



# Community Health Assessment 2013



Data for planning and policy making

Community Health Assessment 2013 | March 12, 2014

## Table of Contents

Acknowledgements .....	3	Environmental Quality .....	36
Process .....	4	Family Health .....	38
Executive Summary.....	5	Communicable Disease .....	40
The Public Health System .....	6	Immunization .....	41
Humboldt County Profile .....	7	Hepatitis C .....	42
Demographic Overview .....	8	Water- and Food-borne Illness .....	44
Understanding the Data Tables .....	10	Sexually Transmitted Disease .....	45
The Wide View .....	11	HIV/AIDS .....	46
Mortality .....	12	Cancer .....	47
What Drives Health? .....	16	Tobacco Use .....	48
Social Determinants of Health .....	18	Unintentional Injury .....	50
Employment and Income .....	20	Mental Health .....	52
Education .....	22	Alcohol and Other Drug Abuse .....	53
Access to Health Care .....	22	Alcohol and Other Drug Abuse-Youth ...	56
Transportation .....	24	Suicide .....	58
Community Safety .....	26	Sources .....	60
Nutrition and Active Living .....	30		



# Acknowledgements

The Humboldt County Department of Health and Human Services wishes to thank all of the people and organizations that have made the 2013 Community Health Assessment report and process possible.

Close to 300 community residents and representatives from local organizations participated in the health assessment process in 2012-2013. Without them, the assessment would not be as meaningful.

## **Department of Health and Human Services Leadership Team**

Phillip Crandall, Director; Barbara LaHaie, Assistant Director, Programs; Connie Beck, Assistant Director, Administration; Ivy Breen, Senior Staff Services Analyst

## **The Public Health Assessment Team**

Donald Baird, MD, Public Health Officer; Susan Buckley, Public Health Director; Ira Singh, Public Health Deputy Director; Mike

Goldsby, Sr. Program Manager; Lara Weiss, Program Manager; Ron Largusa, Epidemiologist; Georgianna Wood, Accreditation & QI Coordinator; Barbara O'Neal, CalFresh Outreach Coordinator.

## **Contributing Partner Organizations**

Healthy Start Schools and Communities Partnership (HSSCP), Humboldt County Association of Governments (HCAOG), Eureka Rotary, Humboldt Community for Activity and Nutrition (HumCAN), Independent Physicians' Association, LatinoNet, DHHS Mental Health, Social Services, Environmental Health Division, Healthy Communities Division and Nursing Division, Allies for Substance Abuse Prevention (ASAP), Arcata Sunrise Rotary, Fortuna City Council, Humboldt Community Network (The Net), Health Services Advisory Committee, Area 1 Agency on Aging, Humboldt County Office of Education (HCOE), St. Joseph Health System, over 30 individual community members.



## Process

Beginning in the winter of 2011, with guidance from the Department of Health and Human Services Leadership Team, Public Health began the first comprehensive assessment of Humboldt County's health.

Humboldt County is rich with community-focused organizations. There are more than 250 nonprofit organizations, and dozens of coalitions and collaborative groups.

The Public Health Assessment Team invited these groups and the community at large to review the data and contribute to the relevance and accuracy of the assessment.

Additionally the draft data was distributed widely via email, posted on the County website, and promoted in the local daily newspaper - print and electronic versions - with a link for providing input and feedback electronically.

In total, close to 300 individuals provided substantial feedback - both at the meetings and via the electronic feedback tool. The Team addressed the pages of comments by categorizing them: request for additional content; request for clarification; and general editing. All comments were considered.

In response to the feedback received, you will now find descriptions of terms such as YPLL & AAMR, and further clarification of sub-categories of Cancers and Unintentional Injury.

For determining additional content that could and should be included, we applied criteria such as:

- Is it about community health?
- Is there reliable data?
- Is it actionable?

As a result we have added data for HIV/AIDS, and child welfare, abuse and maltreatment. Other sections were expanded with data analysis. Additionally, you will see more regional comparisons for specific community health indicators.

This document is the collaborative product of us all and will continue to evolve with the community.



# Executive Summary

This Community Health Assessment is the first attempt to create a comprehensive overview of the health of our community. In addition to the traditional public health measures of illness, death rates, and access to care, this report includes information on economic vitality, nutrition and physical activity as well as other underlying social determinants of health.

Why social determinants of health? Scientists have learned that the conditions in which we live and work have an enormous impact on our health. The traditional health sector alone cannot accomplish overarching community health improvement. Public health and health care providers must develop new ways and broad community-based partnerships to improve community health.

Throughout this document you will see areas of strength such as our clean air and water, our relatively high level of education, and the physical activity level of our youth. But we also have significant challenges. A leading cause of premature death continues to be the acute and chronic effects of alcohol, drug and tobacco use. In fact, Humboldt County experiences drug-related death rates that are more than double state and national averages.

There are areas where health disparities are marked. For example if you are poor or have a serious mental illness you will likely have a shorter life. On average in Humboldt County

non-white and American Indian/Alaska Native persons die approximately twelve years sooner than those who are white.

The data shows that our neighboring rural counties face similar challenges, needs, opportunities and health outcomes. These counties face a unique combination of factors such as poverty, cultural and social differences, and sheer physical isolation, to name just a few. In an effort to provide the context of peers in similar areas for select health factors and outcomes, data for counties located in Northern California and Southern Oregon have been included when available, along with statewide figures. While each county is unique, with distinct assets and challenges, we may still learn from the comparison.

Community Health Assessments (CHA) are designed to lay a foundation for health improvement by illuminating current conditions. Gathering information, reviewing data, and identifying our biggest challenges are only the first steps in a long-term community health improvement initiative. This CHA is already being used to develop a Community Health Improvement Plan (CHIP), and to build a broadly-shared vision for a healthier Humboldt. We offer this continuously evolving document primarily as a gauge, but also as a catalyst - a catalyst to align resources to address our most important health issues.

All of us play an important role in the health of our community.

Health is not just the absence of disease. Health is our physical, mental and social well-being.

-World Health Organization



# The Public Health System

**pub·lic health** (pŭb`lik `helth) *n.*  
The art and science dealing with the protection and improvement of community health by organized community effort and including preventive medicine and sanitary and social science.

-Merriam-Webster

DHHS Public Health is one of over 2,800 state, local and tribal health departments charged with ensuring the provision of these functions and services within their jurisdictions.

But it's not DHHS alone. Public health systems are commonly defined as "all public, private, and voluntary entities that contribute to the delivery of essential public health services within a jurisdiction." In other words, many organizations, ranging from schools, hospitals, clinics and police services to civic groups, community centers, and businesses work in concert to keep us healthy and safe from disease and injury.

There are three Core Functions and 10 Essential Public Health Services that describe public health activities and provide a framework for protecting and improving community health (see graphic below).



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.

<b>The Five Conditions of Collective Impact</b>	
<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.

Source: [http://www.ssireview.org/blog/entry/channeling\\_change\\_making\\_collective\\_impact\\_work](http://www.ssireview.org/blog/entry/channeling_change_making_collective_impact_work)



## Humboldt County Profile

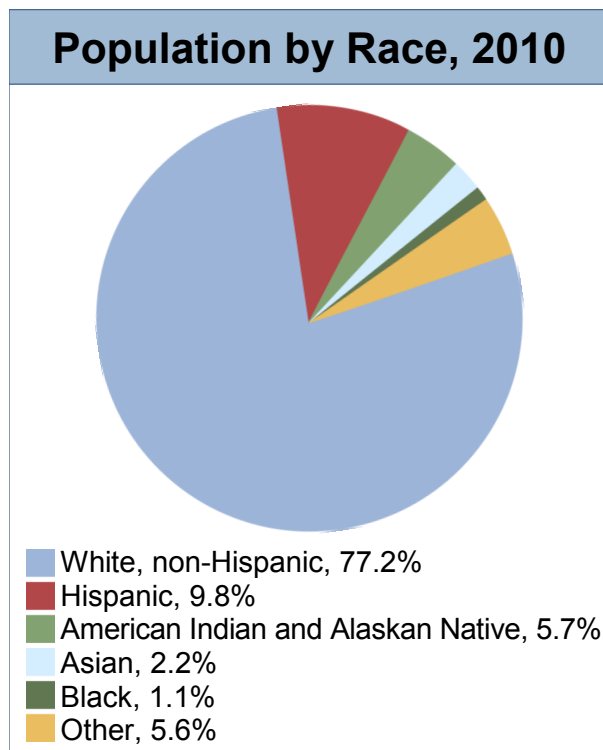
Located in northwest California, Humboldt County is the southern gateway to the Pacific Northwest. The county is approximately 300 miles north of San Francisco, bordered on the north by Del Norte County, on the east by Siskiyou and Trinity counties, on the south by Mendocino County and on the west by the Pacific Ocean. 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 134,600. 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.

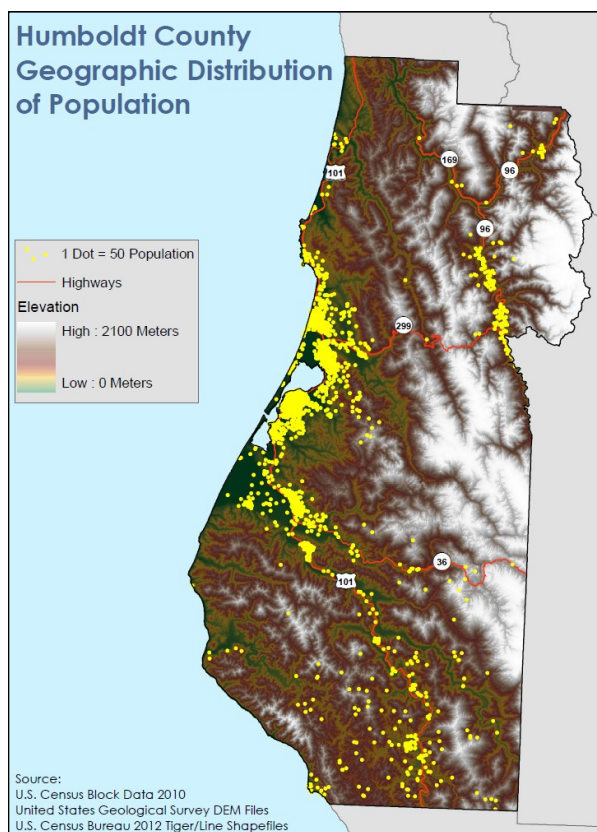
Humboldt is a rural county. There are roughly 38 people per square mile. Nearly half of the county's residents live in incorporated communities, and 59 percent of the people live in the area surrounding Humboldt Bay.

American Indian tribal lands encompass approximately 95,000 acres and there are eight federally recognized tribes: Bear River Band of Rohnerville Rancheria, Big Lagoon Rancheria, Blue Lake Rancheria, Hoopa Valley Tribe, Karuk Tribe, Table Bluff Rancheria, Trinidad Rancheria, and the Yurok Tribe.

A summary demographic profile is provided on the next page.



The total adds to greater than 100% because of overlapping categories. See the table on the next page for details.



# Demographic Overview

Humboldt County Demographic Profile	Humboldt	California
Population, 2010	134,623	37,253,956
Population, percent change, 2000 to 2010	6.4%	10.0%
Population, 2000	126,518	33,871,648
Persons under 5 years old, percent, 2009	6.1%	7.5%
Persons under 18 years old, percent, 2009	20.2%	25.5%
Persons 65 years old and over, percent, 2009	13.0%	11.2%
Female persons, percent, 2009	50.4%	49.9%
Ethnicity, percent, 2010		
White persons (a)	81.7%	57.6%
White persons not Hispanic, persons	77.2%	40.1%
Black persons (a)	1.1%	6.2%
American Indian and Alaska Native persons (a)	5.7%	1.0%
Asian persons (a)	2.2%	13.0%
Native Hawaiian and Other Pacific Islander (a)	0.3%	0.4%
Persons reporting two or more races	5.3%	4.9%
Persons of Hispanic or Latino origin (b)	9.8%	37.6%
Foreign born persons, percent, 2005-2009	5.2%	26.8%
Language other than English spoken at home, pct age 5+, 2005-2009	8.8%	42.2%
High school graduates, percent of persons age 25+, 2005-2009	89.9%	80.5%
Bachelor's degree or higher, pct of persons age 25+, 2005-2009	26.9%	29.7%
Veterans, 2005-2009	11,194	2,092,627
Mean travel time to work (minutes), workers age 16+, 2005-2009	18.1	27.0
Housing units, 2009	59,457	13,433,718
Homeownership rate, 2005-2009	57.0%	57.9%
Housing units in multi-unit structures, percent, 2005-2009	19.3%	30.7%
Median value of owner-occupied housing units, 2005-2009	\$327,900	\$479,200
Households, 2005-2009	52,520	12,187,191
Persons per household, 2005-2009	2.4	2.9
Per capita money income in past 12 months (2009 dollars) 2005-2009	\$23,496	\$29,020
Median household income, 2009	\$35,985	\$58,925
Persons below poverty level, percent, 2009	19.0%	14.2%
Percent Workforce Unemployed (July 2012)	10.8%	10.9%
Land area (square miles)	3572.5	155959.3
Persons per square mile, 2010	37.7	238.9

Sources: US Census Bureau State & County QuickFacts (<http://quickfacts.census.gov/qfd/index.html>), State of California Employment Development Department (<http://www.labormarketinfo.edd.ca.gov/?pageid=1006>). (a) Includes persons reporting only one race. (b) Hispanics may be of any race, so also are included in applicable race categories.



## Understanding the Data Tables

The data tables in the following sections are structured to help you compare Humboldt County's community health status to state and/or national benchmarks, and to compare the health status of various population groups within the county.

Each health Indicator is measured using a rate (per 100,000 persons unless otherwise noted) or a percentage estimate, accompanied by its "margin of error" (+/-). A 95% confidence level is used for all error margins. This means there is at least a 95% chance the true figure will fall within the +/- range shown.

When the "margin of error" (+/-) of two estimates of the same indicator (e.g. Humboldt vs. California) do not overlap, this represents a statistically significant difference between the estimates.

If a "margin of error" cell contains asterisks (\*\*), this indicates that the rate is statistically unstable and should be interpreted with caution, per criteria set forth by the National Center for Health Statistics (<http://www.cdc.gov/nchs/data/statnt/statnt24.pdf>).

Also, when there are fewer than 20 events or cases, the data is considered statistically

unstable. Because of the small populations in rural counties, this occurs for some indicators, and you will see this noted on many of the comparison maps.

### Understanding the terminology

#### **AAMR (Age Adjusted Mortality Rate)**

In some areas the population is relatively old (such as retirement communities), and in others it is relatively young. One would expect an area with a larger percentage of elderly residents to have a higher rate of death than an area with a higher percentage of youth. AAMR is a statistical process that allows death rates across different geographic regions to be compared.

