

# 2019 Central Oregon Regional Health Assessment

## Executive Summary



# About the Regional Health Assessment (RHA)

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## What

The Regional Health Assessment (RHA) describes health-related strengths and challenges in the region and is used to prioritize improvements.

## Where

Crook, Deschutes, Jefferson, northern Klamath Counties, and the Confederated Tribes of Warm Springs.

## When

The Regional Health Assessment (RHA) is completed every four (4) years.

# 2019 RHA Steering Committee Members

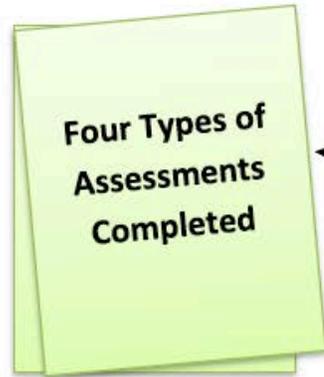
## Name

Michael Baker  
Rebeckah Berry  
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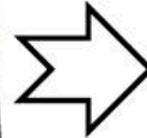
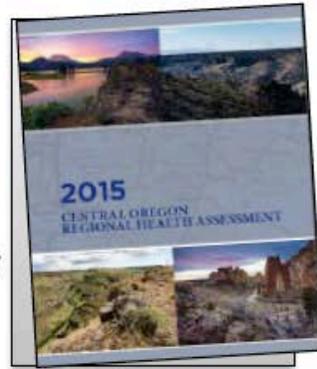
Jefferson County Public Health  
Central Oregon Health Council  
Deschutes County Health Services  
Jefferson County Public Health (Epidemiologist)  
Crook County Health Department  
St. Charles Health System  
Deschutes County Health Services (Epidemiologist)  
Deschutes County Behavioral Health  
Mosaic Medical  
COHC Community Advisory Council Member  
Deschutes County Health Services  
Deschutes County Health Services (Epidemiologist)  
Central Oregon Health Council  
PacificSource  
Bend/La Pine School District (Regional School Representative)  
Confederated Tribes of Warm Springs  
COHC Operations Council Co-Chair  
Deschutes County Health Services  
Central Oregon Health Council  
COHC Operations Council Co-Chair  
Early Learning Hub & Better Together  
BestCare Treatment Services (Jefferson County CMHP)  
Advantage Dental by DentaQuest

# Process Overview



- The Regional Health Assessment (RHA) is created using a collaborative Community Process called MAPP (Mobilizing for Action through Planning & Partnerships).
- Region-wide Focus Groups and interviews are conducted to gain community insight and collect qualitative data.
- Epidemiologists analyze quantitative data to identify regional health trends.

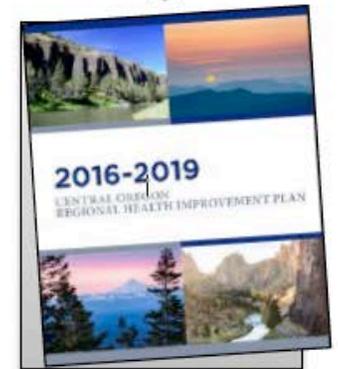
- The draft RHA is reviewed by partners, community members, and stakeholders. It is modified and ultimately adopted.



- Themes from the RHA are prioritized by impact, preventability/controllability, and feasibility.



- Goals and strategies are developed for each priority



- Draft Regional Health Improvement Plan (RHIP) is reviewed by partners and stakeholders.
- RHIP modified accordingly and ultimately adopted.

# Creation of the 2019 RHA included:

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## Community Experts

- Staff and community experts from over 25 local and regional organizations with expertise in health, social determinants of health, and health equity .



## Focus Groups with Professionals and the Community

- Over 240 people participated in community focus groups throughout the region.



## Surveys

- 705 people participated in a regional St. Charles phone survey.
- 202 surveys were conducted at county fairs in the region.

# Demographics

## Population Growth

The population of Central Oregon continues to grow and all three Central Oregon counties are growing faster than Oregon as a whole.

Central Oregon's population is aging with a larger proportion of people aged 65 years and older than Oregon overall.

**Table 1. Population estimates of Oregon and Central Oregon counties, American Community Survey (ACS), 2017**

	Oregon	Crook	Deschutes	Jefferson	Central Oregon
2017 Population	4,142,776	23,123	186,875	23,758	233,756
2010 Population (last decennial census)	3,831,074	20,978	157,733	21,720	200,431
Population % change (2010 to 2017)	8.1%	10.2%	18.5%	9.4%	16.6%

# Demographics

“Low income jobs. I can’t afford to live. Hard work can’t pay bills.” – Crook County Resident

## Cost of Living

Cost of Living, including housing affordability is an issue in all three counties. Although housing cost is lower in Crook and Jefferson Counties, the median household income is also lower.

Focus Group Result: Addressing the high cost of living in Central Oregon, including housing, healthy foods, healthcare, and childcare is a main community need.



# Demographics

Table 5. Socioeconomic-related factors in Oregon and Central Oregon counties, ACS 5-year estimates, 2016.

	Oregon	Crook	Deschutes	Jefferson
<b>Household income</b>				
Median household income (2017)	\$56,119	\$41,777	\$59,152	\$48,464
Median household income (2010)	\$49,260	\$46,059	\$53,071	\$41,425
Median household income, % change 2010-2017	13.9%	-9.3%	11.5%	17.0%
<b>Housing</b>				
Percent of all housing units owned	61.4%	69.0%	65.3%	68.8%
Median value of owner-occupied housing units	\$247,200	\$172,600	\$275,300	\$159,400
Percent of all housing units with no vehicles	7.9%	5.0%	3.8%	4.2%
Percent of homeowners spending 35% or more of monthly income on a mortgage	25.2%	32.7%	27.7%	22.5%
Percent of renters spending 35% or more of monthly income on rent	44.0%	43.1%	44.2%	33.2%
Median monthly owner costs (among housing units with a mortgage)	\$1,563	\$1,234	\$1,498	\$1,110
Median gross monthly rent of renter-occupied units	\$941	\$793	\$981	\$793
<b>Persons living below the Federal Poverty Level (FPL) (2016)</b>				
Percent of persons below FPL	14.0%	14.0%	10.5%	20.1%
Percent of persons aged <18 below FPL	18.3%	26.1%	14.9%	33.6%
Percent of persons aged 65+ below FPL	8.3%	4.0%	7.7%	6.5%

# Equity and Stigma

Promoting equity and decreasing stigma was frequently mentioned as a need during community focus groups.

**“In order for every organization to create a race equity culture, a culture that will give you an equitable result, you have to have a diverse group of people at the table.” – Deschutes County Resident**



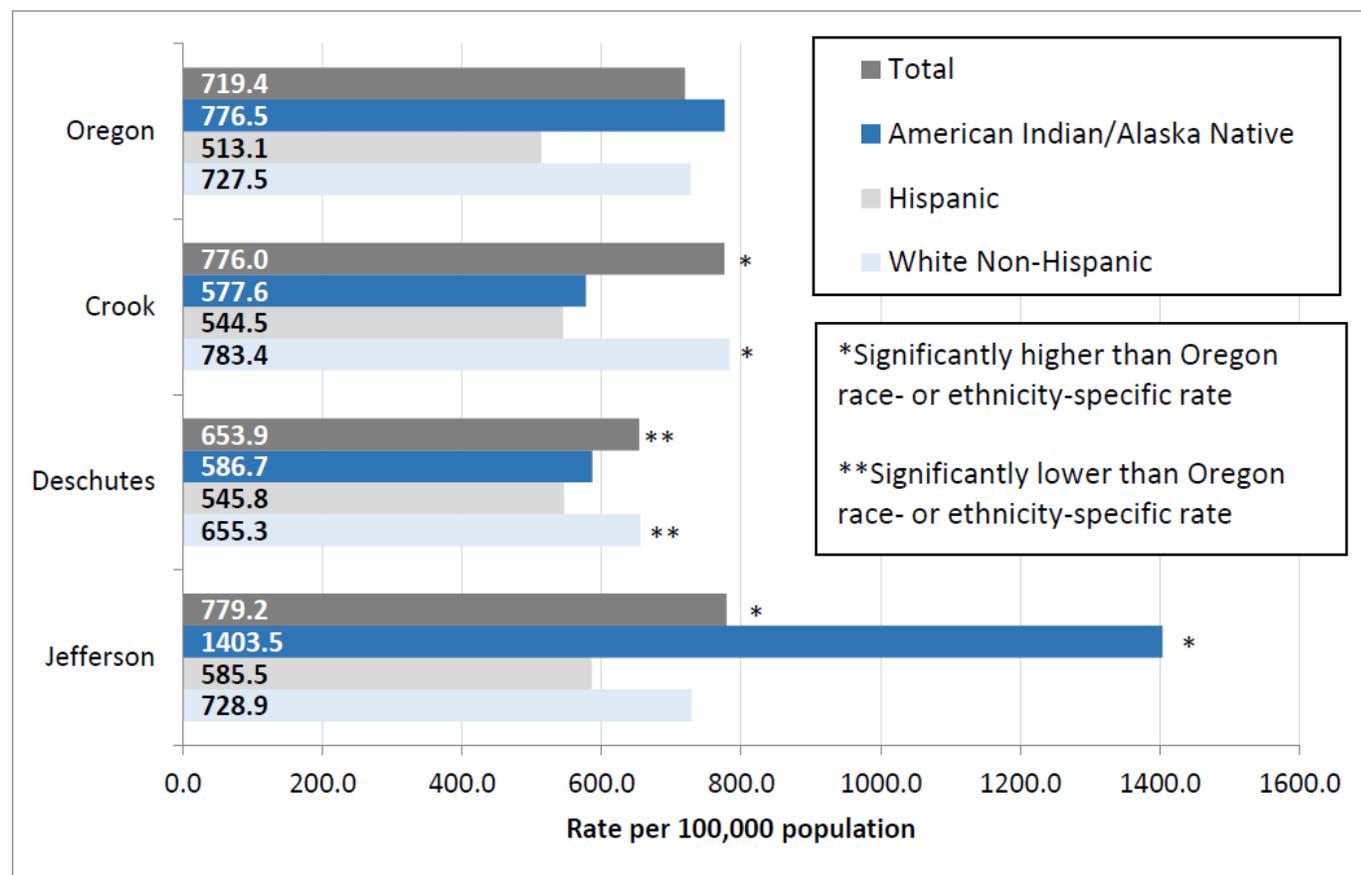
Image: [www.mmshealthycommunities.org](http://www.mmshealthycommunities.org)

# Causes of Death

## Mortality Rates

American Indian/Alaska Natives have a lower life expectancy and Hispanics have a higher life expectancy than the overall population.

Figure 23. Age-adjusted all-cause mortality rate per 100,000 population by race and ethnicity, OPHAT, 2013-2017

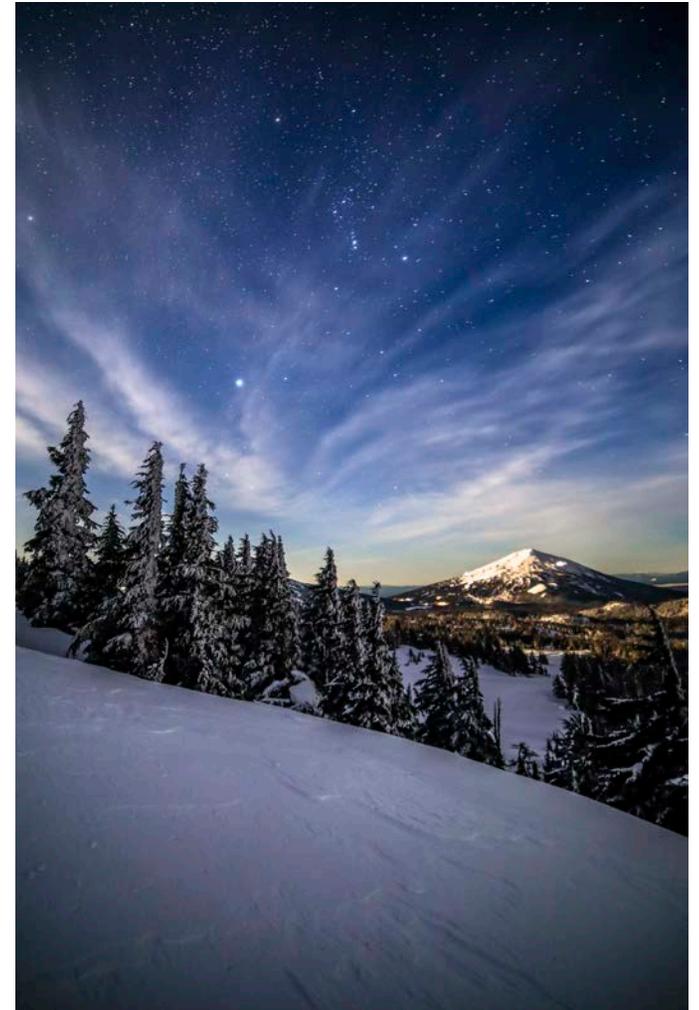


# Quality of Life

"[Quality of life is] great- if  
you can afford it"  
-Jefferson County Resident

