



2012

CENTRAL OREGON  
REGIONAL  
HEALTH ASSESSMENT

October 15, 2012

Photos:

Gary Halvorson, Oregon State Archives & Tom Kuhn, DCHS



# INTRODUCTION

## INTRODUCTION

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# INTRODUCTION

## What is Community Health?

“Community health” is a discipline of public health that examines and seeks to improve the health-related characteristics of the relationships between people and their physical and social environments.



*The Essential Public Health Services and Core Functions*  
 Source: Core Public Health Functions Steering Committee, Fall 1994

“All measures of population health involve choices and value judgments in both their construction and their application.’

‘Great care must be taken in the construction of summary measures precisely because they may have far-reaching effects.’

–US Institute of Medicine panel, 1998

“ The term ‘community’ in community health tends to focus on geographic areas rather than people with shared characteristics. From a community health perspective, health is not simply a state free from disease but is the capacity of people to be resilient and manage life's challenges and changes.

Community health focuses on a broad range of factors that impact health, such as the environment (including the built environment), social structure, resource distribution (including, for example, access to healthful foods), social capital

(social cohesion), and socio-economic status.

A key approach or methodology of community health is the creation and empowerment of community partnerships to take action that will improve the health of the community. Community health partnerships include representation from a wide variety of sectors of the community, for example, recreation, the faith community, law enforcement, city planners and policy makers, businesses, human and social services, as well as public health and health care providers.”

–Public Health Accreditation Board, 2011

# INTRODUCTION

## ABOUT THIS HEALTH REPORT

The Central Oregon Health Report (COHR) 2012 is an overview of data related to health in our region's communities and populations. COHR 2012 aims to provide useful data for three Oregon counties commonly referred to as "Central Oregon" or Central Oregon's "tri-county region" including Crook, Deschutes and Jefferson Counties.

Recognizing that many factors impact the health of individuals and communities, a range of data from multiple sectors are included in the report.

*The Central Oregon Health Report is not meant to answer all questions. It is meant to provoke them.*

### How to Use

We acknowledge that the Central Oregon Health Report, 2012 is not a compendium of all indicators or analyses applicable to community health assessment. Thus, we highly encourage readers to dig deeper, check sources, and pull-in additional information to help you construct a more in-depth understanding of our community.

COHR 2012 is not a static, single point-in-time document. Instead, it is intended to be a first-step in our region's effort to continuously assess data. In this effort, we will aim to identify where to celebrate successes, recognize weaknesses and areas of concern, and instigate community discussions on how to capitalize on strengths and turn weaknesses into opportunities for positive change.

The COHR is not intended to answer all questions. Instead, it should provoke them. We encourage readers to ask more questions, dig deeper and explore. Many data reports and fact sheets on numerous relevant topics exist for our area – check them out! (See the full report for a list of suggested documents and resources).

The companion to the full report is the Executive Summary, which calls attention to some of the indicators found in the full report, and complements the information found in the full report.

*Ask more questions, dig deeper, explore... engage in conversations*

As you look and dig deeper, consider the weaknesses and limitations of the data. Engage in conversations with colleagues, peers, friends, family, neighbors, community members, and strangers. Seek-out qualitative, personal and experiential information to complement the numbers you see.

Only when communities engage in this process can we draw the map to improved health and well-being for our neighborhoods, our communities and our region.

### Data

This health report utilizes multiple sources of data. Some of this data is available through the state of Oregon, some through national government and non-government agencies, and some from local organizations. Sources include Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System (BRFSS), U.S. Census Bureau's census statistics, Oregon Health Authority Department of Public Health's public health and community data, Oregon Department of Education's school data, and data from local organizations compiled by Deschutes County Health Services.

**A Note About Data:** There are many great and widely-used data sources available today. Data sets like these require significant amounts of labor and resources before they are made publicly available. This can mean unavoidable lag-time where data is many months, often several years old. This lag can present complications when trying to interpret and apply the information for the present day. While the data is still very valuable, it is important to always look at data sources' dates and time frames used, and to become familiar with what and how the data of interest is measured. For example, the County Health Rankings can be a great and useful public health resource, but data used to calculate 2012 County Health Rankings can date as far back as 2003 (with 2010 being the most recent year). Similarly, several indicators in this health report pre-date the recession. These indicators are useful, but cannot help us fully understand how difficult economic times have impacted our region.

# INTRODUCTION

Table 1 Why Do a Health Report?

Lay the groundwork for future assessments • Identify current health needs and trends • Assess capacity & resources

Seek input • Share results • Look into possible causes • Gauge short-term and long-term impacts of social & economic factors

Identify potential actions • Inform decisions of resource allocation • Look in-depth at diversity • Observe multiple perspectives

## WHY DO A HEALTH REPORT?

A core function of public health agencies and public health practice is to examine the community of interest. A wide range of data and indicators that impact population and community health are used to describe factors and status of a community's health.

Attention to this data can help identify areas of need or target populations who have an increased risk of poor health outcomes. Data can be used to compare population health outcomes or characteristics related to health. Health assessments also build understanding of how community characteristics are impacting the population's health and wellbeing.

**Establishing a regular health assessment process ultimately functions to inform timely public health strategies that are responsive to a community's distinctive needs and to lay the groundwork for tracking health changes in the future.**

This community health report, COHR 2012, is the first step in creating a more coordinated, collaborative and on-going process to assess our Central Oregon's unique strengths and pressing needs.

## LIMITATIONS

Many of the statistics that could describe Crook County's health reside in the gaps of state and national data systems. Several reliable nationwide surveys are unable provide estimates or data for Central Oregon, making it difficult to derive local meaning from some of the more readily available secondary data. For example, there are gaps in large data sets such as the Behavioral Risk Factor Surveillance System (BRFSS), the National Health and Nutrition Examination Survey (NHANES) and the Youth Risk Behavior Surveillance System (YRBSS), which many counties rely on for data to drive community health assessments.

Similarly, indicators collected in nationwide surveys are not always applicable to many rural populations. For example, environmental exposures that may be important indicators of environmental health to the nation as a whole (e.g., number of quality air days) may provide a false sense of environmental health in Central Oregon when other exposures such as pesticides or arsenic may be more relevant to the population. Yet, these indicators that may be more relevant may not available, easily accessed or routinely assessed.

In recent years, Central Oregon gained national attention when unemployment rates approached 20% in some areas and subsequent shifts in the economic climate dramatically altered day-to-day living for many Central Oregonians. Other counties in Oregon and the nation experienced similar economic difficulties, but not with the magnitude of Central Oregon.

The health impacts of these economically difficult times should be monitored in the coming years, as many effects will not be seen for several years.

## OPPORTUNITIES

Based on these limitations, the following components will be essential components to establish future, on-going community health assessment of Central Oregon in the future:

- a) community and regional partnerships;
- b) utilization of existing data from outside sectors and organizations;
- c) improved data sharing among collaborating agencies;
- d) dedicated resources to compile existing data into comprehensive, meaningful and interpretable formats;
- e) sharing results broadly in accessible formats;
- f) engaged community-member and stakeholder input, feedback and collaborative processes.

Identify community strengths • Track progress toward health goals • Understand the community • Compare

# INTRODUCTION

**There are unique characteristics in Central Oregon** that set our region apart from the rest of Oregon. Over many decades, numerous factors like climate, land types, resources, history, culture, economics and policies have shaped who lives here, what we do for work and pleasure, and how healthy our neighborhoods and communities are.

**Central Oregon has many assets** – from wide-open spaces to groups dedicated to improve access to outdoor recreation, from a vibrant workforce to organizations leading collaborative efforts. Strengths like these will be catalysts for a healthier Central Oregon. Communities, organizations and decision-makers collectively identify our unique strengths can craft strategies to make our communities stronger, healthier and more vibrant.

## **Data shows that Central Oregon counties are markedly different.**

There are distinct and substantial differences between our counties. Community characteristics related to health outcomes have a broad range between our counties. Thus, there may be issues or areas of concern that are specific to individual counties and not to others. Similarly, our counties have different strengths, capacity and resources to address issues and concerns. While there are many similarities among our counties, there differences that must be acknowledged in order for any program, policy or initiative to be successful in improving Central Oregon's health.

Similarly, **differences exist within each county at city, community and neighborhood levels.** Bend and La Pine are not the same. One neighborhood of Madras may be different from another in the same town. Day-to-day life in Prineville is different in some ways from everyday life in remote, unincorporated areas of Crook County. While not all differences may impact health directly, they can impact whether or not a program, policy or initiative is successful.

Available data has some constraints due to the nature of the data sources, collection methods, and data sharing

Agreements. When coupled with fundamental rules of statistics and Central Oregon's small population size, **it is difficult – often impossible – to get town and**

## WARM SPRINGS—A SOVEREIGN AUTHORITY

While part of Warm Springs Reservation is located within borders of Jefferson County, it is important to remember Warm Springs is a sovereign authority.

From the Confederated Tribes of Warm Springs Reservation of Oregon Declaration of Sovereignty, 1992:

*Today, the people of the Confederated Tribes continue to assert and exercise sovereign authority over the tribal reservation, over other territory within tribal jurisdiction, over territory that may come under tribal jurisdiction in the future, and over the protection of our rights and our people and their welfare in all places. This complete sovereign power encompasses legislative authority, such as the power to define individual conduct, to regulate business enterprises, to zone land, to tax, to regulate the use of natural resources, to protect the environment, to make provisions for education, health, and social welfare, to protect our right to worship according to our own religions and to follow our traditional ways, and to make other laws appropriate to the exercise of the full range of lawmaking authority possessed by any nation. The Confederated Tribes' sovereign powers also include executive authority to implement tribal legislation and judicial authority to enforce valid legislative and executive orders. Our sovereign authority includes the right to choose not to adopt formal, written laws, procedures, or policies governing particular subjects; formal laws can be intrusive and inflexible, and we have learned that some issues are best addressed by informal, traditional ways.*

**neighborhood-level data for numerous indicators.** COHR 2012, therefore, is limited in its ability to provide detailed information for smaller geographic areas than the county for many indicators. In future assessment efforts, availability and utility of data can improve with by investing in:

- strengthened partnerships and collaboration;
- changes to existing data systems; and
- establishing the infrastructure and capacity to collect, analyze and interpret data with quality and reliability in our region.

## INTRODUCTION

Table 2 10 Things to Know About Health

## 10 IMPORTANT THINGS YOU SHOULD KNOW ABOUT HEALTH

\*Excerpts from “Ten Things You Should Know About Health,” *Unnatural Causes* (2008) (California Newsreel, 2008. Retrieved from [http://www.unnaturalcauses.org/ten\\_things.php](http://www.unnaturalcauses.org/ten_things.php) )

### 1. Health is more than health care

Doctors treat us when we are ill, but what makes us healthy or sick in the first place? Research shows that social conditions—the jobs we do, the money we’re paid, the schools we attend, the neighborhoods we live in—are as important to our health as our genes, our behaviors and even our medical care.

### 2. Social policy is health policy

Average life expectancy in the U.S. improved by 30 years during the 20th century. Researchers attribute much of that increase not to drugs or medical technologies but to social changes such as improved wage and work standards, universal schooling, improved sanitation and housing, and civil rights laws. These are as much health issues as diet, smoking and exercise.

### 3. We all pay the price for poor health

It’s not only the poor but also the middle classes whose health is suffering. We already spend \$2 trillion a year to patch up our bodies, more than twice per person than the average rich country spends, and our health care system is strained. Yet we are far from the top for life expectancy and infant mortality. As a society, we face a choice: invest in the conditions that can improve health today or pay to repair bodies tomorrow.

### 10. Health inequities are not natural

Health differences that arise from our inequities result from decisions we as a society have made – and can make differently. Two important strategies: make sure inequality is less and try to ensure that everyone has access to health promoting resources regardless of their personal wealth (e.g., good schools and health care are available to everyone, not just the affluent).

### 4. Inequality (economic and political) is bad for health

### 5. Health is tied to distribution of resources

The single strongest predictor of our health is our position on the class pyramid. Whether measured by income, schooling, or occupation, those at the top have the most power and resources and on average live longer and healthier lives. Those at the bottom are the most disempowered and get sicker and die younger. The rest of us fall somewhere in between. On average, people in the middle are almost twice as likely to die an early death compared to those at the top; those on the bottom, four times as likely. Even among people who smoke, poor smokers have a greater risk of dying than rich smokers.

### 6. The choices we make are shaped by the choices we have

Individual behaviors – smoking, diet, drinking, and exercise – matter for health. Making healthy choices isn’t just about self-discipline. Some neighborhoods have easy access to fresh, affordable produce, others have only fast food joints and liquor and convenience stores. Some have nice homes, clean parks, safe places to walk, jog, bike or play, and well-financed schools offering gym, art, music and after-school programs. And some don’t. How can we better ensure healthy spaces and places for everyone?

### 7. Chronic stress can be toxic

(and is a strong predictor of poor health outcomes) Exposure to fear and uncertainty triggers a stress response. Our bodies go on alert: the heart beats faster, blood pressure rises, glucose floods the bloodstream – all so we can hit harder or run faster until the threat passes. But when threats are constant and unrelenting our physiological systems don’t return to normal. Like gunning the engine of a car, this constant state of arousal, even if low-level, wears us down over time, increasing our risk for disease.

### 8. High demand + low control = chronic stress

The lower in the pecking order we are, the greater our exposure to forces that can upset our lives – insecure and low-paying jobs, uncontrolled debt, capricious supervisors, unreliable transportation, poor childcare, no healthcare, noisy and violent living conditions – and the less access we have to the money, power, knowledge and social connections that can help us cope and gain control over those forces.

### 9. Racism and discrimination in any form imposes an added health burden

Segregation, social exclusion, encounters with prejudice, the degree of hope and optimism people have, differential access and treatment by the health care system – all of these can impact health.

Excerpts from “Ten Things You Should Know About Health,” *Unnatural Causes* (2008). California Newsreel, 2008. Retrieved from [http://www.unnaturalcauses.org/ten\\_things.php](http://www.unnaturalcauses.org/ten_things.php) )

# INTRODUCTION

Table 3 Health Equity

# HEALTH EQUITY

- Housing Supports •Help for families
- Education •Environmental standards
- Early childhood programs •Equal Opportunity •Earned income tax credit
- Access to jobs, supermarkets, parks, medical care and decision-making •Anti-racism •Affirmative action •Advocacy
- Living wage jobs •Labor supports such as job security, benefits, paid leave/vacation
- Land use policies that work for everyone
- Transportation that is reliable •Tax reform
- Home ownership •Hope
- Employee involvement •Empowerment
- Quality K-12 schools, housing and food
- Quality treatment and Medical Care
- Universal Preschool •Universally-available and affordable health care for everyone •Urban revitalization
- Increased social inclusion •Investment in green jobs, public services and resources for children •Improved living standards
- Tools that empower communities
- Youth Services •Your involvement •Your ideas

“To achieve healthy communities, it is not enough to focus on a particular disease or cure; *we also need to change the underlying conditions that shape who gets sick and what makes us sick in the first place.* To do so, we must know where we’re headed and help people see that they have a role to play in achieving health equity for everyone.

Whether we call it health equity or something else, whether we emphasize children or education or universal health care, *acknowledging how these conditions are related to one another, addressing structures of inequality and changing social policies are critical to changing health outcomes.*”

—California Newsreel (2008).Unnatural Causes, “The Last Mile” Health Equity Interactivity. Retrieved from <http://www.unnaturalcauses.org>

***“Equity is as precious as any drug or vaccine”*** —William Foege, global health advocate

Healthier living requires more than simply making healthy choices...because the choices you make depend on what choices are available.

**Diet:** Not everyone has the same choice of nutritious food options. Wealthy neighborhoods have over three times as many supermarkets as poor neighborhoods. Low-income communities not only have more fast food outlets, residents are also less likely to have private transportation, making it even harder to eat healthy. A 2005 Chicago study showed that people living in "food deserts" have significantly higher rates of disease and early death.

**Exercise:** Children living in poverty are several times more likely to be obese. When there's no safe opportunities to play or exercise, people are not only less healthy, they are more isolated. Kids who stay indoors a lot are also more likely to have asthma and be exposed to higher levels of indoor toxins and allergens.

**Stress:** Chronic stress is a function of the demands in your life, their predictability, and your access to the resources needed to control them. If we can't manage the conditions that threaten to upset our lives, our body's systems remain in a constant state of alert. Over time, this wear and tear can be toxic, increasing the risk of early death and disease.

**Smoking** is not only more concentrated among people lower on the class pyramid, but poor smokers have a higher risk of dying than rich smokers who smoke the same number of cigarettes. Not all people who smoke or grow up around smoking have the same access and opportunities to affordable health care.

***The choices you make depend on what choices are available.***

Content from: California Newsreel (2008). Unnatural Causes. “Tale of Two Smokers” & “The Last Mile” Health Equity Interactivities. Retrieved from <http://www.unnaturalcauses.org/>



# INTRODUCTION

Table 4 Community Example: Working toward Health Equity

## INTO PRACTICE

### How one group in our region is working toward health equity

*The stress created in a person’s life when they live without a sense of security and acceptance in their community makes it more difficult for positive health outcomes to be attained. (Unnatural Causes video\*). In Central Oregon, one coalition found strengths in one community in the traditions, faith and religion of community members. When community members identified these strengths, they pointed out the influence these factors have on strong family beliefs. Through engaging in this process, community members hope the information found can help strengthen other areas of the community and increase the sense of security and acceptance experienced by community members.*

Yet, 90% of school staff polled also believe that school staff and programs should address physical, social and emotional health of students in order to support students’ ability to learn and achieve. Thereby showing that school staff also understand the importance of social determinants and their effect on student’s achievement potential.

In addition to the 5 year plan to improve health equity, the Coalition has focused on providing cultural competency trainings to the community (so far over 350 people have attended these trainings). The hope is that such trainings will help promote and support community and service providers’ understanding of cultural differences, priorities, traditions and practices that may impact an individual’s ability to access/benefit from community resources, and to succeed in school or in their place of work.

The Let’s Talk Diversity Coalition believes that if we work together as a community we can raise awareness and improve health equity in Central Oregon.

— *The Let’s Talk Diversity Coalition, 2012*

**Recently Jefferson County and the Confederated Tribes of Warm Springs received a Regional Equity Coalition grant** from the Oregon Health Authority’s Office of Equity and Inclusion. The Let’s Talk Diversity Coalition of Jefferson County is a Coalition of organizations and individuals who believe in the importance of changing the social determinants of health in order to attain health equity in the region.

expectancy.

Currently, the Coalition is conducting community assessments to understand where and how certain populations are not achieving equitable outcomes.

Some of the initial findings of the Coalition include: over 70% of the people polled have experienced discrimination in their community. Also, when asked if staff members use language that communicates racial, ethnic or sexual disrespect and bias, 64.9% of school staff polled reported this occurs at least a few times a year. Moreover, 42% of people polled believe that the most important thing to change in our schools right now is children feeling safe and being treated with dignity and respect.

The Coalition will create a 5 year plan, based on community feedback to improve health equity. The Coalition is building community strength and recognizing the mindsets and activities that are barriers to everyone achieving the same level of health and life

\*California Newsreel (2008). Unnatural Causes. Retrieved from <http://www.unnaturalcauses.org/>

Content provided by the Let’s Talk Diversity Coalition of Jefferson County. 2012.

## INTRODUCTION

Table 5 Special Thanks to Individuals &amp; Organizations

## Special thanks

## To these individuals:

Muriel DeLavernge-Brown	Crook County Health Department
Jolene Estimo	Confederated Tribes of Warm Springs Health & Human Services
Carolyn Harvey	Jefferson County Health Department
Ken House	Mosaic Medical
Scott Johnson	Deschutes County Health Services
Jessica Kelly	Deschutes County Children & Families Commission
Sarah J. Kingston	Deschutes County Health Services
Thomas Kuhn	Deschutes County Health Services
Maggi Machala	Deschutes County Health Services
Tom Machala	Jefferson County Health Department
Kat Mastrangelo	Volunteers in Medicine
Kate Moore	Deschutes County Health Services
Emily Ogren	
Minda Morton	Jefferson County Commission on Children & Families
Hillary Saraceno	Deschutes County Children & Families Commission
Diane Skinner	Deschutes County Health Services
Stephanie Sundborg	Deschutes County Children & Families Commission
Erin Tofte	Let's Talk Diversity Coalition (Jefferson County)
Kate Wells	Kids@Heart, St. Charles Health System

## And to these organizations:

Central Oregon Health Board  
 Central Oregon Health Council  
 Crook Co. Health Department  
 Deschutes Co. Public Health Advisory Board  
 Deschutes Co. Behavioral Health Advisory Board  
 Jefferson County Health Department  
 Let's Talk Diversity Coalition (Jefferson County)  
 Mosaic Medical  
 Oregon Health Authority/Dept. of Public Health  
 PacificSource  
 Saving Grace  
 St. Charles Health System  
 Volunteers in Medicine, Clinic of the Cascades

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Table 8 Interactive Data Resources Online

## INTERACTIVE DATA RESOURCES ONLINE

**Atlas of Rural & Small Town America**

<http://www.ers.usda.gov/data/ruralatlas/atlas.htm#map>

**Commonwealth Fund Health System Score Card**

<http://www.commonwealthfund.org/Maps-and-Data/State-Data-Center/Local-Scorecard.aspx>

**County Health Rankings**

<http://www.countyhealthrankings.org>

**Economic Development for Central Oregon**

<http://www.edcoinfo.com>

**Feeding America, Map the Gap**

<http://feedingamerica.org/mapthegap>

**Good Guide Scorecard: The Pollution Information Site**

<http://scorecard.goodguide.com/index.tcl>

**Indicators Northwest**

<http://www.indicatorsnorthwest.org/>

**The New York Times Mapping the 2010 US Census**

<http://projects.nytimes.com/census/2010/map>

**OR Rural Communities Explorer:**

<http://oe.oregonexplorer.info/rural/CommunititesReporter/>

**US Census:**

<http://2010.census.gov/2010census/data/>



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Table 6 County Health Rankings, 2010-2012: Change in Rankings

## OREGON COUNTY HEALTH RANKINGS 2010, 2011, & 2012 Change In Robert Wood Johnson Foundation\* Oregon Rankings

	Crook				Deschutes				Jefferson			
	2010	2011	2012	CHANGE FROM 2010	2010	2011	2012	CHANGE FROM 2010	2010	2011	2012	CHANGE FROM 2010
Health Outcomes	14	14	12	↑	6	7	5	↑	33	33	33	—
Health Factors	21	30	29	↓	2	4	5	↓	33	33	33	—
Mortality	13	10	10	↑	5	7	4	↑	32	33	32	—
Morbidity	16	21	9	↑	8	9	9	↓	31	30	21	↑
Health Behaviors	21	21	25	↓	1	1	2	↓	31	30	30	↑
Clinical Care	9	20	14	↓	3	5	5	↓	28	30	25	↑
Social & Economic Factors	27	30	33	↓	6	11	16	↓	33	33	32	↑
Physical Environment	17	22	13	↑	5	3	11	↓	2	18	23	↓

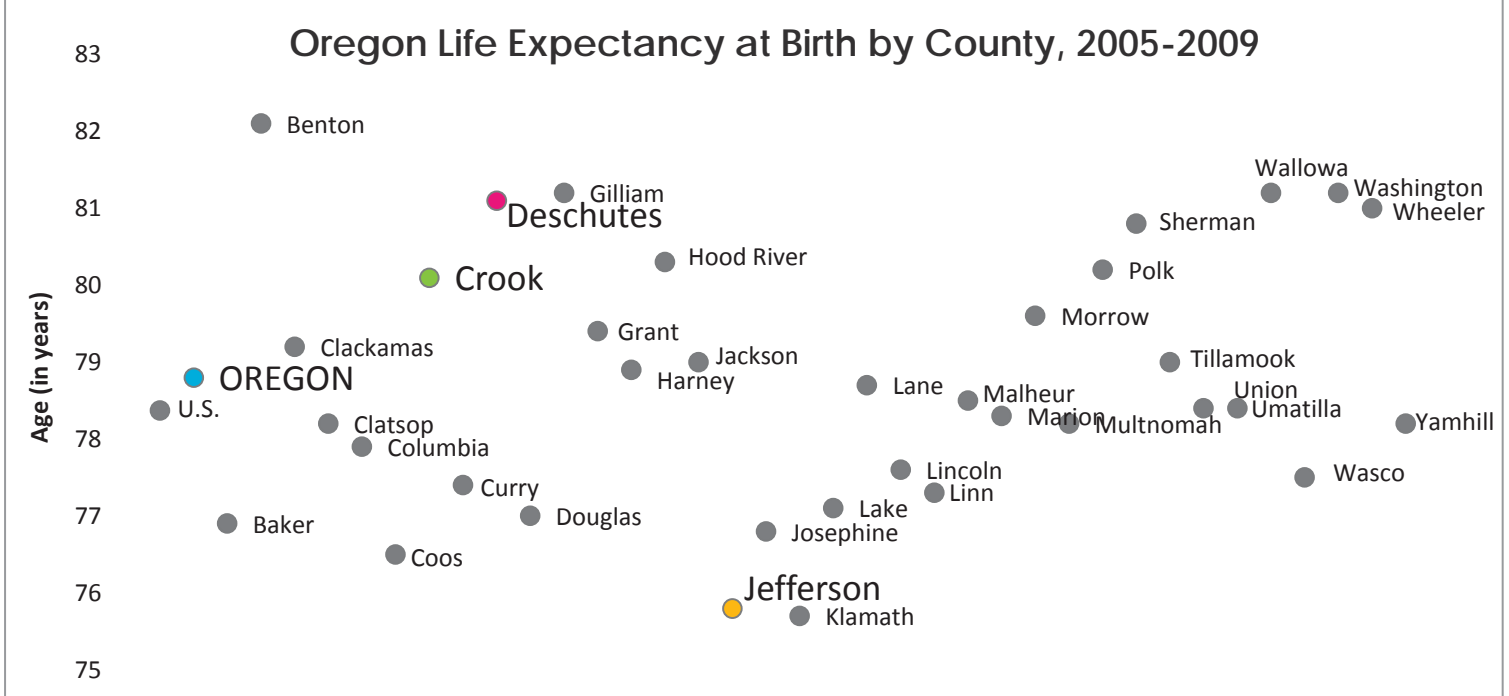
\*Only 33 of 36 counties ranked

	= Bottom Quartile in State Rank of Counties
	= Top Quartile in State Rank of Counties
	= State ranking in 2012 lower than 2010
	= State ranking in 2012 higher than 2010

S. Kingston, Deschutes County Health Services/Public Health Department, 04/2012  
 Robert Wood Johnson Foundation, County Health Rankings: Oregon 2010, Oregon 2011, & Oregon 2011.  
 Retrieved from <http://www.countyhealthrankings.org/ranking-methods/exploring-data>

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Table 7 Life Expectancy



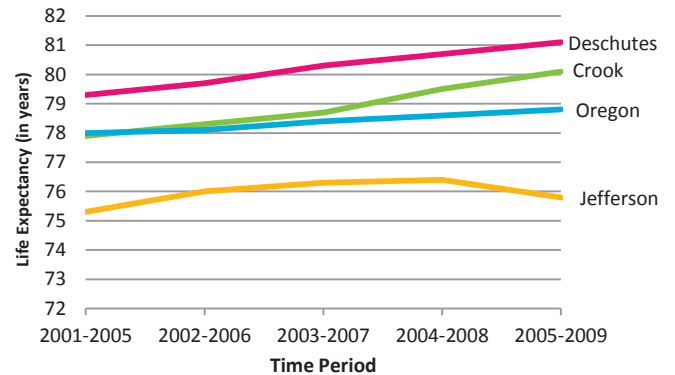
## LIFE EXPECTANCY

Life expectancy at birth uses statistics to estimate the number of years, on average, a child born in that time period would be expected to live. Because the estimate is based on averages, areas with high rates of mortality at younger ages would typically have lower life expectancies. Contrary to common misconception, low life expectancy does not mean that the nobody in the population lives to old age.

The United States Life Expectancy at birth, according to the 2012 CIA World Factbook, is 78.37 years—ranked 50<sup>th</sup> out of 223 countries (the lowest being Swaziland with a life expectancy of 31.88 years). Countries with similar life expectancies at birth of Central Oregon Counties include the following:

- Crook: Israel (ranked 17<sup>th</sup>), Iceland (ranked 18<sup>th</sup>)
- Deschutes: Spain (ranked 14<sup>th</sup>), Switzerland (ranked 15<sup>th</sup>)
- Jefferson: Tunisia (ranked 78<sup>th</sup>), Brunei (ranked 79<sup>th</sup>)
- Oregon: European Union (ranked 44<sup>th</sup>), Bosnia and Herzegovina (ranked 45<sup>th</sup>)

Central Oregon Life Expectancy at Birth, 5-yr Rolling Estimates, by Place of Birth, 2001-2009



## Life Expectancy at Birth and Remaining Years at Selected Ages by County and Sex, 2005-2009

	AT BIRTH		AT BIRTH		AT AGE 25		AT AGE 35		AT AGE 45		AT AGE 55		AT AGE 65		AT AGE 75		AT AGE 85	
	95% C.I.	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Oregon	78.8 (78.8-78.9)	76.7	81	52.8	56.8	43.4	47.1	34.1	37.6	25.6	28.5	17.8	20.1	11.2	12.9	6.6	7.3	
Crook	80.1 (79.3-80.9)	78.7	81.5	54.2	57.8	44.6	47.9	35.2	38.4	26.5	29.4	18.6	20.8	11.7	14.1	6.9	8.4	
Deschutes	81.1 (80.8-81.4)	79.9	82.4	56	58.1	46.6	48.3	37.2	38.8	28.4	29.5	20	20.7	12.7	13.1	7.6	7.1	
Jefferson	75.8 (74.8-76.8)	73.6	78.2	51.5	54.6	42.9	45	34.1	36.2	25.6	27.7	18.4	19.5	11.6	12.5	7.2	6.5	

Oregon Health Authority, DHS/Oregon Center for Health Statistics, 2000-2010, Oregon Vital Statistics Annual Report, Vol. 2, 2009, 2012, Table 6-56. Life Expectancy at Birth and Remaining Years at Selected Ages by County and Sex, Oregon Residents, 2003-2007, 2004-2008 & 2005-2009. Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/annualreports/09V2/Pages/chapter6.aspx>  
 CIA World Factbook, Country Comparison: Life Expectancy at Birth. Retrieved from <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2102rank.html>

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Table 8 Life Expectancy at Birth, 2001-2009

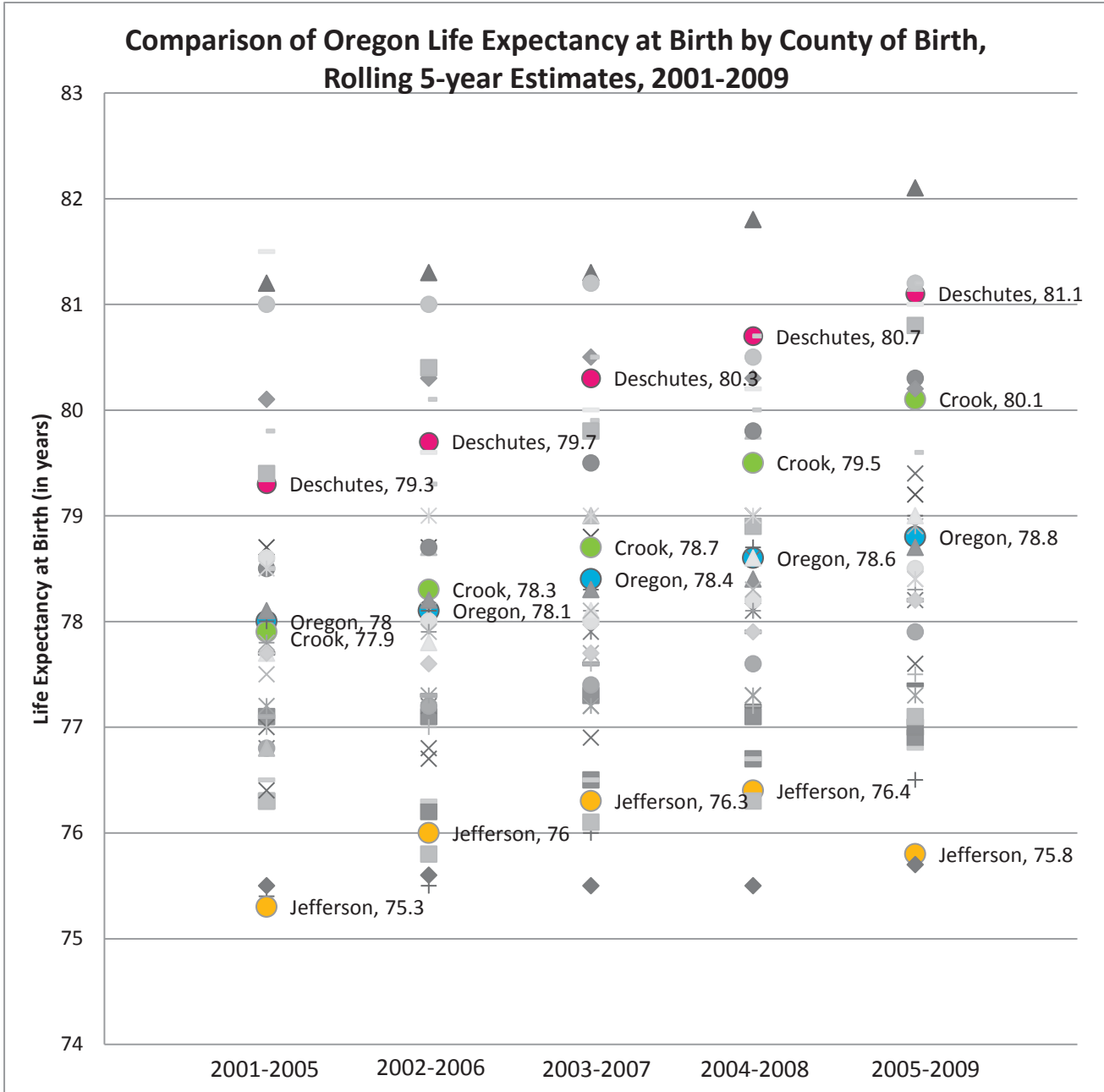
2001 - 2005			2002 - 2006			2003 - 2007			2004 - 2008			2005 - 2009		
Rank	County	L.E.	Rank	County	L.E.	Rank	County	L.E.	Rank	County	L.E.	Rank	County	L.E.
1	Wheeler	81.5	1	Benton	81.3	1	Benton	81.3	1	Benton	81.8	1	Benton	82.1
2	Benton	81.2	2	Wallowa	81	2	Wallowa	81.2	2	<b>DESCHUTES</b>	<b>80.7</b>	2	Gilliam	81.2
3	Wallowa	81	3	Sherman	80.4	3	Polk	80.5	3	Washington	80.7	3	Wallowa	81.2
4	Polk	80.1	4	Polk	80.3	4	Washington	80.5	4	Wallowa	80.5	4	Washington	81.2
5	Washington	79.8	5	Washington	80.1	5	<b>DESCHUTES</b>	<b>80.3</b>	5	Polk	80.3	5	<b>DESCHUTES</b>	<b>81.1</b>
6	Sherman	79.4	6	<b>DESCHUTES</b>	<b>79.7</b>	6	Wheeler	80	6	Wheeler	80.2	6	Wheeler	81
7	<b>DESCHUTES</b>	<b>79.3</b>	7	Wheeler	79.6	7	Morrow	79.9	7	Morrow	80	7	Sherman	80.8
8	Clackamas	78.7	8	Morrow	79.3	8	Sherman	79.8	8	Gilliam	79.8	8	Hood River	80.3
9	Malheur	78.6	9	Union	79	9	Hood River	79.5	9	Hood River	79.8	9	Polk	80.2
10	Hood River	78.5	10	Clackamas	78.7	10	Gilliam	79	10	<b>CROOK</b>	<b>79.5</b>	10	<b>CROOK</b>	<b>80.1</b>
11	Morrow	78.5	11	Gilliam	78.7	11	Union	79	11	Clackamas	79	11	Morrow	79.6
12	Union	78.5	12	Hood River	78.7	12	Clackamas	78.8	12	Union	79	12	Grant	79.4
13	Lane	78.1	13	<b>CROOK</b>	<b>78.3</b>	13	<b>CROOK</b>	<b>78.7</b>	13	Harney	78.9	13	Clackamas	79.2
14	Jackson	78	14	Lane	78.2	14	<b>OREGON</b>	<b>78.4</b>	14	Sherman	78.9	14	Jackson	79
15	<b>CROOK</b>	<b>77.9</b>	15	<b>OREGON</b>	<b>78.1</b>	15	Jackson	78.3	15	Jackson	78.7	15	Tillamook	79
16	Harney	77.8	16	Harney	78.1	16	Lane	78.3	16	<b>OREGON</b>	<b>78.6</b>	16	Harney	78.9
17	Marion	77.8	17	Jackson	78.1	17	Marion	78.1	17	Grant	78.6	17	<b>OREGON</b>	<b>78.8</b>
18	Curry	77.7	18	Malheur	78	18	Tillamook	78.1	18	Tillamook	78.6	18	Lane	78.7
19	Tillamook	77.7	19	Marion	77.9	19	Umatilla	78.1	19	Lane	78.4	19	Malheur	78.5
20	Yamhill	77.7	20	Umatilla	77.9	20	Malheur	78	20	Umatilla	78.3	20	Umatilla	78.4
21	Umatilla	77.5	21	Tillamook	77.8	21	Clatsop	77.9	21	Malheur	78.2	21	Union	78.4
22	Linn	77.2	22	Yamhill	77.6	22	Harney	77.7	22	Clatsop	78.1	22	Marion	78.3
23	Baker	77.1	23	Curry	77.3	23	Yamhill	77.7	23	Marion	78.1	23	Clatsop	78.2
24	Multnomah	77.1	24	Linn	77.3	24	Curry	77.6	24	Multnomah	77.9	24	Multnomah	78.2
25	Grant	77	25	Multnomah	77.3	25	Multnomah	77.6	25	Yamhill	77.9	25	Yamhill	78.2
26	Wasco	77	26	Clatsop	77.2	26	Wasco	77.6	26	Columbia	77.6	26	Columbia	77.9
27	Clatsop	76.8	27	Columbia	77.2	27	Columbia	77.4	27	Lincoln	77.3	27	Lincoln	77.6
28	Columbia	76.8	28	Baker	77.1	28	Baker	77.3	28	Linn	77.3	28	Wasco	77.5
29	Gilliam	76.8	29	Wasco	77	29	Lincoln	77.2	29	Curry	77.2	29	Curry	77.4
30	Josephine	76.5	30	Grant	76.8	30	Grant	76.9	30	Wasco	77.2	30	Linn	77.3
31	Lincoln	76.4	31	Lincoln	76.7	31	Linn	77.2	31	Baker	77.1	31	Lake	77.1
32	Douglas	76.3	32	Josephine	76.3	32	Grant	76.9	32	Douglas	76.7	32	Douglas	77
33	Lake	76.3	33	Douglas	76.2	33	Douglas	76.5	33	Josephine	76.7	33	Baker	76.9
34	Klamath	75.5	34	<b>JEFFERSON</b>	<b>76</b>	34	Josephine	76.5	34	<b>JEFFERSON</b>	<b>76.4</b>	34	Josephine	76.8
35	Coos	75.4	35	Lake	75.8	35	Lake	76.1	35	Lake	76.3	35	Coos	76.5
36	<b>JEFFERSON</b>	<b>75.3</b>	36	Klamath	75.6	36	Coos	76	36	Klamath	75.5	36	<b>JEFFERSON</b>	<b>75.8</b>
				Coos	75.5		Klamath	75.5					Klamath	75.7

Life expectancy is one method for summarizing mortality of an area. It provides an average age of mortality for a population, and can therefore fluctuate in the presence of extremes (i.e., a spike in under age 5 mortality). Lower life expectancies may be related to higher rates of death in earlier years of life. See the [Mortality](#) section of this report for additional information.

Oregon Health Authority, DHS/Oregon Center for Health Statistics, 2000-2010, Oregon Vital Statistics Annual Report, Vol. 2, 2009, 2012, Table 6-56. Life Expectancy at Birth and Remaining Years at Selected Ages by County and Sex. Oregon Residents. 2003-2007. 2004-2008 & 2005-2009. Retrieved from

# OVERVIEW

Table 9 Life Expectancy, Comparison of Oregon Counties, 2001-2009



Note: Each MARK on the chart represents an Oregon COUNTY value for that time period. This allows you to see the range of values in Oregon. All values are grey *except* Central Oregon Counties and the state of Oregon which are indicated with color and a value label.

Life expectancy gains have instigated a change in population demographics—many communities have witness an increase in the proportion of residents over the age of 65.

Oregon Health Authority/DHS Center for Health Statistics Office of Disease Prevention and Epidemiology. (2001-2005, 2002-2006). Life Expectancy at Birth and Remaining Years at Selected Ages by County and Sex, Oregon Residents, 2001-2005, 2002-2006. Table 6-53. Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/annualreports/Pages/index.aspx>

Oregon Health Authority/DHS Center for Health Statistics Office of Disease Prevention and Epidemiology. (2003-2007, 2004-2008 & 2005-2009) Life Expectancy at Birth and Remaining Years at Selected Ages by County and Sex, Oregon Residents, 2003-2007, 2004-2008 & 2005-2009. Table 6-56. Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/annualreports/Pages/index.aspx>



# DEMOGRAPHICS

## DEMOGRAPHICS

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# DEMOGRAPHICS

Table 10 Population Estimates, Central Oregon, 2000-2010

## POPULATION ESTIMATES, CENTRAL OREGON 2000-2010

### Why population estimates?

Population estimates help communities understand how the population has changed over time. Looking at growth allows decision-makers and citizens to begin asking whether the existing infrastructure can meet current and future demands on resources. Community resources—such as roads, schools, water and sewage, health care services, and community-based programs—are impacted by population growth. Environmental and agricultural resources are impacted as well.

### Population growth

Central Oregon’s tri-county region experienced the greatest rates of growth from 2000-2010. Between 1990 and 2010, the population counted within Deschutes County’s jurisdiction more than doubled in size.

Each county experienced growth differently and at different times. While Crook County has experienced periods of growth and decline, Deschutes County has experienced steady growth. Jefferson County’s growth has not been as steady over time. But rather, has had slower growth during certain periods and steeper growth in others.

According to IRS data, between April 2009 to April 2010:  
 1,800 people moved to Crook County and 900 moved away;  
 12,400 people moved to Deschutes County and 6,200 moved away;  
 1,600 moved to Jefferson County and 800 moved away.

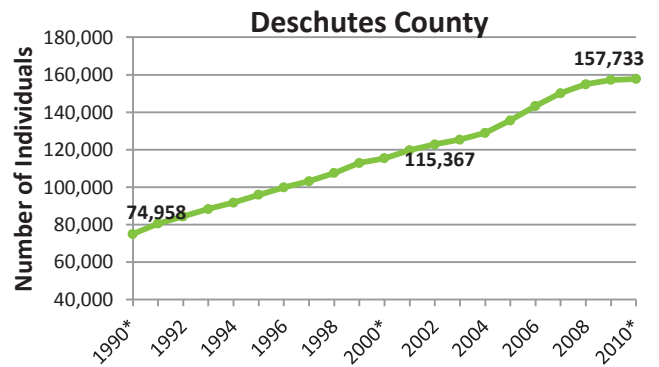
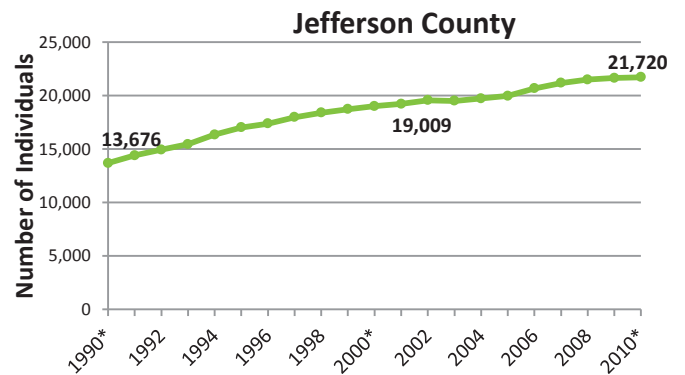
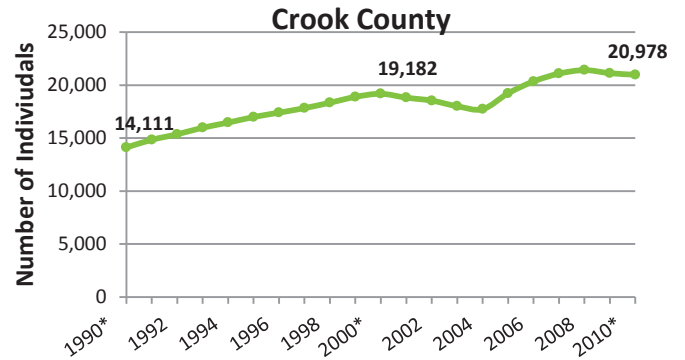
### Get More from this Indicator

To make the most of this information, explore related questions such as, “What is driving population change?” “Where are people coming from?” “Where are people going to?” “What does our population look like now?” “Are there areas with more growth than others?”

A great online resource for exploring U.S. migration for each county can be found [here](#). According to IRS data in the [Forbes American Migration Interactive Map](#), in 2010 the majority of movement in and out of Jefferson and Crook Counties were within Oregon, whereas migration in and out of Deschutes County was from Oregon as well as the western states, Alaska and Hawaii.

\*For Census Years 1990, 2000 and 2010: population estimates taken in April; All other population estimates in these charts are intercensal estimates for July of the year.

Portland State University Population Research Center , May 2011, Intercensal Population Estimates 2000-2010 Retrieved from <http://www.pdx.edu/prc/population-estimates-0>

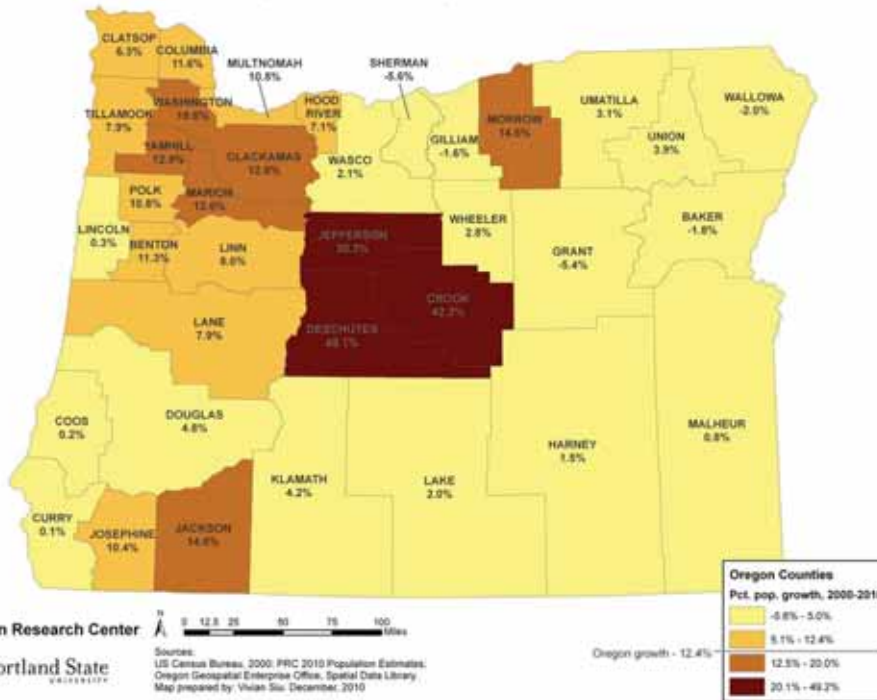


# DEMOGRAPHICS

Table 11 2010 Population & Percent Population Change (2000-2010)

## POPULATION CHANGE: 2000-2010

Percent Change in Population, Oregon Counties, 2000-2010



### 2010 Population Estimates & Change in Population, 2000-2010

<b>CROOK</b>	<b>20,978</b>	<b>42.20%</b>
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Prineville	10,370*	40.94%
Unincorporated	11,725	42.99%

<b>DESCHUTES</b>	<b>157,733</b>	<b>49.13%</b>
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Bend	76,639	59.77%
La Pine‡	1,653	2.83%
Redmond	26,215	92.46%
Sisters	2,038	101.77%
Unincorporated	51,188	21.50%

<b>JEFFERSON†</b>	<b>21,750</b>	<b>20.29%</b>
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Culver	1,365	67.71%
Madras	6,050	30.96%
Metolius	710	22.09%
Unincorporated	13,625	12.74%

Portland State University Population Research Center, April 2011, Revised Population Estimates for Oregon and Its Counties and Incorporated Cities: July 1, 2010; Retrieved from <http://www.pdx.edu/prc/population-estimates-0>; Portland State University Population Research Center, March 2011, Table 4. Population Estimates for Oregon and Its Counties and Incorporated Cities: April 1, 2000 to July 1, 2010 <http://www.pdx.edu/prc/population-estimates-0>; Portland State University Population Research Center, March 2011, Table 3. Components of Population Change for Oregon's Counties: April 1, 2000 to July 1, 2010; Retrieved from <http://www.pdx.edu/prc/population-estimates-0>

US Census Bureau, 2000: Population Research Center 2010 Population Estimates: Oregon Geospatial Enterprise Office, Spatial Data Library. Map prepared by: Vivan Siu, December 2010. Retrieved from <http://www.pdx.edu/prc/>

## Growth in Central Oregon

Rapid growth and population change impacted county infrastructure throughout Central Oregon. Schools, employment, public assistance and health care are all impacted by rapid change in population.

Percent change in population does not reflect the community's overall growth, but rather the number of "newcomers" as a percentage of

Change in Population: 2000-2010, by County, PSU Population Research Center Estimates						
	Population Change	% Change	Total # Births	Total # Deaths	Natural Increase	Net Migration
Crook	8,098	42.2%	2,413	2,067	346	7,752
Deschutes	56,688	49.1%	17,744	10,726	7,018	49,665
Jefferson	3,856	20.3%	3,284	1,864	1,420	2,436
State of Oregon	422,796	12.4%	479,710	317,409	162,301	260,495

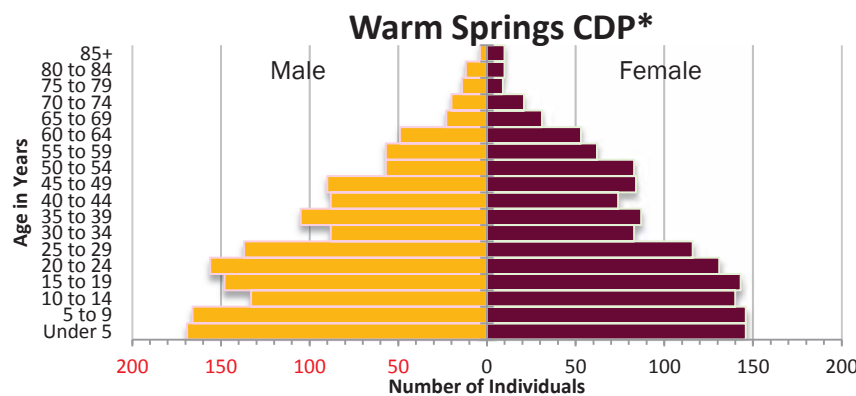
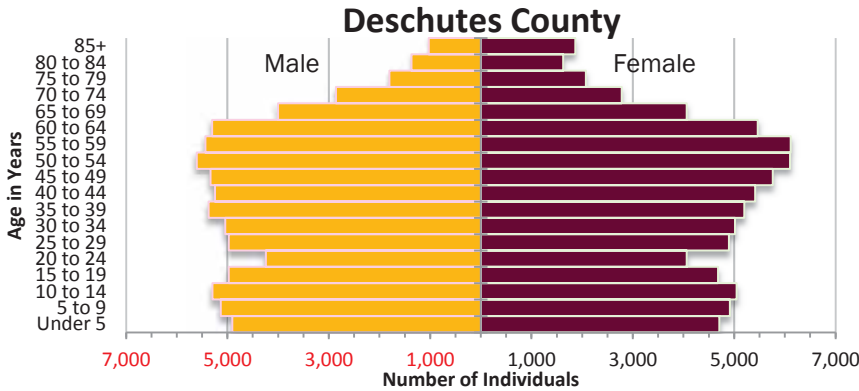
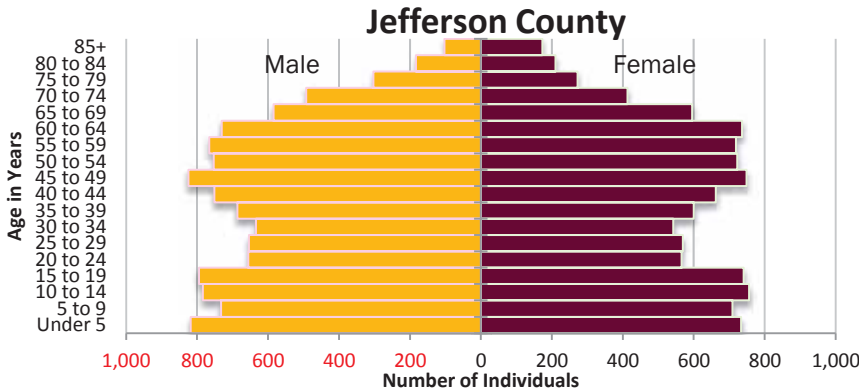
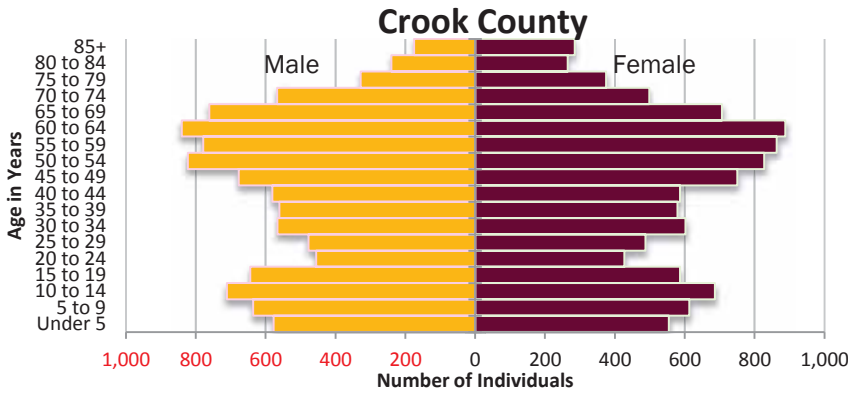
Note: PSU estimates for 2010 are based on Census 2000, not 2010.

the 2000 population estimate. This estimate allows us to see what elements currently drive population change. For Central Oregon, net migration (movers in minus movers out) primarily drives population change, but to different degrees for each county. In Jefferson County, 36.8% of the population change was from natural increase (births minus deaths) while natural increase accounts for only 4.3% of population change in Crook County, 12.4% in Deschutes County, and 38.4% in the state of Oregon.

# DEMOGRAPHICS

Table 12 County Population by Age & Sex, 2009

## COUNTY POPULATION BY AGE AND SEX, 2010



### Age of Population

Central Oregon counties have different age compositions. Age compositions shape the characteristics of communities.

The median age is highest in Crook County at 43.6 years, while Deschutes County's median age is 39.7 and Jefferson's is 39.1 years. In areas where the median age for females is older than males (in all but Jefferson) there are more women than men over the age of 50 years old, a difference that becomes more pronounced looking 85 years and older.

A good example of how an area in counties can have distinct differences is illustrated when looking at the age composition of Warm Springs Reservation (Census Designated Place). Warm Springs has a much younger population than the rest of Central Oregon. The median age is just under 24 years. More than 40% of residents are under age 20 while 5.2% of residents are age 65 or older.

### Median Age (in years) by Sex, 2006-2010

	Both Sexes	Males	Females
<b>Crook</b>	43.6	42.4	44.8
<b>Deschutes</b>	39.7	38.6	40.6
<b>Jefferson</b>	39.1	39.4	38.9
<b>Warm Springs</b>	23.6	21.1	25.7

\*Note: Jefferson County Estimates include those parts of Warm Springs that are in Jefferson County. However, Warm Springs Census Designated Place is Warm Springs only, regardless of which county residents reside.

US Census Bureau, (2011) Population Estimates Program, 2009 Population Estimates, T7-2009. Median Age By Sex [3]; Retrieved from <http://factfinder2.census.gov>

US Census Bureau, (2011) Population Estimates Program, 2010 Census Population Estimates. Retrieved from <http://factfinder2.census.gov>

US Census Bureau, 2006-2010 American Community Survey, 2006-2010. Table B01002. <http://factfinder2.census.gov>

# DEMOGRAPHICS

Table 13 Age & Dependency Ratios, 2010

## COUNTY AGE & DEPENDENCY RATIOS, 2010

A dependency ratio looks at the population of a region and considers the number of people typically not in the workforce (younger than 18 and older than 64 years of age) compared to those who typically are. It is calculated by taking the number of individuals younger than 18 plus those 65 years and older, and dividing that number by individuals 18-64 years old then multiplying by 100.

When dependency ratios get closer to 100, areas may experience economic difficulties more harshly as there are fewer working-age individuals for every dependent-age individual. Other dependency ratios such as the Child Dependency Ratio and the Old-Age Dependency Ratio can provide additional useful information.

### Dependency Ratio by County, 2010

	Dependency Ratio	Working-Age: Dependent-Age
Crook	72.3	1.38
Deschutes	60.9	1.64
Jefferson	68.4	1.46
Warm Springs*	69.5	1.44
Oregon	57.6	1.74

During difficult economic times, children and older adults may be particularly vulnerable. Crook and Jefferson Counties have higher dependency ratios (72.3 and 68.4, respectively) than Deschutes County and the state of Oregon (60.9 and 57.6, respectively).

While the majority of dependent-age in Deschutes and Jefferson are 0-17 years old, Crook County's dependent-age are practically evenly split between 0-17 and 65+ years old. Crook County has the largest proportion of individuals 65+ years old.

### CHILD DEPENDENCY RATIOS

(The Child Dependency Ratio divides the population under age 18 by the population 18-64 years old)

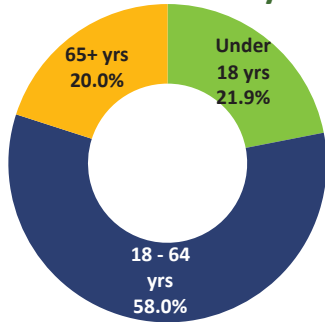
**Crook, 37.38**  
**Deschutes, 36.95**  
**Jefferson, 42.56**  
**Warm Springs, 60.68**

### OLD-AGE DEPENDENCY RATIOS

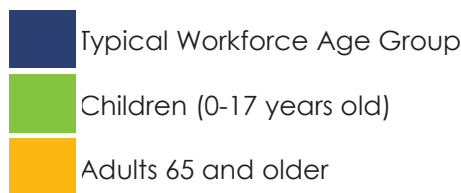
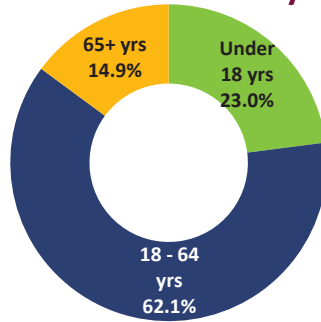
(The Old-Age Dependency Ratio divides the population age 65 and older by the population 18-64 years old.)

**Crook, 34.52**  
**Deschutes, 23.97**  
**Jefferson, 25.82**  
**Warm Springs\*, 8.87**

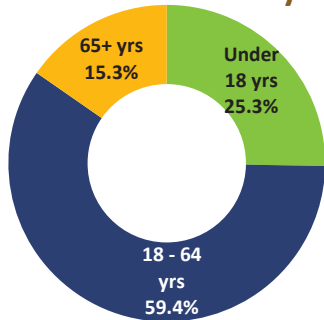
### Crook County



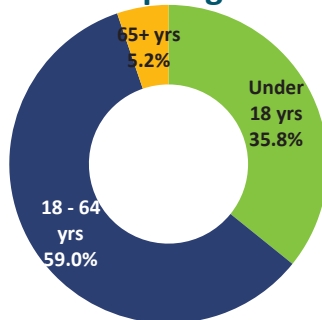
### Deschutes County



### Jefferson County



### Warm Springs CDP\*



\*Note: Jefferson County Estimates include those parts of Warm Springs that are in Jefferson County. Warm Springs Census Designated Place is Warm Springs only, regardless of which county residents reside.

US Census Bureau (2011) 2010 Census Interactive Population Search, Retrieved from <http://2010.census.gov/2010census/data/>

# DEMOGRAPHICS

Table 14 Race/Ethnicity Defined

## A note about Race/Ethnicity

Much of the following data for race/ethnicity are from the U.S. Census 2010. The U.S. Census Bureau defines race and ethnicity in a specific way and collects the data based on those definitions. Then they make the data publicly available.

Therefore, knowing how the U.S. Census Bureau defines the different concept of race and ethnicity is useful to know. It is important to note how race and ethnicity are defined and captured by the U.S. Census Bureau may not reflect how communities and individuals experience or define race and ethnicity for themselves. In addition, other organizations and data sources may define and collect race/ethnicity differently from the U.S. Census Bureau, so there could be discrepancies between data from different sources.

The U.S. Census Bureau states:

“ **Hispanics or Latinos** are those people who classified themselves in one of the specific Spanish, Hispanic, or Latino categories listed on the Census 2010 questionnaire - "Mexican," "Puerto Rican", or "Cuban"—as well as those who indicate that they are "another Hispanic, Latino, or Spanish origin." People who do not identify with one of the specific origins listed on the questionnaire but indicate that they are "another Hispanic, Latino, or Spanish origin" are those whose origins are from Spain, the Spanish-speaking countries of Central or South America, or the Dominican Republic. The terms "Hispanic," "Latino," and "Spanish" are used interchangeably.

