This section provides an overview of the economic and health circumstances impacting most or all children younger than 18 years, as a group. Poverty, inadequate health care, severe injury, and maltreatment during childhood can have lifelong, negative impacts on physical and emotional health.

**ECONOMIC WELL-BEING**

**Poverty and Self-Sufficiency**

The federal poverty level (FPL) is used to determine eligibility for a wide variety of social supports. In 2017, the 100% FPL was $24,600 for a family of 4. In Boulder County in 2017, 12% of children younger than 18 years of age – an estimated 7,489 children – lived below the poverty level; that was the same percentage (12%) of Colorado children who lived in poverty (Table 2).

As in other parts of the United States, wealth is not equally distributed among children and families living in Boulder County. Inequitable policies and barriers make it difficult for certain populations to acquire wealth, such as through property ownership.4

Hispanic and single, female-headed families with children are more likely to live in poverty in Boulder County. In 2016, Hispanic families with children were four times more likely to live in poverty than white, non-Hispanic families with children. Single, female-headed families with children were five times more likely to live in poverty than married couple families with children (Figure 3).

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**Table 2. Children in poverty, Boulder County and Colorado, 2017. Source U.S. Census Bureau, American Community Survey**

<table>
<thead>
<tr>
<th></th>
<th>Boulder County</th>
<th>Colorado</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population in poverty, all ages</td>
<td>13%</td>
<td>10%</td>
</tr>
<tr>
<td>Children younger than 18 years in poverty</td>
<td>12%</td>
<td>12%</td>
</tr>
<tr>
<td>Children aged 5-17 years in poverty</td>
<td>11%</td>
<td>12%</td>
</tr>
<tr>
<td>Children younger than 5 years in poverty</td>
<td>16%</td>
<td>13%</td>
</tr>
</tbody>
</table>

**Figure 3. Poverty by ethnicity and household composition, Boulder County, 2016. Source: U.S. Census Bureau, American Community Survey**
Economic resources, or the lack thereof, impact a child’s access to educational opportunities and health. In 2017, nearly 1 in 3 Boulder County children (13,816) lived in or near poverty (i.e. had a family income less than 200% of the federal poverty level for a family of 4, or $49,200). Further, 8% of Boulder County children lived in extreme poverty (i.e. had a family income less than 50% of the federal poverty level for a family of 4, or $12,300) (Figure 4).

According to the Self-Sufficiency Standard for Colorado 2018, a Boulder County family of 2 adults, an infant, and a preschooler needed $92,542 to meet basic needs; that’s more than 3 times the FPL for a family of 4 and is one of the highest rates in the entire state. Overall, 27.3% of households in Boulder County (26,152) are living below the Self-Sufficiency Standard. The Self-Sufficiency Standard in Boulder County has continued to rise over the past two decades. For instance, the standard for a family of 1 adult, 1 preschooler, and 1 school-age child has increased 75% from $45,097 in 2001 to $78,926 in 2018.

Safety Net Benefits

Safety-net benefits have helped to prevent many families in Boulder County from falling more deeply into poverty. While the percentage of children living in extreme poverty between 2012 and 2017 increased by 87%, the percentage of children receiving TANF (Temporary Assistance for Needy Families) decreased by 7% during the same period. Further, recipients of SNAP (Supplemental Nutrition Assistance Program or “food stamps”) decreased by 21%, and participants of WIC (Special Supplemental Nutrition Program for Women, Infants, and Children) decreased by 34% (Figure 5). The decline in residents using safety...
net benefits over the past five years may be due to fear of the government, fear of safety due to immigration status, or the potential stigma of living in poverty.5

**Housing**

Studies show that homelessness and housing instability influences every facet of an individual’s life and can negatively affect their physical and mental health.6 This is especially true for children, since their brains and bodies are still developing.

Like many other places in the U.S., affordable housing is inaccessible to some families in Boulder County, often leaving them experiencing homelessness. During the 2016-17 school year, services through the federal McKinney-Vento Homeless Education Assistance Act were provided to 1.7% (1,095) of students enrolled in Boulder Valley School District (BVSD) and St. Vrain Valley School District (SVVSD) (Table 3). Most of these students reported staying with friends or relatives or in shelters or transitional housing (Figure 6). In Boulder County, 14% of BVSD and 9.5% of SVVSD students who were receiving McKinney-Vento assistance lived on their own, unaccompanied (Colorado Department of Education).

<table>
<thead>
<tr>
<th>More than 1,000 students experiencing homelessness received McKinney-Vento Homeless Education support</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
</tr>
<tr>
<td>Students served in 2016-17 school year</td>
</tr>
<tr>
<td>Percentage of all students</td>
</tr>
</tbody>
</table>

**Table 3**. Students served in the McKinney-Vento Homeless Education Assistance Program, BVSD (*Boulder Valley School District) and SVVSD (*St. Vrain Valley School District), 2016/17 school year. Source: Colorado Department of Education

**Figure 6**. Living situation of students receiving assistance from the McKinney-Vento Homeless Education Assistance Program, BVSD and SVVSD, 2016/17 school year. Source: Colorado Department of Education
The following section details Boulder County children’s access to health and dental care and provides a snapshot of their health.

ACCESS TO CARE

Estimates in the 2017 U.S. Census indicate that 99% of children living in Boulder County had health insurance, which is similar to the 98% rate of insurance coverage across Colorado. State-administered programs like Medicaid and CHIP (Child’s Health Insurance Program) are crucial for ensuring that all children have access to health care. In 2016-17, 16% of children between 1-14 years in Boulder County had Medicaid as their health insurance provider, and about the same number (15%) were covered by the CHIP (Figure 7).