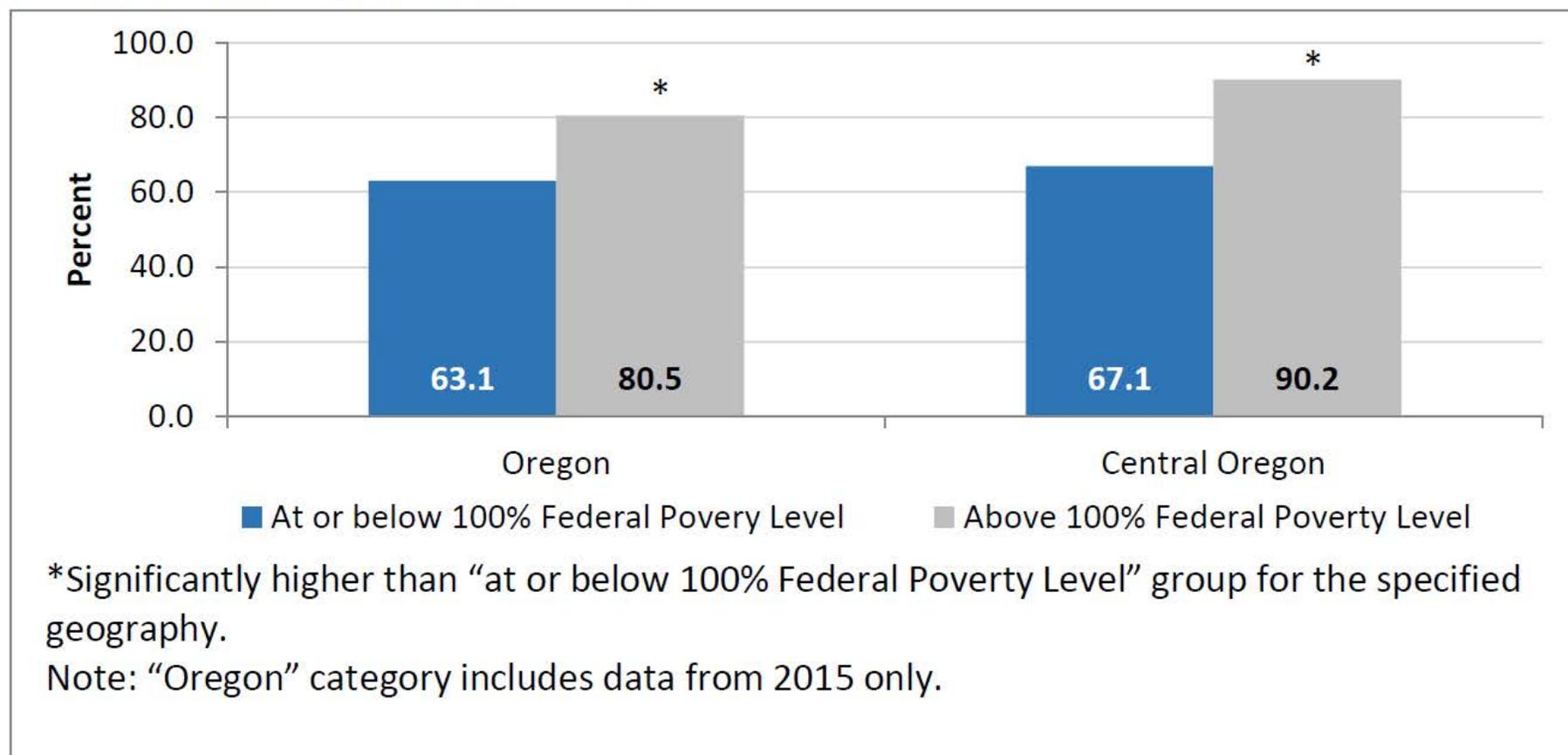
A lower percentage of those with only a high school education report having a good quality of life compared to those with a college education.

A lower percentage of those below the federal poverty level (FPL) report having a good quality of life compared to those living above the FPL.



# Quality of Life

Figure 29. Age-adjusted prevalence of self-reported excellent, very good, or good general health, by poverty status, Oregon BRFSS, 2012-2015



# Chronic Conditions

Income level is strongly linked to chronic condition prevalence and risk factors.

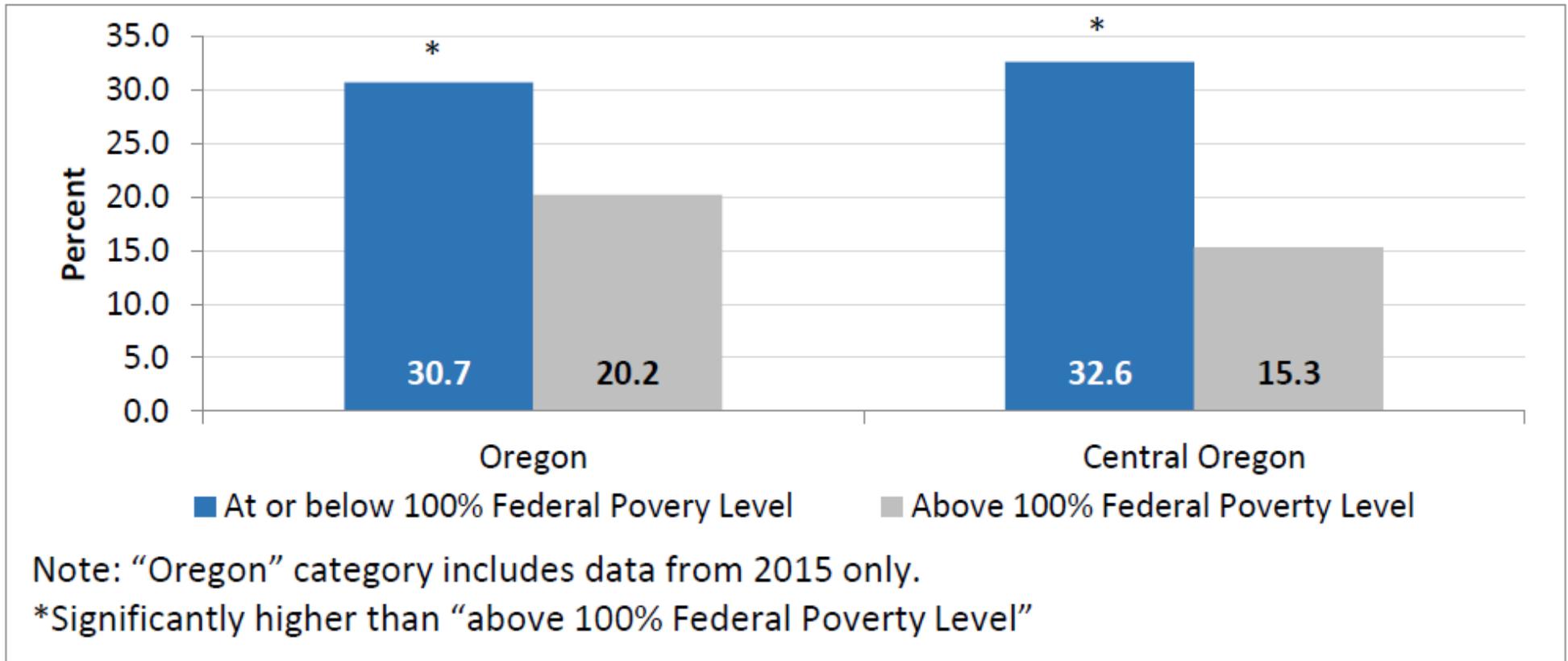
A higher proportion of those who live below the FPL smoke cigarettes and are classified as obese compared to those who live above the FPL.

**“It’s sad that people in poverty only have access to the worst foods in this country.” - Deschutes County Youth**



# Chronic Conditions

Figure 60. Age-adjusted percent of adults who currently smoke, by poverty status, Oregon BRFSS, 2012-2015



# Chronic Conditions

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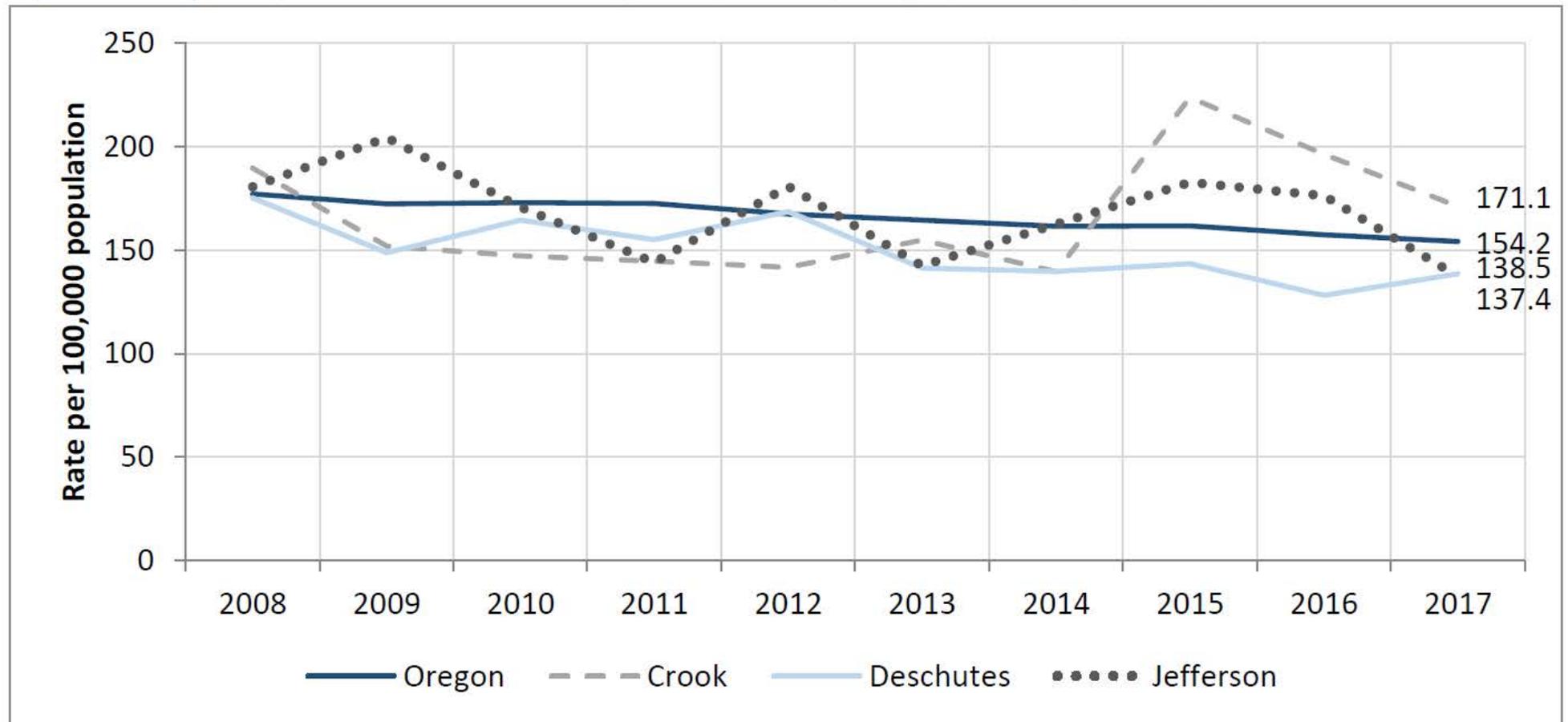
All three Central Oregon counties have a higher overall cancer incidence rate than Oregon.

Breast cancer has the highest incidence rate in Central Oregon, and melanoma incidence rates are higher in Central Oregon compared to the United States as a whole.



# Chronic Conditions

Figure 40. Age-adjusted cancer mortality rate per 100,000 population, OPHAT, 2008-2017

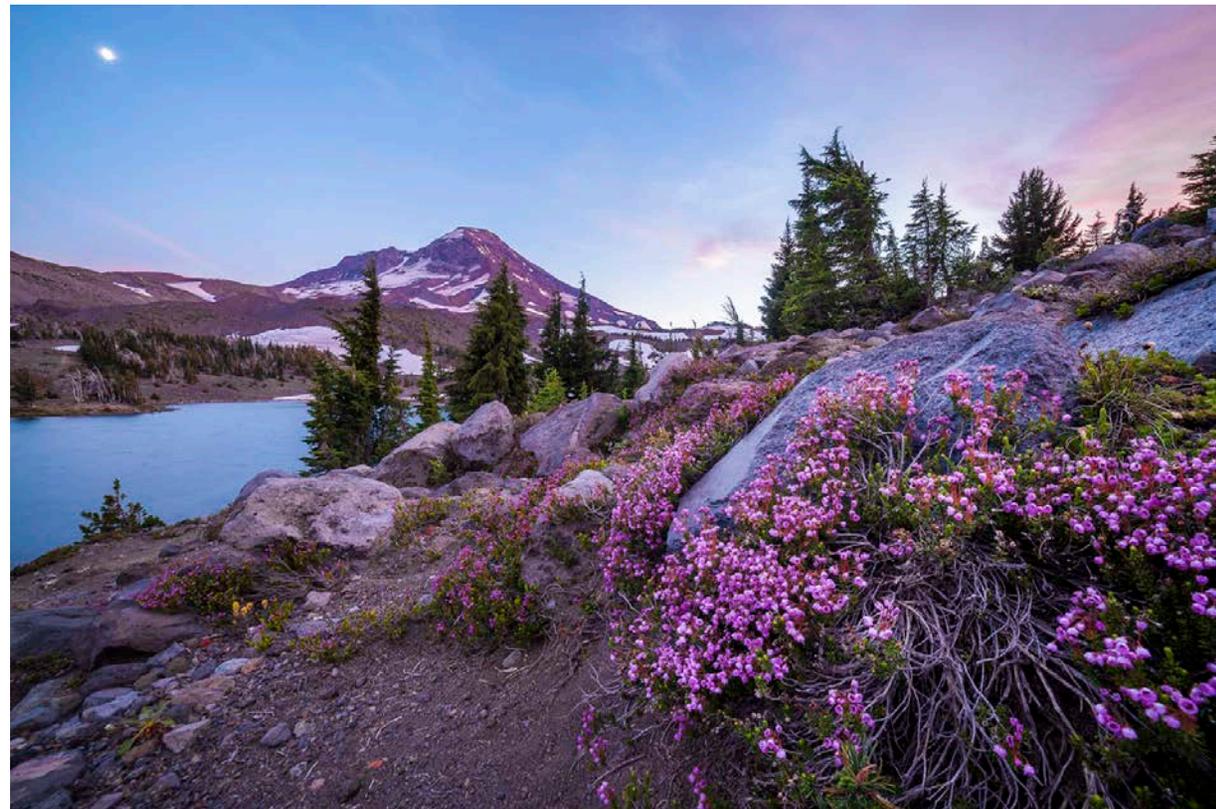


# Chronic Conditions

Geographic differences in prevalence and mortality from chronic conditions.

Jefferson County has a higher diabetes prevalence and mortality rate, and Deschutes County has a lower diabetes prevalence and mortality rate compared to Oregon overall.

