

# 2018 Humboldt County Community Health Assessment

Data for Planning and Policy Making



Produced by the Humboldt County Department of  
Health & Human Services, Public Health



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# Introduction

The Department of Health & Human Services (DHHS), Public Health, is pleased to present the 2018 Humboldt County Community Health Assessment. This document updates the first Community Health Assessment (CHA) published in 2013. Public Health and our community partners will use this document to update the Community Health Improvement Plan (CHIP) first published in 2014, and as a resource for planning and policy making. To access both the 2013 CHA and 2014 CHIP, visit [humboldt.gov/PublicHealth](http://humboldt.gov/PublicHealth). The resulting communitywide health improvement efforts are being branded as Live Well Humboldt.

This document summarizes data from a variety of sources to offer a snapshot of our health, and those factors that influence it. This includes behaviors, nutrition, policy and both the man-made and natural environment.

Health is not just the absence of disease. Health is our physical, mental and social well-being, as defined by the World Health Organization.

You will see areas of strengths, but we also have significant challenges, and there are populations within Humboldt County for whom health disparities are marked. The data also demonstrate the importance of influences early in life on the future health outcomes of adults.

It is the role of Public Health to focus on prevention, addressing the root causes of population health outcomes - also known as “upstream” factors - such as social inequities, policies that impact health and living conditions.

We intend for this document to serve as a catalyst to align our resources to address our most important health issues. We hope you will find this information compelling and that you join Live Well Humboldt's efforts. All of us play an important role in the health of our community.

# With Gratitude

DHHS Public Health wishes to thank all of the people and organizations that have made the 2018 Community Health Assessment report and process possible and meaningful. Your partnership is deeply valued and appreciated.

Judge Abby Abinanti, Yurok Tribe  
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Angela Sundberg, Trinidad Rancheria  
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## Methods

DHHS Public Health has been working collaboratively with St. Joseph Hospital to align needs assessment process and implementation plans for the past four years. Non-profit hospitals and accredited public health agencies have similar requirements to periodically survey the health needs of their communities and craft comprehensive health improvement plans. Using a collective impact approach, St. Joseph Hospital and Public Health are working to deepen their partnership by sharing data and setting goals together.

Public Health and St. Joseph convened a group of stakeholders representing a spectrum of priorities. This group, known as the Community Strategies Team, contributed data, and ensured multiple perspectives were considered when evaluating the health of our community.

In addition to publicly available data, Public Health analyzed our Vital Records data and program data, as well as local data available from our department and Community Partners.

### **Saying A Little About A Lot of Things**

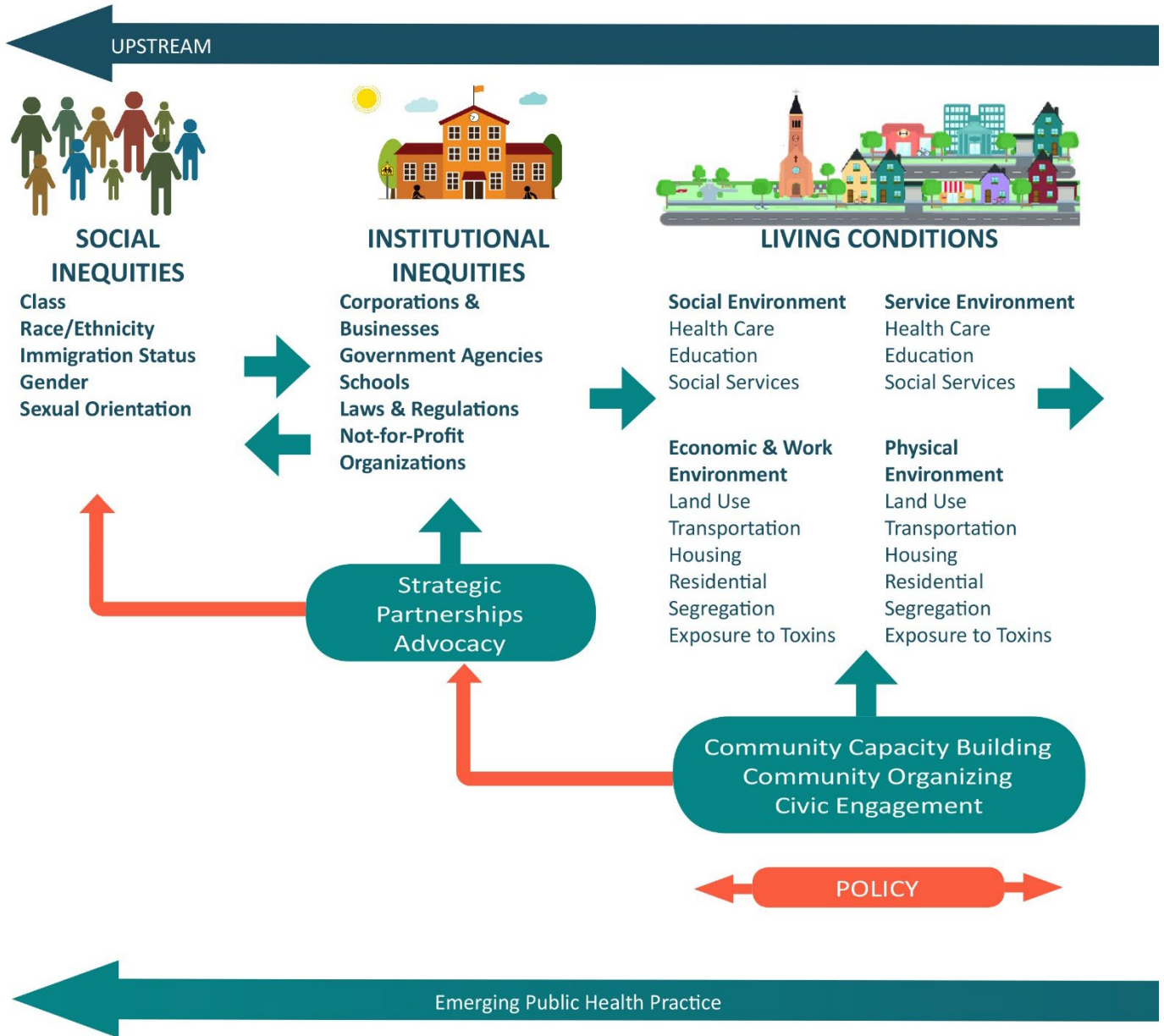
The assessment provides snapshots of many topics to provide an overall picture of health and the conditions that influence it. Most of the topics raised here have been studied and written about in greater detail elsewhere, which can often be found in the linked references. Each chapter was written by a collaborative process of prioritization and contains links to specific cited documents where additional information about the subject matter can be found.

We attempt to tell the story of the health of Humboldt County with a life course approach, beginning with health in early life, then explore the social determinants of health that impact us throughout our lives, followed by risk behaviors and health outcomes, and finally ending with mortality.

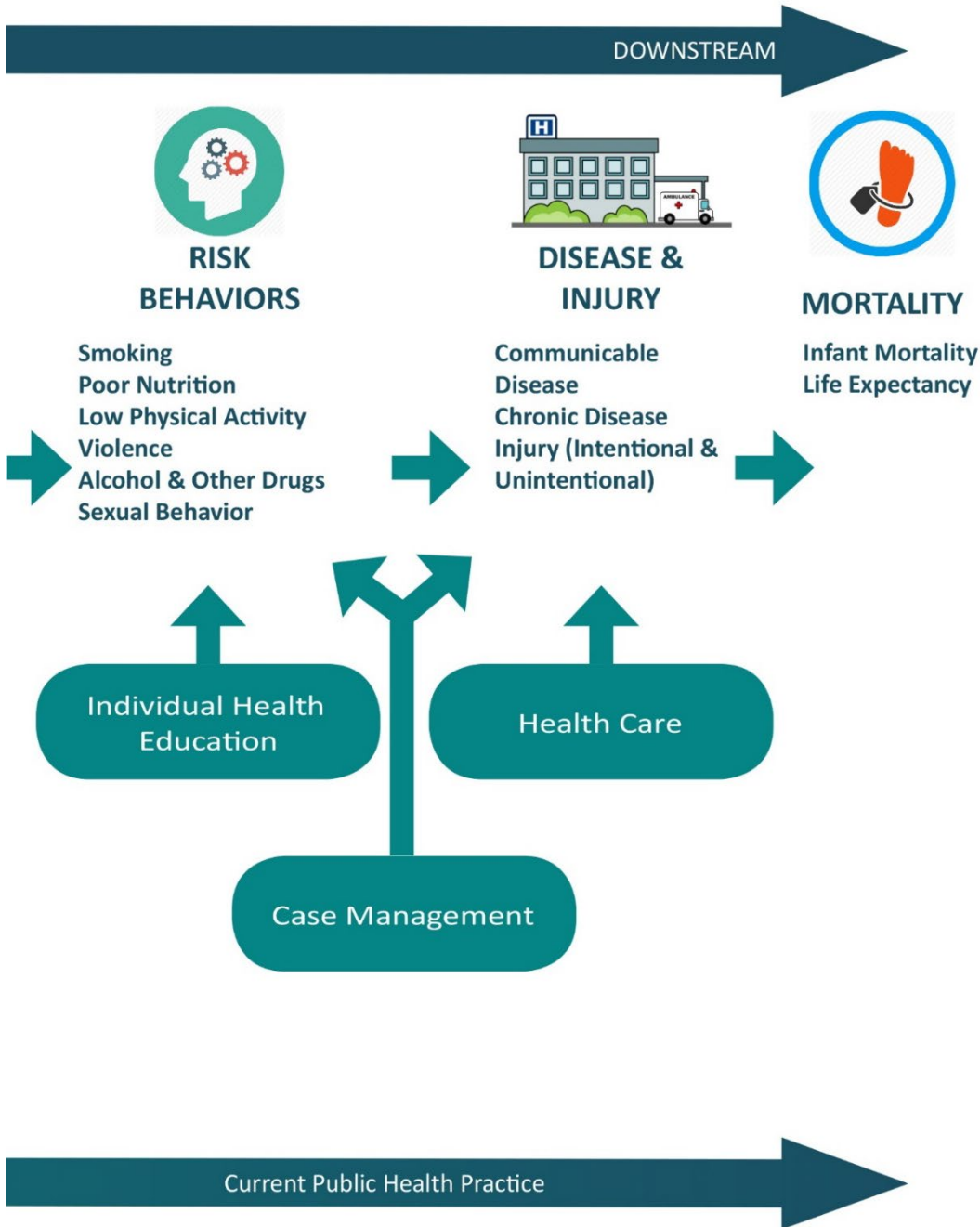
# Health Equity Framework

The World Health Organization describes health inequities as avoidable inequalities in health between groups of people. Inequities occur at the global, national and local level, and are influenced by both social and environmental factors.

According to Healthy People 2020, a science-based platform that provides 10-year national objectives for improving the health of all Americans, achieving health equity requires focused efforts at the societal level to address avoidable



inequalities, especially among those who have experienced socioeconomic disadvantage or historical injustices. A health equity lens guided the community health assessment process to ensure data describing the unfair differences experienced by groups in Humboldt County in accessing opportunities for health. These are comprised of a range of social and economic indicators and were presented for specific population groups whenever possible.



The Bay Area Regional Health Inequities Initiative (BARHII) model, pictured here shows how factors impacting health can be presented through an upstream/downstream model showing the impact that upstream inequities can have on downstream health behaviors and outcomes.

Traditional interventions, such as health care, health education and case management, impact primarily the "downstream" factors.

Public Health uses this framework to guide our work to address health inequities by working further upstream in areas such as capacity building, policy development and advocacy. This model has also been formally adopted by the California Department of Public Health as part of their decision-making framework.



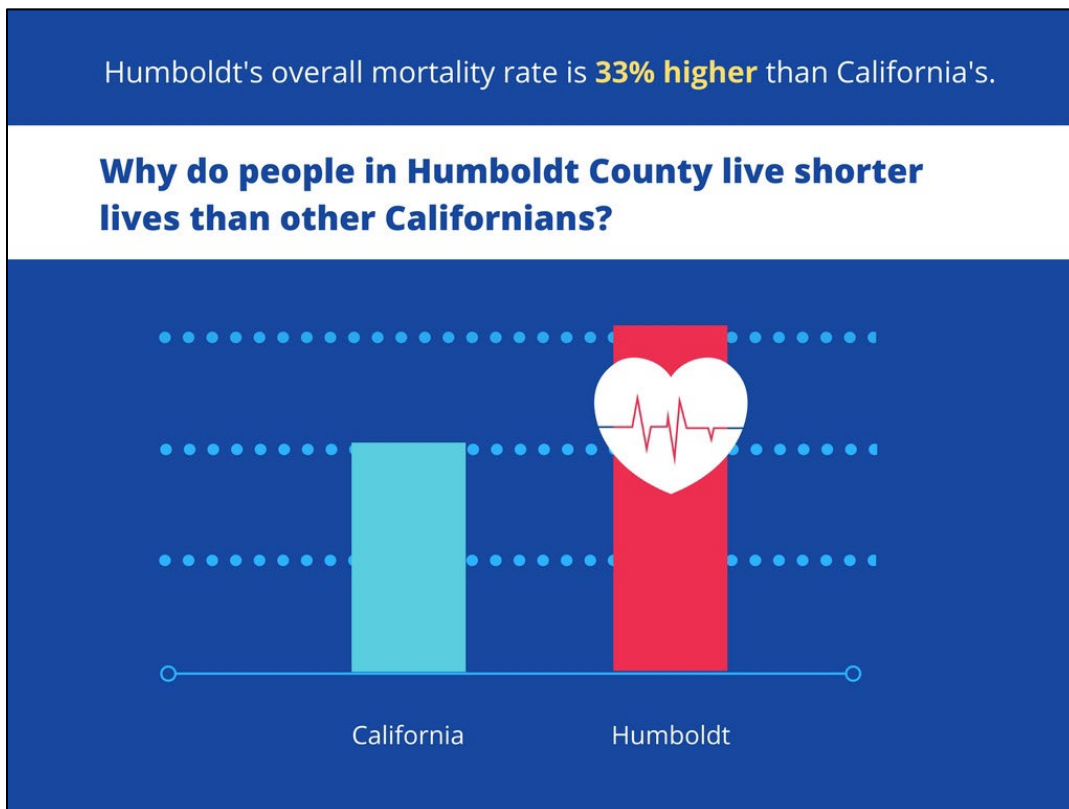
# Health Disparities

If a health outcome is seen to a greater or lesser extent between groups of people, there is a disparity

Each year in Humboldt County hundreds of individuals die unnecessarily from preventable diseases and conditions. Tackling this issue requires a broad public health perspective, addressing all of the determinants of health: access to care, racism (and other “isms”), personal behavior, social and physical environments, policies and education.

Humboldt County as a whole suffers a health disparity when compared to the State of California. We experience a higher burden of death rates overall at 804.4 per 100,000 people, compared to 612.2 statewide. The Humboldt rates for nearly all of the leading causes of death are 2 to 3 times that of the state.

Other poor, rural communities like ours experience health outcomes that are very similar. What is it about these communities that results in this higher risk of death? Important contributors are likely a complex mixture of factors include environmental, economic and social. According to a recent report by the CDC ([tinyurl.com/y8soa5zm](https://tinyurl.com/y8soa5zm)): Some 46 million Americans — 15 percent of the U.S. population — currently live in rural areas. Across the United States, there is a disparity in death rates between rural and urban communities, with rural communities experiencing higher death rates from the five leading causes of mortality.



There are health disparities within Humboldt County as well. Most pronounced are the health outcomes experienced by Native Americans. Native Americans in Humboldt County will die an average of 12 years sooner than Caucasians, and their rates of infant mortality, motor vehicle fatalities, cardiovascular disease, liver disease, drug-related deaths and diabetes-related deaths are far higher than the total Humboldt County rates.

As described in the “California Reducing Disparities Project” report ([tinyurl.com/yapg9ozd](https://tinyurl.com/yapg9ozd)), “[T]here are many reasons why disparities exist in health for Native Americans; the reasons stem from federal and local policies that governed the quality of life for Native Americans over the past 400 years...[F]ederal policies were initially directed at the extermination of Native Americans through genocide, outlawing of traditional and cultural practices, and removal from their homelands.”

Eventually, tribes entered into contracts known as trusts with the federal government where the government agreed to allow for tribal self-governance, and provide access to medical care, food, education and other economic and social services in exchange for their land, thus creating the Reservation/Rancheria system. The “trust responsibility” is a constantly evolving doctrine, including numerous historical acts ([tinyurl.com/y9bwqxra](https://tinyurl.com/y9bwqxra)).

According to the report, “Feeding Ourselves: Food access, health disparities and the pathways to healthy Native American communities” ([tinyurl.com/yqs4qh2q](https://tinyurl.com/yqs4qh2q)), “[d]ramatic shifts occurred in the span of a relatively short period of time and the health of American Indian peoples throughout the United States has never fully recovered. In short, these communities were forced to adjust to inaccessible traditional food sources, loss of historic relationships to the environment that provided traditional foods, a changing economic and social pattern and the introduction of products into their communities that were unfamiliar and not well-suited to the physical needs of the people. In addition... the impact of stress and trauma associated with federal policies of removal, reservation and assimilation on the individual cannot be understated as a contributing factor to the generational health deterioration of Native communities.”

Additionally, as described in the Healthy Beginnings section of this document, early childhood experiences significantly impact health outcomes later in life. National research shows, and local data supports that Native American children continue to experience higher rates of traumatic events and institutional bias than their non-Native peers. Because of the interconnectedness of reservation communities, the serious injury or traumatic loss of one individual often has an effect far beyond that individual’s immediate family and friends” ([tinyurl.com/ycunzw5r](https://tinyurl.com/ycunzw5r)).

It is also important to acknowledge that tribal people are diverse and bring unique community assets that promote health and wellness. “The ability to be resilient in difficult times has allowed the individual, family, community and tribe to survive and provide for its members and to go forward in spite of difficulties. Native Americans characterize resiliency first through the broader themes of culture, traditions, language, spirituality, family and survival” ([tinyurl.com/yb94gy73](https://tinyurl.com/yb94gy73)).

The Native American disparities described in this report are understood to be a lasting result of the historical and ongoing oppression experienced by Native American communities. Honest and accurate descriptions of the root causes of disparities in health outcomes, together with an understanding of community assets, help steer us toward effective policies and solutions for health improvement.

# The Public Health System

While there is an actual Public Health office, the Public Health System includes all of the entities that contribute to health, such as parks, public transportation, law enforcement, churches, schools, workplaces, hospitals, and those who enact policy. All of these work in concert to keep us healthy and safe from disease and injury.