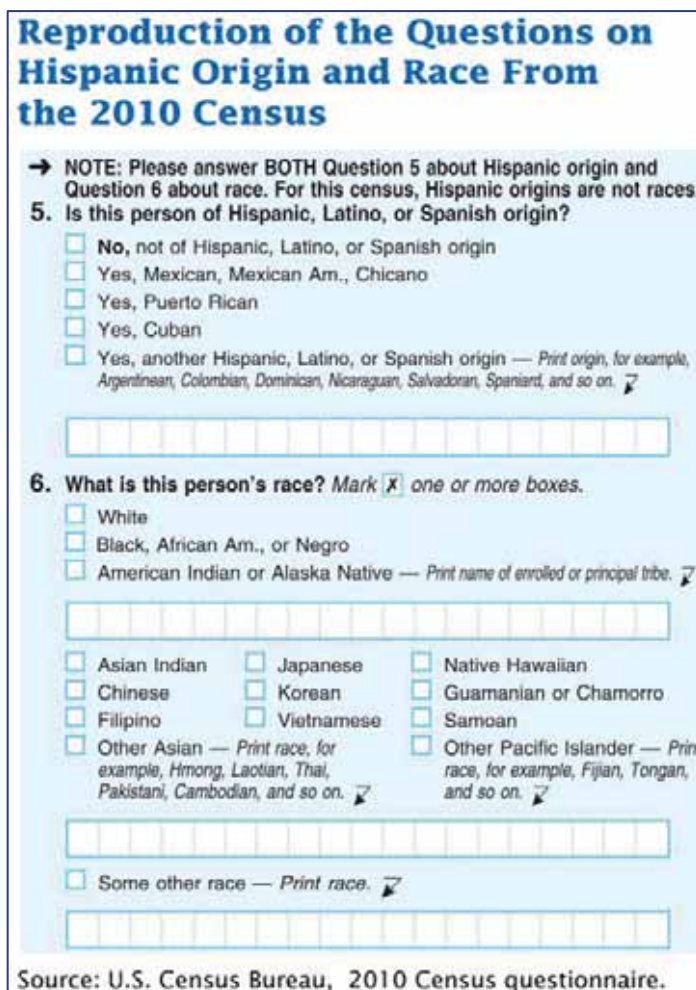
Origin can be viewed as the heritage, nationality group, lineage, or country of birth of the person or the person's parents or ancestors before their arrival in the United States.

*People who identify their origin as Spanish, Hispanic, or Latino may be of any race. Thus, the percent Hispanic should not be added to percentages for racial categories.*

**NonHispanic White persons** are those who responded "No, not Spanish/Hispanic/Latino" and who reported "White" as their only entry in the race question. More complete tallies that show race categories for Hispanics and nonHispanics separately are also available.

**The race categories** included in the census questionnaire generally reflect a social definition of race recognized in this country and are not an attempt to define race biologically, anthropologically, or genetically. In addition, it is recognized that the categories of the race question include race and national origin or sociocultural groups. The 2010 Census question on race included 15 separate response categories and three areas where respondents could write-in detailed information about their race. The response categories and write-in answers can be combined to create the five minimum race categories plus 'Some

Other Race’.”



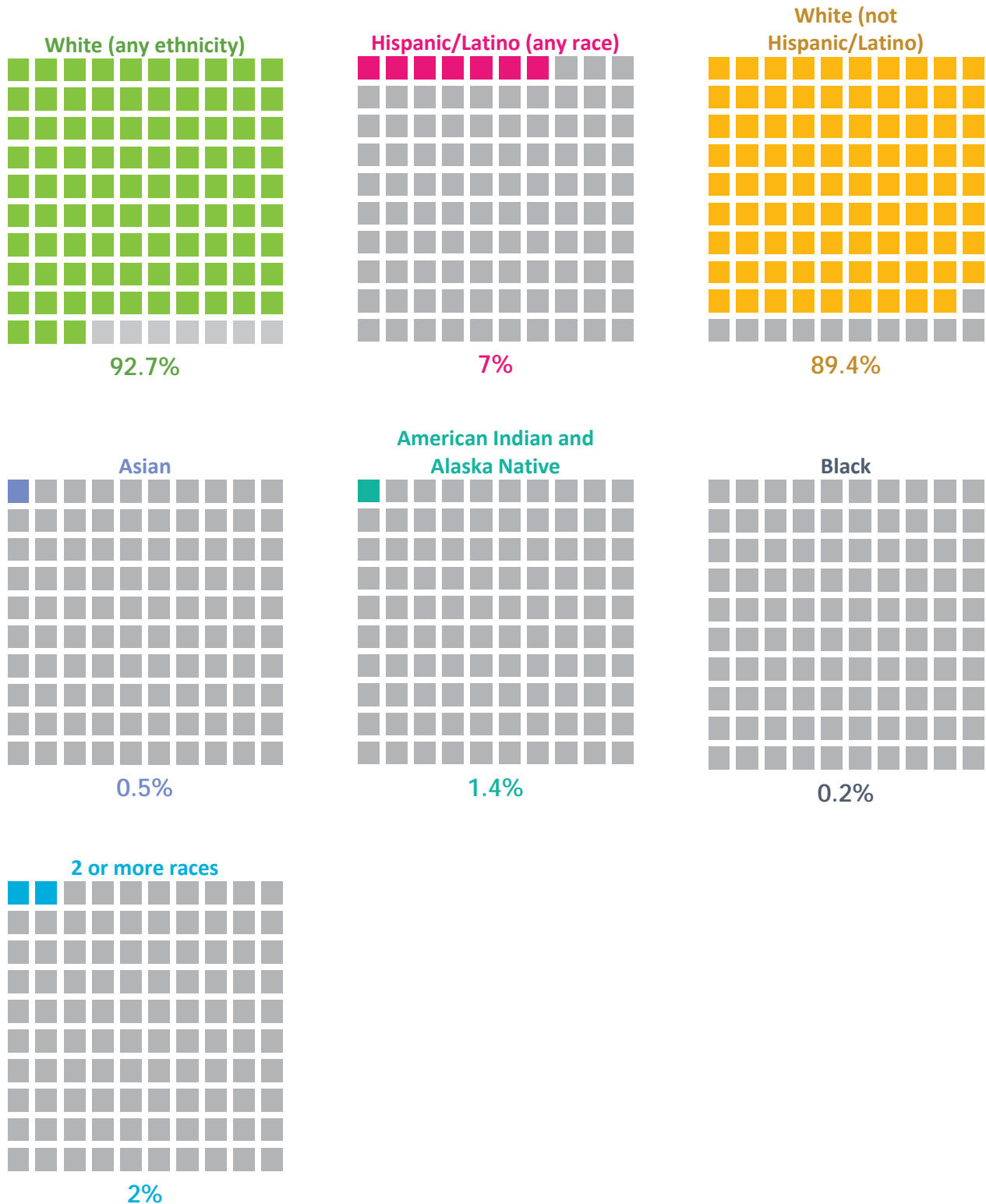
Read more about the census definitions and questions asked at: <http://www.census.gov/prod/cen2010/briefs/c2010br-02.pdf>

# DEMOGRAPHICS

Table 15 Race & Ethnicity, 2010

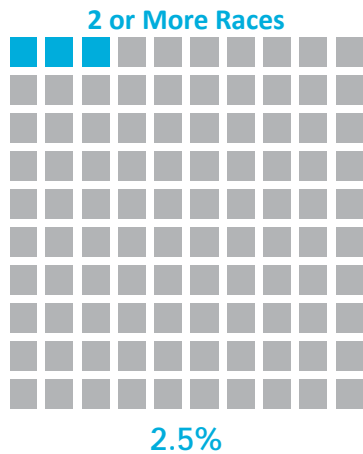
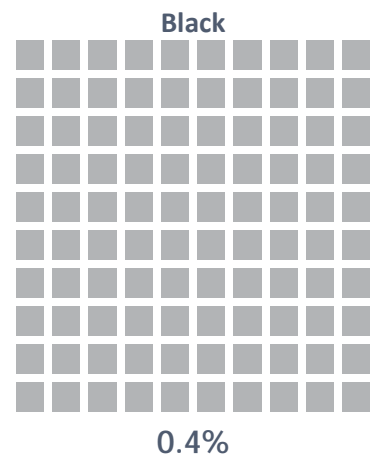
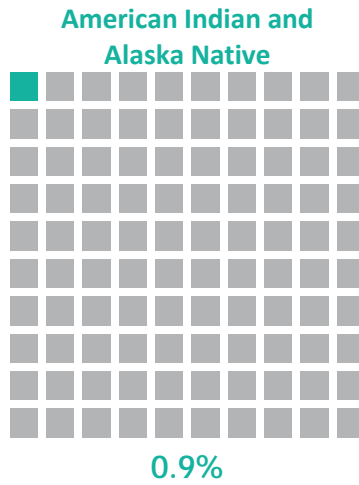
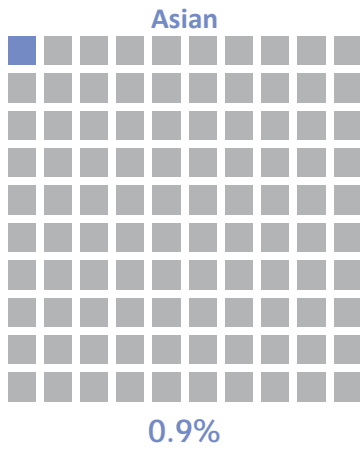
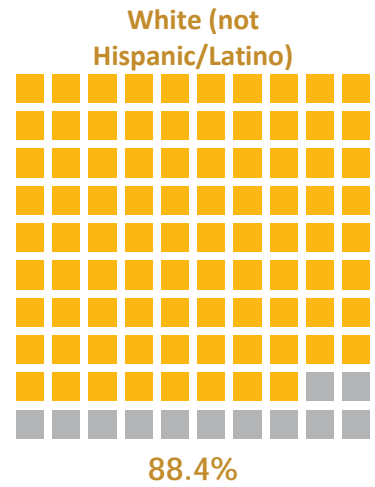
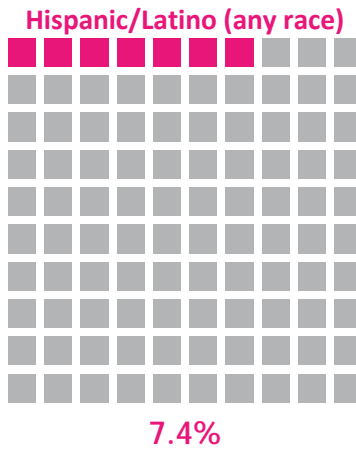
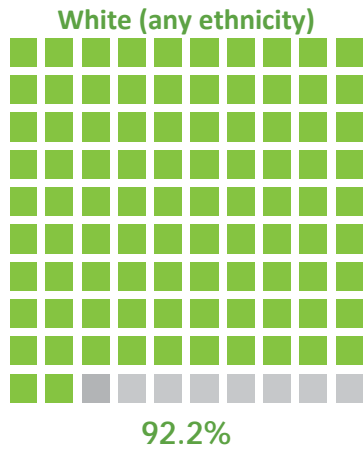
## Population Race & Ethnicity

### Crook County, 2010



# DEMOGRAPHICS

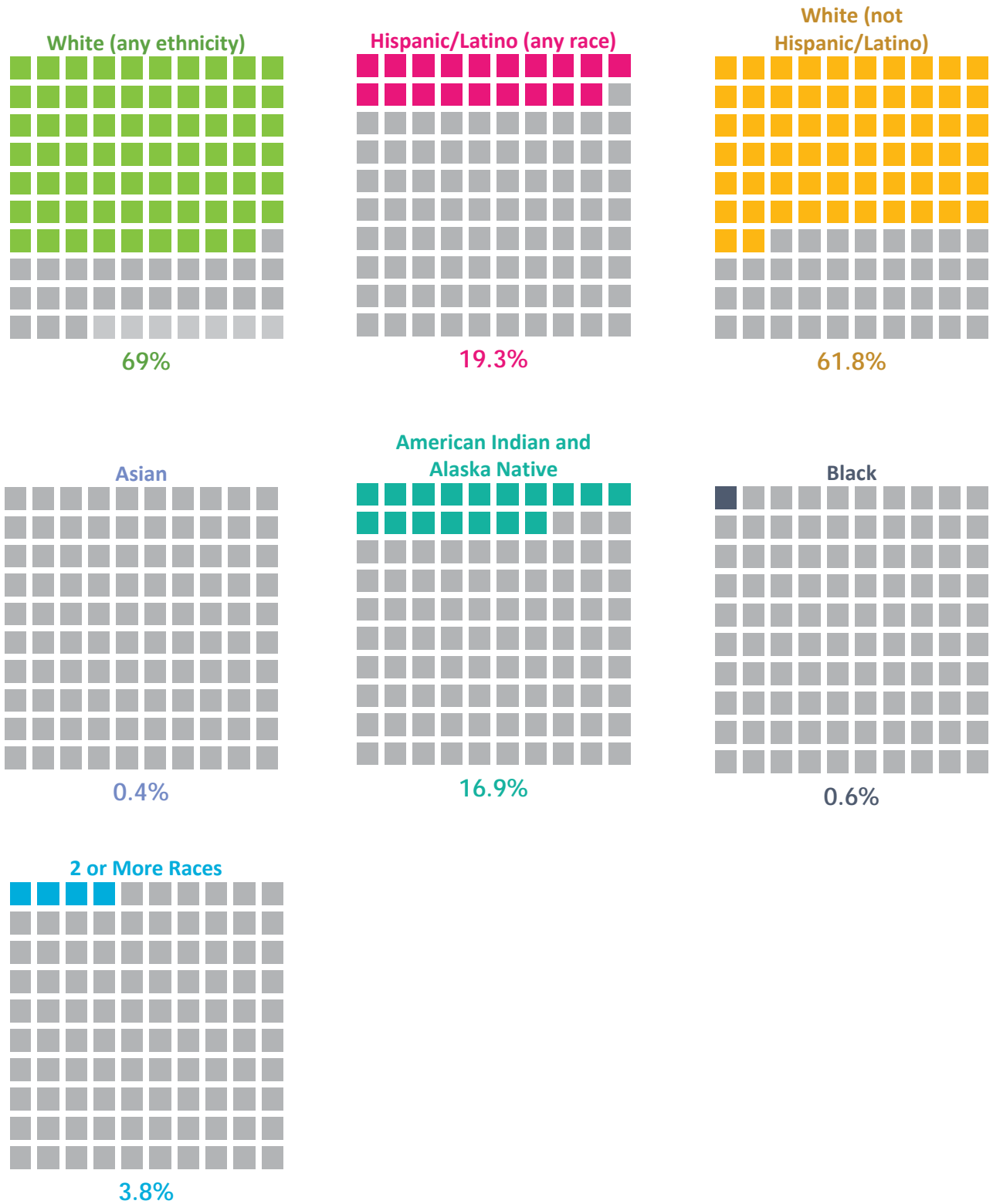
## Deschutes County, 2010





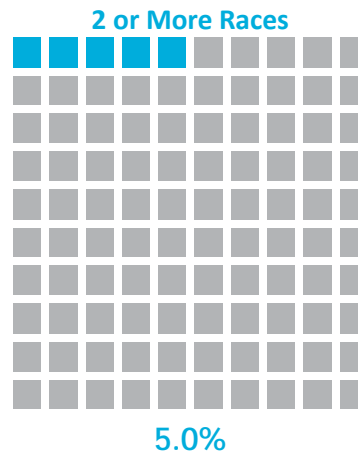
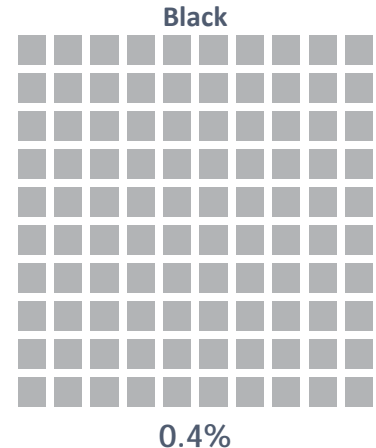
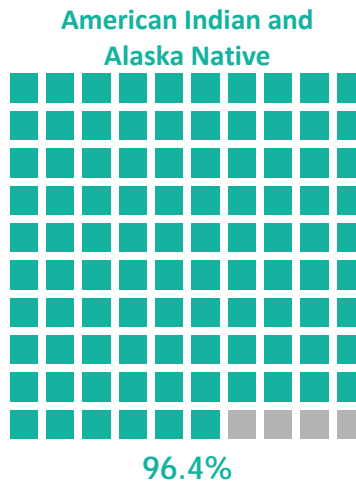
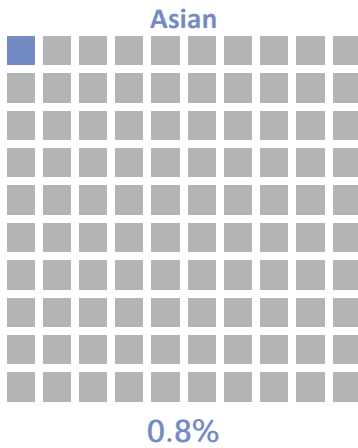
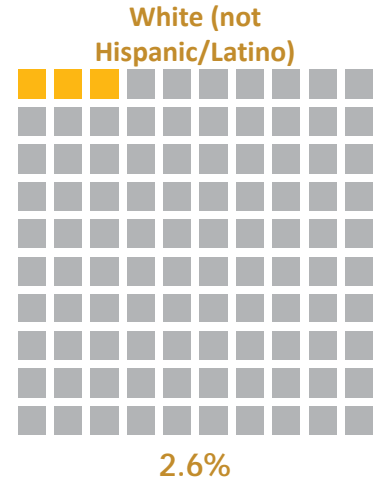
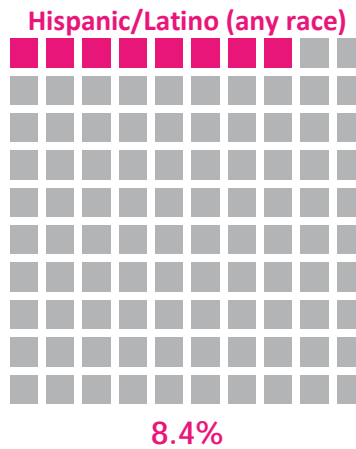
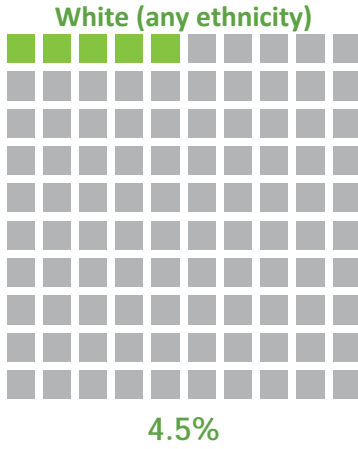
# DEMOGRAPHICS

## Jefferson County, 2010



# DEMOGRAPHICS

## Warm Springs CDP, 2010



# DEMOGRAPHICS

Table 16 Hispanic/Latino Population Counts, 2000-2010

## HISPANIC LATINO COUNTS AND CHANGE, 2000-2010



Census Count Hispanic/Latino Population: 2000-2010		
	2000 Census	2010 Census
Crook	1,082	1,463
Deschutes	4,302	11,718
Jefferson	3,372	4,195
Oregon	275,314	450,062

Portland State University, (2010). Oregon 2010 Percent Latino. Retrieved from <http://www.pdx.edu/prc/>  
 US Census Bureau, (2011), 2010 Census Interactive Population Search, Retrieved from <http://2010.census.gov/2010census/data/>  
 US Census Bureau, (2001), 2000 Profile of General Demographic Characteristics, Retrieved from <http://factfinder.census.gov/home/en/datanotes/>

# DEMOGRAPHICS

Table 17 Oregon Diversity & Population Size

## RACIAL/ETHNIC DIVERSITY

Ethnic/racial distribution of an area can be viewed with the diversity index.

The diversity index indicates the probability that 2 persons, chosen at random from a geographic area, will belong to different race or ethnic groups.

Homogenous areas with no differences in racial/ethnic backgrounds among residents have diversity scores of 0. As diversity increases, the diversity index increases to a maximum value of 1.

In this map by Oregon Health Authority's Office for Oregon Health Policy and Research, the darker blue & green colors relate to a higher diversity index—reflecting a higher probability that two persons chosen at random will be of different race or ethnic groups.

### Diversity Index, 2010

ESRI calculations for 2010 census data shows Central Oregon neighborhoods and communities experience a wide Diversity Index Range, as evidenced by the ESRI data. For example:

**Crook, 31.5%.** In the most diverse neighborhood block group (in Prineville), it is 57.2%.

**Deschutes, 26.4%** In the most diverse neighborhood block groups (both in Bend), they are 64.1% and 61.7%.

**Jefferson, 71.6%** In the most diverse neighborhood block groups (both in Madras), they are 86.5% and 85.6%.

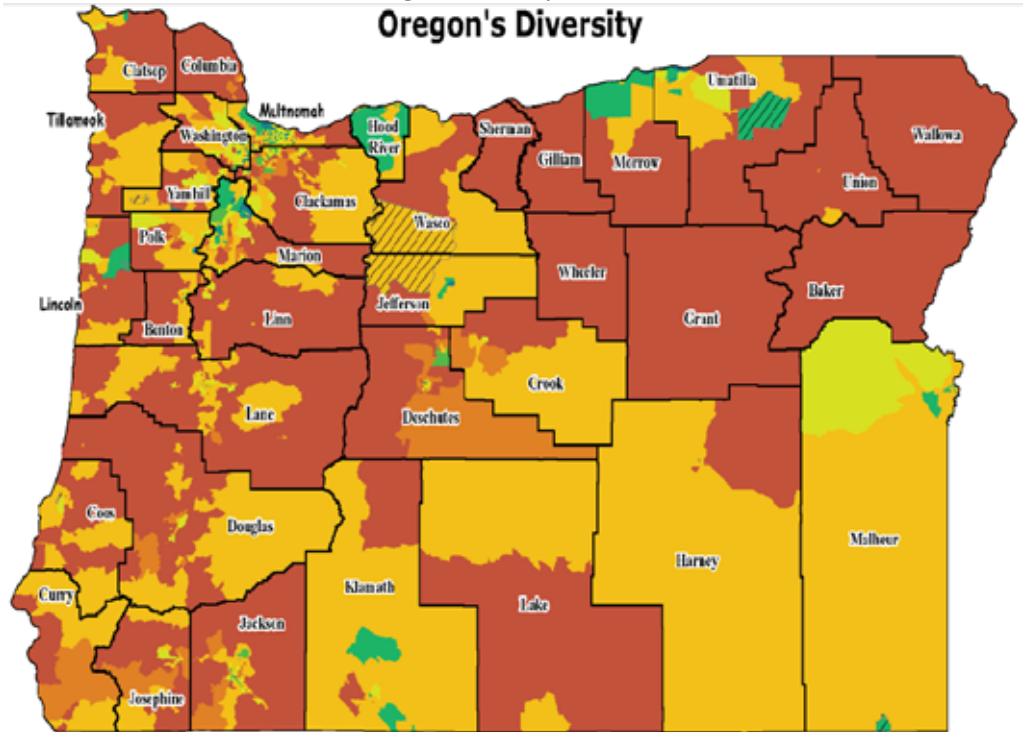
In Central Oregon, the probability of 2 randomly selected individuals being of different race or ethnic groups ranges from an 11% chance to an 86.5% chance.

(US Census, 2010; ESRI Diversity Index, 2010)

ESRI D.I. Calculations from: Esri, DeLorme, NAVTEQ, TomTom, Intermap, iPC, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Esri Japan, METI, Esri China (Hong Kong), and the GIS User Community (2008) Retrieved from <http://www.arcgis.com/explorer/>

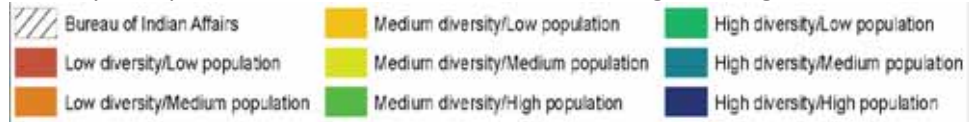
Oregon Diversity, 2008

### Oregon's Diversity



Note: This OHA/DHS Office of Health Policy & Research map looks at 2008 ESRI projections based on 2000 U.S. Census Demographic Information for Census blocks.

Diversity & Population size are each broken into 3 categories: high, medium and low.

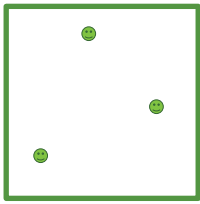


Map from: OHA/DHS, Office of Health Policy and Research (May 2011). Research Brief: Health Equity. <http://www.oregon.gov/OHA/oei/docs/health-equity-brief.pdf?ga=t>

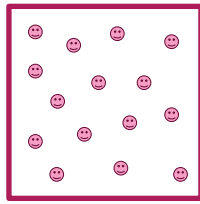
# DEMOGRAPHICS

Table 18 Urban & Rural Population

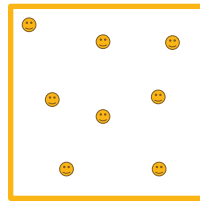
## POPULATION DENSITY OF RURAL AREAS (average population per square mile)



CROOK  
3.4 people



DESCHUTES  
14.7 people



JEFFERSON  
7.7 people

According to an analysis of National Health Interview Survey and Medical Expenditure Panel Survey data in 2008, “health status is generally worse among rural residents compared to urban residents and...this situation has persisted for the past two decades” ([Rural Assistance Center Public Health FAQs](#)). Even after adjusting for age, the analysis found residents in rural areas were more likely to report fair or poor health and have higher prevalence of chronic disease. A report on rural health disparities in 2001 from the CDC found higher rates of obesity, cigarette smoking and total tooth loss.

## POPULATION DENSITY OF URBAN AREAS (average population per square mile)

	Urban Cluster	Urban Areas
CROOK	1,724.2	--
DESCHUTES	1,750.1	2,110
JEFFERSON	1,503.7	--

\*Density is the average population per square mile

urban counterparts in order to be successful. Geographic location and population density alone make rural communities distinctly different from cities and urban centers. As plans to improve Central Oregon emerge, they must consider the distinct needs, strengths and perspectives of our rural residents.

Higher proportions of residents in Central Oregon live in rural areas compared to the United States. Crook County has the lowest population density in rural areas—only 3.4 people per square mile—yet its density in its urban cluster (Prineville) is nearly the

## Rural Population

	population rural	% pop. rural	
Crook	10,073	48.02%	
Deschutes	4,3603	27.64%	
Jefferson	13,710	63.12%	
U.S.	59,492,267	19.30%	

Underlying issues impacting the health of rural communities include lower wages, high costs for housing compared to wages, fewer jobs, high numbers of uninsured or underinsured, increased risk of poverty, and lack of educational opportunities.

Given the infrastructure of rural areas, strategies to improve the public’s health may need to be different from strategies used by

## Rural Land Area

	area rural (sq. miles)	% land area rural
Crook	2,972.76	99.79%
Deschutes	2,961.14	98.11%
Jefferson	1,775.46	99.70%

same as Deschutes County’s urban cluster (Redmond). Deschutes has the only urban area in Central Oregon (Bend), with more than 2,000 people per square mile live. The majority of Jefferson County lives in rural areas. Jefferson has the highest percent and the largest total population living in rural areas in Central Oregon. Its urban cluster is less dense than Crook and Deschutes by more than 200 people per square mile.

### According to the US Census Bureau:

The Census Bureau's urban-rural classification is fundamentally a delineation of geographical areas, identifying both individual urban areas and the rural areas of the nation. The Census Bureau's urban areas represent densely developed territory, and encompass residential, commercial, and other non-residential urban land uses. For the 2010 Census, an urban area will comprise a densely settled core of census tracts and/or census blocks that meet minimum population density requirements, along with adjacent territory containing non-residential urban land uses as well as territory with low population density included to link outlying densely settled territory with the densely settled core. To qualify as an urban area, the territory identified according to criteria must encompass at least 2,500 people, at least 1,500 of which reside outside institutional group quarters.

### The Census Bureau identifies two types of urban areas:

- Urbanized Areas (UAs) of 50,000 or more people;
  - Urban Clusters (UCs) of at least 2,500 and less than 50,000 people.
- Rural encompasses all population, housing, and territory not included within an urban area.

The specific criteria used to define urban areas for the 2010 Census were published in the Federal Register of August 24, 2011.

<http://www.census.gov/geo/www/ua/2010urbanruralclass.html>

Data from: US Census Bureau & American Community Survey, 2010, <http://factfinder2.census.gov>

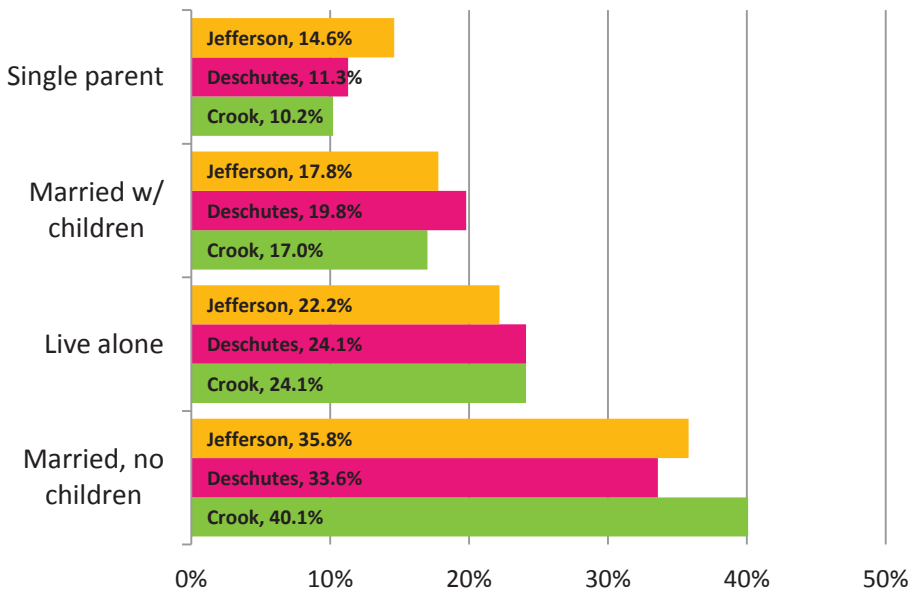
Rural Assistance Center, 2002-2012, Public Health FAQs. [http://www.raconline.org/topics/public\\_health/publichealthfaq.php#disparities](http://www.raconline.org/topics/public_health/publichealthfaq.php#disparities)

# DEMOGRAPHICS

Table 19 Demographics: Families & Households

## Families & Household Demographics

### Family Types by County, 2010



Crook County has the highest percentage of families that are married with no children in Central Oregon. It also has the highest percent of owner-occupied housing. This may be related to the age demographics in Crook County, where there is a larger proportion of older adults compared to the rest of Central Oregon.

In Deschutes and Crook Counties, nearly 1 in 4 families are individuals living alone. In Deschutes County, nearly 1 in 5 families are married with children.

**In Central Oregon, approximately 1 in 5 households have children under the age of 18**

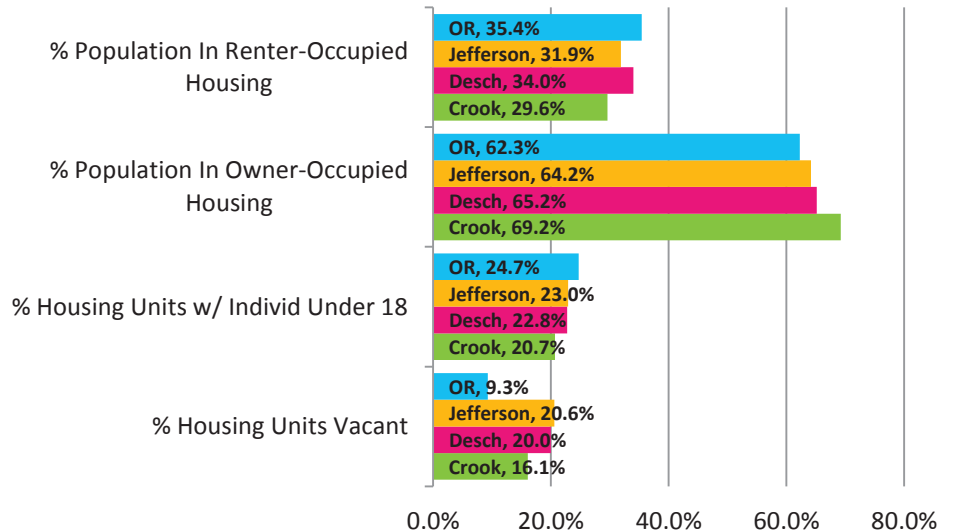
Jefferson County has the smallest percentage of families who live alone, while 1 in 3 families are married with no children.

### 1 out of every 5 Housing Units is VACANT

in Deschutes and Jefferson Counties.

Nearly 1 out of every 6 housing units is vacant in Crook County (according to 2010 US Census Data).

### Oregon Population Household Characteristics by County, 2010



US Census Bureau , (2011) 2010 Census Interactive Population Search, Retrieved from <http://2010.census.gov/2010census/data/>  
Data for American Indian and Alaska Native areas are shown for the portion within each state, and only as each state's data are released.

# SOCIO ECONOMIC HEALTH

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# SOCIO ECONOMIC HEALTH

Table 20 Per Capita Income

## PER CAPITA INCOME

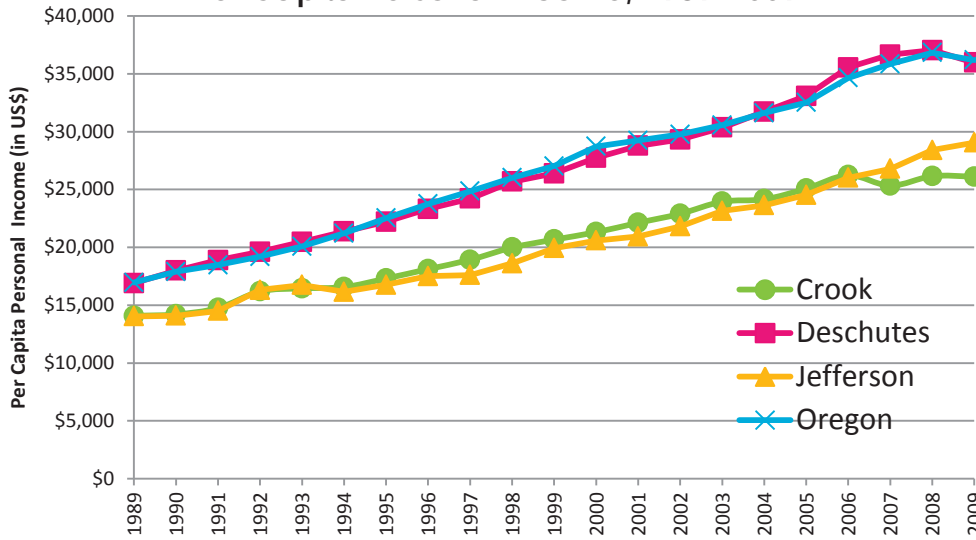
### What is Per Capita Income?

Per capita income is income per person. This figure is calculated by aggregating all the sources of income in the region and dividing that total income by the population. As an indicator of a region's aggregated income, it is not a measure of a region's wealth because

it does not account for the distribution of income. Higher per capita income is thought to be related to greater prosperity. However, this indicator should always be interpreted in conjunction with other economic indicators.

Since 1989, Deschutes' per capita income has been nearly equivalent the state of Oregon. Crook and Jefferson's per capita incomes have been lower than Oregon—the difference is larger in recent years than it was in 1989 and the early 1990s.

Per Capita Personal Income, 1989-2009



Notes: population figures use census bureau midyear population estimates. Estimates for 2000-2009 reflect county population estimates available

as of April 2010; per capita personal income was computed using census bureau midyear population estimates. Estimates for 2000-2009 reflect county population estimates available as of April 2010; all state and local area dollar estimates are in current dollars (not adjusted for inflation).

### What is Median Household Income?

Household income is the sum of money income received in 1 year by any member of the household at least 15 years of age. The median value is the middle value in the entire range of household income values. Median household income can be a more robust indicator of central values than averages (arithmetic means) in the presence of extreme outliers.

This indicator compares the estimated median household income in 2009 (US dollars) between the tri-counties, the state of Oregon and the United States, with 90% confidence intervals.

### Why this is important

Median household income is considered an indicator of relative affluence in areas. When an area has higher median incomes, it is believed that the population is also likely to have lower rates of unemployment and higher educational attainment. In turn, these indicators are related to access to health care, nutrition, resources, and ultimately, health outcomes.

In Crook and Jefferson, the median household income is lower than Oregon and the US at a statistically significant level (.10). In Deschutes, the median household income is higher than Oregon at a statistically significant level, but not the US.

Median household income, In dollars, 2009		
	Estimate	90% C.I.
Crook	<b>\$42,342</b>	\$38,392 to 46,292
Deschutes	<b>\$51,959</b>	\$49,511 to 54,407
Jefferson	<b>\$38,132</b>	\$35,081 to 41,183
Oregon	<b>\$48,325</b>	\$47,730 to 48,920
US	<b>\$50,221</b>	\$50,147 to 50,295

US Census Bureau Small Area Income and Poverty Estimates, State and County Data (2011), 2009 SAIPE Interactive Data Tables, State and County Data, Retrieved from <http://www.census.gov/cgi-bin/saie/saie.cgi>



# SOCIO ECONOMIC HEALTH

Table 21 Central Oregon Median Household Income by Census Tract, 2005-2009

## MEDIAN HOUSEHOLD INCOME Rank of Central Oregon Census Tracts, 2005-2009

	Rank#	Tract	County	Median Income (\$)		Lower CI (\$)	Upper CI (\$)
TOP 25% of Central Oregon Census Tracts	1	9902	Deschutes	\$82,000	↑	63,804	100,196
	2	9912.02	Deschutes	\$75,094	↑	66,607	83,581
	3	9913	Deschutes	\$74,943	↑	68,347	81,539
	4	9907	Deschutes	\$71,151	↑	57,933	84,369
	5	9914	Deschutes	\$65,015	↑	61,243	68,787
	6	9906	Deschutes	\$62,379	↑	56,030	68,728
	7	9912.01	Deschutes	\$61,087	↑	54,904	67,270
	8	9920	Deschutes	\$60,862	↑	54,587	67,137
	9	9918	Deschutes	\$60,368	↑	55,996	64,740
	10	9908	Deschutes	\$54,714	↑	48,880	60,548
	11	9501	Crook	\$53,491		47,257	59,725
	12	9911	Deschutes	\$52,225		49,683	54,767
	13	9919	Deschutes	\$52,104		47,122	57,086
	14	9905	Deschutes	\$52,070		47,077	57,063
	15	9917.01	Deschutes	\$47,282		41,344	53,220
↑ ABOVE State of Oregon Median Income (\$49,033) ↑							
↓ BELOW State of Oregon Median Income (\$49,033) ↓							
	16	9601	Jefferson	\$46,061		33,699	58,423
	17	9917.02	Deschutes	\$45,751		43,054	48,448
	18	9502	Crook	\$45,174		37,369	52,979
	19	9503	Crook	\$45,021		40,693	49,349
	20	9603	Jefferson	\$44,942		39,966	49,918
	21	9904	Deschutes	\$43,854		36,701	51,007
	22	9909	Deschutes	\$40,764	↓	37,643	43,885
BOTTOM 25% of Central Oregon Census Tracts	23	9916	Deschutes	\$39,467	↓	35,341	43,593
	24	9602	Jefferson	\$38,467	↓	35,476	41,458
	25	9504	Crook	\$38,378	↓	33,558	43,198
	26	9910	Deschutes	\$37,913	↓	31,737	44,089
	27	9903	Deschutes	\$35,370	↓	30,308	40,432
	28	9604	Jefferson	\$35,089	↓	28,033	42,145
	29	9915	Deschutes	\$35,037	↓	28,877	41,197

↑ = Significantly higher median than state (at the 0.90 level)  
 ↓ = Significantly lower Median than state (at the 0.90 level)

\*90% Confidence Interval

U.S. Census Bureau, 2005-2009 American Community Survey 5-Year Estimates Median household income in the past 12 months (in 2009 inflation-adjusted dollars). Retrieved from [http://www.census.gov/acs/www/data\\_documentation/2009\\_acs\\_maps/](http://www.census.gov/acs/www/data_documentation/2009_acs_maps/). Reference maps: [http://www2.census.gov/plmap/pl\\_trt/st41\\_Oregon/](http://www2.census.gov/plmap/pl_trt/st41_Oregon/)

# SOCIO ECONOMIC HEALTH

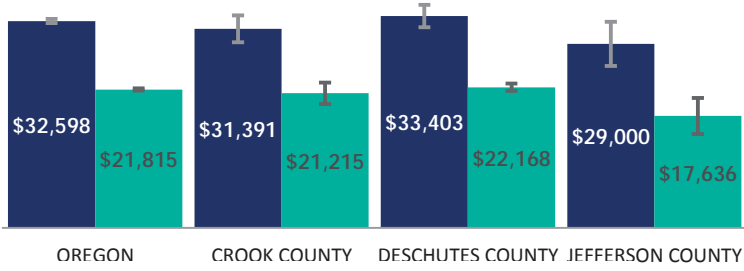
Table 22 Median Income & Gender

## GENDER & MEDIAN HOUSEHOLD INCOME

### Median Household Income in Central Oregon, 2006-2010

American Community Survey (ACS) gathers information on earnings—defined as the sum of wages, salary and net self-employment income, and does not include other income sources such as property income, government cash transfers, or other types of cash income. Estimates are restricted to full-time, year-round workers 16 years or older. “Year-round” means an individual must have worked for 50 weeks or more in the past 12 months (including paid vacation and sick leave). “Full-time” means the individual worked 35 hours or more per week in the weeks they worked.

### GENDER DIFFERENCES IN MEDIAN FULL-TIME EARNINGS, 2006-2010



Note: Bars represent 90% confidence intervals (margin of error).

The median household income for Crook County and Jefferson County are below Oregon and the U.S. (all statistically significant at the .10 level) while Deschutes County is higher than Oregon (statistically significant) and the U.S. (not statistically significant).

Within each county there are wide ranges of experience missed when looking only at the county level. For example, gender and ethnicity determine substantial differences in earnings among full-time workers in nearly every census tract.

Women’s earnings were lower than men’s in 32 of 34 census tracts in Central Oregon. In 14 of these census tracts, the difference is statistically significant (at .10 level). For full-time, year-round workers, the ACS median earnings for women in Central Oregon were, on average, 69.6% of men’s earnings. Women are making less now compared to men than 2005-2009, when women’s median income was 72.4% of men’s earnings. The average median income for men in Central Oregon was \$32,171, compared to \$29,674 for women. The income earnings in 2006-2010 are down from 2005-2009 estimates, where the average median income in Central Oregon was \$40,990 for men and \$29,674 for women.

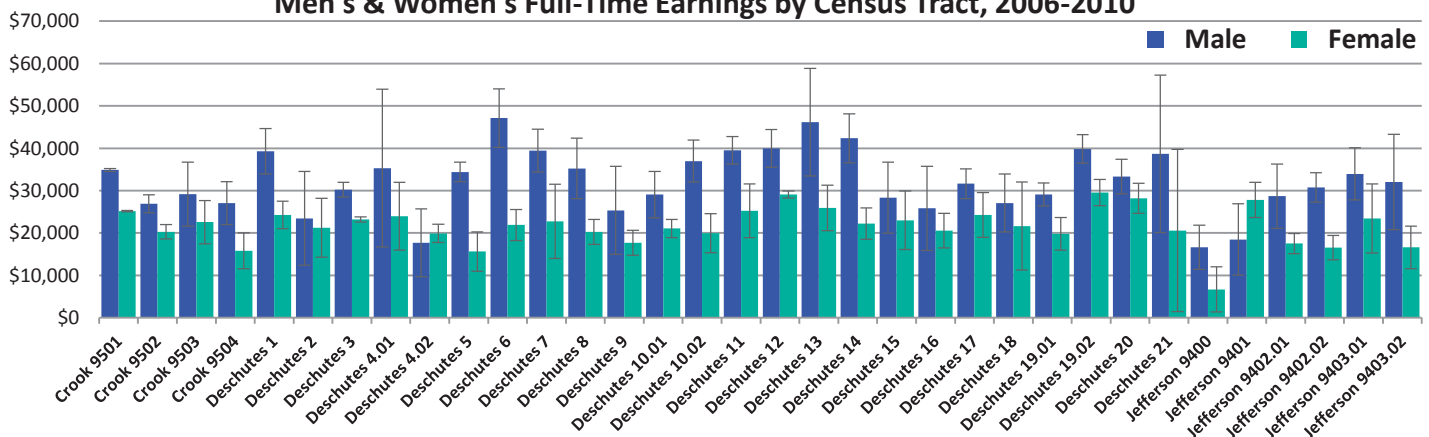
Among Central Oregon’s Census Tracts, the average difference in median income is \$10,569 lower for women (median difference: \$10,404). In Jefferson’s census tract 9400, women earn 40.4% of men’s earnings. In 12 census tracts, women earn less than 59% of men’s earnings (1 of 4 tracts in Crook, 8 of 24 tracts in Deschutes, and 3 of 6 tracts in Jefferson).

### FEMALES WHO WORK FULL-TIME, YEAR-ROUND MAKE

- 33.1% LESS in Oregon
- 32.4% LESS in Crook
- 33.6% LESS in Deschutes
- 39.2% LESS in Jefferson

THAN MALES.

### Men's & Women's Full-Time Earnings by Census Tract, 2006-2010



American Community Survey (ACS) Estimates for Adults who worked year-round full-time for past 12 months. 2010 inflation-adjusted dollars. US Census, 2006-2010 American Community Survey 5-Year Estimates B20002 Median earnings in the past 12 months (in 2010 inflation adjusted dollars) by sex for the population. Retrieved from <http://www.census.gov/acs/>

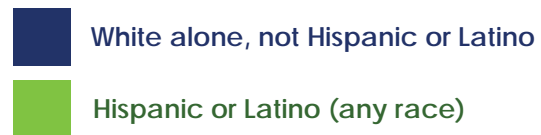
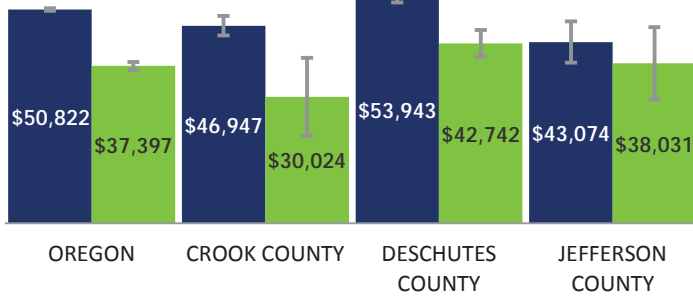
LOCATE REFERENCE MAPS HERE: [http://www.census.gov/geo/www/maps/pl10\\_map\\_suite/st41\\_tract.html](http://www.census.gov/geo/www/maps/pl10_map_suite/st41_tract.html)

# SOCIO ECONOMIC HEALTH

Table 23 Household Income & Ethnicity

## HOUSEHOLD MEDIAN INCOME BY CENSUS TRACT & ETHNICITY, 2006-2010

### DIFFERENCES IN HOUSEHOLD MEDIAN INCOME BY ETHNICITY, 2006-2010



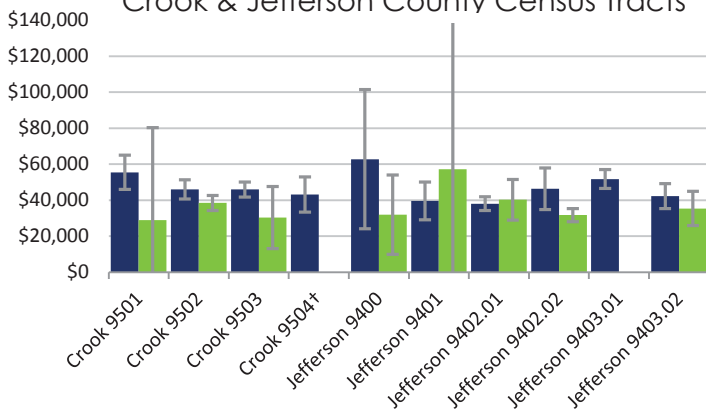
Note: Bars represent 90% confidence intervals (margin of error).

Substantial differences in household median income are seen when comparing by ethnicity (“white alone, not Hispanic or Latino”, “Hispanic or Latino”). In Central Oregon and in the state of Oregon, Hispanic/Latinos households make less than white non-Hispanic/Latinos.

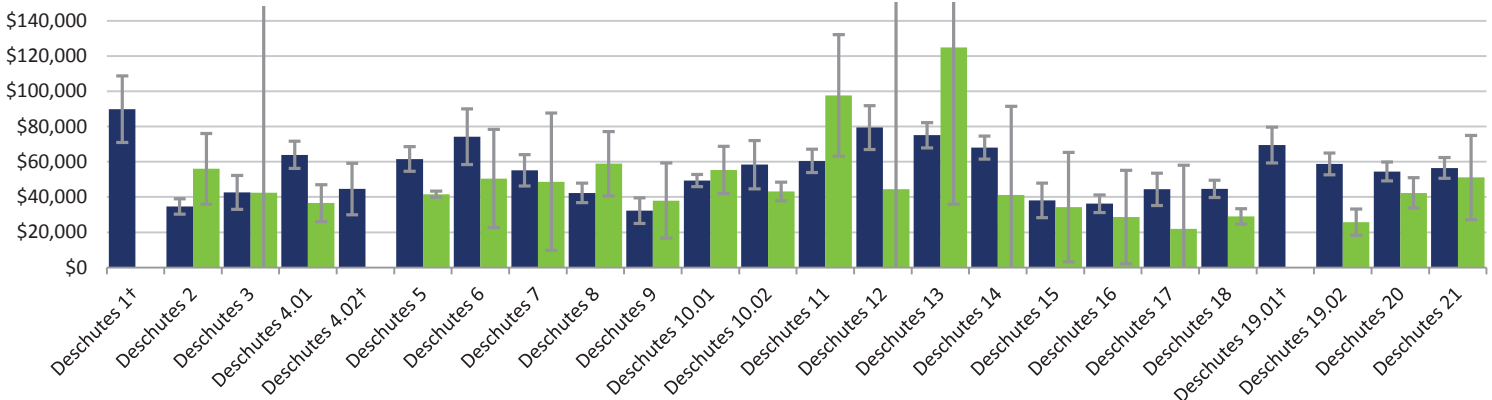
This difference is statistically significant (at the .10 level) in Crook County, Deschutes County and the state of Oregon. Only in Jefferson County is the disparity not statistically significant and the difference less than \$6,000.

Examining per capita income, Hispanic/Latinos make less per capita in most census tracts than whites (white alone, not Hispanic or Latino). Some of the disparities are statistically significant, while others are not.

### Crook & Jefferson County Census Tracts



### Deschutes County Census Tracts



\*Ethnicity, as defined by the U.S. Census Bureau, consists of 2 categories: Hispanic/Latino and Not Hispanic/Latino. For more information regarding the federal use of race & ethnicity for census data, refer to the **Demographics** section of this report.

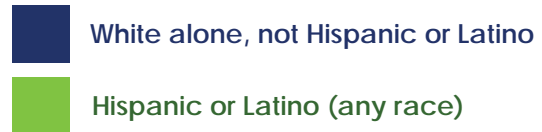
Note: Bars represent 90% confidence intervals (margin of error)

†No data available or sample size too small for Hispanic/Latino earnings to include sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see “Accuracy of the Data” from the ACS website). The effect of nonsampling error is not represented in these tables.

US Census, 2006-2010 American Community Survey 5-Year Estimates. S1903: MEDIAN INCOME IN THE PAST 12 MONTHS (IN 2010 INFLATION-ADJUSTED DOLLARS)

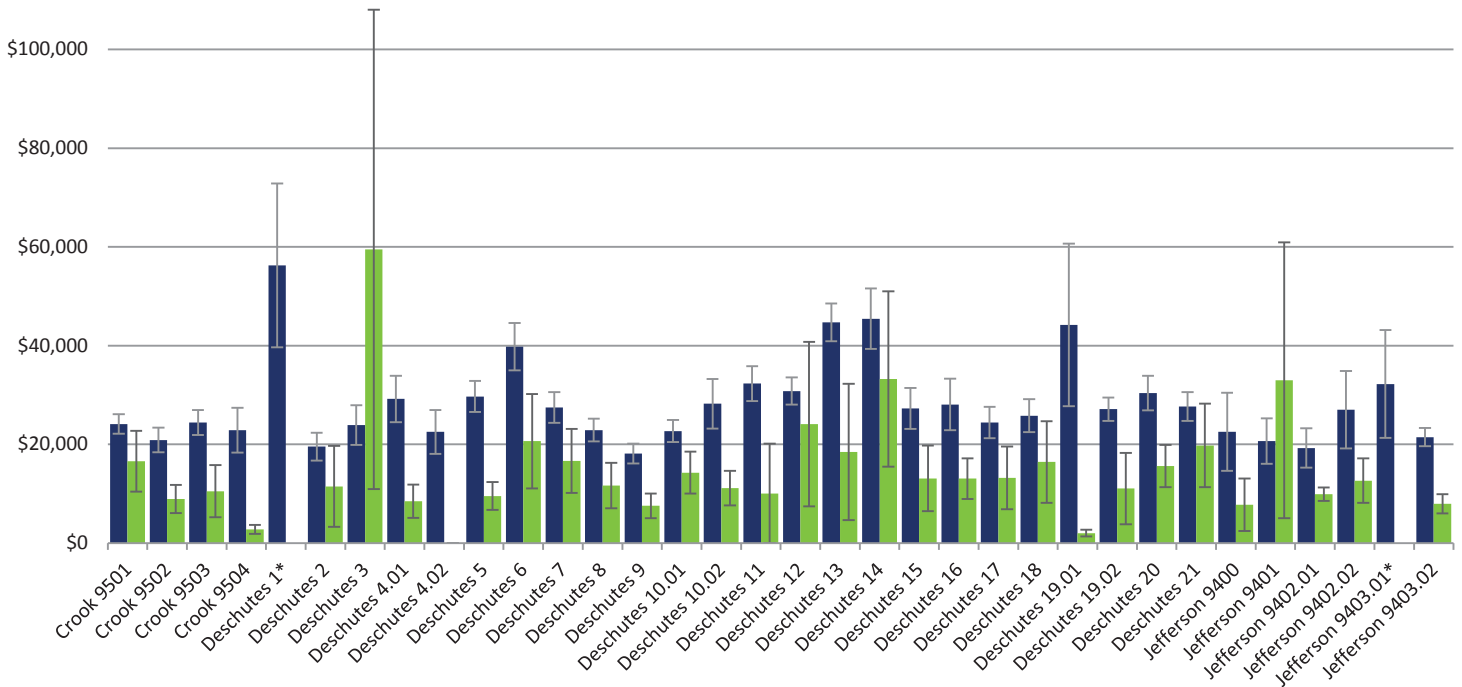
Retrieved from <http://www.census.gov/acs/> LOCATE REFERENCE MAPS HERE: [http://www.census.gov/geo/www/maps/pl10\\_map\\_suite/st41\\_tract.html](http://www.census.gov/geo/www/maps/pl10_map_suite/st41_tract.html)

# SOCIO ECONOMIC HEALTH



Note: Bars represent 90% confidence intervals (margin of error).

## DIFFERENCES IN PER CAPITA INCOME, BY CENSUS TRACT & ETHNICITY, 2006-2010



\*Data absent from US Census Bureau ACS data at time of this report US Census, 2006-2010 . American Community Survey 5-Year Estimates. B139301 Per Capita income in the past 12 months (In 2010 Inflation-Adjusted Dollars). Retrieved from <http://www.census.gov/acs/>

\*Ethnicity, as defined by the U.S. Census Bureau, consists of 2 categories: Hispanic/Latino and Not Hispanic/Latino. For more information regarding the federal use of race & ethnicity for census data, refer to the **Demographics** section of this report.

Note: Bars represent 90% confidence intervals (margin of error)

†No data available or sample size too small for Hispanic/Latino earnings to include sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see "Accuracy of the Data" from the ACS website). The effect of nonsampling error is not represented in these tables.

US Census, 2006-2010 American Community Survey 5-Year Estimates. S1903: MEDIAN INCOME IN THE PAST 12 MONTHS (IN 2010 INFLATION-ADJUSTED DOLLARS) Retrieved from <http://www.census.gov/acs/>

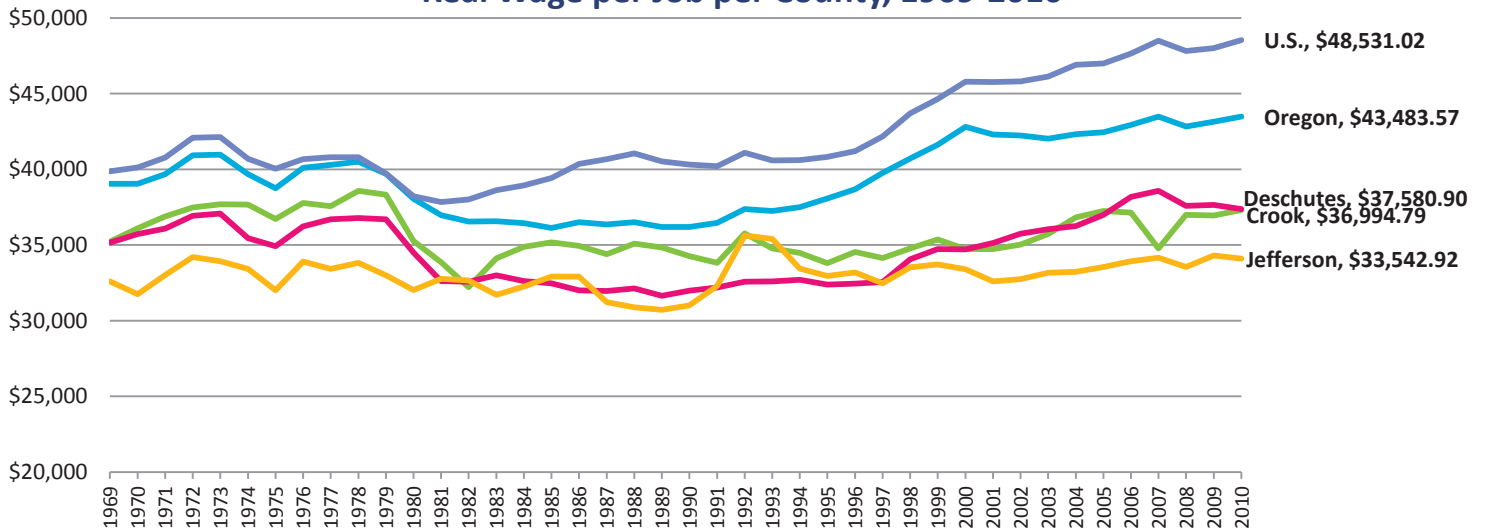
LOCATE REFERENCE MAPS HERE: [http://www.census.gov/geo/www/maps/pl10\\_map\\_suite/st41\\_tract.html](http://www.census.gov/geo/www/maps/pl10_map_suite/st41_tract.html)

# SOCIO ECONOMIC HEALTH

Table 24 Wages & Jobs

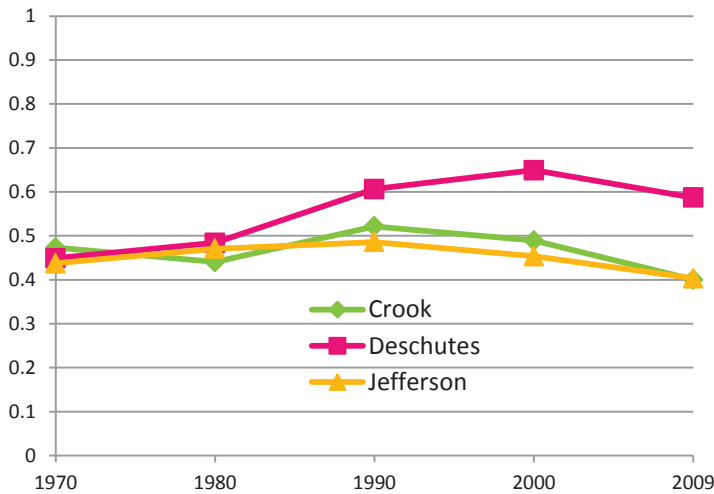
## WAGES & JOBS

### Real Wage per Job per County, 1969-2010



Note: the employment estimates used to compute the average wage are a job—not person—count. People holding more than one job are counted in the employment estimates for each job they hold. The consumer price index (cpi) is a measure of inflation. Here, dollar values are adjusted by the cpi-u—the cpi for all urban consumers—and is the most commonly used cpi. Using the cpi to put dollar values in “real” terms makes it easier to see “inflation-free” change over time. The base year is 2011, which means all dollar values are in terms of 2011 dollars. For more information, see <http://www.bls.gov/cpi/home.htm>

### JOBS PER CAPITA: RATIO OF JOBS TO TOTAL POPULATION, BY COUNTY, 1970, 1980, 1990, 2000, & 2009



Note: Calculated using Population Data and Employment Data

In the last 4 decades, Central Oregon wages per job per county have been lower Oregon and the United States. Wages per job began to decline after 1979. After fluctuation in the 1980s, Central Oregon’s wages per job increased again in the early 1990s. Central returned to the pre-1980 wages after 2000 (2011 inflation-adjusted dollars).