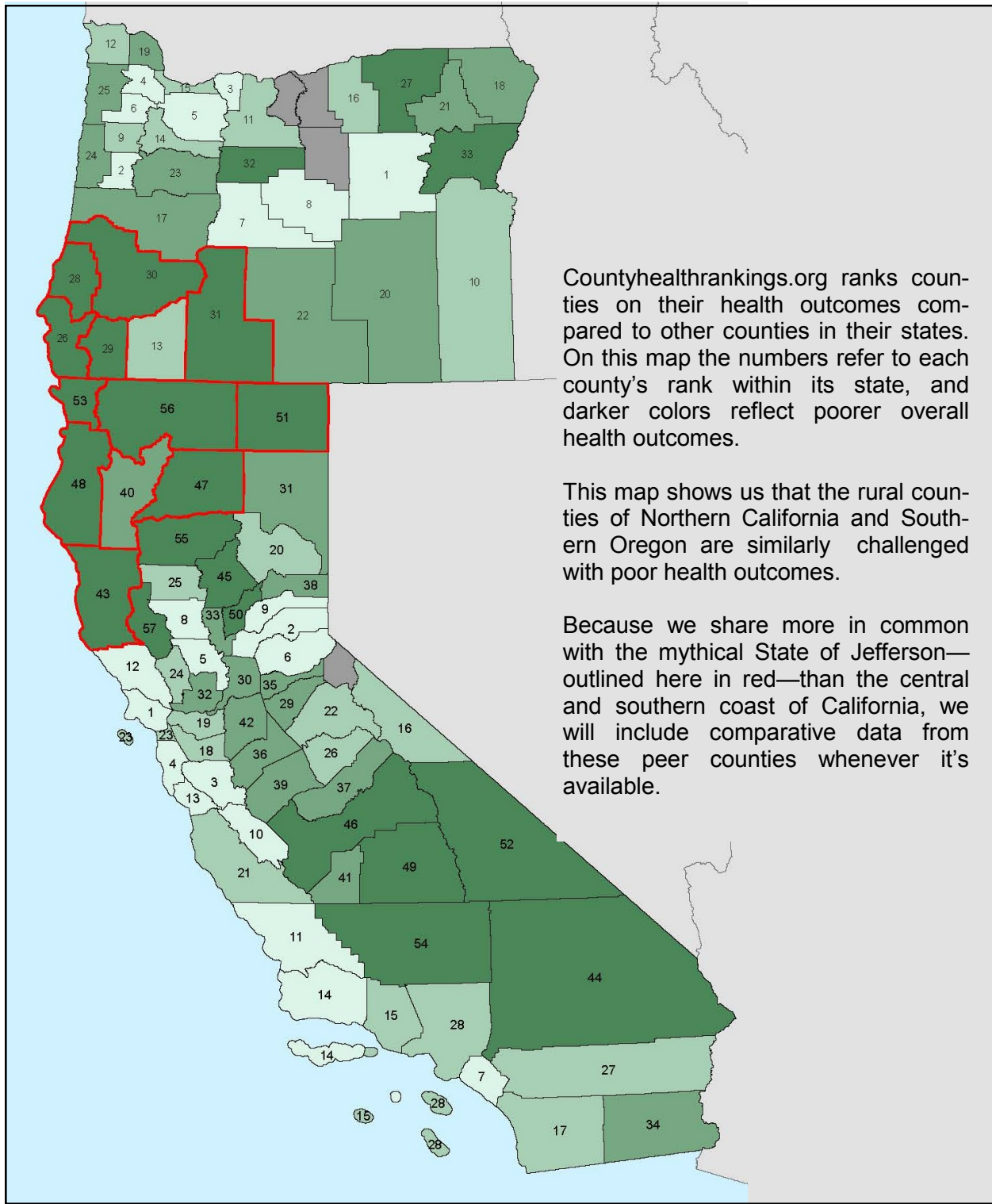
#### **YPLL (Years of Potential Life Lost)**

Based on the average lifespan in the US, if an individual dies before their 75th birthday, it is considered premature death. If a person dies at age 50, for example, that would be considered 25 years of potential life lost. YPLL data in these tables is per 100,000 persons.

The YPLL measure allows you to focus not on how many people died but on how many died pre-maturely, and it facilitates comparisons across regions.



# The Wide View



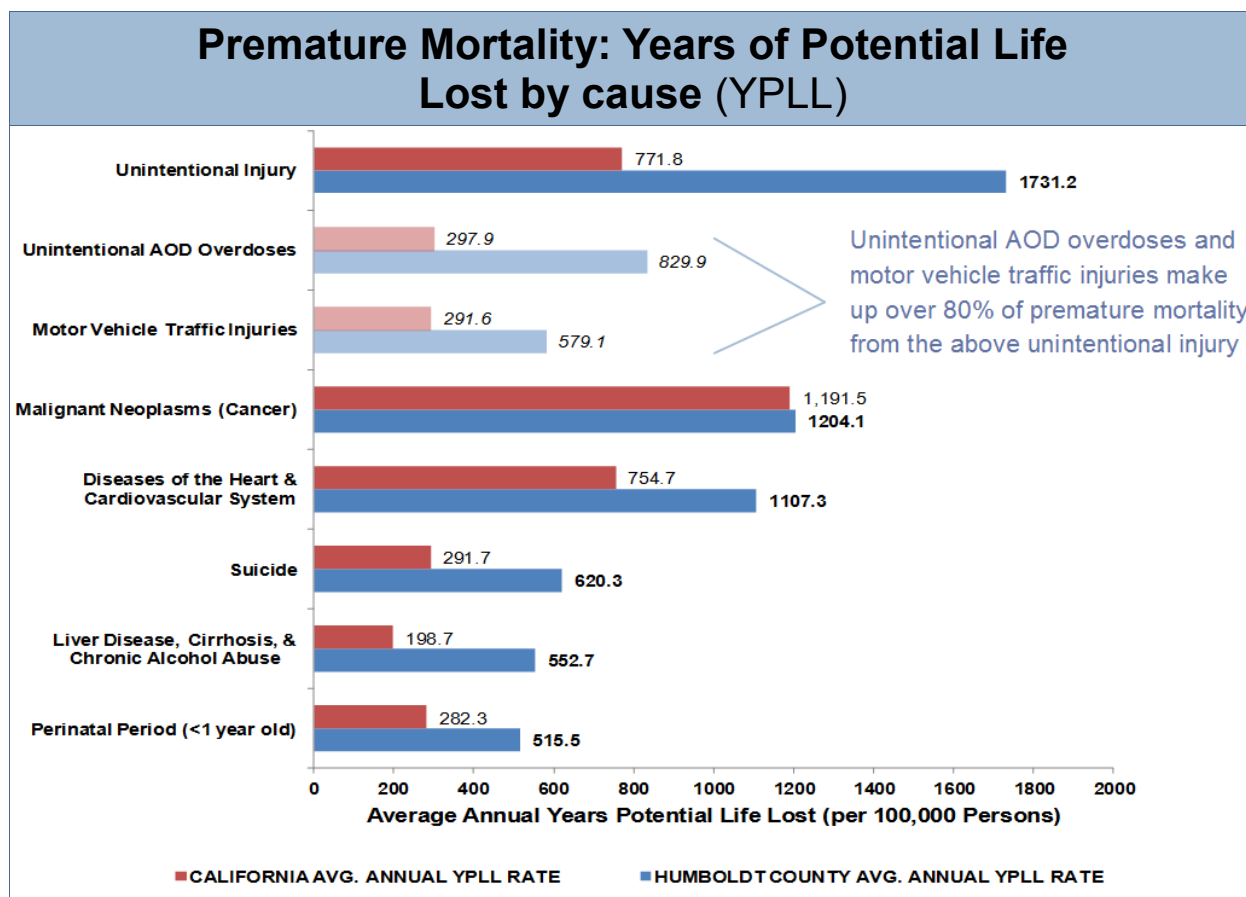
# Mortality

Life expectancy in the United States is approximately 78 years. Death prior to age 75 is considered premature. As with lifespan, there are a variety of factors that contribute to premature death.

Five of the eight leading causes of premature death are either largely or entirely prevent-

able. These are unintentional injury, alcohol and other drug (AOD) overdoses, motor vehicle traffic injuries, heart disease, suicide, and liver disease/cirrhosis.

The table on the facing page shows how Humboldt County compares to California and the US Healthy People objectives.



Sources: Humboldt County Vital Statistics (Automated Vital Statistics System (AVSS), California Electronic Death Registration System (CA-EDRS), Centers for Disease Control and Prevention, Web-based Injury Statistics Query and Reporting System (WISQARS)(<http://www.cdc.gov/injury/wisqars/index.html>), National Center for Health Statistics (NCHS) Vital Statistics System, California data covers 2008-2010; Humboldt County data covers 2008-2012.

## Average Annual Mortality Rate

(per 100,000 except as noted)

	Humboldt (2009-2011)	+/-	California (2009-2011)	+/-	Healthy People 2020 Goal
Total cancer	182.4	22.0	156.4	1.4	160.6
Female breast cancer	23.9	12.9	21.3	0.7	20.6
Colorectal cancer	16.8	8.0	14.7	0.4	14.5
Prostate cancer	23.4	***	21.9	0.8	21.2
Lung cancer	47.0	12.5	36.5	0.7	45.5
Cirrhosis of the liver	15.1	7.7	11.4	0.4	8.2
Drug-induced deaths	36.7	11.6	10.9	0.4	11.3
COPD	56.2	13.5	37.5	0.6	98.5
Coronary heart disease	107.5	16.9	122.4	1.2	100.8
Infant mortality (per 1,000) 2008-10	4.9	***	5.0	0.2	6.0
Motor vehicle accidents	15.7	8.1	7.5	0.3	12.4
Homicide	5.9	***	5.2	0.2	5.5
Suicide	22.7	9.2	9.6	0.3	10.2
Stroke	52.4	12.9	38.1	0.6	33.8
Unintentional injury	65.2	14.9	27.6	0.6	36.0
Diabetes-related deaths (2008-2012)	71.4	13.6	--	--	65.8

Sources: Humboldt County Vital Statistics (Automated Vital Statistics System (AVSS), California Electronic Death Registration System (CA-EDRS). "\*\*\*\*" Signifies the rate is statistically unstable.



# Mortality

The chart below illustrates the five leading causes of mortality by age group in Humboldt County for 2007 to 2011 with the Average Annual Age-Specific Mortality Rate (AASMR) per 100,000 persons (in parentheses).

Injuries from motor vehicle crashes were the leading or second-highest cause of death between 2007 and 2011 for people under the age of 45.

Suicide is the leading cause of death in the 15-24 age group, the fourth leading cause in

the 25-44 age group, and the sixth leading cause in the 45-64 age group.

From age 65 on, the leading causes of death in Humboldt are related to chronic illness.

From age 65 on, the leading causes of death in Humboldt are related to chronic illness.

Deaths related to the acute and chronic effects of alcohol, drug and tobacco abuse remain a leading cause of preventable mortality in Humboldt County.

<b>All Gender/Race/Ethnicity 2008 - 2012</b> with average annual age-specific rate per 100,000 persons					
Age Range	#1 Cause	#3 Cause	#4 Cause	#5 Cause	#5 Cause
<b>&lt; Age 1</b> (35 deaths)	The 2008-2012 average annual infant mortality (under age 1) from all causes for Humboldt County is 5 per 1000 live births				
<b>1 to 14</b> (16 deaths)	The 2008-2012 average annual mortality rate for ages 1-14 from all causes for Humboldt County is 17.3 per 100,000 persons				
<b>15 to 24</b> (85 deaths)	Suicide (22.4)	Motor Vehicle Injuries (21.5)	Drug-related deaths (15.9)	Fatal Unintentional Injuries (6.5)	
<b>25 to 45</b> (320 deaths)	Drug-related deaths (53.0)	Motor Vehicle Injuries (24.0)	Liver disease and cirrhosis; chronic ETOH abuse (22.8)	Suicide (21.7)	Cardiovascular disease (14.3)
<b>45 to 64</b> (1,446 deaths)	Cancer, all (210.4)	Cardiovascular disease (145.8)	Drug-related deaths (92.3)	Liver disease and cirrhosis; chronic ETOH abuse (92.3)	COPD and Emphysema (35.7)
<b>65+</b> (4,204 deaths)	Cardiovascular disease (1197.2)	Cancer, all (1027.9)	Stroke (520.2)	COPD and emphysema (380.3)	Alzheimer's Disease (223.4)

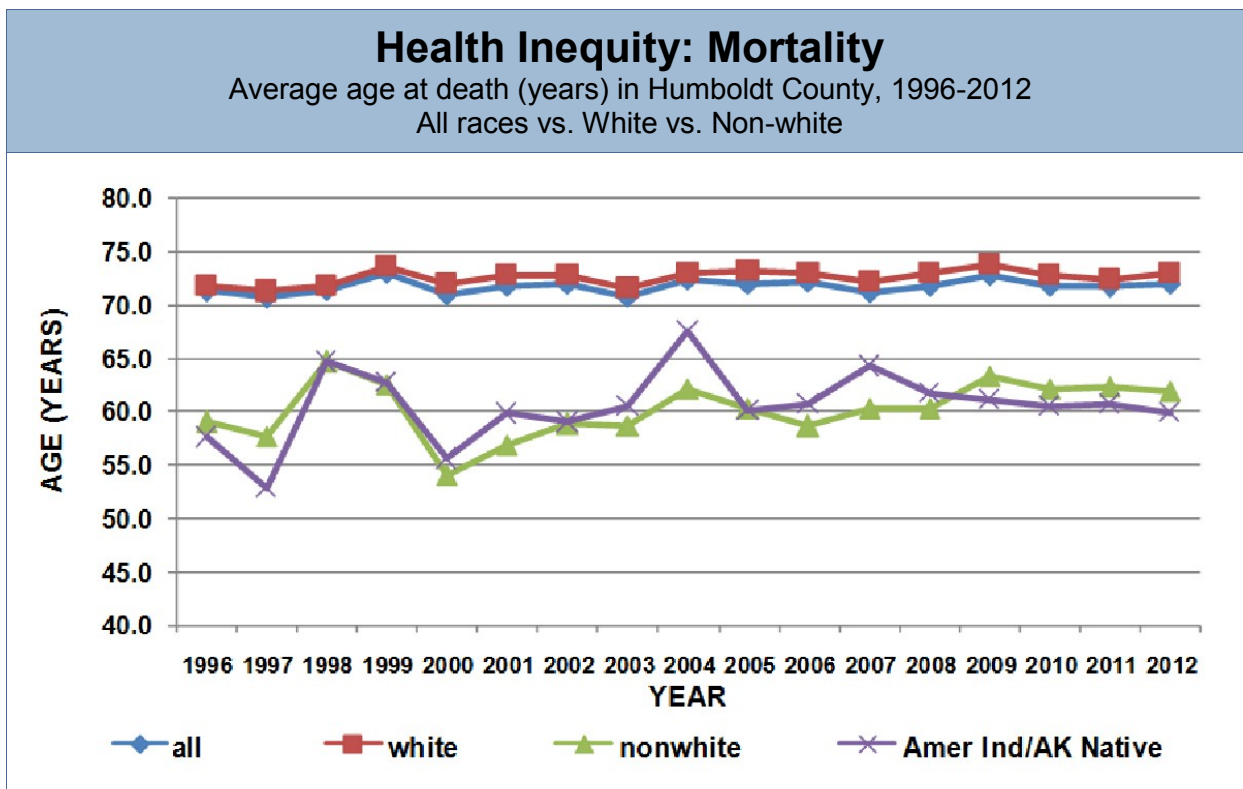
Source: Humboldt County Vital Statistics (CA-EDRS accessed 1/31/2013). ETOH=Ethanol (Alcohol) .