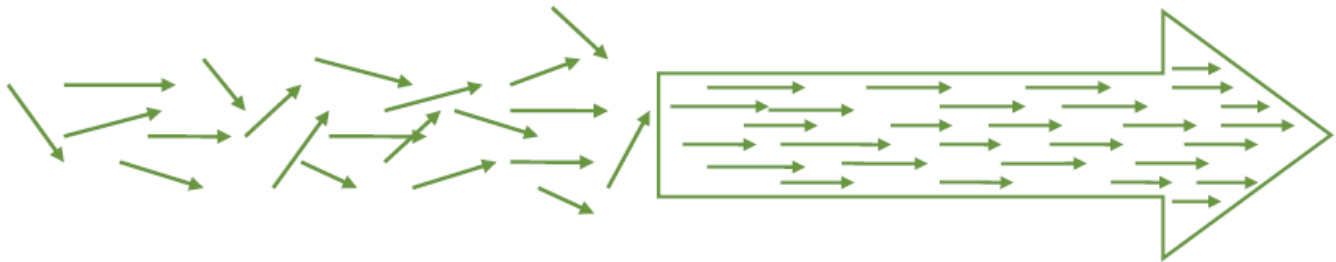
Participants within the public health system are most effective and most able to create lasting large-scale change when they work in coordination. The larger and more complex the issue, the more important coordination and collaboration become. Complex problems require complex solutions.





Developing strong relationships among organizations will support us all in achieving what the Stanford Social Innovative Review calls “collective impact.”

The promise of the collective impact approach is substantial improvement on large scale social problems through structured collaboration that includes five key conditions: a common agenda, shared measurement systems, mutually reinforcing activities, continuous communication and the presence of a backbone organization.



Together, using a collective impact approach, we can align our resources and move our county toward a healthy future.

### The Five Conditions of Collective Impact

<b>Common Agenda</b>	All participants have a shared vision for change, including a common understanding of the problem and a joint approach to solving it through agreed upon actions.
<b>Shared Measurement</b>	Collecting data and measuring results consistently across all participants ensures efforts remain aligned and participants hold each other accountable.
<b>Mutually Reinforcing Activities</b>	Participant activities must be differentiated while still being coordinated through a mutually reinforcing plan of action.
<b>Continuous Communication</b>	Consistent and open communication is needed across the many players to build trust, assure mutual objectives and create common motivation.
<b>Backbone Support</b>	Creating and managing collective impact requires a separate organization with staff and a specific set of skills to serve as the backbone for the entire initiative and coordinate participating organizations and agencies.

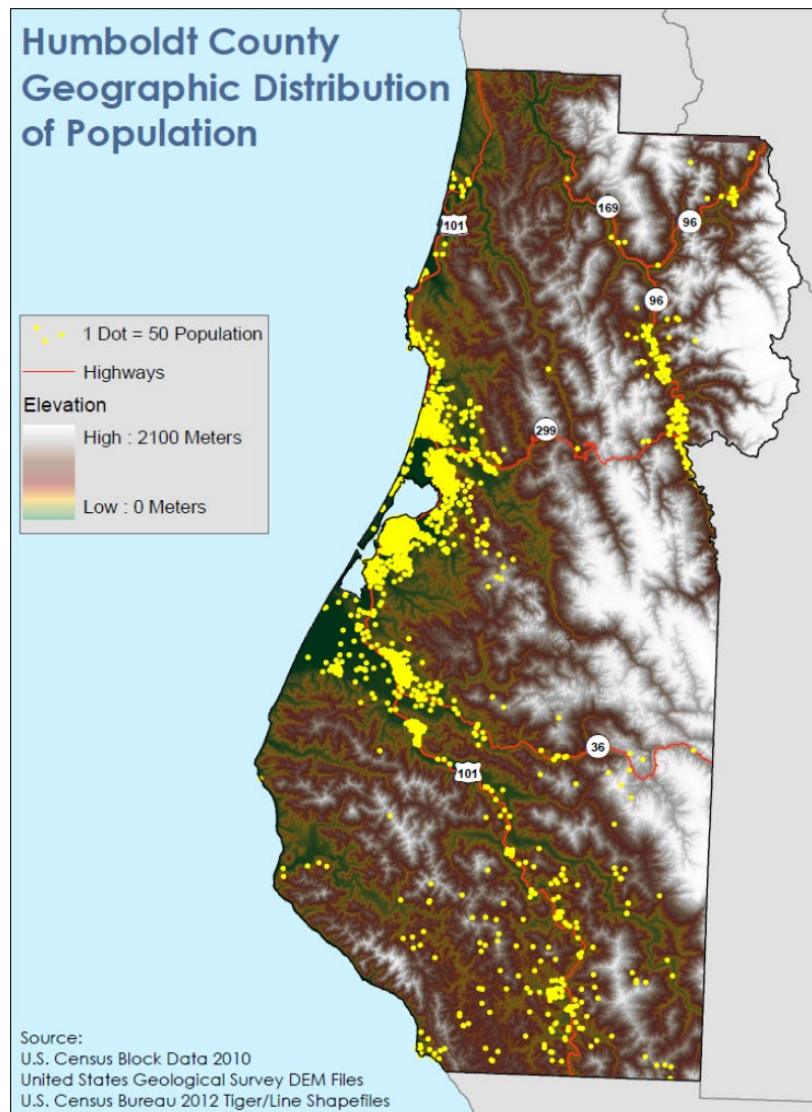
# Humboldt County Profile

Located in northwest California, Humboldt County is the southern gateway to the Pacific Northwest. The county is approximately 300 miles north of San Francisco, bordered on the north by Del Norte County, on the east by Siskiyou and Trinity counties, on the south by Mendocino County and on the west by the Pacific Ocean with 110 miles of coastline. The county encompasses 2.3 million acres, 80 percent of which is forestland, protected redwoods and recreation areas.

The county has a population of roughly 135,727. There are seven incorporated cities ranging in size from approximately 400 to 27,000 persons: Arcata, Blue Lake, Eureka (county seat), Ferndale, Fortuna, Rio Dell and Trinidad.

Humboldt is a rural county. There are roughly 38 people per square mile. Nearly half of the county's residents live in incorporated communities, and 59 percent of the people live in the area surrounding Humboldt Bay.

Native American tribal lands encompass approximately 95,000 acres. There are eight federally recognized tribes, including the largest by population (Yurok), and the largest geographically (Hoopa Valley) in California.



<b>HUMBOLDT DEMOGRAPHIC PROFILE</b>		
	<b>Humboldt County</b>	<b>California</b>
Population, 2015	135,727	39,144,818
Population, percent change, 2010 to 2015	0.80%	5.10%
Persons under 5 years old, percent, 2015	5.40%	6.40%
Persons under 18 years old, percent, 2015	19.50%	23.30%
Persons 65 years old and over, percent, 2015	16.10%	13.30%
Female persons, percent, 2015	50.10%	50.30%
White persons, percent, 2015 (a)	83.60%	72.90%
White persons, not Hispanic, persons, 2015	74.90%	38%
Black persons, percent, 2015 (a)	1.40%	6.50%
Native American and Alaska Native persons, percent, 2015 (a)	6.20%	1.70%
Asian persons, percent, 2015 (a)	2.90%	14.70%
Native Hawaiian and Other Pacific Islander, percent, 2015 (a)	0.30%	0.50%
Persons reporting two or more races, percent, 2015	5.50%	3.80%
Persons of Hispanic or Latino origin. Percent, 2015 (b)	11.10%	38.80%
Foreign born persons, percent, 2011-2015	5.80%	27%
Language other than English spoken at home, pct age 5+, 2011-2015	11%	43.90%
Veterans, 2011-2015	9,063	1,777,410
Land area, 2010 (square miles)	3,568	155,779
Person per square mile, 2010	37.7	239.1

(a) Includes persons reporting only one race; (b) Hispanics may be of any race, so also are included in applicable race categories; Sources: US Census Bureau State & County QuickFacts ([tinyurl.com/y3dty2p8](http://tinyurl.com/y3dty2p8)); State of California Employment Development Department ([labormarketinfo.edd.ca.gov/?pageid=1006](http://labormarketinfo.edd.ca.gov/?pageid=1006))





# Healthy Beginnings

There is increasing recognition that experiences and exposures in childhood provide the foundation for lifelong health, learning, and wellbeing. This section helps provide the picture of health early in life for Humboldt County residents, and also describes inequities experienced by Native American people early in life.

Harvard University's Center on the Developing Child describes Three Foundations of Lifelong Health that are laid down in early childhood:

- A stable and responsive environment of relationships;
- Safe and supportive physical, chemical and built environments; and
- Sound and appropriate nutrition.

The presence of these influences are considered protective factors. The absence, or antithesis, are considered risk factors. The balance of these also impacts a person's ability to be resilient. Resilience is the process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress, such as family and relationship problems, serious health problems or workplace and financial stressors. It means "bouncing back" from difficult experiences.

## Protective Factors

The factors that promote a stable and responsive environment of relationships include:

- Parental resilience;
- Social connections;
- Concrete support in times of need;
- Knowledge of parenting and child development; and
- Social and emotional competence of children.

Research studies support that if these protective factors are well established in a family, the likelihood of child abuse and neglect diminishes. These protective factors help promote optimal child and youth development.

Spirituality and connection to culture are also important to health.

There are programs in Humboldt County that support both parents and children in developing knowledge, support and resilience. In 2016, 13,775 children participated in First 5 Humboldt playgroups. Parents and caregivers who attended showed that playgroup attendance is significantly related to improvements in parenting capacity. Playgroup participation continues to increase.

## Risk Factors and Adverse Childhood Experiences (ACEs)

Occurring during childhood, ACEs are traumatic experiences that have a profound impact on a child's developing brain and body with lasting impacts on a person's health and livelihood throughout their lifetime. ACEs lead to increased risk for negative health behaviors, and lead to increased risk for serious health conditions. High numbers of ACEs have long been associated with increased risk for serious health conditions, such as heart disease, diabetes and cancer.

Humboldt  
County's  
Children are  
**2**  
TIMES  
more likely to  
be placed in  
foster care

There are ten recognized ACEs which fall into three general types: (1) abuse; (2) neglect; and (3) household dysfunction. Any of these factors can impact the future health outcomes of the children experiencing them. Compounding them can seriously impede their ability to grow into a healthy adult.

In their report, "A Hidden Crisis, Findings on Adverse Childhood Experiences in California," The Center for Youth Wellness describes how ACEs are impacting the health and wellbeing of children, families and communities across the state. Combined data from Humboldt and Mendocino counties show that 75.1 percent of adults experienced 1 or more ACEs, and 30.8 percent experienced 4 or more during their childhood.

While the ACEs study looked retrospectively at the accumulation of trauma in people's lives, this section provides information about specific adversity experienced by children in our community. For example, data from the California Child Welfare Indicators Project show Humboldt County pregnant women are 3.7 times more likely to be diagnosed with a substance use disorder than their cohort statewide. The rate of domestic violence calls to law enforcement in Humboldt County is 1.6 times that of California. The children in both of these examples are experiencing adversity, and accumulating ACEs.

Child maltreatment rates in Humboldt County have exceeded the state rate since 2012, and continue to rise. The most common type of maltreatment reported in Humboldt County is general neglect (73.8 percent of substantiated cases in 2015) which is consistent across the state as the most reported allegation, and the most reported age brackets are birth- 1 and 1-2. Children in Humboldt County are placed into foster care at a rate over 2 times that of the state.

Of those children, 35.7 percent were Native American, even though Native Americans make up only 7 percent of the population. Native American children also represent 30.9 percent of substantiated child abuse or neglect cases (California Child Welfare Indicators Project, 2015; National Indian Child Welfare Association, 2016; average 2013-2015).

Notably, when Native American children are involved in cases of maltreatment, a higher rate are able to remain safely within their home and cultural community with their caregivers, as compared to non-native children. This demonstrates active efforts to prevent removal of Native American children as required by the Indian Child Welfare Act, and the importance of considering culture in the child's best interest. "Spirituality is the basis of who we are as a people," said Susan Masten, a former president of the National Congress of Native Americans who served as Yurok tribal chairwoman. "For young people, a strong sense of culture and spirituality helps with whatever they face out in the world."

ACES impact both health behaviors and health outcomes.

A Person with 4 or more ACEs is:

12.2  
TIMES

as likely to attempt suicide

10.3  
TIMES

as likely to use injection drugs

7.4  
TIMES

as likely to be an alcoholic

2.4  
TIMES

as likely to have a stroke

2.2  
TIMES

as likely to have heart disease

1.6  
TIMES

as likely to have diabetes

1.9  
TIMES

as likely to have cancer

Protection during childhood from vaccine preventable disease can reduce the risk of lifelong adverse health conditions. While there has been improvement since the elimination of personal belief exemptions in 2016, childhood vaccinations in Humboldt County lag behind the state rate for both required immunizations for kindergarten admission and influenza vaccine. Other risk factors occurring in Humboldt County during childhood that impact health during a person's lifetime includes access to healthy foods and adequate nutrition, physical activity during childhood and adolescence, age at first use of drugs and alcohol and exposure to violence.

Only  
**76.5%**  
of  
**PREGNANCIES**  
receive care in the  
first trimester

### Humboldt County Early Childhood Indicators

From the 2017 California County Health Profiles	Humboldt County	Significant Difference from CA? (Y/N)	California	Healthy People 2020 Objective
Infant Mortality (2012-14) (per 1,000)	6.6*	N	4.6	6
% Low Birth Weight Births (2013-15)	5.60%	N	6.80%	7.80%
% pregnancies beginning prenatal care during first trimester (2013-15)	76.50%	Y	83.30%	77.90%
Births to Mothers age 15-19 (per 1,000) (2013-15)	20.2	N	21	42.5
Births to Repeat Teen Mothers (2012-15)	10% (2015)		17% (2013)	
Initiation of Breastfeeding (2013-15)	93.00%	N	93.50%	81.90%
Mood disorder hospitalizations per 100,000 female population age 15-44 (2011-2013)	1413.9	Y	1074.8	N/A
Substance use diagnosis per 1,000 hospitalizations of pregnant females age 15-44 (2011-2013)	63.7	Y	17.3	N/A
Access to quality child care	24%	N/A	N/A	N/A
Children Placed in Foster Care (per 1,000)	12.1	Y	5.8	N/A
Child abuse allegations, rate per 1,000 children	85.8	Y	54.7	N/A
Substantiated child abuse allegations, rate per 1,000 children	10.9	N	9.1	N/A
Percentage of Kindergarten children with vaccinations up-to-date (2016-2017)	86.70%	Y	95.60%	N/A
Percentage of adults and children receiving flu vaccine (2014-2015)	34.80%	Y	44.70%	N/A

California Child Welfare Indicators Project (CCWIP), 2015;  
[kidsdata.org/region/324/humboldt-county/results#ind=&say=&cat=6,18,27,79,37,44](https://kidsdata.org/region/324/humboldt-county/results#ind=&say=&cat=6,18,27,79,37,44)

## Early Childhood Care and Education

The quality and availability of early childhood care and education programs (nursery schools, child care facilities, preschools, etc.) are essential in any community. There are multiple reasons for this. Many families are in need of care for their children while they are out of the home working, job-seeking, or attending school. Three-fifths of children under 13 in California live in families where parents work or are in school. As 90 percent of a child’s physical brain development takes place in the first 5 years of life (First 5 California, n.d.), high quality child care and early care and education programs have shown to be a powerful tool in narrowing learning and development gaps in children before they enter school (Heckman & Masterov, 2007). Individuals who are living in poverty have less access to early childhood education. In Humboldt County, only 24 percent of children have access to such care, and this has been the trend for the previous 5 years. Also, a typical family in Humboldt County spends more than 30 percent of their income on childcare ([tinyurl.com/yypq9v2j](http://tinyurl.com/yypq9v2j)).

41%

of children ages 3-5 in Humboldt County are not enrolled in preschool or kindergarten.

Average Annual Cost, Humboldt County 2014		
	Infant	Preschooler
Child Care Center	\$13,440.00	\$8,548
Family Child Care Home	\$8,254	\$7,486

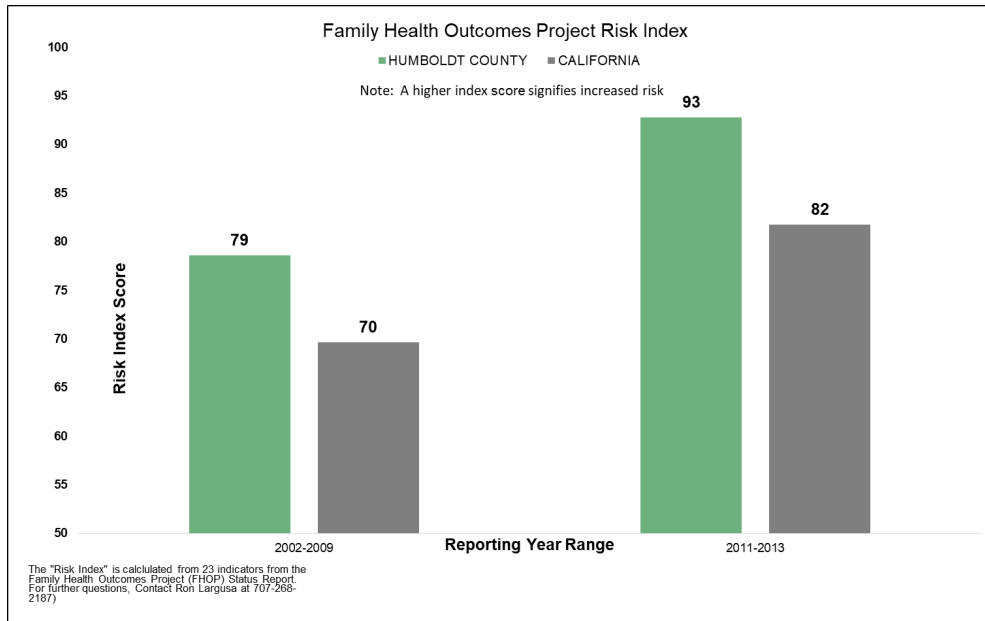
Availability of Care, Humboldt County					
	2006	2008	2010	2012	2014
Children for Whom Care is Available	26%	31%	27%	25%	24%
Children for Whom Care is Unavailable	74%	69%	73%	75%	76%

Source: [kidsdata.org](http://kidsdata.org), Aug 2017





When compared with the state, children in Humboldt County are starting life with a significant disparity. The California Family Health Outcomes Project (FHOP) provides county and state-level key indicators of maternal, infant and child health. Twenty-three FHOP indicators, equally weighted, make up the index score. The data demonstrate both a significant difference between Humboldt County and the state, and a significant increase over the previous period.



Pregnant women in Humboldt County are **3.7** TIMES more likely to be diagnosed with a substance abuse disorder.