Since 1980, there have been more jobs per person in Deschutes than Crook and Jefferson. Since 1990, jobs per capita in Crook and Jefferson have declined

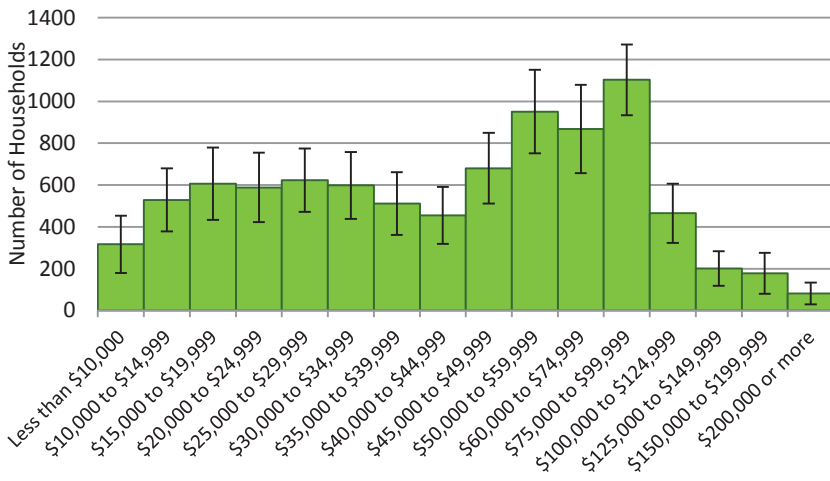
Indicators Northwest, 1969-2010: Wage per job (adjusted for inflation). Retrieved from <http://www.indicatorsnorthwest.org>  
 Bureau of economic analysis, regional economic data, local area personal income, Table CA34, retrieved from <http://www.bea.gov/regional/reis/>  
 US Census Bureau, 1970 & 1980: U.S. Bureau of the Census, County Population Census Counts, Retrieved from <http://www.census.gov/population/www/censusdata/cencounts.html>  
 US Census Bureau, 1990 & 2000: U.S. Bureau of the Census, American Factfinder, Retrieved from <http://factfinder.census.gov/>;  
 US Census Bureau, 2001-2009: U.S. Bureau of the Census, Population Estimates Program, Retrieved from <http://www.census.gov/popest/counties/>

# SOCIO ECONOMIC HEALTH

Table 25 Household Income

## HOUSEHOLD INCOME IN 12 MONTHS, 2006-2010

### Crook County

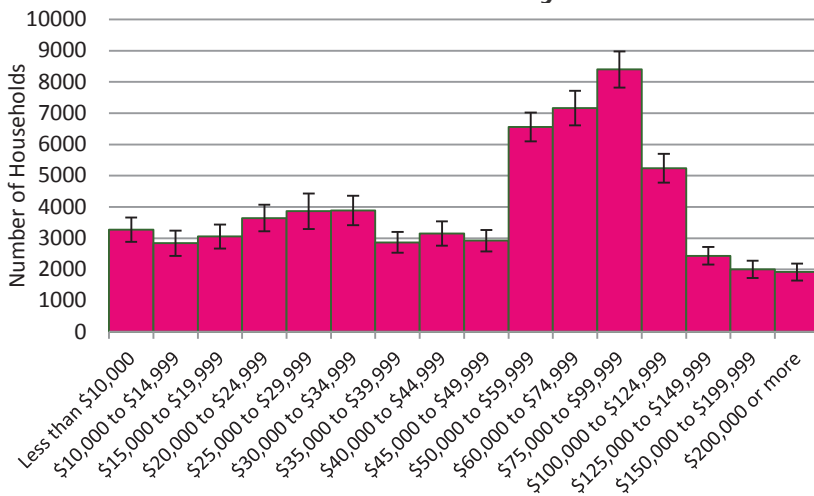


Total Households: 8,754 (+/- 268)

50% of households make LESS than **\$46,059**  
 50% of households make MORE than

Median Income (2006-2010): \$46,059 (+/- \$2,310)

### Deschutes County

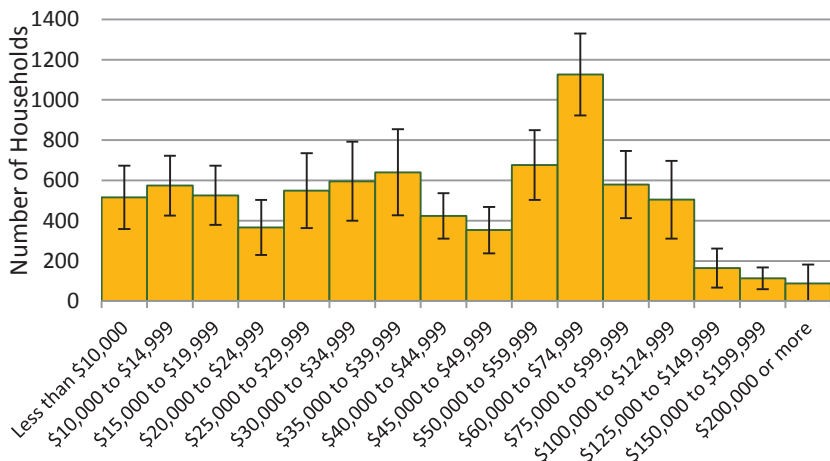


Total Households: 63,190 (+/- 874)

50% of households make LESS than **\$53,071**  
 50% of households make MORE than

Median Income (2006-2010): \$53,071 (+/- \$1,384)

### Jefferson County



Total Households: 7,795 (+/- 267)

50% of households make LESS than **\$41,425**  
 50% of households make MORE than

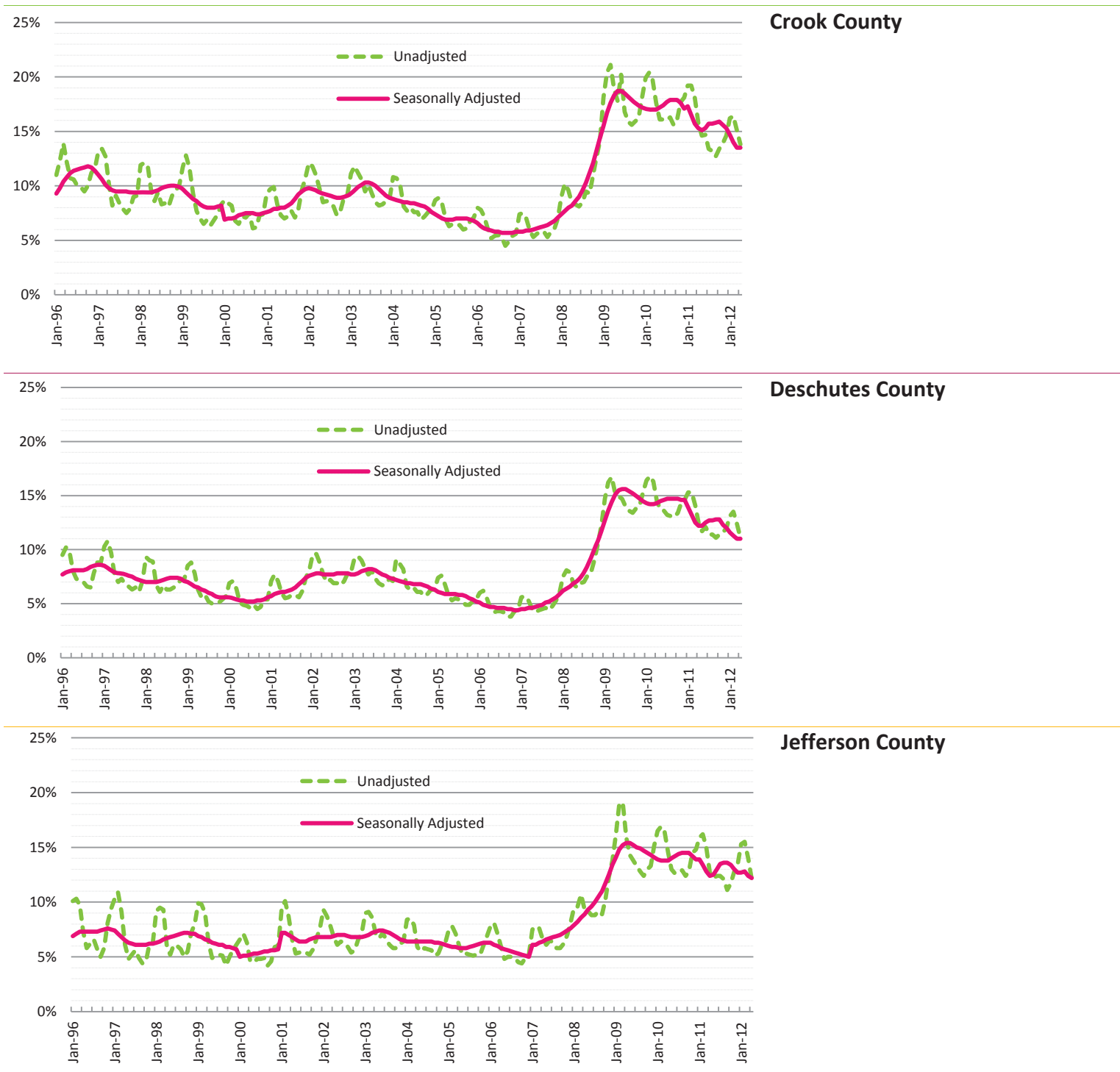
Median Income (2006-2010): \$41,425 (+/- \$3,356)

U.S. Census Bureau, 2006-2010 American Community Survey, Household Income in the Past 12 Months (In Inflation-Adjusted dollars) Table: B19001. Household income in the past 12 months (in 2010 inflation adjusted dollars) Retrieved from <http://factfinder2.census.gov>

# SOCIO ECONOMIC HEALTH

Table 26 Unemployment

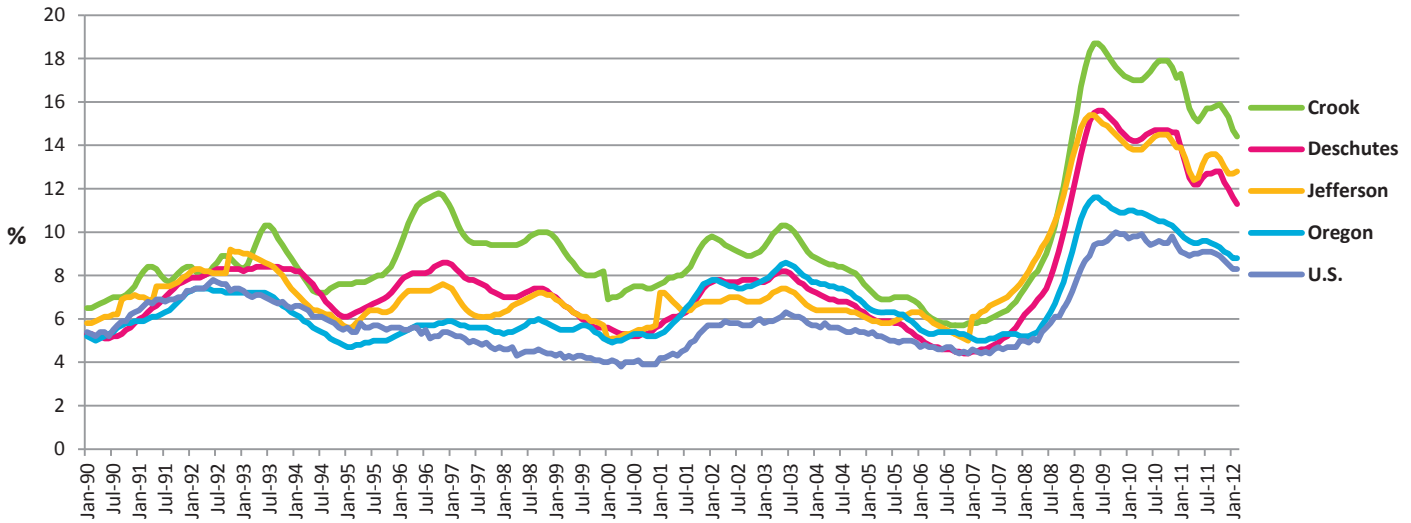
## UNEMPLOYMENT RATES, JANUARY 1996 TO APRIL 2012



Oregon Labor Market Information System (OLMIS), (03 April 2012) Oregon Employment Department, Local Area Unemployment Statistics, 01/1996 – 02/2012, Retrieved from <http://www.qualityinfo.org/olmisj/labforce>

# SOCIO ECONOMIC HEALTH

## SEASONALLY-ADJUSTED UNEMPLOYMENT RATES, JAN 1990 through FEB 2012



Oregon Labor Market Information System (OLMIS), (05 March 2012) Oregon Employment Department, Local Area Unemployment Statistics, 01/1990 – 2/2012, Retrieved from <http://www.qualityinfo.org/olmis/labforce>

Table 27 Economic Stress Index

### ASSOCIATED PRESS ECONOMIC STRESS INDEX BY COUNTY (POINT-IN-TIME ESTIMATES)

Indicator	CROOK		JEFFERSON		DESCHUTES	
	May 2011	October 2007**	May 2011	October 2007**	May 2011	October 2007**
Stress Index	<b>19.17</b>	6.44	<b>15.18</b>	6.94	<b>16.86</b>	5.78
Unemployment Rate†	<b>14.5%</b>	5.8%	<b>12%</b>	6.2%	<b>11.6%</b>	4.8%
Foreclosure Rate	<b>3.25%</b>	0.05%	<b>2.15%</b>	0.13%	<b>3.49%</b>	0.5%
Bankruptcy Rate	<b>2.29%</b>	0.63%	<b>1.5%</b>	0.65%	<b>2.55%</b>	0.54%

\*October 2007 is the first date Associated Press Economic Stress Index estimates were calculated, and is considered the beginning of the economic recession by AP.

†According to AP Economic Stress Index Estimates

The Associated Press uses data from: AP, US Census Bureau, Bureau of Labor Statistics, RealtyTrac, Public Access to Court Electronic Records (PACER), Internal Revenue Service, and Professor Tony Smith from University of Pennsylvania.

Associated Press, AP Economic Stress Index: May 2011, March 2011, & May 2009 Retrieved from [http://hosted.ap.org/specials/interactives/\\_national/stress\\_index/Content.swf](http://hosted.ap.org/specials/interactives/_national/stress_index/Content.swf)



# SOCIO ECONOMIC HEALTH

Table 28 Poverty Guidelines, 2012

## WHAT IS POVERTY?

Poverty is the state of one who lacks a certain amount of material possessions or money. **Absolute poverty** or *destitution* refers to the one who **lacks basic human needs**, which commonly includes **clean and fresh water, nutrition, health care, education**, clothing and shelter. About 1.7 billion people are estimated to live in absolute poverty today. **Relative poverty** refers to **lacking** a usual or socially acceptable level of resources or income **as compared with others** within a society or country.

## Current U.S. Federal Poverty Guidelines

**2012 Federal Poverty Level: Yearly Income**  
48 Contiguous States & the District of Columbia

Family Size	%Gross Yearly Income									
	25%	50%	75%	81%	100%	133%	175%	200%	250%	300%
1	\$2,793	\$5,585	\$8,378	\$9,048	\$11,170	\$14,856	\$19,548	\$22,340	\$27,925	\$33,510
2	\$3,783	\$7,565	\$11,348	\$12,255	\$15,130	\$20,123	\$26,478	\$30,260	\$37,825	\$45,390
3	\$4,773	\$9,545	\$14,318	\$15,463	\$19,090	\$25,390	\$33,408	\$38,180	\$47,725	\$57,270
4	\$5,763	\$11,525	\$17,288	\$18,671	\$23,050	\$30,657	\$40,338	\$46,100	\$57,625	\$69,150
5	\$6,753	\$13,505	\$20,258	\$21,878	\$27,010	\$35,923	\$47,268	\$54,020	\$67,525	\$81,030
6	\$7,743	\$15,485	\$23,228	\$25,086	\$30,970	\$41,190	\$54,198	\$61,940	\$77,425	\$92,910
7	\$8,733	\$17,465	\$26,198	\$28,293	\$34,930	\$46,457	\$61,128	\$69,860	\$87,325	\$104,790
8	\$9,723	\$19,445	\$29,168	\$31,501	\$38,890	\$51,724	\$68,058	\$77,780	\$97,225	\$116,670

For family units of more than 8 members, add \$3,960 for each additional member.  
Monthly percentage data calculated by FHCE and rounded to the nearest dollar.

Many hard-working individuals face difficult financial situations, despite determination and effort. A significant portion of individuals living in poverty are employed. Studies have shown working poor families work hard, pay taxes and yet face many obstacles that make saving money, covering expenses and meeting basic needs difficult.

Low wages in an individual's job may be a barrier to a family getting out of poverty. Hard-earned income often comes with inadequate or no benefits.

A single parent with 2 children could **work full-time** for \$9 per hour and be in **poverty**.

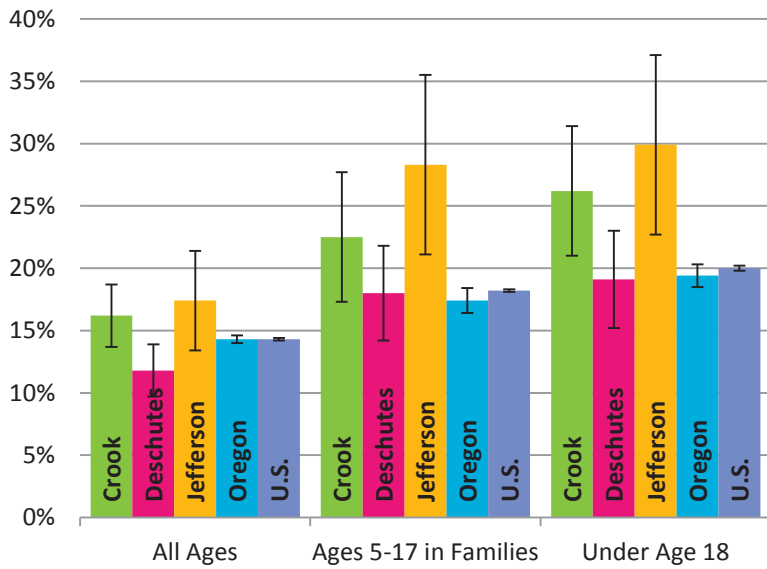
(Minimum wage is \$8.80)

Federal Register Vol. 77, No. 17, January 26, 2012, pp. 4034–4035 Retrieved from <http://www.gpo.gov/fdsys/pkg/FR-2012-01-26/pdf/2012-1603.pdf>  
Foundation for Health Coverage Information, Coverage for All, Retrieved from [http://www.coverageforall.org/pdf/FHCE\\_FedPovertyLevel.pdf](http://www.coverageforall.org/pdf/FHCE_FedPovertyLevel.pdf)

# SOCIO ECONOMIC HEALTH

Table 29 Poverty: Families and Children in Poverty

## Poverty Estimates, 2009



Approximately...

- 1 out of 4 children in Crook
- 1 out of 5 children in Deschutes
- 1 out of 3 children in Jefferson
- 1 out of 5 children in Oregon

live in poverty.

US Census Bureau (2011) Small Area Income and Poverty Estimates, State and County Data , 2009 SAIPE Interactive Data Tables, State and County Data  
Retrieved from <http://www.census.gov/cgi-bin/saige/saige.cgi>

### Small Area Income and Poverty Estimates (SAIPE): Poverty, 2009

More than 10,000 children in Central Oregon are poor.

All Ages in Poverty				
	Number	90% C.I.*	Percent	90% C.I.*
Crook	3,606	2,833 to 4,378	<b>16.2%</b>	12.7 to 19.6%
Deschutes	18,625	15,226 to 22,024	<b>11.8%</b>	9.7 to 14.0%
Jefferson	3,432	2,653 to 4,211	<b>17.4%</b>	13.4 to 21.3%
Oregon	536,813	523,814 to 549,812	<b>14.3%</b>	14.0 to 14.7%
U.S.	42,868,163	42,631,574 to 43,104,752	<b>14.3%</b>	14.3 to 14.4%

Under Age 18 in Poverty				
	Number	90% C.I.*	Percent	90% C.I.*
Crook	1,306	1,018 to 1,594	<b>26.2%</b>	20.4 to 32.0%
Deschutes	6,764	5,390 to 8,138	<b>19.1%</b>	15.2 to 22.9%
Jefferson	1,606	1,222 to 1,990	<b>29.9%</b>	22.7 to 37.0%
Oregon	166,073	158,804 to 173,342	<b>19.4%</b>	18.5 to 20.2%
U.S.	14,656,962	14,526,159 to 14,787,765	<b>20.0%</b>	19.8 to 20.2%

Ages 5-17 in Families in Poverty				
	Number	90% C.I.*	Percent	90% C.I.*
Crook	847	650 to 1,044	<b>22.5%</b>	17.3 to 27.7%
Deschutes	4,560	3,617 to 5,503	<b>18.0%</b>	14.2 to 21.7%
Jefferson	1,059	790 to 1,328	<b>28.3%</b>	21.1 to 35.5%
Oregon	106,122	99,818 to 112,426	<b>17.4%</b>	16.4 to 18.5%
U.S.	9,509,142	9,419,830 to 9,598,454	<b>18.2%</b>	18.1 to 18.4%

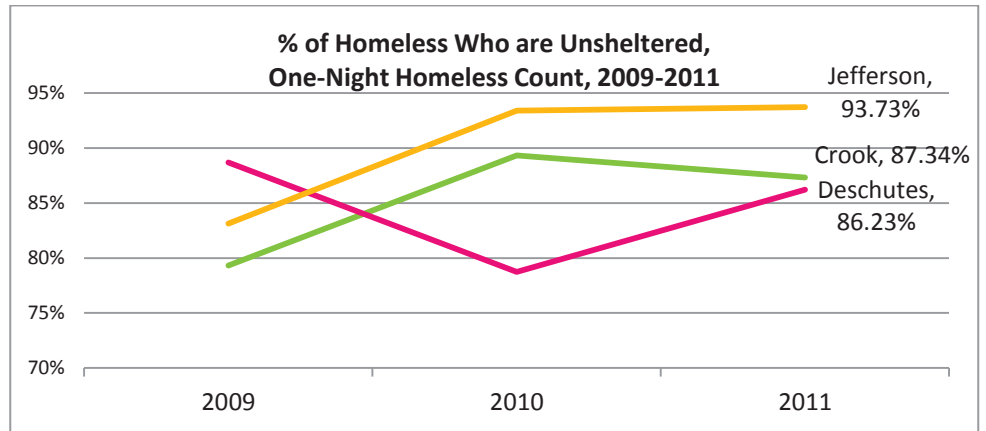
# SOCIO ECONOMIC HEALTH

Table 30 Homelessness: One-Night Homeless Counts, 2009-2011

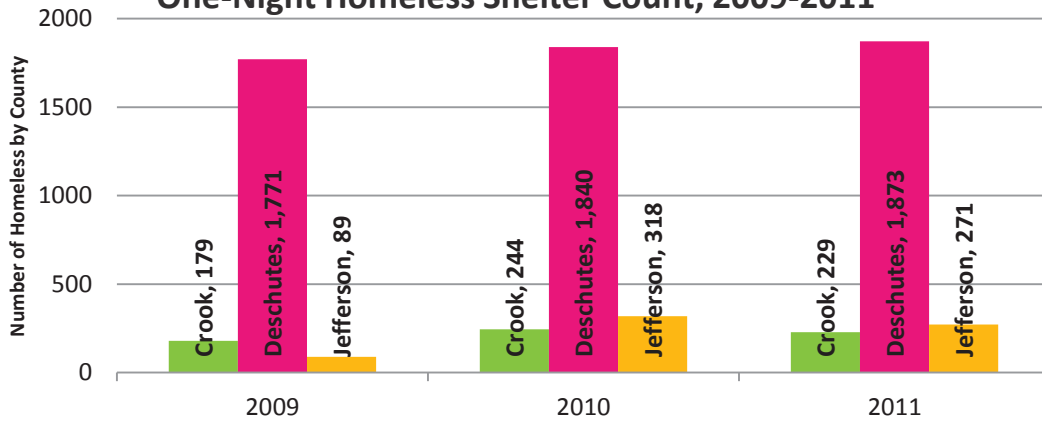
## Total One-Night Shelter Counts, 2009-2011

	2009	2010	2011
<b>Crook</b>	179	244	229
<b>Deschutes</b>	1,771	1,840	1,873
<b>Jefferson</b>	89	318	271
<b>Total</b>	<b>1,939</b>	<b>2,402</b>	<b>2,373</b>

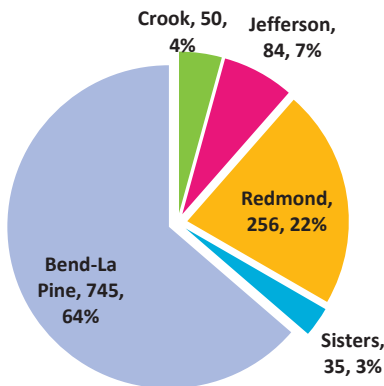
## HOMELESSNESS



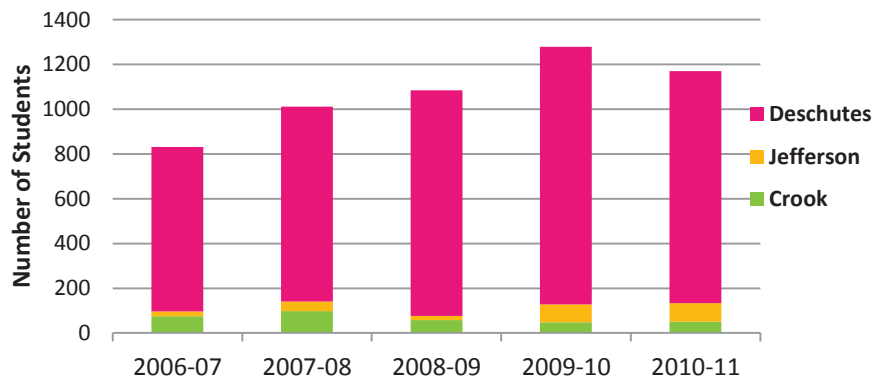
## One-Night Homeless Shelter Count, 2009-2011



## Student Homeless Counts by School District, 2010-2011 School Year



## Student Homeless Counts: K-12 Homeless Student Counts, School Years 2007-2011



**1,170 homeless students**

Neighborimpact one night shelter count report 2009, 2010, 2011

K-12 Homeless Student Counts - Five Years, SY: 2007-2011

Oregon Dept. of Education, Homeless Education Program Data, Prepared by Dona Bolt, 2-22-2012

# SOCIO ECONOMIC HEALTH

Table 31 Housing & Foreclosures

## HOUSING VACANCIES & FORECLOSURES

According to online foreclosure data resource, RealtyTrac, in

**May 2012, Central Oregon accounted for 10.2% of all foreclosed homes in Oregon.**

In May 2012, the foreclosure rate was higher in Deschutes County than Crook, Jefferson and the state of Oregon. In the same 1-month period, Crook County had 9 new foreclosures (1 in 1,134 homes), Deschutes County had 139 new foreclosures (1 in 573 homes), Jefferson County had 10 new foreclosures (1 in 982 homes). In Oregon, 1 in every 889 housing units received a foreclosure filing in May 2012.

### % Housing Units Vacant

Crook	16.1%	
Deschutes	20.0%	
Jefferson	20.6%	
Oregon	9.3%	

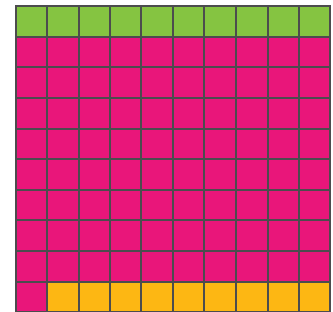


**1 in 5 HOUSING UNITS VACANT**

US Census 2010 data estimates suggest the percentage of housing units that are vacant in Central Oregon is more than twice that of Oregon.

May 2012, there were **1,473** foreclosures in Central Oregon.

**CROOK: 227**  
**DESCHUTES: 1,121**  
**JEFFERSON: 125**



The May 2012 foreclosure rates are down from December 2010, when 3,544 foreclosures were on the market and 1 in every 250 housing units received a foreclosure filing that month. Similarly, Jefferson County had 235 foreclosures on the market and 1 in every 420 housing units received a foreclosure filing. In Crook County, 1 in every 367 housing units received a foreclosure filing in December 2010.

US Census Bureau , (2011) 2010 Census Interactive Population Search, Retrieved from <http://2010.census.gov/2010census/data/>  
 Data for American Indian and Alaska Native areas are shown for the portion within each state, and only as each state's data are released.

RealtyTrac Stats & Trends. Retrieved from <http://www.realtytrac.com/trendcenter/>  
 Broadwater, L. Highlights of REaltyTrac's Year-End Foreclosure Report for 2010. <http://www.sistersoregonhomes.com/central-oregons-foreclosure-activity-for-december-2010>

# SOCIO ECONOMIC HEALTH

# SOCIO ECONOMIC HEALTH

Table 32 Food Insecurity: All Ages

## FOOD INSECURITY

The following information is based on data from Feeding America's *Map the Meal Gap, 2011*.



AVERAGE COST OF A MEAL	
Crook	\$ 3.48
Deschutes	\$ 2.51
Jefferson	\$ 2.77
Oregon	\$ 2.60

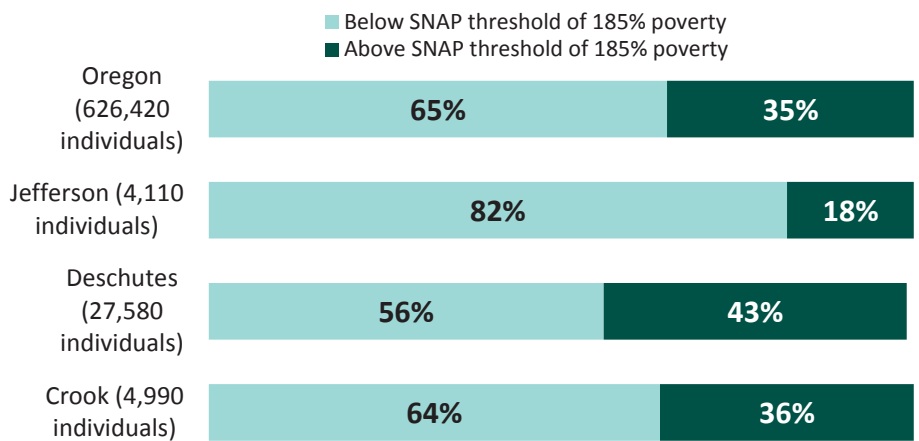
FOOD INSECURITY		
	Rate	Number
Crook	22.2 %	4,990
Deschutes	18.2 %	27,580
Jefferson	20.4 %	4,110
Oregon	16.8 %	626,420

Feeding America's *Map the Meal Gap* (2011) Report highlighted the following areas of concern for child food security in Central Oregon:

**Crook and Jefferson Counties are among the 5 counties with the highest food insecurity rates in Oregon.**

Communities within each county with high rates of poverty and unemployment, high meal cost, and high dependency ratios (based on age of the population) are more susceptible to food insecurity.

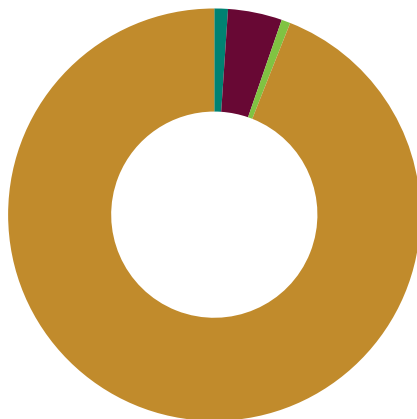
### Income Within Food Insecure Population



The **cost per meal in Crook County** is among the highest in the US.

### \$ Needed to Meet 2009 Oregon Food Needs

- Crook: \$2,898,960
- Deschutes: \$11,551,790
- Jefferson: \$1,899,360
- Rest of Oregon: \$256,125,310



In Deschutes County, where an estimated 43% of food insecure individuals are not eligible for federal assistance programs like SNAP, a large number could experience food insecurity without a safety net or any assistance options.

<http://feedingamerica.org/hunger-in-america/hunger-studies/map-the-meal-gap.aspx>

# SOCIO ECONOMIC HEALTH

Table 33 Food Insecurity: Children

## FOOD INSECURITY: CHILDREN

The following information on childhood food insecurity is based on data from Feeding America’s *Map the Meal Gap, 2011*.

CHILD FOOD INSECURITY		
	Rate	Number
Crook	<b>38.2 %</b>	<b>2,020</b>
Deschutes	<b>30.4 %</b>	<b>10,640</b>
Jefferson	<b>37.0 %</b>	<b>2,070</b>
Oregon	<b>29.2 %</b>	<b>252,510</b>
U.S.	<b>23.2 %</b>	<b>16.2 million</b>

Oregon is among the top five states with the highest child food insecurity rates in the nation.

**Crook and Jefferson counties are among the 5 Oregon counties with the highest child food insecurity rates.**

The highest rates of child food insecurity are found in: Crook, Jefferson, Josephine, Harney, & Lake Counties

Statistical analysis uncovered the strongest predictors of child food insecurity are poverty and unemployment rate.

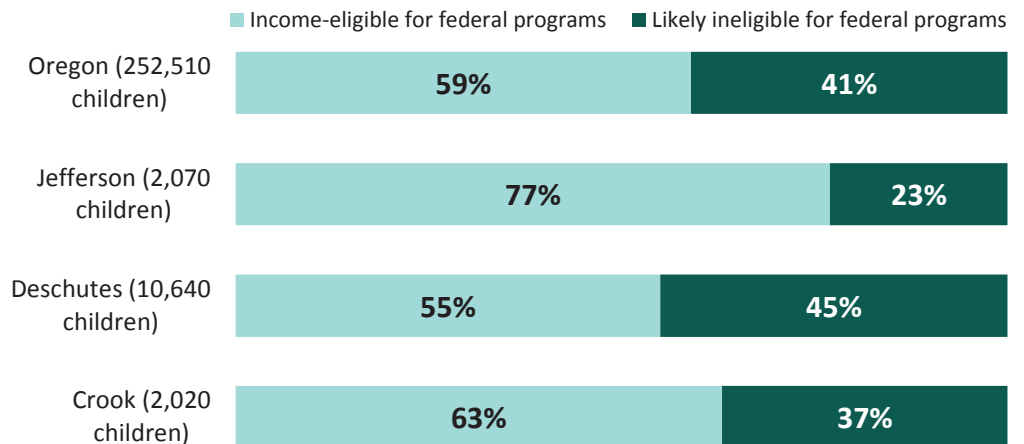
**POVERTY & UNEMPLOYMENT** are the strongest predictors of child food insecurity.

The ability to address child food insecurity within our current support systems may be limited when high percentages of food insecure individuals are ineligible for assistance.

This could mean thousands of children who have need may not get assistance due to eligibility.

More than 6,000 children in Central Oregon could be going hungry yet would not qualify for federal assistance programs.

### Estimated Program Eligibility Among Food Insecure Children



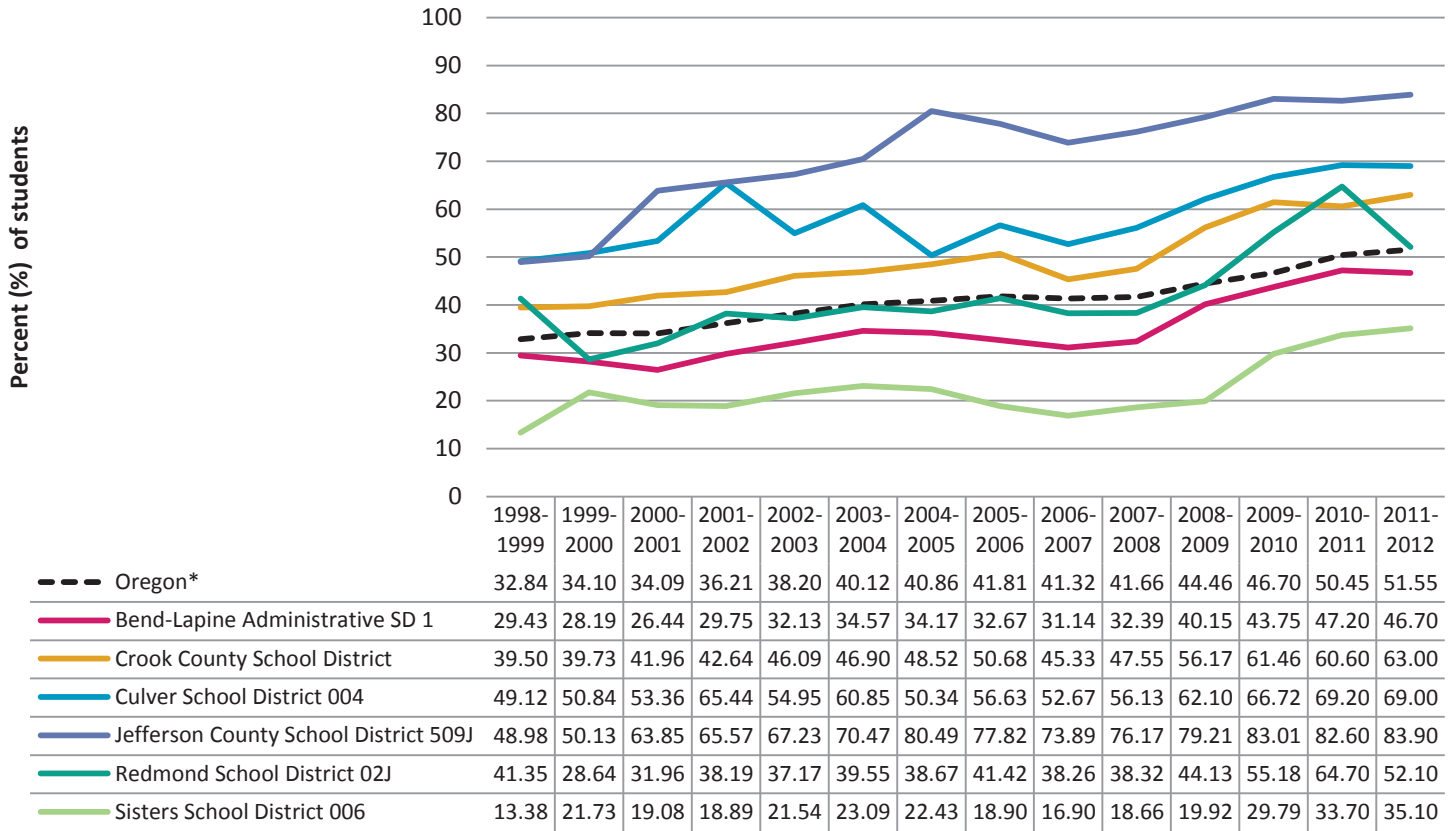
**In Deschutes County, 45% of food insecure children are likely ineligible for federal assistance programs.**

Feeding America, Map the Meal Gap (2011) Retrieved from <http://feedingamerica.org/hunger-in-america/hunger-studies/map-the-meal-gap.aspx>

# SOCIO ECONOMIC HEALTH

Table 34 Free & Reduced Lunch in Schools

## Percent of Students Eligible for Free or Reduced Lunch by School District, 1998-2012



\*Oregon estimates for 2010-2011 & 2011-2012 are provisional calculations based on preliminary data and should be interpreted with caution. Provisional calculations are subject to change, based on release of final data/estimates from Oregon Department of Education.

Among all Oregon counties for the school year 2011-2012, Jefferson County has the highest percent of students eligible for free/reduced lunch (this estimate includes Warm Springs). Crook County has the 7<sup>th</sup> highest percent of students eligible for free/reduced lunch (62.99%), while Deschutes County is among the 10 counties with the lowest percent of students eligible (48.02%) for the 2011-2012 school year.

**Of all students eligible for free/reduced lunch, more than 87% are eligible for a free lunch.**

Oregon Department of Education (2012). Students Eligible for Free or Reduced Lunch (#61), 1998-2012. Retrieved from <http://www.ode.state.or.us/sfda/reports/r0061Select.asp>

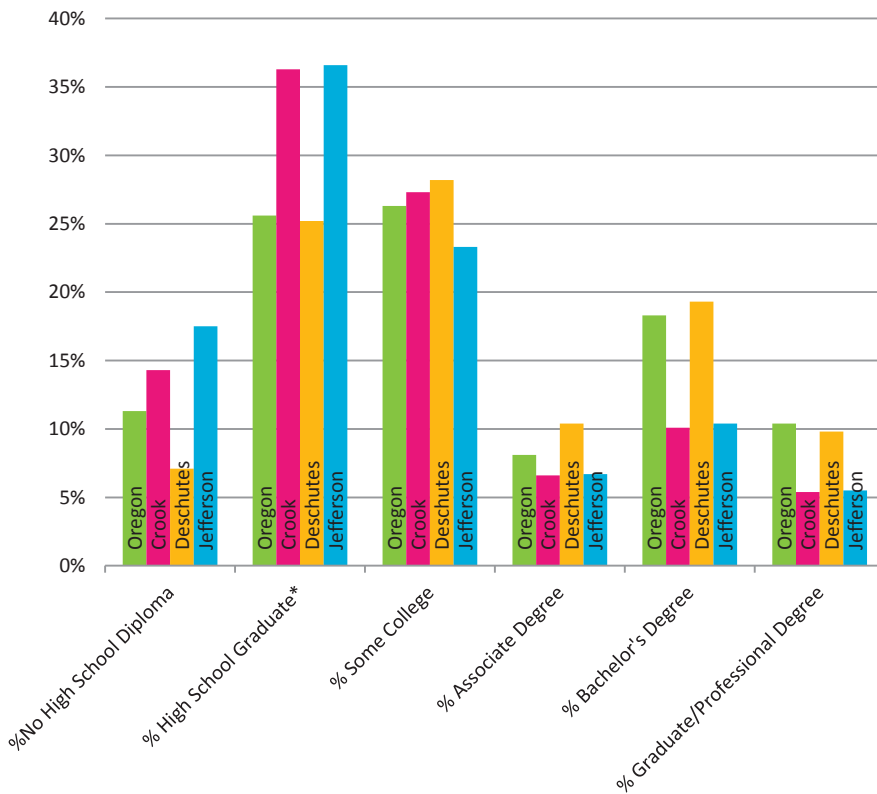
National Center for Educational Statistics/ Institute of Education Sciences (2012). Core of common Data, Build a Table. Retrieved from <http://nces.ed.gov/ccd/bat/index.asp>



# SOCIO ECONOMIC HEALTH

Table 35 Education

## EDUCATIONAL ATTAINMENT: HIGHEST LEVEL OF SCHOOL COMPLETED, 5-YEAR AVERAGE BY COUNTY, 2006-2010



### Key Findings in Education and Income Disparities

In the U.S., people who live and work in low socioeconomic circumstances are at increased risk for mortality, morbidity, unhealthy behaviors, reduced access to health care, and inadequate quality of care.

Striking disparities in non-completion of high school and poverty exist within the U.S. adult population and no improvement has been achieved between 2005–2009.

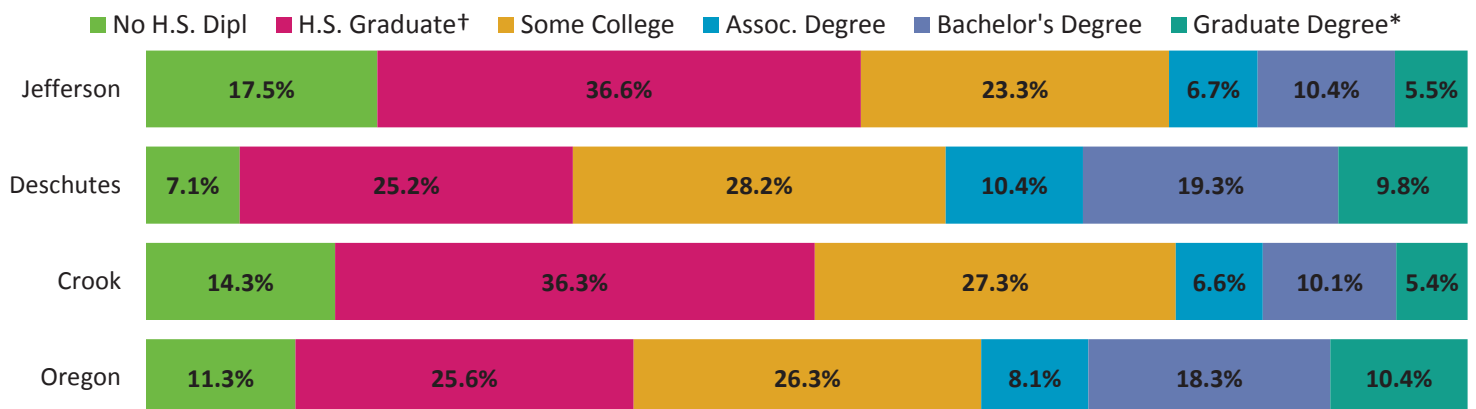
Income disparity in non-completion of high school was greatest for those with family income below the federal poverty level (Poverty to Income Ratio [PIR] <100% FPL).

The racial/ethnic disparity in both income and education, compared with non-Hispanic whites, was greatest for Hispanics and non-Hispanic American Indians/Alaska Natives. It was the lowest for non-Hispanic mixed races and Asian/Pacific Islanders, and

intermediate for non-Hispanic blacks.

The percentage of adults with disabilities who did not complete high school was approximately double that of adults without disabilities in both 2005 and 2009 and the proportion of people with disabilities living below the poverty level was more than twice that of people without disabilities

CDC (2011). Fact Sheet: Health Disparities in Education & Income, Finding from the *CDC Disparities and Inequalities Report—United States, 2011*. Retrieved from <http://www.cdc.gov/minorityhealth/CHDIRReport.html#CHDIR>



Note: These estimates are based on a five-year average by American Community Survey.

\*Graduate or professional degree; †High School Diploma or its equivalency

2006-2010: U.S. Bureau of the Census, American Community Survey, American Factfinder, Retrieved from <http://factfinder.census.gov>

# MORTALITY & CAUSES OF DEATH

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# MORTALITY & CAUSES OF DEATH

Table 36 Mortality: Gender & Age Differences

## DEATH RATES

Death rates in Oregon have dropped over the last 70 years. In 1940, the total death rate for all Oregon residents was 113.14 per 10,000 people; in 2009, the total death rate was 82.51 per 10,000.

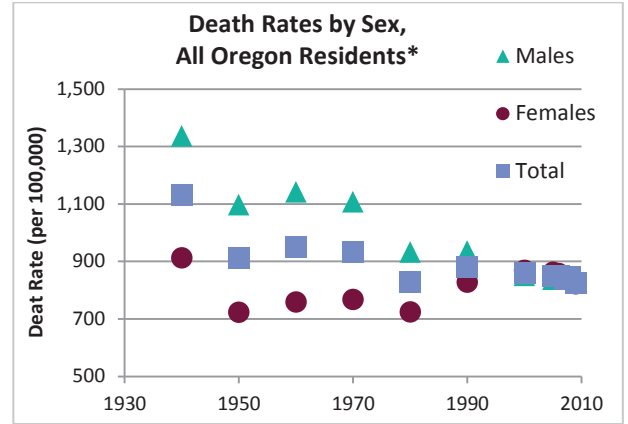
Advances in science and medicine, knowledge of germs, sanitation, improved living and working conditions and public/social based prevention have contributed increased life expectancy and decreased overall mortality.

Historically, the death rate for males

has been markedly higher than that of females. Behavioral factors like smoking, occupational hazards from stereotypically gender-based job roles, and war enlistment are a few explanations of gender-differences in life expectancy over the last several decades.

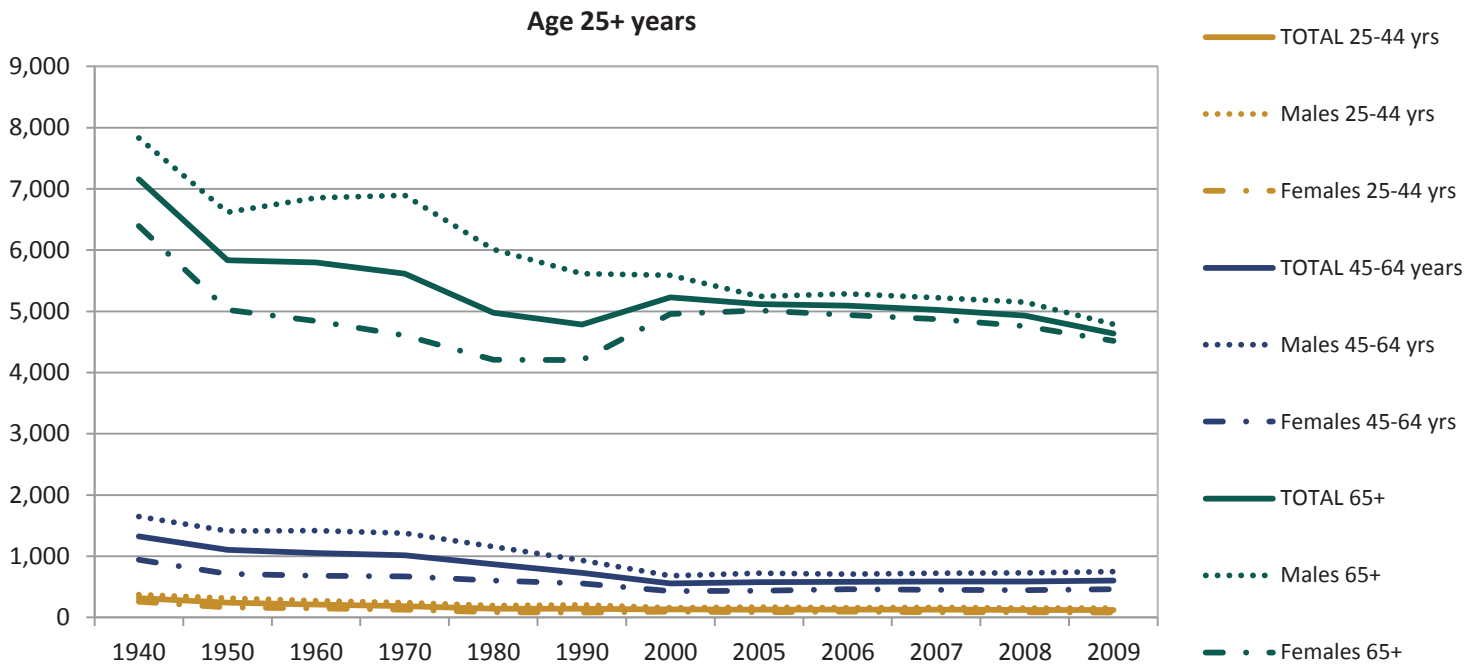
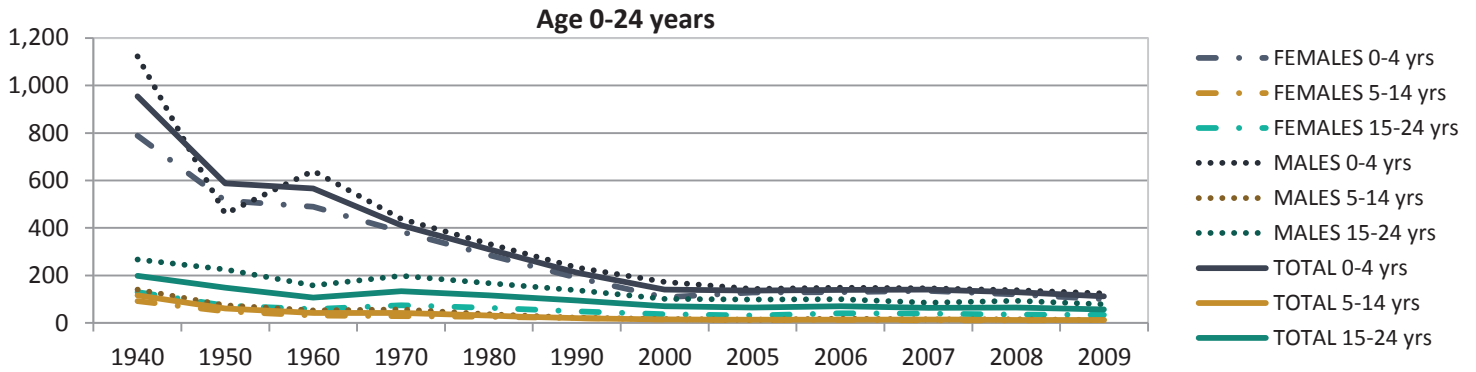
Over time, however, this difference lessened, and in the year 2000 the death rate for females in Oregon surpassed that of males by 1.84 per 10,000, and remained higher than males until 2007.

Changes in population demog-



mographics play a role these changes in rates over time.

## Age-Specific Death Rates\* by Sex and Age Group, Oregon Residents



\*All rates per 100,000 population within specified age groups.

Years 1940, 1950, 1960, 1970, 1980, 1990, 2000, 2005-2009

DHS/Oregon Center for Vital Statistics, Oregon Vital Statistics Annual Report, Vol. 2, 2009, Table 6-1: Age-Specific Death Rates by Sex, Oregon Residents, 1940, 1950, 1960, 1970, 1980, 1990, 2000, 2005-2009 Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/annualreports/09v2/Documents/chapter6/table601.pdf>

# MORTALITY & CAUSES OF DEATH

Table 37 Years of Potential Life Lost

## YEARS OF POTENTIAL LIFE LOST BEFORE AGE 75 (YPLL-75), 2009

Estimated Total Years of Potential Life Lost Before Age 75 (in years) by County, 2009

Age Group	CROOK	DESCHUTES	JEFFERSON
Under 14 years	75	577.5	427.5
15-24 years	0	825	330
25-34 years	135	765	270
35-44 years	35	1,015	315
45-54 years	300	1,550	525
55-64 years	390	2,025	555
65-74 years	230	975	190

YPLL-75:

(# deaths in age group\*[75-(age group midpoint)]).

Mid-points for age-groups under 75 yrs of age were:  
 <1 yrs: 0; 1-4 yrs: 2.5; 5-14 yrs: 10;  
 15-24 yrs: 20; 25-34 yrs: 30; 35-44 yrs: 40; 45-64 yrs: 60;  
 65-74 yrs: 70

Years of Potential Life Lost (YPLL-75) is the number of potential years of life lost to premature death before the age of 75. In past decades, YPLL was calculated using a target age of 65 years. However, increased life expectancy led to changes in calculating YPLL, using time of death subtracted from 75 years of age. (DHS/Center for Health Statistics calculates YPLL-65 in annual reports.)

### Median Age at Death by Sex & County of Residence, Oregon, 2009

	Age (in years)		
	Male	Female	Both
CROOK	75	78	76
DESCHUTES	76	82	79
JEFFERSON	69	74	71
OREGON	75	82	79

## TOTAL YPLL-75, 2009



YPLL-75 calculated using Vital Statistics data. Since each decedent's age at death is not readily available for calculation, an estimated YPLL-75 is calculated by subtracting the mid-point of each age-range from 75.

Oregon Health Authority, DHS Oregon Vital Statistics Annual Report, Vol. 2, 2009, Table 6-38: Median Age at Death by Sex and County of Residence, Oregon, 2009, Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/annualreports/09v2/Documents/chapter6/table638.pdf>

Oregon Health Authority, Oregon Vital Statistics, Final Data 2009, Oregon Resident Deaths by Age Group and County of Residence, 2009 Final Data, Table 6-36. Deaths by Age, Sex, and County of Residence, Oregon, 2009, Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/FinalData/Documents/09/deathage.pdf>

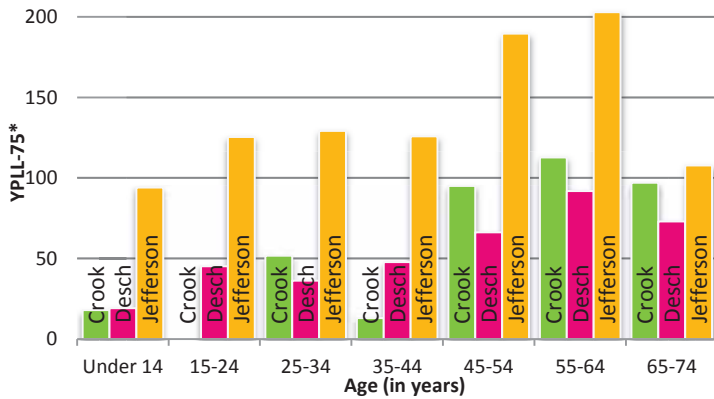
Estimates calculated using ACS population estimate from 2009 & DHS/Oregon Center for Health Statistics, 2000-2010

# MORTALITY & CAUSES OF DEATH

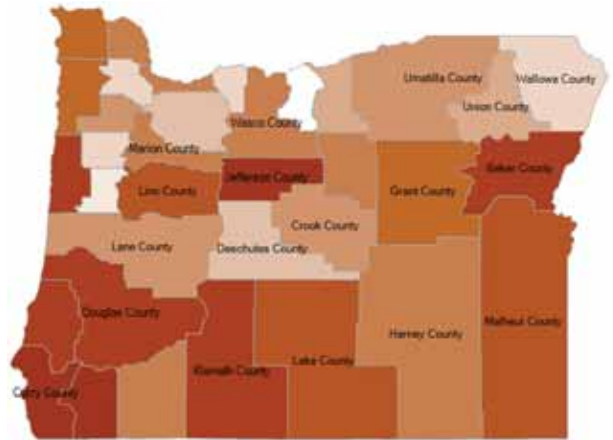
Table 38 Rate of Years of Potential Life Lost (Before Age 75), 2009

## RATE OF YEARS OF POTENTIAL LIFE LOST BEFORE AGE 75 (YPLL-75), 2009

Rate of Years of Potential Life Lost before Age 75, by Age Group, Central Oregon Counties, 2009



Total Years of Potential Life Lost Before Age 75, Age-Adjusted Rate (per 100,000 population), 2005-2007



\*per 1,000

YPLL Rate estimate from grouped data is:

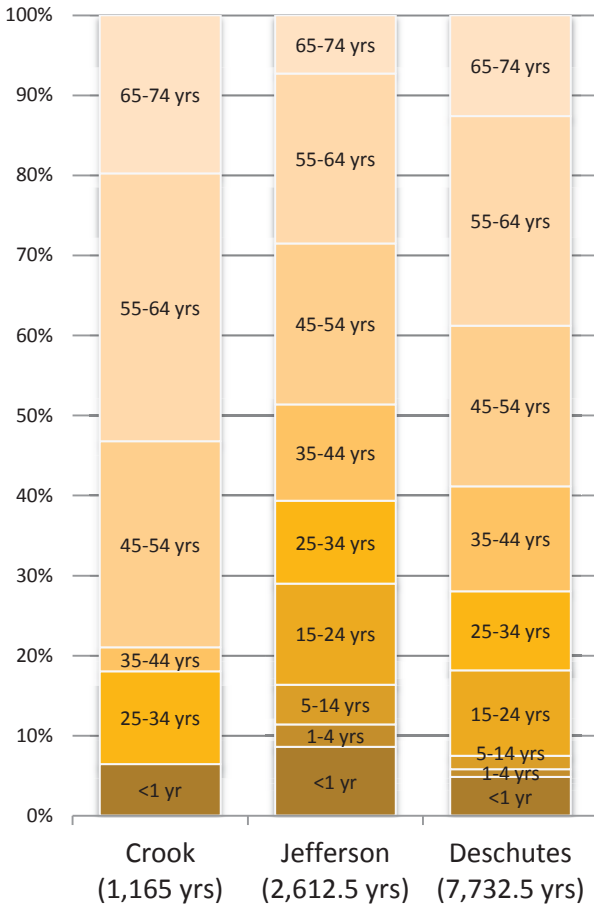
$$YPLL \text{ Rate} = (\text{Number of YPLLs} / \text{Population under end point age}) \times 1,000$$

where Number of YPLLs=

$$\sum [( \text{number of deaths in each age group} ) \times (\text{end point age} - \text{midpoint of each age group})]$$



### ESTIMATED % YPLL-75 BY AGE GROUP, 2009



### Estimated Rate of Years of Potential Life Lost Before Age 75 (per 1,000), 2009

Age Group	CROOK	DESCHUTES	JEFFERSON
Under 14 years	17.96	19.24	94.06
15-24 years	0	45.35	125.57
25-34 years	51.88	36.31	129.31
35-44 years	13.15	47.76	125.95
45-54 years	95.12	66.36	189.60
55-64 years	112.82	91.98	203.00
65-74 years	97.17	72.99	107.71

\*Rates are calculated per 1,000 individuals in each age group.

Health Indicators Warehouse, Bridged-Race Population Estimates for Census 2000 (CDC, Census), NVSS-M (CDC, NCHS), Retrieved from [http://healthindicators.gov/Indicators/Years-of-potential-life-lost-before-age-75-rate-per-100000-population\\_3/National\\_0/Profile/Data](http://healthindicators.gov/Indicators/Years-of-potential-life-lost-before-age-75-rate-per-100000-population_3/National_0/Profile/Data)  
 Oregon Health Authority, Oregon Vital Statistics, Final Data 2009 Oregon Resident Deaths by Age Group and County of Residence, 2009 Final Data Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/FinalData/Documents/09/deathage.pdf>

Oregon Health Authority, Oregon Vital Statistics, Table 6-36. Deaths by Age, Sex, and County of Residence, Oregon, 2009, Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/annualreports/09V2/Documents/chapter6/table636.pdf>

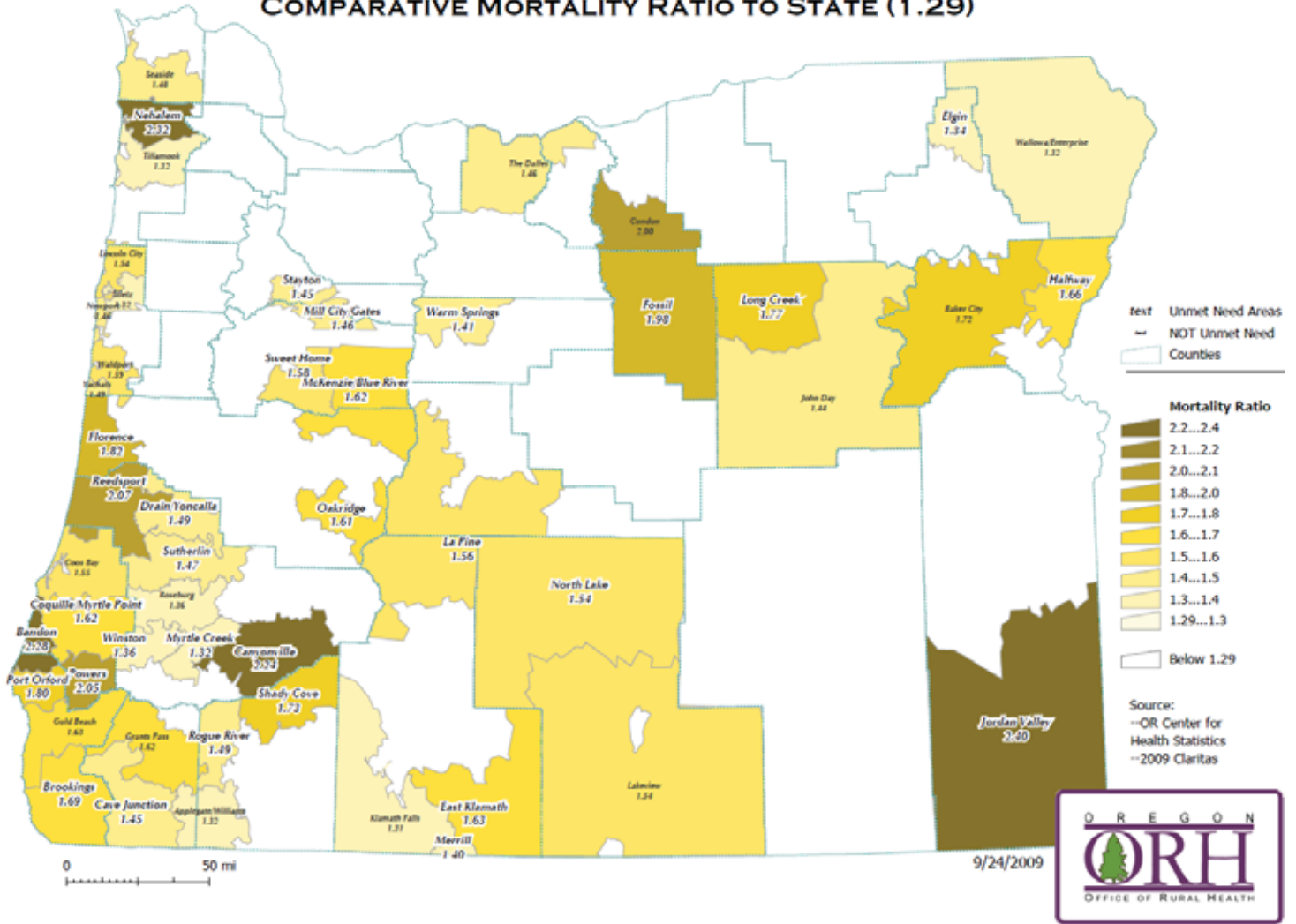
Estimates calculated using ACS population estimate from 2009 & DHS/Oregon Center for Health Statistics, 2000-2010.