Having a primary doctor and dentist ensures that children get the important prevention care they need. In 2016-17, more than 90% of children in Boulder County had a primary care provider. Further, more than 87% of children in the county received regular medical and dental care when they needed it.

The American Academy of Pediatric Dentistry, American Dental Association, and American Academy of Pediatrics recommend that children visit a dentist by their first birthday. However, in 2016-17, only 30% of Colorado children aged 1 to 14 years had visited the dentist by age 1; about 58% had visited a dentist by age 2. More than 40% of Colorado children aged 1 to 14 years had yet to see a dentist (Figure 8).

Figure 7. Health access indicators for children aged 1-14 years, Boulder County and Colorado, combined 2016-2017. Source: Colorado Department of Public Health and Environment, Maternal and Child Health Surveillance Unit, Child Health Survey

Figure 8. Dentist visits by age, Colorado, 2016-2017. Source: Colorado Department of Public Health and Environment (CDPHE), Maternal and Child Health Surveillance Unit, Child Health Survey 2016-2017
Mental Health

Mental health is an essential part of overall health since the mind and body are interconnected. Many Boulder County parents are concerned about the mental and behavioral health of their children.

Based on parent reports of their children’s mental health in 2016-17, 1 in 8 parents (13%) reported their children, ages 2-14 years, had difficulties with emotions, concentration, behavior, or getting along with others (Figure 9).

Currently, there are limited measures in the county to assess mental health in the pre-adolescent population. The measure only captures the number of parents that observed such challenges in their children, versus the number of children that experienced such.

Additional mental health indicators are discussed in subsequent sections of this report.

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Figure 9. Mental health and emotional and behavioral difficulties among children aged 1-14 years, Boulder County and Colorado, combined 2016-2017. Source: Colorado Department of Public Health and Environment, Maternal and Child Health Surveillance Unit, Child Health Survey.
**Injury and Mortality**

In 2016 and 2017, the rates of hospitalization for injuries among children aged birth to 14 years were 67 and 83 per 100,000, respectively. Rates prior to 2016 cannot be compared since the ICD-10-CM (International Classification of Diseases, Tenth Revision, Clinical Modification) coding structure introduced in 2016 provides a broader range of hospital codes.

Between 2005-2015, mortality rates for children ages 1-14 years varied between 8-14 deaths per 100,000. In 2015, the mortality rate for Boulder County was 12 per 100,000 (i.e. 6 deaths). The Colorado mortality rate in 2015 for children of the same age was 15 per 100,000. Boulder County mortality rates have been lower than Colorado rates almost every year since 1990.

**Maltreatment, Abuse, and Neglect**

Adverse childhood experiences, such as maltreatment, abuse, neglect, or home displacement, can increase a child's risk for chronic disease later in life.

Child maltreatment, abuse, and neglect have decreased significantly over the past 10 years in Boulder County. In Federal Fiscal Year 2017-18, the rate of maltreatment of children younger than 18 years was 3.8 per 1,000 children (243 children), which is lower than the 2017-18 Colorado rate of 10.5 per 1,000 children and the Healthy People 2020 target of 8.5 per 1,000 children (Figure 10). Rates of child maltreatment in Boulder County have decreased by 62% over the last decade, from 10.0 per 1,000 (634 children) in 2007-08.

![Figure 10. Rate of unique substantiated child maltreatment cases, Boulder County and Colorado, 2006-2017. Source: Boulder County Housing and Human Services](image-url)
Of the 243 substantiated cases* of child abuse and neglect in Boulder County in 2017-18, 53% were in households in Longmont; 20% were in Boulder; and 14% were in Erie, Lafayette, or Louisville (Figure 11).

* A case may involve more than one child.

In 2017, the Safehouse Progressive Alliance for Nonviolence (SPAN) shelter in Boulder served 92 children, 41% of whom were 4 years old or younger. Of the 277 adults served by the SPAN shelter over the year, 21% were accompanied by children younger than 18 years. In 2017, the Safe Shelter of St. Vrain Valley in Longmont served 121 children, 19% of whom were 4 years or younger. In 2017, the Safe Shelter served 51% more children than in 2016. In addition, the shelter served 1,939 adults (including phone calls for crisis and legal support), 36% of whom were adults with children younger than 18 years.

Children can be placed out of their homes in response to abuse, neglect, serious emotional problems, conflict with parents, or juvenile delinquency. While rates of out-of-home placements among Boulder County children younger than 18 years decreased in the early 2000s, rates have increased again, from 3.4 per 1,000 children since 2013-14 to 4.7 per 1,000 children (298 children) in 2017-18.

The statewide rate of out-of-home placements has remained steady at 8.4 per 1,000 children, after nearly a decade of decline (Figure 12). The Boulder County rate has stayed below the statewide rate since 1991-92.
Early childhood includes the prenatal, birth, infant, toddler, and preschool life stages up to five years of age. Research shows that substantial and rapid brain development occurs in early childhood. This development can be impacted by nutrition, educational opportunities, poverty, family stability, and more. Children with a healthy early childhood are more likely to graduate from high school and have other positive outcomes, such as economic prosperity and good health throughout their lives.

HEALTH

Births

Births and birth rates in Boulder County and in Colorado continue to decline (Table 4). In 2017, there were 2,616 live births in Boulder County, which represents a birth rate of 38.6 births per 1,000 women aged 15 to 44.