**“The very best thing we have are our traditional foods and ways. We need to get back to them. We have adopted a complacent/entitlement mentality and picked up all the worst this country has to offer.” – Confederated Tribes of Warm Springs Resident**

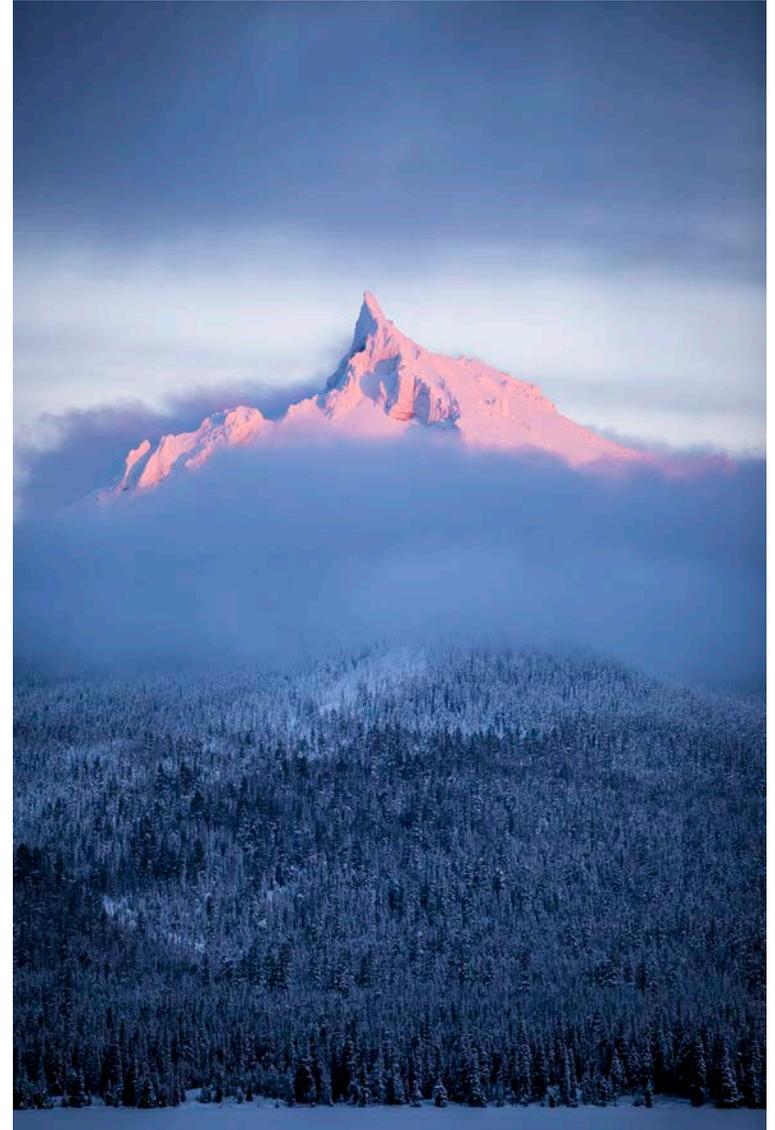


# Communicable Diseases

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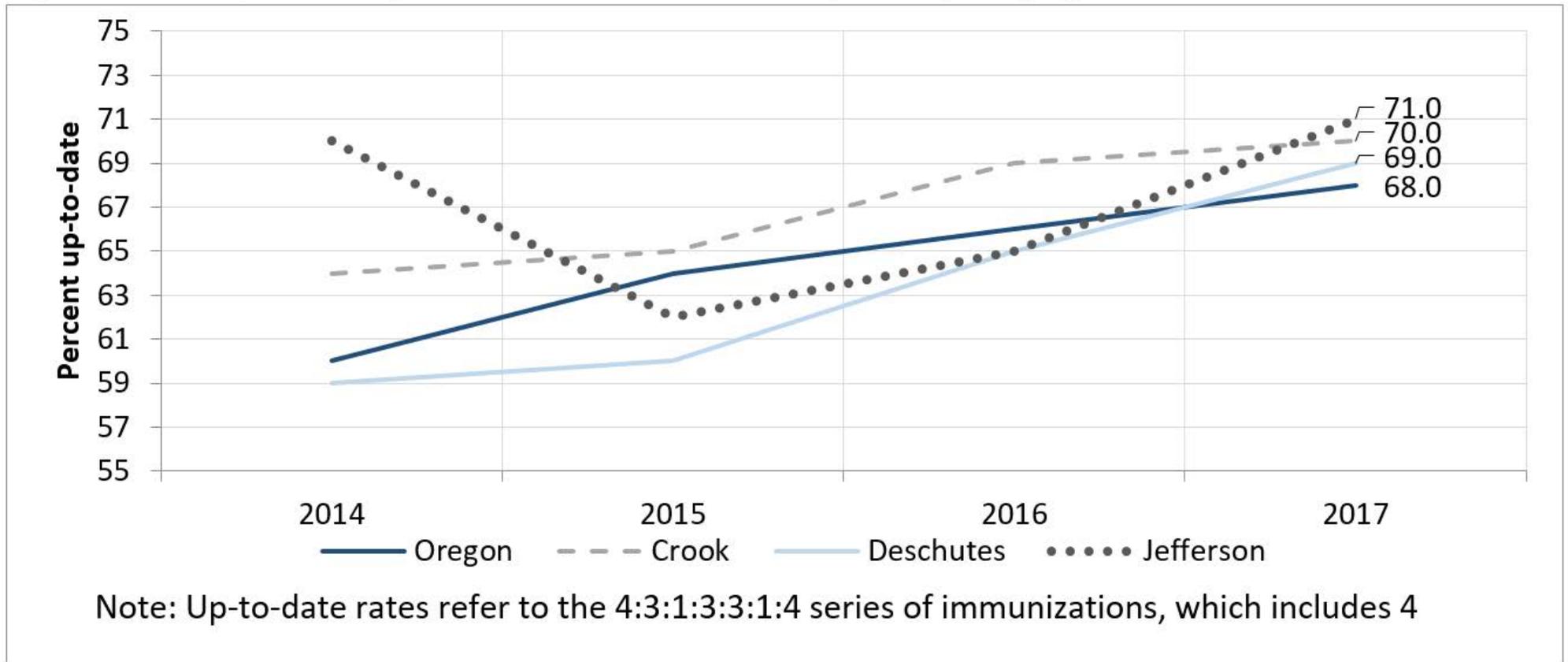
Up-to-date immunization rates for two-year-olds have been increasing in Central Oregon over the past two to three years

There are opportunities for improvement in childhood, adolescent, and adult immunization rates.



# Communicable Diseases

Figure 71. Two-year-old up-to-date immunization rates, ALERT, Oregon, 2014-2017

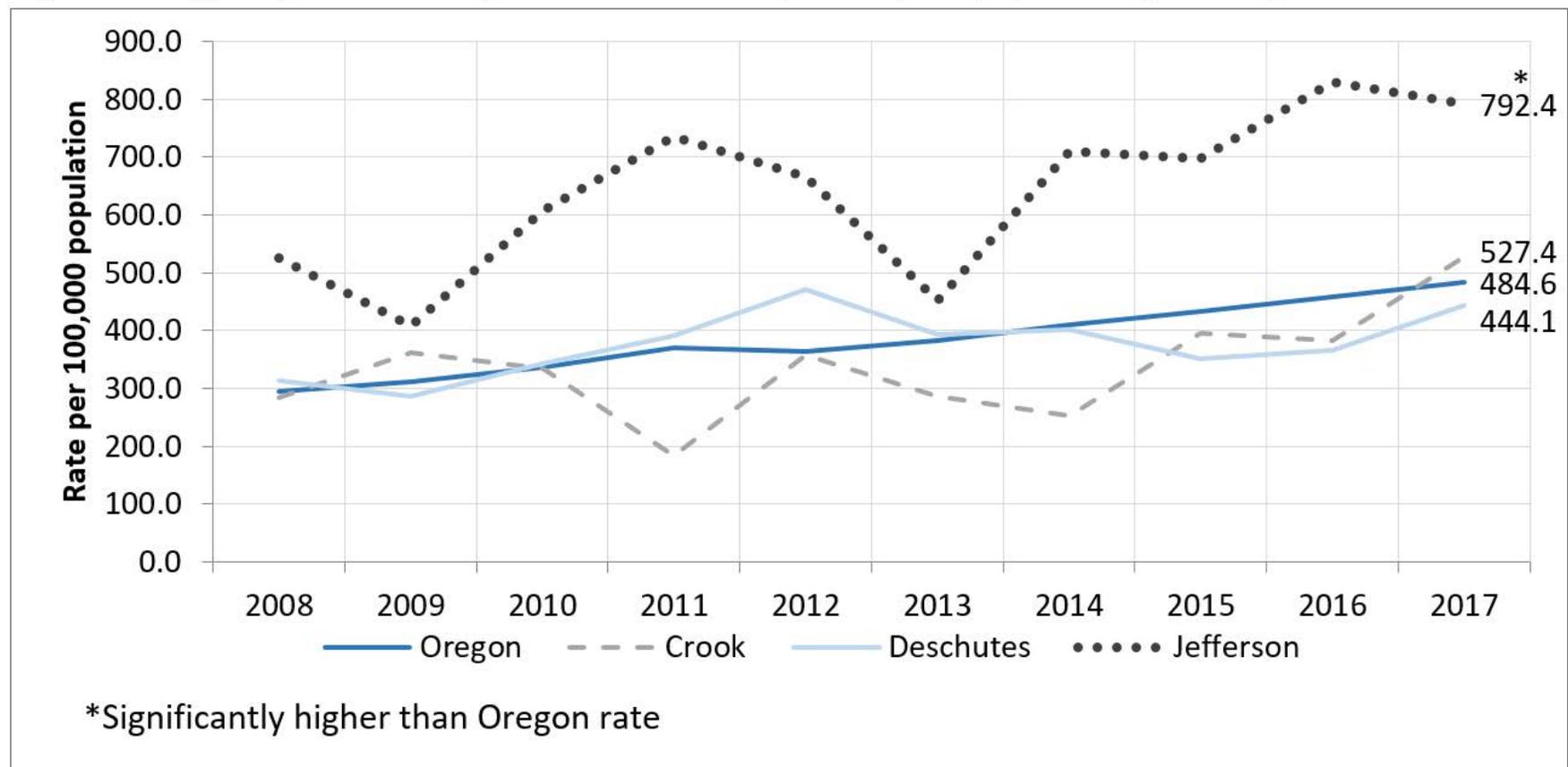


# Communicable Diseases

Sexually Transmitted Infections, specifically chlamydia and syphilis, continue to increase in Central Oregon.

Chlamydia incidence is highest among those in their late teens and early twenties.

Figure 74. Age-adjusted chlamydia incidence rate per 100,000 population, OPHAT, 2008-2017



# Communicable Diseases

The incidence rate of some diarrheal disease is higher in Central Oregon than Oregon statewide.

**Table 20. Age-adjusted incidence rate per 100,000 population of water-borne diseases, OPHAT, 2008-2017**

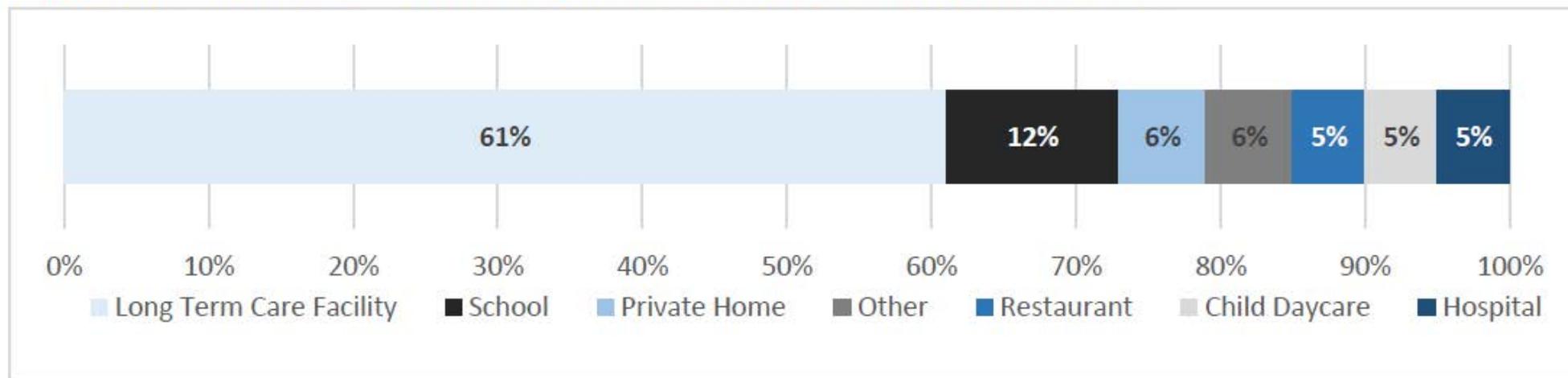
	Oregon Rate (# of cases)	Crook Rate (# of cases)	Deschutes Rate (# of cases)	Jefferson Rate (# of cases)	Central Oregon Rate (# of cases)
Campylobacteriosis	22.3 (8,897)	41.0 (76)	30.0 (509)	31.8 (69)	31.1 (654)
Cryptosporidiosis	5.6 (2,169)	4.8 (8)	1.8 (29)	0.6 (2)	1.9 (39)
E. coli (STEC)	4.3 (1,607)	13.7 (25)	6.0 (91)	3.4 (7)	6.4 (123)
Giardiasis	10.2 (3,892)	6.9 (16)	15.4 (249)	11.0 (23)	14.2 (288)
Legionellosis	0.7 (323)	0 (0)	0.2 (5)	0 (0)	0.1 (5)
Salmonellosis (non-typhoidal)	11.4 (4,384)	10.9 (22)	10.8 (170)	10.1 (21)	10.8 (213)
Shigellosis	2.1 (797)	0.9 (2)	1.2 (18)	6.9 (15)	1.8 (35)
Vibriosis (non-cholera)	0.5 (218)	1.7 (3)	1.2 (23)	0.9 (2)	1.2 (28)
Yersinosis	0.6 (248)	0.8 (2)	0.5 (9)	0 (0)	0.5 (11)
	Significantly higher than Oregon rate				
	Significantly lower than Oregon rate				
Note: STEC refers to Shiga-toxin producing E.Coli.					

# Communicable Diseases

Outbreaks of communicable diseases in Central Oregon most commonly affect those residing, or working in, long term care facilities.

Nearly half of all Central Oregon outbreaks over the past six years have been norovirus outbreaks.