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. For example, if you are poor, have a serious mental illness or are Native

American, you are more likely to have a shorter life. On average, in Humboldt County, non-white and American Indian/Alaska Native persons die approximately twelve years earlier than their white counterparts. This trend has largely been stable over the past decade.

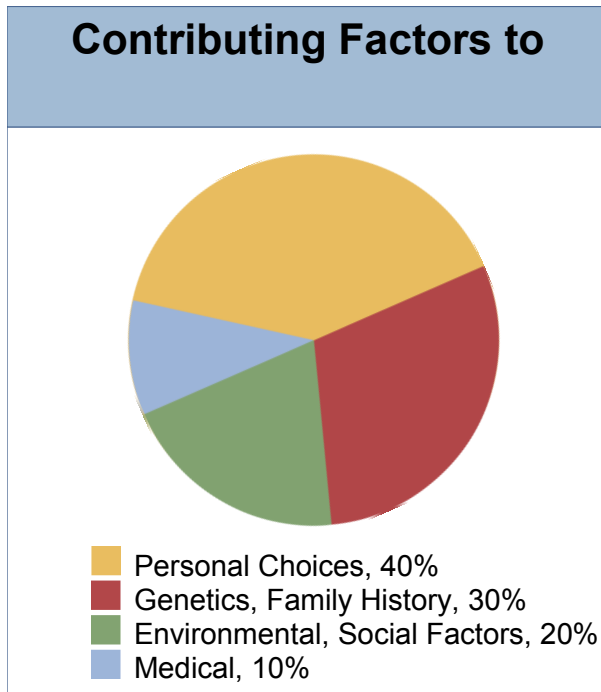
Measuring disparity and inequity among communities is difficult because of Humboldt's small population, but that difficulty does not mean disparity should not be examined.



Sources: Humboldt County Vital Statistics (Automated Vital Statistics System (AVSS), California Electronic Death Registration System (CA-EDRS).

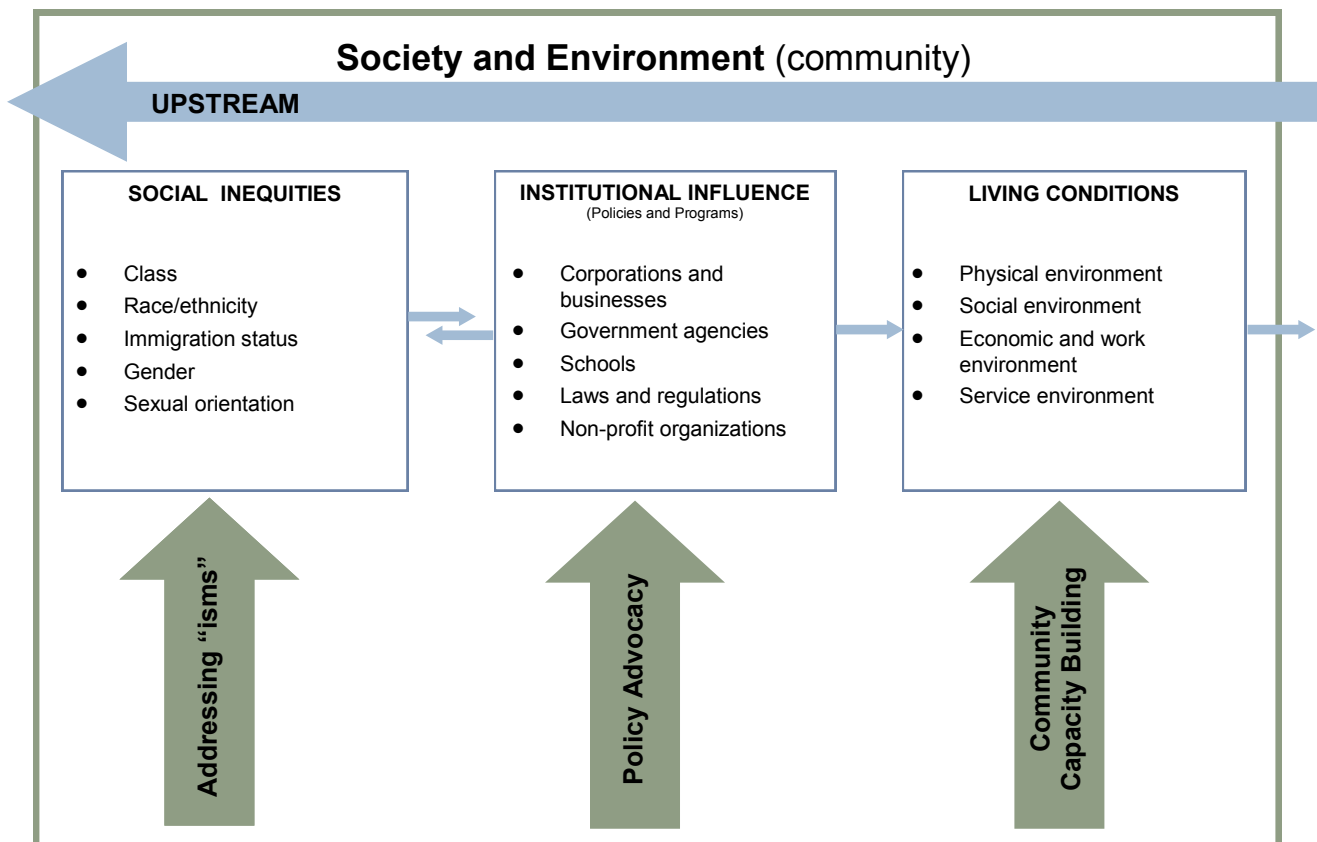


# What Drives Health?



Research suggests that only about 10 percent of your health status is determined by the medical care you receive. While genetics play a substantial role, our lifestyle choices, and the physical and social environments that influence those choices, are a much more powerful determinant—accounting for about two-thirds of health outcomes. Public health and many social services focus on those environments, aiming to make it easier for people to be healthy.

The graphic below illustrates a framework that describes categories for evaluating community health. Understanding the problems and opportunities in each of these areas helps us think about the best ways to make improvements.



Source: adapted from the Bay Area Health Inequities Initiative (BARHII)

When efforts can be made to change factors further "upstream," health impacts will be more significant and reach will be greater than when efforts are targeted at the more "downstream" factors.

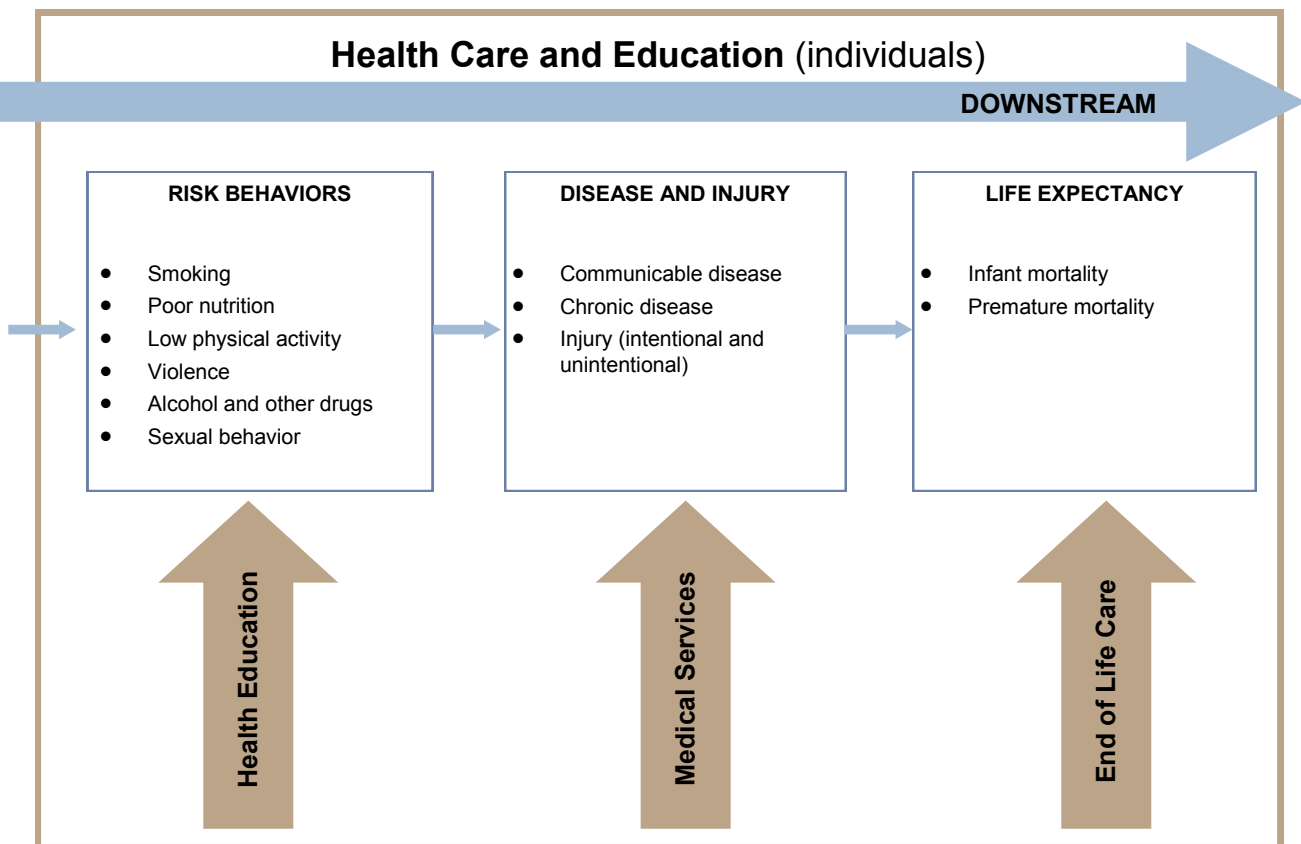
Working "upstream" at the community level usually entails addressing health inequities. The World Health Organization describes health inequities as avoidable inequalities in health between groups of people. Inequities occur at the global, national and local level, and are influenced by both social and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

An example of health inequities can be seen locally in our rates of diabetes-related and lung cancer deaths when compared across races; and regionally, Humboldt County resi-

dents experience rates of drug and alcohol-related deaths that are inequitable when compared statewide or nationally.

It is unreasonable to expect that people will change their behavior so easily when so many forces in the social, cultural, and physical environment conspire against change. If successful programs are to be developed to prevent disease and improve health, attention must be given not only to the behavior of individuals, but also to the environmental context within which people live.

-Institute of Medicine



# Social Determinants of Health

## Why Do Social and Economic Factors Matter?

Beginning even before birth and continuing through old age, the resources we have and the environments where we work, play, eat and sleep impact our health. Resources such as quality jobs, family income, educational attainment and the social characteristics of the neighborhoods we live in can all affect health. Research suggests that these factors can influence our health at least as much as genetics and health care.

### **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. Good 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.

### **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 health factors. Access to safe and affordable housing, for example, is a prerequisite to improving employment. Increasing educational attainment is also an indirect and long-term contributor to secure, gainful employment.

### **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. 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.

### **Family and Social Support**

Research has shown that people with greater social support, less isolation and greater interpersonal trust live longer and healthier lives. This is exhibited through lower levels of anxiety and depression and reduced tendencies toward stress-related behaviors such as overeating and smoking. Family and social support, or social connectedness, can also reduce the likelihood of other conditions and diseases.

Excerpted from <http://www.whatworksforhealth.wisc.edu>

**Community Safety**

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.



<b>Social and Economic Factors</b>		
	<b>Humboldt</b>	<b>California</b>
High school cohort graduation rate	79.1%	78.5%
Unemployment (July 2012)	10.8%	10.9%
Children in poverty	22%	22%
Adults without social/emotional support	18%	25%
Children in single-parent households	39%	30%
Children eligible for free lunch	41%	52%
Felony violent crime arrest rate (per 100,000 persons age 10-69; 2009-2011)	450.7	444.9

Sources: California Department of Education, County Health Rankings (<http://www.countyhealthrankings.org>), US Census Bureau State & County QuickFacts (<http://quickfacts.census.gov>), State of California Employment Development (<http://www.labormarketinfo.edd.ca.gov>), California Dept. of Justice—Criminal Justice Statistics Center.



# Social Determinants of Health

## Employment and Income

Historically, Humboldt County's economy and employment market have lagged behind the state average. Currently, unemployment in the county is on par with the state as a whole, but family income still lags, and we continue to have a higher percentage of residents living in poverty.

Research has shown repeatedly that health is tied to your income and where you live. This correlation can be seen in Humboldt

County when comparing areas within the county based on median household income and average age at death.

The map on the facing page illustrates the relationship between income and lifespan in Humboldt County. It shows that those areas with lower median income have lower average ages at death. Generally, people live longer in those areas with higher median income.

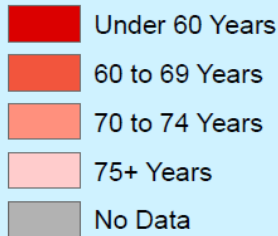


Income and Unemployment		
	Humboldt	California
Median household income (2007 - 2011)	\$40,376	\$61,632
Per capita money income in the past 12 months - 2011 dollars (2007- 2011)	\$24,209	\$29,634
Persons below poverty level, percent (2007 - 2011)	18.4%	14.4%
Annual unemployment rate (2012)	10.5%	10.5%

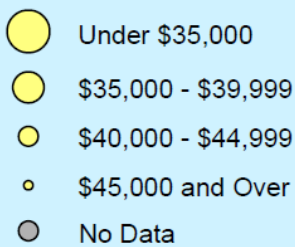
Source: US Census Bureau, Quick Facts Report; California Employment Development Department—Historical Data for Unemployment Rate and Labor Force (Not Seasonally Adjusted)