# MORTALITY & CAUSES OF DEATH

Table 39 Rural Mortality: Oregon Rural Comparative Mortality

## RURAL MORTALITY: OREGON RURAL COMPARATIVE MORTALITY

### 2004 - 2006 OREGON RURAL AREAS ABOVE MEAN COMPARATIVE MORTALITY RATIO TO STATE (1.29)



Oregon Health and Science University, 2004-2006 Oregon Rural Areas above Mean Comparative Mortality Ratio to State (1.29), Retrieved from [www.ohsu.edu/oregonhealth](http://www.ohsu.edu/oregonhealth)

# MORTALITY & CAUSES OF DEATH

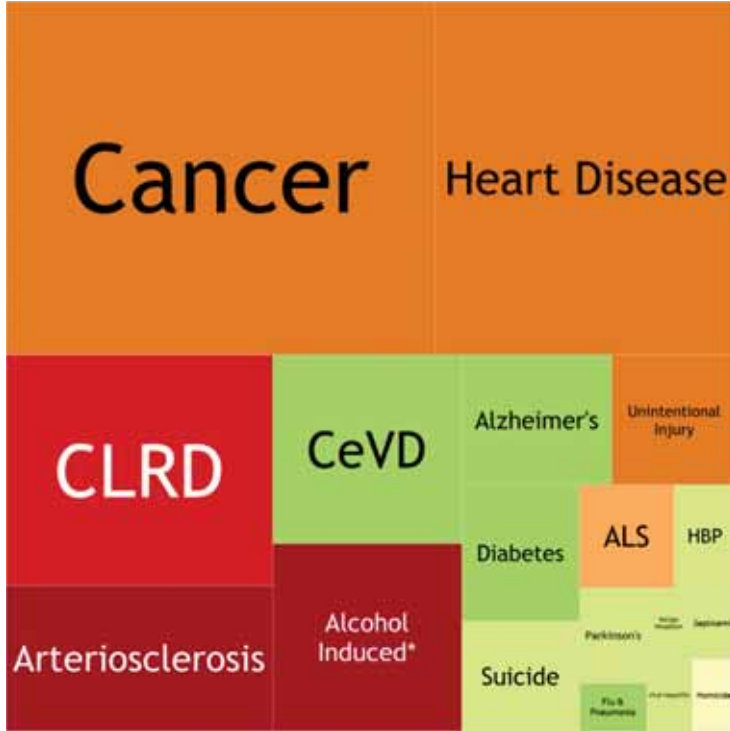
Table 40 Leading Causes of Death

## LEADING CAUSES OF DEATH BY COUNTY OF RESIDENCE, 2009

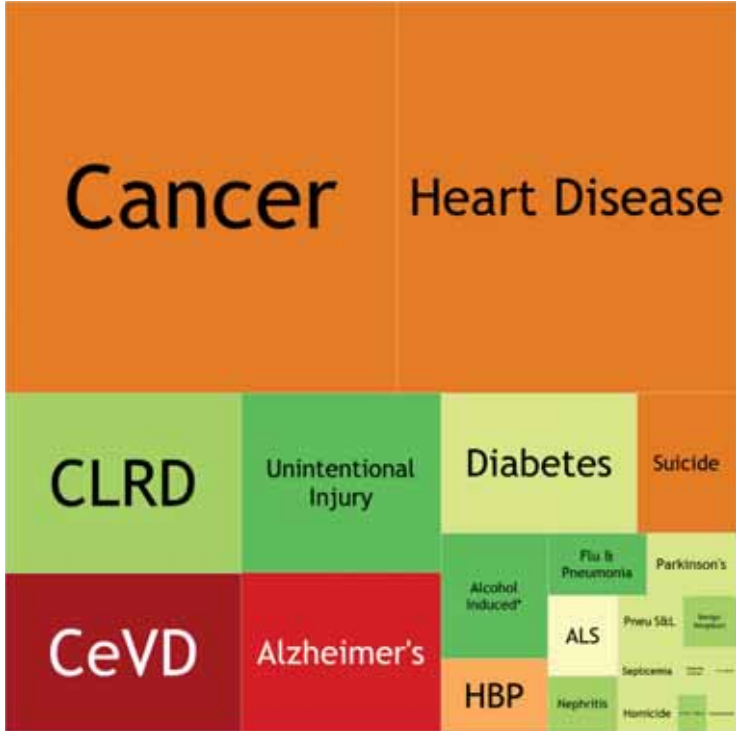
Note: Unadjusted, crude rates

Size represents the % of each county's overall deaths for that year; color represents the difference in the county's unadjusted crude to the state of Oregon's rate for that cause of death (green means county's rate is lower than the state, red means county's rate of death is higher than the state)

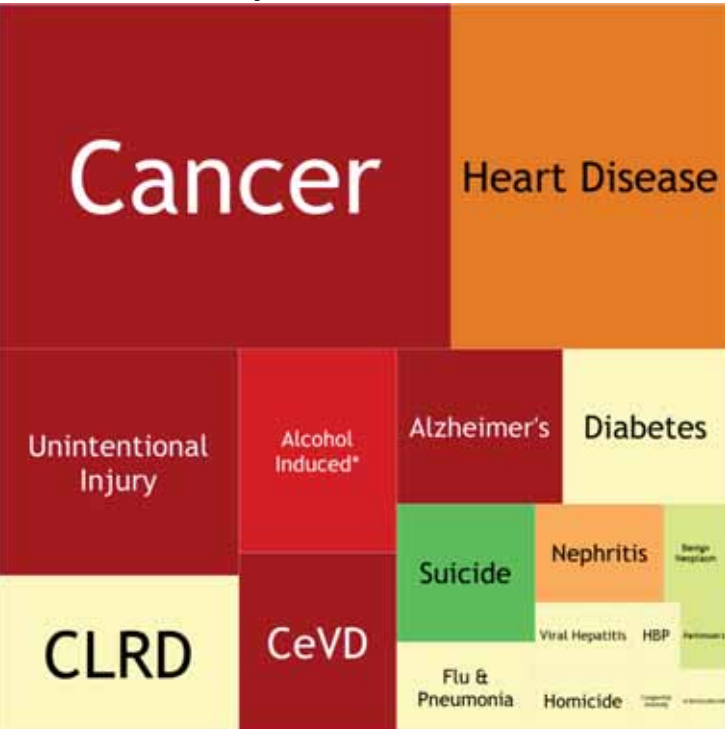
### Crook County



### Deschutes County



### Jefferson County



**CLRD:** Chronic lower Respiratory Disease

**CeVD:** Cerebrovascular Disease

**HBP:** Hypertension with/without renal disease

**ALS:** Amyotrophic Lateral Sclerosis

\*Including: alcoholic mental/behavioral disorders, degeneration of nervous system, polyneuropathy, alcoholic myopathy, cardiomyopathy, gastritis, liver disease, chronic pancreatitis, alcohol in the blood, accidental poisoning by alcohol, intentional self-poisoning, and poisoning of undetermined intent.

Note that disorders included here are also included in other cause of death categories. (Components of this category were revised beginning in 2004, resulting in the inclusion of additional codes/deaths.)

Oregon Health Authority, DHS/Oregon Center for Health Statistics, 2009. Oregon Vital Statistics Annual Report, Vol. 2, 2009

Table 18. Leading Causes of Death by County of Residence, Oregon, 2009 Retrieved from [http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/annualreports/CountyDataBook/cdb2009/Documents/tbl18\\_09.pdf](http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/annualreports/CountyDataBook/cdb2009/Documents/tbl18_09.pdf)

# MORTALITY & CAUSES OF DEATH

## What is killing us?

### Top 3 Killers

by % of County's Deaths(2009)

#### Crook County

- 1 **CANCER, 24.3%**
- 2 **HEART DISEASE, 17%**
- 3 **CHRONIC LOWER RESPIRATORY DISEASE, 9.8%**

#### Deschutes County

- 1 **CANCER, 23.8%**
- 2 **HEART DISEASE, 20.6%**
- 3 **CHRONIC LOWER RESPIRATORY DISEASE, 6.61%**

#### Jefferson County

- 1 **CANCER, 20.3%**
- 2 **HEART DISEASE, 13.9%**
- 3 **UNINTENTIONAL INJURY, 7.9%**

The 2009 death rate was lower than the state of Oregon (8 per 10,000) in both Crook (7.1 per 10,000) and Deschutes (6.7 per 10,000) at a statistically significant level. However, Jefferson's death rate, was higher than the state (9.5 per 10,000) at a statistically significant level.

Chronic disease continues to be the number one killer in Central Oregon. Cancer, heart disease, cerebrovascular disease, arteriosclerosis and chronic lower respiratory disease claim numerous lives every year. In 2009, Central Oregon lost 369 lives to Cancer, 300 to Heart Disease and 107 to chronic lower respiratory disease (CLRD).

Death rates from heart disease in Oregon are higher in rural areas than urban areas (Oregon DHS/OHA Heart Disease and Stroke in Oregon: Update 2010). Approximately 5.3% of Oregon adults have coronary artery disease (2010).

Unintentional Injury claimed 86 lives, almost as many as Cerebrovascular Disease (87 lives) and was the 3<sup>rd</sup> leading cause of death in Jefferson.

## Silent Killers

Social factors are not diseases, nor are they unintended injuries or accidents. Yet social factors are responsible for killing numerous Americans. In the United States, **poor education is as deadly as a heart attack**. The impact of social disadvantage deserves a closer look at what we consider healthy and sick, and what we believe helps us or kills us.

### U.S. Deaths & Attributable Causes, 2000:

246k low **education**

193k myocardial infarction

176k racial **segregation**

168k cerebrovascular disease

162k low **social support**

156k lung cancer

133k individual **poverty**

119k accidents

39k **area-level poverty**

Sandro Galea, Melissa Tracy, Katherine J. Hoggatt, Charles DiMaggio, and Adam Karpati. Estimated Deaths Attributable to Social Factors in the United States. American Journal of Public Health: August 2011, Vol. 101, No. 8, pp. 1456-1465. doi: 10.2105/AJPH.2010.300086



# HEALTHY MOTHERS, HEALTHY BABIES

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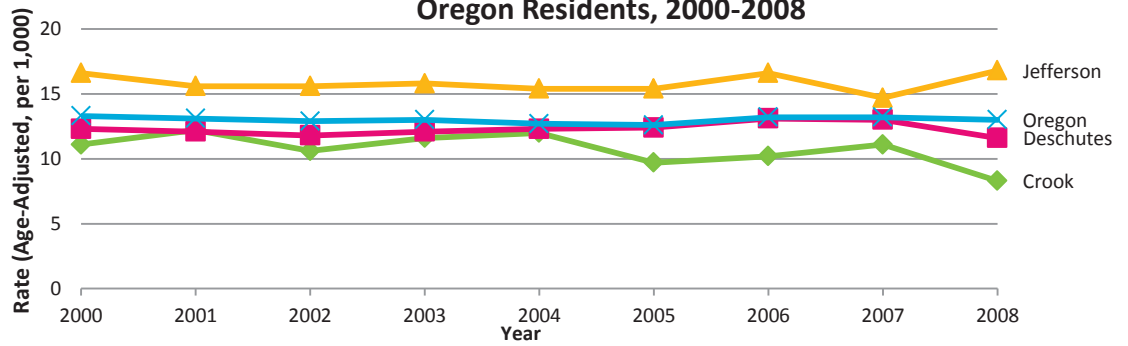
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# HEALTHY MOTHERS, HEALTHY BABIES

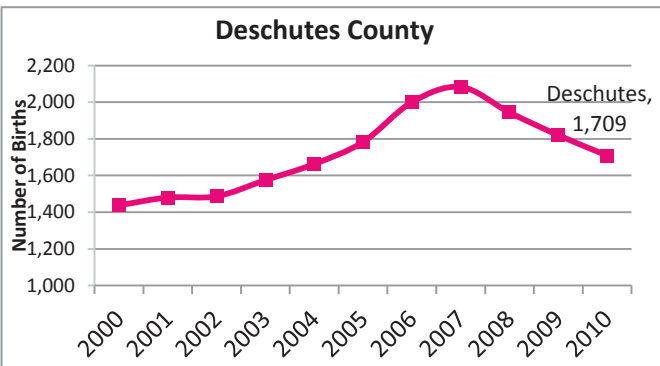
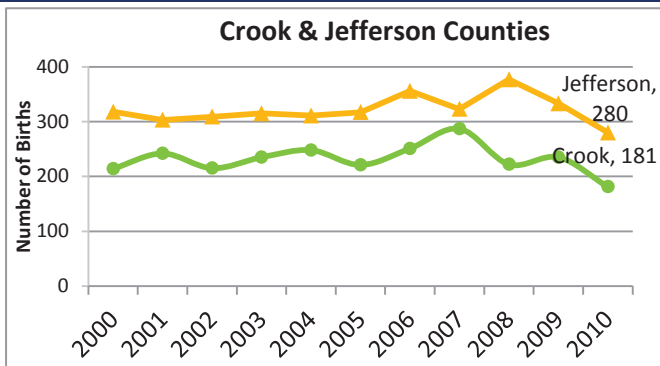
Table 41 Births

Age-Adjusted Birth Rate by County of Residence, Oregon Residents, 2000-2008



In 2010, 2,170 babies were born.

Number of Live Births by County of Residence & Year, Oregon Residents, 2000-2010



Oregon Health Authority, DHS/Oregon Center for Health Statistics, 2000-2010, Annual Report: 2000-2008 Vital Statistics County Data Population, Births and Deaths by County of Residence, Oregon, 2000-2008; Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/annualreports/CountyDataBook> ; Oregon Health Authority, DHS/Oregon Center for Health Statistics, 2000-2010 Live Births by County of Residence, Oregon Residents, 2009; Age of Mother and County of Residence, Oregon Resident Births, 2009 Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/birth/Documents/> ; Oregon Health Authority, DHS/Oregon Center for Health Statistics, 2000-2010, Oregon Resident Deaths by Age Group and County of Residence, 2009 Final Data; DHS/Oregon Center for Health Statistics, 2000-2010 Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/annualreports/CountyDataBook> ; Oregon Health Authority DHS/Oregon Center for Health Statistics, 2000-2010, Oregon Resident Deaths by Age Group and County of Residence, 2010 Preliminary Data; Age of Mother and County of Residence, Oregon Resident Births, 2010 Preliminary, Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/birth/Documents/birthcount.pdf>

## BIRTHS

In 2010, an estimated 2,170 babies were born to Central Oregon residents. Of these, 8.3% were from Crook County, 78.8% were from Deschutes County, and 12.9% were from Jefferson County.

Since 2000, Jefferson County has had a higher age-adjusted birth rate than other Central Oregon counties and the state of Oregon. In every year but 2007, the higher rates are statistically significant. (The most recent age-adjusted birth rate available from the state of Oregon for this report is 2008).

In contrast, Crook County has an age-adjusted birth rate that is lower than other Central Oregon counties and the state of Oregon. And since 2000, the lower rate was statistically significant 5 out of 9 years.

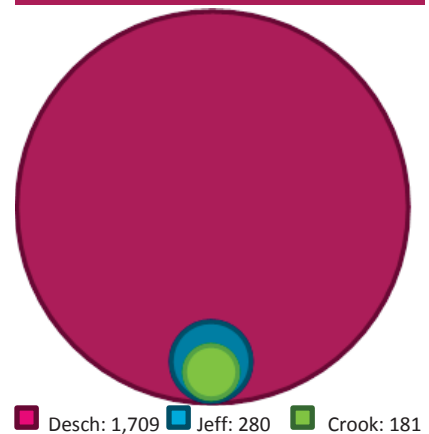
While Central Oregon's birth rate is highest in Jefferson County, there are more live births in Deschutes County, due to the county's size.

Since the economic recession, the total number of live births in Deschutes County has declined. Therefore, it is reasonable to believe that the age-adjusted birth

rates for the years 2009 and 2010 have also declined in Deschutes.

There are many factors that affect birth rates at local and national scales. For example, when a community has an older population,

### Number of Births, 2010



birth rates tend to be lower. Other factors include poverty, education, cultural and social norms, spiritual or religious beliefs, availability of family planning services, typical age at marriage, and economic prosperity to name a few.

# HEALTHY MOTHERS, HEALTHY BABIES

Table 42 First-time Mothers

## NUMBER OF LIVE BIRTHS & BIRTHS TO FIRST-TIME MOTHERS, 2000-2009

### Crook County



There were 9,339 new mothers in Central Oregon from 2000 through 2009.

### Deschutes County



Of live births between 2000-2009

**38%** of CROOK CO

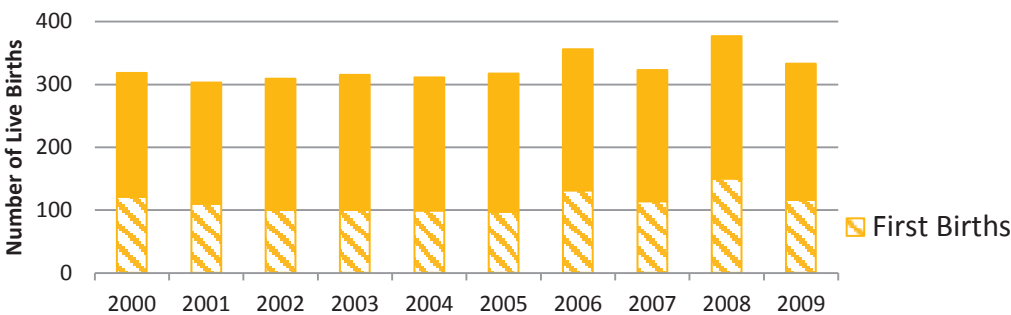
**35%** of JEFFERSON CO

**42%** of DESCHUTES CO

were to

**FIRST-TIME MOTHERS**

### Jefferson County



Oregon Health Authority, Live Births by County of Residence, Oregon Residents 2000-2009 Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/birth/Documents/birthcount.pdf>

Oregon Health Authority, First Birth by County of Residence, Oregon Residents 2000-2009 Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/birth/Documents/firstbirth.pdf>

Oregon Health Authority, Birth Count by County of Residence, Oregon Residents 2000-2009 Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/birth/Documents/birthcount.pdf>

Oregon Health Authority, First Birth by County of Residence, Oregon Residents 2000-2009 Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/birth/Documents/firstbirth.pdf>

# HEALTHY MOTHERS, HEALTHY BABIES

Table 43 Live Birth Demographics

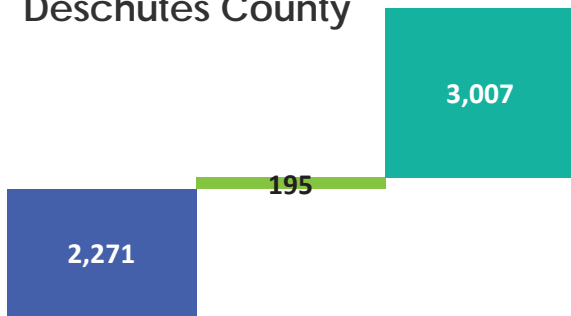
## LIVE BIRTH DEMOGRAPHICS

### BIRTHS BY PAYER TYPE, 2008-2010

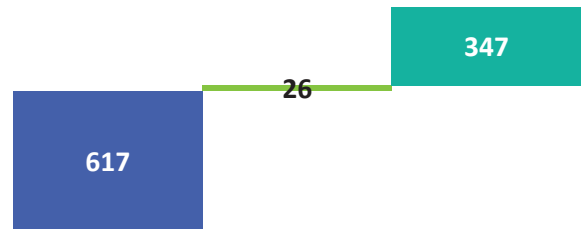
#### Crook County



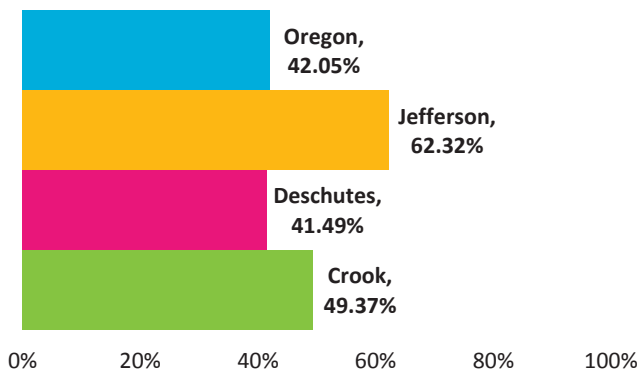
#### Deschutes County



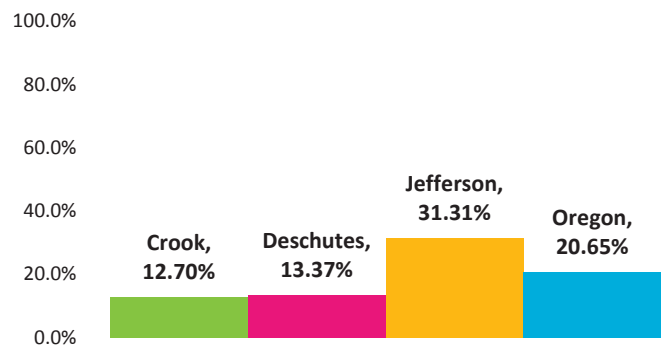
#### Jefferson County



### % of Live Births Funded by OHP/Medicaid, by County, 2008-2010



### % of Live Births to Hispanic/Latino Mothers, by County, 2008-2010



Note: Ethnicity of mother, not ethnicity of child.

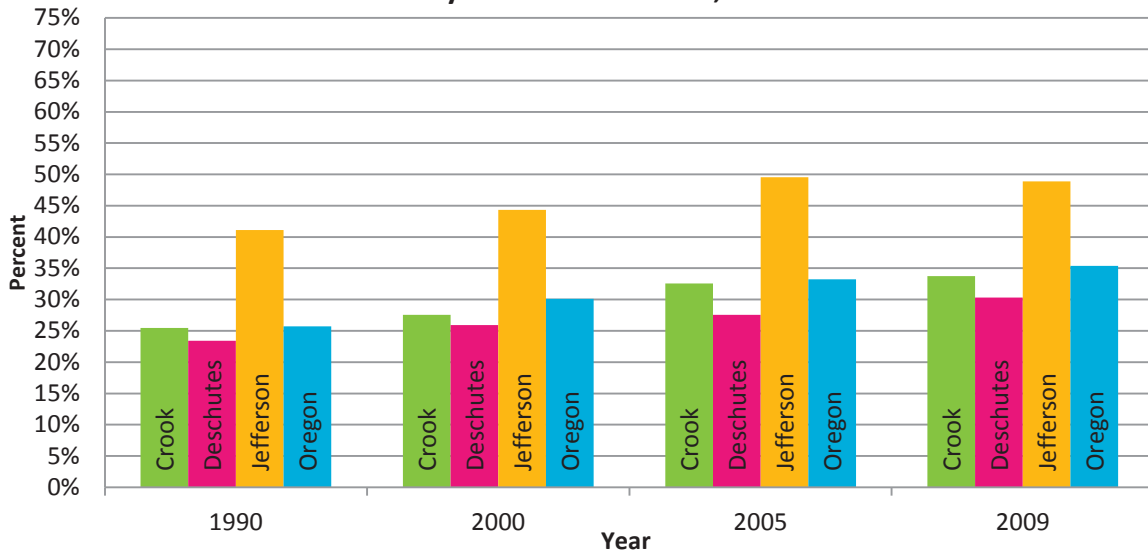
Oregon Health Authority, DHS Oregon Vital Statistics, Demographic Characteristics of Mother by Age, Oregon Residents, 2008-2010, Crook, Deschutes & Jefferson Counties. Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/TeenPregnancy/Pages/index.aspx>

# HEALTHY MOTHERS, HEALTHY BABIES

Table 44 Teen Births & Births to Single Mothers

## TEEN BIRTHS & BIRTHS TO SINGLE MOTHERS

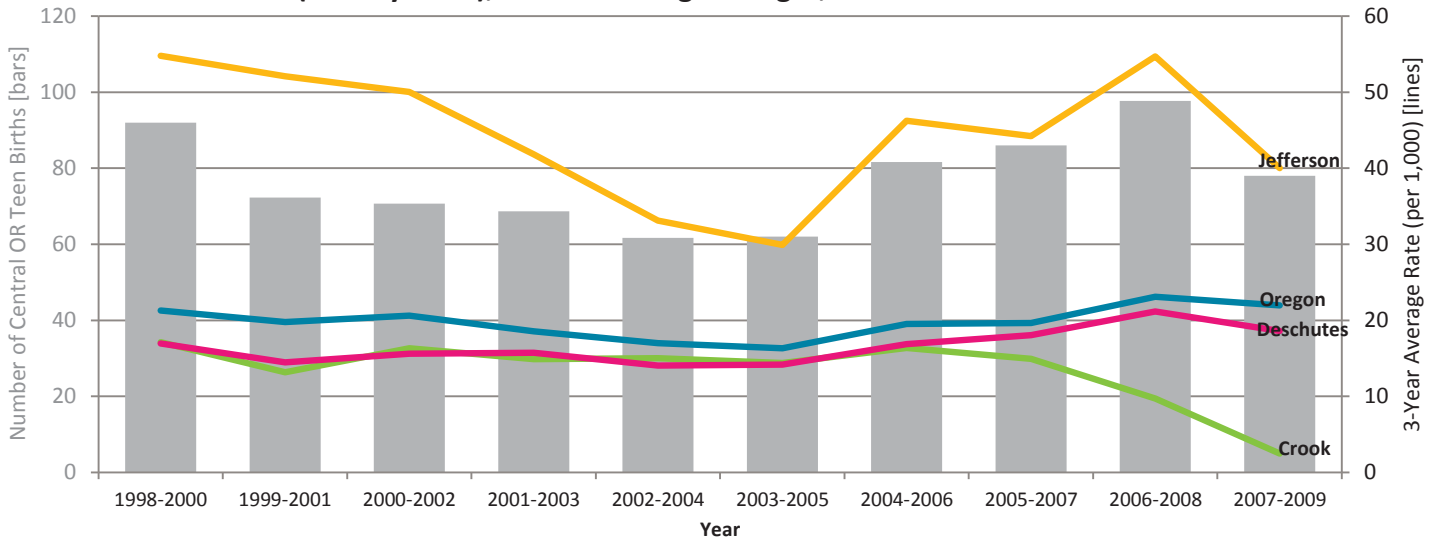
Percentage of Births to Unwed Mothers in Oregon by Place of Residence, 1990-2009



The percent of live births that are to unmarried women. Formula:  $\left(\frac{\text{number of births to unwed women}}{\text{number of births to unwed women} + \text{number of births to wed women}}\right) * 100$

Oregon Department of Human Services, Center for Health Statistics Oregon Communities Explorer, Retrieved from <http://oe.oregonexplorer.info/rural/CommunitiesReporter/>

Teen Birth Rate by County & Total Number of Central Oregon Teen Births (15-17 yrs old), 3-Year Moving Averages, 1998-2009



The teen birth rate (per 1,000) is calculated by dividing the number of births to females age 15-17 by the number of females age 15-17.

Indicators Northwest, Teen Birth Rate, Retrieved from <http://www.indicatorsnorthwest.org/DrawRegion.aspx?IndicatorID=25&RegionID=41000>

Oregon Department of Human Services, Teen Pregnancy Data, 1998-2009 Retrieved from <http://oregon.gov//DHS/ph/chs/data/vol1.shtml>

National Center for Health Statistics, Birth Data 1998-2009 Retrieved from <http://www.cdc.gov/nchs/births.html>

Note: Data for number of females aged 15-17 come from the Census Bureau's intercensal estimates and the decennial census when not available from state agencies, with the exception of 2001 data, which come from the National Center for Health Statistics' National Vital Statistics System

Site: [http://www.cdc.gov/nchs/nvss/bridged\\_race.htm](http://www.cdc.gov/nchs/nvss/bridged_race.htm). DATE LAST UPDATED: October 19, 2011

# HEALTHY MOTHERS, HEALTHY BABIES

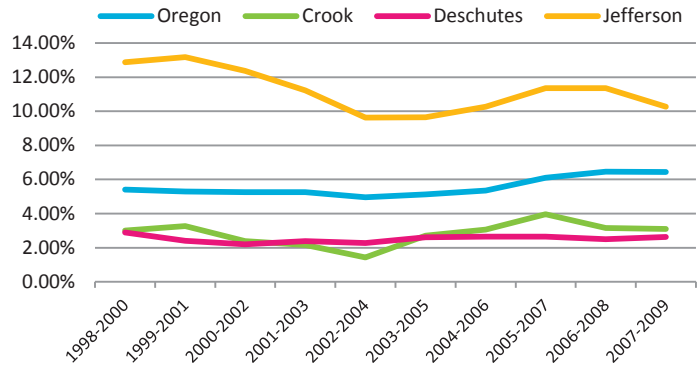
Table 45 Prenatal Care

Average % Late\* or No Prenatal Care per Year, 1998-2009

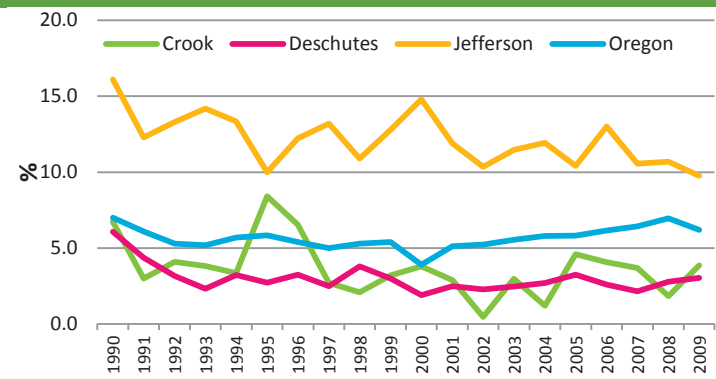
Rank	County	%
1	<b>DESCHUTES</b>	2.63%
2	<b>CROOK</b>	2.84%
3	Washington	3.06%
4	Wasco	3.62%
5	Wallowa	3.85%
6	Gilliam	3.96%
7	Benton	4.02%
8	Yamhill	4.02%
9	Hood River	4.05%
10	Douglas	4.08%
11	Sherman	4.23%
12	Wheeler	4.42%
13	Clatsop	4.47%
14	Columbia	4.49%
15	Klamath	4.88%
16	Clackamas	4.91%
17	Grant	4.96%
18	Polk	4.99%
19	Josephine	5.02%
20	Baker	5.06%
21	Union	5.36%
22	Tillamook	5.54%
	<b>OREGON</b>	5.62%
23	Lake	5.69%
24	Linn	5.84%
25	Multnomah	6.09%
26	Jackson	6.26%
27	Harney	6.63%
28	Lane	7.11%
29	Lincoln	7.84%
30	Curry	8.40%
31	Marion	8.50%
32	Umatilla	8.80%
33	Malheur	9.18%
34	Coos	9.33%
35	Morrow	10.88%
36	<b>JEFFERSON</b>	11.11%

## PRENATAL CARE

PERCENT OF LIVE BIRTHS WITH LATE\* OR NO PRENATAL CARE, 3-YEAR ROLLING AVERAGES, 1998-2009

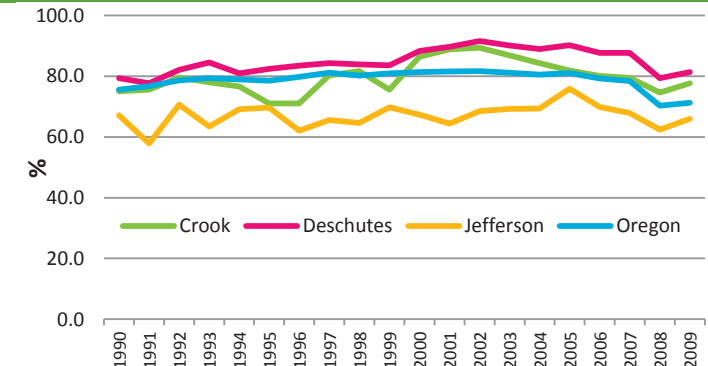


PERCENT OF LIVE BIRTHS WITH INADEQUATE PRENATAL CARE\*, 1990-2009



\*Inadequate prenatal care is defined as less than 5 prenatal visits or care which began in the third trimester.

PERCENT OF LIVE BIRTHS WITH FIRST TRIMESTER PRENATAL CARE, 1990-2009



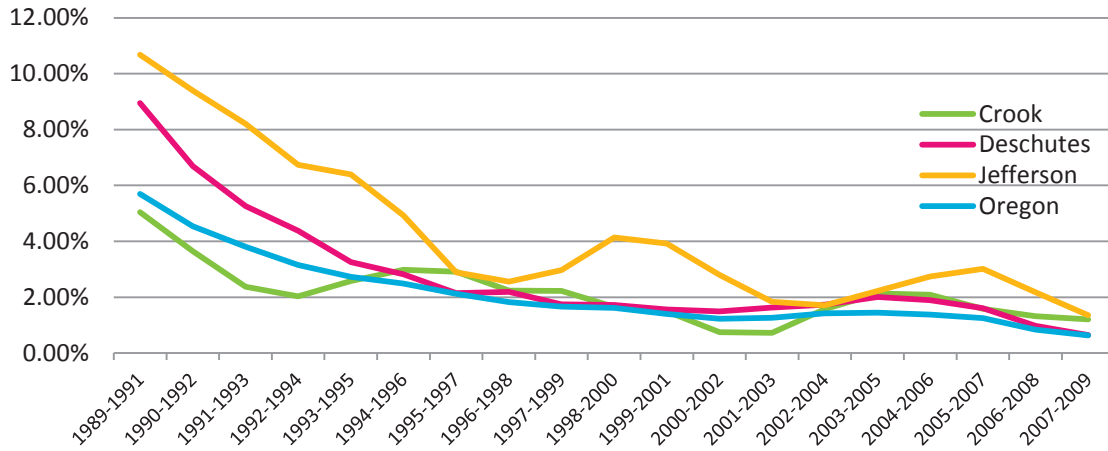
\*Late prenatal care as defined by care initiated no sooner than the 3<sup>rd</sup> trimester of pregnancy  
Oregon DHS, Center for Health Statistics, 1990-2009, Retrieved from <http://oregon.gov//DHS/ph/chs/data/vol1.shtml>

# HEALTHY MOTHERS, HEALTHY BABIES

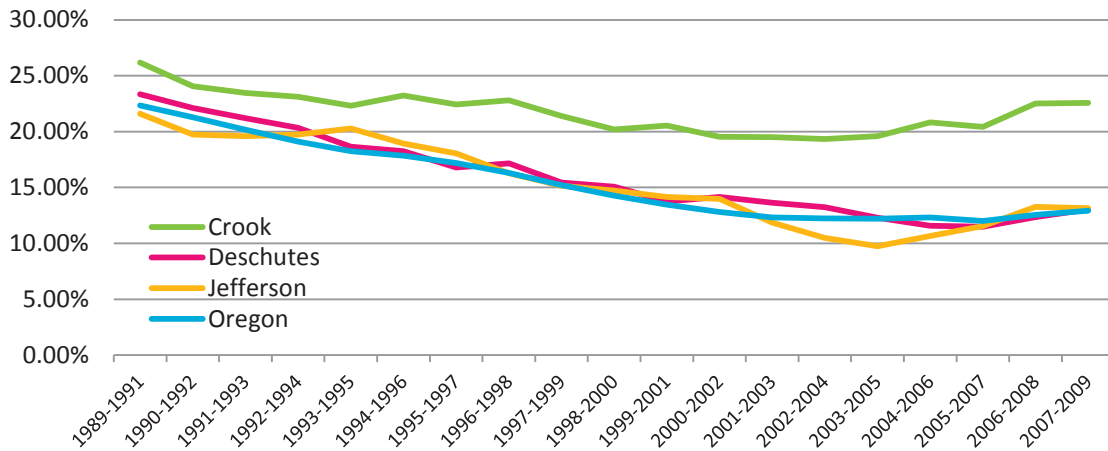
Table 46 Live Births with Maternal Alcohol, Tobacco & Drug Use, 1989-2009

## LIVE BIRTHS WITH MATERNAL ALCOHOL, TOBACCO & DRUG USE

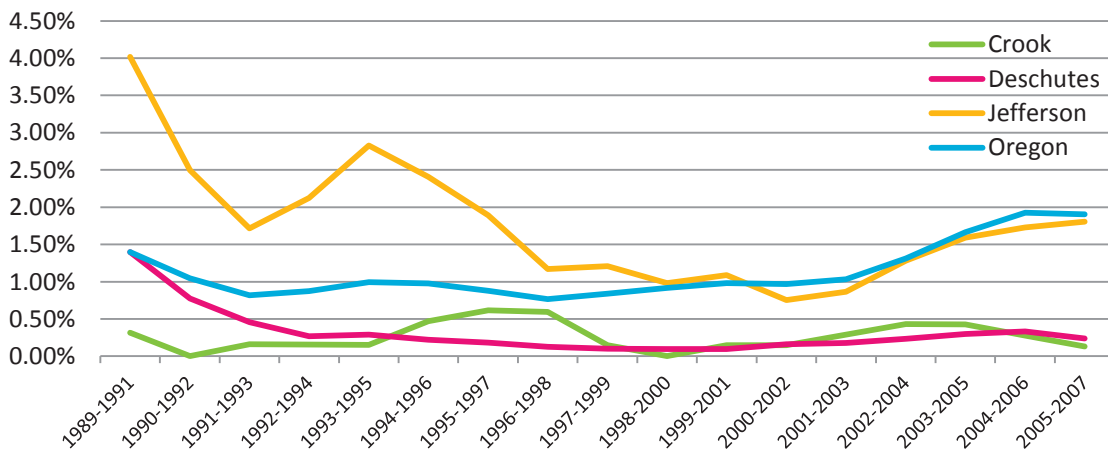
### % Live Births with Maternal Alcohol Use by County, 3-Year Rolling Average, 1989-2009



### % Live Births with Maternal Tobacco Use by County, 3-Year Rolling Average, 1989-2009



### % Live Births with Illicit Drug Use by County, 3-Year Rolling Average, 1989-2007



In calculating percentages for data after 1996, missing and unknown values were excluded.

Note: Due to changes in reporting, alcohol use was not reported for the majority of births in 2008 and 2009; Percentages based on less than five events are unreliable.

# HEALTHY MOTHERS, HEALTHY BABIES

Table 47 Low & Very Low Birthweight Numbers and Rates, 2000-2009

## LOW & VERY LOW BIRTHWEIGHT BIRTHS

Low and Very Low Birthweight Births:  
Total Number and Aggregated Rate\* of LBW & VBLW Births  
by County of Residence, 2000-2009



\*Rate per 1,000 live births

Note:  
Bubble width is proportional to total number of births for the years 2000-2009.  
Vertical axis position= rate  
Horizontal axis position=ranking of aggregated rate (ranked 1-6)

1,500 grams= 3 lbs 4oz  
2,499 grams= 5 lbs 8 oz

Oregon Health Authority, Low Birthweight by County of Residence, Oregon 2000-2009 Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/birth/Documents/lowbirthweight.pdf>  
Oregon Health Authority, Very Low Birthweight by County of Residence, Oregon 2000-2009 Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/birth/Documents/verylowbirthweight.pdf>

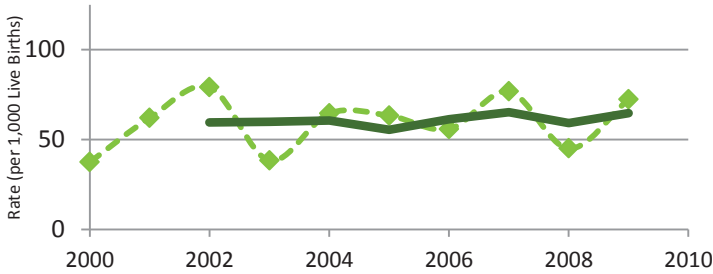


# HEALTHY MOTHERS, HEALTHY BABIES

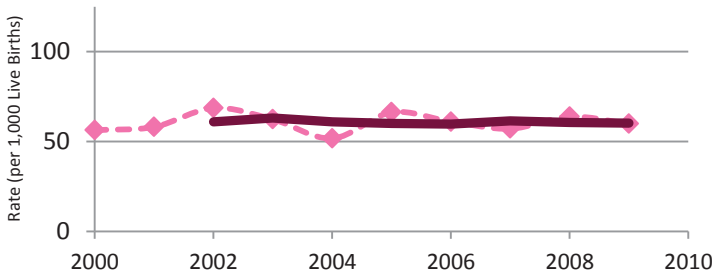
Table 48 Low Birthweight & Very Low Birthweight, 2000-2009

## RATE OF LOW BIRTHWEIGHT & 3-YEAR ROLLING AVERAGE, 2000-2009

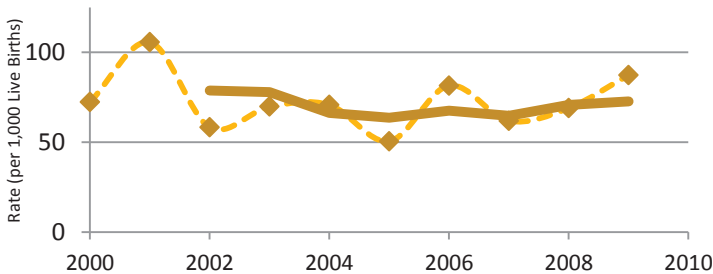
### Crook County



### Deschutes County



### Jefferson County



## Low Birthweight (<2500 g) by County of Residence, Oregon 2000-2009

year	Crook		Deschutes		Jefferson		Oregon	
	n	rate	n	rate	n	rate	n	rate
2000	8	37.4	81	56.3	23	72.3	2,593	56.6
2001	15	62.0	86	58.1	32	105.6	2,518	55.6
2002	17	79.1	102	68.6	18	58.3	2,617	57.9
2003	9	38.3	98	62.3	22	69.8	2,822	61.4
2004	16	64.5	86	51.7	22	70.7	2,764	60.5
2005	14	63.3	118	66.2	16	50.5	2,808	61.2
2006	14	55.8	122	61.0	29	81.5	2,971	61.0
2007	22	76.7	119	57.1	20	61.9	3,011	61.0
2008	10	45.0	124	63.8	26	69.0	2,980	60.7
2009	17	72.3	109	59.9	29	87.3	2,974	63.0

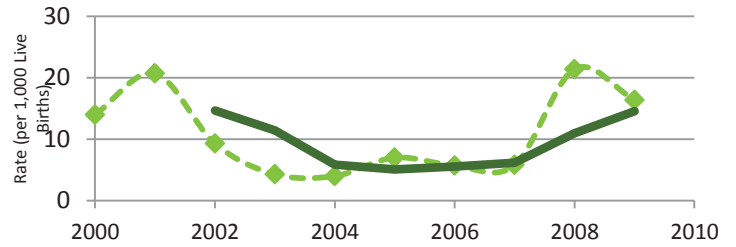
Very Low Birthweight < 1,500 grams (3 lbs 4 oz)

Low Birthweight < 2,499 grams (5 lbs 8 oz)

\*Rates are per 1,000 live births

## RATE OF VERY LOW BIRTHWEIGHT & 3-YEAR ROLLING AVERAGE, 2000-2009

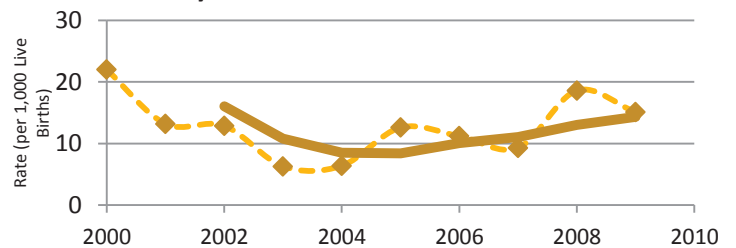
### Crook County



### Deschutes County



### Jefferson County



Oregon Health Authority, Low Birthweight by County of Residents, Oregon 2000-2009, Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/birth/Documents/lowbirthweight.pdf>

Oregon Health Authority, Low Birthweight by County of Residence, Oregon 2000-2009 Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/birth/Documents/lowbirthweight.pdf>

Oregon Health Authority, Very Low Birthweight by County of Residence, Oregon 2000-2009 Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/birth/Documents/verylowbirthweight.pdf>

Oregon Health Authority, Very Low Birthweight by County of Residence, Oregon 2000-2009 Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/birth/Documents/verylowbirthweight.pdf>

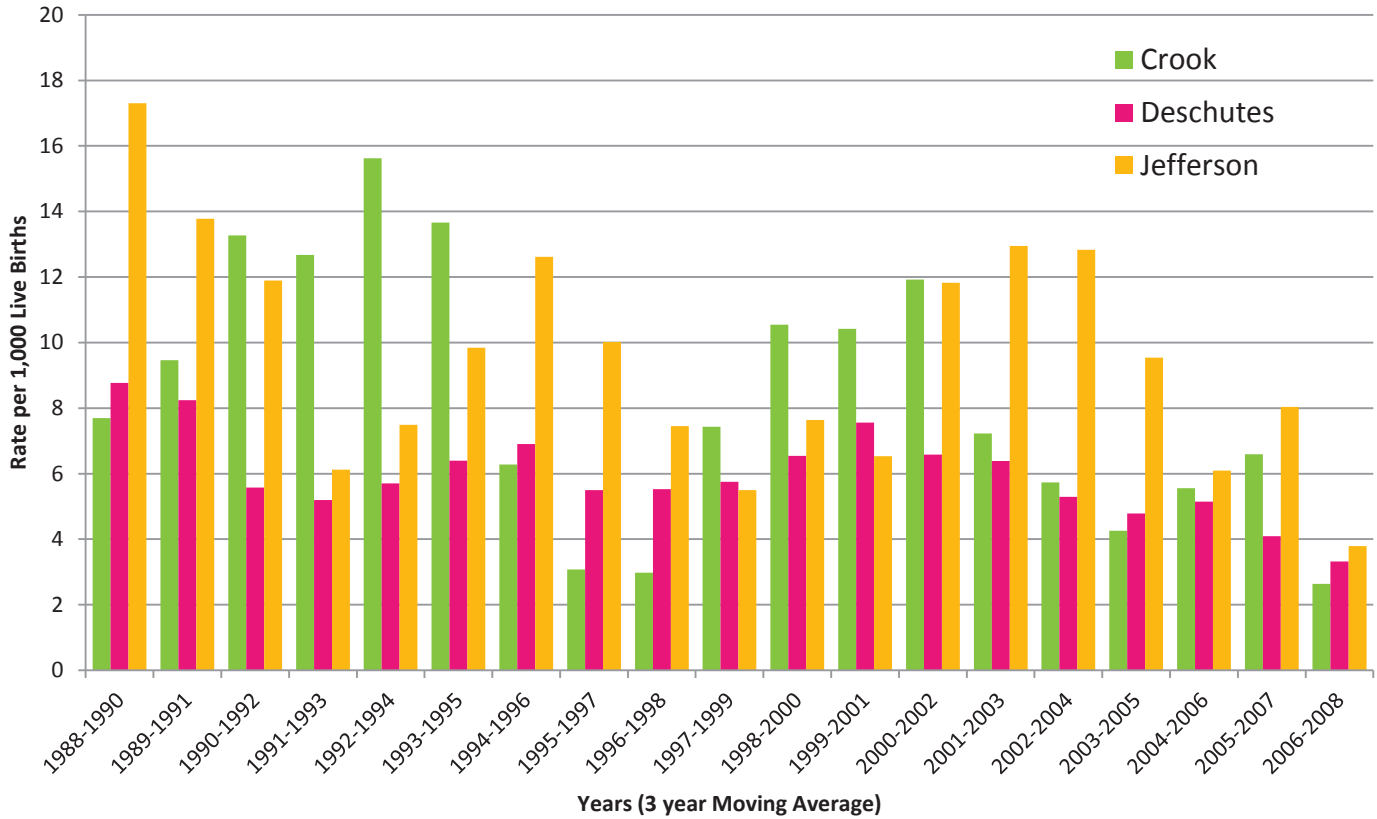
Oregon Health Authority, Very Low Birthweight by County of Residence, Oregon 2000-2009 Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/birth/Documents/verylowbirthweight.pdf>

Oregon Health Authority, Very Low Birthweight by County of Residence, Oregon 2000-2009 Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/VitalStatistics/birth/Documents/verylowbirthweight.pdf>

# HEALTHY MOTHERS, HEALTHY BABIES

Table 49 Infant Mortality Rates By County, 3-Year Moving Averages, 1988-2008

## CENTRAL OREGON INFANT MORTALITY RATES BY COUNTY, 3-YEAR MOVING AVERAGES, 1988-2008



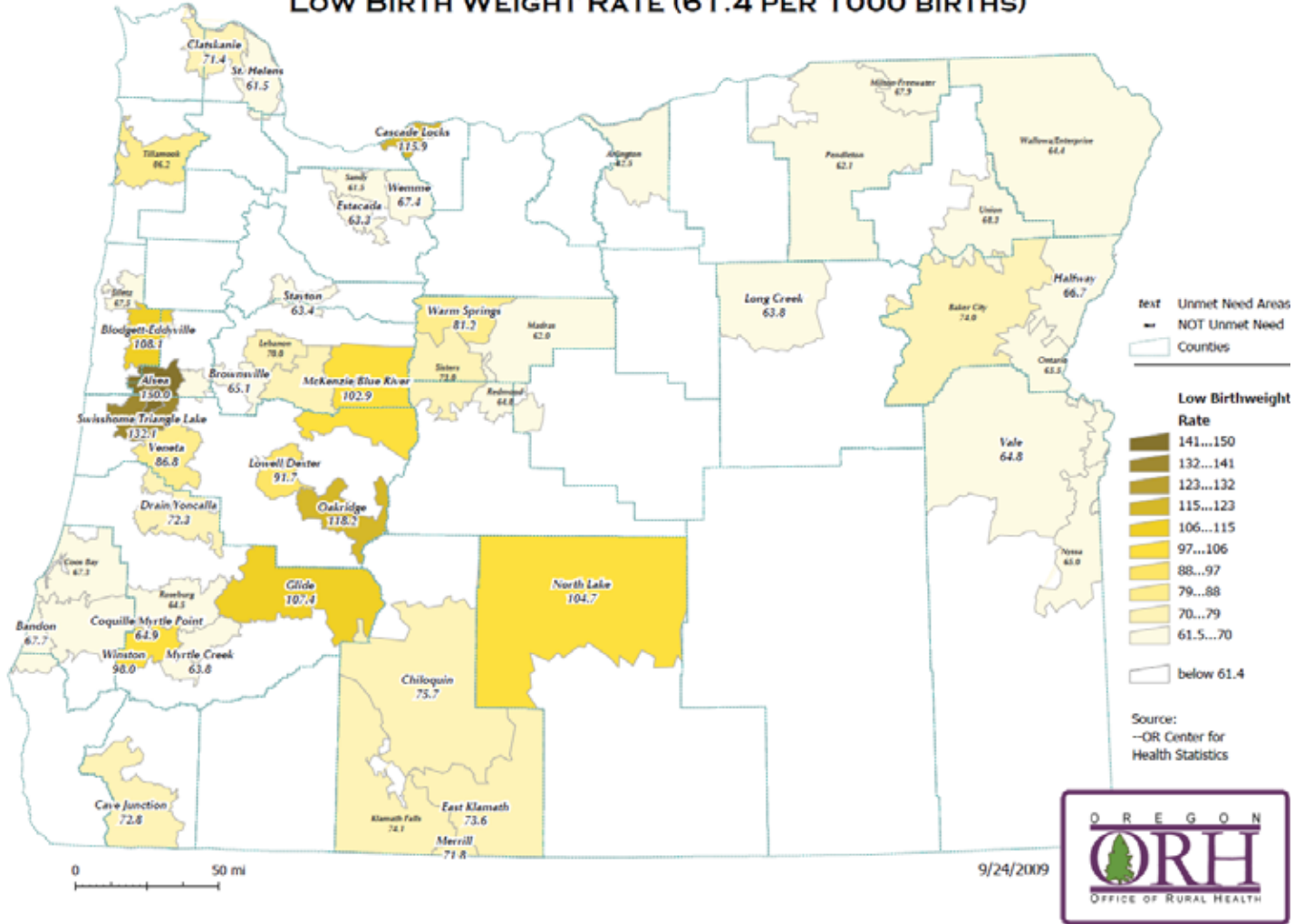
Oregon Health Authority, Center for Health Statistics, Birth and Death Certificates Retrieved from <http://public.health.oregon.gov/BIRTHDEATHCERTIFICATES/VITALSTATISTICS/BIRTH/Pages/trends.aspx>

# HEALTHY MOTHERS, HEALTHY BABIES

Table 50 Rural Areas: Low Birth Weight Rates, 2003-2007

## RURAL AREAS: LOW BIRTH WEIGHT RATES

### 2003 - 2007 OREGON RURAL AREAS ABOVE MEAN LOW BIRTH WEIGHT RATE (61.4 PER 1000 BIRTHS)



OHSU analysis of birth data for rural areas in Oregon for births from 2003-2007, low birthweight rates were found to be higher in Jefferson County and northern Deschutes County.

Oregon Health and Science University, Oregon Rural Areas above Mean Low Birthweight Rate 2003-2007 Retrieved from [www.ohsu.edu/oregonhealth](http://www.ohsu.edu/oregonhealth)

## HEALTHY MOTHERS, HEALTHY BABIES

Table 51 Women, Infants &amp; Children (WIC) Services

## WIC (WOMEN INFANTS &amp; CHILDREN) SERVICES, 2010

	Crook County	Deschutes County	Jefferson County	
<b>NUMBER SERVED</b>	Pregnant women served	55.2%	45.3%	76.2%
	Infants and children under 5 yrs of age	802	5,123	1,000
	Pregnant, breastfeeding, postpartum women	287	2,037	546
<b>FAMILIES &amp; BREASTFEEDING</b>	Number of families served	442	2,916	705
	Percent of families served working families	65.6%	67%	54.9%
	WIC moms who start out breastfeeding	83%	93.5%	90.2%
<b>ECONOMIC BENEFITS</b>	Total \$ to local WIC authorized retailers for healthy foods	\$371,669	\$2,601,801	\$673,519
	Farm Direct \$ to farmers based in county	\$1,876	\$1,296	\$4,352
<b>CLINIC SITES &amp; WIC AUTHORIZED OPTIONS</b>	Number Clinic sites	3	3	2
	Number authorized stores	4	25	4
	Independent stores	2	6	3
	Large or regional chains	0	10	1
	Small chain stores	1	5	0
	Pharmacies	1	4	0
	Farmers	4	21	5
	Farmers' markets	1	3	1
	Farm stands	2	5	0

Oregon WIC Program, State of Oregon Office of Family Health, Oregon Health Authority (2010). 2010 Oregon WIC Annual Report, County Fact Sheets: Crook County, Deschutes County, Jefferson County, Confederated Tribes of Warm Springs Retrieved from <http://public.health.oregon.gov/HealthyPeopleFamilies/wic/Pages/annual.aspx>



# HEALTHY MOTHERS, HEALTHY BABIES

Table 53 School-Age Immunizations: Religious Exemptions by School Type & Grade, January 2011

## SCHOOL-AGE IMMUNIZATIONS: RELIGIOUS EXEMPTIONS

### RELIGIOUS EXEMPTIONS BY GRADE & SCHOOL TYPE, JANUARY 2011

**public**      **private**

#### KINDERGARTEN

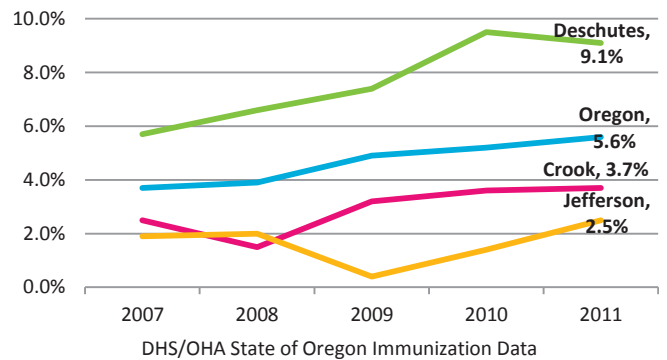
Crook	2.97%	.....	<b>15.38%*</b>
Deschutes	<b>8.58%</b>	.....	<b>12.09%</b>
Jefferson	2.52%	.....	0%
Oregon	5.00%	.....	<b>10.27%</b>

#### 7<sup>th</sup> GRADE

Crook	1.25%*	.....	<b>7.69% *</b>
Deschutes	<b>6.02%</b>	.....	<b>8.39%</b>
Jefferson	1.39% *	.....	0%
Oregon	<b>4.04%</b>	.....	<b>4.35%</b>

When looking at religious exemption rates for January 2011, religious exemption rates appear higher in private schools than public schools. This is seen at the both the county and state levels for kindergarten and 7<sup>th</sup> grade.

**Kindergarten Religious Exemption Rates, 2007-2011**



Since 2007, the kindergarten religious exemption rate has steadily increased in Deschutes County, and continues to be higher than the state of Oregon. Jefferson County boasts the lowest religious exemption rates in Central Oregon.

\*Unreliable – small number

“Religious Exemption Rates by School/Children’s Facility in Crook, Deschutes, and Jefferson Counties” January, 2011

# HEALTHY MOTHERS, HEALTHY BABIES

Table 54 Religious Exemptions by School, January 2011

## Immunizations: Comparison of Religious Exemptions by School, January 2011



Note: Size is proportional to total # of students with religious exemptions in each school. Color is related to the % of students w/ religious exemptions at the school.

Smaller % of students w/ exemptions:

Greater % of students w/ exemptions:



To preserve confidentiality, data are only provided for schools where there are 10 or more religious exemptions and 50 or more children enrolled.

# YOUTH

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# YOUTH

Table 55 Child Welfare/Foster Care

## CHILD WELFARE/FOSTER CARE

Child Victim Rate* per 1,000 Children, 2008-2010			
	2008	2009	2010
Crook	6.9	7.2	9.5
Deschutes	7.4	6.4	8.1
Jefferson	11.4	12.7	13.3
Oregon	11.8	12.5	12.7

State total includes investigations by DHS Office of Investigations & Training  
Based on population estimates from PSU Population Research Center  
2008-2010 Federal Fiscal Year (FFY)

Foster Care Rate* per 1,000 Children, 2008-2010			
	2008	2009	2010
Crook	4.9	5.3	5.0
Deschutes	2.9	3.1	3.6
Jefferson	7.2	6.2	7.5
Oregon	10.1	9.7	10.1

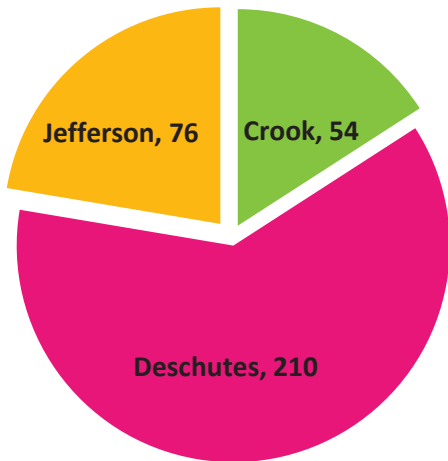
\*Point-in-time estimate: defined as in Foster Care on 9/30  
2008-2010 Federal Fiscal Year (FFY)

FFY 2010 Foster Care Entrants & Exits		
	Total Entrants	Total Exits
Crook	22	21
Deschutes	97	79
Jefferson	37	30
Oregon	4,736	4,213

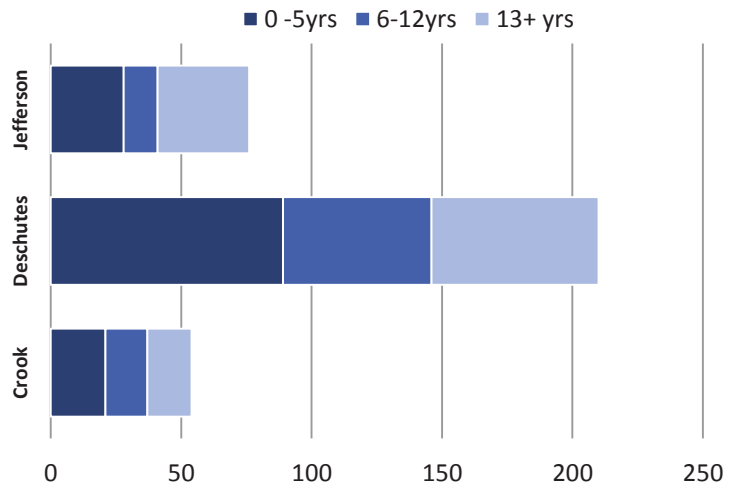
State total does not include Title IV-E eligible children served by tribes

### Number of Children Experiencing at least 1 Day in Foster Care\*, 2010, by County

Total



By Age Group



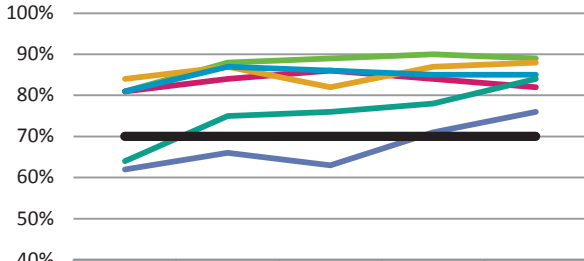
\*All types of foster care; age on 9/30/2010.