Teen Births

Having a child as a teenager can have lifetime impacts on both mother and child. For example, teenage mothers are at higher risk for dropping out of school. Between 2010 and 2017, the birth rate among Boulder County women aged 15-17 years decreased by 68%, from 12.3 to 3.9 births per 1,000 women. During the same period, the birth rate among Boulder County women aged 18-19 years decreased by 62%, from 17.4 to 6.6 births per 1,000 women (61 births). Colorado’s birth rate between 2010-2017 also decreased by 42%, from 16.5 to 9.5 births per 1,000 women among women aged 15-17 years, and it decreased 50% from 56.2 to 28.4 births per 1,000 women among women aged 18-19 years.

### Table 4. Comparison of births and birth rate, Boulder County and Colorado, 2010 and 2017. Source: Colorado Department of Public Health and Environment

<table>
<thead>
<tr>
<th></th>
<th>Boulder County</th>
<th>Colorado</th>
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<tbody>
<tr>
<td>Total live births, 2017</td>
<td>2,616</td>
<td>64,387</td>
</tr>
<tr>
<td>Birth rate per 1000 women, 2017</td>
<td>38.6</td>
<td>56.0</td>
</tr>
<tr>
<td>Total live births, 2010</td>
<td>3,043</td>
<td>66,346</td>
</tr>
<tr>
<td>Birth rate per 1000 women, 2010</td>
<td>52.5</td>
<td>66.6</td>
</tr>
<tr>
<td>Change in birth rate, 2010-2017</td>
<td>-32%</td>
<td>-17%</td>
</tr>
</tbody>
</table>

Figure 13. Live births to women aged 15-17 years by city, Boulder County, 2017. Source: Colorado Department of Public Health and Environment, Colorado Health and Environment Data
Of younger teen mothers (15-17 years) in the county, 83% were in Longmont; 13% in Boulder; and the remaining (4%) were in Louisville/Superior, Lafayette, or elsewhere in the county (Figure 13). More than two-thirds of the births in this age group (78%) were to Hispanic women.

Teen birth rates in Boulder County were higher among Hispanic women aged 15-19 years than among white, non-Hispanic women (Figure 14). This trend is similar to national trends, with 31.9 per 1,000 Hispanic teen women in the U.S. experiencing a teen pregnancy in 2016 compared to 14.1 per 1,000 white teen women. Studies attribute higher teen birth rates among Hispanic teen women to poor access to family planning centers, limited financial resources for contraceptives, and limited insurance coverage.

Programs like Medicaid and Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provide financial and social support for financially vulnerable parents. Of all live births in Boulder County in 2017, 30% were paid for by Medicaid, and 22% were among women enrolled in WIC. Rates of participation in both programs were significantly higher among mothers aged 15-17 years (Figure 15).

While the percentage of live births paid for by Medicaid has remained relatively stable, the percentage of live births to women enrolled in WIC declined between 2010-2017 in Boulder County (28% to 22%) and in Colorado (34% to 29%).
Prenatal Care

Timing and frequency of prenatal care are important predictors of newborn and infant health. Two measures used to evaluate prenatal care are whether the mother received late or no prenatal care and the Adequacy of Prenatal Care Utilization Index; a lower value is desirable for both.

The Adequacy of Prenatal Care Utilization Index is a combined measure of the timing of the start of prenatal care and the number of prenatal visits compared to the recommended number of visits. In 2017, 9% of Boulder County women who had live births received inadequate prenatal care, and 16% either received late care or no care at all. These measures were lower than the state prevalence of 13% and 18%, respectively. The prevalence of inadequate, late, or no prenatal care among younger Boulder County women continues to be consistently higher than the prevalence among women of all ages. Among women aged 15-17 years, 26% received inadequate prenatal care (Figure 16); among women aged 10-17 years, 39% received late or no prenatal care.

Hispanic women have consistently higher rates of late or no prenatal care, as compared to white, non-Hispanic women (Figure 17). While there are many reasons why someone might receive late or no prenatal care, Hispanic women are more likely to experience discrimination in the medical setting, less likely to have access to adequate care, and are therefore less likely to receive proper care.10

Figure 16. Women with live births receiving late or no prenatal care or inadequate prenatal care, women of all ages and women aged 15-17, Boulder County, 2017. Source: Colorado Department of Public Health and Environment, Colorado Health and Environment Data

Figure 17. Live births with late or no prenatal care by race/ethnicity, Boulder County, 2005-2017. Source: Colorado Department of Public Health and Environment
Healthy Pregnancy

Substance use during pregnancy puts both the mother and child at risk for health problems. In particular, smoking is harmful to infants because it lowers the amount of oxygen they receive, increases their heart rate, and increases the likelihood of premature birth or stillbirth. In 2016-2017, 3% of Boulder County women who had a live birth reported smoking during pregnancy. While the prevalence of smoking during pregnancy among women in Boulder County has been consistently lower than the prevalence in Colorado (6% in 2016-2017), it remains higher than the Healthy People 2020 goal of 1.4% for women of all ages (Figure 18).

Babies born at a weight lower than 2,500 grams (i.e. 5 pounds, 8 ounces) are considered low birthweight and are at risk for poor short- and long-term health outcomes, such as respiratory, neurologic, and gastrointestinal problems. From 2010-2017, low birthweight births to women in Boulder County remained stable at 8%, which is close to the Healthy People 2020 goal of 7.8%.

Infancy

In 2017, the mortality rate for infants from birth to 1 year in Boulder County was 3.0 deaths per 1,000 live births (8 deaths). The Boulder County rate is lower than the Colorado rate of 4.4 deaths per 1,000 live births and the Healthy People 2020 target rate of 6.0 deaths per 1,000 live births.
Early Childhood

Childhood obesity can profoundly affect a child’s physical health and social and emotional well-being. It is also associated with early development of chronic diseases, such as type 2 diabetes and a lower quality of life.