<b>Family Health Outcomes Project Index Indicators 2011-2013</b>		
	Humboldt	California
<b>1. Maternal and Women Health Indicators</b>		
Gestational diabetes per 100 females age 15 to 44 delivering a live or still-born infant in-hospital.	8.2	8.7
Substance use diagnoses per 1,000 hospitalizations of pregnant females age 15-44	63.7	17.3
Mood disorder hospitalizations per 100,000 female population age 15-44	1,413.90	1,074.80
Assault hospitalizations per 100,000 females age 15-44	20.8	15.2
Domestic Violence calls per 100,000 population	661.2	421.9
<b>2. Infant Health Indicators</b>		
Deaths at age less than 1 year per 1,000 live births	6.2	4.7
Births less than 37 weeks gestation per 100 live births	7	8.5
Births weighing less than 2,500 grams per 100 live births	5.2	6.8
Births weighing less than 1,500 grams per 100 live births	0.7	1.1
<b>3. Child/Adolescent Indicators</b>		
Births per 1,000 female population age 15-17	9.9	13.2
Births per 1,000 female population age 15-19	23.8	25.9
Births within 24 months of a previous pregnancy per 100 females age less than 20 delivering a live birth	81.3	79.7
Deaths per 100,000 population age 1 to 4 years	21.9	20.4
Deaths per 100,000 population age 5 to 14 years	15.7	10.4
Deaths per 100,000 population age 15 to 19 years	70.4	37.4
Deaths per 100,000 population age 20 to 24 years	84.5	68.5
Motor vehicle injury hospitalizations per 100,000 population age 0 to 14	5.9	16.3
Mental health hospitalizations per 100,000 population age 15 to 24	1563.3	1,420.10
Substance use hospitalizations per 100,000 population age 15 to 24	918.3	742.9
<b>4. Socioeconomic Determinants</b>		
Poverty (0-200% FPL) per 100 female population age 18 to 64	45.9	35.5
Poverty (0-200% FPL) per 100 population age 0-18	52.8	47
Children in foster care per 1,000 children age 0 to 17	11.7	6.5

# Social Determinants of Health

The social determinants of health are the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels. The social determinants of health are mostly responsible for health inequities - the unfair and avoidable differences in health status seen within and between groups of people.

This section also includes a focus on the living conditions that especially impact four health risk behaviors—lack of physical activity, poor nutrition, tobacco use and drinking too much alcohol that cause much of the illness and early death related to chronic diseases. It is well understood that having access to healthy options makes it easier to make healthy choices.

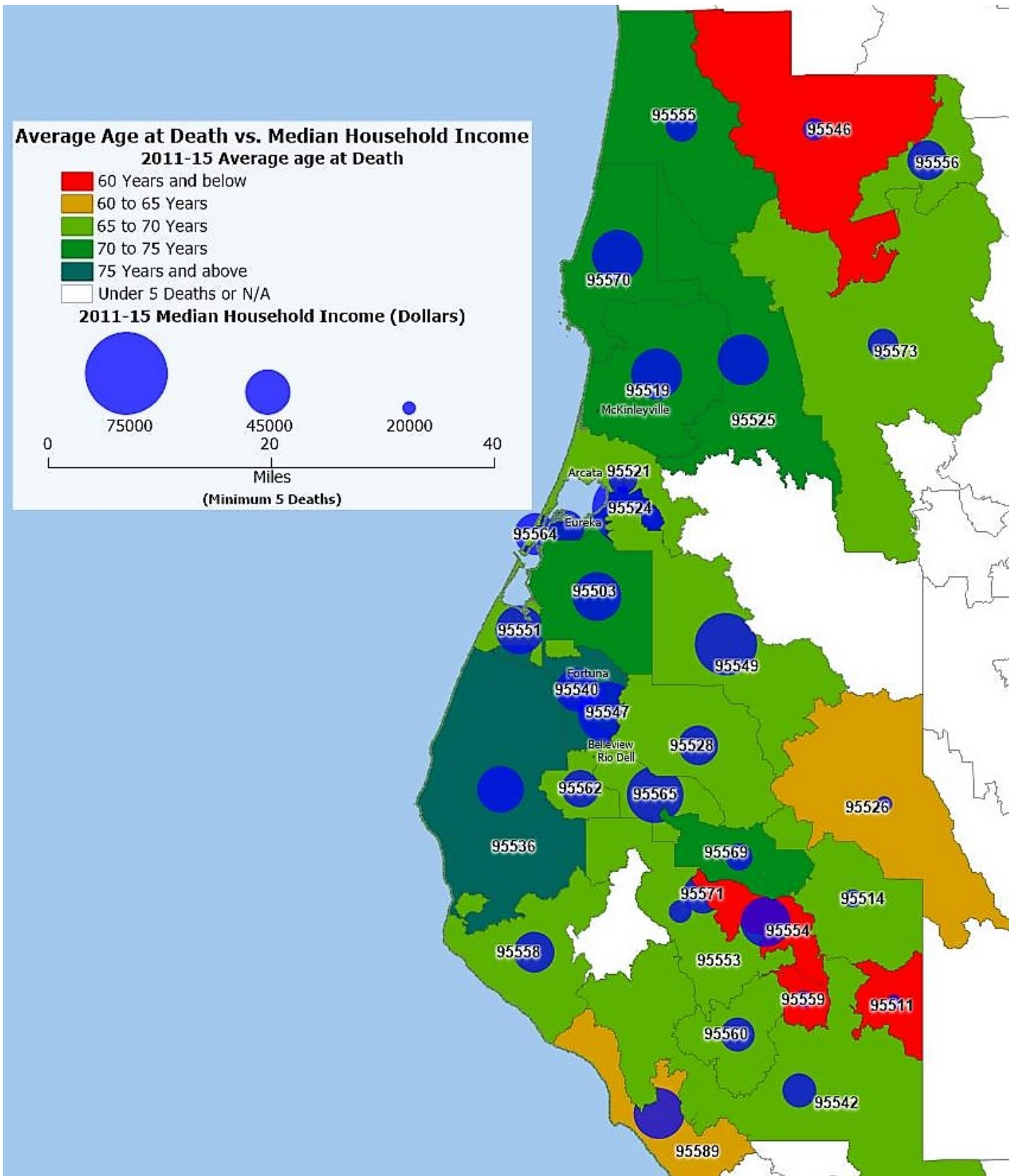
As in other sections, data that describes inequities are highlighted demonstrating when there is an unfair difference in how groups of people within the county experience these social determinants of health.

<p>Healthy and stable housing is one of the most basic requirements for a sense of personal security, sustainable communities, family stability and the health of every individual.</p>		<p>60% of Humboldt residents pay more than 1/3 of their income on rent.</p>
<p>Income and health have a well-established reciprocal relationship that operates in both directions: higher income leads to better health and better health leads to higher income.</p>		<p>Humboldt County’s median household income is only 2/3 that of California.</p>
<p>Education is associated with improved health throughout life, independent of other variables such as personal choices. Education starts before the school years; early years are critical to children’s development and lifelong health.</p>		<p>High School graduation rates have been at or above California’s rate for over two decades.</p>
<p>Access to healthy affordable foods is associated with positive health outcomes; proximity to supermarkets corresponds with a lower body mass index or rate of obesity, diabetes, or diet-related death among adults. Unfortunately, most studies show that residents of sparsely populated rural areas do not have sufficient opportunities to buy healthy, affordable food.</p>	<p>10 FOOD DESERTS</p>	<p>10 census tracts have been identified as food deserts.</p>
<p>The health impacts of community safety are far-reaching, from the obvious impact of violence on the victim to the symptoms of post-traumatic stress disorder (PTSD) and psychological distress felt by those who are routinely exposed to violence.</p>		<p>Firearm-related deaths have been on the rise for several years, and are 2X that of the state.</p>









## Employment

Employment impacts health not only through the income it provides, but also, through its provision of health benefits and pension plans and other pathways to financial security. Type of employment can also influence health, with better health associated with more job control and security, less stress and less exposure to danger or toxins. Ongoing, safe employment can lessen the likelihood of a number of conditions and diseases. Employment is also related to many other determinants of health such as housing, education and income. Humboldt County has an unemployment rate of 4.9 percent, just slightly lower than the State's rate of 5.5 percent.

1 in 5

people in Humboldt County live at or below the **POVERTY** line

## Income

Income and health have a well-established reciprocal relationship that operates in both directions: higher income leads to better health and better health leads to higher income. When compared geographically, those zip codes that have a higher median household income also have a higher average age at death. Income is also related to many other health factors. Access to safe and affordable housing, for example, is a prerequisite to improving income. Increasing educational attainment is also an indirect and long-term contributor to increasing income. Higher income can lessen the likelihood of a number of conditions and diseases.

Median reported earnings of high school graduates are similar in Humboldt County to California; however, income of individuals with college degrees lag significantly behind statewide median earnings, suggestive of fewer competitive-wage jobs in Humboldt County.

Disparity in reported median household income between Humboldt County and California has been unchanged for more than a quarter century (1989-2016). The median household income in Humboldt County is only two-thirds that of California.

Within Humboldt County households with children, single parent households have a median income of under 40 percent that of married households.

While many people earn living wages, more than 1 in 5 people in Humboldt County live at or below the federal poverty level (20.9 percent).



**Income and Unemployment**

2011-2015	Humboldt	California
Median household income	\$42,197	\$61,818
Per capita money income in the past 12 months - 2015 dollars	\$23,367.00	\$30,318
Persons below poverty level, percent	20.90%	14.30%
Annual unemployment rate	4.90%	5.50%

**Median Earnings, past 12 months (2015 adjusted dollars), population 25 years+**

2015	Humboldt	California
Less than High School Graduate	\$20,120	\$19,700
High school or equivalence	\$26,633	\$27,963
Some college or Associate's Degree	\$26,638	\$36,284
Bachelor's degree	\$30,415	\$56,010
Graduate or professional degree	\$50,250	\$79,467

Median income levels between Humboldt County and the state are similar for those with a high school education, but more educated Humboldt County residents earn significantly less than their cohort statewide.



Exploring opportunities at a Job Fair

## Economic Environment

The economic environment describes the opportunities available for employment.

The number of jobs have grown in Humboldt County at a rate of 0.6 percent per year from 1990 to 2016. Private sector jobs grew at 0.3 percent annually. Service industry jobs make up the majority of private sector jobs. Government employment increased 1.2 percent annually, the largest employment sector increase. In Humboldt County, the largest employer is the County itself, followed by Humboldt State University and St. Joseph Health System.

From January 1990 to January 2017, jobs in manufacturing, logging, fisheries, and construction decreased 52 percent in Humboldt County, a reduction from 18 percent of private sector jobs to only 8 percent by the start of 2017. Eighty-three percent of workers in these industries were/are white, non-Hispanic; 85 percent are male. The timber industry is still a significant employer. Humboldt County produces 30 percent of the total value of all forest products in the state.

Beyond the major employers, Humboldt County has a robust entrepreneurial climate, including small business and the arts. According to the Humboldt County Employment Development Department, an estimated 10,926 Humboldt residents worked in their own business during 2012, according to the most recent available data from the U.S. Census Bureau. At 20.3 percent of total jobs, entrepreneurs are significantly more common in Humboldt than the rest of California or the nation where self-employment is 17.6 and 16 percent respectively.

Cultivation of cannabis in Humboldt County has begun the transition from an illicit industry to a major economic driver with the legalization of medical cannabis in 1996 (Proposition 215) and recreational cannabis in 2016 (Proposition 64). This previously unregulated industry has attracted a large number of seasonal workers, but accurate data on number of individuals directly employed in the industry, and associated wages, are not yet available. Income, both individual and business, derived from cannabis, has been largely untaxed to date. Early estimates of county tax revenue due to the legal sale of recreational cannabis is projected to be \$4.876 million in FY 2017-2018. The legalization and regulation of the cannabis industry in Humboldt County will undoubtedly have a profound impact on the local economy going forward. Richer data is expected to become available as the industry comes into compliance with local and state law.

<b>Economic Environment</b>	<b>Humboldt</b>	<b>California</b>
In civilian labor force, total, percent of population age 16 years+, 2011-2015	58.50%	63.10%
In civilian labor force, female, percent of population age 16 years+, 2011-2015	55.30%	57.20%
Total employer establishments, 2015	3,132	908,120
Total employment, 2015	33,302	14,325,377
Total annual payroll, 2015 (\$1,000)	\$1,157,200	\$856,954,246
Total employment, percent change, 2014-2015	2.10%	3.50%
All firms, 2012	12,821	3,548,449
Women-owned firms, 2012	4,162	1,320,085
Minority-owned firms, 2012	1,853	1,619,857
Veteran-owned firms, 2012	1,132	252,377

Sources: US Census Bureau State & County QuickFacts

([census.gov/quickfacts](https://census.gov/quickfacts)); State of California Employment Development Department ([labormarketinfo.edd.ca.gov/?pageid=1006](http://labormarketinfo.edd.ca.gov/?pageid=1006))

## Housing

Healthy and stable housing is one of the most basic requirements for a sense of personal security, sustainable communities, family stability and the health of every individual. Cost of shelter is the largest non-negotiable expense for most families. When the cost is excessive, families fall behind on rent or mortgage payments and have little or no disposable income, often going without food, utilities, or health care ([tinyurl.com/y7e3xwrx](https://tinyurl.com/y7e3xwrx)). In Humboldt County, sixty percent of renters pay more than 1/3 of their monthly income on rent, and vacancy rates are only 4.2 percent, so there are few options.

Agencies that provide help with housing report that even though they have the financial resources to place people into housing, there simply isn't housing available.

The quality of housing is also important. In the city of Eureka over 60 percent of the housing stock was built prior to 1960, increasing the occurrence of both substandard housing and potential exposure to lead.

## Homelessness

There are several ways of defining a person as "homeless". For the purposes of this document, we will use the U.S. Department of Housing and Community Development's (HUD) definition for "Literally Homeless" – an individual or family who lacks a fixed, regular and adequate nighttime residence, meaning:

- Has a primary nighttime residence that is a public or private place not meant for human habitation;
- Is living in a publicly or privately operated shelter designated to provide temporary living arrangements (including congregate shelters, transitional housing and hotels and motels paid for by charitable organizations or by federal, state and local government programs); or
- Is exiting an institution where (s)he has resided for 90 days or less and who resided in an emergency shelter or place not meant for human habitation immediately before entering that institution.



PIT Count 2017.



HUD requires all communities to conduct a bi-annual homeless "point in time" (PIT) count of homeless people. The PIT is a count of sheltered and unsheltered homeless persons on a single night in January. The intent is to answer key questions about the homeless population in Humboldt County:

- How many people in Humboldt County experience homelessness on a given night?
- What are their demographic characteristics
- How are they distributed across the county?
- Where are they staying?

The 2017 PIT showed that nationally there were 192,875 unsheltered people on that January night. In Humboldt County there were 434. Compared to overall population data, the national rate of homelessness is 0.059 percent, and Humboldt County's is 0.32 percent - roughly 5 times the national average.

Because the PIT is only a count of who was homeless on one particular night, and is not a perfect count, it is not a reliable predictor of how many homeless people there actually are. However it is the best source of data available for this population.

The 2017 Humboldt County Point in Time count of the homeless population shows the concentration of homeless persons in and around Eureka. This has been the case over the last four counts (2009, 2011, 2013 and 2015).



PIT Count 2017.

## Environmental Quality

Humboldt County is world renowned for its beautiful environment—giant redwoods, spectacular coast line, rugged mountains and wild rivers.

A healthy environment is central to increasing quality of life and years of healthy life. Environmental factors that impact health are diverse and far reaching, including:

- Exposure to hazardous substances in the air, water, soil and food;
- Natural and technological disasters;
- Physical hazards;
- Climate; and
- The man-made environment (zoning, infrastructure, sidewalks, etc.).

Poor environmental quality has its greatest impact on people whose health status is already at risk ([tinyurl.com/yd9ku366](http://tinyurl.com/yd9ku366)).

Lead exposure is one of the most common environmental problems for young children. Lead exposure can permanently change a child's ability to learn, play and interact. Babies and toddlers are most at risk because their brains are growing fast. About 10 percent of the screening tests performed in Humboldt County show evidence of lead exposure. Humboldt County's rate of positive screening test results is significantly higher than most of California. This could indicate that there is more potential for exposure to lead here than in other parts of the state. However, we are encouraged that the rates of lead poisoning remain low, based on follow-up testing.

Physical Environment	Humboldt County	Significant Difference from CA? (Y/N)	California	Healthy People 2020 Objective
Air Pollution-particulate matter days (2012)	6	N	8	N/A
Ever Diagnosed With Asthma (2013-15)	17.40%	N	14.60%	N/A
If Asthmatic, Currently Has Asthma After Prior Diagnosis by Doctor (2011-15)	63.10%	N	98.1	95.5
Emergency Room Visits due to Asthma <Age 5 (per 10,000) (2015)	65.5	Y	98.1	95.5
Food-Borne Outbreaks - Annual rate (per 100,000)*	0.6	N	0.3	N/A
Percentage of Children Age 0-5 with Elevated Blood Lead Levels (9.5+ µg/dL) (2012)	1.20%	Y	0.30%	Eliminate Elevated Blood Lead Levels

Sources: California Health Interview Survey Multiple Years; CDPH Environmental Health Investigations Branch; CDPH Public Drinking Water Systems; County Health Rankings ([countyhealthrankings.org](http://countyhealthrankings.org)); County of Humboldt Environmental Health Division, ([cdc.gov/foodsafety/outbreaks](http://cdc.gov/foodsafety/outbreaks)). USGS Water Use in the United States \*2007





2013 Rim Fire, Stanislaus National Forest (U.S. Department of Agriculture)

## Climate change

Climate change threatens our health now and will impact our way of life in the future. While climate change is obviously a global phenomenon, the results will be felt uniquely in specific regions. Climate changes include: increased temperatures, extreme storms, wildfire, rising sea level, decreased air quality and drought. Health impacts of climate change are described in three main pathways: direct exposures, indirect exposures and socioeconomic disruption.

Climate change-related health impacts can include increased number of cases of temperature-related illness and death, more air pollution-related exacerbations of cardiovascular and respiratory diseases, increased injury and loss of life due to severe storms and flooding, increased occurrences of vector-borne and water-borne diseases, and stress and mental trauma from loss of livelihoods, property loss, and being displaced from home ([tinyurl.com/y9t5cp5u](http://tinyurl.com/y9t5cp5u)).

### Health Impacts in Humboldt County

According to the Climate Change and Health Profile Report for Humboldt County ([tinyurl.com/y9t5cp5u](http://tinyurl.com/y9t5cp5u)), fire hazard and sea level rise are the most immediately notable health impacts of climate change in Humboldt County.

The 2017 and 2018 fire seasons in California were successively the worst fire seasons in state history, with 2018 being the deadliest and most destructive on record. In 2010, approximately 27 percent (35,833 residents) of the county's population lived in fire hazard zones of moderate to very high severity. The Humboldt County Community Wildfire Protection Plan (2017) states that we can expect "an approximately 40% increase in probability of fire across the region by end-century."

In 2010, approximately 3,705 residents lived on coastal blocks that were at risk of inundation from a 100-year flood. With an additional 55 inches of sea level rise, which is toward the upper end of projections for the year 2100, the inundation zone would potentially include 7,928 residents.

This is likely an underestimate as more recent climate change models indicate that California may see up to a 66 inch rise in sea level within this century.

## Transportation

The California Center for Rural Policy (CCRP) states that “Transportation is an important determinant of health affecting all spheres of community life. Results from the Rural Health Information Survey, 2006, indicate that transportation is a problem in meeting health needs for many residents in the Redwood Coast region. Being poor, non-white or living in an area with low population density significantly increases the chance of transportation problems.” Access to employment, health care, child care, school, food and other necessities are dependent on transportation.