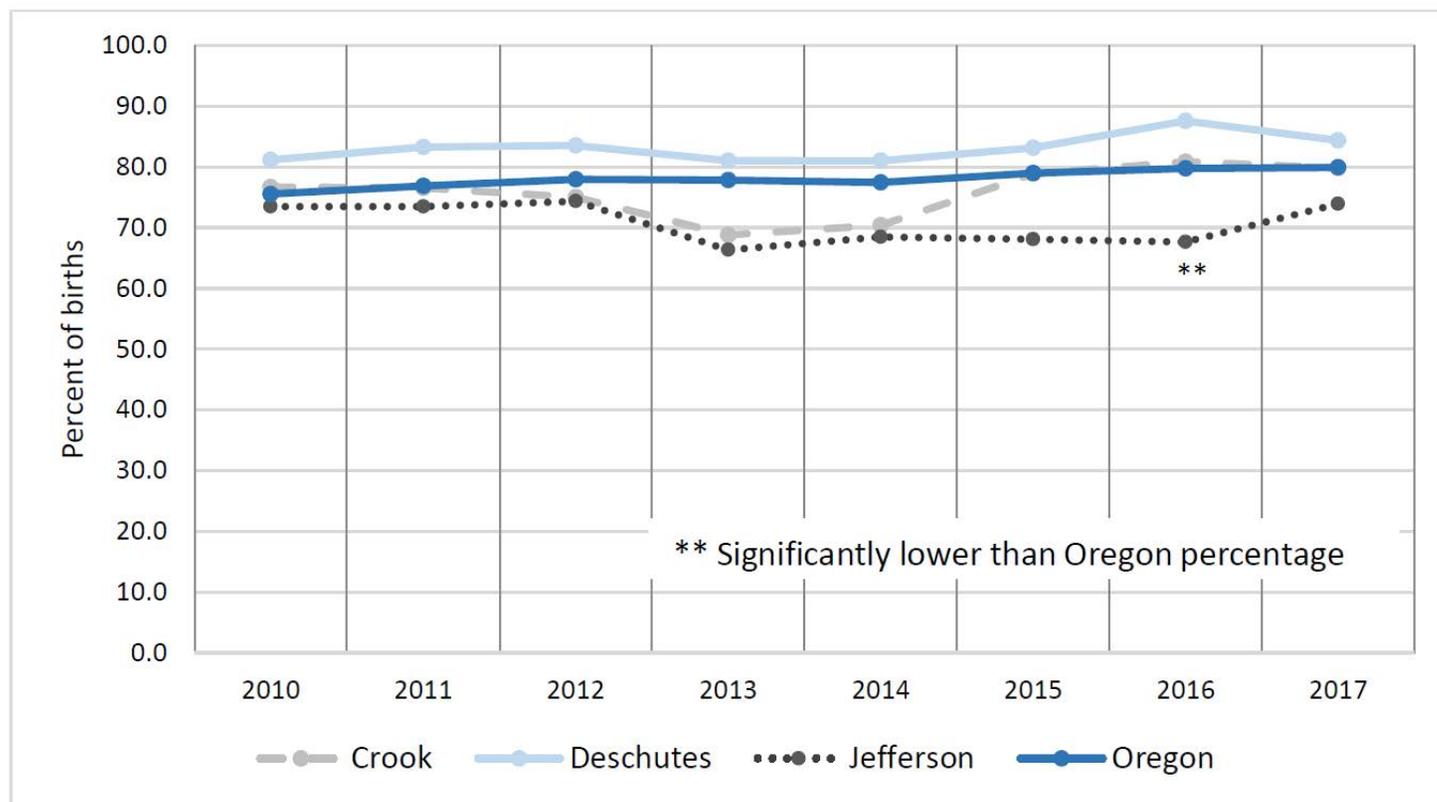
Figure 85. Percent of all Central Oregon outbreaks by facility type, 2013-2018



# Maternal Health and Pregnancy

Jefferson County's rate of pregnant women receiving prenatal care beginning in the first trimester and adequate prenatal care throughout pregnancy

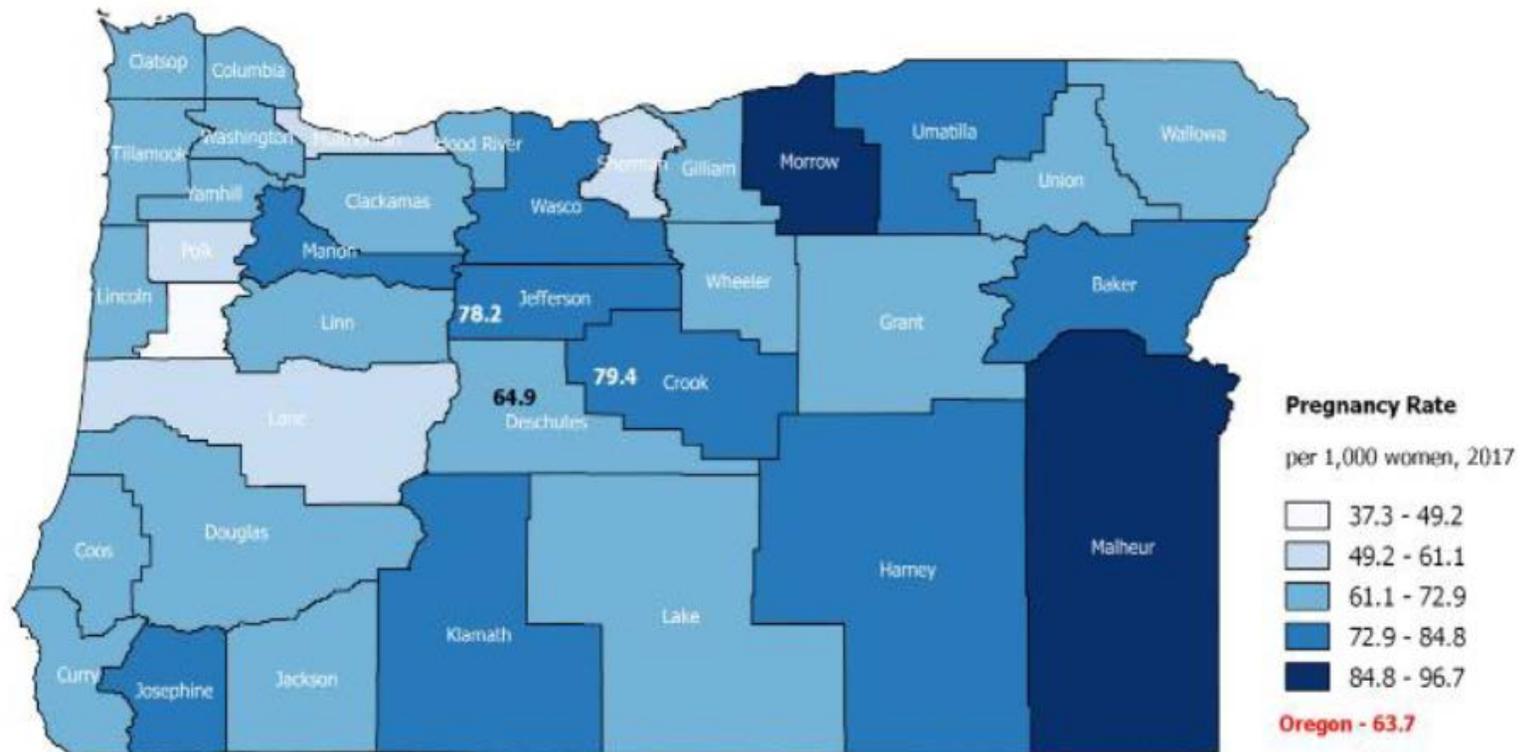
Figure 89. Percent of births for when prenatal care began in the first trimester, OPHAT, 2010-2017.



# Maternal Health and Pregnancy

Crook and Jefferson County teen pregnancy rates were significantly higher than the Oregon average, especially among 18 to 19 years olds and individuals who identified as Hispanic.

Figure 94. Pregnancy Rate per 1,000 Women aged 15-44 by county, OPHAT 2017

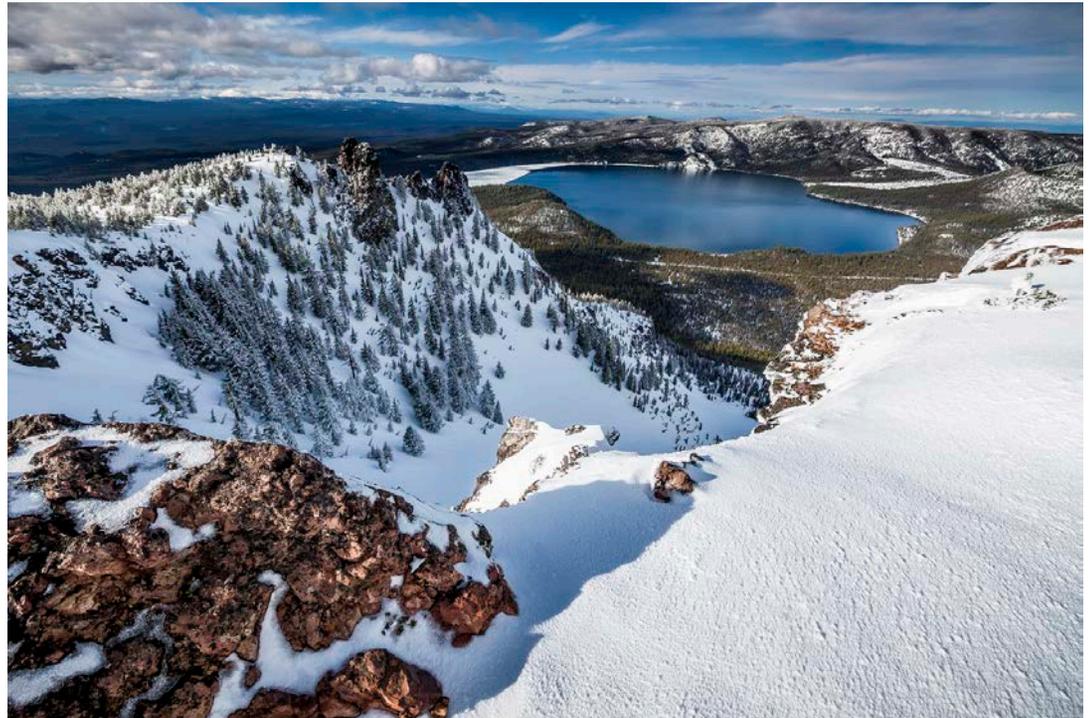


# Maternal Health and Pregnancy

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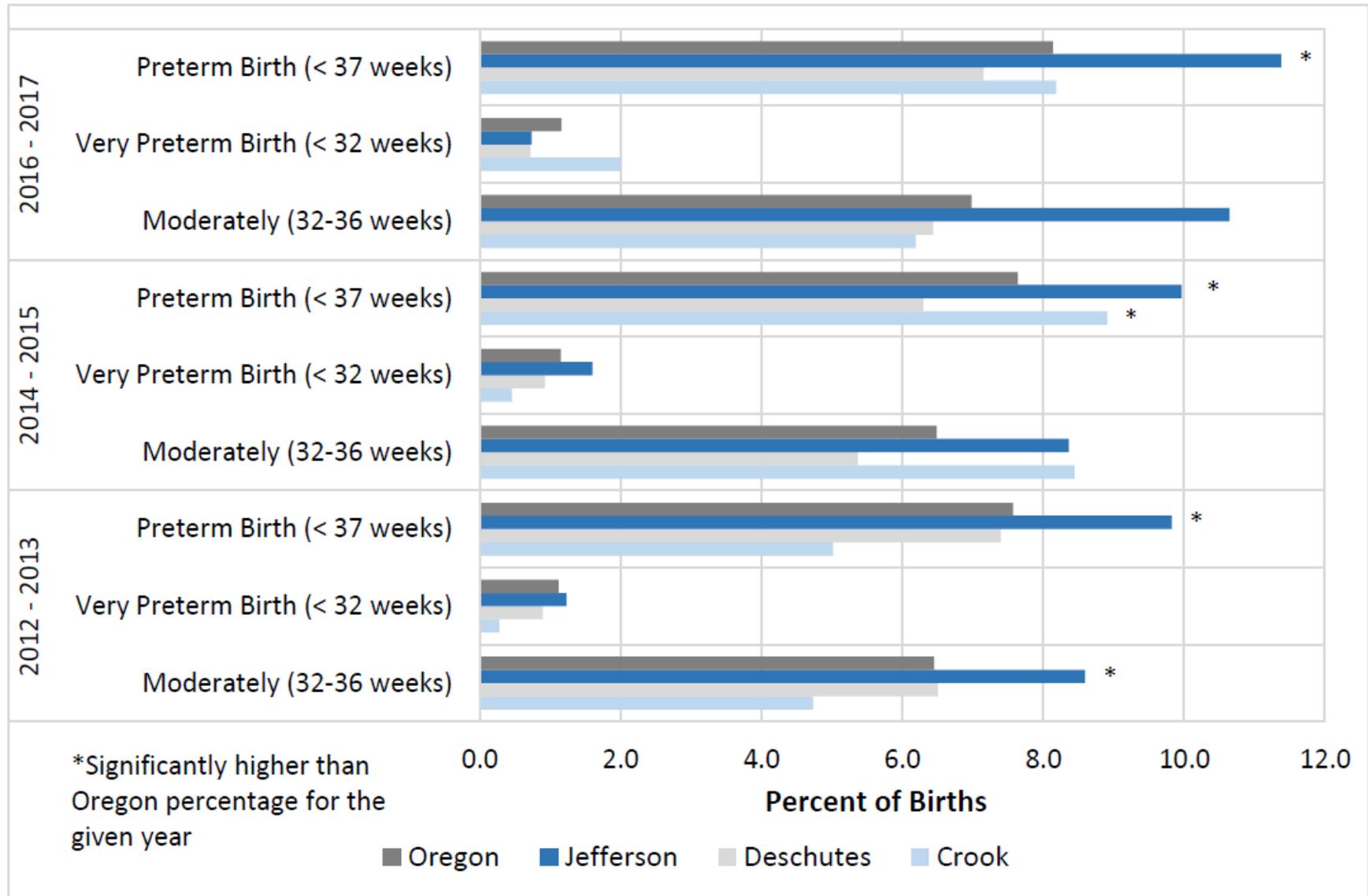
In Central Oregon, Jefferson County had the highest rates of preterm birth, gestational diabetes, and pre-pregnancy obesity, and Crook County had the highest rate of mothers who smoked during pregnancy.

Alcohol consumption during pregnancy has increased in recent years, with pregnant women in Central Oregon drinking alcohol more frequently and in higher quantities than in Oregon overall.



# Maternal Health and Pregnancy

Figure 96. Percent of births that were preterm, Central Oregon and Oregon, OPHAT, 2012-2017.