# Humboldt County Median Household Income & Age at Death by ZIP Code

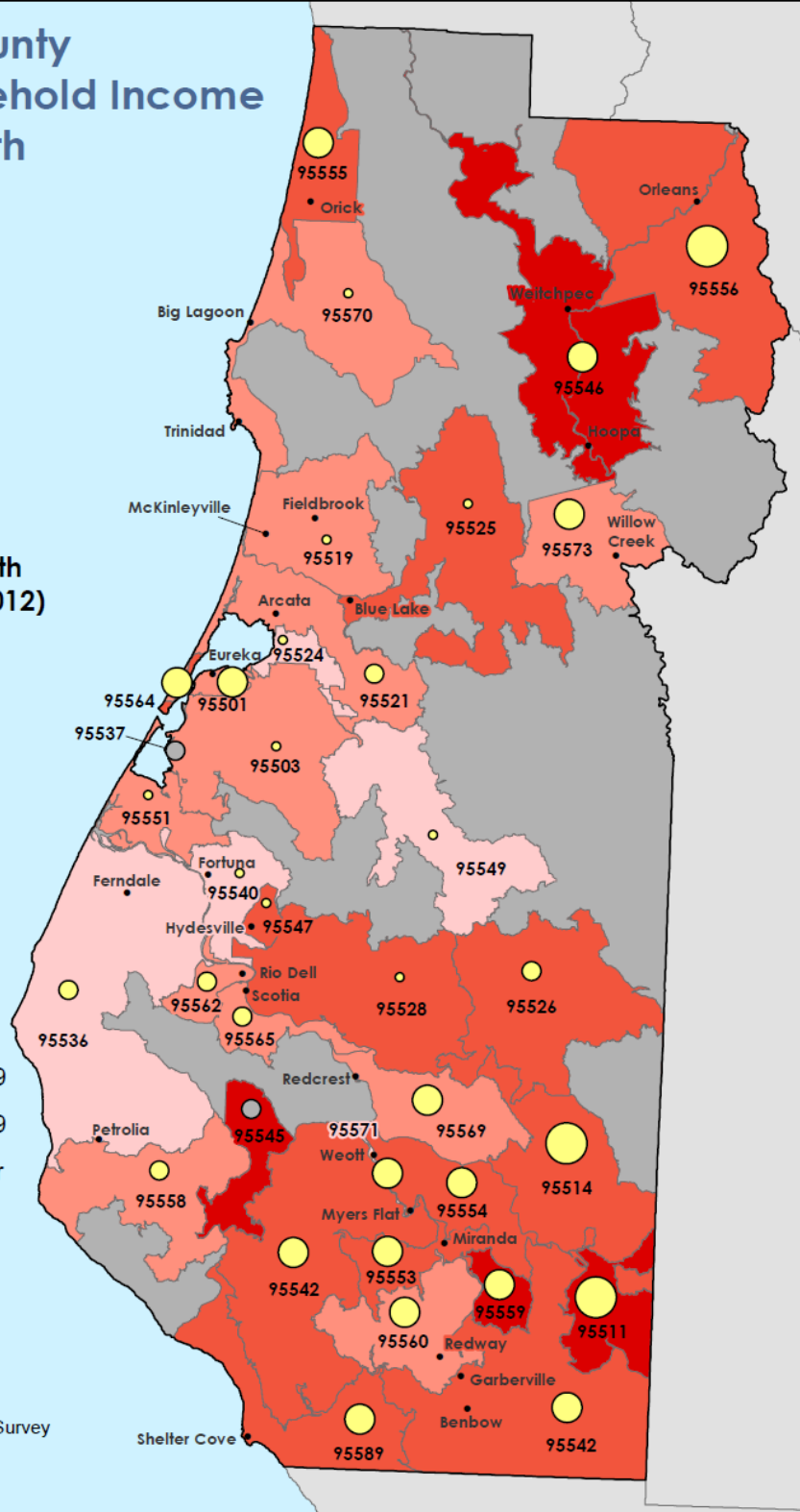
## Average Age at Death by ZIP Code (2008-2012)



## Median Household Income by ZIP Code (2006-2010)



Source:  
Humboldt County DHHS  
Epidemiology Data 2008-2012  
U.S. Census Bureau  
2006-2010 American Community Survey  
And  
2007 ZIP Code Tabulation Area  
Tiger/Line Shapefile



## Social Determinants of Health

### Education

Higher levels of educational attainment are linked to higher-wage employment, more employment opportunities, and better income as well as to better overall health, lower stress levels and higher self-confidence.

Overall, Humboldt County's education attainment levels are at least on par with the state as a whole, and our literacy rate is significantly higher than the state overall.

	Humboldt	California
High school cohort graduation rate	79.1%	78.5%
Some college	66%	60%
Bachelor's degree or higher (percent of persons age 25+, 2005—2009)	26.9%	29.7%
Illiteracy rate	9.4%	23.1%

Sources: California Department of Education, County Health Rankings (<http://www.countyhealthrankings.org>), US Census Bureau State & County QuickFacts (<http://quickfacts.census.gov>).

### Access to Health Care

Access to health care and medical coverage are linked to socio-economic status. Thus, while medical care is not a primary determinant of health itself, evidence suggests that access to effective and timely primary care improves overall health status and helps reduce health care costs. One analysis found that primary care physician supply was associated with improved health outcomes including reduced cancer, heart disease, stroke, and infant mortality rates. It was also associated with more healthy weight births, greater life expectancy and improved self-ratings of health overall. The same analysis

also found that each increase of one primary care physician per 10,000 population is associated with a reduction in the average mortality rate by 5.3%.

Another study found that states with a higher ratio of primary care physicians compared to specialists had improved quality and effectiveness of care, as well as lower health care spending than states with a higher ratio of specialists. Interestingly, the study found that increasing the supply of specialists does not improve population health in the United States.

## Access to Health Care

	Humboldt	California
Population to primary care physician ratio	800:1	631:1
Uninsured adults	24%	24%
Could not see a doctor due to cost	19%	15%
Eligible persons enrolled in Medi-Cal	70.0%	79.0%
Median household income (2009)	\$35,985	\$58,925
Persons below poverty level, percent (2009)	19%	14.2%

Sources: US Census Bureau State & County QuickFacts (<http://quickfacts.census.gov/qfd/index.html>), County Health Rankings (<http://www.countyhealthrankings.org/health-factors/access-care>), Social Services Health & Nutrition Services Report (US Census Bureau, Social Svcs. Admin., CDSS).



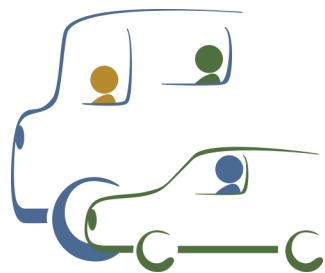
# Social Determinants of Health

## 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."

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.



### Humboldt County Public Transportation

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 seven days a 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

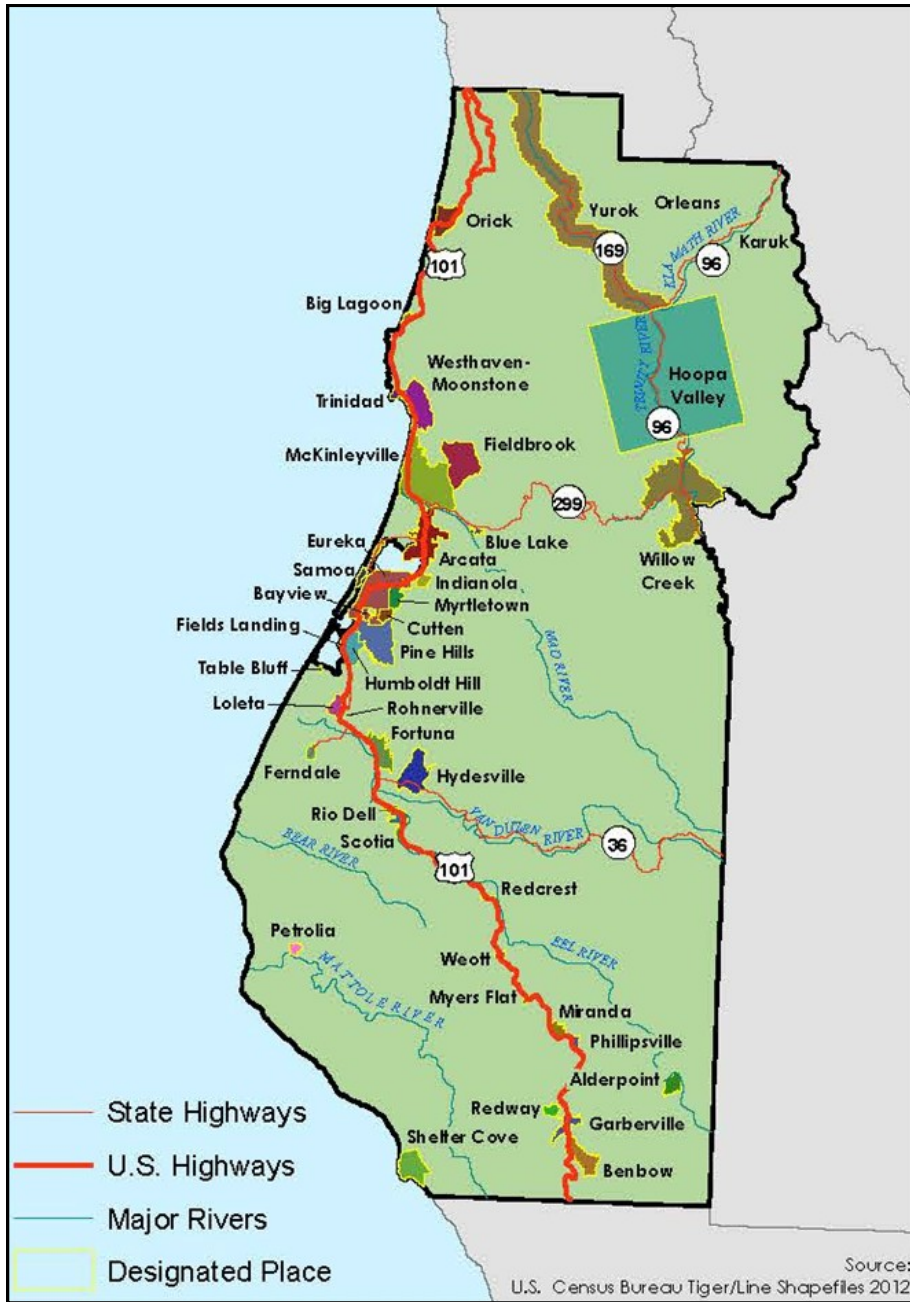
Service between Arcata and Blue Lake locations.

#### 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.



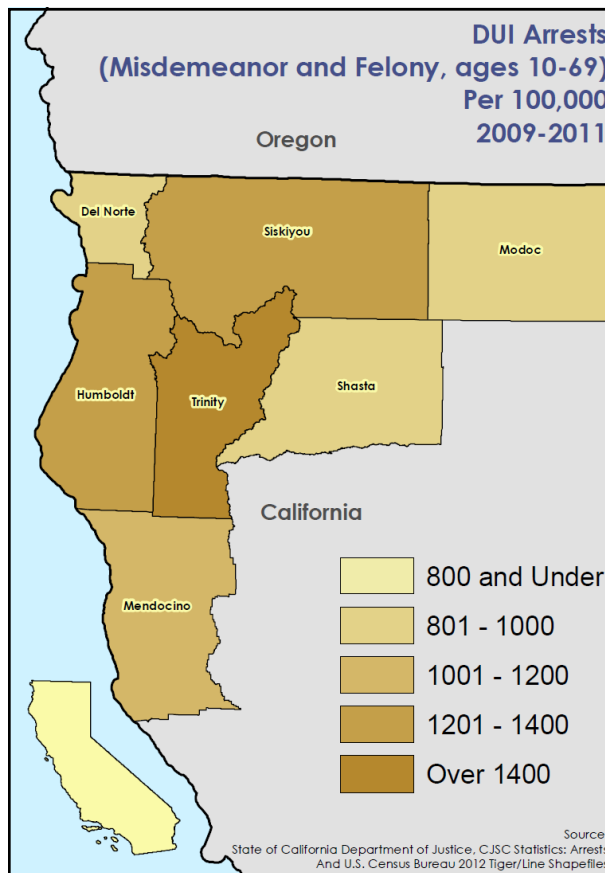
# Social Determinants of Health

## Community Safety

Humboldt juvenile and adult arrest rates for felony violent crime, drug offenses, total DUI arrests, and the rate of emergency room visits for assault injuries are all higher than their respective statewide rates, as are those of our neighboring counties. Despite this, the 2009 California Health Interview Survey showed that more Humboldt residents report feeling "safe" in their neighborhoods than do other Californians.

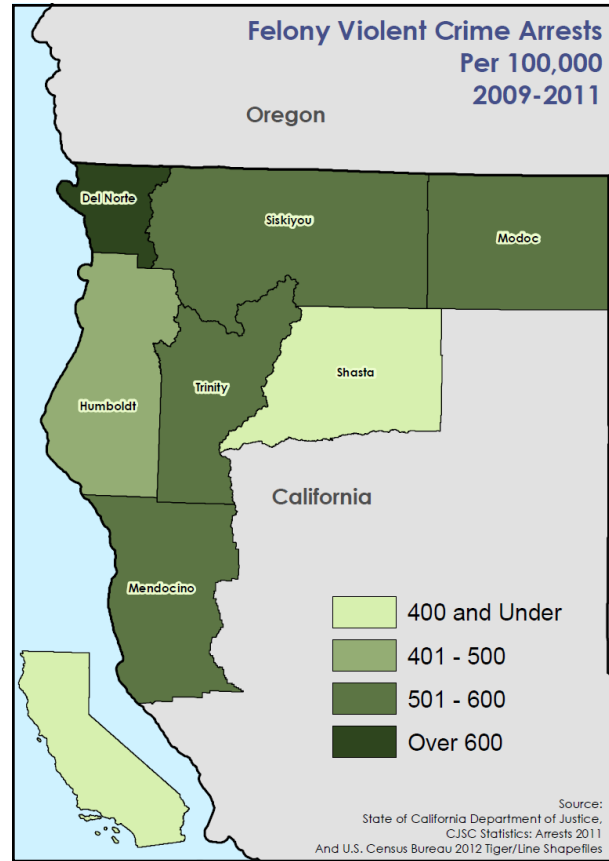
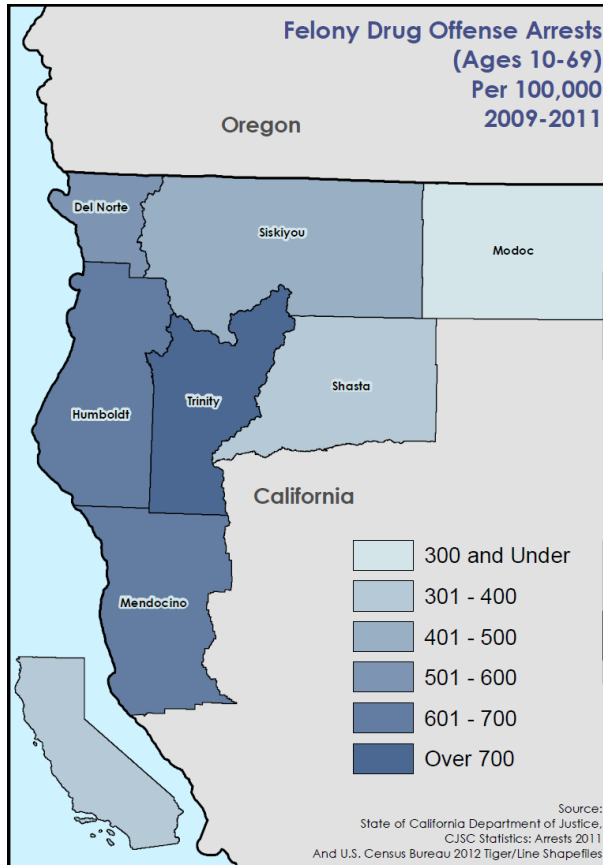
The rate of deaths from homicide is on par with the state, however the years of potential life lost (YPLL) is much lower than the state, suggesting the age at death from homicide is much younger statewide than in Humboldt County.

Significant challenges to overall community and family safety remain. Since 1985 there have been 30 homicides in Humboldt county as a result of domestic violence.