Humboldt County’s north-south transportation artery is Highway 101, and Highways 299 and 36 are the east-west corridors. Travel time by car from Weitchpec in the northeast corner, or Petrolia on the southwest coast to Eureka is approximately two hours. The mean travel time to work for workers age years 18+ (2011-2015), was 18.1 minutes, compared to 28 minutes statewide.

There are several public transportation systems that provide service to most of the county.

Redwood Transit System (RTS): Service between Scotia, Fortuna, Loleta, Fields Landing, Eureka, Arcata, McKinleyville, Westhaven and Trinidad 7 days per week. RTS offers service between Willow Creek and Arcata Monday through Saturday.

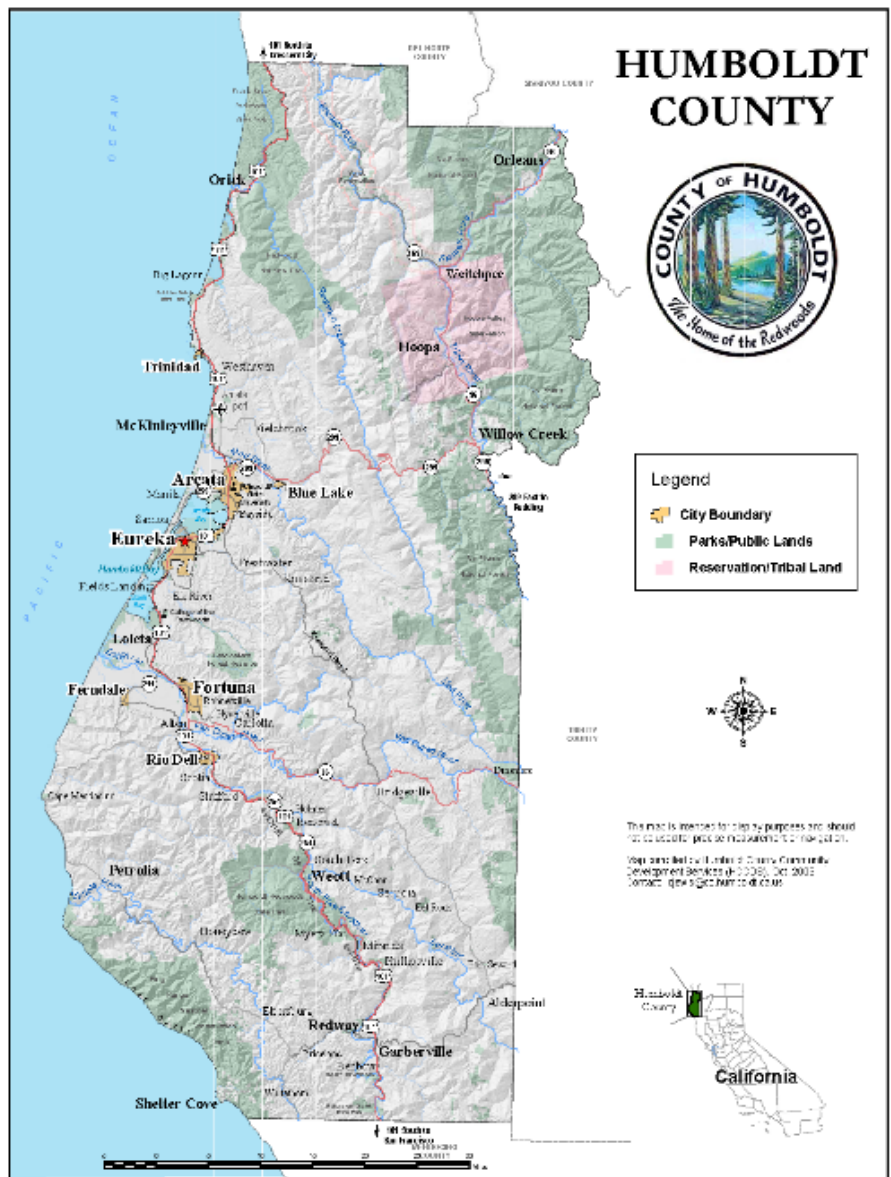
Eureka Transit Service: Hourly service (and better) in Eureka six days a week.

Arcata & Mad River Transit: Service Weekday and Saturday service in Arcata.

Blue Lake Rancheria Transit: Service between Arcata and Blue Lake locations.

Redwood Coast Transit / Del Norte Public Transit: Service between Arcata, Crescent City and Smith River.

Trinity Transit: Three times per week service between Willow Creek, Weaverville and Redding. Service within Trinity County.



## Community Safety and Exposure to Violence

The health impacts of community safety are far-reaching, from the obvious impact of violence on the victim to the symptoms of post-traumatic stress disorder (PTSD) and psychological distress felt by those who are routinely exposed to violence. Community safety impacts various other health factors and outcomes as well, including birth weight, diet and exercise and family and social support. Safer communities can lessen the likelihood of a number of conditions and diseases.

The violent crime rate for the entire county (359.6 per 100,000) is lower than the statewide rate (397.8 per 100,000). However, when viewed at a city level, some of our communities are experiencing violent crime at rates higher than the state average. In Arcata the rate is 441.2; in Eureka is 536.3; and in Rio Dell is 563.3 per 100,000 people.

The magnitude of violence – in terms of the number of victims – makes it a serious health issue. But the effects of violence also ripple through a community, causing trauma to those who witness it or live in fear of it.

Violence is also a health issue because of the many indirect effects. Merely being exposed to violence has been linked to:

- Chronic disease (heart disease, asthma, stroke, cancer and more)
- Mental health problems (PTSD, stress, anxiety, depression and more)
- Lower quality of life
- Increased risk of perpetrating violence.

Violent crime rates in the cities of Eureka and Rio Dell are

**70%**

**HIGHER**

than the state average. Firearm-related deaths have been on the rise for several years, and are **2X** that of the state.

## Lock Up Your Lethals



**Medications**



**Alcohol**



**Firearms**



**Household products**

**Protect our people  
and our environment**

**Exposure to Violence**

Rate per 100,000 inhabitants unless otherwise noted	Arcata	Eureka	Fortuna	Rio Dell	Humboldt County	California
Felony violent crime rate arrests (homicide, forcible rape, robbery, aggravated assault, ages 10-69)	N/A	N/A	N/A	N/A	455.7	354.1
Felony drug offense arrests	N/A	N/A	N/A	N/A	700.6	451.5
DUI arrests (misdemeanor and felony, ages 10-69)	N/A	N/A	N/A	N/A	923.4	514.2
AAMR Homicide (2013-15)	N/A	N/A	N/A	N/A	7.9*	4.8
Violent crimes, rate per 100,000 inhabitants <sup>1</sup>	441.2	536.3	278.2	563.3	359.6	397.8
Domestic violence calls for assistance, rate per 1,000 residents <sup>2</sup>	N/A	N/A	N/A	N/A	8.9	6
Number of domestic violence calls for assistance <sup>2</sup>	63	159	64	21	857	155,965
Child abuse allegations, rate per 1,000 children <sup>3</sup>	N/A	N/A	N/A	N/A	85.8	54.7
Substantiated child abuse allegations, rate per 1,000 children <sup>3</sup>	N/A	N/A	N/A	N/A	10.9	9.1

California Dept. of Justice--Criminal Justice Statistics Center; CA County Health Status Profiles (2017); "\*" signifies that rate is unstable; 1. California Department of Justice, 2014; 2. Kidsdata.org, 2014; 3. California Child Welfare Indicators Project (CCWIP), 2015.

Adverse childhood experiences, especially the threat of a violent injury, can have lasting effects on children as they develop and age. Exposure to violence is associated with long-term physiological and brain changes that impact behavior and long term health. In adolescence, this can manifest as higher risk for school failure, drug abuse, delinquency and an increase in violent behavior.

There were 22 confirmed homicides in 2016. This is the highest number reported in at least 30 years according to Humboldt County Coroner’s Office records. In 2015, the county saw 15 homicides — one less than 2014. For more than a decade before that, the homicide rate was less than a dozen a year, according to the coroner’s office records dating back to 1986.



Demonstrators stand with silhouettes of local domestic violence murder victims during the Silent Witness Project’s visit to the Humboldt County courthouse in Eureka.

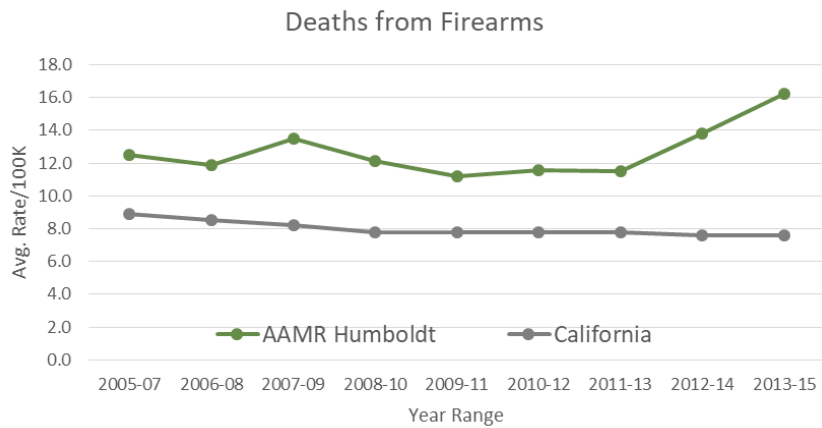


**Firearm Related Deaths**

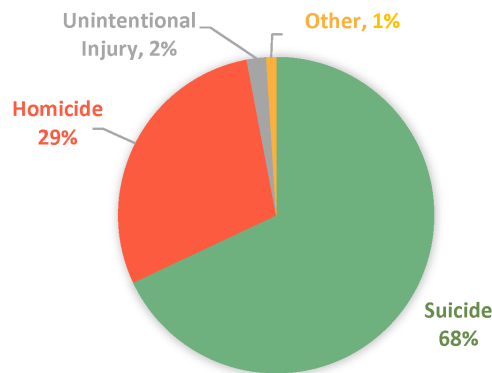
	Humboldt	Significant Difference from CA? (Y/N)	California
Deaths from firearms 2013-2015 (per 100,000)	16.2	Y	7.6
Years Potential Life Lost due to Firearms (per 100,000)*	478	Y	259
White	499.1	N/A	N/A
Native American	1296.1	N/A	N/A
All others	158.2	N/A	N/A
Non-Fatal Emergency Room Visits Due to firearms (per 100,000) 2012-2014	9.5	N	8.9

\*Humboldt data 2012-16; California YPLL 2013-15; "---" Signifies data not available or applicable; "\*\*\*\*" Signifies that rate is unstable (see Page 14 for explanation).; County of Humboldt DHHS - PHB - Vital Statistics; CDPH County Health Status Profiles Multiple years; CDC WISQARS; Healthypeople.gov 2020 Topics and Objectives ; CDPH EPICenter: California Injury Data Online; 2009 California Health Interview Survey.

The rate of deaths from firearms is consistently higher than the state's, and has increase significantly since 2013. Nearly 70% of those deaths are from suicide.



**2012-16 FIREARM DEATH BY MANNER**



## Access to Care

Access to affordable, quality health care is important to physical, social and mental health. Health insurance helps individuals and families access needed primary care, specialists and emergency care, but does not ensure access on its own. It is also necessary for providers to offer affordable care, be available to treat patients, and be in relatively close proximity to patients.

Access is not easy in Humboldt County. There are limited options for insurance plans in Humboldt County. Even with an insurance plan, locating a primary care physician that accepts the insurance, and is accepting new patients, can be difficult. Additionally, residents living in remote parts of the county face significant transportation challenges.

Access to Care		
2016 - County Health Rankings	Humboldt	California
Population to primary care physician ratio	1400:1	1270:1
Population to Dentists	1260:1	1264:1
Population to Mental Health Provider	281:1	356:1
Uninsured Adults	21%	19%
Could not see a doctor due to cost	52.90%	51.30%
% population with health insurance (Under 19 yrs)	96.00%	96.40%
% population with health insurance (age 18-64)	89.50%	87.90%

[Countyhealthrankings.org](http://Countyhealthrankings.org)



DHHS Public Health Main – 529 I Street.

Negative attitudes and a lack of knowledge about mental illness, suicide and substance use disorder (SUD) often keep people who need help from asking for it, and keep people who could offer help from doing so. Findings from the National Co-morbidity Survey indicate that few people in the U.S. with mental health disorders receive effective treatment for those conditions. Lack of access to mental health care is a problem in the U.S., and certainly in Humboldt County which is challenged by mental health care professional shortages. Health system barriers in Humboldt County include:

- A shortage of behavioral health providers such as psychiatrists and licensed therapists.
- Many existing providers do not accept Medi-Cal.
- Lack of in-patient treatment for parents with SUD that allow their children to stay with them during treatment.
- In outlying areas, particularly on the reservations, people experience isolation and limited access to support systems, transportation to services is a challenge, and there are few treatments that incorporate traditional healing practices.
- Confidentiality is a concern for people seeking services in a small community. This combined with stigma surrounding suicide and addiction keeps people from reaching out to friends, family or a health provider to get the help that they need.
- Primary care physicians may not feel comfortable asking about suicide or substance use. Not enough providers offer medically assisted treatments for substance use disorders.
- Lack of trauma-focused treatment – such as considering ACEs or Post Traumatic Stress Disorder and sexual assault.
- Having separate services for physical health, mental health and substance use disorders creates additional barriers as people have to experience the barriers mentioned above over and over. For example, repetitive paperwork, transportation to multiple locations, and potential for conflicting information or treatments.



Public Health staff administering flu shots.

## Food Access and Security

Food security for a household means access by all members at all times to enough food for an active, healthy life. Food insecurity is having limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways. (United States Department of Agriculture, n.d.).

More specifically, access to healthy food means having a variety of affordable, good quality, healthy food within one’s community.

Access to healthy affordable foods is associated with positive health outcomes; proximity to supermarkets corresponds with a lower body mass index or rate of obesity, diabetes, or diet-related death among adults. Unfortunately, most studies show that residents of sparsely populated rural areas do not have sufficient opportunities to buy healthy, affordable food. A local example of this is when the supermarket in Hoopa closed for a period of time. These conditions may be a contributing factor to the significant disparity in the rate and years of potential life lost from diabetes for Native Americans in Humboldt County.

**24.9%**  
of children in  
Humboldt County are  
Experiencing  
**FOOD INSECURITY**

The California Department of Public Health, SNAP-Ed profile for Humboldt County estimates that 17.1 percent of the overall population and 24.9 percent of children are experiencing food insecurity. These rates are slightly better than the statewide rates of 17.4 percent overall and 27.3 percent of children.

The USDA defines food deserts as census tracts with residents who are predominantly low-income and are farther than 10 miles (for rural areas) from a grocery store that has over \$2 million in annual sales. Other definitions include lack of access to vehicle transportation. Based on the most current 2010 data, Humboldt County has ten census tracts identified as food deserts.

**10**  
census tracts in  
Humboldt County have  
been identified as  
**FOOD DESERTS**

2014	Humboldt	California
SNAP-Ed Eligible	39%	32.40%
Students Eligible for Free/Reduced Price Meals	51%	58.10%
Able to afford enough food (food secure) (2013-2015)	60.10%	58.40%

California Health Interview Survey, multiple years.



## Retail Environment

The retail environment has a significant impact on the health of communities. We know if we stock our cupboards/ refrigerators with healthy choices we are more likely to eat those healthy choices.

In Humboldt County there is a disparity in the accessibility and marketing of products that promote health, and those that don't.

A high density of alcohol sales outlets may increase the risk of youth starting to drink, and make it more difficult for adults to abstain. In 2016 nearly all alcohol related deaths were from chronic conditions. The death rates in Humboldt for chronic liver disease and cirrhosis is double that of California's. The density of alcohol sales in Humboldt County is compared to statewide.



The high density of tobacco retailers is linked to higher availability, increased smoking and tobacco related disease and death. Humboldt smoking rates and lung cancer rates exceed those of the state of California. The availability of e-cigarettes is of particular concern, increasing 87 percent from 2013—2016.

Sixty-one percent of Humboldt County adults are obese or overweight. Access to a good selection of healthy foods which are affordable and of high quality matters, as described in the previous section. Without access to healthy foods, a nutritious diet and good health are out of reach.

Condoms are highly effective at preventing sexually transmitted diseases, and it is important that they are easy to purchase and access in stores. When stores keep them behind the counter, customers may be uncomfortable asking for them verbally, increasing the possibility of unprotected sex.

In Humboldt County, the retail alcohol density is **2** TIMES that of the state.

## Education

Education is associated with improved health throughout life, independent of other variables such as personal choices. Education starts before the school years; early years are critical to children’s development and lifelong health. Competent parenting skills, access to high quality early childhood education and access to affordable quality child care are all important contributors to development and later learning. Adequate education, starting early in life, can reduce the risk of a number of conditions and diseases.

High school graduation rates in Humboldt County have been at or above California’s rate for over two decades.

Education		
	Humboldt	California
High school cohort graduation rate, 2011-2015	89.80%	81.80%
Some college	36.70%	29.60%
Bachelor's degree or higher (percent of persons age 25+, 2011-2015)	0.28	0.314

[census.gov](http://census.gov)

Humboldt County’s  
High School  
Graduation rate  
continues to  
**EXCEED**  
that of the state.



ASHS students. Photo courtesy of Shane Wenzlick/Phototek.

## Policies That Impact Health

Federal, state and local laws all impact conditions that influence the health status of people. Therefore, it is necessary to develop policies at all three levels of government to address conditions that negatively affect a community's overall health.

Public policy can be seen as one influence upon community health that can impact all other factors that influence overall health. Public policy affects housing, education, income, access to food, the availability and quality of health care and the environment in which we live. Below are several examples of local policies that impact health:

- The State of California enacted Senate Bill 277, disallowing the personal belief exemption to childhood immunization. As a result, the rate of children entering kindergarten fully immunized increased by 4.8 percent in 2016.
- In Humboldt County, the cities of Arcata, Eureka, Fortuna and Blue Lake all have outdoor tobacco use policies that cover parks, beaches, trails, bus stops and ATM lines, among others.
- Ten school districts had the speed limits in front of the schools reduced to 15 MPH through a county ordinance. The cities of Arcata and Fortuna have reduced the speed limits at 7 additional schools, with more on the way.
- The City of Eureka recently passed a Social Host Ordinance that holds adults responsible if youth are consuming alcohol on their premises.
- California citizens voted to legalize the adult use of cannabis. The environmental and human health impacts of this policy will be closely monitored by Public Health.

## Health in All Policies



# Health Outcomes and Risk Behaviors

## Communicable Disease

We have a robust monitoring, reporting and regulatory system in Humboldt County. DHHS Public Health has both a Communicable Disease Program and a Public Health Laboratory. Together they test for, investigate, report and monitor notifiable diseases.

The laboratory is an important part of our local public health infrastructure. The lab plays a critical role in confirming disease outbreaks, identifying new infections and providing testing options for water supplies, local oysters and various illnesses, among other roles.