# Infant, Early Childhood, and Adolescent Health

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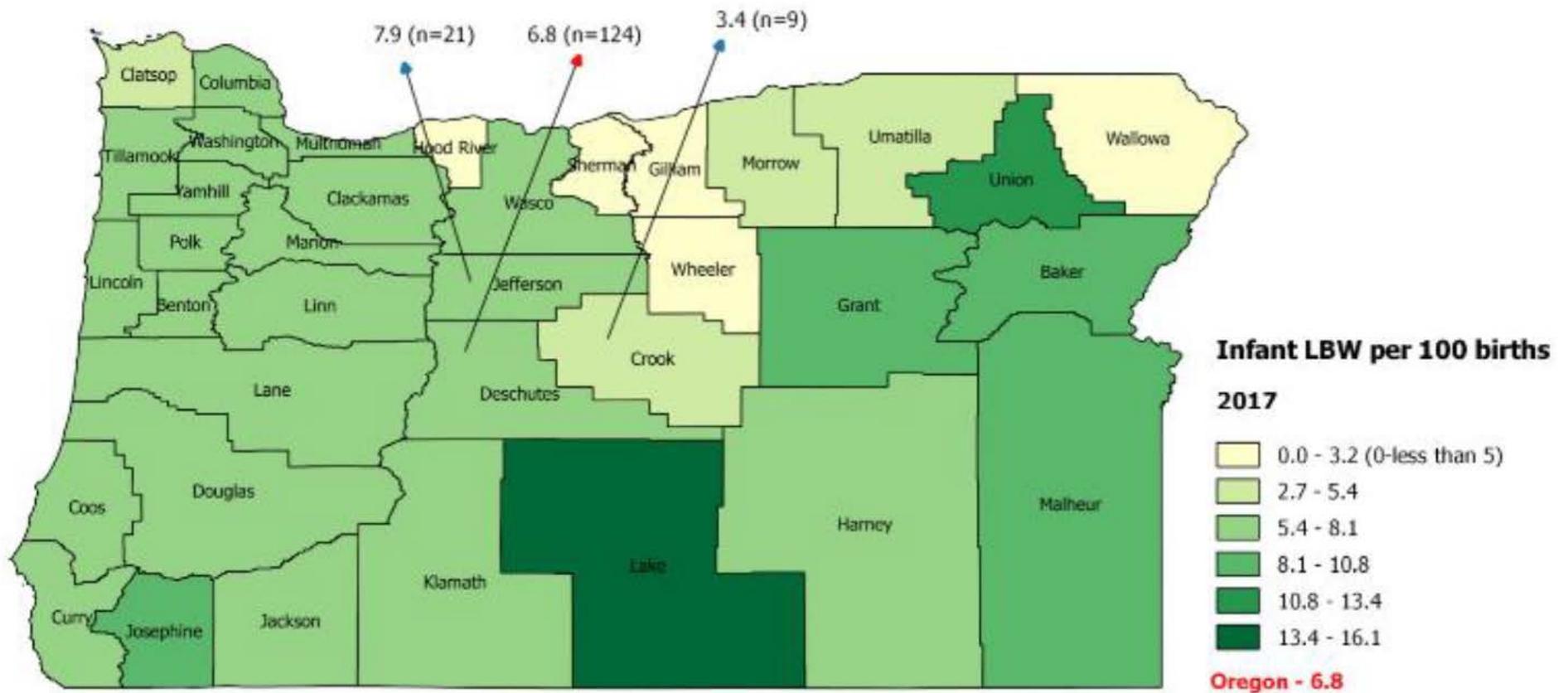
Crook and Deschutes County breastfeeding rates increased over the last three years, while the Jefferson County rate is significantly lower than Oregon statewide.

The rate of infants born low birth weight was higher in Crook and Jefferson Counties than the Oregon rate.



# Infant, Early Childhood, and Adolescent Health

Figure 124. Percent of births that are considered low birth weight (<2500 grams) by county, OPHAT, 2017

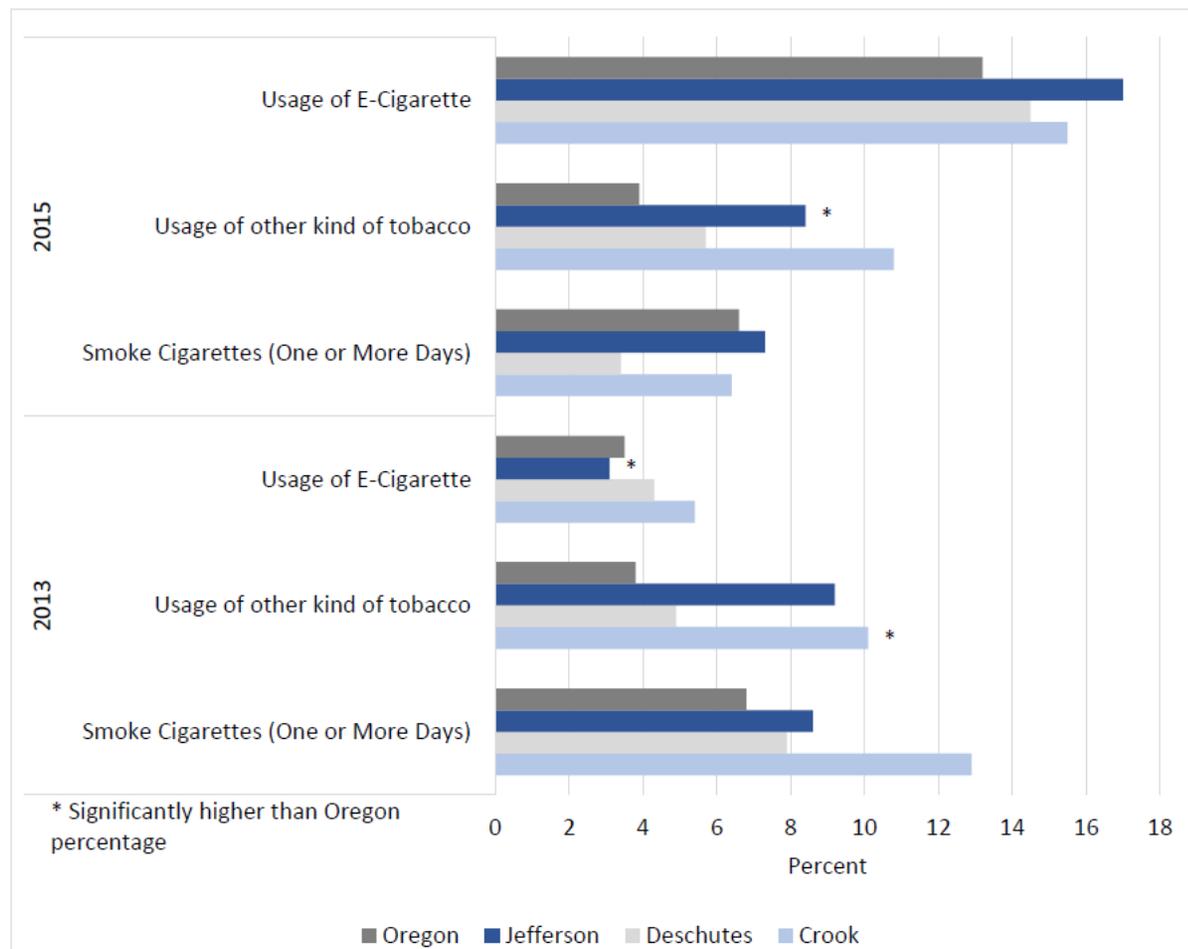


# Infant, Early Childhood, and Adolescent Health

“Sometimes people will have their friends over 21 buy products like alcohol or cigarettes.” – Jefferson County Youth

Among Central Oregon students, e-cigarette use was more common than the use of cigarettes and other tobacco products.

Figure 126. Percentage of 8<sup>th</sup> and 11<sup>th</sup>-grade students who smoked or used tobacco products during the last 30 days, Oregon Healthy Teens Survey, 2013-2015.



# Infant, Early Childhood, and Adolescent Health

More than one-third of Central Oregon 8<sup>th</sup> and 11<sup>th</sup> grade students did not meet the PYD Benchmark criteria which includes questions related to well-being and social connectedness.

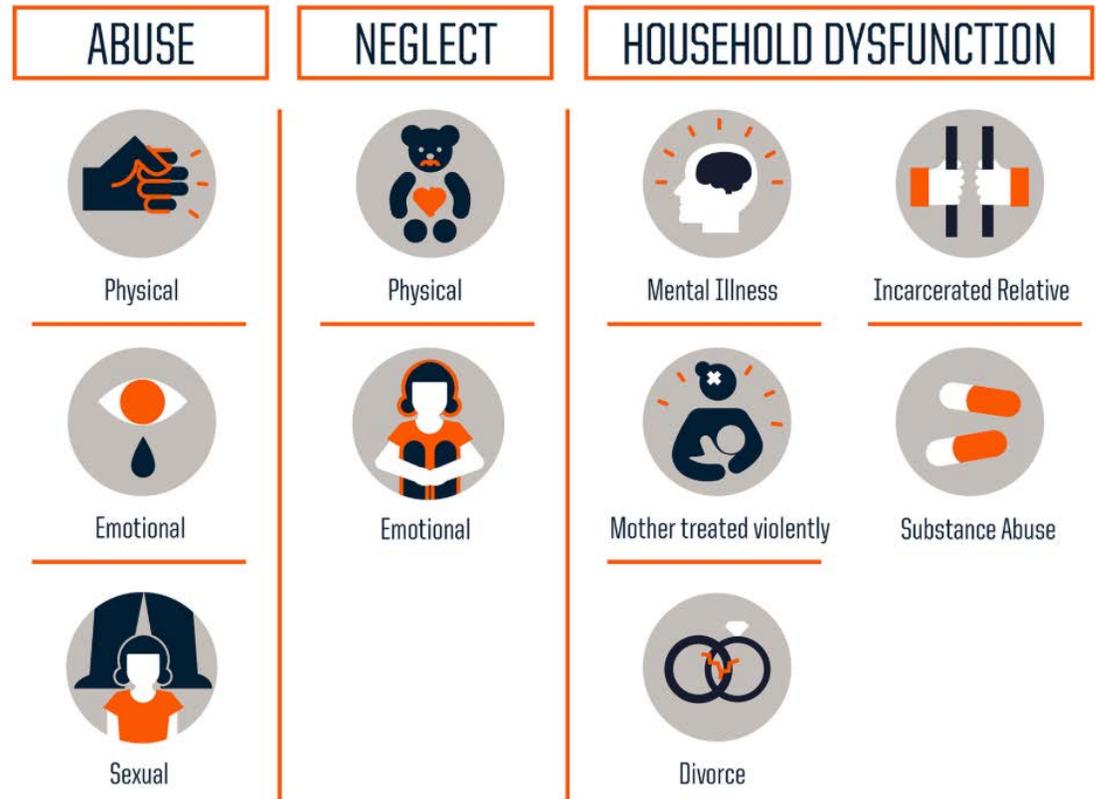
**Table 40. Percent of 8<sup>th</sup> and 11<sup>th</sup> grade students meeting Positive Youth Development benchmark, Oregon Healthy Teens Survey, 2013-2015**

	2013		2015	
	Meets benchmark	Does not meet benchmark	Meets benchmark	Does not meet benchmark
<b>Crook</b>	67.2	32.8	64.8	35.2
<b>Deschutes</b>	61.9	38.1	71.7	28.3
<b>Jefferson</b>	54.3	45.7	52.3	47.8
<b>Oregon</b>	63.6	36.4	61.0	39.0

# Infant, Early Childhood, and Adolescent Health

Focusing on youth, including the prevention of Adverse Childhood Experiences (ACEs), and reducing school dropout rates, alcohol, tobacco, and other drug use, was identified as a need during community focus groups.

Three Types of ACEs

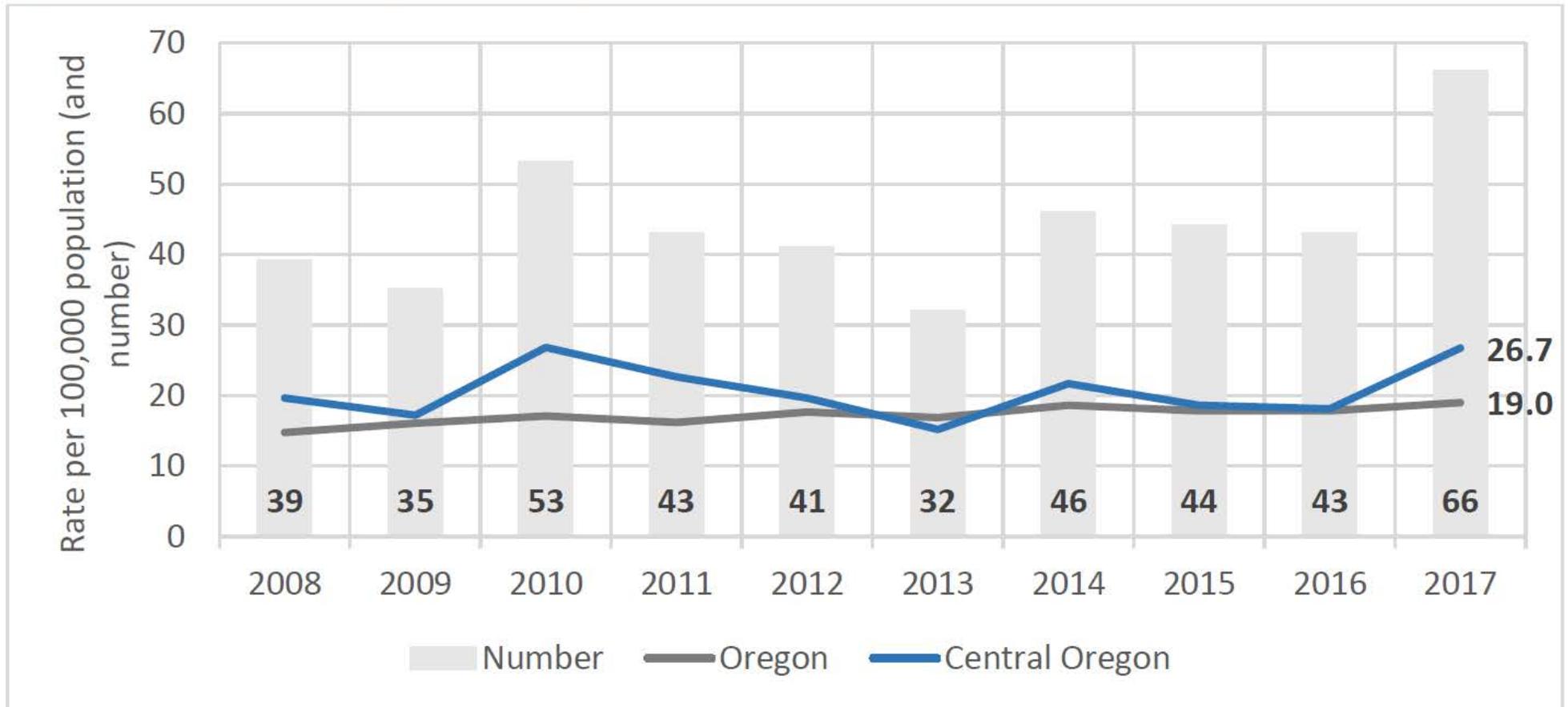


Source: Centers for Disease Control and Prevention  
Credit: Robert Wood Johnson Foundation

# Mental Health

2017 saw the highest number of suicides in Central Oregon over the last decade.