# YOUTH

Table 56 School Math & Reading Results by School District

## SCHOOLS & EDUCATION

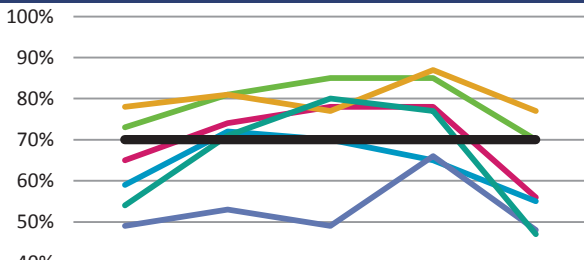
### 3<sup>rd</sup> Grade Reading, by School District, 2006-2010



	2006-07	2007-08	2008-09	2009-10	2010-11
Bend LaPine SD	81%	88%	89%	90%	89%
Redmond SD	81%	84%	86%	84%	82%
Sisters SD	84%	87%	82%	87%	88%
Crook Co SD	81%	87%	86%	85%	85%
Jefferson Co SD	62%	66%	63%	71%	76%
Culver SD	64%	75%	76%	78%	84%
Oregon Target	70%	70%	70%	70%	70%

Prior to 2007, the target for reading was 50% of students meeting or exceeding. In 2007-2008 school year, the standard was raised to 60% and then raised again to 70% in the 2009-2010 school year (indicated by the black line, above).

### 3<sup>rd</sup> Grade Math, by School District, 2006-2010



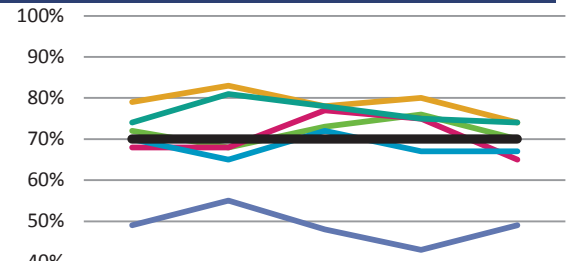
	2006-07	2007-08	2008-09	2009-10	2010-11
Bend LaPine SD	73%	81%	85%	85%	70%
Redmond SD	65%	74%	78%	78%	56%
Sisters SD	78%	81%	77%	87%	77%
Crook Co SD	59%	72%	70%	65%	55%
Jefferson Co SD	49%	53%	49%	66%	48%
Culver SD	54%	71%	80%	77%	47%
Oregon Target	70%	70%	70%	70%	70%

Prior to 2007, the target for math was 49%. In the 2007-2008 school year, the standard was raised to 59% and then raised again to 70% in the 2009-2010 school year (indicated by the black line, above).

Oregon benchmark standards and related assessments in reading and math have been used to measure progress of Oregon students and their schools for the federal No Child Left Behind Act (currently called the federal Elementary and Secondary Education Act (ESEA) under the Obama Administration). Oregon provides this accountability through the Oregon Assessment of Knowledge and Skills (OAKS) test.

The standards set for reading and math achievement apply to the total student population as well as any demographic group that includes 42 students or more (e.g. economically disadvantaged, race/ethnicity, special education, and English language learners). In order for the school to avoid corrective action, a given percentage of students must meet or exceed the benchmark. This target is a reflection of federal requirements and is set by the State Board of Education. The Oregon targets have changed over the past five years.

### 8<sup>th</sup> Grade Math, by School District, 2006-2010



	2006-07	2007-08	2008-09	2009-10	2010-11
Bend LaPine SD	72%	68%	73%	76%	70%
Redmond SD	68%	68%	77%	75%	65%
Sisters SD	79%	83%	78%	80%	74%
Crook Co SD	70%	65%	72%	67%	67%
Jefferson Co SD	49%	55%	48%	43%	49%
Culver SD	74%	81%	78%	75%	74%
Oregon Target	70%	70%	70%	70%	70%

Note: Education & Schools Indicators selected and provided by Deschutes County Children & Families Commission (3/2012).

Oregon Dept of Education, 2006-2011. Public Reports. Retrieved from [http://www.ode.state.or.us/data/schoolanddistrict/testresults/reporting/pagrsu\\_rpressed.aspx](http://www.ode.state.or.us/data/schoolanddistrict/testresults/reporting/pagrsu_rpressed.aspx)

Oregon Department of Education (2011). Cohort Media File, 2010-2011. Retrieved from: <http://www.ode.state.or.us/search/page/?id=2644>

YOUTH

Table 57 Graduation Rates

## GRADUATION RATES

4-year Cohort High School Graduation Rates*			
School District	2009-2010 Graduation Cohort	2010-2011 Graduation Cohort	County
Black Butte SD 41	100%	75.0%	D
Bend-La Pine Admin SD	72.8%	68.2%	D
Crook County SD	69.1%	66.7%	C
Culver SD 4	81.6%	80.0%	J
Jefferson County SD 509J	57.0%	57.0%	J
Redmond SD 2J**	46.1%	48.9%	D
Sisters SD 6	75.0%	80.2%	D

C=Crook  
 D=Deschutes  
 J=Jefferson

\*4-year cohort graduation rate follows students from the fall of their 9<sup>th</sup> grade year to the end of their 4<sup>th</sup> year in high school. Oregon began using the 4-year cohort graduation rate in 2008-2009.

\*\*Redmond School District 4-year graduation may be low due to participation in the Advanced Diploma—a program for students to receive college credits during a 5<sup>th</sup> year in High School. Redmond School District’s 5-year Adjusted Cohort Graduation rates for 2009-2010 and 2010-2011 were 67.47% and 68.5%, respectively.

The cohort is adjusted for students who transfer into the school district and those who transfer out, move, home school or are deceased after they enter high school.

Oregon Department of Education (2011). Cohort Media File, 2010-2011. Retrieved from: <http://www.ode.state.or.us/search/page/?id=2644>

# YOUTH

Table 58 Youth Behavioral/Mental Health: 8<sup>th</sup> & 11<sup>th</sup> Grades

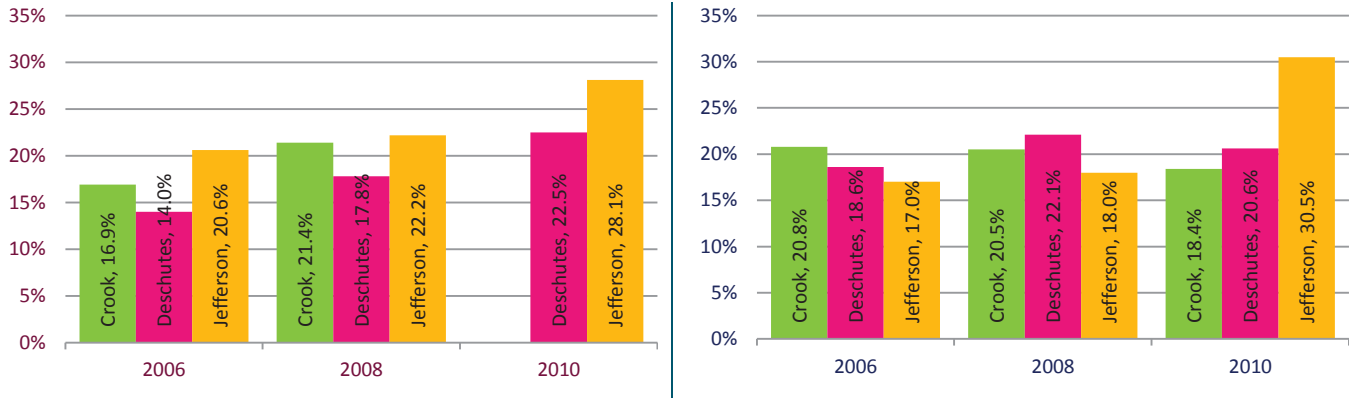
## BEHAVIORAL/MENTAL HEALTH: 8<sup>TH</sup> & 11<sup>TH</sup> GRADES

8<sup>th</sup> Grade\*

11<sup>th</sup> Grade

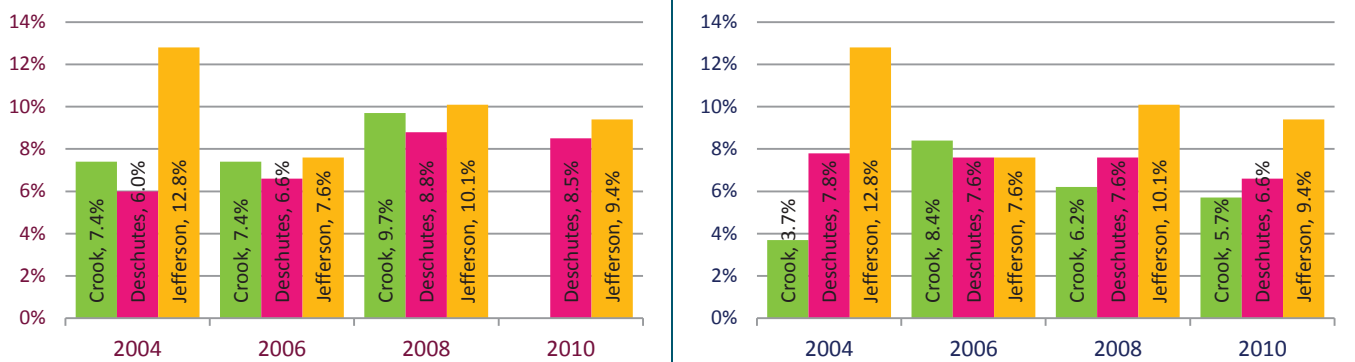
### Youth Depression

Percent of youth who had a depressive episode in the past year, from Oregon Health Teens Survey and Oregon Student Wellness Survey.



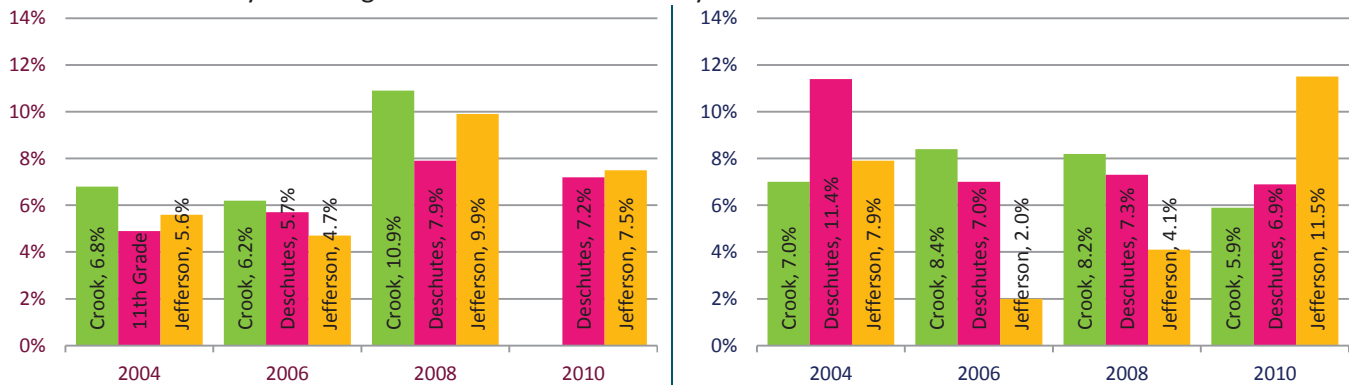
### Attempted Suicide by Youth

Percent of youth who attempted suicide in the past year, from Oregon Health Teens Survey and Oregon Student Wellness Survey.



### Psychological Distress Among Youth

Percent of youth who exhibit Psychological Distress Based on Mental Health Inventory-5 (MHI-5), from Oregon Health Teens Survey and Oregon Student Wellness Survey.



\*Due to small response numbers, Crook County 8<sup>th</sup> Grade data for 2010 are excluded. Data combined for 2005-2006 and 2007-2008.

Crook County's Epidemiological Data on Alcohol, Drugs and Mental Health, 2000 to 2010  
 Deschutes County's Epidemiological Data on Alcohol, Drugs and Mental Health, 2000 to 2010  
 Jefferson County's Epidemiological Data on Alcohol, Drugs and Mental Health, 2000 to 2010

# YOUTH

Table 59 Teen Pregnancy

## TEEN PREGNANCY

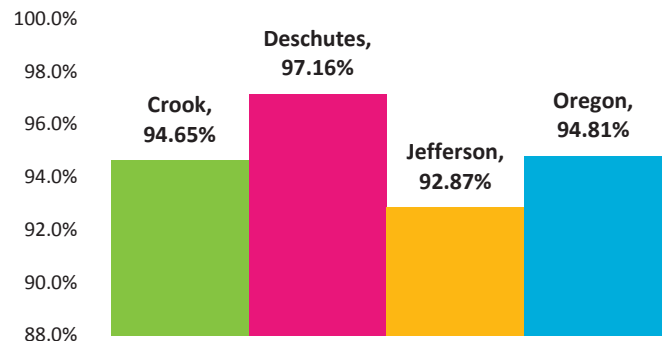
Teen Pregnancy Rate (per 1,000 females) for Teens by County of Residence and Age Group, 2007-2010

	CROOK	DESCHUTES	JEFFERSON	OREGON
<b>10-17 YEARS</b>				
2007	--	8.6	12.1	10.1
2008	--	9.2	22.1	10.0
2009	--	5.7	15.5	8.9
2010*	--	6.1	13.4	7.3
<b>15-17 YEARS</b>				
2007	--	22.5	24.6	25.7
2008	--	25.8	56.3	25.7
2009	--	15.7	38.4	22.5
2010*	--	16.8	34.8	18.6

--Zero pregnancies or detailed reporting of small numbers may breach confidentiality and have been suppressed.

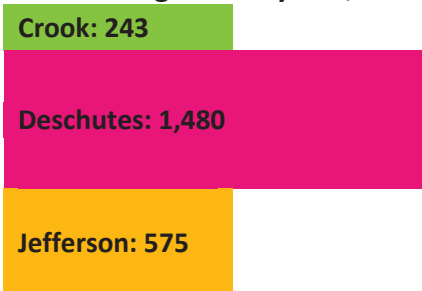
**Pregnancy estimates are based** upon the estimated number of teen births and induced terminations among Oregon teens; they do not include the number of fetal deaths or miscarriages (spontaneous abortions) which occur. The estimation of teen births is considered to be relatively complete and includes births to resident teens even when they occur out-of-state. The estimation of teen abortions is based on all reported abortions to teenage residents of Oregon; however, because states often do not report abortions obtained within their borders to the state of residence as occurs with vital events such as birth and death, an unknown number of Oregon teens obtain abortion services out-of-state. As a consequence, estimates of teen abortions and teen pregnancies should be considered minimal in nature.

% of Reported Teen Pregnancies that were to Teens age 15-17 years, by County, 1990-2009



\*Of reported teen pregnancies age 10-17 years of age, 1990-2009

# of Reported Teen Pregnancies, to Teens age 10-17 years, 1990-2009



The majority of pregnancies to teens younger than 18 years old are to 15-17 year olds.

Jefferson County has the highest percentage of teen pregnancies to teens 10-14 years old (7.13% of reported teen pregnancies from 1990-2009).

# HEALTHY ENVIRONMENTS

## HEALTHY ENVIRONMENTS

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## HEALTHY ENVIRONMENTS

Table 59 Role of Environmental Health

Though we do not always consider it, environments are part of your everyday life. Look around you. What do you see?

**At every moment, you are part of an environment.**

The way people interact with the environment and the qualities of the environment itself affect quality of life, health and health disparity.

Striving for healthy environments means more than thriving natural areas, woods, streams or lakes, but also seeking to ensure the places we work, live, play, learn, and visit are safe and free from accidents and unnecessary exposures to toxins, carcinogens, violence, and other hazardous substances or circumstances.

## WHY ENVIRONMENTAL HEALTH?

The health of the public is greatly impacted by the health the environment. "Environment" is more than a place where tall trees grow and clear streams flow. Humans are always interacting with an environment.

Healthy People 2020 has an Environmental Health Objective focusing on 6 main themes:

- 1- OUTDOOR AIR QUALITY
- 2- SURFACE AND GROUND WATER QUALITY
- 3- TOXIC SUBSTANCES AND HAZARDOUS WASTE
- 4- HOMES AND COMMUNITIES
- 5- INFRASTRUCTURE AND SURVEILLANCE
- 6- GLOBAL ENVIRONMENTAL HEALTH

According to the World Health Organization,

**NEARLY 25% OF ALL DEATHS AND THE TOTAL DISEASE BURDEN CAN BE ATTRIBUTED TO ENVIRONMENTAL FACTORS\***

Creating an environment that promotes health is complex and requires the work of multiple sectors and communities. Many current environmental health efforts often go unnoticed and unseen.

If you ever drink water, swim in a pool or eat at a restaurant, you are benefitting from existing environmental health efforts that safeguard drinking water, public pools and restaurants every day.

## ENHANCING OUR REGION: ENVIRONMENTAL HEALTH

Professionals who work in the environmental health field in our region have identified some potential areas of opportunity to enhance our environmental health efforts, improve the environments we interact with every day, and create a more healthy future for ourselves and generations to come. Main themes include:

- Conducting a comprehensive environmental health needs assessment in (and with) communities
- Assessing the region's environmental health capacity, resources and strengths
- Building capacity for increased community interaction to: get feedback on what works and what isn't working, increase public understanding of environmental health risks and resources
- Enhanced access to information and education to inform the public
- Increased participation in interdisciplinary efforts so critical environmental health aspects are considered and incorporated (such as public planning processes)

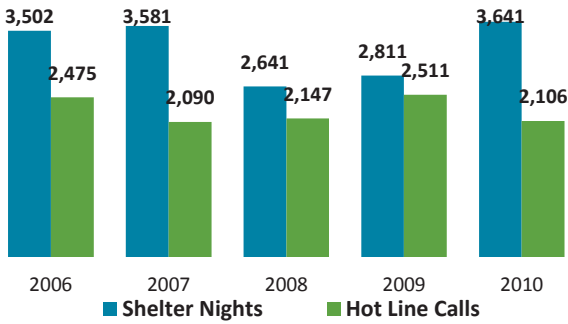
\*World Health Organization (WHO). Preventing disease through healthy environments. Geneva, Switzerland: WHO; 2006. Healthy People. Healthy People 2020. <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=12>

# HEALTHY ENVIRONMENTS

Table 60 Violence, Crime & Safety

## VIOLENCE, CRIME & SAFETY

### Saving Grace Service Data, 2006-2010



Since 1977, Saving Grace, formerly Central Oregon Battering and Rape Alliance (COBRA), has provided support and services to survivors of domestic violence, sexual assault, dating violence, date rape and stalking.

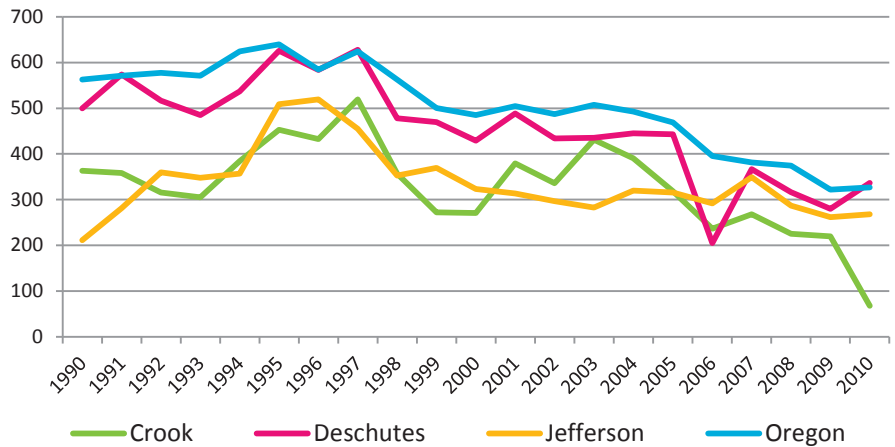
Free and confidential sheltering, support groups, temporary restraining order assistance, therapy, counseling, a 24-hour hotline, and supervised visitation and exchange are some of the services offered to thousands of local residents.

Saving Grace provides a 24-bed shelter in Bend, Mary's Place (supervised visit and exchange center), and offices in Redmond, Madras, Prineville and Sisters.

Saving Grace data provided by Saving Grace, 2/2012. Information about Saving Grace retrieved from <http://www.saving-grace.org/About/About+Us/default.aspx>

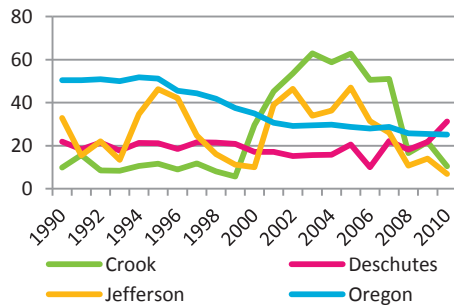
### TOTAL CRIMES REPORTED RATE (2010)

County	County Rank* (Oregon)	Total Crimes Reported (Rate per 10,000 pop.)
Crook	31	68
Deschutes	3	337
Jefferson	12	268



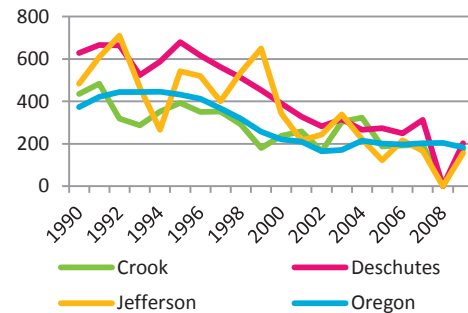
### Violent Crimes (2010)

County	County Rank* (Oregon)	Total Crimes Reported (per 10,000 pop.)
Crook	21	10
Deschutes	4	31
Jefferson	24	7



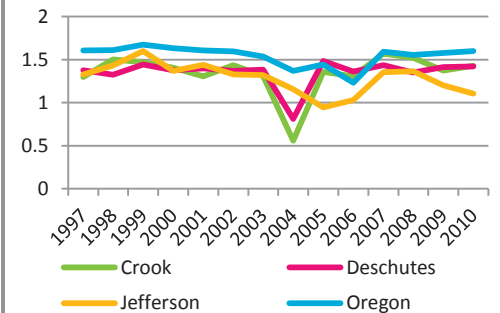
### Juvenile Arrests (2009)

County	County Rank* (Oregon)	Total Crimes Reported (per 10,000 pop.)
Crook	14	172
Deschutes	9	203
Jefferson	16	155



### Number of Police Officers (2010)

County	County Rank* (Oregon)	Total Sworn Officers (per 1,000 pop.)
Crook	21	1.4
Deschutes	22	1.4
Jefferson	33	1.1



\*For Rank of Counties: highest number=1; lowest number=36

Source: Indicators Northwest

2003-2009: Federal Bureau of Investigation, Uniform Crime Reports, (<http://www.fbi.gov/ucr/ucr.htm>); 1997-2009: Federal Bureau of Investigation, Uniform Crime Reports, (<http://www.fbi.gov/ucr/ucr.htm>); DATE LAST UPDATED: November 17, 2010;

Source: 1990-2002: National Archive of Criminal Justice Data, Uniform Crime Reporting Program Data, (<http://www.icpsr.umich.edu/NACJD/>); 1990-2002: Federal Bureau of Investigation, Uniform Crime Reports, (<http://www.fbi.gov/ucr/ucr.htm>); and 2000-2002: University of Virginia Library, Geostats Center, Uniform Crime Reports County Data, (<http://fisher.lib.virginia.edu/collections/stats/crime/>); DATE LAST UPDATED: November 16, 2010.



# HEALTHY ENVIRONMENTS

Table 61 Built Environment: Food Atlas

## BUILT ENVIRONMENT: U.S. FOOD ATLAS, 2006, 2007, 2008

### % of households that are Low Income and...

	Crook	Deschutes	Jefferson
more than 1 mile to grocery store*	15.9%	12.97%	25.3%
more than 10 miles to grocery store*	3.15%	0.14%	7.83%

\*Data for this indicator from 2006  
 US Department of Agriculture Food Atlas Data, 2006, 2007, 2008, Retrieved from <http://maps.ers.usda.gov/FoodAtlas/>

### Food availability†

	Crook	Deschutes	Jefferson	Oregon
Grocery store availability†	43	18	34	30
Fast food availability†	29	36	29	35
# of Farmer’s Markets/ Roadside Farm Stands participating in Oregon Farm Direct Nutrition Program (2008)	2	5	1	291

†Density: number per 100,000 population

Grocery stores were considered those establishments that had a primary Standard Industrial Classification code for Retail Grocer (5411). Retail grocers include supermarkets, food stores, and grocery stores, primarily engaged in retail sale of all sorts of canned good and dry goods, fresh fruits and vegetables, and fresh and prepared meats, fish, and poultry (does not include convenience stores).

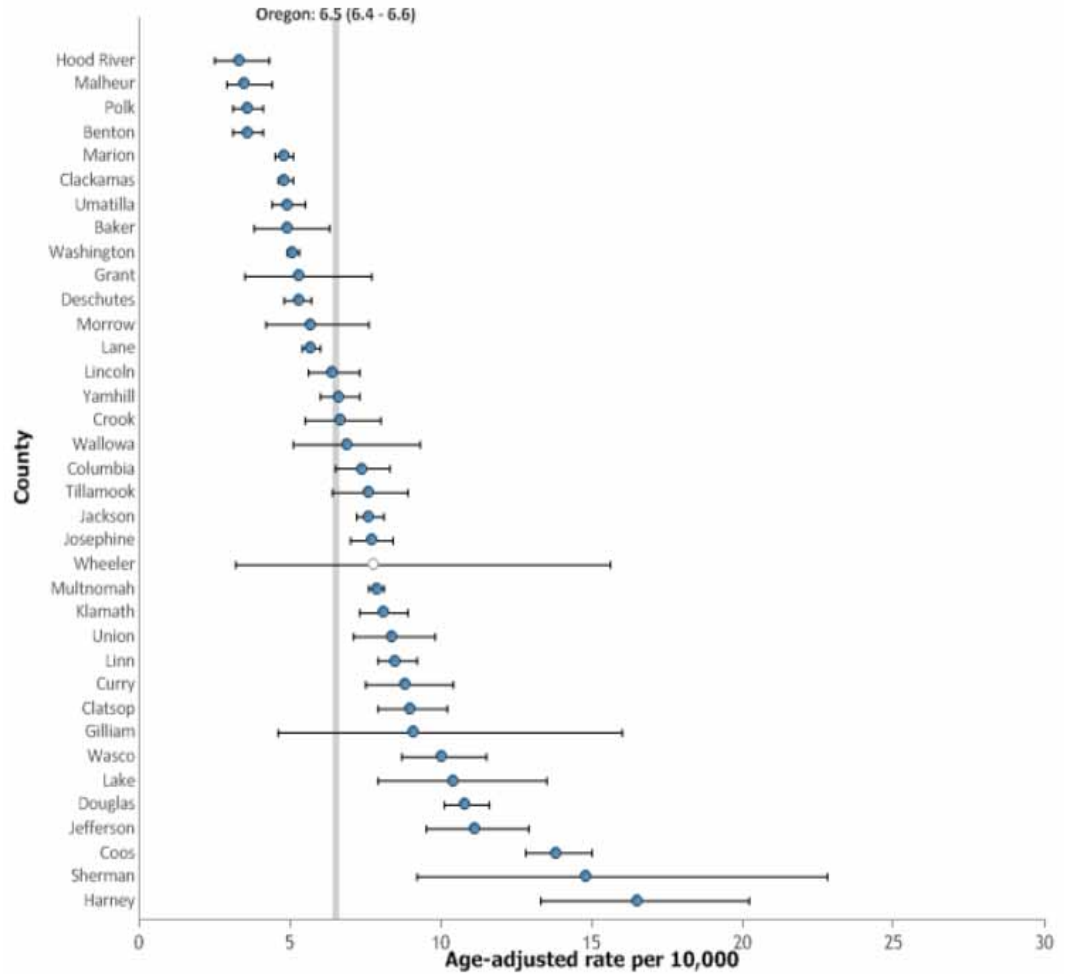
These estimates are based on data from 2008 and have likely changed since that time.

Oregon DHS & Oregon Health & Sciences University, Healthy Aging in Oregon Counties, 2009 Retrieved from <http://www.oregon.gov/DHS/spwpd/sua/docs/state-plan-2009-13-apx5.pdf?ga=t>

# HEALTHY ENVIRONMENTS

Table 62 Hospitalizations Due to Asthma

## ASTHMA HOSPITALIZATIONS: OREGON AGE-ADJUSTED RATE OF ASTHMA HOSPITALIZATIONS per 10,000 population, by County, 2000-2007 (both sexes)



Asthma is the leading chronic health condition among children in the U.S.

A person’s immediate environment—whether in the home, workplace, outdoors, at school—may have triggers that cause serious asthma attacks. The most common triggers found indoors include: smoke, dust mites, mold, mildew, animals with fur or feathers, chemicals, and strong fragrances. Common outdoor triggers include pollens from plants, air pollution caused by industrial emissions, smoke, and exhaust from machinery and automobiles.

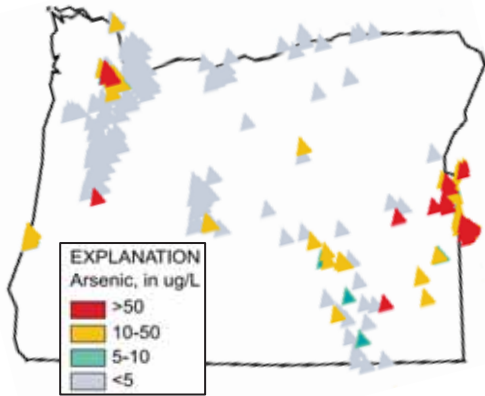
Several studies have shown relationships in air pollutants, ozone and particulate matter (PM) to exacerbate asthma and trigger attacks.

OHA/DHS Public Health Division, Environmental Public Health Tracking, (2012). Asthma: Hospitalizations, All Counties, 2000-2007. Retrieved from <http://epht.oregon.gov/IRMA>

# HEALTHY ENVIRONMENTS

Table 63 Water

## ARSENIC IN GROUNDWATER



Arsenic is an odorless and tasteless semi-metal element that can occur in drinking water supplies from natural deposits and agricultural or industrial practices—such as some insecticides or wood treated with chromated copper arsenate (CCA). The EPA standard for arsenic in drinking water is 10 parts per billion in public water systems.

For some individuals, arsenic exposures can lead to health problems such as skin discoloration, neuropathy and various forms of cancer. New research suggests prenatal exposure to long-term low-dose exposure to arsenic may be harmful to a baby’s health in later life.

Many private wells can contain arsenic levels well above safe limits. Because arsenic is odorless and tasteless, people with private wells may not know they are consuming dangerous levels of arsenic unless the well is tested.

USGS, 2000. Arsenic in Ground-Water Resources of the United States. Fact Sheet FS-063-00 May 2000. Retrieved from <http://pubs.usgs.gov/fs/fs063-00/pdf/fs063-00.pdf>

## WATER (Deschutes County)

Safe drinking water (or “potable” water) is a cornerstone to public health. Drinking water that is pure enough to consume without risk of acute illness, waterborne disease and chronic illness is essential for a population to thrive.

Drinking water is most often from ground sources (i.e., groundwater, hyporheic zones and aquifers) and surface water (i.e., streams, rivers, glaciers).

There are many substances that can threaten the quality of water by the time it is consumed. Some of these include: coliform, haloacetic acids and trihalomethanes, nitrate, nitrite, radium, sodium, radium, lead and copper, arsenic, and several other contaminants from microbes, pesticides, herbicides, industrial wastes, etc.

Between July 1, 2009 to June 30, 2011 in Deschutes County there were:

- 171 public water systems
- 3 E. Coli alerts
- 5 chemical alerts
- 68 sanitary surveys
- 41 violations

In Oregon, state and county agencies have the following responsibilities for drinking water programs:

- Sanitary Survey Inspections
- Regulatory assistance training
- Compliance assurance
- Emergency response planning
- Investigation and response on contamination incidents
- Non-EPA public systems

For private well inquiries, water programs can provide technical assistance, chlorination, and connection to testing/labs.

# HEALTHY ENVIRONMENTS

Table 60 Sustainable Central Oregon Climate Report, GeosInstitute

## GEOSINSTITUTE REPORT: Integrated Strategies for a Vibrant & Sustainable Central Oregon, 2011

November 2011, Geos Institute published a report on a sustainable Central Oregon climate, titled “Integrated Strategies for a Vibrant and Sustainable Central Oregon.” This report explored how the communities and natural resources of Crook, Deschutes, and Jefferson Counties of Central Oregon may be affected by projected changes in climate conditions.

Community stakeholders were presented with projections for the potential future climate of Central Oregon (developed by USDA Forest Service Pacific Northwest Research Station). Geos Institute and Headwaters Economics presented these projections and local socioeconomic trends to local leaders and experts in the region at a workshop. Leaders and experts used these climate projections to identify likely changes to natural (aquatic and terrestrial habitats and species), built (infrastructure), economic (agriculture, forestry, tourism, development, etc.), and human (health, education, and emergency services) systems. Leaders and experts then developed strategies and specific action recommendations to prepare communities and natural resources for those changes.

### **Future Climate of Crook, Deschutes, and Jefferson Counties**

Three global climate models (CSIRO, MIROC, and HadCM) and a vegetation model (MC1) were used to project future temperature, precipitation, vegetation, and wildfire in Central Oregon. All three climate models projected an increase in annual average temperature for both the mid (2.1 to 4.0 °F) and late (2.5 to 4.6 °F) 21<sup>st</sup> century from the reference period (1961 to 1990). All seasons showed warming, though summer projections show the greatest degree of warming.

Projections for annual average precipitation ranged from a reduction of 7% to an increase of 22 % by late 21<sup>st</sup> century. All three models agreed that future winters are likely to be somewhat wetter than past winters (increases ranging from 4 to 24%). All other seasons had variable projections for precipitation trends. Increasing temperatures, despite projected increases in winter precipitation, suggest that snow pack levels will continue to decline in the region.

Vegetation model results indicated a shift in growing conditions. Ponderosa pine dominated mixed conifer forests are expected to expand at the expense of Douglas fir dominated mixed conifer and subalpine forests. The extent of wildfire is projected to increase by 11 to 16% by late 21<sup>st</sup> century.

Barr, Brian R. (2011). Integrated Strategies for a Vibrant and Sustainable Central Oregon, November 2011. GeosInstitute. [www.geosinstitute.org/images/stories/pdfs/Publications/ClimateWise/DeschutesClimateWiseFinal.pdf](http://www.geosinstitute.org/images/stories/pdfs/Publications/ClimateWise/DeschutesClimateWiseFinal.pdf)

# HEALTHY ENVIRONMENTS

## RECOMMENDED ACTIONS FOR PREPARATION ACROSS SYSTEMS,

From GeosInstitute's "Integrated Strategies For a Vibrant & Sustainable Central Oregon, 2011"

	ACTIONS	GOALS
WATER	Restore wetlands, complex and meandering stream channels, and floodplains;	Increased water storage Decreased flood risks
	Optimize water management in existing storage facilities;	Increased groundwater storage Improved surface water quality
	Investigate and employ off-channel water storage facilities where feasible, cost effective, and beneficial to other natural resources.	
	Improve irrigation water delivery and application;	
	Reduce water-intensive landscaping in municipal settings;	Conserved water
	Orient future developments in locations near available water supplies.	
LAND & LAND USE	Employ market-based approaches to water allocation.	Decreased water demand
	Reduce forest fuels;	Restored historic range of forest structure and function,
	Utilize controlled burning and thinning techniques.	Limited health risks from wildfire,
	Protect intact habitats with relatively small populations of invasive species (i.e., roadless areas, large public and tribal land tracts).	Reduced need for emergency services in the wildland-urban interface zone.
	Limit urban wildland and floodplain development;	Refuge for terrestrial and aquatic species affected by changing conditions.
	Initiate conservation-minded land use planning by focusing future development near existing emergency service hubs and available water supplies.	Reduced cost of providing services.

Barr, Brian R. (2011). Integrated Strategies for a Vibrant and Sustainable Central Oregon, November 2011. GeosInstitute. [www.geosinstitute.org/images/stories/pdfs/Publications/ClimateWise/DeschutesClimateWiseFin](http://www.geosinstitute.org/images/stories/pdfs/Publications/ClimateWise/DeschutesClimateWiseFin)

# BEHAVIORAL & MENTAL HEALTH

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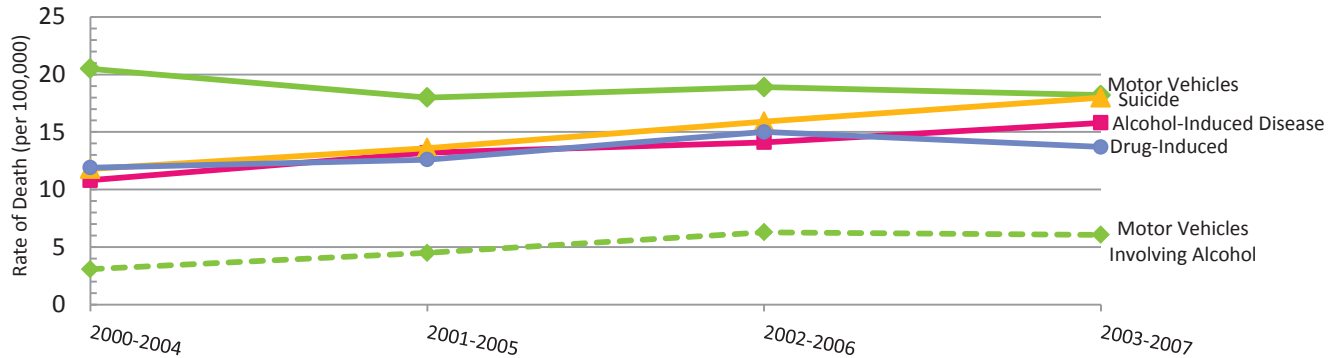
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# BEHAVIORAL & MENTAL HEALTH

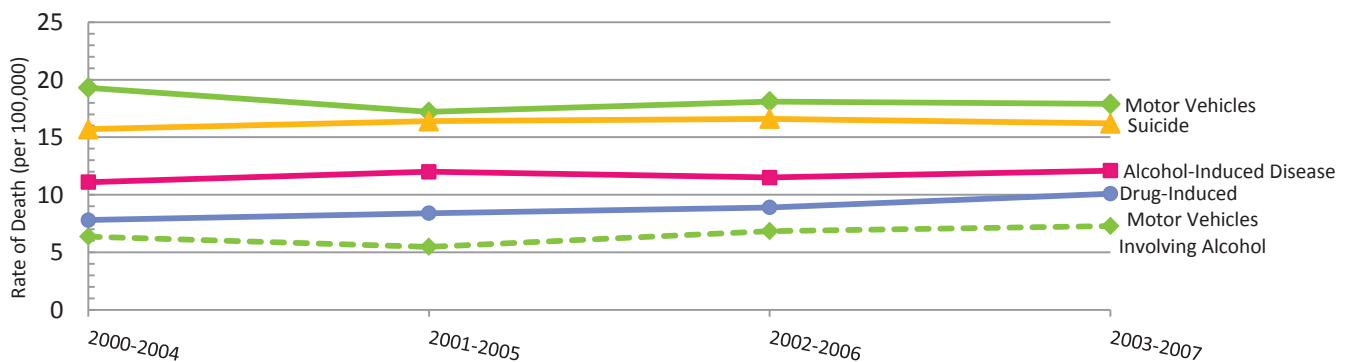
Table 61 Addictions, Behavioral, Mental & Emotional Health-Related Mortality, Selected Age-Adjusted Death Rates

## AGE-ADJUSTED DEATH RATES (MOVING AVERAGES)\*, 2000-2007

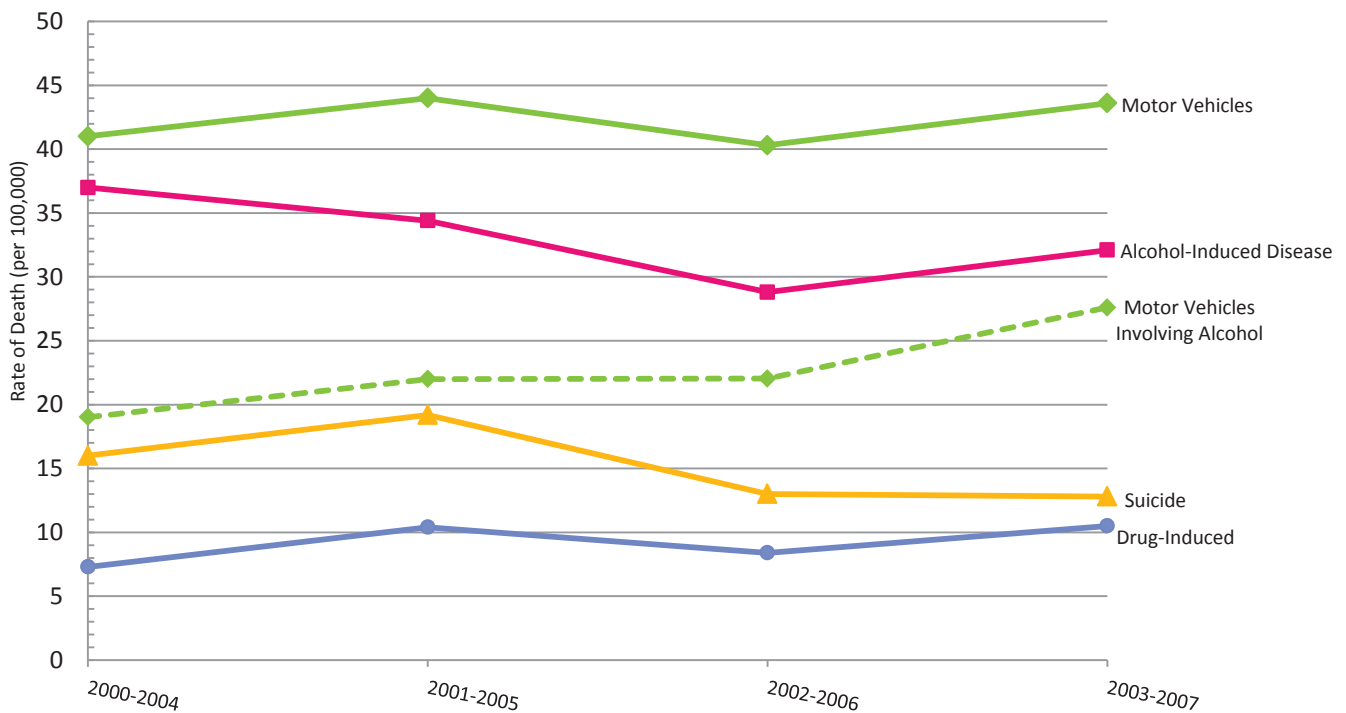
### CROOK COUNTY RESIDENTS



### DESCHUTES COUNTY RESIDENTS



### JEFFERSON COUNTY RESIDENTS



\*Rates are Age-Adjusted per 100,000 population.

Note: Axis for Jefferson County is 0-50; Crook & Deschutes Counties are 0-25.

Oregon Health Authority, Addictions & Mental Health Division, County's Epidemiological Data on Alcohol, Drugs and Mental Health, 2000 to 2010 (2011), Crook, Deschutes & Jefferson Counties, <http://www.oregon.gov/OHA/addiction/ad/data/>

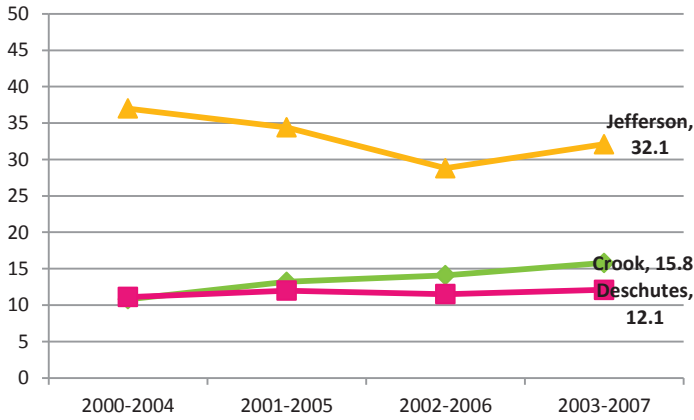
A product of the State Epidemiological Outcomes Workgroup.

# BEHAVIORAL & MENTAL HEALTH

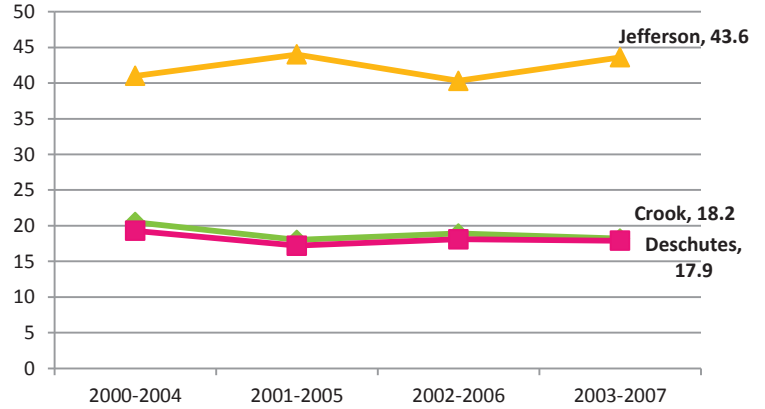
Table 62 Comparison of Motor Vehicle Crashes & Fatalities, Age-Adjusted Death Rates

## COMPARISON OF SUBSTANCE-RELATED FATALITIES

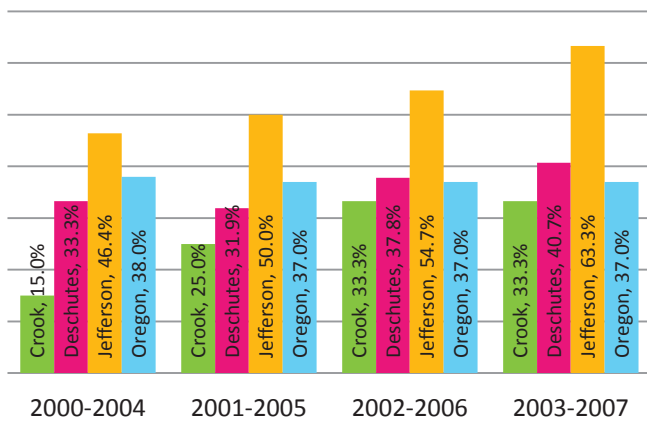
Rate of Death From Alcohol-Induced Disease



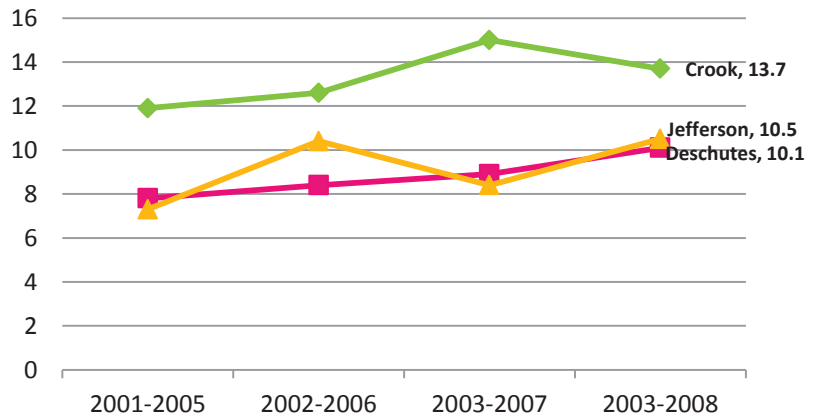
Rate of Death from Motor Vehicle Crashes



Percent of Motor Vehicle Fatalities that Involve Alcohol, 2003-2007



Rate of Death from Drug-Induced Causes



From 2003-2007, 81 individuals were killed in motor vehicle accidents involving alcohol. Of those, 54.3% were from Deschutes County, and 38.3% were from Jefferson County.

Number of Motor Vehicle Fatalities Involving Alcohol, 2003-2007



\*Rates are Age-Adjusted per 100,000 population.

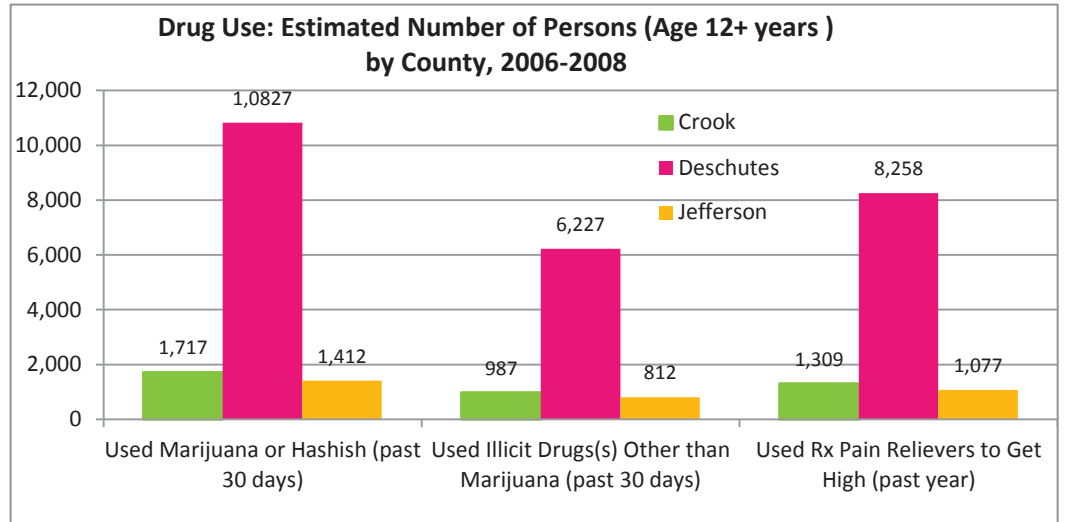
Oregon Health Authority, Addictions & Mental Health Division County's Epidemiological Data on Alcohol, Drugs and Mental Health, 2000 to 2010 (2011), Crook, Deschutes & Jefferson Counties, Retrieved from <http://www.oregon.gov/OHA/addiction/ad/data/>  
A product of the State Epidemiological Outcomes Workgroup



# BEHAVIORAL & MENTAL HEALTH

Table 63 Drug Use

## DRUG USE



### FAST FACTS

Central Oregonians 12+ years old, 2006-2008

8.1%

Used Marijuana or Hashish in the past 30 days

4.6%

Used Illicit Drug(s) other than Marijuana in the past 30 days

6.1%

Used Rx Pain Relievers to get high in the past year

Oregon Health Authority, Addictions & Mental Health Division County's Epidemiological Data on Alcohol, Drugs and Mental Health, 2000 to 2010 (2011), Crook, Deschutes & Jefferson Counties, Retrieved from <http://www.oregon.gov/OHA/addiction/ad/data/>  
 A product of the State Epidemiological Outcomes Workgroup

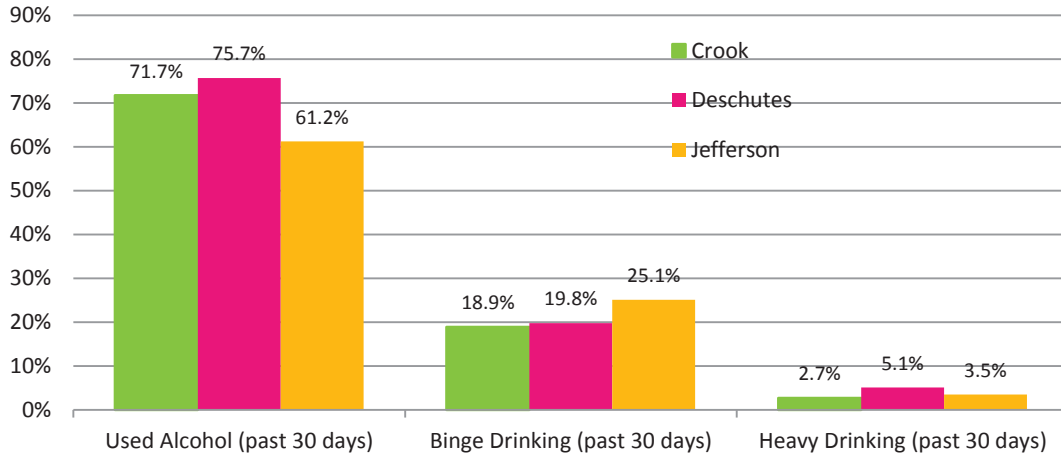
# BEHAVIORAL & MENTAL HEALTH

Table 64 Alcohol Use

## ALCOHOL USE

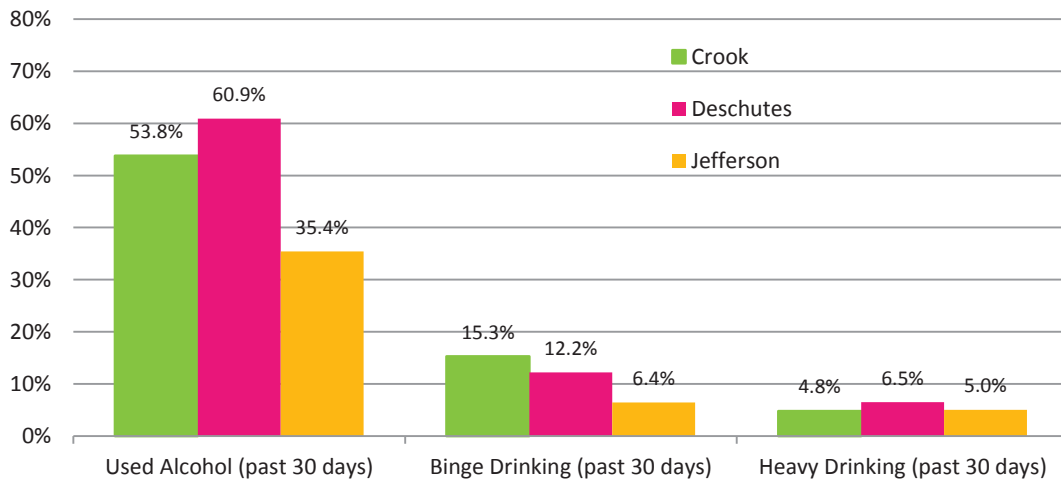
### MALES

**Alcohol Use: Estimated Number of Males (Age 18+ years )  
by County, 2004-2007**



### FEMALES

**Alcohol Use: Estimated Number of Females (Age 18+ years )  
by County, 2004-2007**



Oregon Health Authority, Addictions & Mental Health Division County's Epidemiological Data on Alcohol, Drugs and Mental Health, 2000 to 2010 (2011), Crook, Deschutes & Jefferson Counties, Retrieved from <http://www.oregon.gov/OHA/addiction/ad/data/> . A product of the State Epidemiological Outcomes Workgroup

# BEHAVIORAL & MENTAL HEALTH

Table 65 Summary of Alcohol, Drugs & Mental Health Data, 2000-2010: Crook County



## Summary of Crook County's Epidemiological Data on Alcohol, Drugs & Mental Health: 2000-2010 (A product of the State Epidemiological Workgroup)

Indicator	Sex	Age (yrs)	2002-2005	95% C.I.	2004-2007	95% C.I.
Percent of Adults Who Report Any Use of Alcohol in Past 30 Days	Female	18+	55.1%	38.6, 70.5%	53.8%	40.5, 66.6%
	Male		78.5%	65.2, 87.7%	71.7%	58.1, 82.2%
Percent of Adults Who Report Binge Drinking in the Past 30 Days	Female	18+	15.2%	7.1, 29.8%	15.3%	6.4, 32.3%
	Male		17.8%	8.0, 35.2%	18.9%	9.0, 35.7%
Percent of Adults Who Were Heavy Drinkers in the Past 30 days	Female	18+	1.5%	0.4, 5.1%	4.8%	1.3, 15.7%
	Male		3.2%	1.1, 8.9%	2.7%	0.9, 7.8%

Indicator	Sex	Age (yrs)	2000-2004	95% C.I.	2001-2005	95% C.I.	2002-2006	95% C.I.	2003-2007	95% C.I.
Rate of Death from Motor Vehicle Crashes per 100,000 Population (Age-Adjusted)	Both	All Ages	20.4	12, 31.9	18.0	0.8, 28.5	18.9	11.6, 29.4	18.2	11.2, 28.4
Rate of Death from Alcohol-Induced Disease per 100,000 population (Age-Adjusted)	Both	All Ages	10.8	5.8, 19.2	13.2	7.5, 22.0	14.1	8.3, 22.9	15.8	9.7, 24.8
Rate of Death from Drug-Induced Causes (Age-Adjusted)	Both	All Ages	11.9	5.9, 21.6	12.6	6.5, 22.3	15.0	8.5, 24.8	13.7	7.7, 22.7
Rate of Suicide Deaths per 100,000 Population (Age-Adjusted)	Both	All Ages	11.8	6.1, 21.1	13.6	7.5, 23.0	15.9	9.3, 25.7	18.0	11.2, 27.8
Percent of Motor Vehicle Fatalities that Involve Alcohol	Both	All Ages	15%		25%		33.3%		33.3%	

Indicator	Sex	Age (yrs)	2002-2004	95% C.I.	2004-2006	95% C.I.	2006-2008	95% C.I.	Estimated # Affected ‡
Percent of Persons with Alcohol Dependence or Abuse in the Past Year*	Both	12+	6.7%	5.2, 8.6%	6.7%	5.1, 8.8%	8.1%	6.1, 10.7%	1,736
		12-17					6.3%	4.2, 9.3%	139
		18+					8.3%	6.2, 11.1%	1,613
		18-25					17.0%	14.9, 19.2%	451†
		26+					6.8%	4.8, 9.4%	1,129†

Indicator	Sex	Age (yrs)	2002-2004	95% C.I.	2004-2006	95% C.I.	2006-2008	95% C.I.	Estimated # Affected ‡
Percent of Persons with Drug Dependence or Abuse	Both	12+	3.0%	2.3, 4.1%	2.6%	1.9, 3.8%	3.3%	2.1, 5.0%	695
		12-17					5.2%	3.5, 7.5%	114
		18+					3.1%	1.9, 4.9%	593
		18-25					8.6%	7.2, 10.3%	229†
		26+					2.0%	1.4, 2.8%	331†

 = higher rate than state of Oregon is statistically significant  
 = lower rate than state of Oregon is statistically significant

\*National Survey on Drug Use and Health  
 †low precision estimate, based on Oregon rate  
 ‡ Estimated for the 2006-2008 time period

# BEHAVIORAL & MENTAL HEALTH

Table 66 Summary of Alcohol, Drugs & Mental Health Data, 2000-2010: Deschutes County



## Summary of Deschutes County's Epidemiological Data on Alcohol, Drugs & Mental Health: 2000-2010 (A product of the State Epidemiological Workgroup)

Indicator	Sex	Age (yrs)	2002-2005	95% C.I.	2004-2007	95% C.I.
Percent of Adults Who Report Any Use of Alcohol in Past 30 Days	Female	18+	59.9%	54.3, 65.2%	60.9%	55.8, 65.6%
	Male		74.2%	66.0, 81.1%	75.7%	70.4, 78.3%
Percent of Adults Who Report Binge Drinking in the Past 30 Days	Female	18+	9.6%	6.2, 14.4%	12.2%	8.8, 16.6%
	Male		23.3%	17.7, 30%	19.8%	15.5, 25%
Percent of Adults Who Were Heavy Drinkers in the Past 30 days	Female	18+	6.7%	4.2, 10.3%	6.5%	4.8, 8.8%
	Male		8.5%	5, 13.9%	5.1%	3.1, 8.3%

Indicator	Sex	Age (yrs)	2000-2004	95% C.I.	2001-2005	95% C.I.	2002-2006	95% C.I.	2003-2007	95% C.I.
Rate of Death from Motor Vehicle Crashes per 100,000 Population (Age-Adjusted)	Both	All Ages	19.3	16, 23.1	17.2	14.1, 20.7	18.1	15.0, 21.7	17.9	14.9, 21.4
Rate of Death from Alcohol-Induced Disease per 100,000 population (Age-Adjusted)	Both	All Ages	11.1	8.7, 13.9	12.0	9.6, 14.9	11.5	9.2, 14.3	12.1	9.8, 14.8
Rate of Death from Drug-Induced Causes (Age-Adjusted)	Both	All Ages	7.8	5.8, 10.3	8.4	6.4, 11.0	8.9	6.9, 11.5	10.1	7.9, 12.7
Rate of Suicide Deaths per 100,000 Population (Age-Adjusted)	Both	All Ages	15.7	12.8, 19.1	16.4	13.5, 19.8	16.6	13.7, 20.0	16.2	13.4, 19.4
Percent of Motor Vehicle Fatalities that Involve Alcohol	Both	All Ages	33.3%		31.9%		37.8%		40.7%	

Indicator	Sex	Age (yrs)	2002-2004	95% C.I.	2004-2006	95% C.I.	2006-2008	95% C.I.	Estimated # Affected ‡
Percent of Persons with Alcohol Dependence or Abuse in the Past Year*	Both	12+	6.7%	5.2, 8.6%	6.7%	5.1, 8.8%	8.1%	6.1, 10.7%	10,948
		12-17					6.3%	4.2, 9.3%	740
		18+					8.3%	6.2, 11.1%	10,371
		18-25					17.0%	14.9, 19.2%	2,572†
		26+					6.8%	4.8, 9.4%	7,390

Indicator	Sex	Age (yrs)	2002-2004	95% C.I.	2004-2006	95% C.I.	2006-2008	95% C.I.	Estimated # Affected ‡
Percent of Persons with Drug Dependence or Abuse	Both	12+	3.0%	2.3, 4.1%	2.6%	1.9, 3.8%	3.3%	2.1, 5.0%	4,384
		12-17					5.2%	3.5, 7.5%	606
		18+					3.1%	1.9, 4.9%	3,814
		18-25					8.6%	7.2, 10.3%	1,306†
		26+					2.0%	1.4, 2.8%	2,168†

 = higher rate than state of Oregon is rate is statistically significant  
 = lower rate than state of Oregon is statistically significant

\*National Survey on Drug Use and Health  
 †low precision estimate, based on Oregon rate  
 ‡ Estimated for the 2006-2008 time period

# BEHAVIORAL & MENTAL HEALTH

Table 67 Summary of Alcohol, Drugs & Mental Health Data, 2000-2010: Jefferson County

## Summary of Jefferson County's Epidemiological Data on Alcohol, Drugs & Mental Health: 2000-2010



(A product of the State Epidemiological Workgroup)

Indicator	Sex	Age (yrs)	2002-2005	95% C.I.	2004-2007	95% C.I.
Percent of Adults Who Report Any Use of Alcohol in Past 30 Days	Female	18+	33.1%	21.3, 47.5%	35.4%	24.0, 48.8%
	Male		60.4%**	45.2, 73.8%	61.2	45.7, 74.7%
Percent of Adults Who Report Binge Drinking in the Past 30 Days	Female	18+	5.3%	1.7, 15.5%	6.4%	2.0, 18.8%
	Male		20.2%**	11.1, 33.8%	25.1%	14.3, 40.2%
Percent of Adults Who Were Heavy Drinkers in the Past 30 days	Female	18+	1.8%	0.3, 9.4%	5.0%	1.6, 14.6%
	Male		8.4%**	3.1, 20.7%	3.5%	1.0, 12.2%

Indicator	Sex	Age (yrs)	2000-2004	95% C.I.	2001-2005	95% C.I.	2002-2006	95% C.I.	2003-2007	95% C.I.
Rate of Death from Motor Vehicle Crashes per 100,000 Population (Age-Adjusted)	Both	All Ages	41.0	28.9, 56.5	44.0	31.5, 59.9	40.3	28.5, 55.5	43.6	31.5, 59.0
Rate of Death from Alcohol-Induced Disease per 100,000 population (Age-Adjusted)	Both	All Ages	37.0	25.7, 51.8	34.4	23.6, 48.6	28.8	19.0, 41.9	32.1	21.8, 45.6
Rate of Death from Drug-Induced Causes (Age-Adjusted)	Both	All Ages	7.3	2.9, 15.3	10.4	5.0, 19.5	8.4	3.6, 16.9	10.5	5.0, 19.6
Rate of Suicide Deaths per 100,000 Population (Age-Adjusted)	Both	All Ages	16.0	8.9, 26.7	19.2◊	11.3, 30.6	13.3	6.7, 22.9	12.8	6.6, 22.6
Percent of Motor Vehicle Fatalities that Involve Alcohol	Both	All Ages	46.4%		50.0%		54.7%		63.3%	

Indicator	Sex	Age (yrs)	2002-2004	95% C.I.	2004-2006	95% C.I.	2006-2008	95% C.I.	Estimated # Affected ‡
Percent of Persons with Alcohol Dependence or Abuse in the Past Year*	Both	12+	6.7%	5.2, 8.6%	6.7%	5.1, 8.8%	8.1%	6.1, 10.7%	1,428
		12-17					6.3%	4.2, 9.3%	126
		18+					8.3%	6.2, 11.1%	1,313
		18-25					17.0%	14.9, 19.2%	360†
		26+					6.8%	4.8, 9.4%	922

Indicator	Sex	Age (yrs)	2002-2004	95% C.I.	2004-2006	95% C.I.	2006-2008	95% C.I.	Estimated # Affected ‡
Percent of Persons with Drug Dependence or Abuse	Both	12+	3.0%	2.3, 4.1%	2.6%	1.9, 3.8%	3.3%	2.1, 5.0%	572
		12-17					5.2%	3.5, 7.5%	103
		18+					3.1%	1.9, 4.9%	483
		18-25					8.6%	7.2, 10.3%	183†
		26+					2.0%	1.4, 2.8%	270†

 = higher rate than state of Oregon is rate is statistically significant  
 = lower rate than state of Oregon is statistically significant

\*National Survey on Drug Use and Health

\*\*Due to small sample sizes, results may not accurately reflect behavior of the entire county.