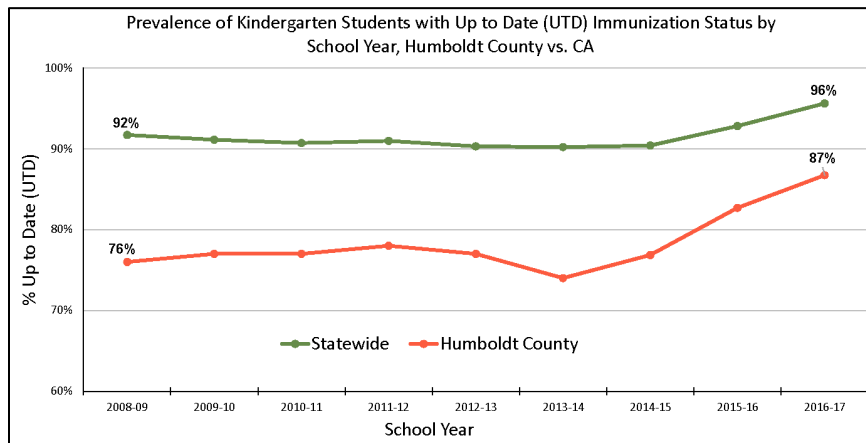
Immunization Rates			
	Humboldt County	Significant Difference from CA? (Y/N)	California
Percentage of adults and children receiving flu vaccine ( 2014-2015)	34.80%	Y	44.70%
Percentage of kindergarten students with vaccinations up-to-date (2016-17)	86.70%	Y	95.60%

[kidsdata.org/region/324/humboldt-county/results#ind=&say=&cat=6,18,27,79,37,44](https://kidsdata.org/region/324/humboldt-county/results#ind=&say=&cat=6,18,27,79,37,44)

## Immunization

Humboldt faces challenges in ensuring that enough of our residents, particularly kindergarten-aged children, are adequately immunized against vaccine-preventable diseases.

While we still lag behind the state in rates of kindergarten students with vaccinations up-to-date, the passage of SB 277 in 2016, which removes the Personal Belief Exemption, has resulted in a 4.8 percent increase over the previous year.



Before vaccines, many children died from preventable diseases such as whooping cough, measles and polio. Those same germs exist today, but because babies are now protected by vaccines, we do not see these diseases nearly as often.

Immunizing individual children also helps to protect the health of our community as a whole and those people who cannot be immunized.



## Water- and Food-borne Illness

Enteric and gastrointestinal illnesses are another common type of reportable condition in Humboldt County. These can be bacterial, viral, or parasitic in nature, and the incidence of these diseases fluctuate seasonally.

Commonly reported illnesses are listed in a table below. These illnesses can be associated with contaminated food and/or water, and while individual cases are typically reported, these diseases can cause widespread outbreaks.

Select Enteric Illnesses			
Name of Disease	Humboldt County Rate/100,000 (2016)	SIGNIFICANT DIFFERENCE FROM CA (Y/N)	California Rate/100,000 (2015)
Campylobacteriosis	25.7	N	21.4
Cryptosporidiosis	2.2	N	1
E. Coli O157:H7 and S.T. positive	8.8*	CONCERN	2.4
Giardiasis	8.1*	N	5.6
Salmonellosis	10.3*	N	14.4

County of Humboldt DHHS - PHB - Vital Statistics; 20xxCA Division of Communicable Disease Control annual summary; "\*" signifies that rate is unstable.

## Zika

To date, the Zika virus has not had a significant impact on Humboldt County, though with a mobile population, travelers may be exposed, and the disease will continue to be closely monitored.



## Viral Hepatitis

“Hepatitis” means inflammation of the liver. Toxins, certain drugs, some diseases, heavy alcohol use and bacterial and viral infections can all cause hepatitis. Hepatitis is also the name of a family of viral infections that affect the liver; the most common types are hepatitis A, hepatitis B and hepatitis C (HCV).

As described by the CDC, hepatitis A, hepatitis B and hepatitis C are diseases caused by three different viruses. Although each can cause similar symptoms, they have different modes of transmission and can affect the liver differently. Hepatitis A appears only as an acute or newly occurring infection and does not become chronic. Hepatitis A is an acute illness, unlike B or C. People with hepatitis A usually improve without treatment. Hepatitis B and hepatitis C can also begin as acute infections, but in some people, the virus remains in the body, resulting in chronic disease and long term liver problems. There are vaccines to prevent hepatitis A and B; however, there is not one for hepatitis C. If a person has had one type of viral hepatitis in the past, it is still possible to get the other types.

Hepatitis A is a virus transmitted when a person unknowingly ingests the virus from objects, food, or drinks contaminated by small, undetected amounts of stool from an infected person. The average incidence of hepatitis A in Humboldt County is 1 case per year, and 179 statewide. In 2017, outbreaks of hepatitis A were reported in San Diego, Santa Cruz and Los Angeles counties, totaling 679 cases, and 18 associated deaths. As of November, 2017, there have been no related cases reported in Humboldt County.

Estimated Hepatitis B & C Prevalence						
Humboldt (<1989 through 2016)				California (Est. 2016)		
	Est. Number of persons ever Infected	Est. Prevalence of persons living with a Chronic Infection	Est. proportion of Total Population	Significant Difference from CA? (Y/N)	Prevalence of persons living with Chronic Infection	Est. proportion of Total Population
Hepatitis B (Acute and Chronic)	865	829	0.60%	N	85,000-171,000	0.2-0.4%
Hepatitis C	7,659	7,177	5.30%	Y	375,000-573,000	0.8-1.5%

[cdc.gov/hepatitis/populations/1945-1965.htm](http://cdc.gov/hepatitis/populations/1945-1965.htm)

OVER  
 $\frac{1}{2}$

Of 2017  
Humboldt County  
HCV cases were  
born after 1966

Demographics of Humboldt County Hepatitis C Cases 2015	
Average Age m	52
% Male	54%
Average Age f	47
% Female	46%
% White	83%
% Native American	12%
% all other races	5%

[utmb.edu](http://utmb.edu)

Most of these cases were among individuals who were homeless and/or using illicit drugs. Related cases have also been identified in Arizona and Utah.

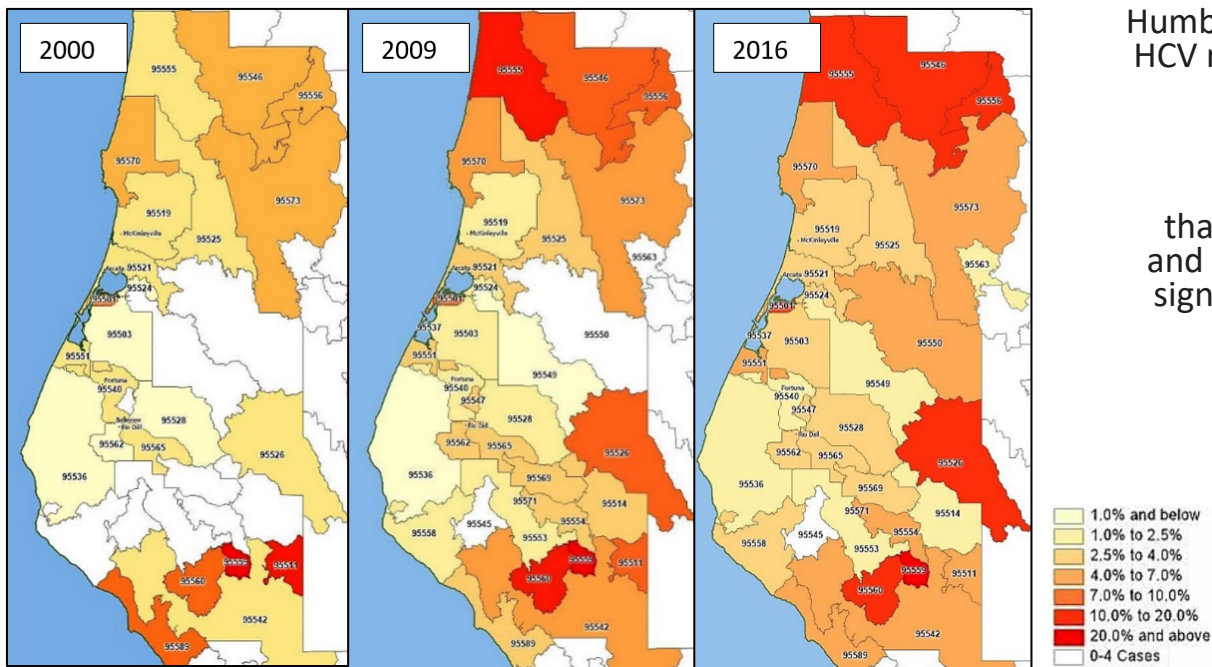
Hepatitis B is a liver infection caused by the hepatitis B virus (HBV). Hepatitis B is transmitted through sexual contact; sharing needles, syringes, or other drug-injection equipment or from mother to baby at birth. Chronic hepatitis B can lead to serious health issues, like cirrhosis or liver cancer. The best way to prevent hepatitis B is by getting vaccinated.

Hepatitis C is a liver disease caused by the hepatitis C virus (HCV), which is found in the blood of persons who have this infection. Hepatitis C is usually spread when blood from a person infected with the hepatitis C virus enters the body of someone who is not infected, including being born to a mother with HCV. The main risk factors for HCV infection are intravenous (IV) drug use and sharing of needles and drug use equipment. Needle use is a problem that intersects with other public health challenges such as behavioral health issues and overdose, homelessness and access to medical care. There is no vaccine for hepatitis C. Vaccines are available only for hepatitis A and hepatitis B.

In Humboldt County, cases of HCV and deaths of HCV cases have increased exponentially since the mid-1990's. Humboldt County has the highest rate of newly diagnosed cases of HCV infection in California. In 2016 there were more than 500 new cases of HCV diagnosed, and seven zip codes reached rates of 20 percent or higher. Included in those zip codes are Redway, Garberville, Eureka, Bridgeville, Hoopa, Weitchpec, Orleans and Orick. Last year Humboldt County had the second highest rates of end stage liver disease fatalities in the state.

Of the estimated 3.2 million people chronically infected with hepatitis C in the U.S., approximately 75 percent were born during 1945-1965, or are "Baby Boomers". In contrast to the national trend, over half of 2017 Humboldt County HCV cases were born 1966 or later (not Baby Boomers).

### Hepatitis C Prevalence by Zip Code



Humboldt County's HCV rate is at least **3** TIMES that of the state, and has increased significantly since 2000.

## HIV/AIDS

Humboldt consistently has a lower rate of reported HIV/AIDS cases than in California as a whole.

The prevalence of HIV in Humboldt County is comparable to that of other similar rural counties in California. There are approximately 180 known individuals living with HIV/AIDS in Humboldt. This number fluctuates annually as people relocate to and from the county.

Maintaining early detection efforts of high-risk populations through testing is extremely important to reducing the spread of HIV. High risk populations include: Men who have sex with men (MSM), Injection Drug Using (IDU) individuals and sex workers. Historically, MSM make up about sixty percent of all new HIV infections in the US ([AIDS.gov](http://AIDS.gov)). In Humboldt County, outreach to the MSM population is very challenging because there are no gay bars, there are very few other locations where MSM congregate and local MSM tend to meet online. Outreach efforts to other high risk groups continue through the mobile outreach program, and include free rapid HIV testing and information on how to obtain Pre-Exposure Prophylaxis (PrEP) – medication given to prevent HIV transmission in HIV negative people who are at risk of becoming infected.

HIV/AIDS 2014				
	Humboldt # of persons living with HIV/AIDS	Prevalence/ 1,000 persons	California Prevalence	Significant Difference from CA? (Y/N)
HIV / AIDS	180	1.3 per 1000	3.3 per 1000	Y

Sources: County of Humboldt DHHS-PHB-Vital Statistics; CDPH California County Health Status Report multiple years

**PrEP:**  
**HIV PREVENTION**  
**WITH JUST**  
**1 PILL A DAY**

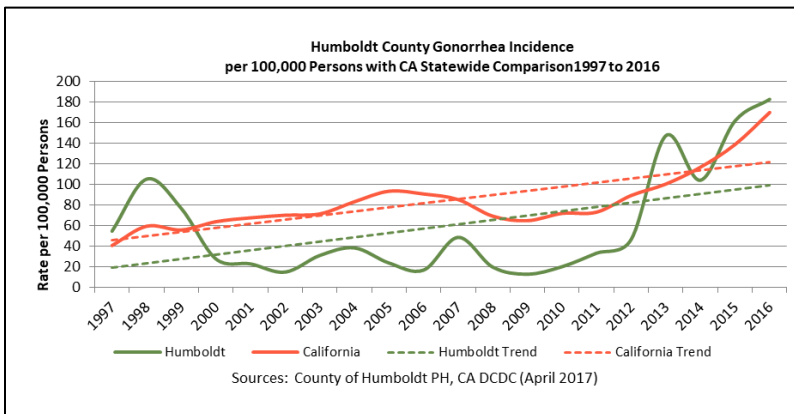
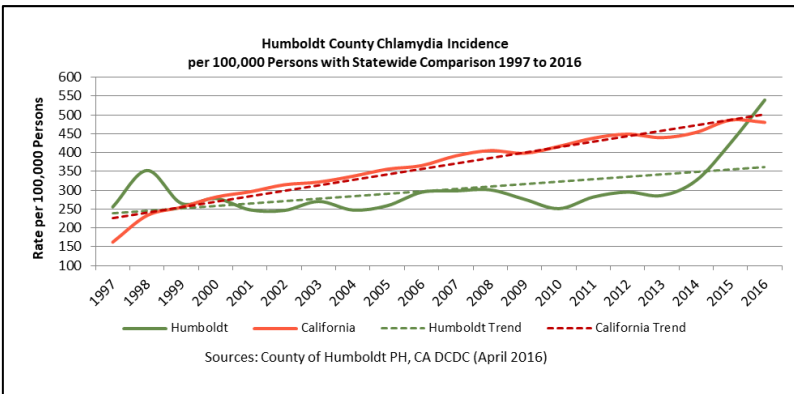




## Sexually Transmitted Disease

Sexually Transmitted Diseases (STDs) affect all of us, and infection is not limited to an age group, gender, race or socio-economic level. Public Health tracks important information about all of the major reportable STDs. These include chlamydia, gonorrhea and syphilis. Per state and federal guidelines, other infections, such as the human papillomavirus and herpes are not tracked or reported in California.

Over the last five years, rates of chlamydia and gonorrhea have markedly increased and continue to remain high. During the same time period, California as a state has experienced record highs in the rates of chlamydia and gonorrhea. There is no definitive or singular cause for the rates of infection that are being seen, but two important contributing factors are the availability of web-based sites and smart phone apps that facilitate meeting anonymous sex partners and a lack of condom use.



**Don't hook up with syphilis.**

**Humboldt County syphilis rates increased by 172% in the past year.**

**Call the DHHS Public Health Clinic 707-268-2108 to schedule a test.**

## Tobacco Use

Tobacco use remains a significant cause of poor health outcomes in Humboldt County. Lung cancer and mortality rates from Chronic Obstructive Pulmonary Disease (COPD) remain significantly higher in Humboldt than in California overall.

While the smoking rates reported by Humboldt residents are generally similar to statewide rates, Humboldt residents report smoking more cigarettes overall during their lifetime than is reported statewide. Of greater concern is the fact that Humboldt residents smoke indoors at a much higher rate than smokers statewide. Secondhand tobacco smoke is a known risk factor for many lung and cardiovascular diseases, including asthma.

According to the Centers for Disease Control (CDC), tobacco use is the single most preventable cause of death and disease in the United States. Each year, approximately 443,000 Americans die from tobacco-related illnesses. For every person who dies from tobacco use, 20 more people suffer with at least one serious tobacco-related illness.

The CDC further states there is no risk-free level of exposure to secondhand smoke. Secondhand smoke causes heart disease and lung cancer in adults and a number of health problems in infants and children.

Smoke-free policies adopted by the state, counties and local cities are an effective way to protect non-smokers from second-hand smoke.

Humboldt smoking rates and lung cancer rates exceed those of the state. The high density of tobacco retailers is linked to higher availability, increased smoking, and tobacco related disease and death.

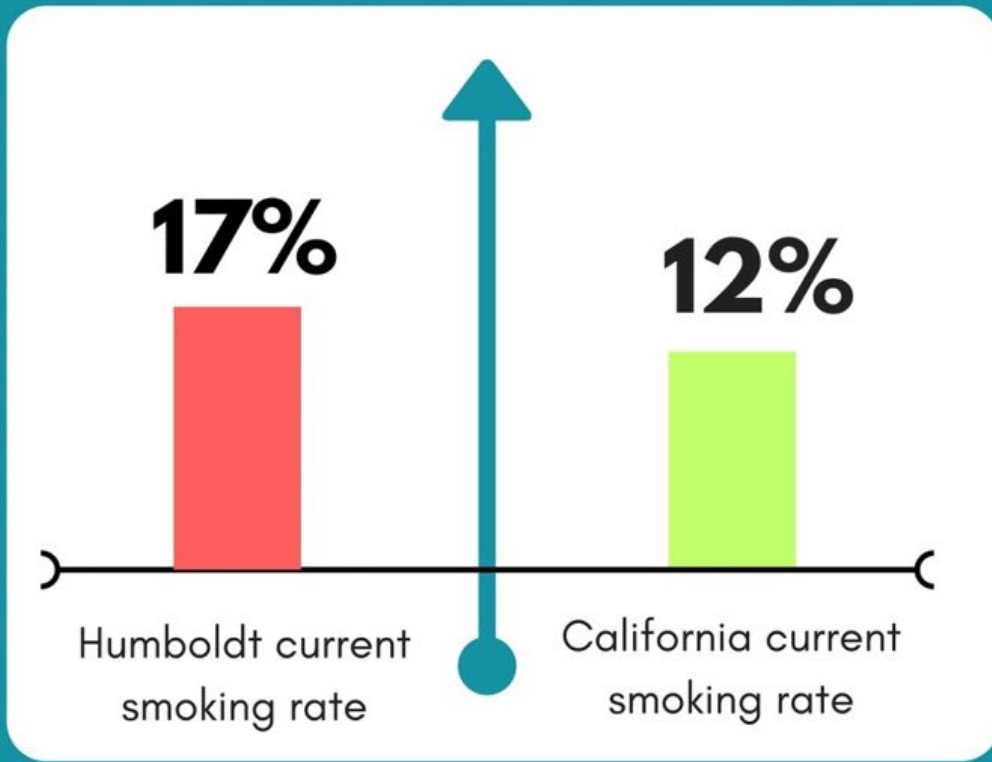
Behaviors: Tobacco Use and Cannabis Use			
	Humboldt County	Significant Difference from CA? (Y/N)	California
Percentage of adults and teens currently smoking (2013-15)	18.30%	Y	11.60%
Percentage of population who have smoked 100+ cigarettes in their lifetime (2013-15)	40.10%	N	35.00%
11th graders who have ever smoked Cannabis (2013-2016)	48.00%	Y	37.80%

California Health Interview Survey Multiple Years; California Healthy Kids Survey Multiple Years

Outcomes: Smoking-Related Illness and Deaths				
2013-2015 mortality rates	Humboldt County	Significant Difference from CA? (Y/N)	California	Healthy People 2020 Objective
Lung Cancer Mortality Rate	34.2	N	30.6	45.5
Average Annual Lung Cancer Incidence	53	Y	43.2	N/A
AAMR COPD	48.3	Y	33.3	102.6

CDPH County Health Status Profiles 2017; Healthypeople.gov 2020 Topics and Objectives; California Cancer Registry, Cancer incidence (fatal and non-fatal new cases) include both Humboldt and Del Norte Counties

# Smoking in Humboldt exceeds state rates.



Humboldt's lung cancer death rate (per 100,000) is above the state average.