The only available indicator of overweight and obesity in young children is for children participating in WIC. This population is at higher risk of experiencing overweight or obesity since people living in low-income neighborhoods are less likely to have access to full-service grocery stores, exercise facilities, or parks that help to prevent obesity. In 2017, nearly 22% of the children between 2-4 years of age enrolled in WIC in Boulder County were experiencing either overweight (14%) or obesity (8%) (Figure 19). This percentage meets the Healthy People 2020 target obesity rate of 9.6% or less for that age group.

CHILD CARE

In 2016, 62% of children younger than 6 years living in Boulder County (11,504 children) lived in families in which all parents were in the labor force. Combined with a growing emphasis on school readiness for young children, this means that quality, affordable child care is an essential need for Boulder County families.
While most child care centers in Colorado are required to be licensed to ensure that safety precautions and practices are in place, licensing does not consider quality. Colorado Shines, however, monitors, evaluates, and supports the quality of early learning programs. The Colorado Shines Program includes five levels and multiple alternative pathways. Level 1 sites are licensed but not rated, Level 2 sites have taken steps towards quality, Levels 3 and 4 sites have been rated by Colorado Shines or accredited through an alternative pathway, and Level 5 sites have been rated by Colorado Shines. The majority of child care homes (62%) and a portion of child care centers and preschools (37%) in Boulder County have taken none or only some steps towards improving quality or achieving accreditation; they remain at Level 1 (Figure 20).

In June 2018, there were 230 child care sites licensed in Boulder County; 154 centers and preschools and 76 family child care homes (not including school-age facilities). Since 2016, the total number of licensed child care providers in Boulder County has decreased 11% from 258 to 230. Between 2016-2018, the number of family child care homes decreased 25% from 101 to 76, while the number of centers and preschools decreased 2% from 157 to 154 (Figure 21).
Child Care Costs

The high cost of child care continues to be a concern across the country. While information about the cost of child care in Boulder County is unavailable, Colorado data indicate that the average annual cost of child care for 1 child exceeded $10,000 in 2017. Child care was more expensive for younger children (e.g. infants) or when provided in a child care center as opposed to care provided in a home (Table 5).

Daily costs, in addition to annual costs, continue to increase. In 2017-2018, the average daily cost for early child care (ages 0-1.5 years) provided in a center was $69.00 and $46.15 when provided in a home (ages 0-2 years). This represents a 4% and 13% increase in cost, respectively, since 2015.

Many families in Boulder County are unable to afford licensed child care without financial assistance. The Colorado Child Care Assistance Program (CCAP) provides a subsidy to licensed providers that care for children in families with low incomes. In Boulder County, the income threshold is 185% of the federal poverty level, or $45,510 per year for a family of 4.

In the second quarter of 2017, 184 licensed providers in Boulder County had CCAP contracts, and 122 of those were also quality-rated. In June 2017, a waitlist was started to stabilize CCAP expenditure and enrollment growth. As of December 2017, the waitlist had grown to nearly 500 children.

| Annual child care cost per age and setting, Colorado, 2018. Source: Child Care Aware of America; State Child Care Facts in the State of: Colorado. |
|---|---|---|
| Infant | Toddler | 4-Year-Old |
| Child care center | $14,960 | $13,874 | $12,095 |
| Family child care home | $10,522 | $10,522 | $9,953 |
Using the 2017 Colorado rate, the cost of center-based care for an infant and 4-year-old in Boulder County in 2017 was about 25% of the income for a family of 4 living at the median 2017 income, 29% at the 2018 self-sufficiency level, and 59% at CCAP income qualification levels (185% FPL, not adjusting for CCAP reductions to cost) (Figure 22). While county-level market rate data is not currently available for 2017, child care in Boulder County likely costs even more than this, as Boulder County rates were higher than state rates in 2014.

**Child Care Workforce**

The child care professional plays an essential role in the growth and development of young children while their parents work. However, due to low teacher salaries and limited benefits, child care workers do not tend to stay in child care jobs long. The annual turnover rate for child care workers ranges between 13% to 38% across the Denver Metropolitan Area.

In nearly all Colorado counties, including Boulder County, child care teachers earn less than what is needed to be self-sufficient, leading to high staff turnover and, ultimately, a negative impact on the children in their care. In 2017, the average hourly wage for a child care worker in Colorado was just above the federal poverty level for a family of four ($11.83 per hour) and below the Boulder County self-sufficiency standard for a family of four ($21.91 per hour) (Figure 23). Consequently, many child care workers must work multiple jobs and depend on public subsidies to meet their needs. This costs Colorado taxpayers an estimated $20 million annually. In 2017, 27% of Denver-Metro early childhood teachers received public subsidies, and 24% had a second job.
School Age: 6 – 12 Years Old

Children aged 6 to 12 years are considered to be school-age because most are learning in an elementary school setting by age 6 years and are considered to be adolescents, or teens, at age 13 years. Developmental stages at this age include physical growth, such as refining motor and perceptual skills; cognitive development, including logical thought and social skills like understanding social rules and roles; and emotional growth, including self-esteem and expressing emotions. A child’s ability to reach these developmental milestones is impacted by them being able to live in a home with stable resources and access to health care and education.