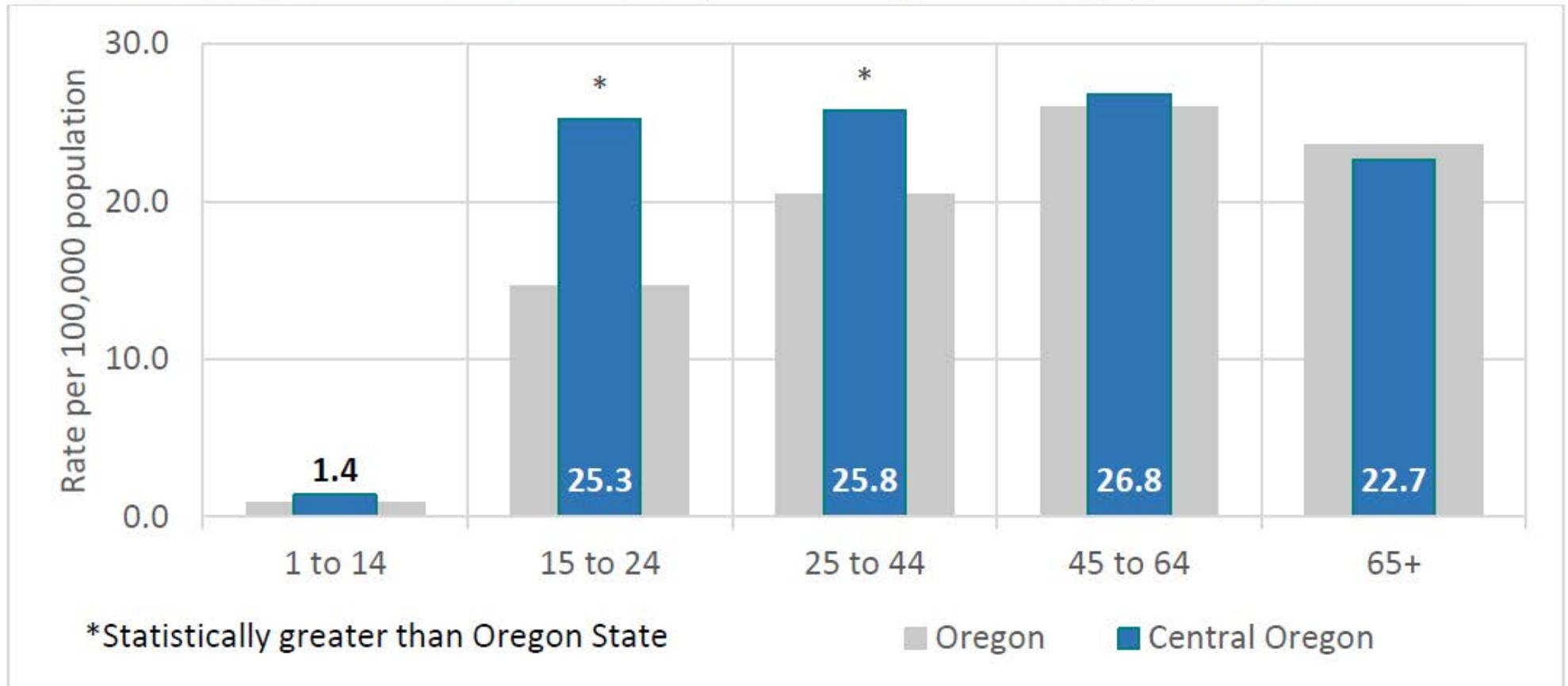
Figure 155. Age-adjusted suicide mortality rate per 100,000 population, and number of annual deaths by suicide in Central Oregon and Oregon, OPHAT, 2008-2017.



# Mental Health

The suicide mortality rate among 15-44 years of age was higher than Oregon overall.

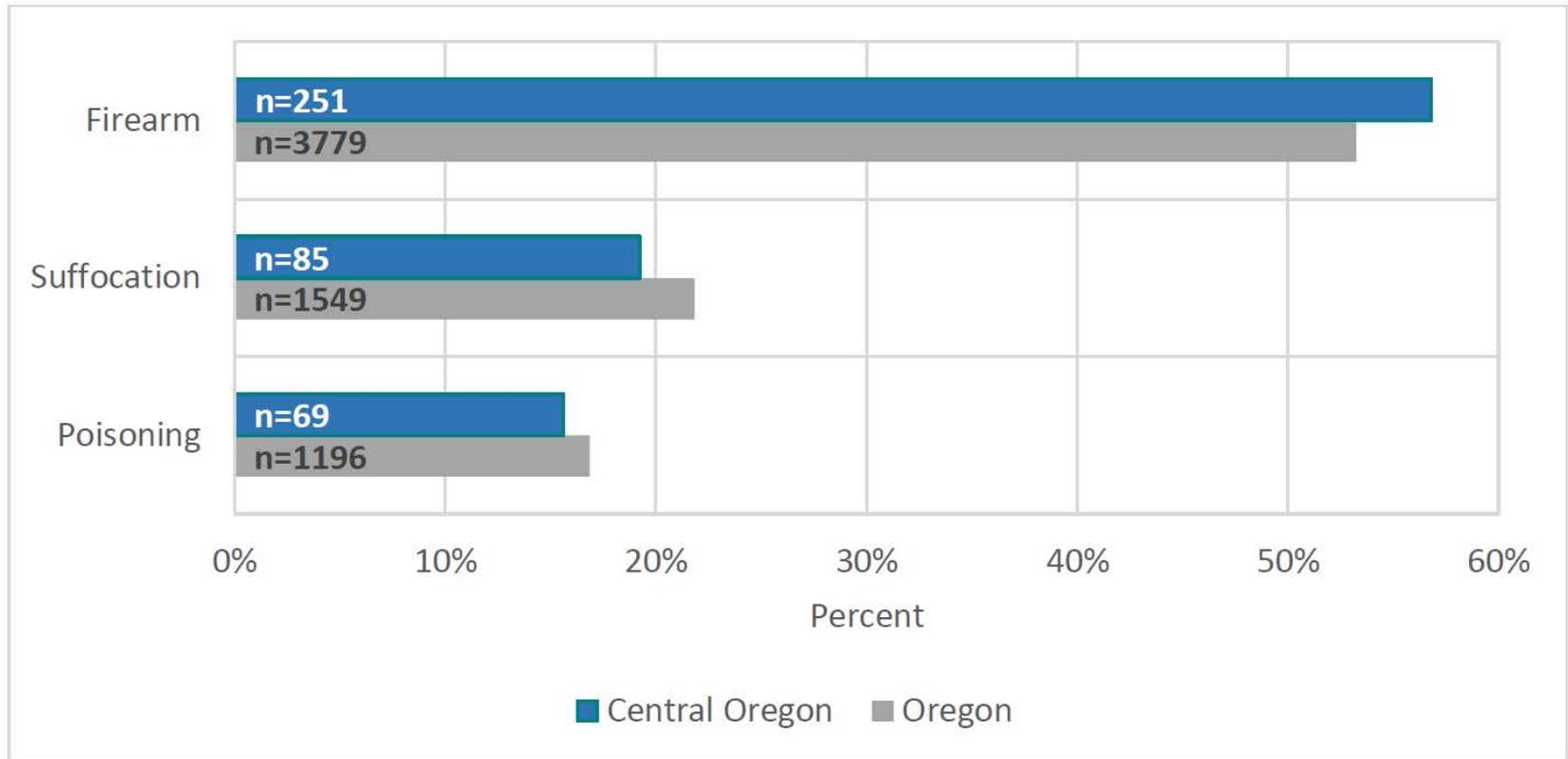
Figure 158. Age-specific Suicide Mortality rate, Central Oregon and Oregon, OPHAT, 2008-2017.



# Mental Health

Greater than 50% of suicides were completed using firearms.

Figure 159. Leading suicide mortality mechanism (by the percentage of completion), Central Oregon and Oregon, OPHAT, 2018-2017.



# Mental Health

**“I see a big gap for children of color compared to white children. It seems it is getting bigger and it is hard to explain to younger siblings. Some families struggle with mental health or poverty issues and the gaps continue to become larger when comparing white versus minorities.”**  
– Deschutes County Youth

A greater percentage of females compared to males were diagnosed with depression in Crook and Deschutes Counties.

In Jefferson County, more males than females reported being diagnosed with depression.

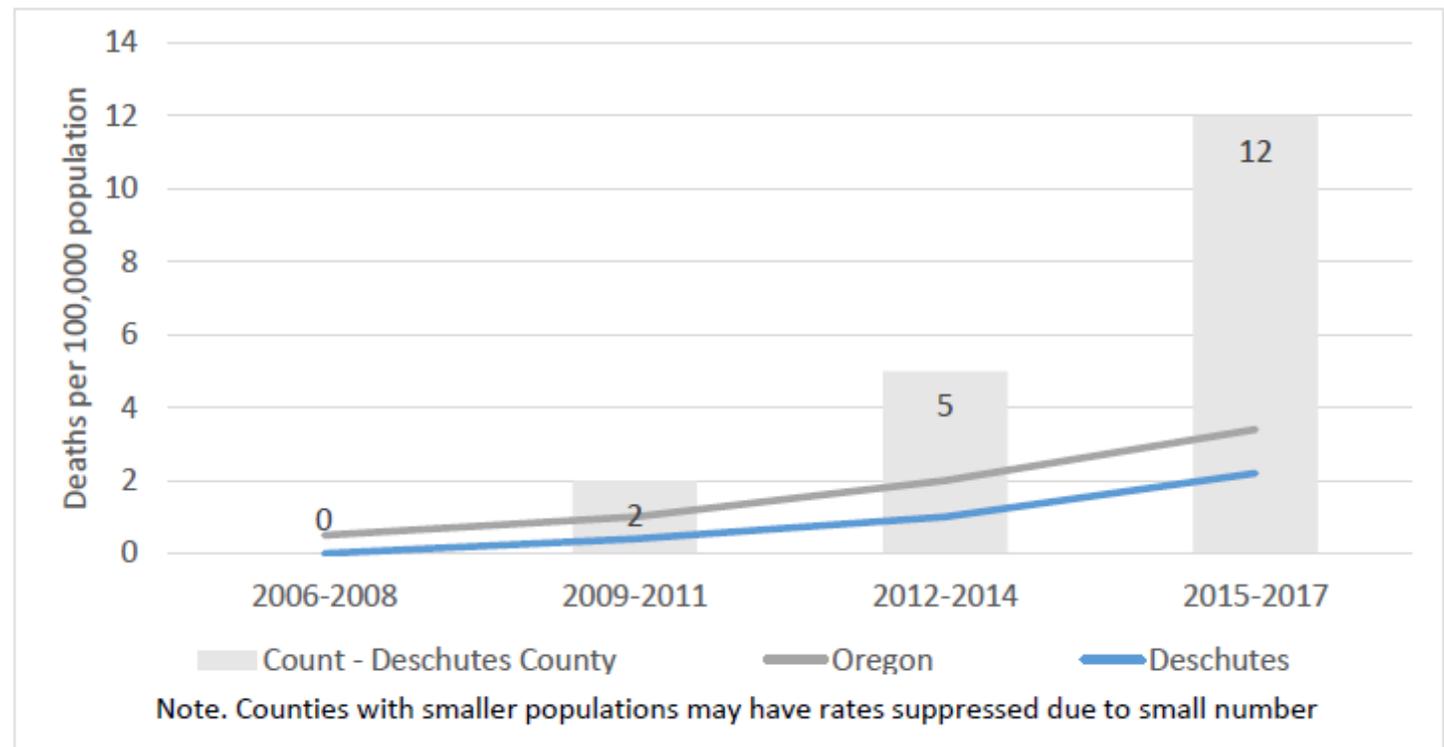


# Alcohol, Tobacco, and Drug Use

Overdose deaths related to methamphetamines have increased.

Overdose deaths related to opioids have decreased in Central Oregon; this follows a similar statewide trend.