**46.9**  
Humboldt

**31.7**  
California

California Health Interview Survey, 2011-2014



In Humboldt, it's easier to find a fruit-flavored cigarette than real fruit.



## Nutrition and Physical Activity

Humboldt County has diverse climate regions, and local farmers are able to grow a wide variety of vegetables, fruits, grains and livestock. Farmers' Markets are held throughout the county.

<b>Weight</b>			
	Humboldt County	Significant Difference from CA? (Y/N)	California
% of children overweight for age (Does not factor height) (2011-2015)	8.7%***	N	12.90%
Percentage of Teens (age 12-17) at Normal Body Weight for Age (2011-2015)	84.40%	Y	64.90%
Percentage of Adults (age 18+) Obese [Body Mass Index (BMI) 30+] (2013-2015)	30.30%	N	26.60%
<b>Nutrition</b>			
Able to afford enough food (food secure) (2013-2015)	60.10%	N	58.40%
Youth refrain from Soda Consumption past 24H (Child + Teen) HUM (2013-2015)	93.50%	Y	78.00%
Children and youth (ages 2-17) consuming 5+ servings of fruits/vegetables daily	23.70%	N	24.20%
Youth refrain from other Sugary Beverage Consumption past 24H (Child + Teen) HUM (2013-2015)	78.00%	N	75.20%
<b>Physical Activity</b>			
One hour Physical Activity 7 days/week (child) HUM (2013-2015)	59.70%	Y	28.20%
One hour of physical activity every day of the week (Teen) (2011-2015)	22.6%***	N	14.10%
7th graders who achieve the healthy fitness goal in all 6 FitnessGram tests (2015-2016)	30.20%	N	32.10%
Youth who walked, biked or skated from school in past week HUM	28.60%	CONCERN	41.10%
Mean travel time to work (minutes), workers age 16 years+, 2011-2015	18.1 min.	N/A	28.0 min.



Compared to California as a whole, Humboldt County rates better on some key nutrition and physical activity indicators.

While the percentage of adults with an obese body mass index has increased somewhat, the percentage of teens at normal body weight has increased since 2013, and is significantly better than the state average.

As with other risk factors and health behaviors, poor nutrition and a lack of exercise are not always a result of personal choice. Factors such as access to affordable healthy foods or neighborhood design, which promotes exercise and use of multiple modes of transportation, have significant impact on these behaviors.

Humboldt County participates in the Safe Routes to School movement through activities that encourage safe walking and bicycling to school as well as providing education on safety and health. Efforts with local schools and communities have included promotion of walk and bike to school days, bicycle rodeos to build skills and gain practice riding, and classroom pedestrian and bicycle safety presentations.

California Health Interview Survey, multiple years; "\*\*\*\*" signifies that rate is unstable

## Oral Health

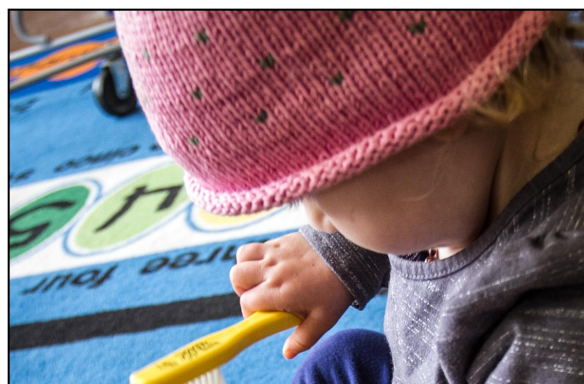
The findings of a local needs assessment entitled Healthy Teeth for Life, discovered seven school districts in Humboldt County had more than 30 percent of students with untreated decay, and two districts had more than 50 percent of students with untreated decay.

According to the Kindergarten Oral Health Assessment for Humboldt County, across all 32 school districts 27.2 percent of kindergarten students had untreated decay, which is at least 1 out of 4 students.

From 2011—2012 it was reported that 12.3 percent of our children between the ages of 2—11 had never had a dental visit, compared to 10.3 percent for the state of California. As of the close of 2017, only 5 dentists in Humboldt County accept Denti-Cal for pediatric dentistry.

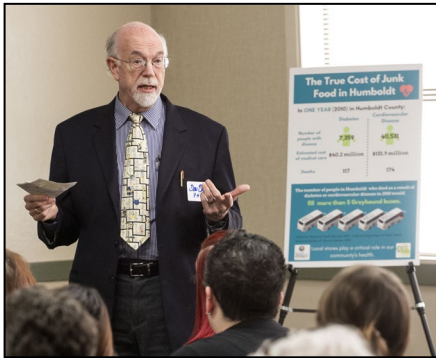
At least 675 of Humboldt County children from 2008 to 2013 received hospital-based dentistry services. Of those 675 children, 95 percent were covered by Medi-Cal and almost 75 percent were between the ages of 0—5. Children are often referred to hospital-based dentistry when they require anesthesia due to rampant cavities, and being too young or scared to sit still for treatment, or have a developmental disability.

The National Institute of Dental and Craniofacial Research ([tinyurl.com/y8r328u5](http://tinyurl.com/y8r328u5)) report that recent epidemiological and experimental animal research provides evidence of possible associations between oral infections— particularly periodontal disease—and diabetes, cardiovascular disease, and adverse pregnancy outcomes.



## Diabetes, Heart Health and Stroke

Poor nutrition and a sedentary lifestyle are health behaviors that can lead to the onset of obesity and type two diabetes, which in turn increase a person’s risk of developing heart disease, kidney disease, stroke and other serious health complications.



Public Health Officer Dr. Donald Baird speaks about the risks of an unhealthy diet.

According to the American Diabetes Association 95 percent of people living with diabetes have type two diabetes as opposed to type one. Lifestyle and genetics both influence the development of diabetes.

Type two diabetes develops gradually over time. Diabetes affects the body’s ability to produce and regulate insulin. Too little insulin allows blood sugar to build up and may cause devastating complications such as kidney failure, nerve damage, amputations, blindness, heart attack and stroke. Many people don’t show symptoms until the disease is advanced and damage has occurred.

Humboldt County’s diabetes-related deaths are more than **2** TIMES higher for Native Americans than for the population as a whole.

Diabetes							
	Humboldt County					California	Healthy People 2020 Objective
	Total	Significant Difference from CA? (Y/N)	Whites	All Other*	Native Americans		
Estimated diabetes-related deaths* (per 100,000)	72.3	N/A	67.2	86.7	177.6	N/A	65.8
Rate Years Potential Life Lost (YPLL) due to diabetes** (per 100,000)	451.5	Y	395.5	419.7	1503.5	141.5	N/A
Estimated prevalence of diabetes (2011-2015)	7%	N	N/A	N/A	N/A	8.80%	<0.7% annual increase in new cases
Ever told has pre- or borderline diabetes (2011-2015)	11.6 %	N	N/A	N/A	N/A	10.40%	N/A

\*All-others includes Black, Asian, Hispanic, Latino, Multi-Race, and Native Hawaiian and Other Pacific Islander persons.;\* \*Humboldt data 2012-2016; California; YPLL 2013-15: "-" signifies data not available or applicable, italics signify that rate is unstable; County of Humboldt DJIS-PHB Vital Statistics Multiple Years; California Health Interview Survey Multiple Years; Healthypeople.gov 2020 Topics and Objectives; CDC-WISQARS.

Together with diabetes, cardiovascular disease and stroke are some of the most common chronic diseases affecting our community. Cardiovascular disease is the third leading cause of premature death, and the rate of stroke in Humboldt County is higher than the state.

High blood pressure, smoking, diabetes, high cholesterol, being overweight, physical inactivity, excessive alcohol use, older age, family history and prior stroke or heart attack are all risk factors for stroke and cardiovascular disease. Annually, over 80 percent of Humboldt County deaths in people with diabetes are from heart disease, kidney disease and stroke, with heart disease causing nearly 60 percent of deaths.

The stroke rate in Humboldt County is nearly **2** TIMES that of the state.



Heart Health and Stroke				
2013-15 (unless otherwise noted)	Humboldt County	Significant Difference from CA? (Y/N)	California	Healthy People 2020 Objective
AAMR* Coronary Heart Disease (per 100,000)	99.1	N	93.2	< 103.4
AAMR Stroke (per 100,000)	65.7	Y	34.7	< 34.8
Emergency Room Visits for Myocardial Infarction (Heart Attack), Adults age 35+ (per 10,000) (2015)	34.4	Y	25.3	N/A
Ever Diagnosed with High Blood Pressure	27.30%	N	28.30%	N/A
If Hypertensive, Takes Medication For High Blood Pressure	66.30%	N	68.80%	N/A

California Health Interview Survey Multiple Years; CDPH Environmental Health Investigations Branch; CDPH County Health; Status Profiles 2017; Healthypeople.gov 2020 Topics and Objectives.

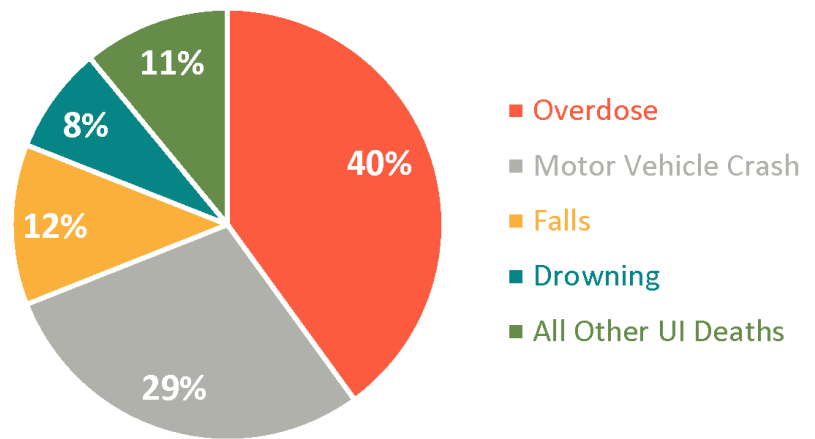
## Unintentional Injury

Unintentional injuries are the leading cause of preventable and premature death in Humboldt County. From 2013— 2015, over two thirds of unintentional injury deaths (69 percent) were from accidental alcohol/drug overdose, and transportation-related collisions, primarily involving motor vehicles.

Among the transportation-related injuries were motor vehicle collisions with bicycles. In 2011, there were 57 cyclists injured and two killed. In 70 percent of those collisions, the cyclist was named as being at fault.

The rate of unintentional injury and death from all causes in Humboldt is approximately twice that of California as a whole. The rate of unintentional injury and death in Humboldt’s Native American population is substantially higher than both the county and state overall rates, which may be a contributing factor to a lower average age at death within the county’s Native American communities.

Unintentional injuries are the leading cause of preventable, premature death in Humboldt County.



Deaths and Emergency Department Visits due to Unintentional Injury							
	Humboldt County					California	Healthy People 2020 Objective
2013-15 Unless otherwise noted (per 100,000)	Total	Significant Difference from CA? (Y/N)	Among Whites	Among all others	Among Native Americans		
Unintentional Injury AAMR	66.4	Y	58.7	50	121.6	29.1	36.4
Years Potential Life Lost due to Unintentional Injuries	1700	Y	1722.6	1107.1	3818	779.4	N/A
Non-Fatal Emergency Room Visits due to Unintentional Injuries	8656.3	Y	N/A	N/A	N/A	5918.9	N/A

County of Humboldt DHHS-PHB – Vital Statistics; CDPH County Health Status Profiles 2017, CDC WISQARS; Healthypeople.gov\_2020 Topics and Objectives.



## Motor Vehicle Crashes

Humboldt County has fatal accident rates double the national average and nearly triple those of California. In 2013, Humboldt’s per-capita motor vehicle fatality rate — 20.72 deaths per 100,000 residents — exceeded that of any state in the country save for Montana (22.6), according to the Insurance Institute for Highway Safety.

Our rates of vehicle-versus-pedestrian fatalities are also some of the highest in the country. In 2013, the last year for which data is available, California recorded 1.83 pedestrian fatalities per 100,000 residents. Nationally, the rate was 1.34. In Humboldt that year, it was 4.44.

Humboldt County’s rates in both categories have trended sharply upward over the last decade, while national and state rates have dropped almost 50 percent.

Motor Vehicle Injuries and Fatalities	Humboldt					California	Healthy People 2020 Objective
	Total	Significant Difference from CA? (Y/N)	Among Whites	All Others*	Native Americans		
Motor Vehicle Fatalities/100,000	19	Y	15.8	17	50.1	8.3	12.4
Years Potential Life Lost (YPLL) <age 75	617.1	Y	567.6	519.9	1805.5	293.1	N/A
Non-Fatal Emergency Room Visits due to Motor Vehicle Injuries 2012-12 (per 100,000)	721.7	Y	N/A	N/A	N/A	640.8	N/A

\* All-others includes Black, Asian, Hispanic, Latino, Multi-Race, and Native Hawaiian and Other Pacific Islander persons; County of Humboldt DHHS-PHB-Vital Statistics; CDPH County Health Status Profiles 2017, CDC WISQARS; 2013-25; Healthypeople.gov 2020 Topics and Objectives, California YPLL Humboldt YPLL 2012-16.



**Motor Vehicle Collisions by Type**

Type of Collision	Victims Killed & Injured	Humboldt's Rank of 58 Counties (higher is better)
Total Fatal and Injury	879	16
Alcohol Involved	143	5
Had Been Drinking Driver <21	11	14
Had Been Drinking Driver 21-34	53	6
Motorcycles	78	13
Pedestrians	59	2
Pedestrians <15	7	12
Pedestrians 65+	7	13
Bicyclists	48	10
Bicyclists <15	5	20

Office of Transportation Safety, 2016

Motor vehicle fatalities are  
**3**  
**TIMES**  
 higher for Native Americans than Caucasians.



## Liver Disease and Cirrhosis

Cirrhosis of the liver and chronic liver disease have many causes. In the United States, the most common causes are chronic alcoholism and hepatitis. (There is a strong association between injection drug use and Hepatitis B and C infection.) Nationally, it is the twelfth leading cause of death (2007), and the thirteenth leading cause of death in California (2008-10). Reviewing Humboldt County data from 2007-2011, cirrhosis/chronic liver disease was the fifth leading cause of death in people aged 25 to 44 years and the third leading mortality cause in the 45 to 64 year age group.

Humboldt County Liver Disease and Cirrhosis							
Rates 2013-12 unless otherwise noted (per 100,000)	Humboldt					California	Healthy People 2020 Objective
	Total	Significant Difference from CA? (Y/N)	Among Whites (2012-16)	All Other* (2012-16)	Native Americans		
Deaths due to Cirrhosis and Liver Disease	24	Y	N/A	N/A	N/A	12.1	8.2
Years Potential Life lost due to Cirrhosis and Liver Disease ; Chronic Alcohol Abuse	596.9	Y	552.3	487.1	1,927.80	208.2	N/A

\*All others include Black, Asian, Hispanic, Latino, Multi-Race, and Native Hawaiian and Other Pacific Islander persons; County of Humboldt DHHS-PHB-Vital Statistics; CDPH County Health Status Profiles 2017; CDC WISQARS; Healthypeople.gov 2020 Topics and Objectives.

Cirrhosis/chronic liver disease was the

**5<sup>th</sup>**

**LEADING CAUSE OF DEATH**

in people aged 25 to 44 years and the third leading mortality cause in the 45 to 64 year age group.

The years of potential life lost is

**3 1/2**

**TIMES HIGHER**

for Native Americans than for Caucasians, and more than twice that of the state overall.

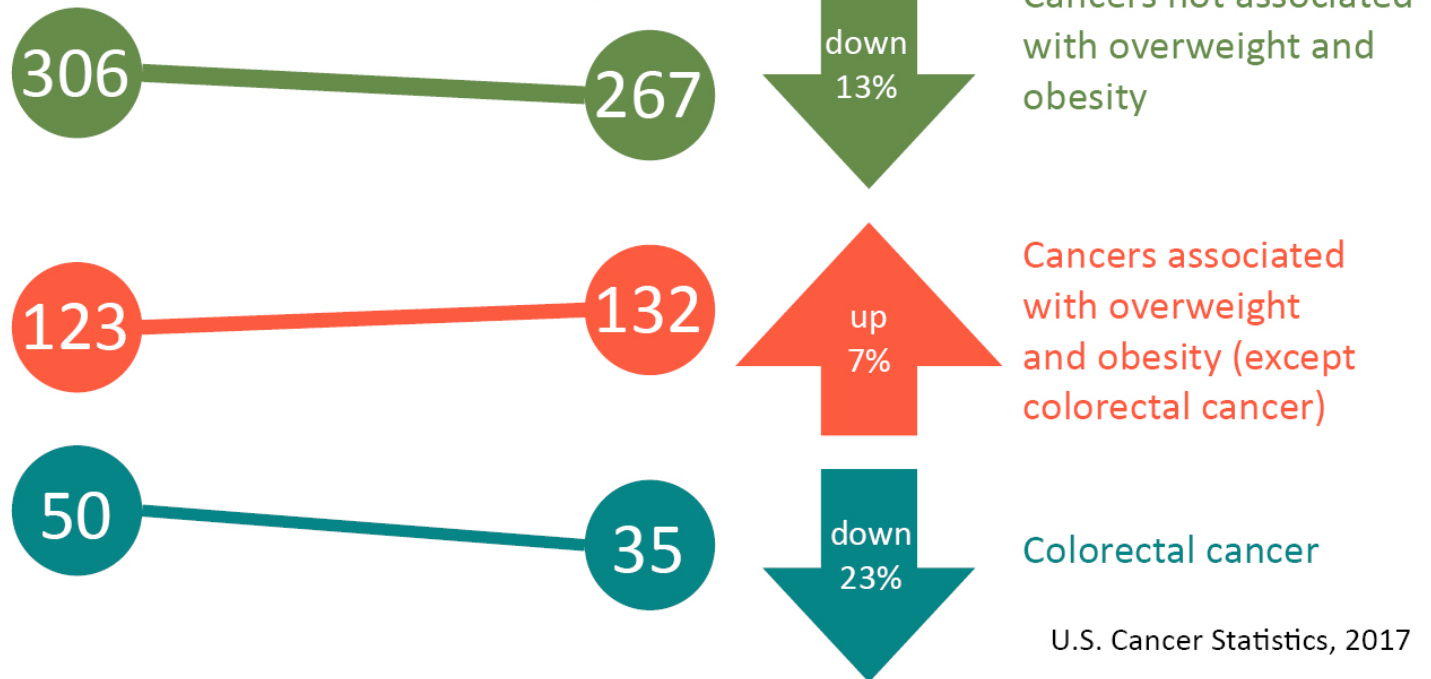
# Cancer

In cancers that affect both men and women, lung and colorectal cancer are the leading and second leading causes, respectively, of cancer mortality nationally, statewide and in Humboldt County. While lung cancer is overwhelmingly associated with smoking, colorectal cancer has many preventable associated risk factors, including poor diet, lack of exercise, obesity, smoking and alcohol use.