ECONOMIC WELL-BEING

A family’s economic situation can impact many aspects of a child’s life, including regular access to nutritious foods. Because poor nutrition can negatively affect brain development, programs like free and reduced-price lunch are important for the health and development of children living in poverty. To be eligible for free lunch, a family of 4 must earn $31,980 or less (i.e. 130% of the federal poverty level). To qualify for reduced-price lunch, a family of 4 must earn $45,510 or less (i.e. 185% of federal poverty level). In 2017, 16% of students in the BVSD and 24% of students in SVVSD qualified for free lunch; 19% and 30%, respectively, qualified for reduced-price lunch (Figure 24). While free and reduced-price lunch programs provide nutritious food during school hours, other social supports are needed to ensure that families have healthy food outside of school hours.

Figure 24. Students eligible for free or reduced lunch program, BVSD and SVVSD, 2010-2017. Source: Colorado Department of Education
HEALTH

Obesity

Childhood obesity has both short- and long-term effects on a child’s physical, social, and emotional health. Childhood obesity is highly predictive of adulthood obesity; children who experience obesity are five times more likely to experience obesity in adulthood than those who don’t experience obesity. In addition, experiencing obesity during childhood can increase the risk of chronic disease and social isolation. Based on parent reports of their child’s height and weight in 2016-17, nearly 1 in 4 children aged 5-14 years in both Boulder County and Colorado were experiencing overweight or obesity (Figure 25).

A child’s weight is determined by many factors, including genetics, metabolism, exercise, and diet. According to parents of children ages 5-14 years in Boulder County, only 11% eat the recommended amount of fruits/vegetables each day; 36% of children entirely avoid sugar-sweetened beverages each day; and just 52% of children get enough physical activity each day (at least 60 minutes).

Secondhand Smoke Exposure

A child’s lungs and body are still growing when they are school-aged. Secondhand smoke puts children at risk for serious illnesses, such as bronchitis and pneumonia. Even just a few breaths of smoke can trigger an asthma attack. Children can be exposed to secondhand smoke in any setting, but that’s especially true at home and in the car. Nearly 12% of Boulder County children and 15% of Colorado children live in a household with a person who smokes (Figure 26).
Vaccination

Childhood vaccination in the U.S. and worldwide has protected millions of children from life-threatening diseases.

In Boulder County during the 2017-18 school year, only 84% of BVSD and 80% of SVVSD kindergarten students, on average, were up-to-date on their vaccinations for diphtheria, tetanus, and pertussis (DTaP); measles, mumps, and rubella (MMR); or chickenpox (varicella), respectively (Figure 27).

Further, just 90% of BVSD and 91% of SVVSD K-12 students were up-to-date on DTaP, MMR, or varicella vaccinations, respectively. A community needs to have a vaccination rate of at least 95% to have herd immunity (i.e. enough people vaccinated to protect those that cannot be vaccinated).

By Colorado law, parents may exempt their child from vaccination for medical, religious, or personal belief reasons. In Boulder County in the 2017-18 school year, the vaccine for varicella was the most often exempted vaccine for both BVSD (8%) and SVVSD (6%) kindergarteners, as well as for K-12 students (5% in both BVSD and SVVSD).

Figure 27. Kindergarten students vaccination rates, BVSD and SVVSD, 2017/18 school year. Source: Boulder Valley School District; St. Vrain Valley School District

Many Boulder County children are not fully vaccinated

<table>
<thead>
<tr>
<th>Vaccination</th>
<th>BVSD</th>
<th>SVVSD</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTaP</td>
<td>86%</td>
<td>84%</td>
</tr>
<tr>
<td>MMR</td>
<td>83%</td>
<td>79%</td>
</tr>
<tr>
<td>Varicella</td>
<td>82%</td>
<td>79%</td>
</tr>
</tbody>
</table>

Herd immunity
Student academic performance is associated with physical, emotional, and behavioral well-being.

**Full-day Kindergarten**

Quality full-day kindergarten helps children build on early skills and prepares them for later years of school. Colorado currently only provides funding for half-day kindergarten; school districts must pay for and/or charge tuition for full-day kindergarten.

Between 2011-2017 in BVSD, SVVSD, and across the state, the percentage of students attending full-day public kindergarten increased. The rate in BVSD (32%) remained far below the rate in SVVSD (74%) and the state (78%) (Figure 28).

**Reading Preparation**

In 2014, Colorado began implementing the national assessment system called the Colorado Measures of Academic Success (CMAS) tests. In the 2016-17 school year, more 4th graders scored at or above proficiency on the CMAS reading test in BVSD (63%) and SVVSD (53%) than statewide (44%).

Between 2015-2017, the percentage of students who met or exceeded expectations in reading increased in BVSD (3%), SVVSD (8%), and Colorado (2%) (Figure 29).
Educational attainment impacts health because it is linked to opportunities for employment, as well as other economic and social resources later in life. However, economic insecurity can be a significant barrier to academic success, particularly for students experiencing hunger, home insecurity, and limited access to enrichment activities. In the 2016-17 school year, BVSD, SVVSD, and Colorado fourth grade students receiving free or reduced-price lunch were less likely to read proficiently than students not receiving free or reduced lunch (Figure 30).

Language Preparation

Boulder County is home to a rich number of languages and cultures. However, linguistic isolation, defined by the U.S. Census Bureau as speaking English less than “very well” among people who speak a language other than English at home, can create challenges for children at school. In 2016, 16% of children 5-17 years old in Boulder County spoke English less than “very well.” Linguistic isolation is more common among children who speak an Asian or Pacific Island language, with 24% of children 5-17 years old within that population speaking English less than “very well.”