<b>Violence and Community Safety Measures 2009-2011 (per 100,000)</b>	<b>Humboldt</b>	<b>+/-</b>	<b>California</b>	<b>+/-</b>
Felony violent crime arrests (homicide, forcible rape, robbery, aggravated assault, ages 10-69)	450.8	40.0	379.8	2.2
Felony drug offense arrests (ages 10-69)	620.9	47.0	386.5	2.2
DUI arrests (misdemeanor and felony, ages 10-69)	1323.0	68.6	641.2	2.8

Source: California Dept. of Justice—Criminal Justice Statistics Center



<b>Violence and Community Safety Measures 2009–2011</b>	<b>Humboldt</b>	<b>+/-</b>	<b>California</b>	<b>+/-</b>
Deaths from homicide (per 100,000)*	5.9	***	5.2	0.2
Years potential life lost due to homicide (per 100,000)*	124.9	18.9	254.5	—
Emergency room visits due to assault (per 100,000)	497.2	21.8	291.8	1.0
Percentage of people who say they have experienced physical or sexual violence by an intimate partner since age 18	19.4%	6.5%	14.8%	1.0%

Sources: County of Humboldt DHHS-PHB—Vital Statistics, CPDH County Health Status Profiles 2013, CDC WISQARS, Includes persons reporting only one race. Hispanics may be of any race, so also are included in applicable race categories. 2020 Topics and Objectives, CDPH EPICenter: California Injury Data Online, 2009 California Health Interview Survey. \*California YPLL 2008-10; Humboldt YPLL 2008-2012. “—” Signifies data not available or applicable. “\*\*\*” Signifies that rate is unstable (see Page 10 for explanation).



# Social Determinants of Health

## Community Safety

### Domestic Violence

Since 1985 twenty-seven women, two men, one child, and two companion animals were killed in acts of domestic violence. Two of the murdered women were pregnant. Twenty-eight of the perpetrators were male, one was female and eight of them committed suicide at the scene.

### Child Abuse and Neglect

Several factors are associated with the risk of child maltreatment, such as social isolation, unemployment, poverty, stress, parental substance abuse and/or mental health issues, as well as lack of parental understanding of a child's needs, child development and parenting skills. The prevalence of these risk factors can affect child maltreatment rates as well as other child maltreatment-related indicators. The impact of abuse or neglect on a child may be mild or severe, disappear after a short period or last a lifetime, and affect a child physically, psychologically and/or behaviorally. Research shows that protective

Domestic Violence Calls 2010 per 100,000	Humboldt	California
Total domestic violence calls for assistance to law enforcement	624	447
No weapon involved	440	270
Weapon involved	190	177

Source: <http://oag.ca.gov/crime/cjsc-stats/2010/table14>

Child Abuse and Neglect 2012 per 1,000 children	Humboldt	California
Child maltreatment substantiation rate (per 1,000 children)	7.9	9.2
Foster care entry rate (per 1,000 children)	6.4	3.4
Percentage of children who do not experience recurrence of child maltreatment (within 12 months) (Jan 1 2012-Jun 30 2012)	94.4%	89.6%
Percentage of children in foster care who are placed with a relative or non-related extended family member (April 1, 2013)	63.9%	39.5%

Sources: UC Berkeley CWS/CMS Dynamic Report System 2013 Quarter 1 Extract, Population Data Source: 2012 - CA Dept. of Finance: 2010-2060 - Pop. Projections by Race/Ethnicity, Detailed Age, & Gender

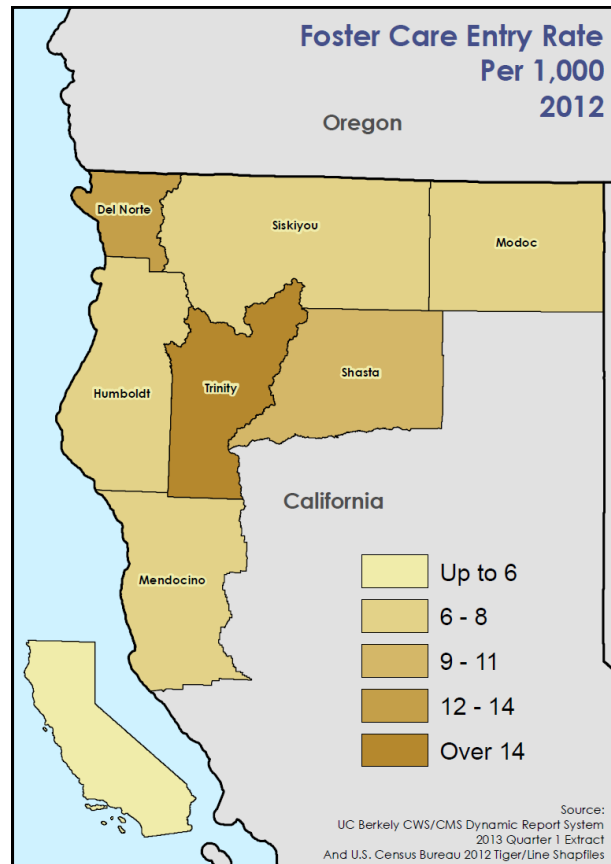
factors, such as having a supportive family environment and social network, help buffer children from child maltreatment.

In 2012, Humboldt County had a lower child maltreatment rate than the overall state rate. Child neglect continues to be the leading type of child maltreatment in Humboldt County, representing 70% of those children with a substantiated child maltreatment allegation.

An essential tool to improving child safety, permanency and well-being is using an integrated, collaborative approach so that all services necessary are provided to reduce risk factors, support child well-being and promote a supportive family environment.

In 2012, Humboldt County had a higher foster care entry rate than the state rate. When out-of-home placement is necessary, placing the child with relatives or non-related extended family members is preferred to help preserve and strengthen family and cultural ties whenever possible. On April 1, 2013, the percentage of court-dependent foster children placed with a relative or non-related extended family member in Humboldt County was 63.9%, which is higher than the state-wide rate of 39.5%. Humboldt County's rate of children who do not experience maltreatment is higher than the state's.

Strategies to reduce the incidence of child maltreatment and the need for out of home care include providing parenting education programs designed to promote positive parenting practices, engaging families early to enhance family participation in decision making, providing trauma-informed service delivery approaches and linking families to community services.



## Nutrition and Active Living

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.

However, Humboldt County is not immune to the increasing prevalence of obesity and type two diabetes. The California Health Interview Survey of 2009 indicates that the prevalence of both conditions has increased in Humboldt and throughout the state.

Poor nutrition and a sedentary lifestyle are health behaviors that can lead to the onset of these dangerous conditions, which in turn increase a person's risk of developing heart disease, kidney disease, stroke and other serious health complications.

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.

Compared to California as a whole, Humboldt County rates better on some key nutrition and physical activity indicators. Also, a recent, informal survey conducted by the Public Health Branch revealed that the majority of the county's ten largest employers have initiated at least some elements of an employee wellness program.



Obesity and Weight				
2009	Humboldt	+/-	California	+/-
Percentage of children (age 2-11) obese for age [Body Mass Index (BMI) equal or above 95th percentile]	28.2%	9.6%	27.3%	1.1%
Percentage of teens (age 12-17) at normal body weight for age	77.2%	9.8%	68.4%	2.7%
Percentage of adults (age 18+) obese [Body Mass Index (BMI) 30+]	26.5%	7.1%	22.7%	0.9%

Source: 2009 California Health Interview Survey

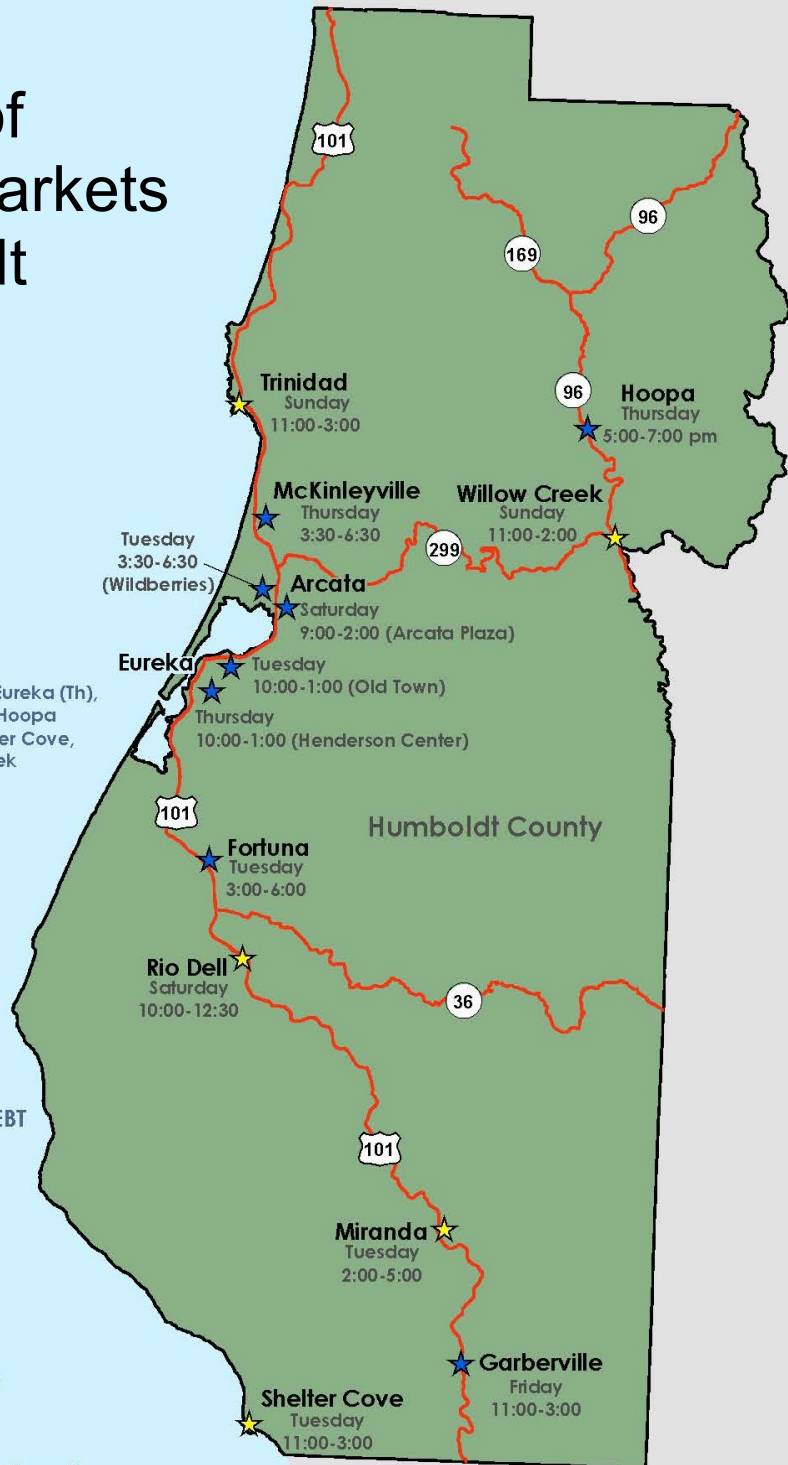
# Humboldt County's Farmers Markets

## Schedule of Farmers Markets in Humboldt County

Market Seasons:  
 Jun-Oct: Arcata (T), Eureka (T), Eureka (Th),  
 McKinleyville, Rio Dell, Hoopa  
 May-Oct: Fortuna, Miranda, Shelter Cove,  
 Garberville, Willow Creek  
 Apr-Nov: Arcata (Sa)  
 May-Sep: Trinidad

- Highways
- ★ Does Not Accept EBT
- ★ Accepts EBT

Source:  
 North Coast Growers' Association  
<http://www.humfarm.org>  
 Local Harvest  
<http://www.localharvest.org>  
 And U.S. Census Bureau Tiger/Line Shapefiles



## Nutrition and Active Living



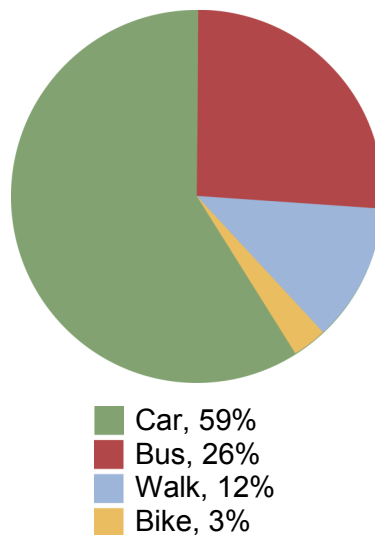
Nutrition	Humboldt	+/-	California	+/-
Did not eat fast food in the past week	58.1%	7.5%	35.8%	0.4%
Eat five or more servings of fruits/vegetables (child)	50.5%	9.5%	48.4%	2.2%
Eat five or more servings of fruits/vegetables (teen)	30.4%	13.4 %	20.3%	2.2%
Youth who refrain from daily consumption of sugar-sweetened beverages	69%	5%	85.3%	5%
Eligible adults who participate in the CalFresh program	59.0%	—	60.0%	—

Sources: 2009 California Health Interview Survey and California Department of Social Services

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.



### Humboldt County student transportation to school



Source: Humboldt County SR2S 2011 Parent Surveys. 32 schools in Humboldt County were surveyed.

Physical Activity	Humboldt	+/-	California	+/-
One hour of physical activity every day of the week (child)	37.7%	10.4%	22.6%	2.0%
One hour of physical activity every day of the week (teen)	30.5%	9.7%	15.2%	1.8%
7th graders who achieve the healthy fitness goal in all six FitnessGram tests	34.4%	—	32.1	—
Youth who walked, biked or skated from school	41.4%	—	43%	—
Mean travel time to work (minutes), workers age 16+, 2005-2009	18 min		27 min	
Adult: regularly walking for fun, exercise, transportation	23.4%	5.9%	18.9%	0.9%

Sources: 2009 California Health Interview Survey, California Fitnessgram Physical Fitness Test Results



## Nutrition and Active Living

According to the American Diabetes Association 95% of people living with diabetes have type two diabetes as opposed to type one. Lifestyle and genetics both influence the development of diabetes. No country, county, or ethnic group is immune yet American Indians are about twice as likely as non-Hispanic whites to have 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.

The best diabetes prevention is physical activity, a healthy diet and maintaining a healthy weight.

Diabetes							
	Humboldt					California	Healthy People 2020 Objective
	Total	+/-	Among Whites	Among Non-Whites*	Among American Indians/ Alaska Natives		
Estimated diabetes-related deaths* (per 100,000)	72.8	13.7	69.8	108.1	189.5	—	65.8
Years of potential life lost (YPLL) due to diabetes** (per 100,000)	317.4	26.9	294.9	365.5	848.8	135.8	—
Estimated prevalence of diabetes (2009)	7.8%	4.5%	—	—	—	8.5%	< 0.7% annual increase in new cases

Sources: County of Humboldt DHHS-PHB—Vital Statistics, 2009 California Health Interview Survey, Healthypeople.gov 2020 Topics and Objectives, CDC-WISQARS. \*Non-whites includes American Indian / Alaska Native, Black, Asian, Hispanic, Latino, and Native Hawaiian and Other Pacific Islander persons. \*\*Humboldt data 2008-2012; California YPLL 2008-10. “—” signifies data not available or applicable.

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, fam-

ily history and prior stroke or heart attack are all risk factors for stroke and cardiovascular disease.