Cancer Rates age-adjusted per 100,000 persons				
Mortality Rates 2013-15; Incidence Rates	Humboldt County	Significant Difference from CA? (Y/N)	California	Healthy People 2020 Objective No more than:
Total Cancer Mortality Rate	162.7	Y	143.8	161.4
Total Cancer Incidence Rate (2012-2014)	424.3	Y	399.9	N/A
Female Breast Cancer Mortality Rate	21.9*	N	19.8	20.7
Female Breast Cancer Incidence Rate	107.6	N	120.4	N/A
Prostate Cancer Mortality Rate	25.8*	N	19.3	21.8
Prostate Cancer Incidence Rate	94.9	N	96.5	N/A
Colorectal Cancer Mortality Rate	13.1	N	13.2	14.5
Colorectal Cancer Incidence Rate	38.1	N	35.9	N/A

CDPH County Health Status Profiles 2017; Healthypeople.gov 2020 Topics and Objectives; California Cancer Registry, Cancer incidence; (fatal and non-fatal new cases) include both Humboldt and Del Norte Counties, covering. "\*" Signifies that rate is unstable.

Age-adjusted rates of new cancer cases (per 100,000)

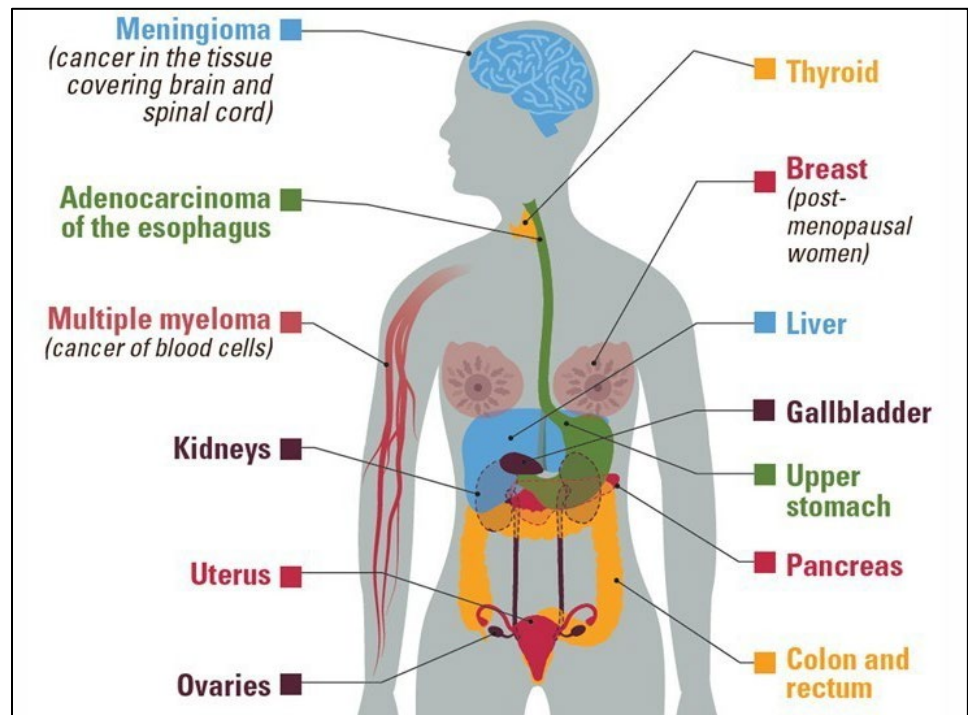




Cancers not associated with overweight and obesity have declined by 13%. Colorectal cancers have decreased by 23%, and this is attributed to an increased rate of screening. Other cancers associated with overweight and obesity have increased by 7%. The Center for Disease Control and Prevention (CDC) reports that overweight and obesity are associated with at least 13 different types of cancer. These cancers make up 40 percent of all cancers diagnosed nationally. About 2 in 3 occur in adults 50-74 years old. Most types of these cancers associated with overweight and obesity increased from 2005-2014. More than half of Americans don't know that overweight and obesity can increase their risk for cancer (<https://tinyurl.com/y85596jv>).

## 13 cancers are associated with overweight and obesity

- A higher proportion of Americans are overweight or obesity than several decades ago.
- Overweight and obesity can cause changes in the body that lead to cancer, such as increases in levels of certain hormones and inflammation.
- People who weigh more than recommended may increase their risk of some cancers.
- About 55 percent of all cancers diagnosed in women and 24 percent of those diagnosed in men are associated with being overweight or obese.
- About 2 in 3 of all cancers occur in adults ages 50 to 74.
- There are 13 types of cancer associated with overweight and obesity:
  - Meningioma
  - Adenocarcinoma of the esophagus
  - Multiple myeloma
  - Kidneys
  - Uterus
  - Ovaries
  - Thyroid
  - Breast (post-menopausal women)
  - Liver
  - Gallbladder
  - Upper stomach
  - Pancreas
  - Colon and rectum



# Behavioral Health

Healthy People 2010 defines mental health as “a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with adversity.” An individual’s mental health influences their well-being, family and interpersonal relationships, and contribution to society. Mental illness touches people of all ages, gender, race, and income.

Mental illness and substance abuse are often, but not always, co-occurring disorders; they are inter-linked with physical health status and many risky behaviors such as tobacco, alcohol and substance abuse, problems gambling and risky sexual activity.

Evidence has shown that mental disorders, especially depressive disorders, are strongly related to disease - not only the diseases we get but also the successful treatment and course of many chronic diseases. Diabetes, cancer, cardiovascular disease, asthma, and many risk behaviors linked to chronic disease, such as physical inactivity, smoking, excessive drinking, and sleep insufficiency all correlate with or are exacerbated by mental disorders.

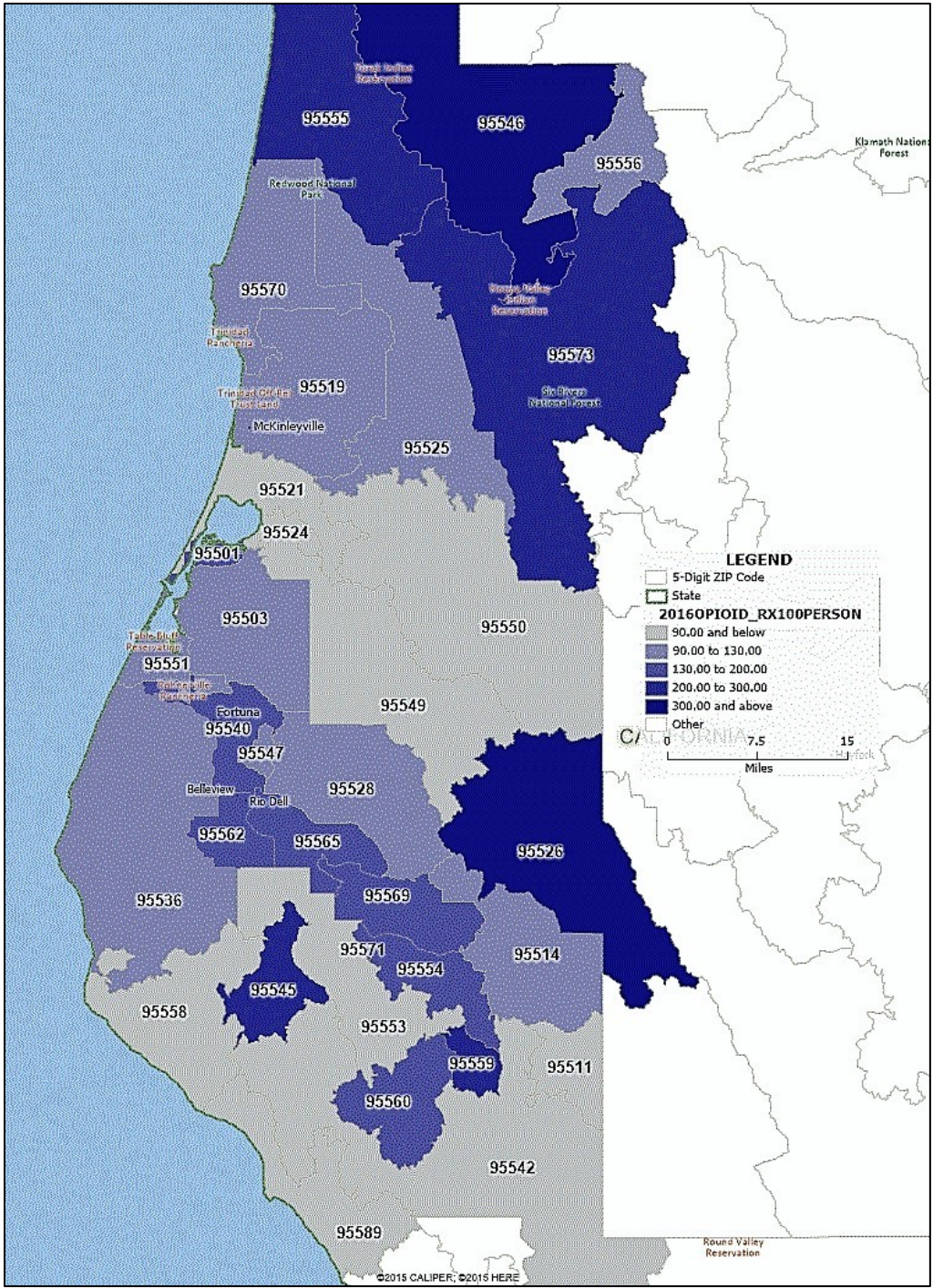
According to the CDC, depression is the most common type of mental illness nationally, affecting more than 26 percent of the U.S. adult population. It has been estimated that by the year 2020, depression will be the second leading cause of disability throughout the world, trailing only ischemic heart disease.

The cost to society is compounded by the consequences of alcohol and substance abuse addiction, which impact public safety, health, welfare, and education. Unfortunately, myths and stigma associated with mental illness prevent many people from getting the help they need.

Mental illness and substance use disorder are interrelated, and each one is a risk factor for overdose and suicide. More than 90 percent of people who die by suicide have a mental health disorder, a substance abuse disorder, or both. About 90 percent of people who have died by suicide have at least one mental health disorder such as schizophrenia, depression, bipolar disorder or general mood disorders. More than 50 percent of suicides are associated with a major depressive episode. Ten percent of suicides are associated with a psychotic disorder such as schizophrenia.

Behavioral Health Indicators		
	Humboldt County	California
Poor mental health days (age-adjusted) <sup>1</sup>	4.1	3.6
Suicidal ideation (ages 18+) <sup>1</sup>	17.40%	7.80%
Adults with likely serious psychological distress (ages 18+) <sup>1</sup>	10.60%	8.10%
Students who report feeling safe or very safe at school <sup>2</sup>	70%	64%
Students who report a high level of overall school connectedness <sup>2</sup>	56%	45%
Students who agree that teachers or other adults care for them <sup>2</sup>	44%	34%
Adults reporting needing help for mental health or drug/alcohol problems <sup>3</sup>	20%	16.30%

<sup>1</sup> CA County Health Status Profiles (2017); <sup>2</sup> California Healthy Kids Survey(CHKS) (2011-2013); <sup>3</sup> CHKS (2014)



In 2016 some zip codes in Humboldt County had **3** TIMES more opioid prescriptions than there were people.



## Alcohol and Other Drug Use

Why do rural California counties have consistently higher rates of alcohol and other drug (AOD) related deaths? There is no single identifiable cause, and there is little data to describe the rates of addiction to better target early interventions, but there are some shared risk factors that contribute to the problem:

- Isolation can prevent people from forming supportive relationships.
- Geographic distance contributes to transportation barriers and access to basic services.
- Community acceptance and tolerance of heavy drinking and drug misuse creates an environment in which substance abuse and dependence are tolerated.
- Adverse Childhood Experiences (ACEs) and trauma are associated with substance use disorders.

Humboldt County's AOD-related death rates are 3 times higher than the state. Substance abuse - alcohol abuse, abuse of prescription and over-the-counter drugs and illicit drug abuse - is the most significant risk factor contributing to Humboldt County's poor overall health outcomes. In the programs operated by Humboldt County's Department of Health and Human Services, Mental Health Branch, the number one AOD treatment is for alcohol dependence, followed by methamphetamine dependence.

The devastating impacts of substance abuse affect the entire community; the damage is not limited to the individual engaging in these behaviors. High rates of drug-related hospitalizations and emergency room visits burden our local health care system with serious yet preventable illness and injury. Substance abuse erodes social cohesion in communities, and results in increased rates of felony crimes, diminished economic capacity and opportunity and premature deaths.

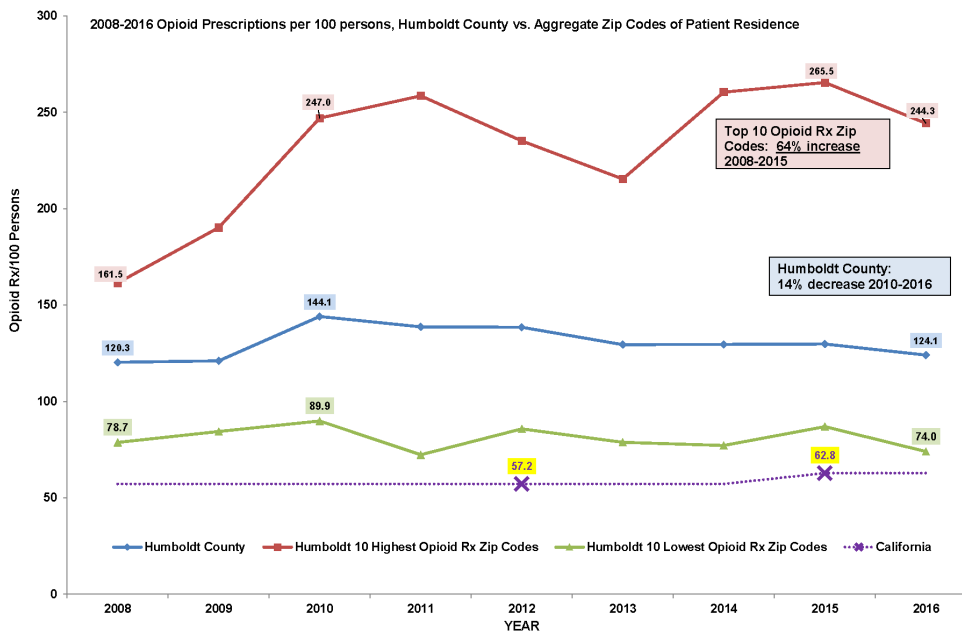
Multiple factors have contributed to a community culture that normalizes drug use and leads to early onset of substance use, putting youth at higher risk for addiction and overdose later in life. Access to alcohol and other drugs and addiction can also be a risk factor for suicide. Research studies in the United States have found the more access people have to alcohol, the more frequently suicides involve alcohol. Acute alcohol use has been found to be associated with more than one-third of suicides and approximately 40 percent of suicide attempts.





Death and Emergency Department Visits due to Substance Use Disorder							
	Humboldt County					California	Healthy People 2020 Objective
Rates 2013-15 unless otherwise noted (per 100,000)	Total	Significant Difference from CA? (Y/N)	Among Whites	All Other*	Native Americans		
Drug Induced Deaths	33.3	Y	N/A	N/A	N/A	11.8	11.3
Deaths due to Unintentional Overdose (2012-2016)	24.7	CONCERN	26	16.3	39.2	N/A	N/A
Rate Years Potential Life Lost due to Unintentional Overdose	720.9	Y	775.8	399.4	1142.5	318.3	N/A
Non-Fatal Emergency Room Visits due to Drug Overdose, all (2015)	181.6	Y	N/A	N/A	N/A	101.9	N/A
Non-Fatal Emergency Room Visits due to opioid overdose (2015)	18.6	Y	N/A	N/A	N/A	9.6	N/A

County of Humboldt DHHS-PHB-Vital Statistics; CDPH County Health Status Profiles 2017, CDC WISQARS; Healthypeople.gov 2020 Topics and Objectives; California Opioid Overdose Surveillance Dashboard. California YPLL 2012-2016.



The rate of non-fatal ER visits due to overdose is nearly **2** TIMES that of the state.

Sources: CURES 2.0 PDMP, US Census, Multiple Years. Vital Signs: Variation Among States in Prescribing of Opioid Pain Relievers and Benzodiazepines--United States 2012. MMWR, July 4, 2014, Vol. 63, No. 26.

## Alcohol and Other Drug Use - Youth

County-level data from the California Healthy Kids Survey point to widespread use of substances among high school students in Humboldt County. Humboldt County high school-aged youth report higher rates of alcohol and marijuana use than their peers statewide. Additionally, Humboldt County youth report higher rates of binge drinking than their peers statewide.

Many studies have noted that the earlier the age of onset, the more likely an individual is to experience negative health consequences related to substance use over time. It is of particular concern that the age of substance use initiation is younger in Humboldt County than the rest of the nation.

The factors surrounding youth alcohol and marijuana use are extremely complex. Addressing the root cause will require a coordinated, ongoing, community-level response.

Humboldt County Youth AOD Use						
	2015-2016			2011-2013		
Percent of youth surveyed	% of 9th Grade	% of 11th Grade	% of Non-Traditional	% of 9th Grade	% of 11th Grade	% of Non-Traditional
Past 30-day use - alcohol	20	34	49	29	42	59
Past 30-day use - binge drinking	10	22	34	19	31	48
Past 30 day use - marijuana	16	30	58	22	27	42
Perceived harm alcohol - drink occasionally						
Great	20	18	25	18	17	22
Moderate	29	27	29	24	24	31
Slight	35	39	28	39	41	34
None	17	16	18	19	18	13
Perceived harm of marijuana - smoke occasionally						
Great	22	19	18	24	22	23
Moderate	21	15	5	29	23	25
Slight	27	28	19	24	33	18
None	31	37	58	22	22	34
Parental disapproval - very wrong - alcohol	73	69	52	52	51	27
Parental disapproval - very wrong - marijuana	66	60	30	41	33	14
Perceived difficulty of obtaining alcohol - very or fairly easily	62	74	68	71	76	70
Perceived difficulty of obtaining marijuana - very or fairly easily	68	81	80	74	78	77

[chks.wested.org/query-chks](http://chks.wested.org/query-chks)

## Suicide

Suicide has an obvious impact on the immediate family of the victim, but is also felt throughout the community in ways that are not easily quantified. Many counties in California and throughout the US with similar demographic profiles as Humboldt have high suicide rates. Self-inflicted death and injury represent a significant health challenge to Humboldt County.