Students who have been identified as English Language Learners (ELL) are considered not fully proficient in English reading, oral skills, and/or writing, as determined by standardized testing. In 2016, 10% of all BVSD students and 20% of all SWVSD students were ELL. In 2017, the percentage of ELL students at SVVSD decreased to 14%, while the percentage in BVSD remained at 10% (Figure 31).
Adolescence is a time of asserting independence and managing the challenges that come along with independence. One indicator of adolescent well-being is hospitalization due to injuries. Injuries can include unintentional injuries, such as motor vehicle collisions, or intentional injuries, such as self-harm or suicide attempts.

Although adolescence (ages 13-18 years for purposes of this report) is generally a healthy time of life, several important health and social issues (e.g. substance use, self-harm, and unplanned pregnancy) may occur during these years. During this stage of developmental transition, adolescents are also sensitive to environmental influences, including family, peers, school, community, policies, and societal cues, which can support or challenge their well-being. Promoting the positive development of young people facilitates their adoption of healthy behaviors and helps to ensure that they grow up to be healthy and productive adults.

**HEALTH**

**Injury**

Adolescence is a time of asserting independence and managing the challenges that come along with independence. One indicator of adolescent well-being is hospitalization due to injuries. Injuries can include unintentional injuries, such as motor vehicle collisions, or intentional injuries, such as self-harm or suicide attempts.

Since 2000, the rates of hospitalization* for injuries among youth aged 15-19 years in Boulder County have consistently been lower than state rates. In Boulder County between 2016 and 2017, there was a 7% decrease in the rate of hospitalizations from 211 to 196 injuries per 100,000 among this age group (Figure 32).

*2016 and 2017 hospitalization data are coded using new ICD-10-CM coding structure. Rates are not comparable to previous years. Treat 2016 as the new baseline.

**Figure 32.** Rate of all hospitalizations for injuries per 100,000 population, ages 15-19 years, Boulder County and Colorado, 2000-2017. Source: Colorado Department of Public Health and Environment. *2016 and 2017 hospitalization data are coded using new ICD-10-CM coding structure. Rates are not comparable to previous years. Treat 2016 as the new baseline.
Between 2016 and 2017, the rate of hospitalization* of young people in Boulder County due to motor vehicle injuries increased by 57% from 20 to 32 injuries per 100,000 youth, while the rate of hospitalization for suicide attempt or intentional self-harm decreased by 19% from 89 to 72 injuries per 100,000 youth (Figure 33).

In Boulder County between 2015 and 2017, more than twice as many adolescents were hospitalized for suicide attempts and self-harm than for motor vehicle injuries.

*Rates are not necessarily comparable to previous years due to the change to diagnostic codes in October 2015.

Hospitalization due to motor vehicle injuries on the rise.

Mortality

While teen deaths are uncommon in Boulder County, any death can be devastating. Between 2015 and 2017, the average mortality rates for Boulder County teens aged 15-19 years was 32 deaths per 100,000, with the highest rate occurring in 2016 with 53 deaths per 100,000 (13 deaths). The lowest rate was in 2017 with 16 deaths per 100,000 (4 deaths) (Figure 34).

Boulder County teen mortality rates have met the Healthy People 2020 target of 55.7 per 100,000 every year since 2010.
Adolescence: 13-18 Years Old

Substance Use: 7th and 8th Grade

Substance use among youth is a concern in Boulder County. Among BVSD 7th and 8th grade students, it is more common to have ever tried alcohol (17%) or an electronic vapor product (14%) (e.g. a JUUL, which may contain nicotine) than to have ever tried marijuana (5%) (Figure 35).

Although marijuana was legalized in November 2012, the percentage of BVSD 7th and 8th grade students reporting having ever used marijuana has not significantly changed since 2013.

Access to substances and the perception of their harm plays an important role in whether young people will choose to use them. In 2017, nearly 1 in 2 BVSD 7th and 8th grade students (44%) reported that they believed alcohol was easy to obtain (Figure 36).

Compared to tobacco, fewer students reported believing that regular marijuana use was harmful (75%) compared to heavy tobacco use (1+ pack a day) (93%) and drinking 1 or 2 drinks of alcohol nearly every day (79%) (Figure 37).

NOTE: Substance use and mental health data included in this report came from the Healthy Kids Colorado Survey (HKCS). For Boulder County, the 2017 HKCS data only represents BVSD students in grades 7 - 12. Because of the small 7th and 8th grade sample size and differences in methodology between the middle school and high school HKCS, 7th and 8th grade school results should not be compared to high school results.
Mental Health: 7th and 8th Grade

Bullying can cause serious harm to an adolescent’s mental health and well-being. Among BVSD 7th and 8th grade students in 2017, 22% reported that they had been electronically bullied, and 45% reported they had been bullied on school property.

Youth are particularly vulnerable to being bullied if they identify with a marginalized identity. Among BVSD 7th and 8th grade students, 17% reported being bullied because of their perceived sexual orientation (Figure 38).

In 2017, nearly one in four BVSD 7th and 8th grade students (23%) reported feeling so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some of their usual activities. About one in six (17%) reported they had seriously thought about suicide, and 5% reported they had attempted suicide (Figure 39).

Substance Use: 9th - 12th Grade

Among BVSD 9th to 12th grade students, the rate of having ever used alcohol (62%) was the highest among all substances, followed by electronic vapor products (46%), and marijuana (36%). Rates of having ever smoked cigarettes (16%) or taking prescription drugs without a prescription (13%) were significantly lower (Figure 40).