◊ Due to a small number of deaths in the county, the rate of death is based on combined mortality from Crook, Deschutes and Jefferson Counties

†low precision estimate, based on Oregon rate

‡ Estimated for the 2006-2008 time period

# BEHAVIORAL & MENTAL HEALTH

Table 68 Adult Serious Mental Illness, 2008

## SERIOUS MENTAL ILLNESS IN ADULTS: Adult Prevalence & Estimated Population in Need (18+ yrs), Oregon County Rank, 2008

	OREGON	5.9%	171,496
<b>≥ 6.0%</b>	Multnomah	6.9%	38,524
	Lane	6.9%	18,784
	Benton	6.7%	4,575
<b>≥ 5.5%</b>	Washington	6.0%	22,933
	Clackamas	6.0%	17,208
	Marion	5.7%	13,252
	Umatilla	5.5%	2,969
<b>≥ 5.0%</b>	Yamhill	5.4%	3,852
	Polk	5.4%	2,816
	Jefferson		910
	Warm Springs	5.4%	135
	Rest of Jefferson		775
	Morrow	5.4%	485
	Jackson	5.3%	8,431
	Deschutes	5.3%	6,920
	Linn	5.3%	4,407
	Columbia	5.3%	1,938
	Klamath	5.2%	2,612
	Union	5.2%	1,004
	Douglas	5.1%	4,222
	Clatsop	5.1%	1,510
	Malheur	5.1%	1,209
Hood River	5.1%	820	
Crook	5.0%	1,017	
<b>≥ 4.5%</b>	Coos	4.8%	2,432
	Wasco	4.8%	858
	Harney	4.8%	290
	Lake	4.8%	289
	Grant	4.8%	285
	Josephine	4.6%	3,044
	Lincoln	4.6%	1,674
<b>≥ 4.0%</b>	Baker	4.4%	580
	Wallowa	4.4%	254
	Tillamook	4.3%	914
	Sherman	4.2%	62
	Gilliam	4.1%	62
	Curry	4.0%	721
<b>≥ 3.5%</b>	Wheeler	3.8%	49

CMHS Prevalence Estimation/ Kessler Adult SMI (based on recent Census data and same prevalence rate)  
 Oregon Health Authority/DHS, (2009). CMHS Prevalence Estimation  
<http://www.oregon.gov/OHA/amh/data/2009/cmhs-prevalence-est-kessler.pdf>

# BEHAVIORAL & MENTAL HEALTH

Table 69 Estimates of Adult Mental Health Need

## ADULT MENTAL HEALTH NEED

### Selected Estimates of Adult Mental Health Need by County (Adults Age 18 years or older)

Indicator	Source, Time Period	Estimate	
Persons who had a major depressive episode in the past year	National Survey on Drug Use & Health, 2004-2008	Crook	1,471
		Deschutes	9,605
		Jefferson	1,284
Persons with Serious Psychological distress in the past year	National Survey on Drug Use & Health, 2004-2006	Crook	2,046
		Deschutes	13,359
		Jefferson	1,786
Serious Mental Illness Prevalence*	2008 CMHS Prevalence Estimate/ Kessler Adult SMI, 2010*	Crook	1,037
		Deschutes	7,178
		Jefferson	906

### Adult Serious Mental Illness Prevalence Estimate, 2010\*

Crook: 1,037

Jefferson: 906

Deschutes: 7,178

Note: Rates provided by the National Survey on Drug Use and Health are aggregated for region; therefore, estimates apply the same rate to each county's adult population for time period of interest.

CMHS Prevalence Estimation/ Kessler Adult SMI (based on 2010 Census data and same prevalence rate)

Oregon Health Authority /DHS, (2009). CMHS Prevalence Estimation  
<http://www.oregon.gov/OHA/amh/data/2009/cmhs-prevalence-est-kessler.pdf>

\*2010 Estimate of Population in Need (Adults ≥ 18 yrs old) was calculated using the 2008 CMHS Prevalence Estimate/ Kessler Adult SMI listed above, and the PSU Population Center 2010 Population estimates of counties by age group (April 2011). Therefore, the calculation makes the assumption that SMI prevalence from 2008 is applicable for the 2010 population.

# BEHAVIORAL & MENTAL HEALTH

## SERIOUS MENTAL ILLNESS IN CHILDREN: Child Prevalence & Estimated Population in Need (<18 yrs) Oregon County Rank, 2008

SMI Prevalence		Population in Need (est.)
	<b>OREGON</b>	<b>884,364</b>
<b>13%</b>	Josephine	2,225
	Malheur	1,036
	Warm Springs	226
<b>12%</b>	Baker	393
	Coos	1,505
	Curry	419
	Jefferson	568
	Klamath	1,914
	Lincoln	998
<b>11%</b>	Clatsop	890
	Crook	715
	Douglas	2,469
	Grant	176
	Harney	184
	Hood River	609
	Jackson	5,086
	Lake	172
	Lane	8,101
	Marion	9,061
	Multnomah	17,551
	Tillamook	527
	Umatilla	2,024
	Wasco	598
Wheeler	31	
<b>10%</b>	Deschutes	3,644
	Linn	2,704
	Sherman	37
	Union	605
	Wallowa	134
<b>9%</b>	Benton	1,606
	Clackamas	8,087
	Columbia	1,038
	Gilliam	33
	Morrow	315
	Polk	1,448
	Washington	12,393
	Yamhill	2,069

CMHS Prevalence Estimation/ Kessler Adult SMI (based on recent Census data and same prevalence rate)  
Oregon Health Authority /DHS, (2009). CMHS Prevalence Estimation <http://www.oregon.gov/OHA/amh/data/2009/cmhs-prevalence-est-kessler.pdf>



# BEHAVIORAL & MENTAL HEALTH

## HOMELESSNESS in Mental Health Consumers: CPMS\* Data FFY 2010

	# Adult Mental Health Consumers	Adult MH Consumers Homeless at Entry
Crook	301	10
Deschutes	2,366	132
Jefferson	701	20

\*CPMS= Client Process Monitoring System. CPMS is the AMH statewide data system. Numbers indicate individuals for whom living situation was designated as “none” (i.e., homeless, transient).

FFY 2010: Federal Fiscal Year from October 1, 2009 through September 30, 2010

## MENTAL HEALTH & ADDICTIONS AMONG HOMELESS: 2010 Point in Time Homeless Count, by County

	% Homeless Adults w/ Serious Mental Illness (SMI)	Homeless Adults with Substance Abuse	Homeless Adults with Dual Diagnosis
Crook	12.1%	22.1%	5.4%
Deschutes	6.6%	6.5%	1.7%
Jefferson	6.1%	10.7%	1.2%
Oregon	12.1%	14.9%	5.3%

One-night shelter counts are conducted by the Oregon Housing and Community Services Division (OHCS) each year. Information regarding mental or emotional disorder, substance abuse, and dual diagnosis are unduplicated numbers and based on self-disclosure.

Oregon PATH FFY 2011 Application, Projects for Assistance in Transition from Homelessness 2011 Application, Retrieved from <http://www.oregon.gov/OHA/mentalhealth/docs/2011/assistance-tran-homeless.pdf?ga=t>

Oregon Housing and Community Services, CSS 2010 One Night Shelter Counts, Retrieved from [http://www.oregon.gov/OHCS/CSS\\_2010\\_One\\_Night\\_Shelter\\_Counts.shtml](http://www.oregon.gov/OHCS/CSS_2010_One_Night_Shelter_Counts.shtml)

# BEHAVIORAL & MENTAL HEALTH

## SUICIDE: Oregon Suicide Death Rates and Rankings by County & Age Group, 2003-2007 (Crude Rates)

10 to 24 yrs			25 to 44 yrs			45 to 64 yrs			65+ yrs		
Rank	County	Rate	Rank	County	Rate	Rank	County	Rate	Rank	County	Rate
1	Gilliam	67.4	1	Harney	54	1	Wallowa	43.1	1	Harney	81.6
2	Grant	29.5	2	Grant	44.2	2	Coos	40.4	2	Grant	70.5
3	Coos	22.6	3	Union	36.9	3	Josephine	39.8	3	Baker	66.6
4	Malheur	19.6	4	Baker	36.1	4	Sherman	36	4	Union	53.9
5	Wallowa	15.7	5	Tillamook	31.5	5	Jackson	35.6	5	Tillamook	53.8
6	Lake	14.9	6	Clatsop	30	6	Tillamook	35.4	6	Curry	40.9
7	Josephine	13.9	7	Klamath	28.2	7	Lincoln	33.9	7	<b>Crook</b>	<b>40.5</b>
8	Jackson	12.9	8	<b>Jefferson</b>	<b>27.2</b>	8	Curry	33.6	8	Columbia	32.9
9	Umatilla	12.8	9	Curry	23.1	9	Columbia	27.8	9	Douglas	32.4
10	Douglas	12.5	10	Lane	23.1	10	Grant	26.5	10	Lincoln	32
11	Curry	11.8	11	Wasco	22.3	11	Douglas	26.3	11	Morrow	31.9
12	Multnomah	10.6	12	Jackson	21.9	12	<b>Deschutes</b>	<b>25.7</b>	12	Klamath	31.7
13	Union	10.4	13	Douglas	21.7	13	Klamath	25.6	13	Coos	31.6
14	Linn	10.1	14	Lincoln	21.5	14	<b>Crook</b>	<b>25</b>	14	Umatilla	31.5
15	<b>Crook</b>	<b>9.4</b>	15	Josephine	19.9	15	Clatsop	24.2	15	Hood River	30.2
	<b>Oregon</b>	<b>8.9</b>	16	<b>Deschutes</b>	<b>19.3</b>		<b>Oregon</b>	<b>22.5</b>	16	Josephine	26.9
16	Marion	7.9	17	Benton	18.5	16	Malheur	22.4	17	Marion	25.8
17	Lincoln	7.8	18	Coos	18.4	17	Multnomah	22	18	Yamhill	25.8
18	Washington	7.6	19	Linn	18.2	18	Marion	21.5	19	<b>Deschutes</b>	<b>25.5</b>
19	Yamhill	7.6		<b>Oregon</b>	<b>17.9</b>	19	Yamhill	21.5	20	Lane	25.5
20	Benton	7.5	20	Wallowa	17.3	20	Wasco	21	21	Wasco	24.7
21	<b>Deschutes</b>	<b>7.4</b>	21	Multnomah	17.1	21	Polk	20.6		<b>Oregon</b>	<b>24.4</b>
22	Lane	7.4	22	Marion	16.8	22	Lane	20.1	22	Linn	23.4
23	Klamath	7.3	23	Polk	16.2	23	Umatilla	19.9	23	Polk	22.3
24	Clackamas	7	24	Clackamas	15.5	24	Washington	19	24	Jackson	20.9
25	Columbia	6.2	25	<b>Crook</b>	<b>13.8</b>	25	Harney	18.9	25	Clatsop	20.4
26	Clatsop	5.5	26	Umatilla	13.1	26	Lake	18	26	Clackamas	18.6
27	<b>Jefferson</b>	<b>4.7</b>	27	Lake	12.9	27	Union	17.8	27	Multnomah	18.4
28	Wasco	4.4	28	Malheur	12.7	28	Linn	16.8	28	Malheur	18.2
29	Polk	2.4	29	Columbia	12.6	29	Clackamas	16.4	29	Washington	17.5
30	Baker	0	30	Washington	10.5	30	Benton	16.1	30	Benton	16
31	Harney	0	31	Yamhill	10.2	31	Morrow	14	31	Lake	14.2
32	Hood River	0	32	Hood River	7.2	32	Baker	8.3	32	Wallowa	13.7
33	Morrow	0	33	Morrow	6.8	33	Hood River	7.3	33	<b>Jefferson</b>	<b>7.6</b>
34	Sherman	0	34	Gilliam	0	34	<b>Jefferson</b>	<b>4.1</b>	34	Gilliam	0
35	Tillamook	0	35	Sherman	0	35	Gilliam	0	35	Sherman	0
36	Wheeler	0	36	Wheeler	0	36	Wheeler	0	36	Wheeler	0

Note: Rates per 100,000 population

Oregon Health Authority, Diseases and Conditions, Retrieved from <http://public.health.oregon.gov/DiseasesConditions/InjuryFatalityData/Documents/Suicide%20in%20Oregon%20Trends%20and%20Risk%20factors.pdf>

# BEHAVIORAL & MENTAL HEALTH

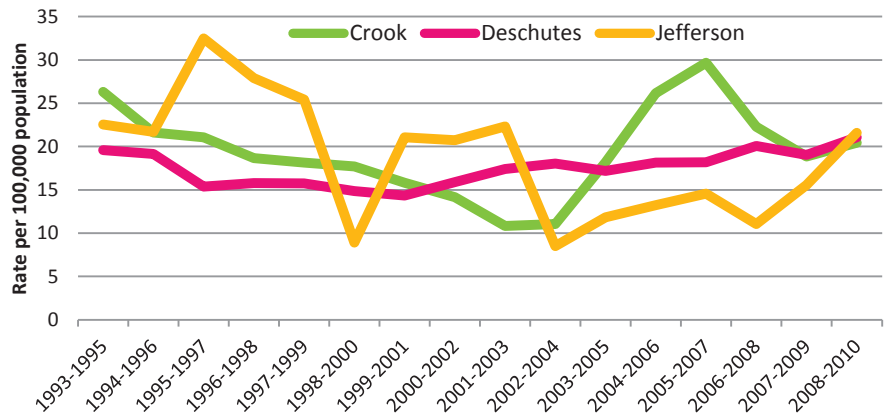
Table 73 Suicide, 1993-20100

## DEATHS BY SUICIDE, 1993-2010

### Oregon Suicide Rates: Crude Rate by County, 2003-2007

OREGON		15.7
		Rate
1	Grant	36.6
2	Harney	31.9
3	Tillamook	28.2
4	Curry	27.5
5	Coos	26.5
6	Josephine	23.8
7	Union	23.7
8	Baker	23.6
9	Wallowa	23.4
10	Lincoln	23
11	Jackson	21.2
12	Douglas	21
13	Klamath	20.2
14	Clatsop	18.6
15	<b>Crook</b>	<b>18.4</b>
16	<b>Deschutes</b>	<b>17.2</b>
17	Lane	16.7
18	Columbia	16.5
19	Wasco	16.1
20	Malheur	15.5
21	Multnomah	15.1
22	Umatilla	15.1
23	Linn	14.7
24	Marion	14.6
25	Lake	13.8
26	Polk	13.1
27	Yamhill	12.8
28	Clackamas	12.6
29	Benton	12.5
30	Sherman	11.9
31	Gilliam	11.5
32	Washington	11.1
33	<b>Jefferson</b>	<b>10</b>
34	Morrow	8.8
35	Hood River	7.6
36	Wheeler	0

Suicide Rates by County (un-adjusted), 1993-2010, 3-Year Moving Averages\*



\*Crude rate per 100,000 population; Using Intercensal Revised Population Estimates (July 1<sup>st</sup>) for 1993-2010  
Suicide data for 2010 is preliminary data.

### Central Oregon Deaths from Suicide

1993-2010: **533**



NOTE: DCHS Calculated suicide rates using Intercensal Data estimates from PSU Population Research Center and Total Counts of Deaths by suicide by county by year using state of Oregon County Data Books 1993-2010.

Use Caution interpreting, as some counties had < 20 deaths for 2003-2007

Note: Crude/Unadjusted rates are not appropriate for comparison across geographic areas.

Oregon Health Authority, Diseases Conditions, Retrieved from <http://public.health.oregon.gov/DiseasesConditions/InjuryFatalityData/Documents/Suicide%20in%20Oregon%20Trends%20and%20risk%20factors.pdf>

# HEALTH BEHAVIORS

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# HEALTH BEHAVIORS

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# HEALTH BEHAVIORS

Table 74 Modifiable Risk Factors

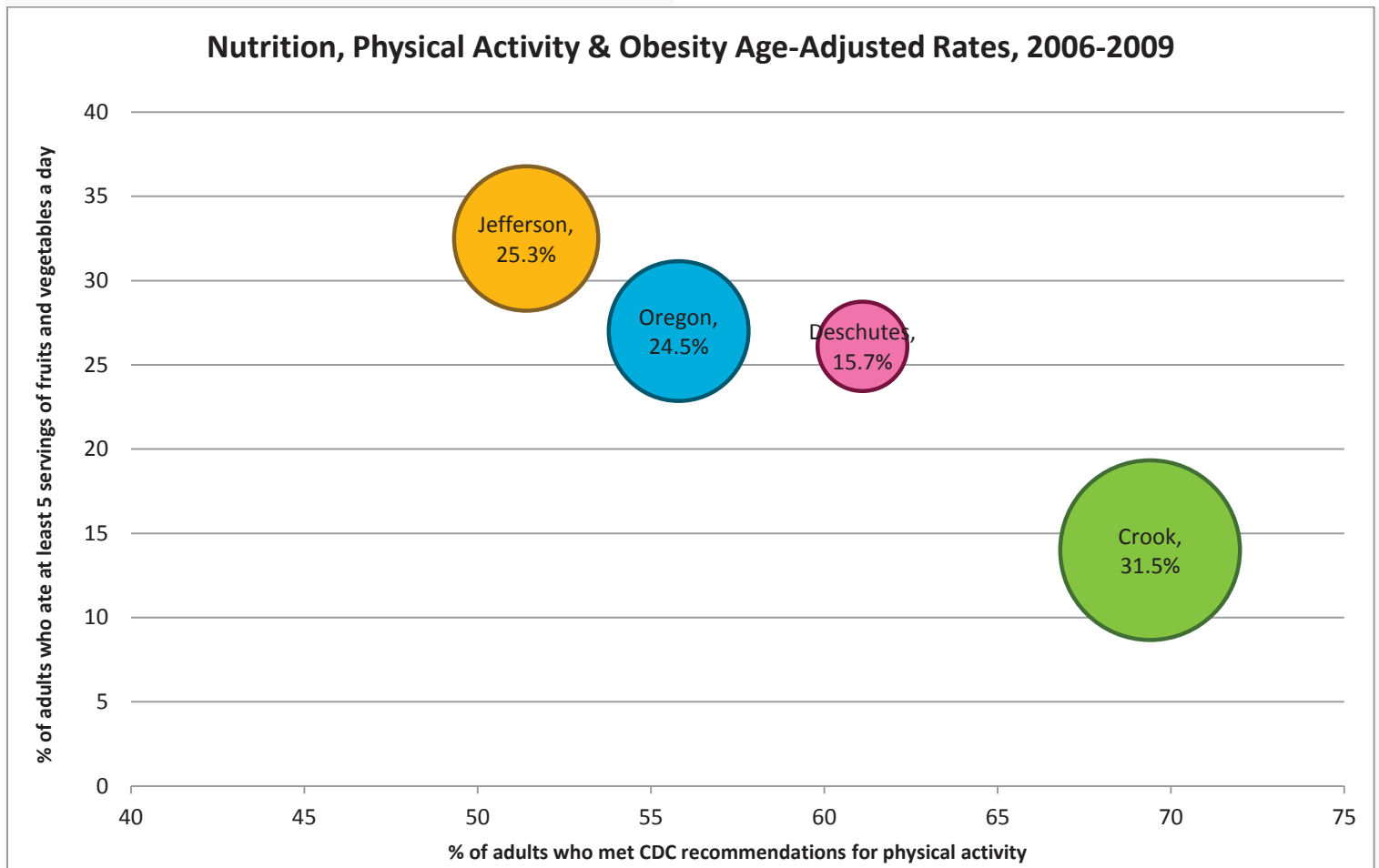
## MODIFIABLE RISK FACTORS

**It takes more than will power and discipline to change unhealthy habits and behaviors.**

A person’s health is impacted by more than the choices an individual makes. Numerous other factors play a role in health—people need access to healthier options in their environment that are affordable and available, support from others around them to make permanent shifts in lifestyle and living habits, and resources to address or help deal with underlying stressors in their life.

Understanding the multitude of factors that impact an individual’s healthy choices and habits allows us to identify how social policies can best promote health. The most impactful prevention programs are those which address the social conditions in communities and the places we live.

—*Unnatural Causes (2008)*, California Newsreel. Retrieved from <http://www.unnaturalcauses.org/resources.php>

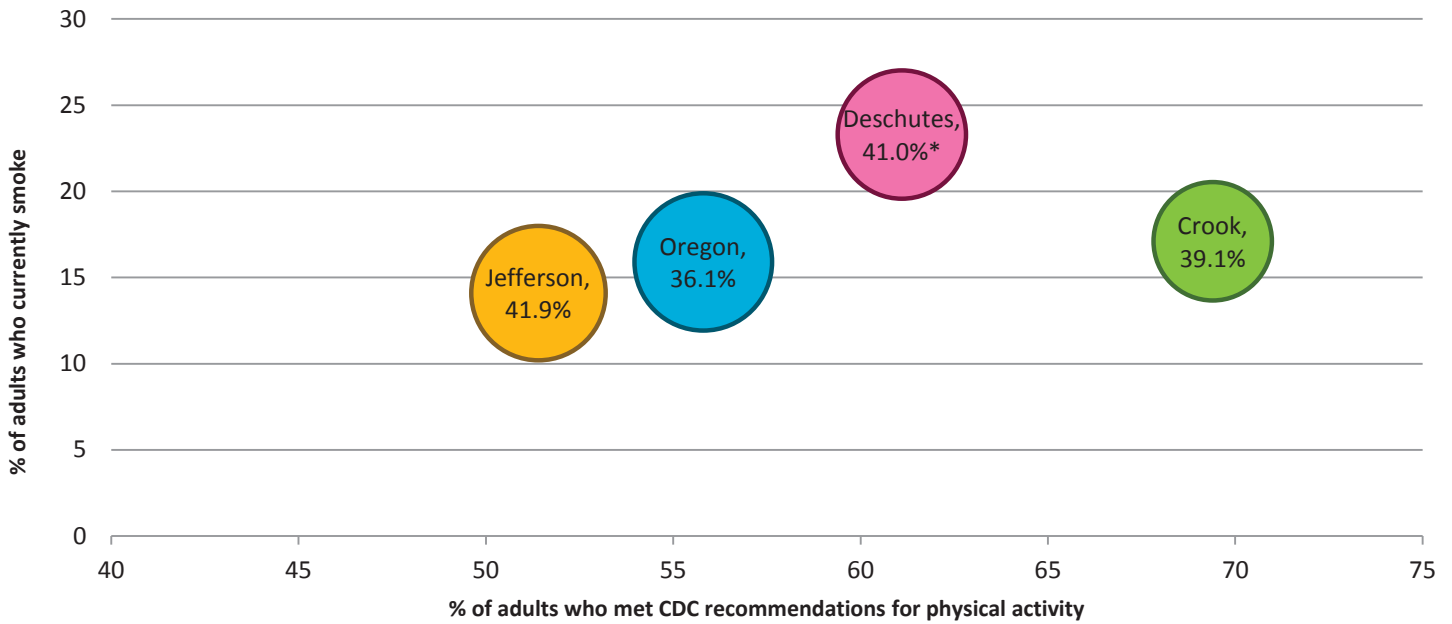


Bubble size= percent of adult population considered obese

Oregon Health Authority, Adult Behavioral Risk, Retrieved from <http://public.health.oregon.gov/DiseasesConditions/ChronicDisease/Documents/TableII.pdf>

# HEALTH BEHAVIORS

**Smoking, Physical Activity & Overweight Age-Adjusted Rates, 2006-2009**



Bubble size= percent of adult population considered overweight

\*Statistically significant difference compared to Oregon

## MODIFIABLE RISK FACTORS AMONG ADULTS, BY COUNTY, AGE-ADJUSTED RATES FOR OREGON 2004-2007 & 2006-2009

	% CLASSIFIED AS OVERWEIGHT		% CLASSIFIED AS OBESE		% OF ADULTS WHO MET CDC RECOMMENDATIONS FOR PHYSICAL ACTIVITY	
	2004-2007	2006-2009	2004-2007	2006-2009	2004-2007	2006-2009
	<b>Crook</b>	<b>39.1%</b>	<b>39.1%</b>	<b>23.6%</b>	<b>31.5%</b>	<b>69.2%</b>
<b>Deschutes</b>	<b>39.8%</b>	<b>41.0%*</b>	<b>18.3%*</b>	<b>15.7%*</b>	<b>60.9%</b>	<b>61.1%</b>
<b>Jefferson</b>	<b>44.6%</b>	<b>41.9%</b>	<b>28.1%</b>	<b>25.3%</b>	<b>57.1%</b>	<b>51.4%</b>
<b>Oregon</b>	<b>36.3%</b>	<b>36.1%</b>	<b>24.1%</b>	<b>24.5%</b>	<b>57.9%</b>	<b>55.8%</b>

Note: Adults 18 years and older;

Percentages based on less than 50 respondents total or fewer than 12 in any one of the three age groups may not accurately reflect behavior of the entire county;

Age adjustment is based on three age groups: 18-34; 35-54; and 55+, per U.S. Standard Million

\*Statistically significant difference compared to Oregon

Note: percents based on less than 50 respondents total or fewer than 12 in any one of the three age groups may not accurately reflect behavior of the entire county.

Oregon Health Authority/DHS, Public Health Division. Adult Behavior Risk Surveillance System, Results by County. Retrieved from <http://public.health.oregon.gov/BIRTHDEATHCERTIFICATES/SURVEYS/ADULTBEHAVIORRISK/COUNTY/Pages/index.aspx>

# HEALTH BEHAVIORS

## ADULT HEALTH STATUS 2006-2009

### OREGON ADULTS IN GOOD GENERAL HEALTH, 2006-2009 NOT ADJUSTED

Good general health: Reported that their health in general was "excellent", "very good", or "good" when asked on a five-point scale ("excellent", "very good", "good", "fair", and "poor").

Source: Oregon Behavioral Risk Factor Surveillance System

Adults 18 years & Older	PERCENT (weighted %)	95% C.I. Upper %	95% C.I. Lower %	Small #	Number unweighted N	Interviews unweighted N
OREGON	86.7	86.2	87.1		30,404	36,209
CROOK	83.0	75.3	88.7		184	228
DESCHUTES	90.1	88.0	91.8		1,362	1,543
JEFFERSON	86.5	80.9	90.6		193	233

### AGE ADJUSTED

Adults 18 years & older	PERCENT (weighted %)	S.S.*	95% C.I. Lower % Upper %		Small #	Number unweighted N	Interviews Unweighted N
OREGON	86.9		86.5	87.4		30,273	36,058
CROOK	83.1		74.6	89.1		183	227
DESCHUTES	90.6	s+	88.4	92.4		1,358	1,539
JEFFERSON	86.6		80.8	90.8		193	233

### OREGON ADULTS WHO HAVE ANY LIMITATIONS IN ANY ACTIVITIES, 2006-2009† AGE ADJUSTED

†Due to Physical, Mental or Emotional Problems

Adults 18 years & older	PERCENT (weighted %)	S.S.*	95% C.I. Lower % Upper %		Small #	Number unweighted N	Interviews Unweighted N
OREGON	22.9		22.4	23.5		10,211	35,858
CROOK	28.5		21.3	36.9		76	225
DESCHUTES	22.2		19.7	25.0		402	1,534
JEFFERSON	24.5		19.1	30.9		73	232

\* S.S. = Statistical Significance: s+ indicates that the county estimate is greater than the statewide rate; s-, less than the statewide rate; a blank, not different from the statewide rate.

\*\* % based on less than 50 respondents total or fewer than 12 in any one of the three age groups may not accurately reflect behavior of the entire county.

NOTE: Age adjustment is based on three age groups: 18-34; 35-54; and 55+, per U.S. Standard Million Population.

# HEALTH BEHAVIORS

## OREGON ADULTS WITH LIMITATIONS THAT REQUIRE THEM TO USE SPECIAL EQUIPMENT†, 2006-2009 AGE ADJUSTED

†(e.g., a Cane, a Wheelchair, a Special Bed, a Special Telephone)

*Source: Oregon Behavioral Risk Factor Surveillance System*

Adults 18 years & older	PERCENT (weighted %)	S.S.*	95% Lower %	C.I. Upper %	Small #	Number unweighted N	Interviews Unweighted N
OREGON	7.0		6.7	7.3		3,833	3,5999
CROOK	6.0		3.1	9.1		28	226
DESCHUTES	5.1	s-	4.1	6.3		121	1,539
JEFFERSON	5.7		3.6	9.0		23	234

\* S.S. = Statistical Significance: s+ indicates that the county estimate is greater than the statewide rate; s-, less than the statewide rate; a blank, not different from the statewide rate.

\*\* % based on less than 50 respondents total or fewer than 12 in any one of the three age groups may not accurately reflect behavior of the entire county.

NOTE: Age adjustment is based on three age groups: 18-34; 35-54; and 55+, per U.S. Standard Million Population.

Oregon Health Authority/DHS, Public Health Division. Adult Behavior Risk Surveillance System, Selected Topics by County, 2006-2009. Retrieved from <http://public.health.oregon.gov/BIRTHDEATHCERTIFICATES/SURVEYS/ADULTBEHAVIORRISK/COUNTY/INDEX/Pages/index.aspx>



# HEALTH BEHAVIORS

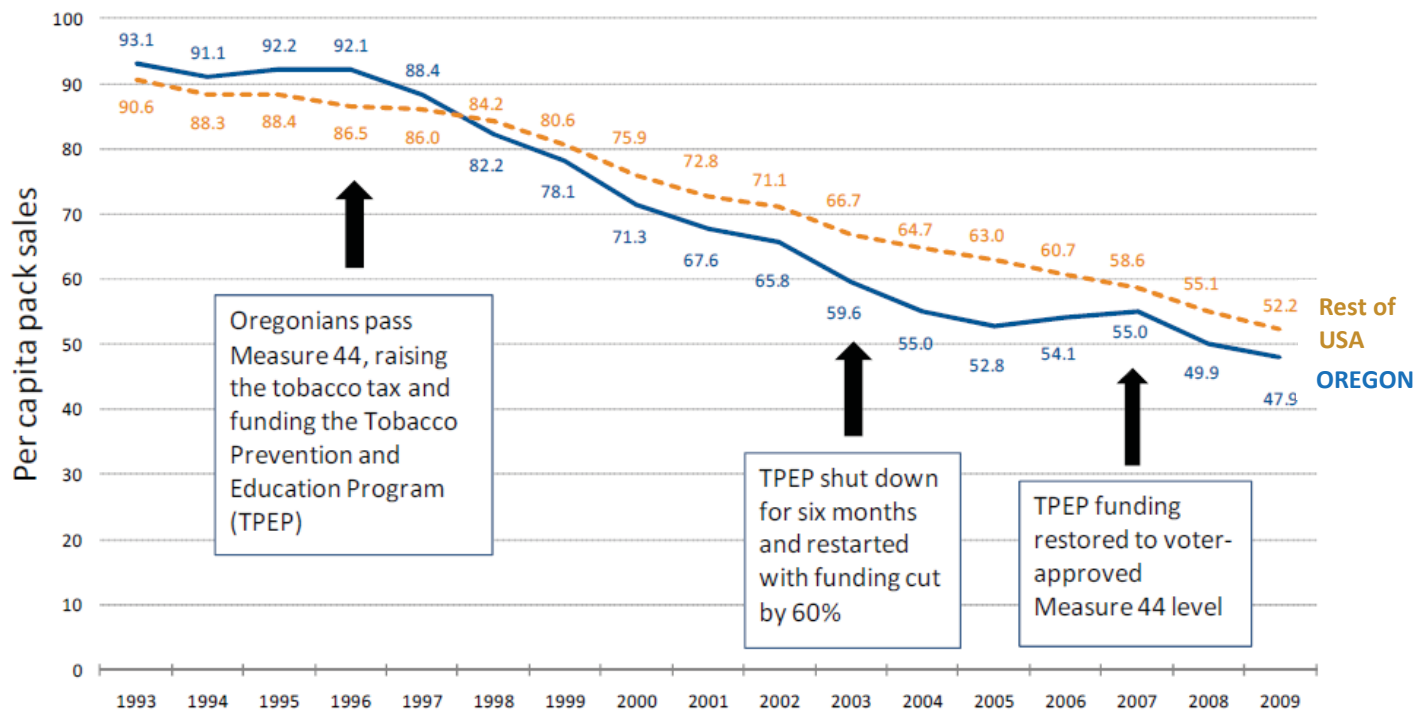
Table 75 Cigarette Consumption in Oregon

## OREGON HEALTH AUTHORITY DATA: CIGARETTE CONSUMPTION IN OREGON

### Cigarette Consumption in Oregon

Oregon's per-capita cigarette consumption decreased 48% from 1996 to 2009.

**Per-capita Cigarette Pack Sales (Oregon vs. U.S.), 1993 through 2009**



Oregon DHS/OHA, Oregon Public Health Division, 2011. Tobacco Prevention and Education Program. Tobacco Fact Sheet 2011, *Crook County, Deschutes County, and Jefferson County*. Retrieved from: <http://public.health.oregon.gov/preventionwellness/tobaccoprevention/pages/countyfacts.aspx>

# HEALTH BEHAVIORS

Table 76 Tobacco Facts

## COUNTY TOBACCO FACTS

### Tobacco's Toll In One Year...

In Crook County	In Deschutes County	In Jefferson County	
4,808 adults	18,833 adults	2,638 adults	regularly smoke cigarettes.
1,256 people	4,471 people	743 people	suffer from a serious illness caused by tobacco use.
64 people	229 people	38 people	die from tobacco use.
\$12 million	\$42 million	\$7 million	is spent on medical care for tobacco-related illnesses.
\$11 million	\$38 million	\$6 million	in productivity is lost due to tobacco-related deaths.

### Tobacco Control Highlights:

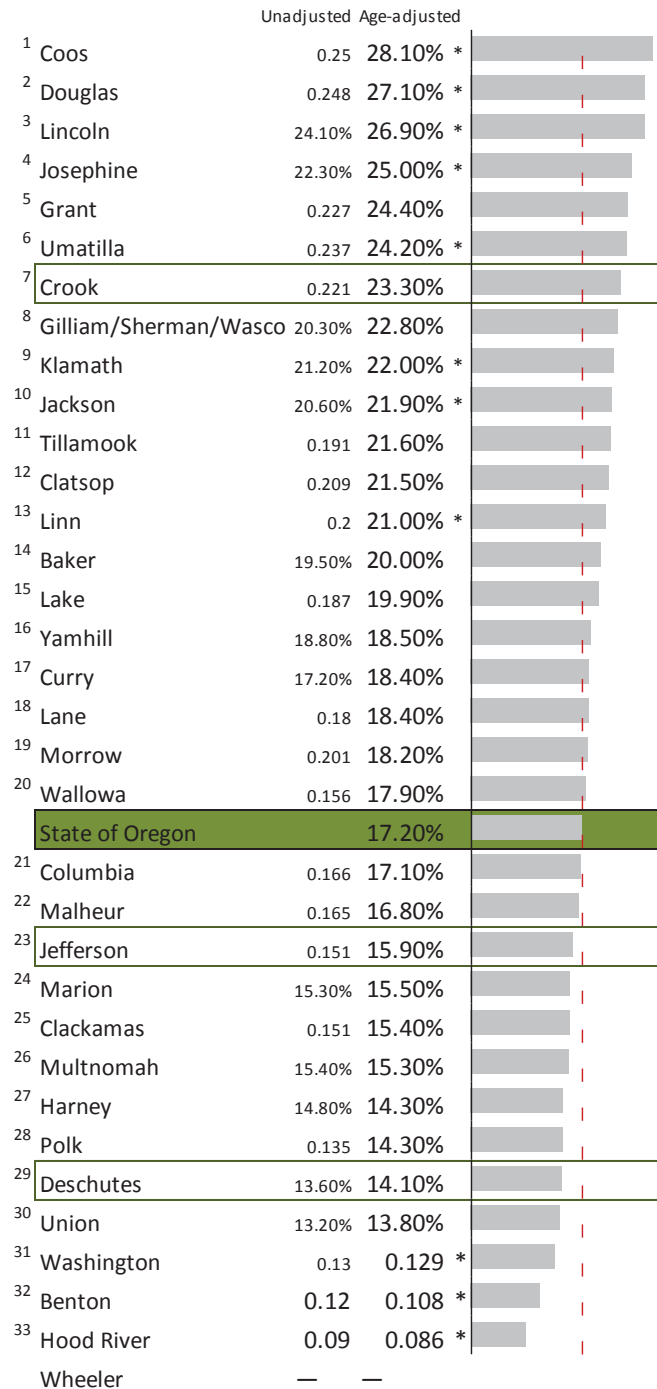
Crook County	Deschutes County	Jefferson County	
<b>91%</b>	<b>93%</b>	<b>89%</b>	of adults report no-smoking rules in their home.
<b>87%</b>	<b>92%</b>	<b>91%</b>	of eighth-grade students report that they live in a smoke-free home.
<b>36%</b>	<b>61%</b>	<b>54%</b>	of smokers made an attempt to quit last year.

Oregon DHS/OHA, Oregon Public Health Division, 2011 Tobacco Prevention and Education Program. Tobacco Fact Sheet 2011, *Crook County, Deschutes County, and Jefferson County*. Retrieved from: <http://public.health.oregon.gov/preventionwellness/tobaccoprevention/pages/countyfacts.aspx>

# HEALTH BEHAVIORS

Table 77 Tobacco Statistics

## % of Adults Who Currently Smoke Cigarettes, 2006-2009



\*Statistically significant difference compared to Oregon

† This number may be statistically unreliable and should be interpreted with caution.

— This number is suppressed because it is statistically unreliable

Age-adjusted estimates are adjusted to the 2000 Standard Population using 3 age groups (18-34, 35-54, and 55+)

Oregon BRFSS County Combined Dataset 2006-2009 Table IV: Age-Adjusted and Unadjusted Prevalence of Tobacco Use among Adults, by County, Oregon 2006-2009

Retrieved from <http://public.health.oregon.gov/DiseasesConditions/ChronicDisease/Documents/TableIV.pdf>

# HEALTH BEHAVIORS

## Smokeless Tobacco

### Use by Males, 2006-2009

	Unadjusted	Age-adjusted	
1 Grant	24.6%†	30.30% *	
2 Harney	25.4%†	28.70% †	
3 Malheur	23.30%	23.50% *	
4 Union	20.20%	20.90% *	
5 Morrow	—	19.60% †	
6 Wallowa	16.0%†	19.00% †	
7 Baker	15.5%†	18.30% †	
8 Coos	12.20%	15.40% *	
9 Douglas	12.70%	14.70% *	
10 Umatilla	13.10%	13.30% *	
11 Clatsop	11.9%†	12.80% †	
12 Tillamook	11.0%†	12.70% †	
13 Crook	11.9%†	12.50% †	
14 Deschutes	11.10%	11.80% *	
15 Jefferson	10.4%†	10.90% †	
16 Klamath	8.80%	9.50%	
17 Linn	8.60%	9.10%	
18 Gilliam/Sherman/Wasco	7.9%†	8.40% †	
19 Polk	8.0%†	7.70% †	
20 Columbia	7.5%†	7.20% †	
21 Clackamas	7.00%	7.10%	
22 Josephine	5.5%†	6.90% †	
23 Yamhill	6.9%†	6.80% †	
<b>State of Oregon</b>		<b>6.30%</b>	
24 Lane	5.80%	6.00%	
25 Lincoln	5.0%†	5.80% †	
26 Jackson	4.90%	5.30%	
27 Marion	4.90%	4.80%	
28 Benton	3.7%†	4.00% †	
29 Washington	2.80%	2.70% *	
30 Multnomah	2.40%	2.30% *	
Curry	4.2%†	—	
Hood River	—	—	
Lake	—	—	
Wheeler	—	—	

## Quit Attempts

### During the Previous Year, 2006-2009

	Unadjusted	Age-adjusted	
1 Deschutes	0.621	61.10% *	
2 Curry	49.90%	59.30%	
3 Polk	58.20%	59.00%	
4 Klamath	61.00%	58.80%	
5 Josephine	60.10%	58.70%	
6 Yamhill	63.80%	58.40%	
7 Jefferson	52.20%	53.60%	
8 Linn	53.90%	52.90%	
9 Lincoln	53.40%	52.80%	
10 Union	55.30%	51.50%	
11 Douglas	53.10%	51.20%	
12 Coos	49.90%	50.20%	
13 Multnomah	48.80%	48.90%	
14 Gilliam/Sherman/Wasco	47.70%	48.70%	
<b>State of Oregon</b>		<b>48.30%</b>	
15 Jackson	49.10%	47.30%	
16 Lane	47.80%	47.00%	
17 Washington	48.70%	47.00%	
18 Malheur	47.00%	46.50%	
19 Clatsop	45.50%	45.40%	
20 Clackamas	46.60%	44.70%	
21 Umatilla	46.10%	43.40%	
22 Tillamook	42.7%†	40.70%	
23 Marion	41.20%	40.50%	
24 Benton	45.50%	40.40%	
25 Columbia	36.20%	36.80%	
26 Baker	35.00%	36.20%	
27 Crook	39.3%†	36.00% †	
28 Grant	36.0%†	25.80% †	
Harney	—	—	
Hood River	—	—	
Lake	—	—	
Morrow	—	—	
Wallowa	—	—	
Wheeler	—	—	

\*Statistically significant difference compared to Oregon

† This number may be statistically unreliable and should be interpreted with caution.

— This number is suppressed because it is statistically unreliable

Age-adjusted estimates are adjusted to the 2000 Standard Population using 3 age groups (18-34, 35-54, and 55+)

Oregon BRFSS County Combined Dataset 2006-2009, Table IV: Age-Adjusted and Unadjusted Prevalence of Tobacco Use among Adults,

by County, Oregon 2006-2009, Retrieved from

<http://public.health.oregon.gov/DiseasesConditions/ChronicDisease/Documents/TableIV.pdf>

# CHRONIC DISEASE

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# CHRONIC DISEASE

Table 78 Chronic Disease Rates

## CHRONIC DISEASE

### AGE-ADJUSTED & UN-ADJUSTED RATES OF SELECT CHRONIC DISEASES AMONG OREGON ADULTS, BY COUNTY, 2006-2009

	ARTHRITIS		ASTHMA		HEART ATTACK		ANGINA	
	unadjusted	age-adjusted	unadjusted	age-adjusted	unadjusted	age-adjusted	unadjusted	age-adjusted
<b>OREGON</b>		25.8%		9.7%		3.3%		3.4%
<b>Crook</b>	34.3%	28.4%	12.3%	13.1%	7.7%†	7.3%†	8.2%	7.7%†
<b>Deschutes</b>	29.9%	28.0%	9.0%	9.2%	3.0%	2.7%	2.8%	2.4%
<b>Jefferson</b>	48.0%	47.5%	7.1%†	6.6%†	3.7%†	3.0%†	3.5%†	2.8%†

	STROKE		DIABETES		HIGH BLOOD PRESSURE		HIGH BLOOD CHOLESTEROL	
	unadjusted	age-adjusted	unadjusted	age-adjusted	unadjusted	age-adjusted	unadjusted	age-adjusted
<b>OREGON</b>		2.3%		6.8%		25.8%		33.0%
<b>Crook</b>	–	–	9.9%	9.0%	48.0%	46.2%*	44.1%	41.8%
<b>Deschutes</b>	1.4%	1.2%*	5.6%	5.0%	23.6%	20.6%*	36.0%	32.1%
<b>Jefferson</b>	2.3%†	1.9%†	7.3%	6.5%	20.5%	16.9%*	29.4%	20.2%†

\* Statistically significant difference compared with Oregon.

† This number may be statistically unreliable and should be interpreted with caution.

– This number is suppressed because it is statistically unreliable.

Source: Oregon BRFSS County Combined Dataset 2006-2009

Age-adjusted estimates are usually adjusted to the 2000 Standard Population using three age groups (18-34, 35-54, and 55+), however, the Grant, Jefferson and Morrow high blood cholesterol estimates were based on collapsed age groups (18-54 and 55+) due to small numbers.

Oregon BRFSS County Combined Dataset 2006-2009, Table IV: Age-Adjusted and Unadjusted Prevalence of Tobacco Use among Adults, by County, Oregon 2006-2009, Retrieved from <http://public.health.oregon.gov/DiseasesConditions/ChronicDisease/Documents/TableIV.pdf>

# CHRONIC DISEASE

Table 79 Cancer: Annual Incidence Rates for Oregon Counties by Cancer Site & County, 2004-2008

## CANCER

### Annual Incidence Rates† for Oregon, by Cancer Site and County, 2004 – 2008

All Cancer Sites			
County	Rate*	95% C.I.	Average Cases/year
<b>Oregon<sup>6</sup></b>	<b>468.7</b>	(465.7 - 471.7)	<b>18781</b>
<b>U.S.<sup>1</sup></b>	<b>465</b>	(464.7 - 465.4)	<b>◇</b>
Lake	539.1	(475.0 - 610.5)	55
Sherman	527.7	(397.8 - 691.4)	13
Crook	517.9	(479.8 - 558.4)	144
Morrow	513.0	(454.7 - 576.7)	58
Gilliam	509.3	(393.3 - 655.5)	14
Wasco	504.5	(468.8 - 542.4)	156
Jackson	495.3	(482.9 - 508.0)	1,246
Coos	494.5	(474.1 - 515.6)	472
Josephine	490.9	(472.7 - 509.8)	593
Columbia	489.8	(462.4 - 518.5)	249
Wallowa	489.7	(429.8 - 557.3)	54
Marion	489.3	(478.2 - 500.6)	1,509
Lincoln	485.6	(461.7 - 510.5)	334
Benton	481.9	(459.6 - 505.0)	368
Linn	480.8	(463.9 - 498.0)	632
Douglas	478.9	(462.7 - 495.5)	708
Deschutes	476.4	(461.4 - 491.9)	783
Multnomah	473.1	(465.5 - 480.8)	3,088
Curry	472.6	(440.1 - 507.4)	186
Clatsop	471.7	(443.9 - 500.9)	224
Klamath	468.2	(447.0 - 490.2)	379
Clackamas	467.8	(458.2 - 477.6)	1,865
Yamhill	464.9	(445.7 - 484.8)	447
Lane	459.8	(450.2 - 469.7)	1,778
Union	458.1	(423.4 - 495.0)	135
Polk	457.9	(437.3 - 479.3)	386
Tillamook	447.1	(416.0 - 480.2)	166
Umatilla	435.7	(414.6 - 457.6)	326
Washington	432.0	(423.2 - 441.0)	1,891
Baker	429.2	(391.8 - 469.6)	105
Harney	423.4	(366.4 - 487.9)	41
Hood River	423.0	(385.1 - 463.6)	93
Malheur	422.4	(391.9 - 454.6)	145
Jefferson	413.7	(374.9 - 455.5)	88
Wheeler	406.2	(299.5 - 553.6)	10
Grant	400.5	(344.3 - 464.4)	41
All Races (includes Hispanic), Both Sexes, All Ages			

Breast			
County	Rate*	95% C.I.	Average Cases/year
<b>Oregon<sup>6</sup></b>	<b>130.3</b>	(128.1 - 132.5)	<b>2786</b>
<b>U.S.<sup>1</sup></b>	<b>121</b>	(120.8 - 121.3)	<b>◇</b>
Wasco	152.1	(124.8 - 183.9)	24
Benton	143.2	(126.9 - 161.0)	59
Multnomah	137.3	(131.8 - 142.9)	495
Washington	137	(130.4 - 143.9)	335
Crook	136.4	(109.7 - 168.0)	19
Josephine	136	(122.6 - 150.7)	84
Wallowa	135.6	(94.3 - 193.7)	8
Yamhill	134.8	(120.6 - 150.3)	67
Jefferson	134.1	(103.8 - 170.6)	14
Clackamas	132.1	(125.2 - 139.3)	286
Lane	130.8	(123.7 - 138.2)	268
Clatsop	130.2	(110.3 - 152.9)	33
Tillamook	129.1	(105.8 - 156.7)	24
Marion	128.6	(120.9 - 136.7)	213
Jackson	127.5	(118.8 - 136.7)	169
Union	127.3	(102.4 - 156.9)	19
Columbia	126.4	(107.9 - 147.3)	35
Hood River	125.6	(98.3 - 158.2)	15
Lake	125.1	(83.1 - 183.4)	6
Umatilla	125.1	(109.6 - 142.2)	48
Malheur	123.6	(100.4 - 150.7)	21
Polk	122.7	(108.0 - 138.9)	54
Curry	122.3	(100.1 - 149.5)	25
Deschutes	121.1	(110.9 - 132.1)	106
Coos	120.5	(106.5 - 136.1)	58
Douglas	119.9	(108.8 - 131.9)	93
Lincoln	117.7	(102.2 - 135.3)	44
Linn	117.7	(106.3 - 130.0)	81
Klamath	116.6	(102.1 - 132.7)	48
Harney	114.5	(77.4 - 167.4)	6
Baker	109.9	(83.7 - 142.9)	13
Morrow	100.9	(67.1 - 145.9)	6
Grant	81.3	(49.9 - 129.1)	4
Gilliam	*		3 or fewer
Sherman	*		3 or fewer
Wheeler	*		3 or fewer
All Races (includes Hispanic), Females, All Ages			

Cervix			
County	Rate*	95% C.I.	Average Cases/year
<b>U.S.<sup>1</sup></b>	<b>8.1</b>	(8.0 - 8.1)	<b>◇</b>
<b>Oregon<sup>6</sup></b>	<b>6.8</b>	(6.3 - 7.3)	<b>129</b>
Josephine	8.8	(4.9 - 14.4)	4
Jackson	8.3	(6.0 - 11.2)	9
Lane	7.6	(5.8 - 9.8)	13
Deschutes	7.1	(4.6 - 10.5)	5
Marion	6.9	(5.1 - 9.1)	10
Douglas	6.8	(4.0 - 10.8)	4
Washington	6.8	(5.4 - 8.4)	17
Clackamas	6.7	(5.1 - 8.6)	13
Multnomah	6.6	(5.4 - 7.9)	23
Linn	6.2	(3.6 - 9.9)	4
Baker	*		3 or fewer
Benton	*		3 or fewer
Clatsop	*		3 or fewer
Columbia	*		3 or fewer
Coos	*		3 or fewer
Crook	*		3 or fewer
Curry	*		3 or fewer
Gilliam	*		3 or fewer
Grant	*		3 or fewer
Harney	*		3 or fewer
Hood River	*		3 or fewer
Jefferson	*		3 or fewer
Klamath	*		3 or fewer
Lake	*		3 or fewer
Lincoln	*		3 or fewer
Malheur	*		3 or fewer
Morrow	*		3 or fewer
Polk	*		3 or fewer
Sherman	*		3 or fewer
Tillamook	*		3 or fewer
Umatilla	*		3 or fewer
Union	*		3 or fewer
Wallowa	*		3 or fewer
Wasco	*		3 or fewer
Wheeler	*		3 or fewer
Yamhill	*		3 or fewer
All Races (includes Hispanic), Females, All Ages			

# CHRONIC DISEASE

Annual Incidence Rates† for Oregon, by Cancer Site and County, 2004 – 2008

Colon & Rectum			
County	Rate*	95% C.I.	Average Cases/year
U.S. <sup>1</sup>	47.6	(47.5 - 47.7)	◇
Oregon <sup>6</sup>	43.9	(43.0 - 44.8)	1761
Morrow	54.6	(36.6 - 78.4)	6
Columbia	53.2	(44.3 - 63.5)	26
Lincoln	51	(43.8 - 59.3)	36
Umatilla	50.5	(43.5 - 58.4)	38
Klamath	50.3	(43.6 - 57.8)	41
Clatsop	50.1	(41.3 - 60.3)	23
Union	49.3	(38.6 - 62.3)	15
Douglas	48.8	(43.9 - 54.2)	74
Harney	48.3	(30.4 - 74.5)	5
Polk	48	(41.6 - 55.0)	43
Marion	47.8	(44.4 - 51.4)	148
Lake	47.1	(29.3 - 73.1)	5
Yamhill	46.6	(40.7 - 53.2)	45
Wallowa	46.5	(31.1 - 70.0)	6
Crook	46.2	(35.5 - 59.4)	13
Multnomah	45.2	(42.9 - 47.7)	290
Linn	45	(40.0 - 50.5)	60
Clackamas	44.2	(41.3 - 47.3)	172
Wasco	43.5	(33.5 - 55.8)	14
Deschutes	43	(38.5 - 47.9)	69
Jackson	42.4	(38.8 - 46.2)	108
Tillamook	42.3	(33.3 - 53.3)	16
Josephine	41.8	(36.8 - 47.4)	53
Grant	41.7	(26.1 - 65.4)	5
Curry	41.1	(33.0 - 51.5)	18
Benton	40.9	(34.7 - 47.8)	32
Lane	39.4	(36.6 - 42.3)	154
Coos	39.3	(33.8 - 45.6)	38
Washington	39.3	(36.6 - 42.1)	167
Malheur	38.8	(30.1 - 49.2)	14
Hood River	36	(25.7 - 49.2)	8
Baker	35.8	(26.0 - 49.0)	9
Jefferson	34.8	(23.9 - 49.0)	7
Gilliam	*		3 or fewer
Sherman	*		3 or fewer
Wheeler	*		3 or fewer
All Races (includes Hispanic), Both Sexes, All Ages			

Lung & Bronchus			
County	Rate*	95% C.I.	Average Cases/year
U.S. <sup>1</sup>	67.9	(67.7 - 68.0)	◇
Oregon <sup>6</sup>	66.7	(65.5 - 67.8)	2652
Columbia	87	(75.4 - 99.9)	42
Coos	86.3	(78.2 - 95.2)	86
Morrow	84.3	(61.7 - 112.4)	10
Wasco	84.1	(70.5 - 100.0)	27
Curry	80.3	(68.4 - 94.4)	34
Josephine	79.7	(72.8 - 87.1)	102
Lincoln	77.3	(68.3 - 87.5)	55
Linn	77.1	(70.5 - 84.1)	103
Tillamook	75.8	(64.0 - 89.6)	30
Douglas	75.1	(69.1 - 81.5)	118
Clatsop	74.6	(63.9 - 86.7)	35
Klamath	74.1	(66.0 - 83.0)	62
Baker	72.5	(58.1 - 90.0)	18
Multnomah	72.5	(69.5 - 75.7)	450
Crook	70.3	(57.3 - 85.7)	21
Lane	69.1	(65.4 - 73.0)	269
Yamhill	66	(58.9 - 73.7)	64
Marion	65.9	(61.9 - 70.1)	201
Jackson	63.9	(59.6 - 68.4)	166
Clackamas	62.8	(59.2 - 66.5)	244
Jefferson	59.1	(45.3 - 75.9)	13
Grant	58	(39.4 - 84.5)	6
Deschutes	57.7	(52.4 - 63.3)	92
Lake	57.7	(39.4 - 83.5)	6
Malheur	56.3	(45.6 - 68.8)	19
Umatilla	56.2	(48.8 - 64.4)	42
Polk	54.7	(47.8 - 62.4)	46
Hood River	53.9	(40.9 - 69.8)	12
Washington	52.8	(49.6 - 56.1)	210
Benton	52.3	(45.3 - 60.2)	40
Harney	49.2	(32.1 - 74.2)	5
Union	48.8	(38.2 - 61.6)	15
Wallowa	47	(30.5 - 71.9)	5
Gilliam	*		3 or fewer
Sherman	*		3 or fewer
Wheeler	*		3 or fewer
All Races (includes Hispanic), Both Sexes, All Ages			

Oral Cavity & Pharynx			
County	Rate*	95% C.I.	Average Cases/year
U.S. <sup>1</sup>	10.8	(10.7 - 10.8)	◇
Oregon <sup>6</sup>	10.5	(10.1 - 11.0)	431
Wasco	17	(11.1 - 25.1)	5
Curry	15.6	(10.3 - 23.6)	6
Clatsop	15.4	(10.9 - 21.4)	8
Coos	13.7	(10.4 - 17.8)	12
Columbia	12.9	(8.9 - 18.1)	7
Jackson	12.8	(10.9 - 15.0)	33
Klamath	12.6	(9.3 - 16.7)	10
Clackamas	11.9	(10.4 - 13.5)	48
Multnomah	11.7	(10.6 - 13.0)	78
Yamhill	11.2	(8.4 - 14.6)	11
Josephine	11.1	(8.5 - 14.4)	13
Douglas	10.7	(8.4 - 13.4)	16
Tillamook	10.4	(6.1 - 17.0)	4
Lane	10.1	(8.7 - 11.7)	39
Benton	9.9	(7.0 - 13.6)	8
Linn	9.3	(7.1 - 12.0)	12
Marion	9.3	(7.8 - 11.0)	29
Washington	9.2	(8.0 - 10.5)	43
Lincoln	8.8	(6.0 - 12.9)	6
Deschutes	8.1	(6.3 - 10.3)	14
Umatilla	7.4	(4.8 - 10.7)	5
Polk	6	(3.9 - 9.0)	5
Baker	*		3 or fewer
Crook	*		3 or fewer
Gilliam	*		3 or fewer
Grant	*		3 or fewer
Harney	*		3 or fewer
Hood River	*		3 or fewer
Jefferson	*		3 or fewer
Lake	*		3 or fewer
Malheur	*		3 or fewer
Morrow	*		3 or fewer
Sherman	*		3 or fewer
Union	*		3 or fewer
Wallowa	*		3 or fewer
Wheeler	*		3 or fewer
All Races (includes Hispanic), Both Sexes, All Ages			

† Incidence rates (cases per 100,000 population per year) are age-adjusted to the 2000 US standard population.

Rates are for invasive cancer only unless otherwise specified. Rates calculated using SEER\*Stat.



# CHRONIC DISEASE

## Annual Incidence Rates† for Oregon, Prostate Cancer, by County, 2004 - 2008

Prostate			
County	Rate*	95% C.I.	Average Cases/year
U.S. <sup>1</sup>	152.7	(152.4 - 153.0)	◇
Oregon <sup>6</sup>	149.2	(146.7 - 151.7)	2786
Wallowa	210.4	(161.1 - 275.0)	12
Morrow	205.4	(156.2 - 265.5)	12
Benton	201.6	(180.6 - 224.3)	70
Coos	180.6	(163.9 - 198.9)	86
Union	180.1	(150.2 - 214.7)	26
Polk	178.8	(160.5 - 198.8)	70
Lake	178	(132.1 - 237.9)	10
Deschutes	172.1	(159.4 - 185.5)	142
Jackson	171.3	(160.9 - 182.2)	206
Malheur	169.7	(142.5 - 200.6)	28
Marion	168.3	(158.6 - 178.4)	232
Lincoln	160.3	(141.4 - 181.5)	54
Lane	156.7	(148.6 - 165.2)	287
Wasco	156	(129.3 - 187.1)	24
Clatsop	154.9	(132.7 - 180.1)	36
Harney	154.9	(106.5 - 219.9)	7
Crook	153.7	(125.9 - 186.5)	22
Hood River	151.4	(118.8 - 190.0)	15
Linn	151	(137.6 - 165.4)	95
Grant	148.5	(106.1 - 206.3)	8
Clackamas	144.1	(136.3 - 152.2)	273
Multnomah	136.5	(130.3 - 143.0)	385
Josephine	135.5	(122.7 - 149.6)	82
Klamath	135	(119.3 - 152.2)	55
Umatilla	134.5	(117.6 - 153.2)	47
Baker	128.8	(102.4 - 161.4)	17
Washington	127.9	(120.5 - 135.6)	243
Yamhill	124.4	(110.1 - 140.0)	56
Columbia	123.8	(104.8 - 145.4)	33
Tillamook	121.5	(99.7 - 147.2)	23
Jefferson	119.4	(91.0 - 154.0)	13
Douglas	116.5	(105.7 - 128.2)	86
Curry	116.2	(96.3 - 140.6)	24
Gilliam	*		3 or fewer
Sherman	*		3 or fewer
Wheeler	*		3 or fewer
All Races (includes Hispanic), Male, All Ages			

† Incidence rates (cases per 100,000 population per year) are age-adjusted to the 2000 US standard population.