In Humboldt County:

- Suicide is the leading cause of death for those aged 15 to 24.
- Women attempt suicide three times as often as men.
- Men are nearly four times more likely to die by suicide than women.

Researchers look at risk factors and resiliency factors rather than looking for a specific cause of suicide. Some important risk factors include:

- Substance abuse and isolation. Geographic isolation can also create a barrier to access to care and treatment.
- Access to lethal means (firearms and drugs).
- Prior history of mental illness or substance abuse, particularly early substance abuse.

Other risk factors include unemployment and economic instability. Protective factors include family cohesion and supportive relationships.

With Mental Health Services Act support, DHHS and community partners have launched a variety of services and activities to reduce suicide by building protective factors while reducing risk factors.

About 45 percent of males in the US own a gun. Means of suicide such as firearms, hanging/ suffocation, or jumping from heights provide little opportunity for rescue and, as such, have high case fatality rates (e.g., about 85 percent of people who use a firearm in a suicide attempt die from their injury).

Suicide and other forms of violence often share the same individual, relationship, community and societal risk factors suggesting that efforts to prevent interpersonal violence may also prove beneficial in preventing suicide. Suicide is connected to other forms of violence. Exposure to violence (e.g., child abuse and neglect, bullying, peer violence, dating violence, sexual violence and intimate partner violence) is associated with increased risk of depression, Post-Traumatic Stress Disorder (PTSD), anxiety, suicide and suicide attempts.

Women exposed to partner violence are nearly 5 times more likely to attempt suicide than women not exposed to partner violence.

Veterans experience higher rate of suicides due to their similar exposure to violence and PTSD.

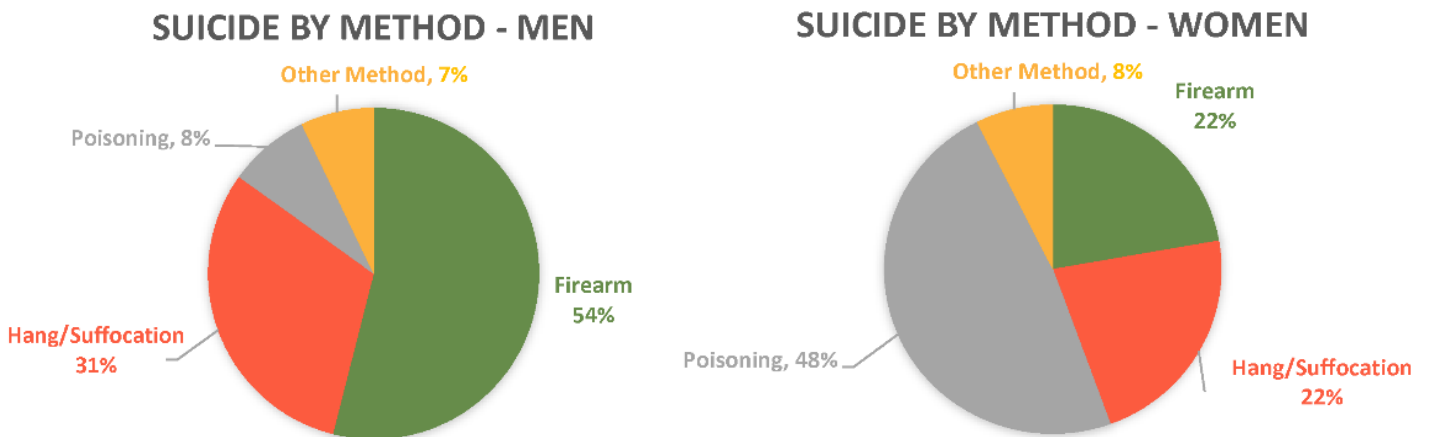
Gender as a Risk Factor for suicide and substance abuse.

Major risk factors for suicide for Men in the Middle Years (MIMY) include the following:

- Depression and other mental disorders
- A history of suicidal behavior, including suicidal ideation and attempts
- Alcohol use disorder and intoxication
- Access to firearms
- Illness or disability, including chronic medical conditions, physical disability and/or a new diagnosis of a serious illness
- Financial stress, both ongoing (e.g., having a low income/low status occupation) and immediate (e.g., job loss, foreclosure)
- Intimate partner problems, both ongoing (e.g., divorce, separation) and immediate (e.g., breakup, loss of child custody), and committing or being the victim of intimate partner violence.

Suicide Prevention Resource Center, 2016. Preventing suicide among men in the middle years: *Recommendations for suicide prevention programs*. Waltham, MA.

Over half of men who die from suicide use a firearm. Nearly half of all women who die from suicide die from poisoning.



Participants at a “Be The Voice” event to prevent suicide.



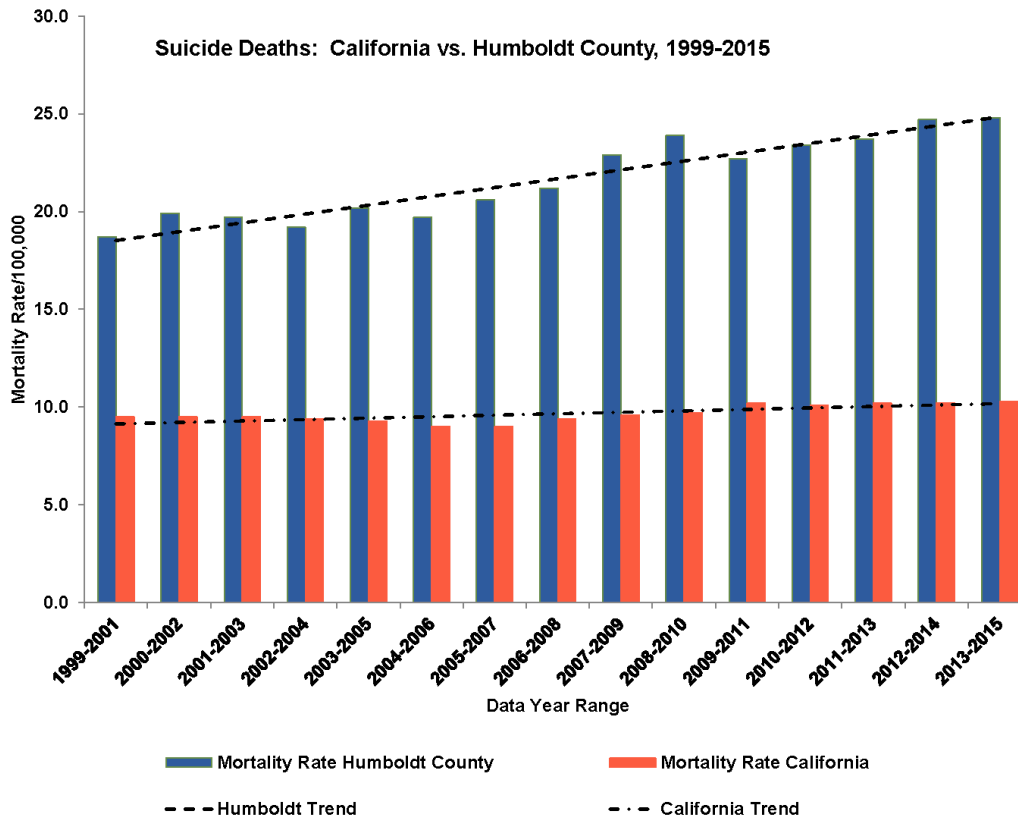
Suicide, like other common human behaviors, has no single determining cause. Instead, it occurs in response to many biological, psychological, inter-personal, environmental and societal influences that interact with one another, often over time. The Centre for Addiction and Mental Health identify risk and protective factors for suicide that exist in the following levels:

- **Individual:** hopelessness, substance abuse, a serious or chronic medical illness, previous suicide attempt, being a victim of violent crime or committing a violent crime, history of mental illness.
- **Relationships:** high conflict or violent relationships, sense of isolation and lack of social support, family/ loved one’s history of suicide, financial and work stress
- **Community:** inadequate community connectedness, barriers to health care (e.g., lack of access to medical doctors, psychiatrists and other health care professionals and medications)
- **Societal:** easy access to a way to kill oneself (aka. “lethal means”, guns, unlocked medications, etc.), unsafe media portrayals of suicide, feeling ashamed to talk about wanting to die and feeling embarrassed to get help for mental illness, or to even ask for help.

While community and historical trauma contributes to disparities experienced in certain communities such as Native Americans, connection to culture is a protective factor. Humboldt County Native American youth, Tristin Severns created a video short on suicide on Indian country, and says "Culture, Language, Family, Ceremony and the healing of our lands are the way we heal and restore ourselves and our people".



Tristin Severns



Humboldt County suicide death rate is **2.4** TIMES that of California.

Self Inflicted Injuries							
	Humboldt	Significant Difference from CA? (Y/N)	Among Whites	All Other*	Native Americans	California	Healthy People 2020 Objective
AAMR Suicide (per 100,000)*	24.8	Y	25.8	13	21.3	10.3	10.2
Rate Years Potential Life Lost due to Suicide (per 100,000)*	697.9	Y	704.6	406.2	944.1	296.9	N/A
Percentage of Adults Who Say They've Ever Thought About Suicide (2013-15)	18.00%	Y	N/A	N/A	N/A	8.90%	N/A
Non-Fatal ER Visits due to Self-Inflicted Injury (Per 100,000) (2012-14)	117.7	Y	N/A	N/A	N/A	82.6	N/A



Eureka Mental Health Walk.

# Mortality

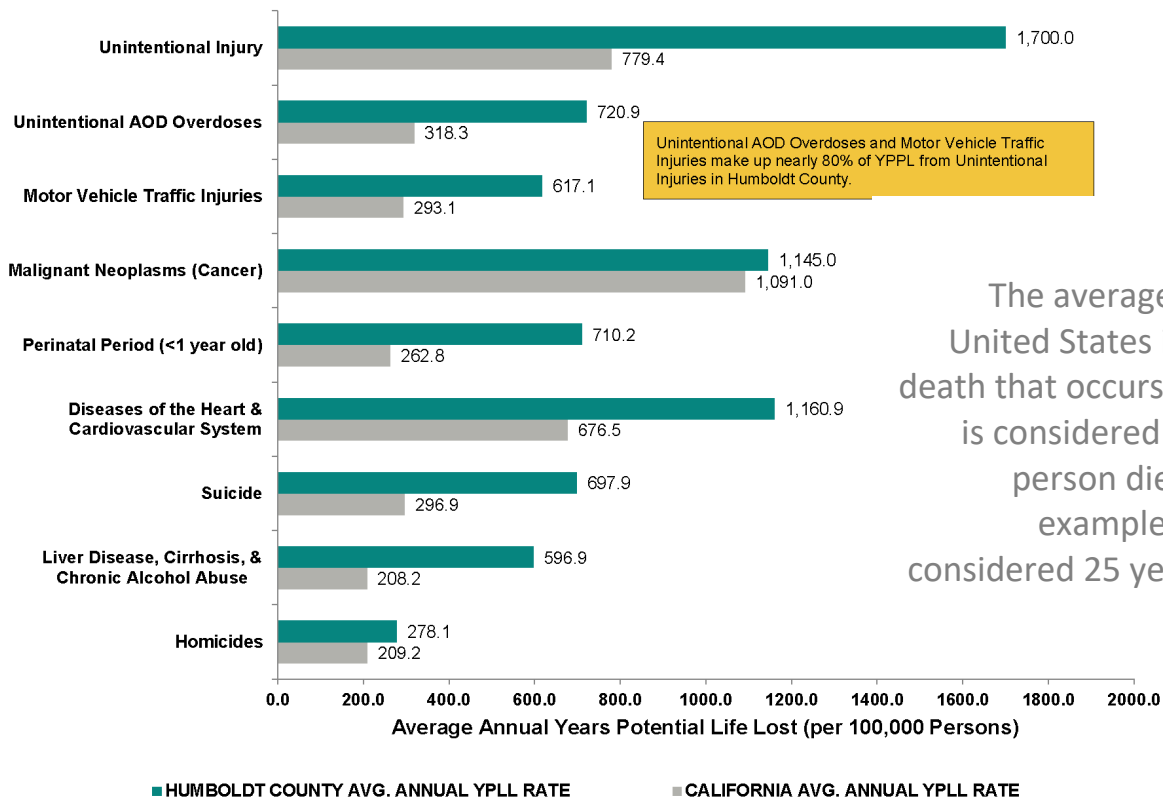
Humboldt County experiences an excess burden of death rates overall when compared to California.

Quantifying the leading causes of mortality within a community enables effective public health policy development and is the first step in understanding how to improve community health and reduce premature mortality.

The data in this report reveal that Humboldt County fares worse in many areas of health when compared to California and the US Healthy People objectives. Disparities are greater among some populations within Humboldt County. On average, in Humboldt County, non-white and Native American/Alaska Native persons die approximately twelve years earlier than their white counterparts. This trend has largely been stable over the past decade.

As with lifespan, there are a variety of factors that contribute to premature death, which is death prior to age 75 (the life expectancy in the United States is approximately 79 years). Five of the eight leading causes of premature death are either largely or entirely preventable. These are: Unintentional Injury, Alcohol and Other Drug (AOD) Overdoses, Motor Vehicle Traffic Injuries, Suicide, and Liver Disease/ Cirrhosis.

## Years of Potential Life Lost (YPLL) from the leading causes of mortality



Unintentional AOD Overdoses and Motor Vehicle Traffic Injuries make up nearly 80% of YPLL from Unintentional Injuries in Humboldt County.

## YPLL

The average lifespan in the United States is 79 years. Any death that occurs prior to age 75 is considered premature. If a person dies at age 50, for example, that would be considered 25 years of potential life lost (YPLL).

This table illustrates the five leading causes of mortality by age group in Humboldt County for 2012-2016 with the Average Annual Age-Specific Mortality Rate (AASMR) per 100,000 persons (in parentheses). Key points:

Drug-Related Deaths include intentional and unintentional drug overdose deaths, deaths due to chronic drug abuse and unintentional injury deaths where drug use was a direct or contributing cause of fatal injury. There is a small degree of duplication with some other mortality categories. This better describes the scale of mortality in Humboldt County due to drug abuse and better matches the classification used by the California Department of Public Health.

Alcohol-related deaths are combined with chronic liver disease and cirrhosis into a separate category.

The fatal unintentional injury death category excludes those related to alcohol and other drugs.

Four of the five mortality rates by cause in the 65+ age range decreased; however the total number deaths in that age range increased.

The number and rate of deaths that result from largely or entirely preventable risk factors, such as drug-related deaths, motor vehicle injuries, suicides, liver disease/cirrhosis/alcohol-related deaths and COPD/emphysema were either unchanged or slightly increased across all age ranges during 2012-2016.

<b>All Gender/Race/Ethnicity 2014-2016 with Average Annual Age-Specific Rates Per 100,000 Persons</b>					
<b>Age Range</b>	<b>#1 CAUSE</b>	<b>#2 CAUSE</b>	<b>#3 CAUSE</b>	<b>#4 CAUSE</b>	<b>#5 CAUSE</b>
<b>&lt; Age 1 (48 deaths)</b>	The 2012-2016 average annual infant mortality rate (under age 1) from all causes for Humboldt County is 6.9 per 1000 live births				
<b>1 to 14 (15 deaths)</b>	The 2012-2016 average annual mortality rate for ages 1-14 from all causes for Humboldt County is 17.4 per 100,000 persons				
<b>15 to 24 (74 deaths)</b>	MOTOR VEHICLE INJURIES (17.7)	SUICIDE (12.8)	HOMICIDE (11.8)	FATAL UNINTENTIONAL INJURIES (7.8)	N/A
<b>25 to 44 (373 deaths)</b>	DRUG RELATED DEATHS (57.9)	SUICIDE (32.9)	MOTOR VEHICLE INJURIES (25.9)	CARDIOVASCULAR DISEASE (22.8)	LIVER DISEASE & CIRRHOSIS; ETOH ABUSE (16.7)
<b>45 to 64 (1,549 deaths)</b>	CANCER, ALL (217.0)	CARDIOVASCULAR DISEASE (180.1)	DRUG-RELATED DEATHS (112.4)	LIVER DISEASE & CIRRHOSIS; ETOH ABUSE (93.6)	SUICIDE (42.4)
<b>65+ (4,445 deaths)</b>	CARDIOVASCULAR DISEASE (1079.2)	CANCER, ALL (1079.2)	STROKE (494.4)	COPD & EMPHYSEMA (305.1)	ALZHEIMER'S DISEASE (192.1)



This chart details the leading causes of mortality specifically for the Native American population. Deaths from chronic alcohol abuse are included in the Liver Disease and Cirrhosis category.

The infant Native American mortality rate is more than twice that of Humboldt County overall.

The mortality rate for Native American Motor Vehicle Injury fatalities age 15-24 is nearly 5 times that of the total Humboldt County rate.

The mortality rates for Native American in the categories for the 25-44 age range were 2 to 5 times that of the total Humboldt County rates.

Native American mortality rates for Cardiovascular Disease, Liver Disease and Drug-Related Deaths for the 45-64 age range were approximately two times that of the total Humboldt County rates.

Diabetes-Related Deaths represented the third-highest rate in the Native American 65+ age group. For Humboldt County overall, the rate of Diabetes-Related Deaths ranked as the 9<sup>th</sup> highest.

Native American 2012-2016 With Average Annual Age-Specific Rate per 100,000 Persons					
AGE RANGE	#1 CAUSE	#2 CAUSE	#3 CAUSE	#4 CAUSE	#5 CAUSE
< 1 (8 deaths)	The 2012-2016 Native American average annual infant mortality rate (under age 1) from all causes for Humboldt County is 14.5 per 1000 live births				
1 TO 14	Fewer than five deaths from all causes within this age range for 2012-2016				
15 TO 24 (15 Deaths)	MOTOR VEHICLE INJURIES (102.5)	N/A	N/A	N/A	N/A
25 TO 44 (50 deaths)	DRUG-RELATED DEATHS (114.9)	LIVER DISEASE & CIRRHOSIS; CHRONIC ETOH ABUSE (83.6)	MOTOR VEHICLE INJURIES (62.7)	SUICIDE (52.2)	N/A
45 TO 64 (113 deaths)	CARDIOVASCULAR DISEASE (356.5)	CANCER, ALL (241.9)	LIVER DISEASE & CIRRHOSIS; CHRONIC ETOH ABUSE (203.7)	DRUG-RELATED DEATHS (191.0)	FATAL UNINTENTIONAL INJURIES (63.7)
65+ (150 deaths)	CANCER, ALL (944.2)	CARDIOVASCULAR DISEASE (915.6)	DIABETES-RELATED DEATHS (457.8)	STROKE (343.3)	COPD & EMPHYSEMA (314.7)

Source: Humboldt County Vital Statistics (accessed 2/3/2017) ; [vrbis.edrs.us](http://vrbis.edrs.us)

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