Figure 185. 3-year methamphetamine overdose death rate, Deschutes and Oregon, and number of deaths (Deschutes County), 2006-2017, Oregon Data Dashboard

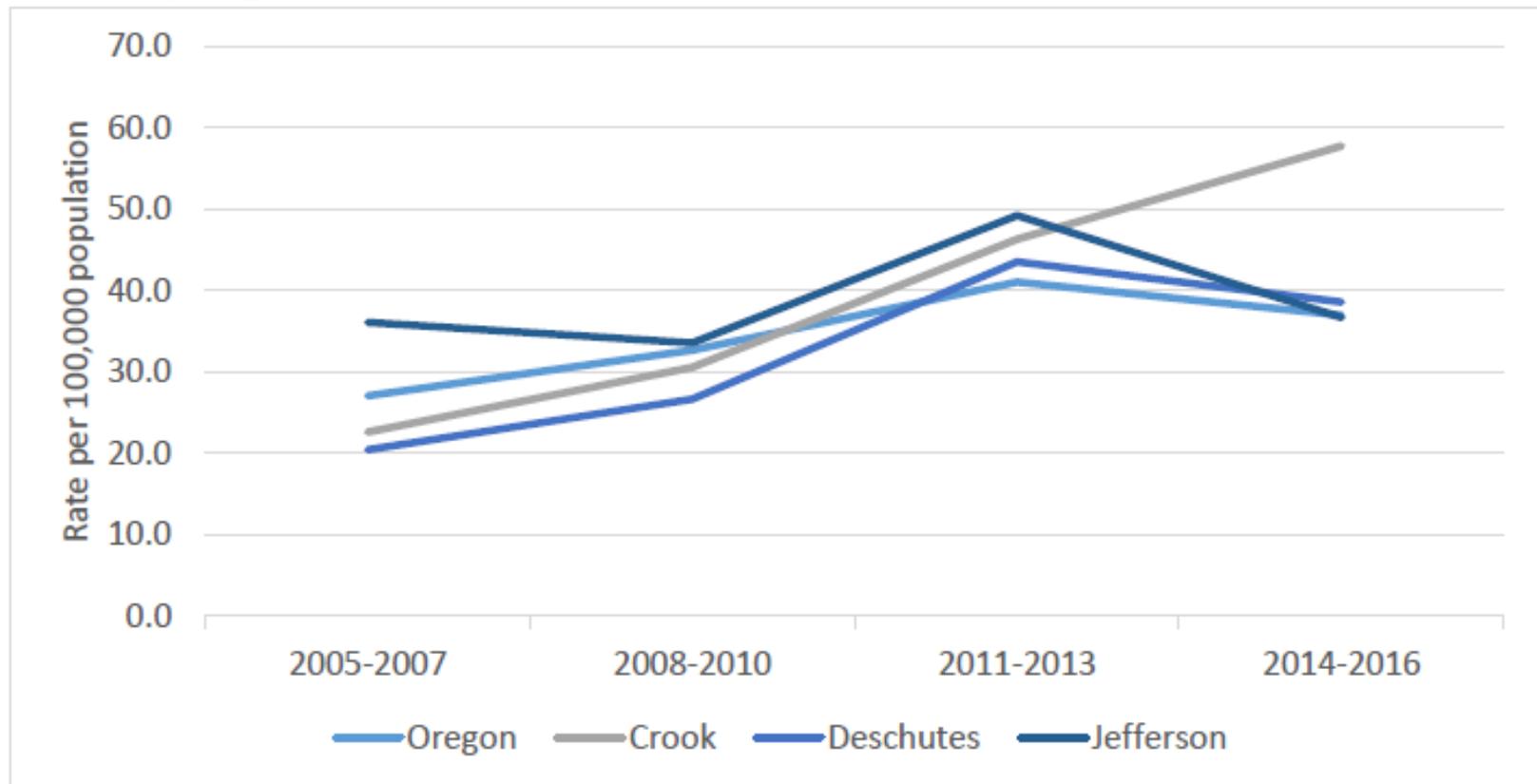


# Alcohol, Tobacco, and Drug Use

All drug overdose hospitalization rates have increased.

Risky prescribing practices have decreased, which is similar to the trend in Oregon overall.

Figure 187. 3-year all drug overdose hospitalization rate, Crook, Deschutes, Jefferson, and Oregon 2005-2016, Oregon Data Dashboard



# Alcohol, Tobacco, and Drug Use

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In Central Oregon, a greater percentage of males reported heavy drinking among 18-34 and 35-54 year-olds, however, a greater percentage of females over 55 years of age reported heavy drinking than males.

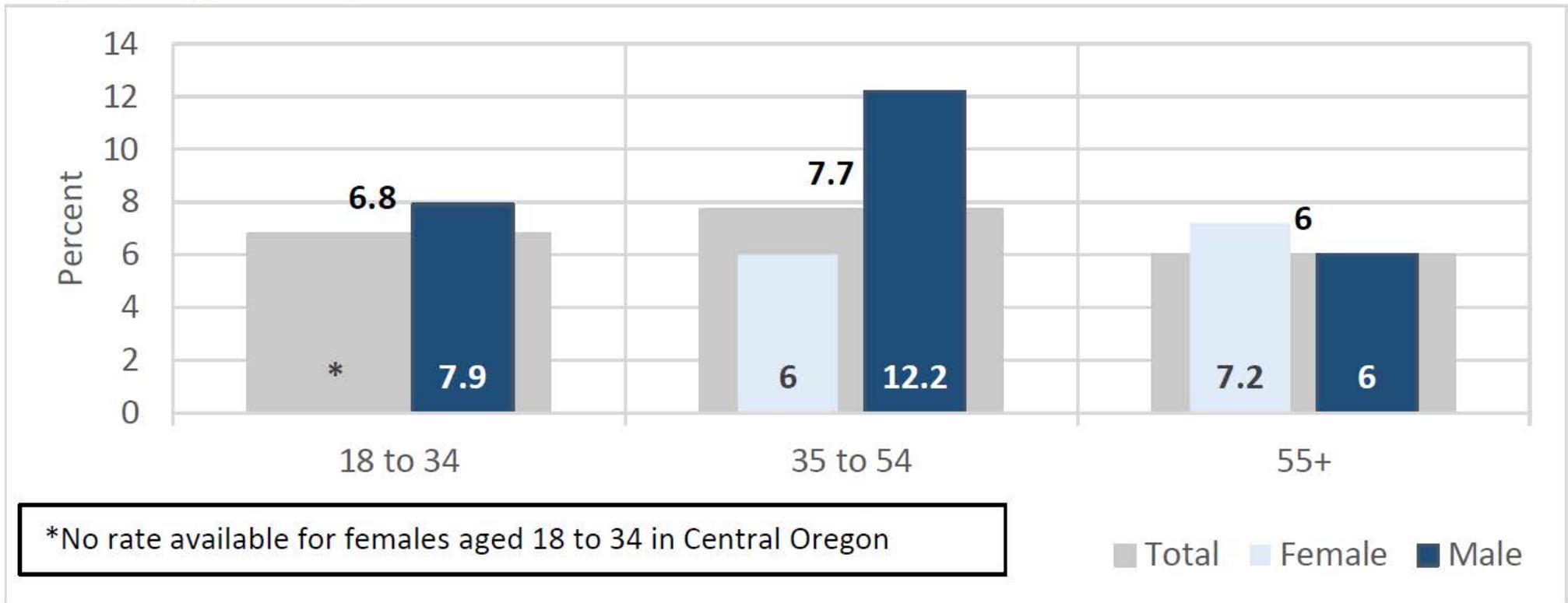
Heavy Drinking: Defined as consuming an average of more than two drinks per day for men or more than one drink per day for women.

Binge Drinking: Defined as four or more drinks for a woman and five or more drinks for a man on an occasion.



# Alcohol, Tobacco, and Drug Use

Figure 171. Percent of adults who reported heavy drinking in the past 30 days, by age and sex, Central Oregon, Oregon BRFSS, 2012-2015



# Unintentional Injury

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Unintentional injury deaths have increased since 2012 in Central Oregon.

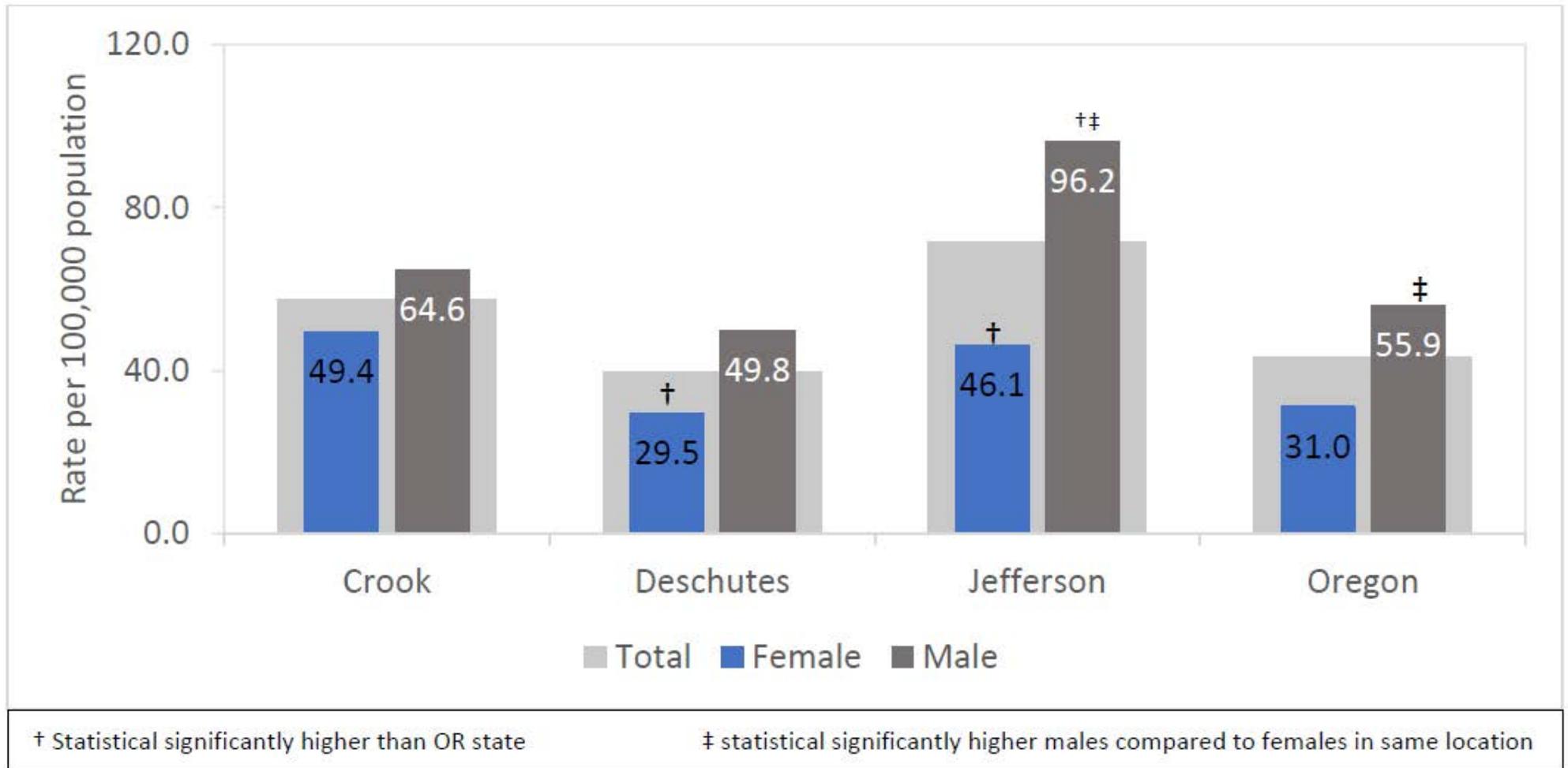
Males have a higher unintentional injury mortality rate than females.

The leading causes of unintentional injury deaths are motor vehicles, falls, and poisonings.



# Unintentional Injury

Figure 195. Age-adjusted unintentional injury mortality rate, by sex and by county, OPHAT, 2013-2017

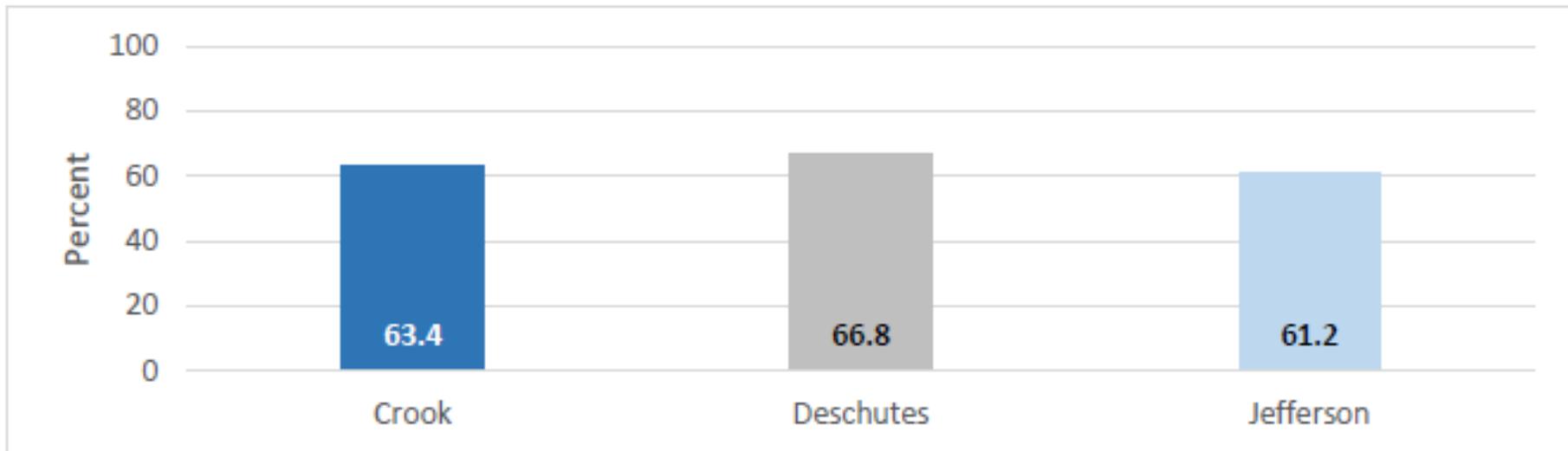


# Oral Health

Approximately 30-40% of adults in Central Oregon did not visit a dentist or dental hygienist during the previous year.

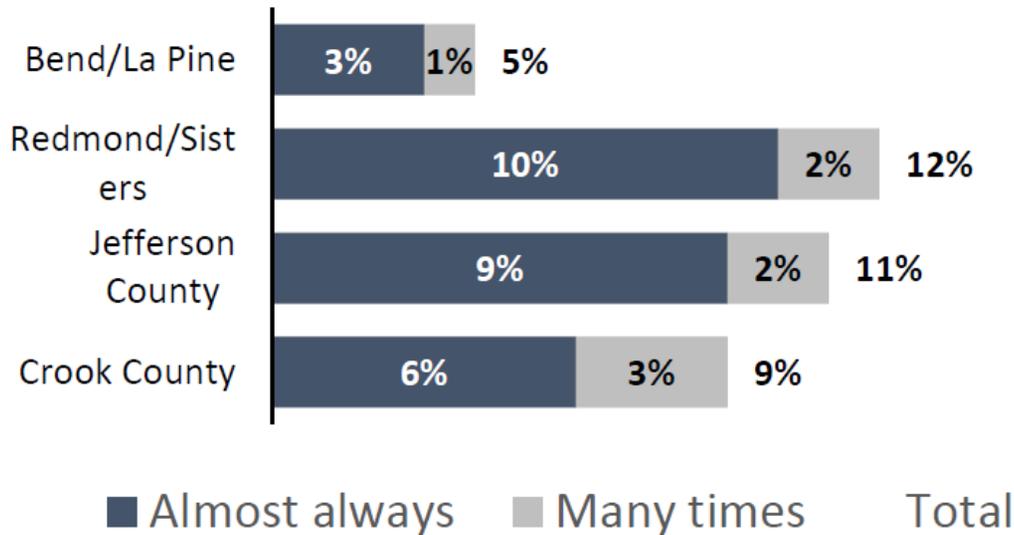
Most (70-75%) Central Oregon 8<sup>th</sup> and 11<sup>th</sup> graders report that they have had a cavity.