Rates are for invasive cancer only unless otherwise specified. Rates calculated using SEER\*Stat.

◇ Rates are for invasive cancer only unless otherwise specified. Rates calculated using SEER\*Stat. Population counts for denominators are based on Census populations as modified by NCI. The US populations included with the data release have been adjusted for the population shifts due to hurricanes Katrina and Rita for 62 counties and parishes in Alabama, Mississippi, Louisiana, and Texas. The 1969-2008 US Population Data File is used with SEER November 2010 data. The 1969-2008 US Population Data File is used with NPCR January 2011 data.

<sup>1</sup>US (SEER + NPCR)

Created by statecancerprofiles.cancer.gov on 02/02/2012 7:56 pm.

State Cancer Registries may provide more current or more local data.

Data presented on the State Cancer Profiles Web Site may differ from statistics reported by the State Cancer Registries ( for more information ).

Site: <http://statecancerprofiles.cancer.gov>

U.S. Source: CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) November 2010 data submission and SEER November 2010 submission.

<sup>6</sup> Oregon Data Source: State Cancer Registry and the CDC's National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS) November 2010 data submission. State rates include rates from metropolitan areas funded by SEER.

Note: Because of the impact on Louisiana's population for the July - December 2005 time period due to Hurricanes Katrina/Rita, SEER excluded Louisiana cases diagnosed for that six month time period. The count has been suppressed due to data consistency issues.

### Statistically significant differences in cancer rates:

-Higher rate of new cancer cases each year in Crook than Oregon and US: 527.7 per 100,000 people\*

-Higher rate of new prostate cancer cases each year in Deschutes than Oregon and US: 172.1 per 100,000 males\*

-Lower rate of new of lung & bronchus cancer cases in Deschutes than Oregon and US: 57.7 per 100,000 people\*

### Average Annual Cancer Incidence Rates, All-Ages per 10,000 (age-adjusted), 2004-2008

CROOK: 51.79

DESCHUTES: 47.64

JEFFERSON: 41.37

OREGON: 46.5

Rates calculated using SEER\*Stat.

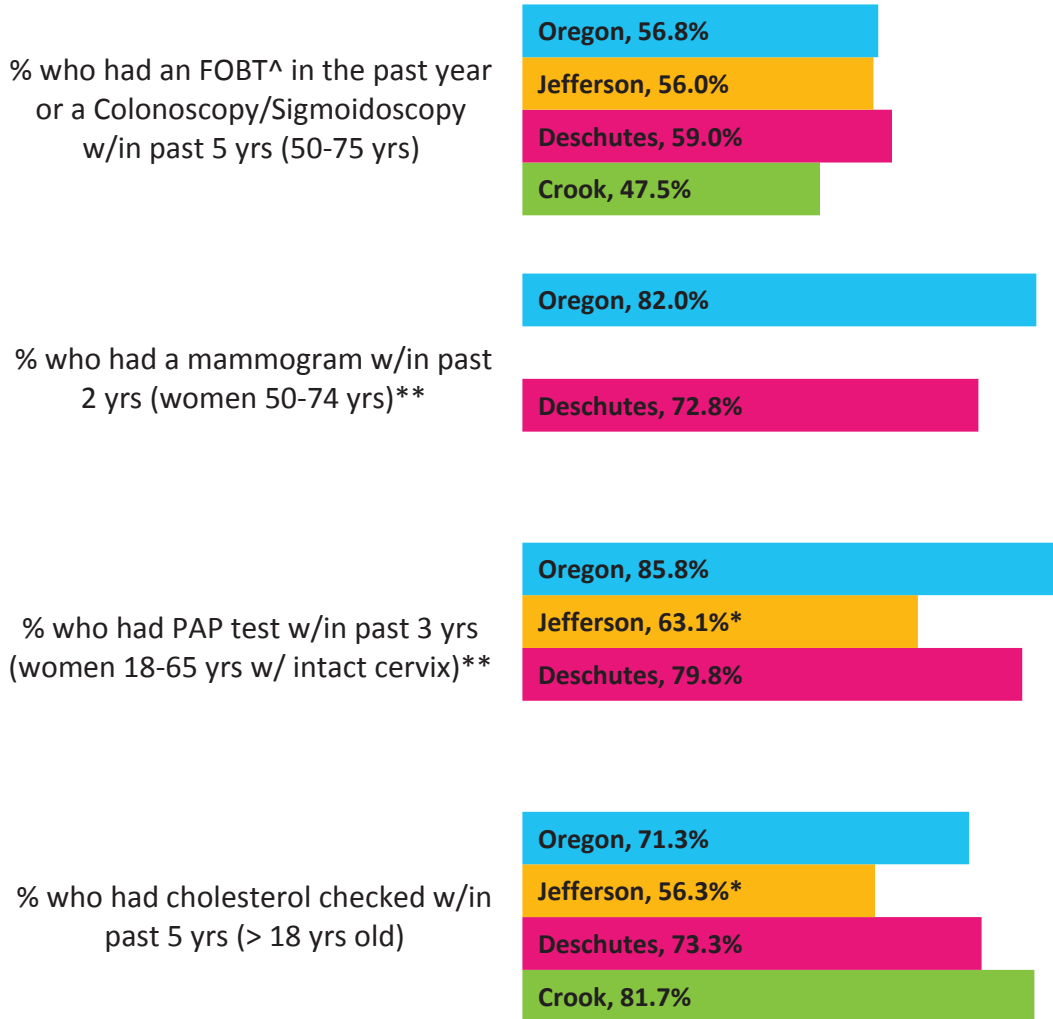
<http://statecancerprofiles.cancer.gov>

# CHRONIC DISEASE

Table 80 Chronic Disease Screening

## CHRONIC DISEASE SCREENING & PREVENTION

### Age-Adjusted Prevalence of Preventive Health Screening Among Adults, by County, Oregon 2006-2009



\*statistically significant difference compared with Oregon

<sup>^</sup>Fecal Occult Blood Test

\*\*Note: Crook and Jefferson Counties do not have enough data for some indicators and have been suppressed; adults age 18 years and older

Oregon DHS/Oregon, 2006-2009. Table III: Age-adjusted and Unadjusted Prevalence of Preventive Health Screening among Adults, by County, Oregon 2006-2009, BRFSS County Combined Dataset.

<https://public.health.oregon.gov/DiseasesConditions/ChronicDisease/Documents/TableIII.pdf>

# ORAL HEALTH

## ORAL HEALTH

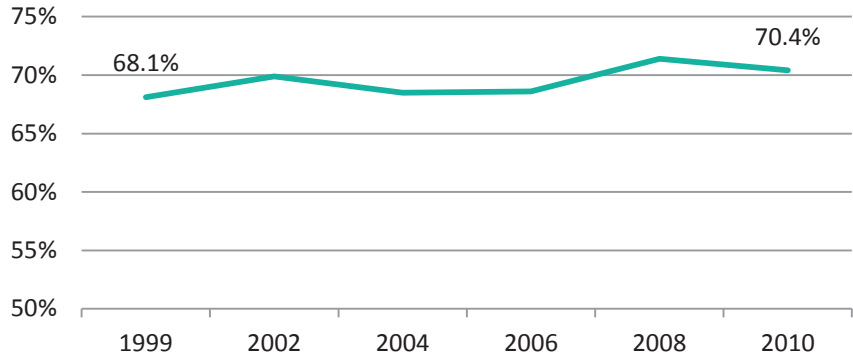
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# ORAL HEALTH

Table 81 Oral Health

## Percentage of Oregon Adults who Visited the Dentist or Dental Clinic within the Past Year, All Ages, 1999-2010

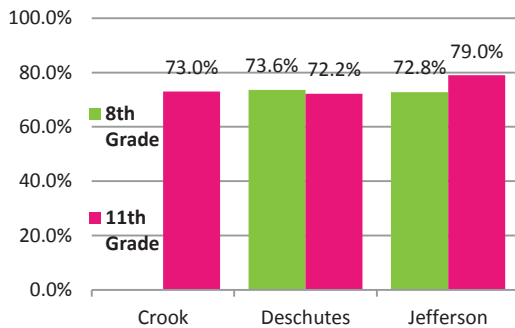
Year	Weighted %	Confidence Interval	n
1999	68.1	(65.7-70.5)	1242
2002	69.9	(68.0-71.8)	2169
2004	68.5	(67.0-70.0)	3509
2006	68.6	(67.0-70.2)	3370
2008	71.4	(69.7-73.2)	3490
2010	70.4	(68.5-72.3)	3573



% = Weighted Percentage,  
 CI = Confidence Interval,  
 n = Cell Size (Numerator)

Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data 1999-2010, Retrieved from <http://www.cdc.gov/brfss/>

## 8<sup>th</sup> & 11<sup>th</sup> Graders who Report Ever Having a Cavity



Oregon Healthy Teen data results were combined for 2007-2008; this question was only asked in 2008. Above Results show % of respondents who said "yes" out of total number of respondents in 2008 who answered the question.

\*Crook County has no results for 8<sup>th</sup> graders for this specific question.

Oregon DHS/OHA (2011). Oregon Healthy Teens Survey, OHT Combined 2007-2008 County Level Results. Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/Surveys/OregonHealthyTeens/results/2007/county/Pages/index.aspx>

Timely, relevant and reliable oral health data for children and adults is lacking for our region.

However, community organizations, health care providers, programs, schools and individuals in Central Oregon, based on their experiences working and living in the community, recognize oral health is an area of concern.

Prevention, affordable and convenient access to high quality dental care for all Central Oregonians are areas of concern.

## More than 72% of all Central Oregon 8<sup>th</sup> and 11<sup>th</sup> graders surveyed said they have had a cavity.

- How many Central Oregon Children & Adults:
- ...get adequate oral health/dental care when they need it?
  - ...avoid getting needed dental care due to cost?
  - ...benefit from fluoride?
  - ...lose teeth because they could not afford to pay for dental care before it was too late?

# COMMUNICABLE DISEASE

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# COMMUNICABLE DISEASE

Table 82 Communicable Disease Incidence Rankings by County & Type, Aggregated Rates, and 2005-2010 Communicable Disease Maps, from "Selected Reportable Communicable Disease Summary, 2008-2009" (OHA, Dec 2010)

## COMMUNICABLE DISEASE INCIDENCE RANKINGS BY COUNTY & TYPE

Aggregated Incidence Rates (per 10,000 population), 2005-2010

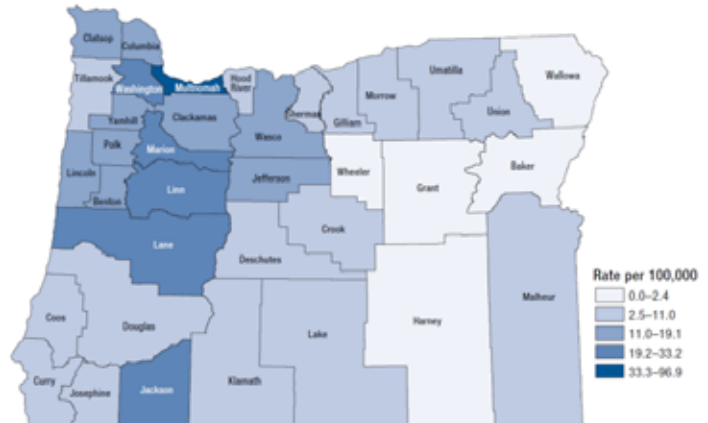
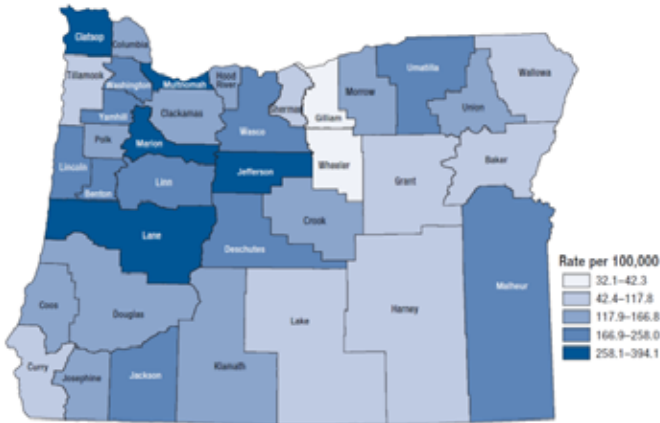
### SEXUALLY TRANSMITTED

Rank, Disease		Crook	Deschutes	Jefferson
1	Chlamydia	21.67	25.70	42.81
2	Gonorrhea	0.97	0.54	2.66
3	Early Syphilis	0.00	0.13	0.29

### SELECT MAPS FROM OREGON HEALTH AUTHORITY/DHS PUBLIC HEALTH DIVISION:

Incidence of chlamydia by county of residence: Oregon, 2000-2009

Incidence of gonorrhea by county of residence: Oregon, 2000-2009



Persons living with HIV or AIDS by county of residence: Oregon, 2010

Incidence of early syphilis by county of residence: Oregon, 2000-2009



Oregon Health Authority/DHS Public Health Division Office of Disease Prevention and Epidemiology, Acute and Communicable Disease Prevention, by Bancroft, J. & Byster, L. (Dec 2010). Selected Reportable Communicable Disease Summary, 2008-2009 State of Oregon, 2008-2009 Retrieved from <http://oregon.gov/DHS/ph/acd>

# COMMUNICABLE DISEASE

## COMMUNICABLE DISEASE INCIDENCE RANKINGS BY COUNTY & TYPE

Aggregated Incidence Rates (per 10,000 population), 2005-2010

### RELATED TO FOOD, WATER, SANITATION & HYGIENE

Rank	Crook		Deschutes		Jefferson	
	Disease	Incidence	Disease	Incidence	Disease	Incidence
1	Campylobacteriosis	22.35	Campylobacteriosis	29.61	Campylobacteriosis	26.64
2	Cryptosporidiosis	8.75	Giardiasis	18.84	Shigellosis	12.37
3	Salmonellosis	6.80	E. coli 0157	10.63	Giardiasis	9.51
4	E. coli 0157	4.86	Salmonellosis	9.69	Salmonellosis	8.56
5	Giardiasis	4.86	HUS*	1.62	HUS*	6.66
6	HUS*	2.92	Cryptosporidiosis	1.48	E. coli 0157	4.76
7	Legionellosis	0.97	Shigellosis	0.81	Cryptosporidiosis	0.95
8	Listeriosis	0.00	Vibrio†	0.40	Yersinosis	0.95
9	Shigellosis	0.00	Yersinosis	0.40	Legionellosis	0.00
10	Taeniasis	0.00	Legionellosis	0.27	Listeriosis	0.00
11	Vibrio†	0.00	Listeriosis	0.00	Taeniasis	0.00
12	Yersinosis	0.00	Taeniasis	0.00	Vibrio†	0.00

\*HUS:: Hemolytic-uremic syndrome

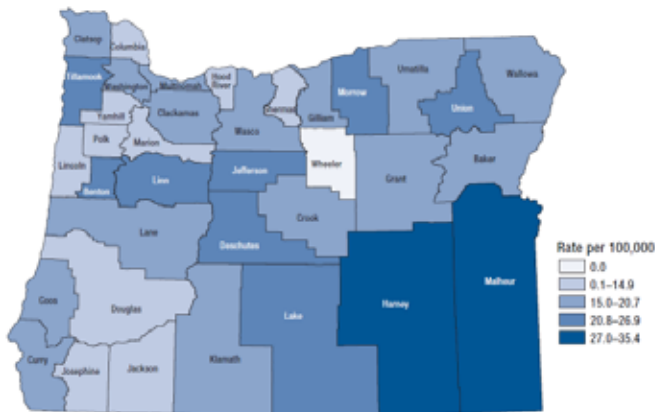
† Vibrio parahaemolyticus

Note: For increased accuracy, aggregated rates were calculated by DCHS (S. Kingston, 9/2011) using: 1) incidence counts from Oregon DHS, and 2) PSU population estimates for each year. Therefore, the aggregated incidence rates in these reports are likely different from rates published elsewhere (i.e., the state of Oregon), as other sources may use the same Census year 2000 population count to calculate rates for all years.

### SELECT MAPS FROM OREGON HEALTH AUTHORITY/DHS PUBLIC HEALTH DIVISION:

Incidence of campylobacteriosis by county of residence: Oregon, 2000–2009

Incidence of cryptosporidiosis by county of residence: Oregon, 2000–2009

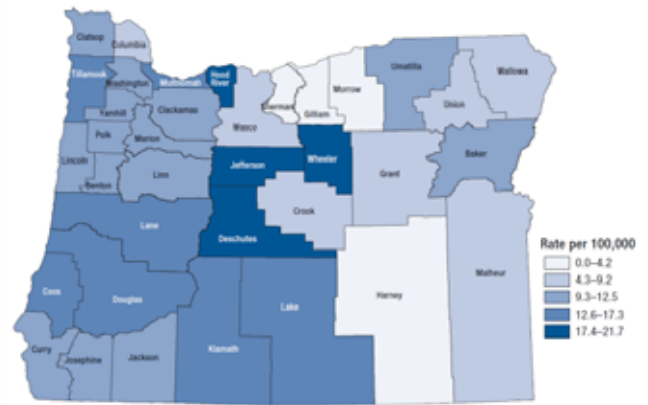
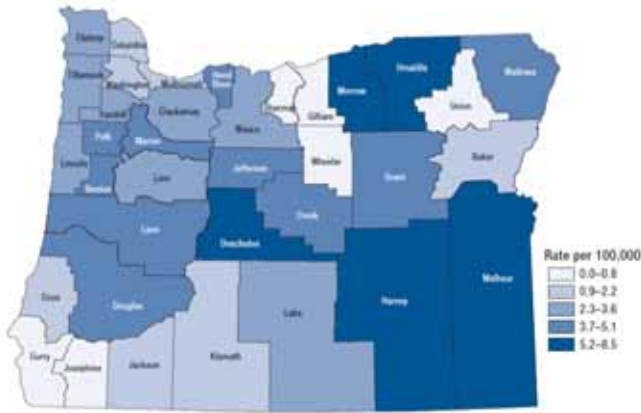


# COMMUNICABLE DISEASE

## COMMUNICABLE DISEASE INCIDENCE RANKINGS BY COUNTY & TYPE

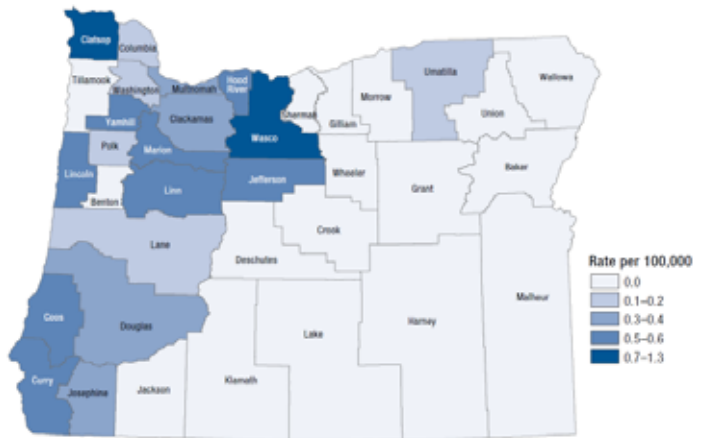
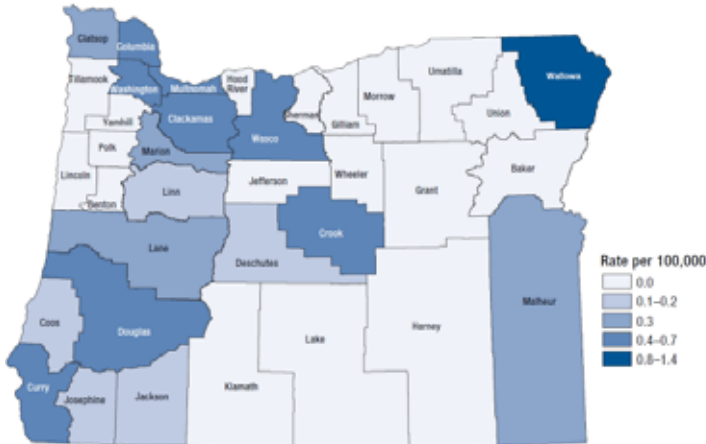
### Aggregated Incidence Rates (per 10,000 population), 2005-2010

Incidence of *E. coli* O157 infection by county of residence: Oregon, 2000–2009    Incidence of giardiasis by county of residence: Oregon, 2000–2009



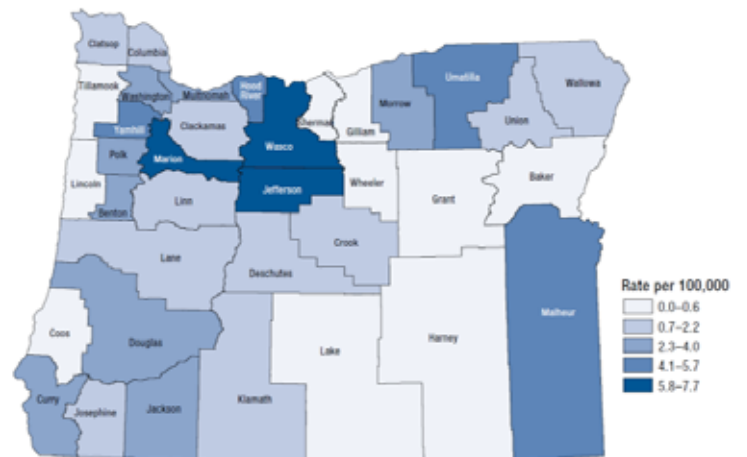
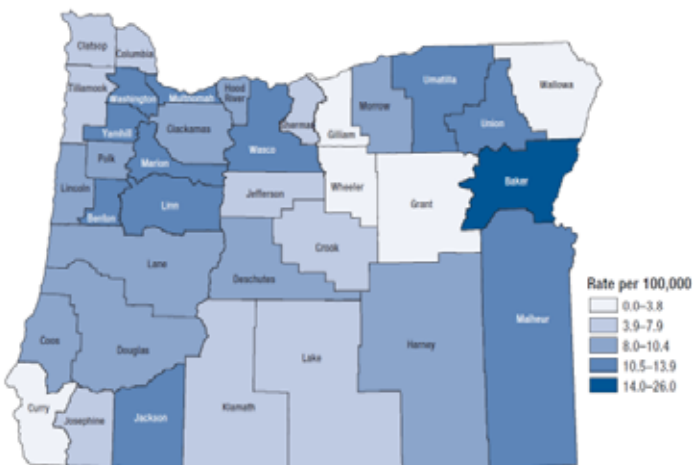
Incidence of legionellosis by county of residence: Oregon, 2000–2009

Incidence of listeriosis by county of residence: Oregon, 2000–2009



Incidence of salmonellosis by county of residence: Oregon, 2000–2009

Incidence of shigellosis by county of residence: Oregon, 2000–2009



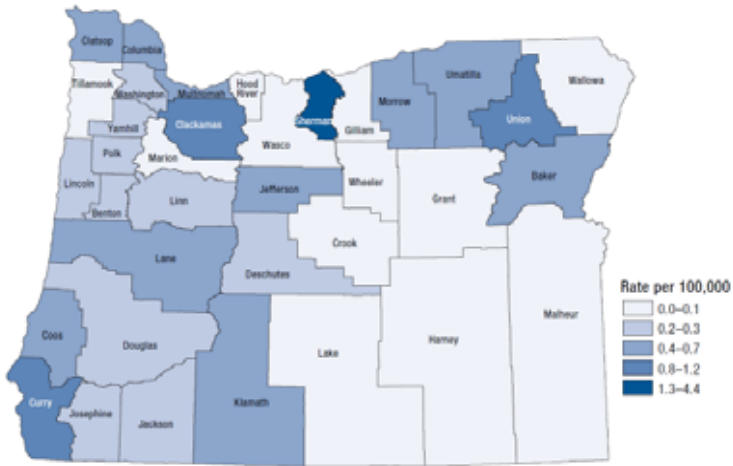


# COMMUNICABLE DISEASE

## COMMUNICABLE DISEASE INCIDENCE RANKINGS BY COUNTY & TYPE

### Aggregated Incidence Rates (per 10,000 population), 2005-2010

Incidence of yersiniosis by county of residence: Oregon, 2000-2009



Oregon Health Authority/DHS Public Health Division Office of Disease Prevention and Epidemiology, Acute and Communicable Disease Prevention, by Bancroft, J. & Byster, L. (Dec 2010). Selected Reportable Communicable Disease Summary, 2008-2009 State of Oregon, 2008-2009 Retrieved from <http://oregon.gov/DHS/ph/acd>

# COMMUNICABLE DISEASE

## COMMUNICABLE DISEASE INCIDENCE RANKINGS BY COUNTY & TYPE

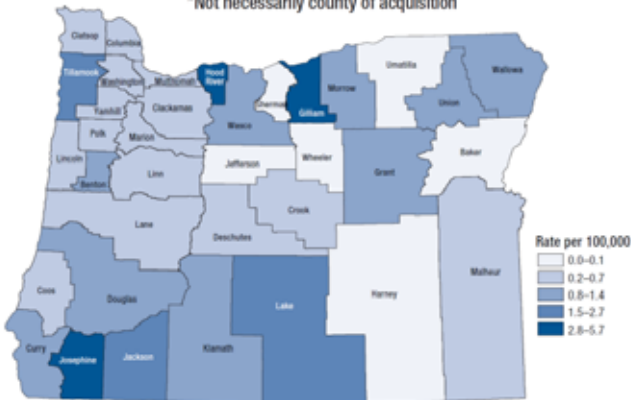
Aggregated Incidence Rates (per 10,000 population), 2005-2010

### RELATED TO ANIMAL & ARTHROPOD VECTORS

Rank	Crook		Deschutes		Jefferson	
	Disease	Incidence	Disease	Incidence	Disease	Incidence
1	West Nile	1.94	West Nile	4.85	Rabies, animal	0.95
2	Lyme disease	0.97	Rabies, animal	1.48	West Nile	0.95
3	Malaria	0.00	Malaria	0.40	Lyme disease	0.00
4	Rabies, animal	0.00	Lyme disease	0.27	Malaria	0.00

SELECT MAPS FROM OREGON HEALTH AUTHORITY/DHS PUBLIC HEALTH DIVISION:

Incidence of Lyme disease by county of residence\*: Oregon, 2000–2009  
\*Not necessarily county of acquisition



Animal rabies cases by county: Oregon, 2000–2009



Incidence of West Nile virus by county of residence: Oregon, 2005–2009



Oregon Health Authority/DHS Public Health Division Office of Disease Prevention and Epidemiology, Acute and Communicable Disease Prevention, by Bancroft, J. & Byster, L. (Dec 2010). Selected Reportable Communicable Disease Summary, 2008-2009 State of Oregon, 2008-2009 Retrieved from <http://oregon.gov/DHS/ph/acd>

# COMMUNICABLE DISEASE

## COMMUNICABLE DISEASE INCIDENCE RANKINGS BY COUNTY & TYPE

Aggregated Incidence Rates (per 10,000 population), 2005-2010

### HEPATITIS

Rank	Crook		Deschutes		Jefferson	
	Disease	Rate	Disease	Rate	Disease	Rate
1	Hepatitis B (chronic)	5.83	Hepatitis B (chronic)	3.90	Hepatitis B (chronic)	6.66
2	Hepatitis B (acute)	1.94	Hepatitis B (acute)	2.15	Hepatitis C (acute)	1.90
3	Hepatitis C (acute)	0.97	Hepatitis A	1.35	Hepatitis A	0.00
4	Hepatitis A	0.00	Hepatitis C (acute)	0.40	Hepatitis B (acute)	0.00

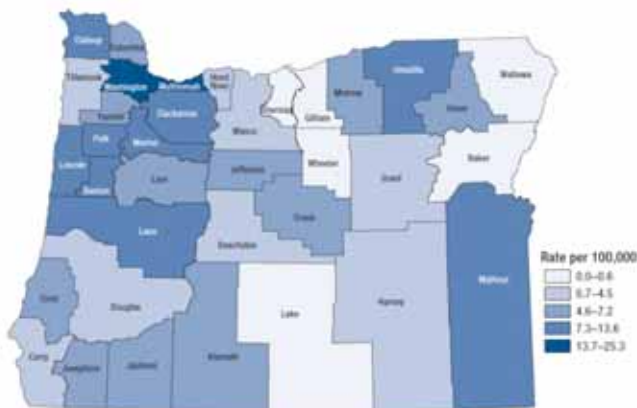
SELECT MAPS FROM OREGON HEALTH AUTHORITY/DHS PUBLIC HEALTH DIVISION:

Incidence of hepatitis A by county of residence: Oregon, 2000–2009    Incidence of acute hepatitis B by county of residence: Oregon, 2000–2009



Incidence of chronic hepatitis B by county of residence: Oregon 2000–2009

Incidence of acute hepatitis C by county of residence: Oregon, 2000–2009



# COMMUNICABLE DISEASE

## COMMUNICABLE DISEASE INCIDENCE RANKINGS BY COUNTY & TYPE

### Aggregated Incidence Rates (per 10,000 population), 2005-2010

Incidence of chronic hepatitis C by county of residence: Oregon, 2000–2009



Oregon Health Authority/DHS Public Health Division Office of Disease Prevention and Epidemiology, Acute and Communicable Disease Prevention, by Bancroft, J. & Byster, L. (Dec 2010). Selected Reportable Communicable Disease Summary, 2008-2009 State of Oregon, 2008-2009 Retrieved from <http://oregon.gov/DHS/ph/acd>

### DROPLET & AIRBORNE

Rank	Crook		Deschutes		Jefferson	
	Disease	Rate	Disease	Rate	Disease	Rate
1	H. influenza*	2.92	Pertussis	4.85	H. influenza*	6.66
2	Pertussis	1.94	H. influenza*	1.62	Tuberculosis	2.85
3	Tuberculosis	1.94	Meningococcal†	1.48	Meningococcal†	0.95
4	Meningococcal†	0.00	Tuberculosis	0.81	Pertussis	0.95

\* Haemophilus influenzae

†Meningococcal Disease

### SELECT MAPS FROM OREGON HEALTH AUTHORITY/DHS PUBLIC HEALTH DIVISION:

Incidence of *H. influenzae* by county of residence: Oregon, 2000–2009 Incidence of meningococcal disease by county of residence: Oregon, 2000–2009



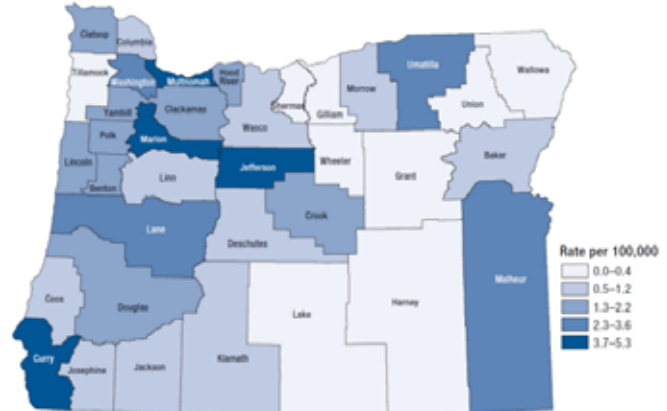
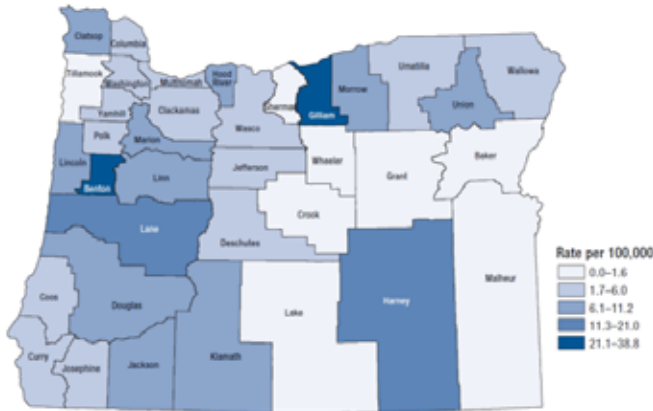
# COMMUNICABLE DISEASE

## COMMUNICABLE DISEASE INCIDENCE RANKINGS BY COUNTY & TYPE

### Aggregated Incidence Rates (per 10,000 population), 2005-2010

Incidence of pertussis by county of residence: Oregon, 2000–2009

Incidence of tuberculosis by county of residence: Oregon, 2000–2009



Oregon Health Authority /Public Health Division Communicable Disease. Selected Reportable Communicable Disease Summary: Oregon (2005-2010). Retrieved from <http://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/DiseaseSurveillanceData/AnnualReports/arpt2010/Pages/index.aspx>  
 Oregon Health Authority/DHS Public Health Division Office of Disease Prevention and Epidemiology, Acute and Communicable Disease Prevention, by Bancroft, J. & Byster, L. (Dec 2010). Selected Reportable Communicable Disease Summary, 2008–2009 State of Oregon, 2008–2009 Retrieved from <http://oregon.gov/DHS/ph/acd>  
[http://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/DiseaseSurveillanceData/AnnualReports/arpt0809/Documents/disease\\_county.pdf](http://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/DiseaseSurveillanceData/AnnualReports/arpt0809/Documents/disease_county.pdf)  
<http://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/DiseaseSurveillanceData/AnnualReports/arpt07/Documents/county.pdf>  
[http://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/DiseaseSurveillanceData/AnnualReports/arpt06/Documents/county\\_counts.pdf](http://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/DiseaseSurveillanceData/AnnualReports/arpt06/Documents/county_counts.pdf)  
<http://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/DiseaseSurveillanceData/AnnualReports/arpt05/Documents/etio.pdf>

# ACCESS TO CARE & SERVICES

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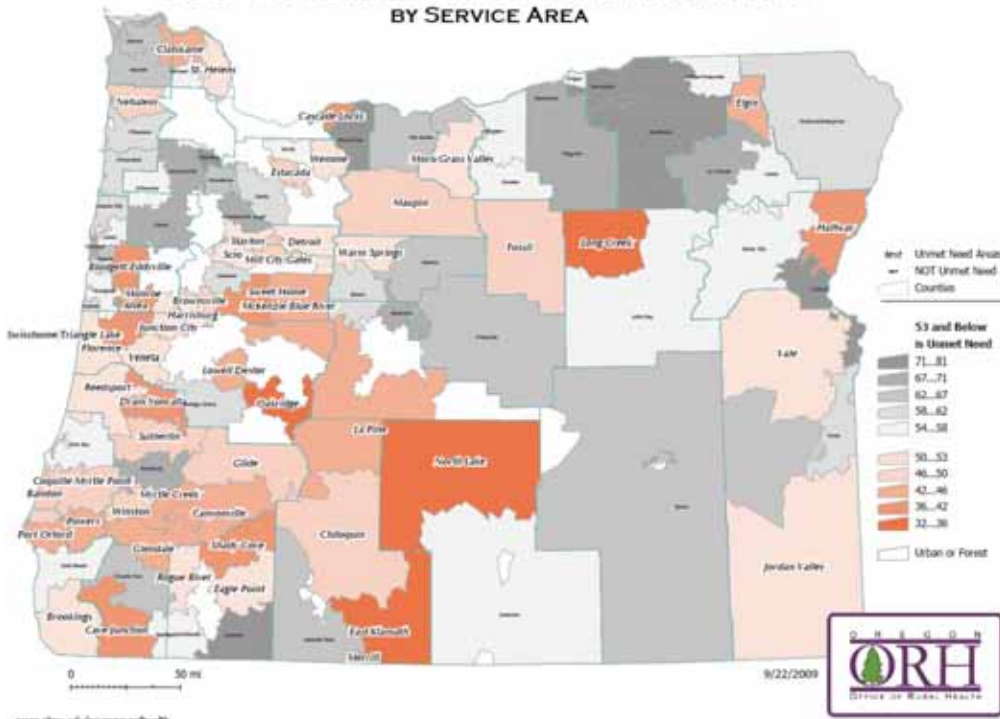
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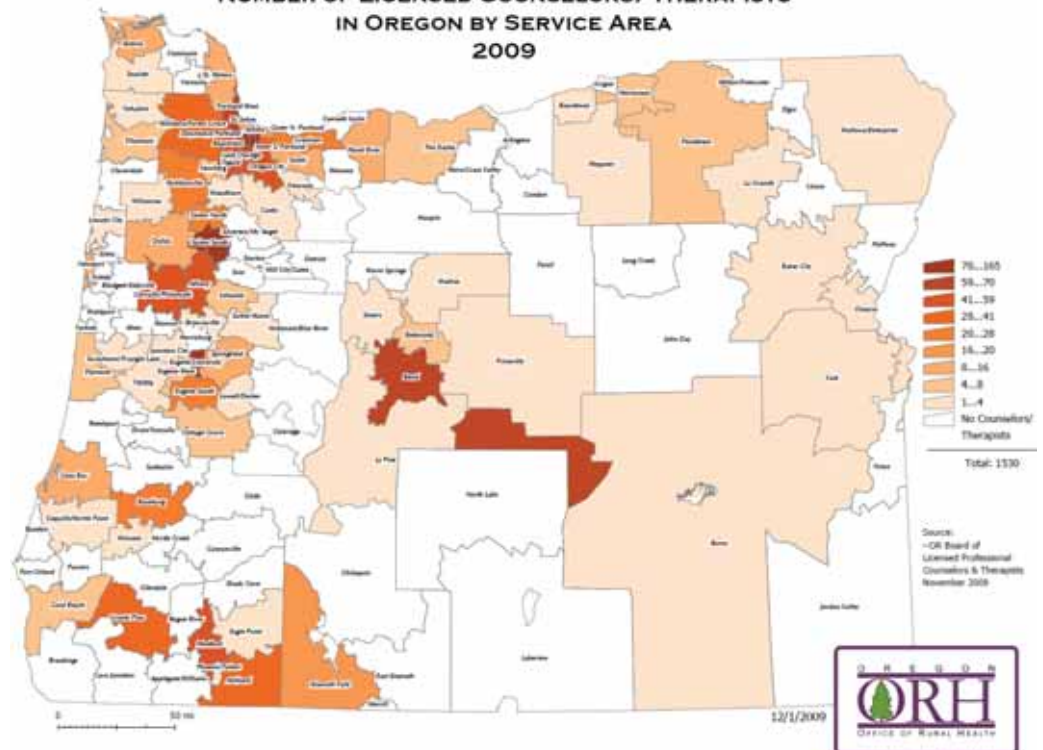
Table 84 Rural Unmet Need and Number of Health Care Providers, Oregon, 2009-2010

## RURAL HEALTH CARE SERVICES: OREGON RURAL UNMET NEED & NUMBER OF PROVIDERS

2009 - 2010 OREGON RURAL UNMET HEALTHCARE NEED BY SERVICE AREA



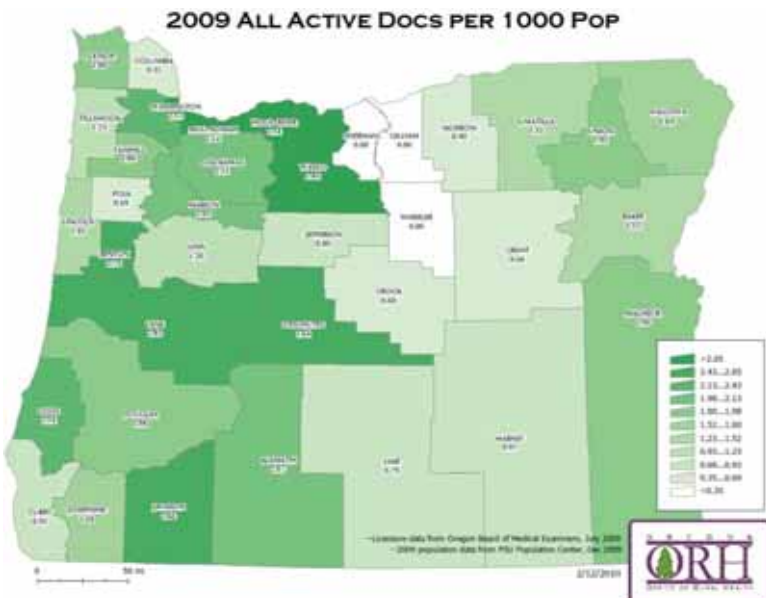
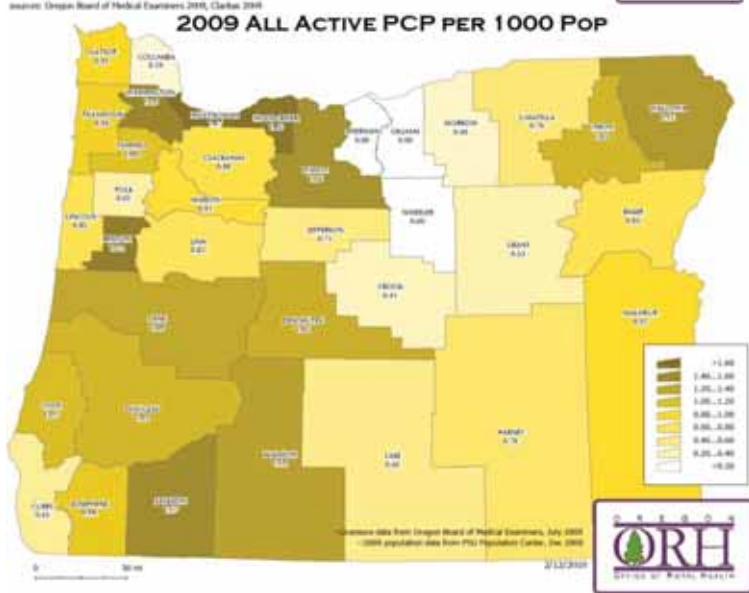
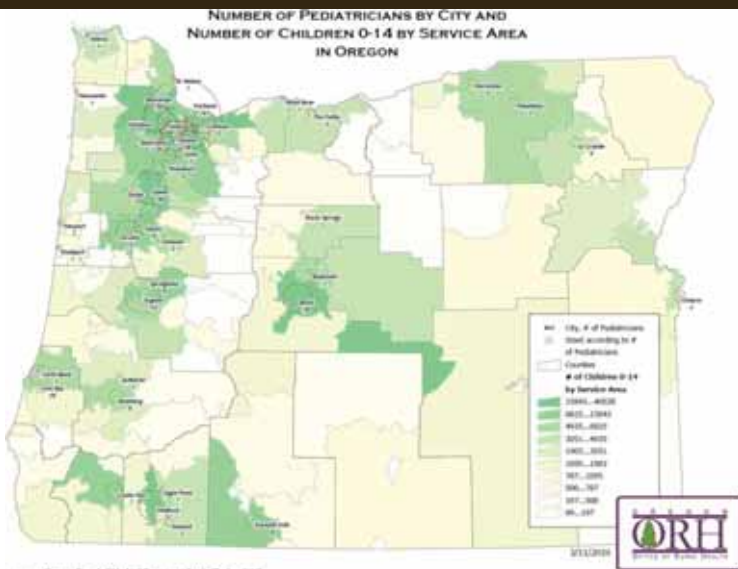
NUMBER OF LICENSED COUNSELORS/THERAPISTS IN OREGON BY SERVICE AREA 2009



Oregon Office of Rural Health/Oregon Health and Sciences University, (2011). Oregon Rural Health Maps, August 4, 2011. Retrieved from: <http://www.ohsu.edu/xd/outreach/oregon-rural-health/data/publications/maps.cfm>

# Access to Care & Services

Oregon Office of Rural Health/Oregon Health and Sciences University, (2011). Oregon Rural Health Maps, August 4, 2011. Retrieved from: <http://www.ohsu.edu/xd/outreach/oregon-rural-health/data/publications/maps.cfm>

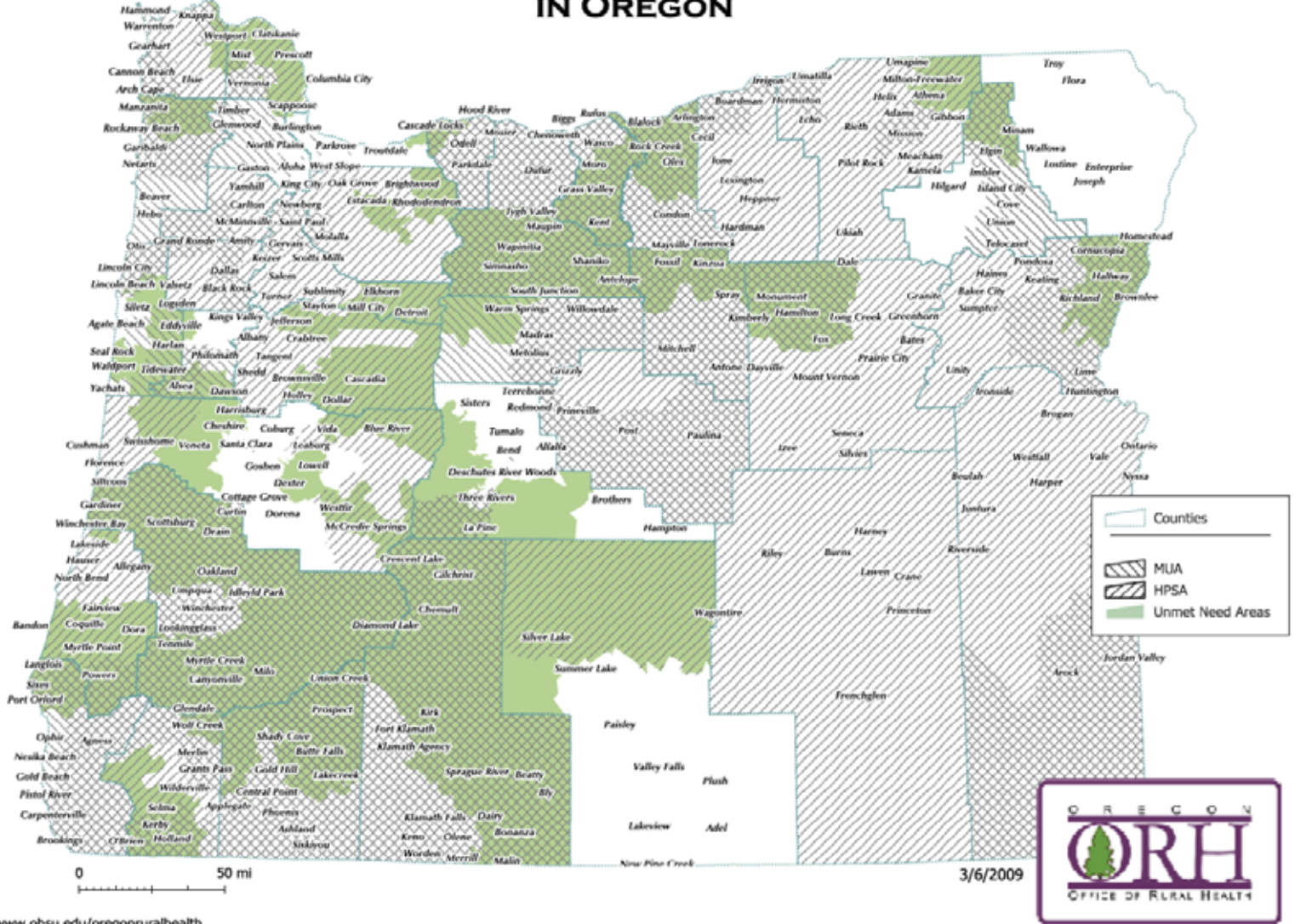




# Access to Care & Services

Table 85 Medically Underserved & Health Professional Shortage Area Map

## MUA, HPSA, AND UNMET NEED AREAS IN OREGON



www.ohsu.edu/oregonruralhealth

MUA= Medically Underserved Area  
HPSA= Health Professional Shortage Area

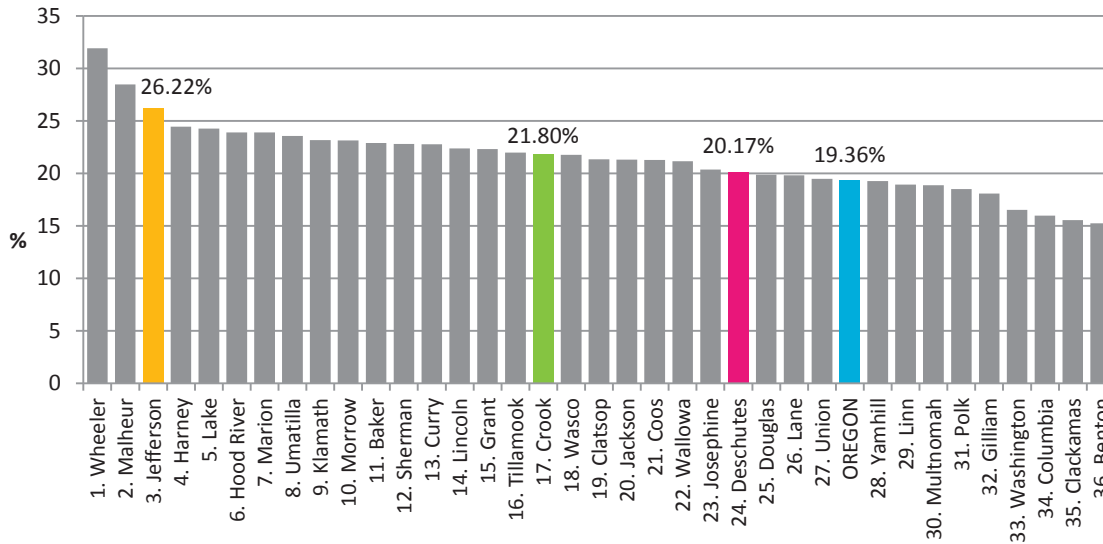
Oregon Health and Science University, Oregon Rural Health Maps, Oregon Office of Rural Health, (2011) Retrieved from <http://www.ohsu.edu/xd/outreach/oregon-rural-health/data/publications/maps.cfm>

# Access to Care & Services

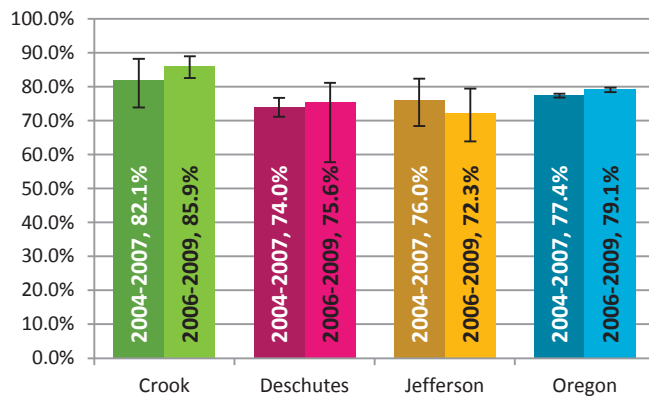
Table 86 Access to Care, Insurance, Providers

## HEALTH CARE ACCESS & INSURANCE

### OREGON PERCENT UNINSURED BY COUNTY & RANK (UNDER 65 YRS), 2009



### ADULTS WHO HAVE SOMEONE THEY CONSIDER AS THEIR OWN PERSONAL DOCTOR, 2004-2007 & 2006-2009 (AGE-ADJUSTED)



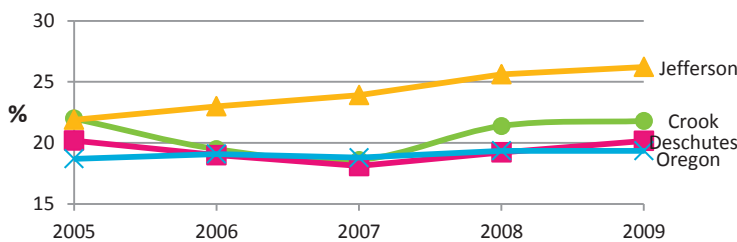
### UNINSURED ESTIMATES FOR CHILDREN UNDER THE AGE OF 19 YEARS, 2009

Crook: 13.7% (719 kids)  
 Deschutes: 10.8% (3,999 kids)  
 Jefferson: 17.3% (976 kids)

Note: these estimates are from a time period *before* Oregon Healthy Kids initiative, and are expected to be lower for 2012.

Note: Adults 18 years and older; Percentages based on less than 50 respondents total or fewer than 12 in any one of the three age groups may not accurately reflect behavior of the entire county; Age adjustment is based on three age groups: 18-34; 35-54; and 55+, per U.S. Standard Million

### Percent Uninsured: Central Oregon, 2005-2009 (Under 65 yrs)



Small Area Health Insurance Estimates/US Census Bureau, 2009. 2009 Health Insurance Coverage Status, State and County by Demographic and Income Characteristics. Retrieved from <http://www.census.gov/did/www/sahie/data/2009/tables.html>

DHS/Oregon Health Authority, Oregon Behavioral Risk Factor Surveillance System, 2004-2007 & 2006-2009. Retrieved from <http://public.health.oregon.gov/BirthDeathCertificates/Surveys/AdultBehaviorRisk/county/0407/Pages/index.aspx>  
<http://public.health.oregon.gov/BirthDeathCertificates/Surveys/AdultBehaviorRisk/county/index/Documents/hcaowndocaa.pdf>

# Access to Care & Services

Table 87 Oregon Estimates of Residents without Health Insurance Coverage, 2011

## OREGON UNINSURED RATES, 2011

### 2011 Oregon Health Insurance Survey (OHIS)

Results from the 2011 OHIS found considerable variation in rates of people without health insurance by region. The highest rates of uninsured were found in primarily rural areas.

In Crook and Jefferson Counties (Region 2), an estimated 12.3 to 19.1% of all residents are uninsured.

In Deschutes County (Region 4), an estimated 12.2 to 18.6% of all residents are uninsured.

Individuals age 19-64 years and who make two times the Federal Poverty Limit or less have the highest uninsured rates. Across Oregon, the difference based on income is substantively and statistically significant.

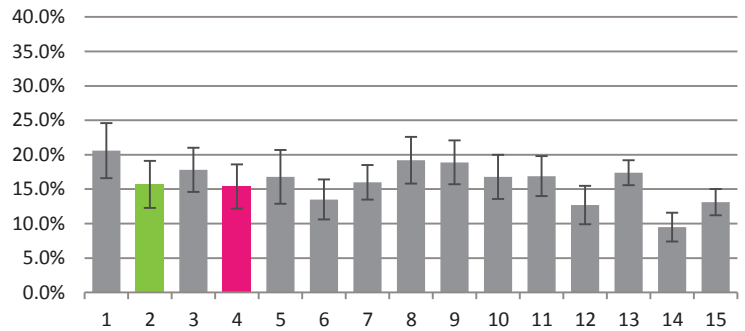
In Deschutes County, an estimated 1 out of 4 individuals in households with an income of 200% FPL or less are uninsured, compared to 1 in 10 individuals who live in households with more than 200% FPL.

Crook and Jefferson Counties have a higher estimated number of uninsured children 18 years and younger (9.7%) than Deschutes (4.1%).

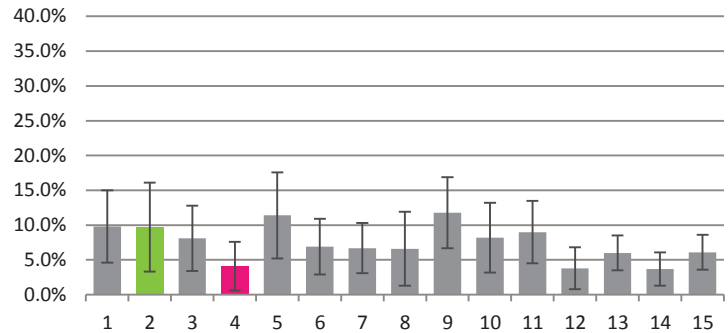
Deschutes County has a higher estimated rates of uninsured for 200% FPL or less and adults age 19-64 years (25.8% and 23.3%, respectively) than Region 2 with Crook and Jefferson Counties (21.4%, 21.6%).