Use in the 30 days prior to the survey (e.g. current use) was also the highest among high school students for alcohol (35%), electronic vapor products (33%), and marijuana (22%). A smaller percentage of students reported smoking cigarettes (8%) or using prescription drugs without a prescription (5%) in the previous 30 days.
Adolescence: 13-18 Years Old

In 2017-18, there was an increase in the percentage of youth who reported using electronic vapor (or vaping) products in Boulder County, Colorado, and across the country. The majority of vaping products contain nicotine. In 2017, nearly one in two BVSD 9th to 12th grade students (46%) reported ever using an electronic vapor product, and 1 in 3 students (33%) reported currently using them.

In 2017, one in seven BVSD 9th to 12th grade students (13%) reported they had ever taken a prescription drug, such as OxyContin, Percocet, Vicodin, codeine, Adderall, Ritalin, or Xanax, without a doctor’s prescription. Five percent reported they had used prescription drugs without a prescription in the 30 days prior to the survey, compared to 8% in 2015.

Overall, BVSD high school students more often reported inappropriate prescription medication use than ever using cocaine (6%), ecstasy (5%), or meth (2%).

BVSD 9th to 12th grade high school students reported that it would be easy or very easy to get these substances (Figure 41). In fact, nearly two-thirds felt it would be “sort of” easy or very easy to get alcohol, cigarettes, marijuana, and electronic vapor products, while more than one-quarter said the same about prescription drugs.
A majority of students (88%) reported that they believed heavily smoking cigarettes was risky. That risk perception was followed by daily alcohol use (73%), regular marijuana use (52%), and daily electronic vapor product use (51%) (Figure 42).

While easy access to substances and a low perception of the risk they pose can increase the likelihood that students will use substances, having a trusted adult to talk to can reduce the likelihood.

**Marijuana and electronic vapor products perceived as less risky**

<table>
<thead>
<tr>
<th>Substances</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drink 1 or 2 drinks of alcohol nearly every day</td>
<td>73%</td>
</tr>
<tr>
<td>Smoke 1+ packs of cigarettes/day</td>
<td>88%</td>
</tr>
<tr>
<td>Use marijuana regularly</td>
<td>52%</td>
</tr>
<tr>
<td>Use electronic vapor products every day</td>
<td>51%</td>
</tr>
</tbody>
</table>

**Figure 42.** Perception of risk of regular substance use among high school students, BVSD, 2017. Source: 2017 Boulder County Healthy Kids Colorado Survey

Most high school students believe smoking cigarettes is risky.

**Mental Health: 9th to 12th Grade**

Like younger students, older students also reported struggling with their mental health. Among BVSD 9th to 12th grade students, 19% reported being bullied on school property, and 14% reported being electronically bullied during the past 12 months (Figure 43).

**Nearly 1 in 5 high school students reported being bullied on school property**

<table>
<thead>
<tr>
<th>Bullying Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Been bullied on school property during the past 12 months</td>
<td>19%</td>
</tr>
<tr>
<td>Been electronically bullied during the past 12 months</td>
<td>14%</td>
</tr>
</tbody>
</table>

**Figure 43.** Bullying among high school students, BVSD, 2017. Source: 2017 Boulder County Healthy Kids Colorado Survey
Adolescence: 13-18 Years Old

Of 9th to 12th grade students, more than 1 in 4 reported they felt so sad or hopeless (27%) almost every day for 2 weeks or more in a row that they stopped doing some of their usual activities, and 16% reported they purposefully hurt themselves (e.g. cutting or burning) without wanting to die.

In addition, 15% of 9th to 12th grade students reported they had considered attempting suicide during the year prior to the survey, with 12% reporting they had made a plan about how they would attempt suicide, and 6% had attempted suicide (Figure 44).

Lesbian, gay, bisexual (LGB) and questioning students, in particular, were more likely to report feeling sad and hopeless, creating a suicide plan, seriously considering attempting suicide, and attempting suicide, as compared to students identifying as heterosexual (Figures 45).

LGB and questioning students were also less likely to feel safe at school (81% vs. 94%) and more likely to experience bullying on school property (31% vs. 17%) or electronically (22% vs. 13%), likely contributing to the sense of hopelessness among students. These differences highlight the stress experienced by marginalized groups and its influence on mental health.
Adolescence: 13-18 Years Old

While many teens are struggling with their mental health, nearly 3 out of 4 BVSD 9th to 12th grade students (74%) reported they had an adult to go to for help with a serious problem. Among BVSD 9th to 12th grade students, 88% reported they could ask a parent or guardian for help with a personal problem. Those who could were less likely to experience sadness, hopelessness, or suicidality (Figure 46).

It’s important to note that because the questions were asked at only one time point, the direction of this relationship cannot be determined. For instance, perhaps students are less likely to speak with parents if they are feeling isolated, or perhaps having a parent to talk to prevents suicidality. Regardless, having good relationships with trusted adults can be an important factor that influences youth mental health and substance use.

Figure 46. Mental health and suicide by ability to speak with parent/guardian among high school students, BVSD, 2017. Source: 2017 Boulder County Healthy Kids Colorado Survey. *In the past year

Having a good relationship with a trusted adult can influence mental health.
Adolescence: 13-18 Years Old

EDUCATION

Test Scores

In the current college system, SAT (Scholastic Assessment Test) scores play a major role in the opportunities to pursue higher education. The SAT is comprised of two parts – the Evidence-Based Reading and Writing (EBRW) section and the Math section, both of which are scored between 200 and 800 points. The sum of these two scores makes up the composite score between 400 and 1,600 points.

In 2017, students in Boulder County schools had a higher average SAT score in math than their peers did across Colorado: 564.9 in BVSD, 502.2 in SVVSD, and 500.9 statewide.