A stroke occurs when the blood supply to the brain is suddenly interrupted or when a blood vessel in the brain bursts, causing a lack of oxygen to the brain. Strokes can damage part of the brain, causing various types of disability or impairment and, if severe enough, death.

<b>Heart Health and Stroke</b>					
<b>2009-11 (unless otherwise noted)</b>	<b>Humboldt</b>	<b>+/-</b>	<b>California</b>	<b>+/-</b>	<b>Healthy People 2020 Objective</b>
Coronary heart disease AAMR* (per 100,000)	107.5	16.9	122.4	1.3	< 100.8
Stroke AAMR (per 100,000)	52.4	12.9	38.1	0.6	< 33.8
Emergency room visits for myocardial infarction (heart attack), adults age 35+ (per 10,000) (2009)	18.8	3.5	22.3	0.2	—
Ever diagnosed with high blood pressure	24.8%	6.1	26.6%	0.9	—
If Hypertensive, Takes Medicine For High Blood Pressure	74.5%	7.8	70.2%	1.8	—

Sources: 2007 California Health Interview Survey, 2009 California Health Interview Survey, CDPH Environmental Health Investigations Branch, CDPH County Health Status Profiles 2013, Healthypeople.gov 2020 Topics and Objectives. \*AAMR = Age-Adjusted Mortality Rate.



## Environmental Quality

Many social and economic factors impact the quality of our shared living environment, which in turn impacts our health.

Humboldt County is blessed with plentiful and splendid natural resources, yet the county rates poorly on some health outcomes associated with environmental quality.

State and federal level indicators such as asthma, percentage served by public water systems, and air pollution are influenced by many factors outside the traditional public health areas of food safety and water quality, and are linked with a variety of socio-economic health determinants, so this apparent dichotomy does not relate directly to local environmental health services and health education programs.

2009	Humboldt	+/-	California	+/-	Healthy People 2020 Objective
Air pollution-particulate matter days	4	—	16	—	—
Air pollution ozone days	0	—	51	—	—
Ever diagnosed with asthma	15.1%	5.1%	13.6%	0.5%	—
If asthmatic, currently has asthma after prior diagnosis by doctor	70.0%	12.0%	58.5%	2.5%	—
Emergency room visits due to asthma by children < age 5 (per 10,000)	119.6	28.2	109.9	1.3	95.5
Percentage of persons served by public water supply	77.0%	.2%	92.5%*	.02%	91.0%
Food-borne outbreaks - annual rate (per 100,000)*	Less than 1 per 100,000	—	.3	0.1	—
Percentage of children age 0-5 with elevated blood lead levels (9.5+ µg/dL)	1.7%	***	.4%	.03%	Eliminate elevated blood lead levels

Sources: 2009 California Health Interview Survey, CDPH Environmental Health Investigations Branch, CDPH Public Drinking Water Systems, County Health Rankings (<http://www.countyhealthrankings.org>), County of Humboldt Environmental Health Division.  
\*Humboldt 2005-2009; California 2008, USGS Water Use in the United States 2007



## Family Health

Humboldt County Department of Health and Human Services and its community partners have made significant progress in ensuring that families, particularly those with children up to 5 years of age, have adequate access to resources that improve health outcomes.

Breastfeeding is a crucial first step in protecting the health of mothers and infants. Breastfeeding reduces babies' odds of becoming overweight by more than 30 percent if they are breastfed for 9 months. Infants who were not breastfed see increased health risks for digestive problems, ear and respiratory infections, and allergies, and are 10 times more likely to be

admitted to the hospital in the first year than those who were breastfed. Additionally breastfeeding has been shown to have positive health benefits for the mother including a decreased risk for some cancers, diabetes and osteoporosis.

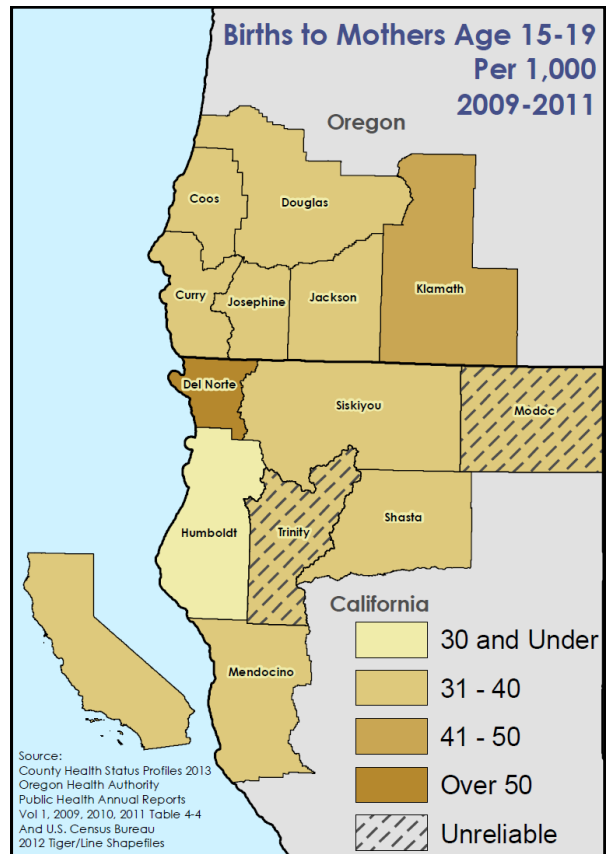
Humboldt performs better than both California and the U.S. in the rate of teen (age 15-19) births and in the proportion of individuals stating that they have health insurance. The rate of low-birth-weight births in Humboldt is also better than in California overall. However, compared to the state overall, pregnant women in Humboldt are slightly less likely to receive prenatal care.

Source: CDC Vital Signs, 2011



Teen births have declined significantly in in the past 15 years, locally, nationally and statewide. Humboldt County has seen a 40% decrease in teen birth rates since 1996, and has a significantly lower rate than the state overall.

Teen birth rates are a health measure because two-thirds of teen parents do not graduate from high school. Fewer than 2% get a college degree by the age of 30. As a result, most teen parents face a lifelong struggle to support their children. The children of teen parents face hardships including health and developmental problems, difficulties in school, risky behaviors such as delinquency and substance use, and a greater likelihood of becoming teen parents themselves.



From the 2013 California County Health Status Profiles	Humboldt	+/-	California	+/-	Healthy People 2020 Objective
Infant mortality 2008-2010 (per 1,000)	4.9	***	5.0	0.2	6.0
Low birth weight births	5.1%	1.3%	6.8%	0.2%	7.8%
Late or no prenatal care	21.5%	2.3%	16.3%	0.1%	22.4%
Births to mothers age 15-19 (per 1,000)	24.0	4.4	31.5	0.3	42.5
Initiation of breastfeeding (2011)	93.7%	5.3%	91.7	0.1%	81.9%
Percentage of population currently with health insurance	87.3%	4.0%	85.5%	0.8%	100%

Sources: 2009 California Health Interview Survey; CDPH County Health Status Profiles 2013; Cal-SAFE Program, TeenNow Ca Policy Brief, 3/2013. "\*\*\*\*" Signifies that rate is unstable (see Page 10 for explanation).



## Communicable Disease

### Communicable Disease Program

The Communicable Disease Program at DHHS Public Health tracks, investigates and reports notifiable diseases. The program maintains a knowledge base of current disease trends as well as emerging infectious diseases to allow Public Health to rapidly identify and respond to local and national disease events.

Because many communicable diseases are vaccine-preventable, Public Health's immunization clinic works closely with the communicable disease program to provide evidence-based preventative care, especially during local outbreaks and during flu season.

Consistent with national standards, the Communicable Disease program has public health nurses available to address questions and concerns from both local health providers and community members. Examples include questions about needle

stick exposures, treatment protocols for rabies if exposed to a dog bite, what to do if a family member has whooping cough, or questions about tuberculosis.

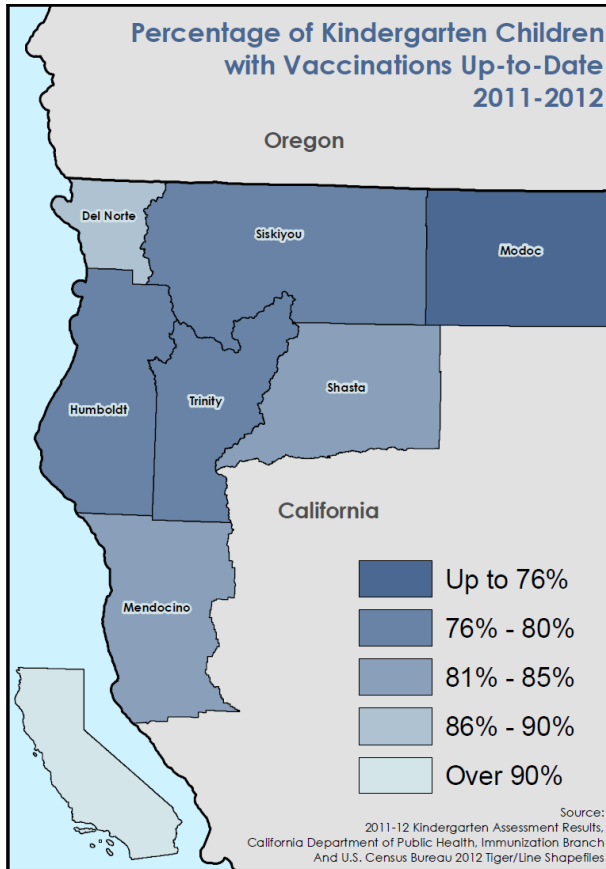
### Public Health Lab

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

In many of these examples, time is of the essence when trying to correctly diagnose a patient. Over the past several years, the Public Health Lab has invested in new technologies that have reduced the time it takes to report results to providers. Accurate information with faster turnaround times leads to better and more timely treatment for patients.



## Immunization



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

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.

Immunization Rates				
	Humboldt	+/-	California	+/-
Percentage of adults and children receiving flu vaccine (2009)	36.0%	7.2%	37.5%	0.9%
Percentage of kindergarten children not vaccinated under the personal belief exemption (PBE) (2011-12)	9.9%	1.5%	2.3%	0.04%
Percentage of kindergarten children with vaccinations up-to-date (2011-12)	77.6%	2.1%	91.0%	0.1%

Source: 2009 California Health Interview Survey, CDPH DCDC Immunization Branch, 2010 School Immunization Rates in California



## Communicable Disease

### Hepatitis C

Hepatitis C is a contagious liver disease caused by a blood-borne virus. Chronic Hepatitis C can cause cirrhosis, liver damage and liver cancer among other health problems.

The most common source of Hepatitis C infection is injection drug use. Less commonly, people are exposed to the virus through sex, non-commercial tattoos (such as prison tattoos) and blood exposure events in health-care settings.

Reported Hepatitis C cases have been increasing nation-wide over the past ten years.

Humboldt County has experienced the same trend and local rates of chronic infection are above state levels.

Our understanding of the reasons for the increase is not complete, but the trend is most likely due to a combination of factors. Chief among those are drug abuse and increased testing by medical providers. For example, the CDC recently issued a recommendation that all people born between 1945 and 1965 get a blood test for Hepatitis C. Since the disease can be asymptomatic for years, this recommendation alone will likely lead to the identification of many new cases.



<b>Hepatitis B and C Prevalence</b>			
	<b>Humboldt (2012)</b>		<b>California (2010)</b>
Type of viral hepatitis	Number of persons ever infected	Reported prevalence of persons living with chronic infection	Estimated prevalence of persons living with chronic infection
Hepatitis B	745	1 in 190 persons	~1 in 227-397 persons
Hepatitis C	5490	1 in 26 persons	~1 in 81-118 persons

<b>Demographics of Humboldt County Hepatitis C Cases 1990-2012</b>	
Average age--acute cases:	37 Years
Average age--chronic cases:	44 Years
Percent male	58%
Percent female	42%

<b>Race/Ethnicity</b>	<b># Cases</b>	<b>Rate/100,000 by Race</b>
White	3039	122.7
American Indian/Alaska Native	444	266.6
Hispanic/Latino	73	38.7
African American/Black	59	230.9
Asian/Pacific Islander	24	44.7
Other	33	---
Unknown	1818	---

Sources: County of Humboldt DHHS-PHB—Vital Statistics, CDC Division of Viral Hepatitis, Provided for comparison purposes only



# Communicable Disease

## 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 annually.

Commonly reported illnesses are listed in a table below. Usually these illnesses are associated with contaminated food and/or water, and while individual cases are typically

reported, these diseases can cause widespread outbreaks.

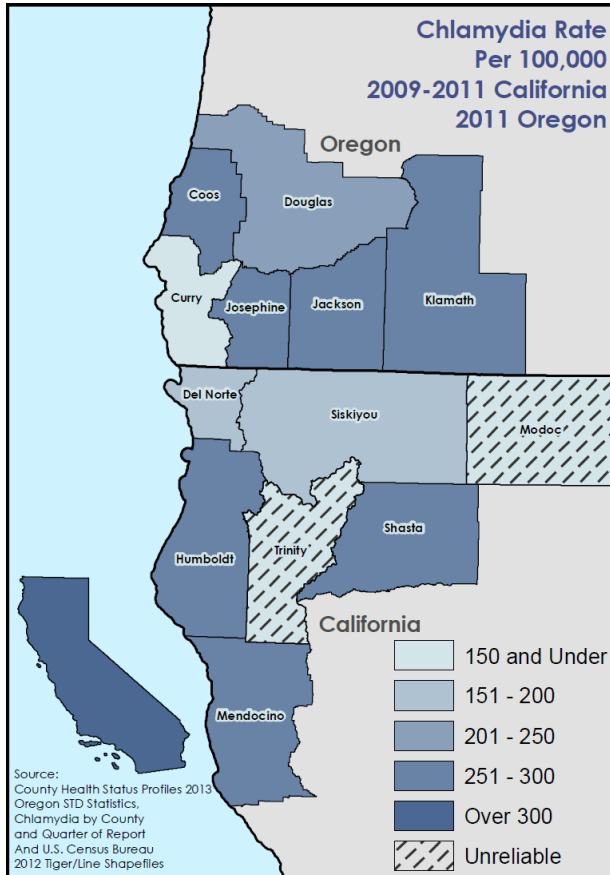
Through the efforts of DHHS's Public Health Nursing, the Environmental Health Division, local health care providers, and the public, Humboldt County has a robust monitoring, reporting and regulatory system to reduce the occurrence of these and all other reportable diseases.



Select Enteric Illnesses (2010)				
Name of Disease	Humboldt County Rate/100,000	+/-	California Rate/100,000	+/-
Campylobacteriosis	19.3	7.4	17.9	0.4
Cryptosporidiosis	5.2	***	1.0	0.1
E. Coli O157:H7	1.5	***	0.6	0.1
Giardiasis	8.9	***	4.7	0.2
Salmonellosis	0.7	***	10.7	0.3

Source: 2011 CA Division of Communicable disease control annual summary. "\*\*\*\*" Signifies that rate is unstable (see Page 10 for explanation).

## Sexually Transmitted Disease



Sexually Transmitted Disease (STD) affects 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 the major reportable STDs. These include Chlamydia, gonorrhea, and syphilis. Per state and federal guidelines, other infections, such as HPV and herpes are not tracked or reported in California.