**Figure 220. Percent of adults aged 18+ who visited a dentist for any reason over the previous year, BRFSS, 2012-2015.**



# Healthy Environments

Phone Survey: Lack of Transportation as Barrier to Care by Area



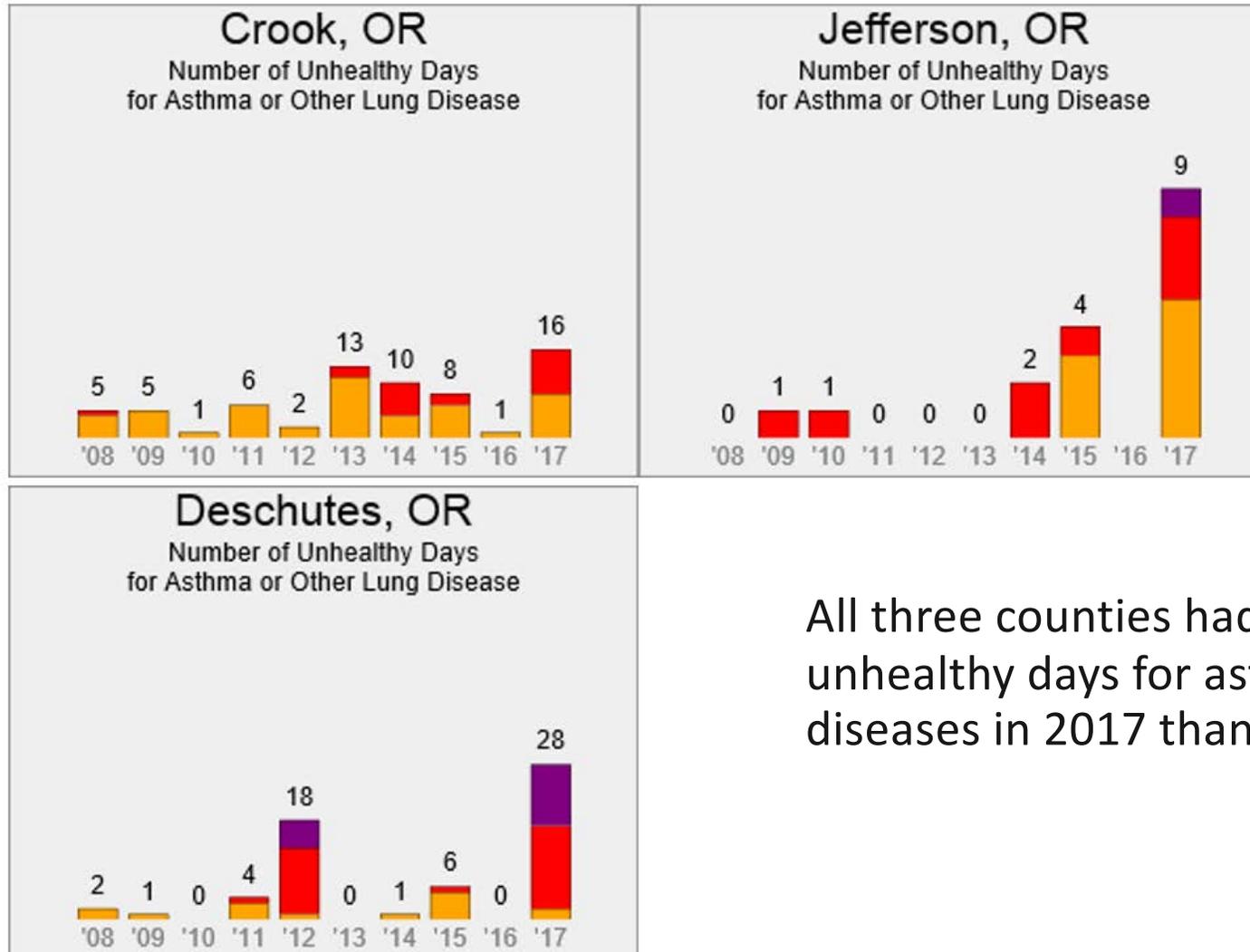
Most Central Oregonians commute to work alone in a car.

Less Central Oregonians commute to work using active transportation and/or public transportation compared to Oregon as a whole.

“We used to be a small town and the public transit hasn’t caught up”. – Deschutes County Youth

# Healthy Environments

Figure 236. Number of Unhealthy Days for Asthma or other lung diseases, Crook, Jefferson, and Deschutes County, 2008-2017.



All three counties had a greater number of unhealthy days for asthma or other lung diseases in 2017 than in previous years.

# Healthy Environments

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Creating better public transportation systems, safe alternate commute options, and community spaces were identified as community needs during focus groups.

Preparing for and developing community resilience around forest fires and drought was mentioned as a growing concern and community need.

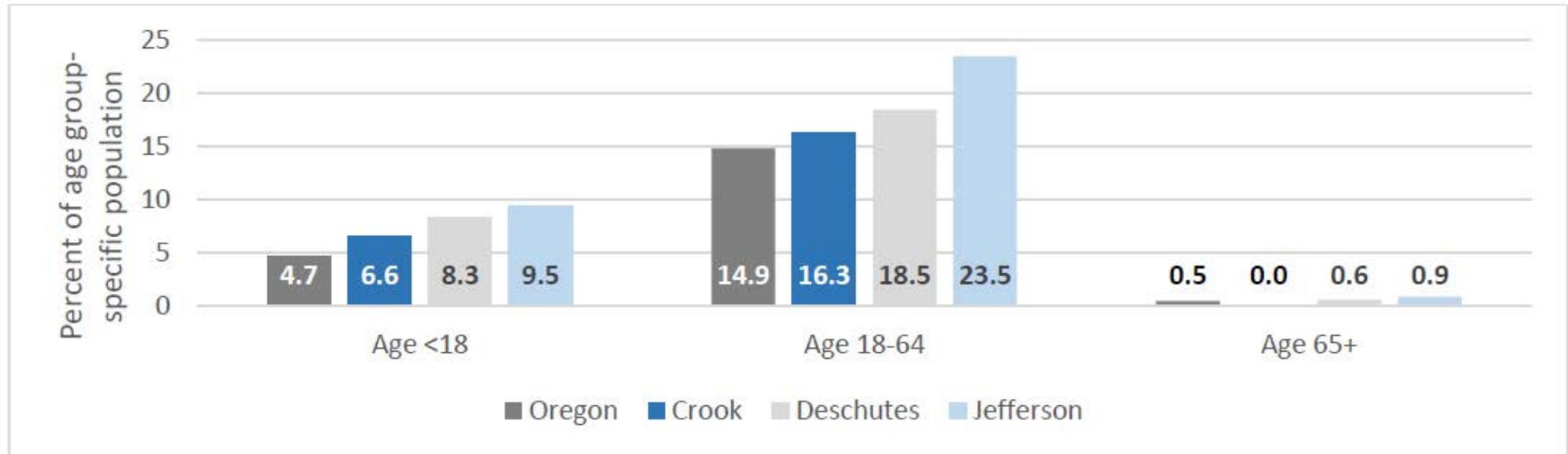


# Access to Care

“[A major health concern is] getting quality care no matter what insurance you have. Doctors treat [people] different by insurance.”- Jefferson County Resident

All three Central Oregon counties have a higher proportion of uninsured adults and uninsured children compared to Oregon as a whole.

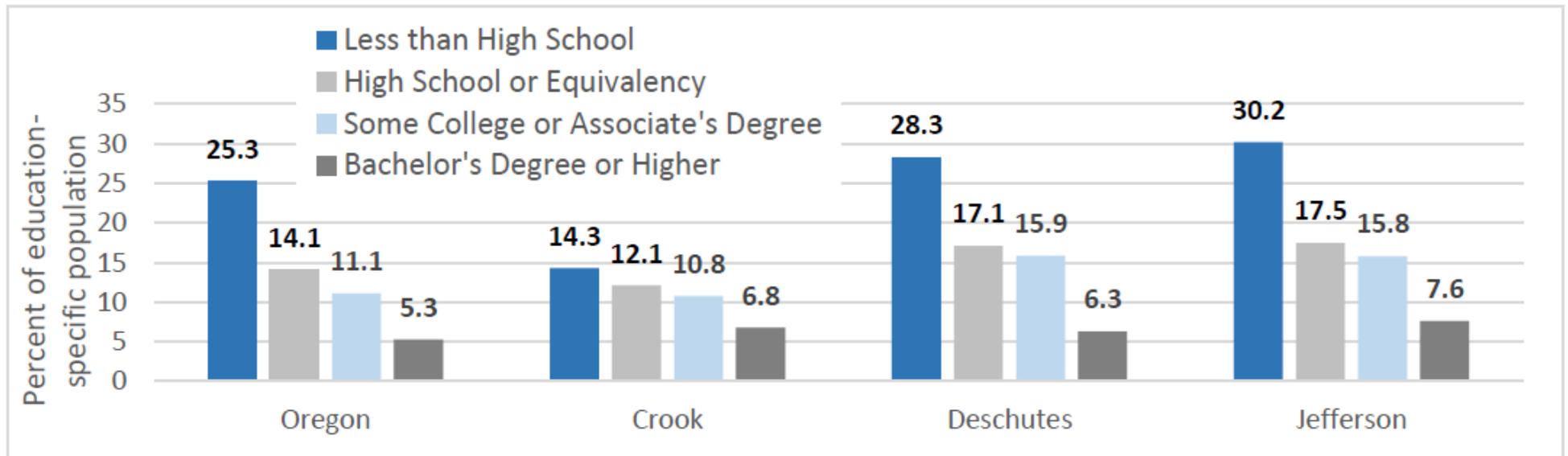
Figure 237. Percent of the population who are uninsured, by age group, ACS, 2012-2016 5-year estimates.



# Access to Care

In all three counties, a higher proportion of those with a high school education or less were uninsured compared to those with a college education.

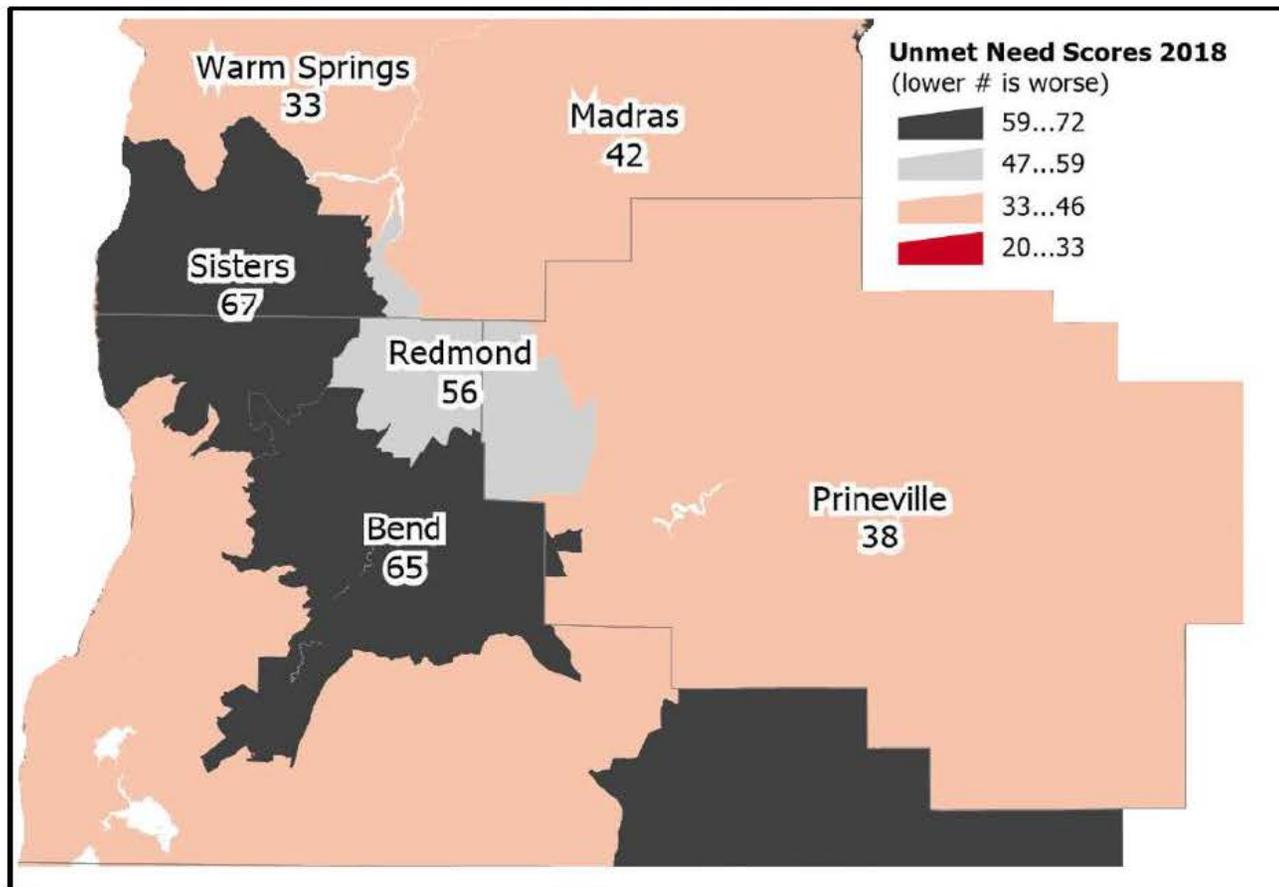
**Figure 239. Percent of the population who are uninsured, by educational attainment, ACS, 2012-2016 5-year estimates.**



# Access to Care

**Figure 243. Central Oregon “overall unmet need” scores, Areas of Unmet Health Care Need in Oregon Report, Oregon Office of Rural Health, 2018**

Note: 9 variables are used to calculate “overall unmet need” scores for each of Oregon’s 130 primary care service areas. Possible scores range from 0-90 with lower scores indicating a higher unmet need.



# Access to Care

Focus groups identified improving timely, affordable, access to behavioral health care and support as the top community need.

Decreasing wait times and promoting specialty care was identified as the second greatest community need. These priorities were especially true in rural communities.



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**Thank you**