Theoretically, each student has an equal chance at the SAT because it is offered in both school districts to all students, free of charge, during regular school time. However, not all students have equal educational opportunities. Financial insecurity and cultural, linguistic, and structural barriers throughout life can impact student education and subsequent options for higher education later in life.

For instance, migrant students in Colorado, on average, scored 189 points lower than non-migrant students. Students in Colorado are considered migrant students if they moved to join a parent or guardian seeking temporary or seasonal employment in the state. Students receiving free or reduced lunch, on average, scored 152 points lower than non-eligible students. And Hispanic students, on average, scored 155 points lower than white students (Figure 47).
Graduation Rates

Between 2010 and 2017, 4-year high school graduation rates increased in both SVVSD (77% to 84%) and BVSD (85% to 91%). The Healthy People 2020 target 4-year graduation rate is 82.4%; both BVSD and SVVSD met this goal in 2016.

However, like SAT scores, structural, systemic, and cultural barriers (e.g. limited resources or language differences) can impact graduation rates. While on-time graduation rates rose substantially for Hispanic students between 2010 and 2017 (by 39% in BVSD and 31% in SVVSD), for the past 7 years, Hispanic students in both school districts have been less likely to graduate on time than white students (Figure 48).

This was also true for students in both SWVSD and BVSD living with home or food insecurity. In BVSD in 2017, only 76% of students receiving free and reduced-price lunch and 68% of students experiencing homelessness graduated on time, which compares to the district-wide rate of 91% of students. In SVVSD, only 76% of students receiving free and reduced-price lunch and 65% of students experiencing homelessness graduated on time compared to the district-wide rate of 84% of students (Figure 49).
Dropout Rates

Between school years 2010-11 and 2016-17, the school dropout rate among students in grades 7-12 increased in SVVSD, remained stable in BVSD, and decreased in Colorado. In school year 2016-17, the Colorado dropout rate (1.4%) continued to be higher than the SVVSD rate (1.1%) and the BVSD rate (0.4%) (Figure 50).

The dropout rate for 7th to 12th graders continued to be higher for Hispanic students than for white students in both Boulder County school districts. During the 2016-17 school year, the Hispanic student dropout rate in both school districts was two times higher than the white student dropout rate (Figure 51). These differences may be due to economic pressures, such as the need for students to work rather than attend school, or lack of engagement in the school system.20

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**Figure 50.** School dropout rates, grades 7-12, BVSD, SVVSD, and Colorado, school years 2016-2017. Source: Colorado Department of Education

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**Figure 51.** School dropout rates, grades 7-12, by race-ethnic group, BVSD and SVVSD, school year 2016-2017. Source: Colorado Department of Education
JUVENILE JUSTICE

The U.S. incarcerates a greater portion of its youth population than any other developed country in the world. In addition to putting excess stress on the juvenile justice system, high rates of youth incarceration can increase the risk of developing depression and poor health outcomes as an adult. One study found that youth who had been incarcerated for over a year were four times more likely to have depressive symptoms and two times more likely to have suicidal thoughts as an adult.

Youth of color are particularly impacted by incarceration. In Boulder County, residents from minority groups are overrepresented in the juvenile justice system. In 2014-15, black youth were 3.7 times more likely to be arrested and 4.2 times more likely to be detained compared to white youth. Hispanic youth were 1.4 times more likely to be arrested and 2.7 times more likely to be detained compared to white youth.
SOURCES OF LOCAL, STATE, AND NATIONAL DATA

LOCAL
Boulder County Community Services Department  www.bouldercounty.org/dept/communityservices
Boulder County Department of Housing and Human Services  www.bouldercounty.org/dept/housinghumanservices
Boulder County Healthy Kids Colorado Survey  www.bouldercountyHKCS.org
Boulder County IMPACT  www.bouldercountyimpact.org
Boulder County Public Health  www.bouldercountyhealthcompass.org
Boulder County Self-Sufficiency Standard  www.selfsufficiencystandard.org/colorado
City of Boulder Department of Human Services, Family Services Division  www.bouldercounty.org/human-services
Early Childhood Council of Boulder County  www.eccbouldercounty.org
Safehouse Progressive Alliance for Nonviolence  www.safehousealliance.org
Safe Shelter of St. Vrain Valley  www.safeshelterofstvrain.org

STATE
Colorado Department of Public Health & Environment (CDPHE), Colorado Health and Environmental Data (CHED)  www.chd.dphe.state.co.us
CDPHE, Office of Health Equity  www.colorado.gov/pacific/cdphe/ohe
Colorado Department of Education  www.colorado.gov/CDHS
CDHS, Division of Child Welfare  www.colorado.gov/pacific/cdhs/child-welfare-0
CDHS, Office of Early Childhood  www.coloradoofficeofearlychildhood.com
Colorado Department of Local Affairs (DOLA), State Demography Office  www.dola.colorado.gov
Colorado Children’s Campaign, KidsCount in Colorado!  www.coloradokids.org/data/kidscount
Colorado Division of Criminal Justice, Department of Public Safety  www.colorado.gov/pacific/dcj-ors/node/97146

NATIONAL
Healthy People 2020  www.healthypeople.gov
U.S. Census Bureau, American Community Survey  www.census.gov/programs-surveys/acs
National Equity Office  www.nationalequityatlas.org
REFERENCES


The 2018 Status of Children in Boulder County was developed by Boulder County Public Health. For more information about the data contained in this report, contact Boulder County Public Health at healthplanningteam@bouldercounty.org or call 303.441.1100.
To ensure this report meets the needs of the community, please provide feedback about the report at www.surveymonkey.com/r/Status_of_Children_Survey.
THE STATUS OF CHILDREN IN BOULDER COUNTY 2018