Over the last 5 years, the level of Chlamydia infections in Humboldt County has been very steady and well below the state as a whole. The rate of gonorrhea infections has begun to increase over the past few years, but remains substantially below the state level. Syphilis is rarely reported in Humboldt county, with about two to three cases reported per year.

Sexually Transmitted Diseases				
	Humboldt	+/-	California	+/-
Chlamydia rate (per 100,000) (2009-2011)	272.5	27.9	417.6	2.5
Gonorrhea rate (per 100,000) (2011)	32.7	9.7	72.8	0.9

Sources: County of Humboldt DHHS-PHB—Vital Statistics, CDPH California County Health Status Report 2013, CA DCDC Sexually Transmitted Diseases in California 2011



## Communicable Disease

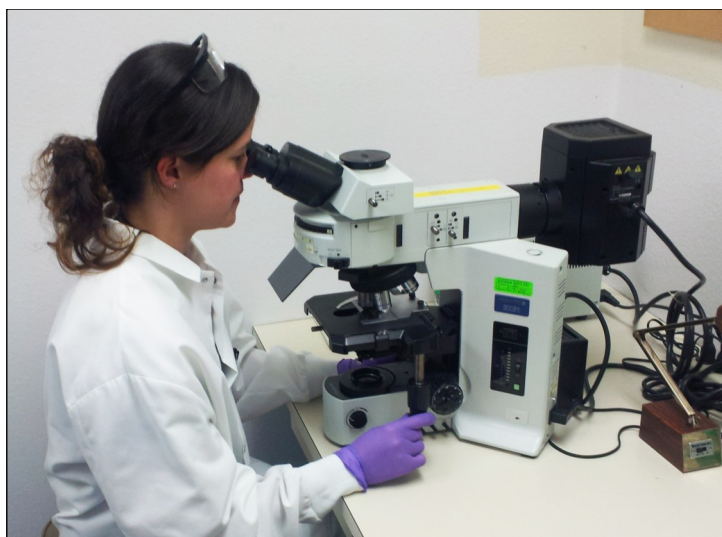
### HIV/AIDS

As with Chlamydia and Gonorrhea, 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 177 known individuals living with HIV 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 ([www.AIDS.gov](http://www.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.

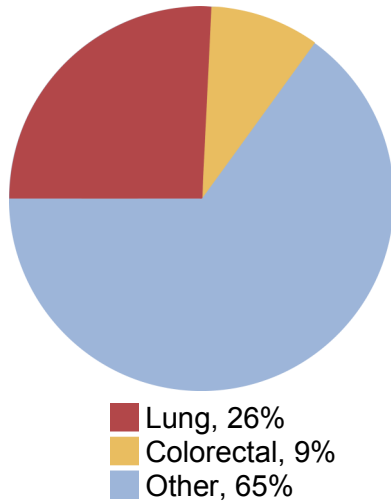


HIV / AIDS 2012		
Humboldt		California
# of Cases	Prevalence/1,000	Prevalence
177	1.3	3.1

Sources: County of Humboldt DHHS-PHB—Vital Statistics, CDPH California County Health Status Report 2013

# Cancer

## Humboldt County Cancer Mortality Rate by Type (2009—2011) per 100,000



In cancers that affect both men and women, lung and colorectal cancer are the leading and second-leading causes, respectively, of cancer mortality nationally, state-wide 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. Rates for colorectal cancer can be found in the chart below. Data on lung cancer mortality appears below.

Source: Humboldt County SR2S 2011 Parent Surveys. 32 schools in Humboldt County were surveyed.

Age-adjusted Rates Per 100,000 persons	Humboldt		California		Healthy People 2020 Objective
	Total	+/-	Total	+/-	
Mortality rates 2009-2011; Incidence rates 2005-2009					No more than:
Total cancer mortality rate	182.4	22.0	156.4	1.4	160.6
Total cancer incidence rate	529.8	16.0	474.7	1.0	—
Female breast cancer mortality rate	23.9	12.9	21.3	0.7	20.6
Female breast cancer incidence rate	145.3	12.0	152.6	0.8	—
Prostate cancer mortality rate	23.4	***	21.9	0.8	21.2
Prostate cancer incidence rate	155.5	13.2	143.0	0.9	—
Colorectal cancer mortality rate	16.8	8.0	14.7	0.4	14.5
Colorectal cancer incidence rate	53.0	5.3	45.9	0.3	—

Sources: CDPH County Health Status Profiles 2013, 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 2005 to 2009. "\*\*\*\*" Signifies that rate is unstable (see Page 10 for explanation).



## Tobacco Use

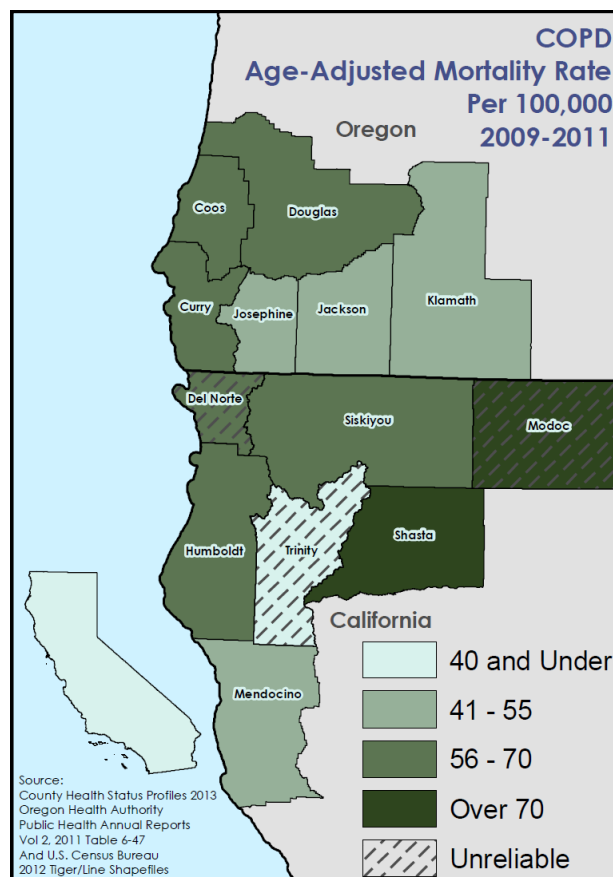
Tobacco use remains a significant cause of poor health outcomes in Humboldt County. Lung cancer and mortality rates from Chronic Obstructive Pulmonary Disease (COPD) remain significantly higher in Humboldt than in California overall.

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.



<b>Tobacco Use</b>				
<b>2009</b>	<b>Humboldt County</b>	<b>+/-</b>	<b>California</b>	<b>+/-</b>
Percentage of adults and teens currently smoking	12.5%	4.0%	12.5%	0.8%
Percentage of population who have smoked 100+ cigarettes in their lifetime	42.9%	8.6%	36.7%	1.0%
Of those who smoke, percentage of adults who smoke indoors at home 7 days a week	67.3%	6.6%	44.7%	4.5%

Source: 2009 California Health Interview Survey

<b>Outcomes: Smoking-Related Illness and Deaths</b>					
<b>Mortality rates 2009-2011; incidence rates 2005-2009</b>	<b>Humboldt</b>	<b>+/-</b>	<b>California</b>	<b>+/-</b>	<b>Healthy People 2020 Objective</b>
Average annual lung cancer incidence	67.0	5.9	52.5	—	—
Lung cancer AAMR	47.0	12.5	36.5	0.7	45.5
COPD AAMR	56.2	13.5	37.5	0.6	98.5
Rate/100,000 years potential life lost before age 75 due to COPD**	210.5	21.6	123.3	—	—

Sources: County of Humboldt DHHS-PHB—Vital Statistics, CPDH County Health Status Profiles 2013; CDC WISQARS Healthypeople.gov 2020 Topics and Objectives, California Cancer Registry— Lung cancer incidence (fatal and non-fatal new cases) includes both Humboldt and Del Norte Counties, covering the years 2005-2009. \*\*California YPLL 2008-2010; Humboldt rates 2008-2012. “—” signifies data not available or applicable.



## Unintentional Injury

Unintentional injuries are the leading cause of preventable and premature death in Humboldt County. From 2005-2011, nearly three in four unintentional injury deaths (73%) were from accidental alcohol/drug overdose, and transportation-related collisions, primarily involving motor vehicles.

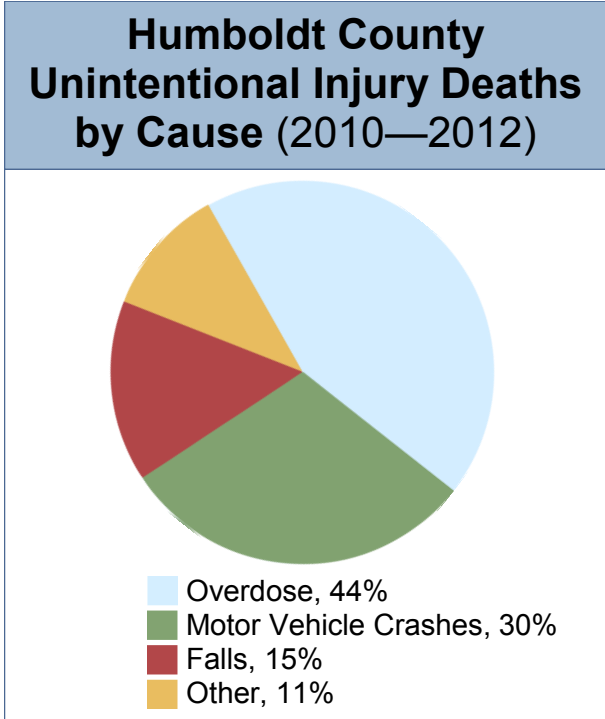
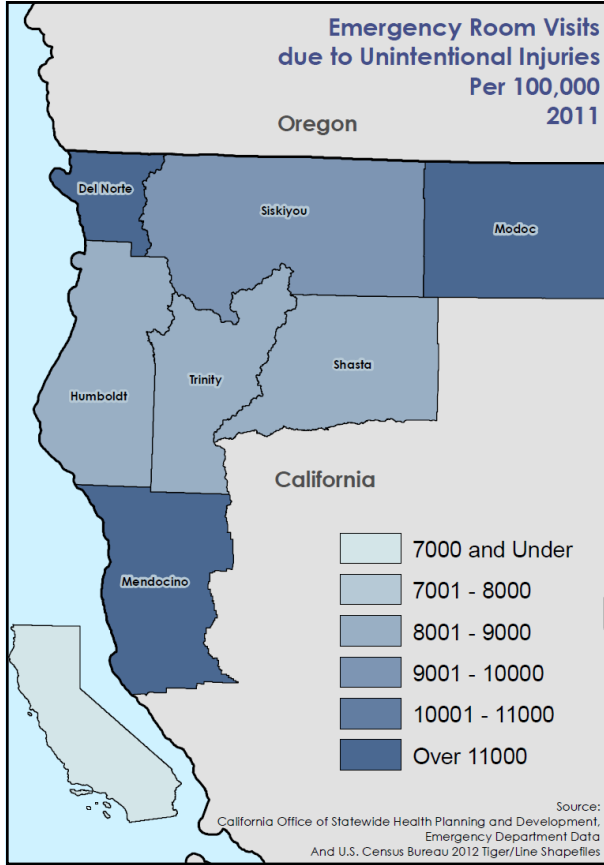
Among the transportation-related injuries were motor vehicle collisions with bicycles. In 2011 there were 57 cyclists injured and two

killed. In 70% of those collisions, the cyclist was named as 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 death in Humboldt's American Indian 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 American Indian communities.

Deaths and Emergency Department Visits due to Unintentional Injury							
2009-2011 unless otherwise noted (Rates per 100,000)	Humboldt					California	+/-
	Total	+/-	Among Whites	Among Non-Whites*	Among American Indians		
AAMR due to unintentional injury	65.2	14.9	58.2	<i>57.4</i>	<i>140.9</i>	27.6	0.6
Rate years potential life lost due to unintentional injury	1731.2	70.7	1715.6	1785.3	4723.5	771.8	—
Rate emergency room visits due to unintentional injuries	8281.8	88.9	9550.8	4792.6	7157.5	5495.4	4.3
Rate emergency room visits due to unintentional poisoning	198.2	13.7	230.3	107.5	138.2	96.3	0.6

Sources: County of Humboldt DHHS-PHB—Vital Statistics, CPDH County Health Status Profiles 2013, CDC WISQARS, Healthypeople.gov 2020 Topics and Objectives, CDPH EPICenter: California Injury Data Online \*Non-whites includes American Indian / Alaska Native, Black, Asian, Hispanic, Latino, and Native Hawaiian and Other Pacific Islander persons. Humboldt Mortality rates by race for 2008-2012. Italics signify that rate is unstable (see Page 10 for explanation). California YPLL 2008-2010; Humboldt YPLL 2008-2012. "—" signifies data not available or applicable. The majority of accidental poisonings involve the abuse of drugs and/or alcohol.



2009-2011 Motor Vehicle Injuries and Fatalities* (per 100,000)	Humboldt	+/-	California	+/-	Healthy People 2020 Objective
Motor vehicle fatalities	15.7	8.1	7.5	0.3	12.4
Years potential life lost (YPLL) < age 75	579.1	40.1	291.6	—	—
Emergency room visits due to motor vehicle injuries	719.2	26.2	600.5	1.4	—

Sources: County of Humboldt DHHS-PHB—Vital Statistics, CPDH County Health Status Profiles 2013, CDC WISQARS, Healthypeople.gov 2020 Topics and Objectives, CDPH EPICenter: California Injury Data Online. \* California YPLL 2008-2010; Humboldt rates 2008-2012. "—" signifies data not available or applicable.



## Mental 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 interlinked with physical health status and many risky behaviors such as tobacco, alcohol and substance abuse; problem 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.

Depression is the most common type of mental illness, affecting more than 26% 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.

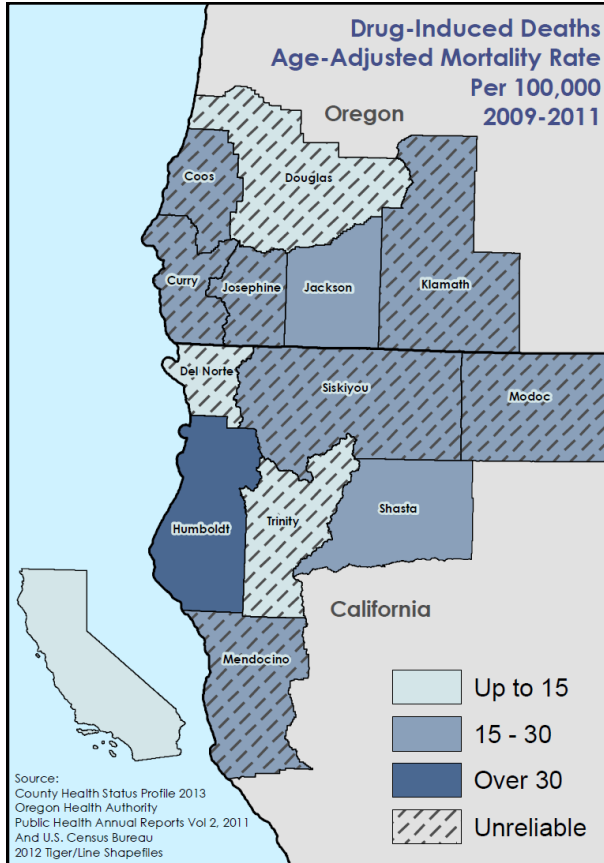
The cost to society is compounded by the consequences of alcohol and substance abuse addiction, which impact public safety, health, welfare, and education. Unfortunately, myths and stigma associated with mental illness prevent many people from getting the help they need.

Source: <http://www.cdc.gov/mentalhealth/basics.htm>

<b>Persons Enrolled in Medi-Cal who are Utilizing Mental Health Services</b>		
<b>2011</b>	<b>Humboldt</b>	<b>California</b>
Total	10.26%	5.78%
Children ages 0—5	3.39%	1.75%
Children ages 6-17	14.31%	7.52%
Adults ages 18-59	11.85%	7.37%
Adults aged 60+	5.9%	3.42%
Show rate for mental health scheduled appointments	85%	—

Source: Humboldt County Department of Health and Human Services

## Alcohol and Other Drug Abuse



Why do rural California counties have consistently higher rates of alcohol and other drug related deaths? There is no single identifiable cause. 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.

Rates 2009-2011 unless otherwise noted (per 100,000)	Humboldt				California	+/-	Healthy People 2020 Objective
	Total	+/-	Among Whites	Among Non-Whites*			
Drug induced deaths	36.7	11.6	—	—	10.9	0.4	11.3
Deaths due to unintentional overdose (2008-2012)	27.1	8.8	28.8	26.9	—	—	—
Rate years potential life lost due to unintentional overdose	829.9	49.6	913.6	869.1	297.9	—	—

Sources: County of Humboldt DHHS-PHB—Vital Statistics, CDPH County Health Status Profiles 2013, CDC WISQARS, Healthypeople.gov 2020 Topics and Objectives, California YPLL 2008-2010, Humboldt YPLL 2008-2012. Italics signify that rate is unstable (see Page 10 for explanation).



# Mental Health

## Alcohol and Other Drug Abuse

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.

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.

<b>Alcohol and Other Drug Use (2009)</b>				
<b>Percent of People Reporting</b>	<b>Humboldt County</b>	<b>+/-</b>	<b>California</b>	<b>+/-</b>
Percent of people who reported needing help for emotional-mental health or use of AOD	13.8%	3.6%	14.3	0.8%
Percent of people who saw a healthcare provider for emotional-mental health and/or AOD issues in the past year	11.6%	3.4%	10.9	0.8%
Percent of people who reported needing help for emotional-mental health or use of AOD	13.8%	3.6%	14.3	0.8%
Percent of teens who have ever consumed alcohol	26.4%	10.6%	33.4%	2.6%
Percent of adults who engaged in binge drinking during the past year	40.2%	9.7%	31.3%	1.1%

Source: 2009 California Health Interview Survey.

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 thir-

teenth 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.



Rates 2009-2011 unless otherwise noted (per 100,000)	Humboldt				California	+/-	Healthy People 2020 Objective
	Total	+/-	Among Whites	Among Non-Whites*			
Deaths due to cirrhosis and liver disease	15.1	7.7	—	—	11.4	0.4	8.2
Years potential life lost due to cirrhosis and liver disease; chronic alcohol abuse	552.7	37.8	513.9	815.0	198.7	—	—

Sources: County of Humboldt DHHS-PHB—Vital Statistics, CDPH County Health Status Profiles 2013, CDC WISQARS, Healthypeople.gov 2020 Topics and Objectives, California YPLL 2008-2010. Humboldt YPLL 2008-2012. \*Non-whites includes American Indian/Alaska Native, Black, Asian, Hispanic, Latino, and Native Hawaiian and Other Pacific Islander persons.



# Mental Health

## Alcohol and Other Drug Abuse—Youth

Data from the California Healthy Kids Survey (2009-2011) 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 ASAP Study 2009	Local Youth Reporting
Ever used alcohol or other drugs	74%
Accessed alcohol from a friend	78%
Accessed alcohol from a friend 21+	61%
Had a stranger purchase alcohol	48%
Stole alcohol from a parent	35%
Given alcohol by a parent	21%
Accessed marijuana from a friend	80%
Accessed marijuana from a dealer	52%
Accessed marijuana from a friend 21+	32%

California Healthy Kids Survey 2009—2011	Humboldt County	California
Average age of substance use initiation - alcohol	13-14	16
Average age of substance use initiation - marijuana	13-14	17

Source: Alcohol, Tobacco and Other Drug Prevention Coalition (now Allies for Substance Abuse Prevention - ASAP) Study, 2009.

<b>Humboldt County Youth AOD Use (2009—2011)</b>						
	<b>Humboldt County</b>			<b>California</b>		
<b>Percent of youth surveyed</b>	<b>9th Grade</b>	<b>11th Grade</b>	<b>Non - traditional</b>	<b>9th Grade</b>	<b>11th Grade</b>	<b>Non - traditional</b>
Past 30-day use - alcohol	29%	42%	59%	24%	33%	53%
Past 30-day use - binge drinking	19%	31%	48%	14%	22%	43%
Past 30 day use - marijuana	22%	27%	42%	15%	21%	48%
Perceived harm - alcohol						
Great	18%	17%	22%	27%	27%	28%
Moderate	24%	24%	31%	24%	24%	23%
Slight	39%	41%	34%	29%	32%	28%
None	19%	18%	13%	19%	17%	21%
Perceived harm - marijuana						
Great	24%	22%	23%	39%	34%	26%
Moderate	29%	23%	25%	24%	22%	17%
Slight	24%	33%	18%	17%	22%	23%
None	22%	22%	34%	20%	22%	34%
Parental disapproval - strongly Disapprove - alcohol	52%	51%	27%	N/A	N/A	N/A
Parental disapproval - strongly disapprove - marijuana (try once or twice)	25%	28%	8%	N/A	N/A	N/A
Parental disapproval - strongly Disapprove - marijuana (use once a month or more)	41%	33%	14%	N/A	N/A	N/A
Perceived difficulty of obtaining alcohol - very or fairly easy	71%	76%	70%	60%	73%	68%
Perceived difficulty of obtaining marijuana - very or fairly easy	74%	78%	77%	55%	72%	73%

Source: California Healthy Kids Survey, 2009-2011 County-level and statewide reports.



# Mental Health

## 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. While many counties in California and throughout the U.S. 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.

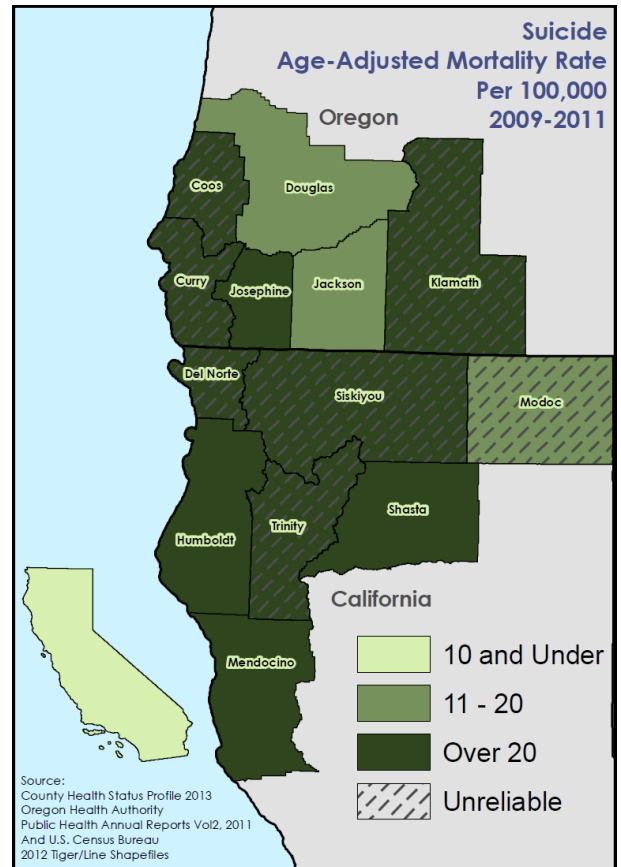
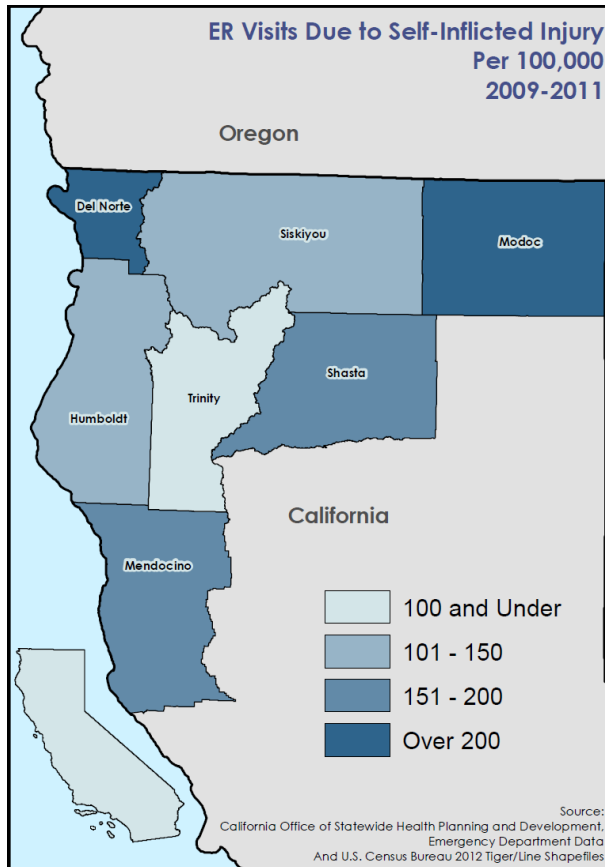
With Mental Health Services Act support, DHHS and community partners have launched a variety of services and activities to reduce suicide by building protective factors while reducing risk factors.

Need help?

Call us,  
any time.

If you or someone you know needs to talk to a mental health counselor, give us a call at 445-7715 or toll-free 1-888-849-5728, 24 hours a day.



<b>Annual Suicide Deaths and Self-Inflicted Injuries</b>				
<b>2009 –2011</b>	<b>Humboldt</b>	<b>+/-</b>	<b>California*</b>	<b>+/-</b>
Suicide AAMR (per 100,000)*	22.7	9.2	9.6	0.3
Rate years potential life lost due to suicide (per 100,000)*	620.3	41.4	291.7	—
Percentage of adults who say they've ever thought about suicide	12.1%	4.6%	8.7%	0.7%
ER visits due to self-inflicted injury (Per 100,000)	127.8	11.0	76.6	0.5

Sources: County of Humboldt DHHS-PHB—Vital Statistics, CPDH County Health Status Profiles 2011, CDC WISQARS, Healthypeople.gov 2020 Topics and Objectives, CDPH EPICenter: California Injury Data Online, 2009 California Health Interview Survey. \*California YPLL 2008-2010; Humboldt YPLL 2008-2012. "—" Signifies data not available or rate statistically unstable.



## Sources

2007 and 2009 California Health Interview Survey (CHIS)  
<http://www.chis.ucla.edu/main/default.asp>

California Cancer Registry Cancer Inquiry System  
<http://www.cancer-rates.info/ca/index.php>

California Department of Finance. Demographic Research Unit. Demographic Research Data Files.  
<http://www.dof.ca.gov/research/demographic/data/>

California Department of Justice. Office of the Attorney General. Criminal Justice Statistics Center.  
<http://ag.ca.gov/cjsc/datatabs.php>

California Department of Public Health. County Health Status Profiles, multiple years.  
<http://www.cdph.ca.gov/programs/ohir/Pages/CHSP.aspx>

California Department of Public Health. Division of Communicable Disease Control. Immunization Branch. School Immunization Rates in California.  
<http://www.cdph.ca.gov/programs/immunize/Pages/ImmunizationRatesatCaliforniaSchools.aspx>

California Department of Public Health. Division of Communicable Disease Control. Sexually Transmitted Disease Control Branch.  
<http://www.cdph.ca.gov/programs/std/Pages/default.aspx>

California Department of Public Health. Environmental Health Investigations Branch. California Environmental Health Tracking Program: Data and Information.  
[http://www.ehib.org/page.jsp?page\\_key=21](http://www.ehib.org/page.jsp?page_key=21)

California Department of Public Health. Injury, Violence, and Safety. EPICenter: California Injury Data Online.  
<http://epicenter.cdph.ca.gov/>

California Department of Public Health. Public Drinking Water Systems.  
<http://www.cdph.ca.gov/certlic/drinkingwater/Pages/default.aspx>

California Office of Statewide Planning and Development (OSHPD). Emergency Department and Ambulatory Surgery Data, Public Data Set.  
<http://www.oshpd.ca.gov/HID/Products/EmerDeptData/index.html>

Centers for Disease Control and Prevention. CDC WONDER. "Data 2010...The Healthy People 2010 Database."  
<http://wonder.cdc.gov/data2010/>

Centers for Disease Control and Prevention. Division of Viral Hepatitis: Statistics and Surveillance.  
<http://www.cdc.gov/hepatitis/Statistics/index.htm>

Centers for Disease Control and Prevention. Injury Prevention and Control: Data and Statistics. Web-Based Injury Statistics Query and Reporting System (WISQARS).  
<http://www.cdc.gov/injury/wisqars/index.html>

Centers for Disease Control and Prevention. OutbreakNet: Foodborne Online Outbreak Database (FOOD).  
<http://wwwn.cdc.gov/foodborneoutbreaks/>

County of Humboldt Department of Health and Human Services - Public Health Branch. Office of Vital Statistics. Databases accessed: California Electronic Death Records System (CA-EDRS); Automatic Vital Statistics System (AVSS); California Reportable Disease Information Exchange (CalREDIE).

Healthy People 2020 Topics and Objectives. Healthypeople.gov.  
<http://healthypeople.gov/2020/topicsobjectives2020/default.aspx>

U.S. Census Bureau. American Community Survey.  
<http://factfinder.census.gov>

U.S. Geological Survey. Water Use in the United States.  
<http://water.usgs.gov/watuse/data/>

California Employment Development Department  
<http://www.labormarketinfo.edd.ca.gov/>  
County Health Rankings  
<http://www.countyhealthrankings.org/#app/california/2012/humboldt/county/1/overall>

What Works for Health  
<http://whatworksforhealth.wisc.edu/>

Humboldt County Community Development Department, Planning Division  
<http://gis.co.humboldt.ca.us/>

California Healthy Kids  
<http://www.californiahealthykids.org/index>

Prosperity, the North Coast Strategy, Vol. III  
<http://www.northcoastprosperity.com/localeconomy/prosperitystrategy>

California Department of Public Health. Division of Communicable Disease Control. Yearly Summary Reports of Selected General Communicable Diseases in California.  
<http://www.cdph.ca.gov/data/statistics/Pages/CD-YearlyTables.aspx>

County of Humboldt Department of Health and Human Services. Trends Report.  
<http://www.co.humboldt.ca.us/hhs/administration/>