Region & County/COUNTIES	
1 Umatilla, Union, Wallowa, Baker	8 Coos, Curry, Josephine
<b>2 Crook</b> , Gilliam, Grant, Hood River, Jefferson, Morrow, Sherman, Wasco, Wheeler	9 Jackson
3 Harney, Klamath, Lake, Malheur	10 Douglas
<b>4 Deschutes</b>	11 Marion
5 Clatsop, Columbia, Lincoln, Tillamook	12 Polk, Yamhill
6 Benton, Linn	13 Multnomah
7 Lane	14 Clackamas
	15 Washington

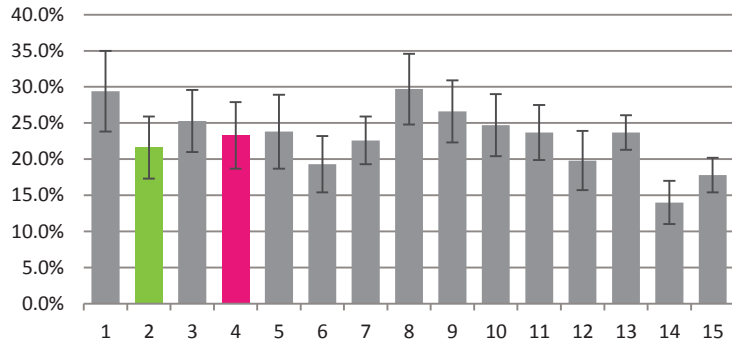
### Overall Uninsured: All Ages By Region, 2011



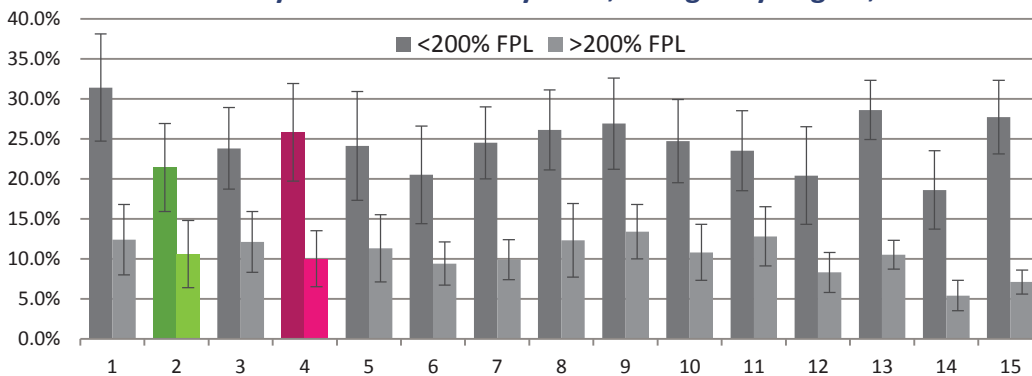
### Child Uninsured: 18 yrs and Under, By Region, 2011



### Uninsured: Age 19 through 64 years, By Region, 2011



### Uninsured by % Federal Poverty Limit, All Ages By Region, 2011



\* Note: vertical error bars represent the upper and lower bounds of the uninsurance estimates. Estimates are point-in-time estimates

DHS/OHA Office for Oregon Health Policy and Research. (2011). Regional Health Insurance Coverage in Oregon: results from the 2011 Oregon Health Insurance Survey, September 2011. Retrieved from [http://www.oregon.gov/OHA/OHPR/RSC/H/docs/Uninsured/OHIS\\_2011\\_Uninsured\\_Regional\\_Fact\\_Sheet\\_Nov21.pdf](http://www.oregon.gov/OHA/OHPR/RSC/H/docs/Uninsured/OHIS_2011_Uninsured_Regional_Fact_Sheet_Nov21.pdf)

# Access to Care & Services

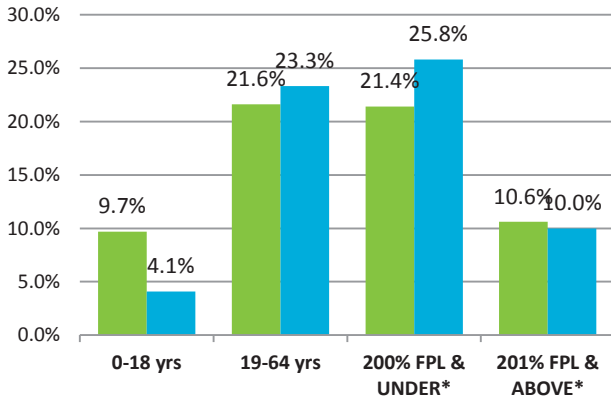
Table 88 Uninsured in Central Oregon

## CENTRAL OREGONIANS WITHOUT HEALTH INSURANCE, 2011

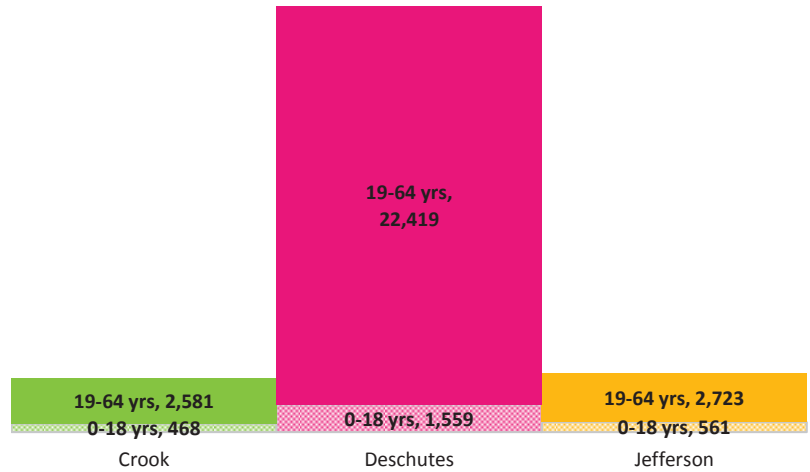
### POINT-IN-TIME ESTIMATE

#### Rates

Region 2: 15.7% Region 4: 15.4%



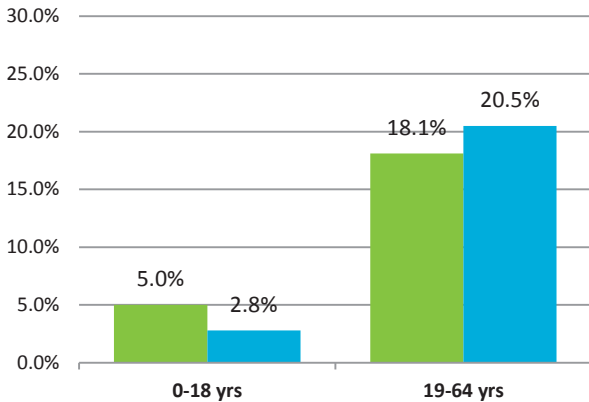
#### Estimated Number Impacted



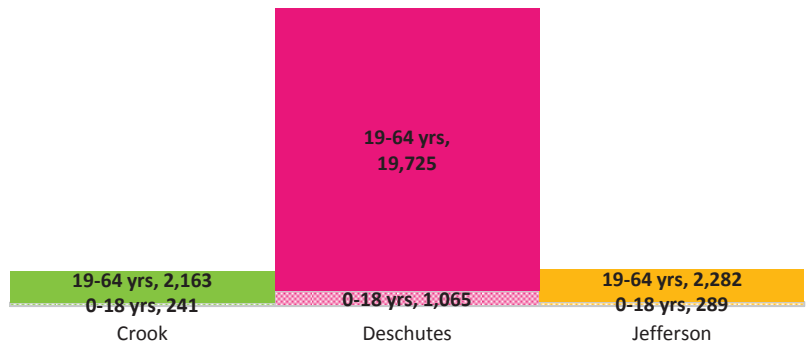
### UNINSURED FOR ENTIRE YEAR\*\*

#### Rates

Region 2: 12.4% Region 4: 13.3%



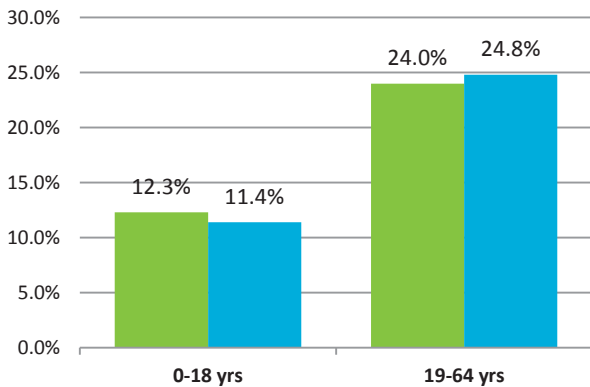
#### Estimated Number Impacted



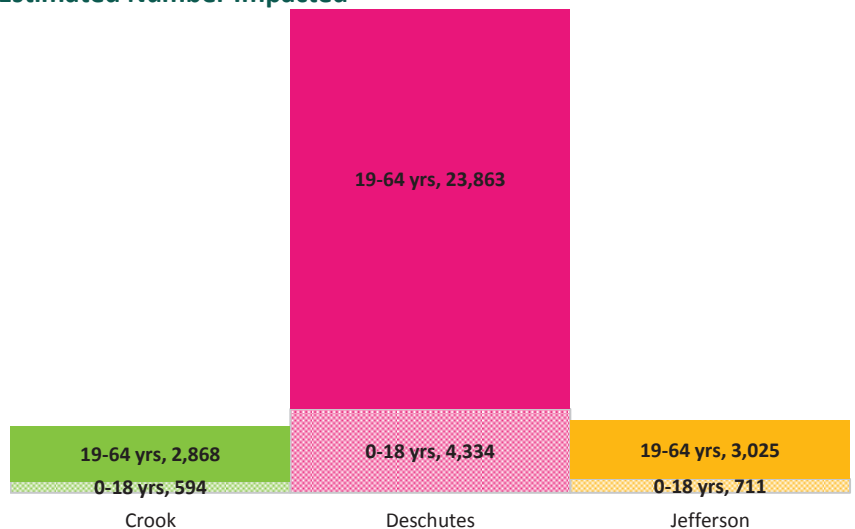
### GAP IN INSURANCE COVERAGE IN LAST 12 MONTHS

#### Rates

Region 2: 17.9% Region 4: 18.3%



#### Estimated Number Impacted



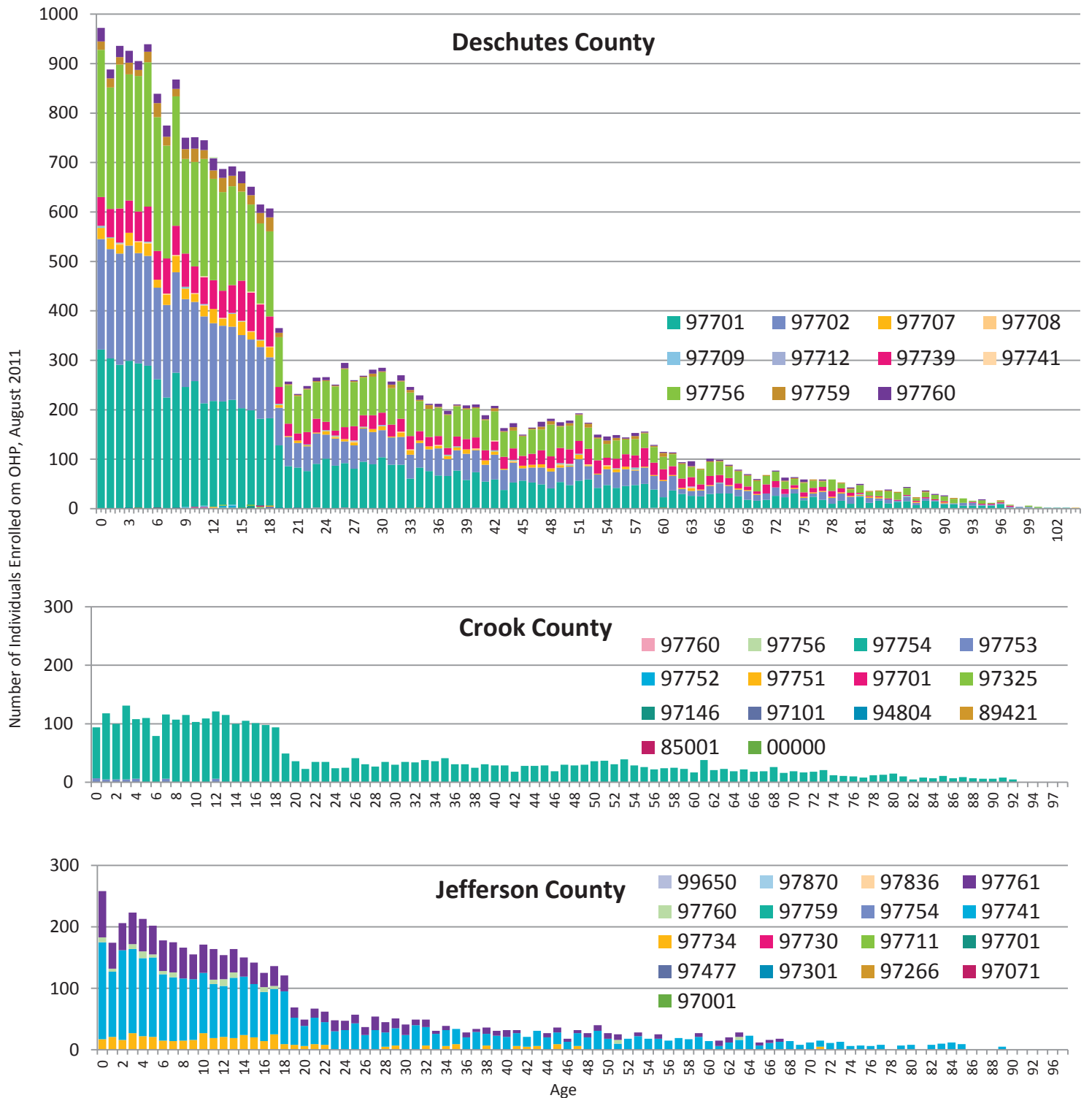
\*Estimate for % of FPL is individuals of all ages

\*\*All of previous 12 months

# Access to Care & Services

Table 89 Oregon Health Plan Enrollment, by Zip Code & Age, August 2011

## MEDICAID: OREGON HEALTH PLAN ENROLLED BY ZIP CODE & AGE, AUGUST 2011



NOTE: this includes all zip codes associated with OHP in Deschutes County. Therefore, zip codes out of the area are also included. For all data where n<5, data was visualized by substituting n=2 to get a rough estimate of aggregate data; yet, due to scale, no cells with n<5 cells are visible.

# Access to Care & Services

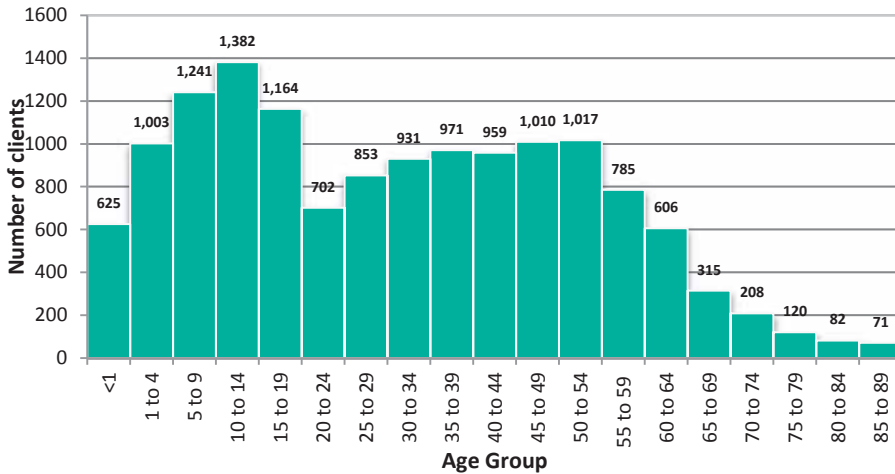
Table 90 Safety-net Clinic: Mosaic

## MOSAIC MEDICAL

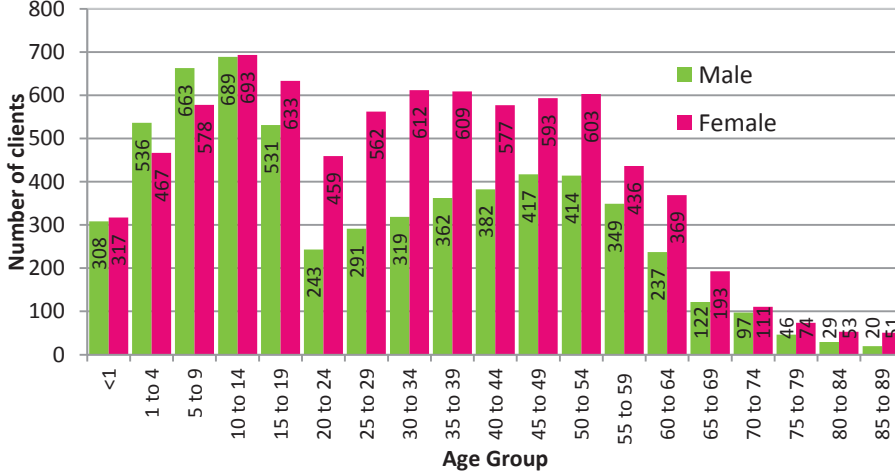
In 2011, Mosaic Medical provided health services to **14,045** people in **49,000** total visits

### Client Demographics

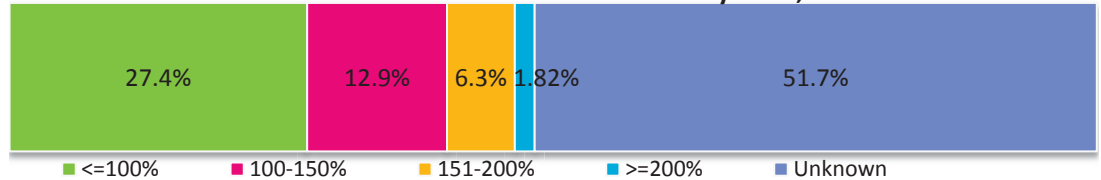
Number of Clients by Age Group, 2011



Number of Clients by Age Group & Gender, 2011

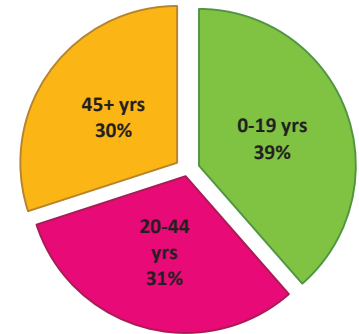


Income As Percent of Federal Poverty Level, 2011



Patients by Zip Code, 2011

Mosaic Medical is a 501(c)3 non-profit organization that has been operating Federally-Qualified Health Centers (FQHC) since 2002. Mosaic Medical serves the tri-county region with locations in Prineville, Bend, and Madras. Mosaic Medical serves individuals regardless of health insurance, age, ethnicity, race or income.



For encounters performed between 1/1/2011 and 12/31/2011.

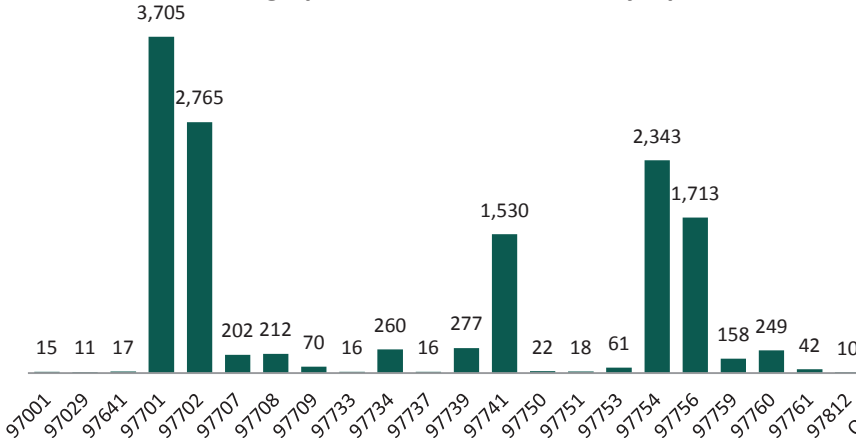
Mosaic Medical (2012). Tables: UDS Table 3A—Users by Age and Gender, UDS Table 4—Selected Patient Characteristics, Universal Report, Patients by Zip Code. "Income as Percent of Poverty Level", page 1. Created by Mosaic Medical on 1/27/2012.

# Access to Care & Services

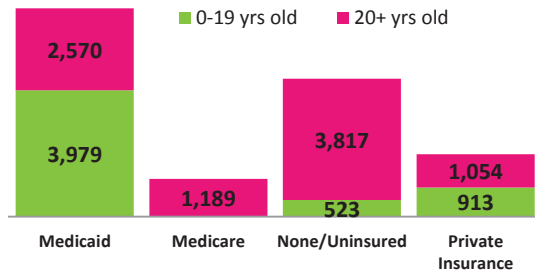
Table 91 Safety-Net Clinic: Mosaic Medical (continued)

## MOSAIC MEDICAL

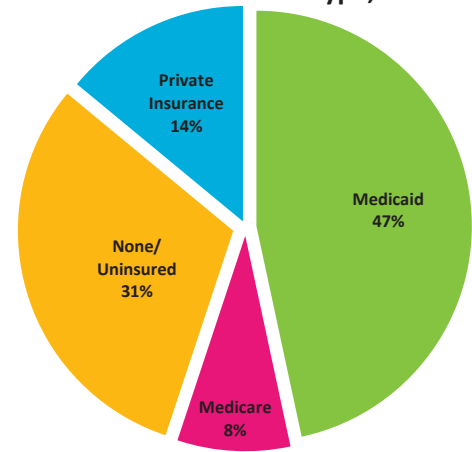
Client Demographics: Number of Clients by Zip Code 2011



Number of Patients by Insurance Type, 2011



Patient Insurance Type, 2011



For encounters performed between 1/1/2011 and 12/31/2011.

Source: Mosaic Medical

Table: UDS Table 3A—Users by Age and Gender.

Created by Mosaic Medical on 1/27/2012.

Table: UDS Table 4—Selected Patient Characteristics, Universal Report, "Income as Percent of Poverty Level", page 1.

Created by Mosaic Medical on 1/27/2012

Table: Patients by Zip Code.

Created by Mosaic Medical on 1/27/2012.

# Access to Care & Services

Table 92 Safety-Net Clinic: Volunteers in Medicine

## VOLUNTEERS IN MEDICINE CLINIC OF THE CASCADES

In the 2011 Fiscal Year, Volunteers in Medicine provided

**7,537 patient VISITS.**

Volunteers in Medicine (VIM) Clinic of the Cascades is a 501(c)3 non-profit medical clinic serving low-income, uninsured families in Deschutes County. VIM cares for people who do not qualify for the Oregon Health Plan or Medicare and have no insurance of any kind.

Services are provided by volunteer doctors, nurses, therapists, pharmacists, interpreters, and other community members. VIM is located in Bend, OR and is open 4 hours a day, 5 days a week.

For encounters performed between 4/1/2010 and 03/31/2011  
Volunteers in Medicine, Annual Report  
Provided by Volunteers in Medicine Clinic of the Cascades  
Date: 2/21/2012



2,078 eligibility screenings



694 new patients



3,232 prescriptions filled on-site



7,537 patient visits provided

Note: Figures are for on-site care only. Does not include pro-bono care provides by referral in the community.



# Access to Care & Services

Table 93 Safety Net Services: Deschutes County Health Services

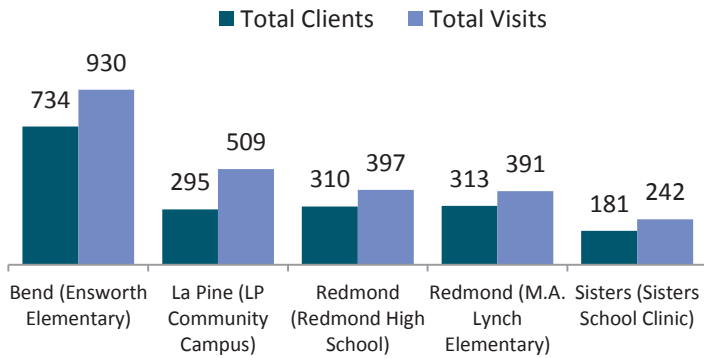
## DESCHUTES COUNTY HEALTH SERVICES

### SCHOOL-BASED HEALTH CENTERS (SBHC)

Deschutes County Health Services (DCHS) operates five school-based health centers in Deschutes County. In 2011, the SBHCs provided services to 1,781 total clients in 2,469 visits.

Services include: well child exams, low cost sport physical exams, sick visits, immunizations, diagnosis and treatment, and assistance with OHP applications.

**DCHS Client & Visit Totals at SBHCs, 2011**



Fees for services at SBHCs are based on family size and income. For those at 249% of Federal Poverty Level (FPL) and below, discounts are applied (0 - 100% FPL have no charges) The cost for immunizations is \$15.19 per shot, and does not apply to the discount.

**In 2011, 1,781 clients received SBHC services at one of 5 SBHC locations. 904 kids (51% of all clients) visited for immunizations only in 1,009 visits (41% of all visits).**

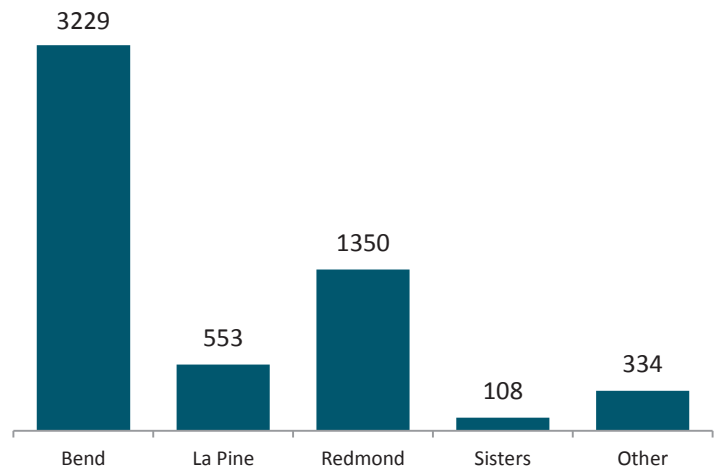
For encounters performed between 1/1/2011 and 12/31/2011. Source: DCHS, OCHIN Data Extract by Department created by S. Kingston 2/10/2012.

### DCHS BEHAVIORAL HEALTH SERVICES

Behavioral Health helps County residents facing serious mental health and addiction issues. Staff and contracted agencies also help people with developmental disabilities and their families. Priority populations include Oregon Health Plan members, uninsured County residents with nowhere else to turn and people in crisis, who are often in unstable situations or are a danger to themselves or others. The department also coordinates services for County residents in care at the State Hospital or served through other agencies or facilities. These services assist people in need, alleviate community problems, promote client health and prevent more costly care and intervention.

**In 2011, approximately 5,500 clients received services from DCHS Behavioral Health providers in 96,000 visits.**

**DCHS Behavioral Health Total Number of Clients by City, 2011**



For encounters performed between 1/1/2011 and 12/31/2011. Source: DCHS, MH.PGM.CITY.RPT Client County by City and MH.ETHNIC.GENDER.RPT Client Counts, Service Hours, Visits by Age Group, Ethnicity, & Gender. Created 6/27/2012.

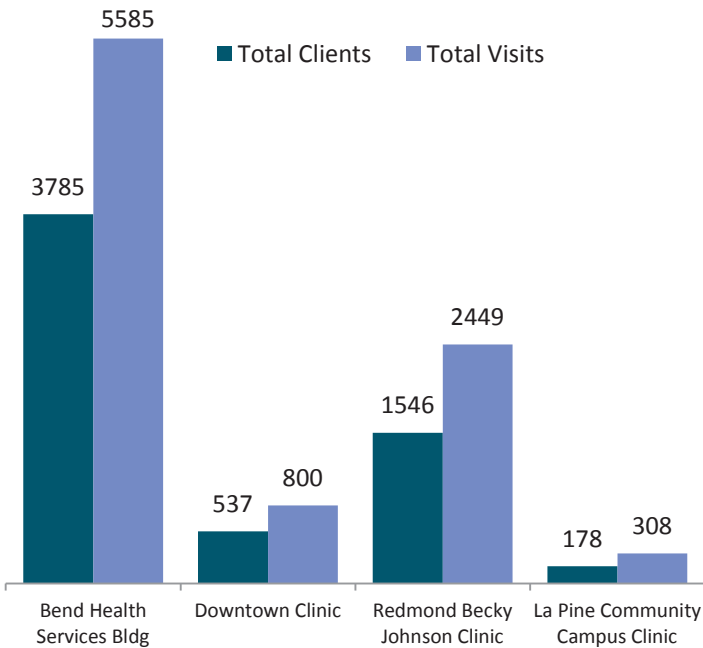
# Access to Care & Services

## DCHS REPRODUCTIVE HEALTH & IMMUNIZATIONS

Deschutes County Health Services public health clinic services include immunizations, birth control, women's annual exams, STD/STI testing, and educational information.

In 2011, the DCHS public health clinics provided services to 5,716 total clients in 9,142 visits.

**DCHS Client & Visit Totals for Reproductive Health & Immunizations (not at SBHCs), 2011**



**In 2011, 5,716 people received DCHS public health services.**

**2,179 clients (38% of total) had immunizations only visits for 2,382 visits (26% of all visits).**

For encounters performed between 1/1/2011 and 12/31/2011.  
 Source: DCHS, OCHIN Data Extract by Department created by S. Kingston 2/10/2012.

# APPENDIX

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## Appendix

Table 94 Existing Data Fact Sheets &amp; Reports for the Region/State

**EXISTING DATA FACT SHEETS, REPORTS & DATA SOURCES FOR THE REGION/STATE****2010 Oregon Reproductive Health Program Report**

Oregon Health Authority/Public Health Division Reproductive Health Program

2011

[http://public.health.oregon.gov/HealthyPeopleFamilies/ReproductiveSexualHealth/Resources/Documents/9857\\_Family\\_Planning\\_Report\\_2010\\_Color-Single-Pages-WEB.pdf](http://public.health.oregon.gov/HealthyPeopleFamilies/ReproductiveSexualHealth/Resources/Documents/9857_Family_Planning_Report_2010_Color-Single-Pages-WEB.pdf)

**2010 WIC County Fact Sheets**

Oregon Health Authority/Public Health Division WIC

<http://public.health.oregon.gov/HealthyPeopleFamilies/wic/Pages/annual.aspx>

**2011 One Night Homeless Count Tri-County Report, Crook County Report, Deschutes County Report, & Jefferson County Report**

Homeless Leadership Coalition

[http://www.cohomeless.org/homeless\\_count\\_2011.html](http://www.cohomeless.org/homeless_count_2011.html)

**Annual Tuberculosis Report, Oregon 2010**

Oregon Health Authority/Public Health Division TB Program

November 2011

<http://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/Tuberculosis/Pages/index.aspx>

**Central Oregon 10 Year Plan to End Homelessness**

Homeless Leadership Coalition

November 2011

[http://www.cohomeless.org/10\\_year\\_plan.html](http://www.cohomeless.org/10_year_plan.html)

**Central Oregon Opportunity Conference**

Documents from May 20, 2011 conference

**Central Oregon Regional Profile**

The Oregon Community Foundation

April 2011

[http://www.oregoncf.org/Templates/media/files/regional\\_profiles\\_2011/central\\_oregon\\_profile.pdf](http://www.oregoncf.org/Templates/media/files/regional_profiles_2011/central_oregon_profile.pdf)

**Central Oregon Workforce Housing Needs Assessment**

Rees Consulting, Inc. In collaboration with RRC Associates, Inc.

Prepared for: Central Oregon Regional Housing Authority, dba Housing Works

July 2006

[http://doc.ci.redmond.or.us/Community\\_Development/Affordable%20Housing/Housing\\_Needs\\_Assessment.pdf](http://doc.ci.redmond.or.us/Community_Development/Affordable%20Housing/Housing_Needs_Assessment.pdf)

**Child Care and Education in Oregon and Its Counties: 2010**

Bobbie Weber (Oregon Child Care Research Partnership, OSU) & Becky Vorpapel (Information Architecture, Consultant to Oregon Child Resource and Referral Network)

Oregon Child Care Research Partnership

October 2011

<http://health.oregonstate.edu/sites/default/files/sbhs/pdf/occrp-state--county-profiles-2010.pdf>

# Appendix

## EXISTING DATA FACT SHEETS, REPORTS & DATA SOURCES FOR THE REGION/STATE

### **Chronic Absence in Oregon**

Attendance Works, The Children's Institute, The Chalkboard Project, ECONorthwest  
January 2012  
<http://www.attendanceworks.org/policy-advocacy/state/oregon/>

### **County Criminal Justice Fact Sheets**

Oregon Criminal Justice Commission  
[http://www.ncjp.org/states/or?vdt=glossary%7Cpage\\_6](http://www.ncjp.org/states/or?vdt=glossary%7Cpage_6)

### **Fatality Analysis Reporting System DUUI Data Book for Oregon Counties, 1997-2007**

Oregon Department of Transportation/Transportation Safety Division.  
2009.  
[http://www.oregon.gov/ODOT/TS/docs/DUII/2007\\_DUII\\_Statistics.pdf](http://www.oregon.gov/ODOT/TS/docs/DUII/2007_DUII_Statistics.pdf)

### **Healthy Aging in Oregon Counties: Report & County Fact Sheets**

2009  
[http://public.health.oregon.gov/diseasesconditions/chronicdisease/pages/healthyaginginoregoncounties.aspx#healthy\\_aging\\_in\\_oregon\\_counties\\_\\_\\_report\\_\\_\\_county\\_fact\\_sheets](http://public.health.oregon.gov/diseasesconditions/chronicdisease/pages/healthyaginginoregoncounties.aspx#healthy_aging_in_oregon_counties___report___county_fact_sheets)

### **Healthy Tumalo Community Plan: A Health Impact Assessment on the Tumalo Community Plan**

<http://public.health.oregon.gov/HealthyEnvironments/TrackingAssessment/HealthImpactAssessment/Documents/TumaloOregonHIA.pdf>

### **HIA Final Report (Transportation), May 2012**

HIA Workgroup in Central Oregon, made possible by a grant from NW Health Foundation

### **Hydrogeologic and Geochemical Investigations of Ground-Water near La Pine, Oregon**

Oregon Department of Environmental Quality in cooperation with Deschutes County Community Development Department  
[http://or.water.usgs.gov/proj/or186/new\\_site/reports.html](http://or.water.usgs.gov/proj/or186/new_site/reports.html)

### **Indicators Northwest**

<http://www.indicatorsnorthwest.org/>

### **Information for a Healthy Oregon: Statewide Report on Health Care Quality**

Partner for Quality Care  
A Project of the Oregon Health Care Quality Corporation  
February 2011  
<http://www.partnerforqualitycare.org/>

### **Integrated Strategies for a Vibrant and Sustainable Central Oregon**

Geos Institute, Brian R. Barr  
November 2011  
<http://www.geosinstitute.org/completed-climatewise-projects/planning-for-climate-change-in-central-oregon.html>

### **Monitoring the Future National Survey Results on Drug Use**

National Institute on Drug Abuse  
<http://monitoringthefuture.org/>

# Appendix

## EXISTING DATA FACT SHEETS, REPORTS & DATA SOURCES FOR THE REGION/STATE

### **Oregon Annual Uniform Crime Reports**

Oregon State Police, Criminal Justice Information Services  
[http://www.oregon.gov/OSP/CJIS/annual\\_reports.shtml](http://www.oregon.gov/OSP/CJIS/annual_reports.shtml)

### **Oregon Child Health 2010: Data and Resource Guide**

Oregon DHS/Office of Family Health, Oregon Child Health  
<http://public.health.oregon.gov/HealthyPeopleFamilies/Babies/Documents/oregon-child-health-2010-data-and-resource-guide.pdf>

### **Oregon Epidemiological Data on Alcohol, Drugs and Mental Health, 2000-2010, Crook, Deschutes & Jefferson Counties**

A product of the State Epidemiological Outcomes Workgroup  
Oregon Health Authority/Addictions and Mental Health Division  
February 2011  
<http://www.oregon.gov/DHS/addiction/ad/main.shtml>

### **Oregon Healthy Teens Survey**

Oregon Health Authority/Public Health Division, Office of Disease Prevention and Epidemiology, Center for Health Statistics  
<http://www.dhs.state.or.us/dhs/ph/chs/youthsurvey/index.shtml>

### **Oregon Kindergarten Readiness Survey Report, Readiness to Learn, 2000, 2002, 2004, 2006, 2008, Oregon Department of Education Annual Report**

Oregon Department of Education.  
<http://www.ode.state.or.us/search/page/?id=1356>

### **Oregon Student Wellness Survey**

Oregon Health Authority/Addictions and Mental Health Division, Program and Policy Development.  
2010.  
<http://www.oregon.gov/DHS/addiction/student-wellness/index.shtml>

### **Oregon Tobacco Fact Sheets by County, 2011**

Oregon Health Authority/Public Health Division Tobacco Prevention and Education Program  
2010  
<http://public.health.oregon.gov/preventionwellness/tobaccoprevention/pages/countyfacts.aspx>

### **Oregon Vital Statistics County Data Book**

Oregon Health Authority, Center for Health Statistics  
<http://www.dhs.state.or.us/dhs/ph/chs/data/cdb.shtml>

### **Partners for Hunger Free Oregon**

<http://oregonhunger.org/>

### **Pioneering A Local Food System In Central Oregon: A Community Food Assessment Report**

Wy'East Resource and Conservation, NeighborImpact, Central Oregon Intergovernmental Council, OSU Extension Service  
2010  
<http://www.coic.org/cd/docs/Central%20OR%20Food%20Assessment.pdf>

# Appendix

## EXISTING DATA FACT SHEETS, REPORTS & DATA SOURCES FOR THE REGION/STATE

### **Rapid Health Impact Assessment: Crook County/City of Prineville Bicycle and Pedestrian Safety Plan**

Crook County Health Department

May 2011

<http://co.crook.or.us/Departments/Health/tabid/97/Default.aspx>

<http://public.health.oregon.gov/HealthyEnvironments/TrackingAssessment/HealthImpactAssessment/Documents/Crook%20County%20Pedestrian%20and%20Bicycle%20Safety%20HIA%202011.pdf>

### **Regional Health Insurance Coverage in Oregon: Results from the 2011 Oregon Health Insurance Survey**

Oregon Health Authority/Office for Oregon Health Policy and Research

September 2011

[http://www.oregon.gov/OHA/OHPR/RSCH/docs/Uninsured/OHIS\\_2011\\_Uninsured\\_Regional\\_Fact\\_Sheet\\_Nov21.pdf?ga=t](http://www.oregon.gov/OHA/OHPR/RSCH/docs/Uninsured/OHIS_2011_Uninsured_Regional_Fact_Sheet_Nov21.pdf?ga=t)

### **Research Brief: Health Equity**

Oregon Health Authority/Office for Oregon Health Policy and Research

May 2011

<http://www.oregon.gov/OHA/oei/docs/health-equity-brief.pdf?ga=t>

### **Seasonal Flu Vaccine Among Deschutes County Health Care Workers**

Prepared for Deschutes County Health Services by Kelly McDonald

### **Status of Oregon's Children County Data Book 2010**

Children First for Oregon

2011

[www.cffo.org](http://www.cffo.org)

### **YOUth Picturing Health**

Sponsored by the "Bring It" 21<sup>st</sup> Century Grant Afterschool Program at Elton Gregory Middle School in Redmond, OR & St. Charles Health System's Kids@Heart Program

<http://kidsatheart.org/wp-content/uploads/2011/07/YouthPicturingHealthweb.pdf>

## Appendix

Table 95 Regional Health Improvement Plan: 10 Priority Areas Summarized, January 2012

# Regional Health Improvement Plan: 10 Priority Areas

## CENTRAL OREGON HEALTH COUNCIL

(Following items are in not in meaningful order [i.e., NOT listed in order of importance])

### Disparity/Inequity

Comparative mortality ratios in areas of Southern Deschutes County and Northern Jefferson County are significantly higher than state average and this difference is considered a health disparity – geographic area is related to a difference in mortality. But, the disparity can be considered a health inequity because it could possibly be avoided or unjust. Central Oregonians are often not surprised to learn that our rural areas have high rates of poverty, less access to services, greater distances to travel for needed care, and many individuals struggle to meet basic needs. What is often overlooked, however, is that these systematic barriers needlessly impact individuals' health.

This is just one example of disparity and inequity in our region, but many other disparities exist. Attention must be devoted to uncover disparities unique to Central Oregon and to determine which must be addressed as inequities. Improving our population's health will *require* working toward health equity—communities where all individuals have the opportunity to attain their full health potential, and no one is disadvantaged from achieving her/his potential because of socially determined circumstances related to rural or urban living, race, socioeconomic status, education, etc.

### Access to Resources

The ability to access resources, services or assistance is impacted by numerous factors, such as transportation, distance and travel time, finances, social and cultural barriers, waiting time, and existing systems of care and program eligibility, availability, location and capacity. For example, an elderly person living alone with no social support and unable to drive may have financial means to see a dentist, but limited access due to transportation issues. Similarly, a working single mother with no car may have access to public transportation, but if she cannot afford taking unpaid time off of work, her access to service diminishes. Similarly, factors related to access impact rural residents differently than urban residents – an important point to consider when planning for programs and services – since more than 41% of Central Oregonians live in unincorporated areas and towns with less than 2,500 people.

### Early Childhood Wellness

A child's growth begins in pregnancy and continues into adulthood. Interacting internal and external factors impact a child's social, environmental, physical, and cognitive potential. Children in surroundings unable to support their healthy growth or meet their needs have increased risk for poor health, safety, development and ability to learn. These unmet needs during childhood pose threats to health long into adulthood and later life. Ensuring early childhood wellness is a short-term investment for today and a long-term investment for business, health, education and social sectors in decades to come.

### Food Insecurity

Crook and Jefferson counties were among the top 5 Oregon counties with highest food insecurity. Deschutes County has the largest total number of food insecure individuals in Central Oregon. In Crook County, the average cost per meal is nearly \$1 higher than in Deschutes County and the rest of Oregon. It is estimated that more than 37% of children in Jefferson and Crook Counties may be food insecure. In Deschutes County, of all the food insecure adults and children, 45% are not eligible for SNAP or other federal food programs—a sizeable number of children and adults who may not be able to access much needed assistance.



## Appendix

### Oral Health

Oral health is frequently identified by providers, teachers and community members as an area of concern in Central Oregon. Existing data systems do not currently support mechanisms to arrive at accurate and timely estimates of the burden poor oral health causes in the region. Poor oral health can cause pain, discomfort, and disfigurement. It can affect an individual's quality of life, ability to eat and to speak, or interfere with opportunities to learn, work, participate, engage and contribute. What's more, oral health is related to chronic disease in later life. While prevalence and incidence data for the region may be lacking, community and stakeholder input suggests improving the oral health of all Central Oregonians is important and necessary.

### Safety, Crime & Violence

A community's safety impacts the population's health in numerous ways—from victims of violence to post-traumatic stress, from psychological distress to exercise and diet. Exposure to violence is known to increase stress, which is linked to increased hypertension, stress-related disorders and chronic disease. Trauma from violence can have intergenerational effects. Central Oregon's rates of total crime appear to be on the decline since the late 1990s, and more work should be done to continue this trend. Deschutes is in the top 5 Oregon counties with the highest rates (unadjusted 2010 rates) of both total crimes and violent crimes per 10,000. Jefferson County was among the 10 Oregon counties with the fewest number of police per 1,000 population. Last year, more than 1,450 individuals in Central Oregon called an emergency crisis line about domestic violence alone. Healthy populations require safe communities to live, work and play where individuals affected by violence or crime can access necessary support and services to heal.

### Chronic Disease

In the last 65 years, adult chronic disease has grown into the main health problem for industrialized nations. Cardiovascular disease, cancers, diabetes and chronic obstructive pulmonary disease account for at least 50% of the global mortality burden. In Central Oregon, chronic diseases are the leading causes of death for each county. Crook's age-adjusted prevalence of adults with high blood pressure is 46.2%, significantly higher than 25.8% of adults for all of Oregon. Deschutes' age-adjusted prostate cancer incidence rate is higher than the state, while Jefferson's age-adjusted prevalence of arthritis is higher than its neighboring counties and the state. Multiple types of exposures, modifiable behaviors and risk factors are known to play a role in the development of chronic disease in later life, such as personal dietary and exercise choices, chronic stress, exposures in utero and throughout early childhood, income, genetics, and the built environment to name a few.

### Alcohol, Drug & Tobacco Use

Heavy drinking, drug use and tobacco use is associated with higher rates of all-cause mortality, chronic disease, violence and abuse. Excessive alcohol and drug use is also a risk factor for motor vehicle fatalities, fetal alcohol syndrome, interpersonal violence, overdose and sexually transmitted infections. Tobacco use causes multiple diseases such as cancer, respiratory disease, and other adverse health outcomes. In 2009, more than 19% of adult males in Central Oregon reported binge drinking in the last 30 days. In Central Oregon, younger adults have higher rates of alcohol dependence (in past 12 months) than older adults—17% of adults age 18-25 years, compared to 6.8% of adults 26 years and older. Jefferson County has higher rates of death from alcohol-induced disease and motor vehicle fatalities that involve alcohol. Since 2001, Crook's age-adjusted rates of death from drug-induced causes have been higher than Jefferson and Deschutes (Crook –13.7, Deschutes –10.1, Jefferson – 10.5 per 100,000).

# Appendix

## Behavioral Health

Around the world, major depression is a major cause of disability. In Deschutes County, suicide is claiming nearly as many lives as motor vehicle accidents. It is estimated more than 9,000 adults in the tri-county region have serious mental illness. Roughly 1/3 of Central Oregon 11th graders reported having a depressive episode in the last year—high depression scores in youth are associated with poor academic achievement, anxiety, and poor peer and teacher relationships. Central Oregon can improve behavioral health by working to prevent behavioral/mental health issues at the individual and community level, to identify early risk factors and warning signs and to ensure the capacity and infrastructure exists to provide quality, affordable and accessible services for all individuals in need.

## Healthy Environments

There is much to learn about the environmental health characteristics specific to Central Oregon's communities. The ecologies of individuals, families, communities and regions often determine options available for individuals to reach their full potential. Environments exist on many scales – individuals, homes, neighborhoods, geographic regions. Environments simultaneously shape and are shaped by organisms and individuals within them. For example, built and natural environments directly impact human health, and humans directly impact the built and natural environments. Until recent decades, “environments” in public health were most often associated with the natural outdoors – woods, streams, rivers and lakes. Growing bodies of research are showing relationships with environments on other scales to the health of our populations. Locations of stores to purchase affordable fresh fruits and vegetables impact healthy choices. Safe and affordable alternative commute options impact the behaviors of individuals to choose alternatives to driving, thus impacting the environment and the often the individual. Safe and easily accessible places to play outdoors impact the ability of children to play outside, thus impacting their physical activity and health. Central Oregon lacks current and relevant data on multiple scales of environment to uncover relationships between where people live, work and play to their overall health and well-being. This knowledge about the region is expected to expand in coming years, particularly with recent collaborative efforts with local agencies and individuals looking at transportation, commuting options, healthy housing, farmers markets, and healthy spaces for kids and adults to play and exercise.

# Appendix

Table 96 County Health Rankings & Roadmaps 2012 data

## INTRODUCTION



[www.countyhealthrankings.org](http://www.countyhealthrankings.org)

A collaboration of the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute

The County Health Rankings provide the following data for download:

- 1) **Outcomes and Factors Rankings**--Ranks are all calculated and reported WITHIN states
- 2) **Outcomes and Factors SubRankings**--Ranks are all calculated and reported WITHIN states
- 3) **Ranked Measure Data**--The measures themselves are listed in bold.
- 4) **Ranked Measure Sources & Years**
- 5) **Additional Measure Data**--These are supplemental measures reported on the *Rankings* web site but not used in calculating the rankings.
- 6) **Additional Measure Sources & Years**

Measure	Data Elements	Description
<b>Geographic identifiers</b>	<b>FIPS State County</b>	Federal Information Processing Standard
<b>Premature death</b>	Unreliable Deaths <b>YPLL Rate</b> 95% CI - Low 95% CI - High Quartile	Value reported but considered unreliable since based on counts of twenty or less. Number of deaths under age 75 Age-adjusted years of potential life lost (YPLL) rate per 100,000 95% confidence interval reported by National Center for Health Statistics  Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Poor or fair health</b>	Sample Size <b>% Fair/Poor</b> 95% CI - Low 95% CI - High Quartile	Number of respondents Percent of adults that report fair or poor health (age-adjusted) 95% confidence interval reported by BRFSS  Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Poor physical health days</b>	Sample Size <b>Physically Unhealthy Days</b> 95% CI - Low 95% CI - High Quartile	Number of respondents Average number of reported physically unhealthy days per month 95% confidence interval reported by BRFSS  Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Poor mental health days</b>	Sample Size <b>Mentally Unhealthy Days</b> 95% CI - Low 95% CI - High Quartile	Number of respondents Average number of reported mentally unhealthy days per month 95% confidence interval reported by BRFSS  Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Low birthweight</b>	Unreliable  LBW Births Sample Size	Value reported but considered unreliable since based on counts of twenty or less.  Total number of low birthweight births Total number of live births

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[www.countyhealthrankings.org](http://www.countyhealthrankings.org)

	<b>% LBW</b> 95% CI - Low 95% CI - High Quartile	Percent of births with low birth weight (<2500g) 95% confidence interval reported by National Center for Health Statistics  Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Adult smoking</b>	Sample Size <b>% Smokers</b> 95% CI - Low 95% CI - High Quartile	Number of respondents Percent of adults that reported currently smoking 95% confidence interval reported by BRFSS  Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Adult obesity</b>	<b>% Obese</b> 95% CI - Low 95% CI - High Quartile	Percent of adults that report BMI >= 30 95% confidence interval reported by BRFSS  Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Physical Inactivity</b>	<b>% Physically Inactive</b> 95% CI - Low 95% CI - High Quartile	Percent of adults that report no leisure time physical activity 95% confidence interval reported by BRFSS  Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Excessive drinking</b>	Sample Size <b>% Excessive Drinking</b> 95% CI - Low 95% CI - High Quartile	Number of respondents Percent of adults that report excessive drinking 95% confidence interval reported by BRFSS  Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Motor vehicle crash death rate</b>	Unreliable  Motor Vehicle Deaths <b>MV mortality rate</b> 95% CI - Low 95% CI - High Quartile	Value reported but considered unreliable since based on counts of twenty or less. Total number of motor vehicle-related deaths Crude motor-vehicle related mortality rate per 100,000 population 95% confidence interval reported by National Center for Health Statistics  Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Sexually transmitted infections</b>	Cases <b>Rates per 100,000</b> Quartile	Number of chlamydia cases Chlamydia cases / Population * 100,000 Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Teen birth rate</b>	Teen Births Teen Population <b>Teen Birth Rate</b> 95% CI - Low 95% CI - High Quartile	Teen birth count, ages 15-19 Female populutaion, ages 15-19 Tean births / females ages 15-19 * 1,000 95% confidence interval reported by National Center for Health Statistics  Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Uninsured</b>	# Uninsured <b>% Uninsured</b>	Total number of people under age 65 without insurance Percent of population < 65 without insurance

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[www.countyhealthrankings.org](http://www.countyhealthrankings.org)

	95% CI - Low 95% CI - High Quartile	95% confidence interval reported by SAHIE  Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Primary care physicians</b>	# PCP PCP Rate <b>PCP Ratio</b> Quartile	Number of primary care physicians (PCP) in patient care (Number of PCP/population)*100,000 Population to Primary Care Physicians ratio Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Preventable hospital stays</b>	# Medicare Enrollees <b>ACSC Rate</b>  95% CI - Low 95% CI - High Quartile	Number of Medicare enrollees Discharges for ambulatory care sensitive conditions/Medicare Enrollees * 1,000 95% confidence interval reported by Dartmouth Institute  Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Diabetic screening</b>	# Diabetics <b>% HbA1c</b> 95% CI - Low 95% CI - High Quartile	No of Diabetic Medicare enrollees Percent of Diabetic Medicare enrollees receiving HbA1c test 95% confidence interval reported by Dartmouth Institute  Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Mammography screening</b>	# Medicare Enrollees <b>% Mammography</b>  95% CI - Low 95% CI - High Quartile	Number of female Medicare enrollees age 67-69 Percent of female Medicare enrollees having at least 1 mammogram in 2 yrs (age 67-69) 95% confidence interval reported by Dartmouth Institute  Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>High school graduation</b>	<b>% AFGR</b> Quartile	Calculated averaged freshman graduation rate Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Some college</b>	PSED Num Population <b>% PSED</b> 95% CI - Low 95% CI - High Quartile	Adults age 25-44 with some post-secondary education Adults age 25-44 Percent adults age 25-44 with some post-secondary education 95% confidence interval supplied by Census Bureau  Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Unemployment</b>	# Unemployed Labor Force <b>% Unemployed</b> Quartile	Number of people age 16+ unemployed and looking for work Size of the labor force Percent of population age 16+ unemployed and looking for work Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Children in poverty</b>	# Children in Poverty <b>% Children in Poverty</b> 95% CI - Low 95% CI - High	Number of children (under age 18) living in poverty Percent of children (under age 18) living in poverty 95% confidence interval reported by Small Area Income and Poverty Estimates (SAIPE) program

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[www.countyhealthrankings.org](http://www.countyhealthrankings.org)

	Quartile	Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Inadequate social support</b>	Sample Size	Number of respondents
	<b>% No Social-Emotional Support</b>	Percent of adults that report not getting social/emotional support
	95% CI - Low	95% confidence interval reported by BRFSS
	95% CI - High Quartile	Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Children in single-parent households</b>	# Single-Parent Households	Number of children that live in single-parent households
	# Households	Number of children in households
	<b>% Single-Parent Households</b>	Percent of children that live in single-parent households
	95% CI - Low	95% confidence interval supplied by Census Bureau
	95% CI - High Quartile	Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Violent crime rate</b>	Violent Crimes	Sum of violent crimes
	<b>Violent Crime Rate</b>	Violent crimes/population * 100,000
	Quartile	Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Air pollution-particulate matter days</b>	<b>PM Days</b>	Number of days that air quality was unhealthy due to fine particulate matter
	Quartile	Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Air pollution-ozone days</b>	<b>Ozone Days</b>	Number of days that air quality was unhealthy due to ozone
	Quartile	Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Access to recreational facilities</b>	Rec Facs	Total recreational facilities
	<b>Rec Fac Rate</b>	Recreational facility access rate per 100K population
	Quartile	Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Limited access to healthy foods</b>	# Limited Access	Total number of people with limited access to health foods
	<b>% Limited Access</b>	Percent of people with limited access to health foods
	Quartile	Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Access to healthy foods</b>	Zip Codes with Healthy Food	Number of zip codes in county with a healthy food outlet
	# Zip Codes	Number of zip codes in county
	<b>% Healthy Food</b>	Percent of zip codes in county with a healthy food outlet
	Quartile	Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile
<b>Fast food restaurants</b>	# Fast Foods	Number of fast food outlets
	<b>% Fast Foods</b>	Percent of restaurants that are fast food restaurants
	Quartile	Within-state rank: 1 = top quartile, 2=second quartile, 3= third quartile, 4=bottom quartile

# Appendix

Table 97 County Health Rankings Ranked Measure Data, 2012

## Data Sources & Years for Ranked Measure Data, County Health Rankings 2012

Health Outcomes				
Focus Area	Measure	Weight	Source	Year(s)
<b>Mortality (50%)</b>	Premature death (years of potential life lost before age 75 per 100,000 pop)	50%	Vital Statistics, National Center for Health Statistics (NCHS)	2006-2008
<b>Morbidity (50%)</b>	Poor or fair health (percent of adults reporting fair or poor health)	10%	Behavioral Risk Factor Surveillance System (BRFSS)	2004-2010
	Poor physical health days (average number in past 30 days)	10%	BRFSS	2004-2010
	Poor mental health days (average number in past 30 days)	10%	BRFSS	2004-2010
	Low birthweight (percent of live births with weight < 2500 grams)	20%	Vital Statistics, NCHS	2002-2008
Health Behaviors (30%)				
Focus Area	Measure	Weight	Source	Year(s)
<b>Tobacco use (10%)</b>	Adult smoking (percent of adults that smoke)	10%	BRFSS	2004-2010
<b>Diet and exercise (10%)</b>	Adult obesity (percent of adults that report a BMI >= 30)	7.5%	National Center for Chronic Disease Prevention and Health Promotion,	2009
	Physical inactivity (percent of adults that report no leisure time physical activity)	2.5%	National Center for Chronic Disease Prevention and Health Promotion, calculated from BRFSS	2009
<b>Alcohol use (5%)</b>	Excessive drinking (percent of adults who report heavy or binge drinking)	2.5%	BRFSS	2004-2010
	Motor vehicle crash deaths per 100,000 population	2.5%	Vital Statistics, NCHS	2002-2008
<b>Sexual activity (5%)</b>	Sexually transmitted infections (chlamydia rate per 100,000 population)	2.5%	CDC, National Center for Hepatitis, HIV, STD, and TB Prevention	2009
	Teen birth rate (per 1,000 females ages 15-19)	2.5%	Vital Statistics, NCHS	2002-2008
Clinical Care (20%)				
Focus Area	Measure	Weight	Source	Year(s)
<b>Access to care (10%)</b>	Uninsured (percent of population < age 65 without health insurance)	5%	Census/American Community Survey (ACS)—Small Area Health Insurance Estimates (SAHIE)	2009
	Ratio of population to primary care physicians	5%	Health Resources and Services Administration, Area Resource File (ARF)	2009
<b>Quality of care (10%)</b>	Preventable hospital stays (rate per 1,000 Medicare enrollees)	5%	Medicare claims/Dartmouth Atlas	2009
	Diabetic screening (percent of diabetics that receive HbA1c screening)	5%	Medicare claims/Dartmouth Atlas	2009
	Mammography screening	5%	Medicare claims/Dartmouth Atlas	2009

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Social and Economic Environment (40%)				
Focus Area	Measure	Weight	Source	Year(s)
Education (10%)	High school graduation	5%	State sources and the National	Varies by state,
	Some college (Percent of adults aged 25-44 years with some post-secondary education)	5%	ACS	2006-2010
Employment (10%)	Unemployment rate (percent of population age 16+ unemployed)	10%	Local Area Unemployment Statistics, Bureau of Labor Statistics	2010
Income (10%)	Children in poverty (percent of children under age 18 in poverty)	10%	Census/CPS—Small Area Income and Poverty Estimates (SAIPE)	2010
Family and social support (5%)	Inadequate social support (percent of adults without social/emotional support)	2.5%	BRFSS	2004-2010
	Percent of children that live in single-parent household	2.5%	ACS	2006-2010
Community safety (5%)	Violent crime rate per 100,000 population	5%	Uniform Crime Reporting, Federal Bureau of Investigation – <i>State data</i>	2007-2009

Physical Environment (10%)				
Focus Area	Measure	Weight	Source	Year(s)
Environmental quality (4%)	Air pollution-particulate matter days	2%	CDC-Environmental Protection Agency (EPA) Collaboration <i>Data</i>	2007
	Air pollution-ozone days (average number of	2%		
Built environment (6%)	Limited access to health foods (percent of population who lives in poverty and more than 1 or 10 miles from a grocery store)	2% (all but AK & HI)	United States Department of Agriculture, Food Environment Atlas <i>Data not available for Alaska and</i>	2006
	Access to healthy foods (percent of zip codes with healthy food outlets) <i>for Alaska and Hawaii</i>	2% (AK & HI)	Census Zip Code Business Patterns	2009
	Access to recreational facilities	2%	Census County Business Patterns	2009
	Fast food restaurants (percent of all restaurants that are fast food)	2%	Census County Business Patterns	2009

<http://www.countyhealthrankings.org/rankings/ranking-methods/download-rankings-data/OR>

County Health Rankings Ranked Measure Data, 2012		Crook	Deschutes	Jefferson
Premature death (Years of Potential Life Lost)	Unreliable			
	Deaths	266	1369	281
	YPLL Rate	6360	5497	10243
	95% CI - Low	5215	5077	8617
	95% CI - High	7506	5916	11869
	Quartile	2	1	4
Poor or fair health	Sample Size	253	1687	253
	% Fair/Poor	14	10	17
	95% CI - Low	10	8	12
	95% CI - High	21	12	24
	Quartile	2	1	4



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County Health Rankings Ranked Measure Data, 2012		Crook	Deschutes	Jefferson
<b>Poor physical health days</b>	Sample Size	250	1668	242
	<b>Physically Unhealthy Days</b>	4.0	3.6	4.3
	95% CI - Low	2.7	3.0	3.1
	95% CI - High	5.2	4.2	5.5
	Quartile	3	2	4
<b>Poor mental health days</b>	Sample Size	252	1664	249
	<b>Mentally Unhealthy Days</b>	3.2	3.2	2.1
	95% CI - Low	2.0	2.6	1.2
	95% CI - High	4.4	3.7	3.0
	Quartile	2	2	1
<b>Low birthweight</b>	Unreliable			
	LBW Births	100	768	150
	Sample Size	1677	12549	2289
	<b>% LBW</b>	6.0	6.1	6.6
	95% CI - Low	4.8	5.7	5.5
	95% CI - High	7.1	6.5	7.6
	Quartile	2	3	4
<b>Adult smoking</b>	Sample Size	253	1684	247
	<b>% Smokers</b>	22	12	19
	95% CI - Low	16	10	12
	95% CI - High	30	14	27
	Quartile	4	1	2
<b>Adult obesity</b>	<b>% Obese</b>	28	20	29
	95% CI - Low	22	17	23
	95% CI - High	34	23	35
	Quartile	3	1	3
<b>Physical inactivity</b>	<b>% Physically Inactive</b>	20	16	22
	95% CI - Low	15	13	16
	95% CI - High	26	19	27
	Quartile	2	1	4
<b>Excessive drinking</b>	Sample Size	246	1635	246
	<b>% Excessive Drinking</b>	16	17	17
	95% CI - Low	10	15	11
	95% CI - High	25	20	26
	Quartile	3	3	4
<b>Motor vehicle crash death rate</b>	Unreliable			
	Motor Vehicle Deaths	28	172	59

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County Health Rankings Ranked Measure Data, 2012		Crook	Deschutes	Jefferson
	<b>MV Mortality Rate</b>	18	17	42
	95% CI - Low	12	15	31
	95% CI - High	25	20	53
	Quartile	3	3	4
<b>Sexually transmitted infections</b>	Cases	59	387	79
	<b>Rates per 100,000</b>	256	244	385
	Quartile	3	3	4
<b>Teen birth rate</b>	Teen Births	196	1042	396
	Teen Population	4956	30730	5189
	<b>Teen Birth Rate</b>	40	34	76
	95% CI - Low	34	32	69
	95% CI - High	45	36	84
	Quartile	3	2	4
<b>Uninsured</b>	# Uninsured	3985	26867	4482
	<b>% Uninsured</b>	22	20	26
	95% CI - Low	20	19	24
	95% CI - High	24	22	29
	Quartile	3	2	4
<b>Primary care physicians</b>	# PCP	18	187	19
	PCP Rate	79	119	93
	<b>PCP Ratio</b>	1272:1	843:1	1072:1
	Quartile	4	2	3
<b>Preventable hospital stays (Ambulatory Care Sensitive Conditions)</b>	# Medicare enrollees	2740	13629	2351
	<b>ACSC Rate</b>	33	32	37
	95% CI - Low	26	29	29
	95% CI - High	40	35	46
	Quartile	1	1	1
<b>Diabetic screening</b>	# Diabetics	303	1131	261
	<b>% HbA1c</b>	89	87	87
	95% CI - Low	78	81	75
	95% CI - High	100	92	98
	Quartile	1	2	2
<b>Mammography screening</b>	# Medicare Enrollees	238	1199	212
	<b>% Mammography</b>	64.3	71.6	66.5
	95% CI - Low	54	66	55
	95% CI - High	74	76	77
	Quartile	3	1	2
<b>High school graduation</b>	<b>% AFGR</b>	69	69	61

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County Health Rankings Ranked Measure Data, 2012		Crook	Deschutes	Jefferson
	Quartile	3	3	4
<b>Some college (post-secondary education)</b>	PSED Num	2221	27655	2101
	Population	4868	41263	4979
	<b>% PSED</b>	45.6	67.0	42.2
	95% CI - Low	38.2	63.7	34.9
	95% CI - High	53.1	70.4	49.5
	Quartile	4	1	4
<b>Unemployment</b>	# Unemployed	1608	11650	1337
	Labor Force	9201	80857	9457
	<b>% Unemployed</b>	17.5	14.4	14.1
	Quartile	4	4	4
<b>Children in poverty</b>	# Children in Poverty	1312	7928	1814
	<b>% Children in Poverty</b>	29	22	34
	95% CI - Low	22	18	25
	95% CI - High	37	27	42
	Quartile	4	2	4
<b>Inadequate social support</b>	Sample Size	202	1419	213
	<b>% No Social-Emotional Support</b>	18	14	14
	95% CI - Low	13	11	8
	95% CI - High	26	16	24
	Quartile	3	1	1
<b>Children in single-parent households</b>	# Single-Parent Households	1317	8783	2121
	# Households	4864	35829	5616
	<b>% Single-Parent Households</b>	27	25	38
	95% CI - Low	17	21	28
	95% CI - High	37	28	47
	Quartile	2	1	4
<b>Violent crime rate</b>	Violent Crimes	208	1046	108
	<b>Violent Crime Rate</b>	296	219	184
	Quartile	4	3	3
<b>Air pollution-particulate matter days</b>	<b>PM Days</b>	3	1	2
	Quartile	1	1	1
<b>Air pollution-ozone days</b>	<b>Ozone Days</b>	0	0	0
	Quartile	1	1	1

# Appendix

<b>County Health Rankings Ranked Measure Data, 2012</b>		Crook	Deschutes	Jefferson
<b>Access to recreational facilities</b>	Rec Facs	3	33	2
	<b>Rec Fac Rate</b>	13.3	20.8	10.0
	Quartile	2	1	3
<b>Limited access to healthy foods</b>	# Limited Access	594	14810	1470
	<b>% Limited Access</b>	3	13	8
	Quartile	2	4	3
<b>Access to healthy foods</b>	Zip Codes with Healthy Foods			
	# Zip Codes			
	<b>% Healthy Foods</b>			
	Quartile	NR	NR	NR
<b>Fast food restaurants</b>	# Fast Foods	12	128	13
	<b>% Fast Foods</b>	48	41	54
	Quartile	4	2	4

<http://www.countyhealthrankings.org/rankings/ranking-methods/download-rankings-data/OR>

# Appendix

Table 98 County Health Rankings Additional Measure Data, 2012

## Data Sources & Years for Additional Measure Data, County Health Rankings 2012

Additional Measures: Demographics		
Measure	Source	Year(s)
Population	U.S. Census Bureau	2009
% below 18 years of age	U.S. Census Bureau	2009
% 65 and older	U.S. Census Bureau	2009
% African American	U.S. Census Bureau	2009
% American Indian and Alaskan Native	U.S. Census Bureau	2009
% Asian	U.S. Census Bureau	2009
% Native Hawaiian/Other Pacific Islander	U.S. Census Bureau	2009
% Hispanic	U.S. Census Bureau	2009
% not proficient in English	ACS 5-Year Estimates	2009
% female	U.S. Census Bureau	2009
% rural	U.S. Census Bureau	2009
Additional Measures: Health Outcomes		
Measure	Source	Year(s)
% diabetic	Centers for Disease Control (CDC), Small Area Obesity Estimates	2009
HIV rate	National Center for Hepatitis, HIV, STD and TB Prevention	2008
Additional Measures: Health Care		
Measure	Source	Year(s)
Mental health providers	Health Resources & Services Administration (HRSA)	2007
Health care costs	HRSA	2007
Uninsured adults	Small Area Health Insurance Estimates (SAHIE)	2009
Could not see doctor due to cost	BRFSS	2004-2010
Dentists	HRSA	2007

# Appendix

Additional Measures: Social & Economic Factors		
Measure	Source	Year(s)
Median household income	Small Area Income and Poverty Estimates (SAIPE)	2010
High housing costs	ACS 5-Year Estimates	2006-2010
Children eligible for free lunch	USDA Food Environmental Atlas	2006
Illiteracy	National Center for Education Statistics, National Assessment of Adult Literacy	2003
Homicide rate	National Center for Health Statistics	2002-2008
Additional Measures: Physical Environment		
Measure	Source	Year(s)
% of labor force that drives alone to work	ACS 5-Year Estimates	2006-2010
Percent of zip codes in county with healthy food outlets <i>Healthy food outlets include grocery stores (NAICS 445110) with &gt; 4 employees and produce stands/farmers' markets (NAICS 445230)</i>	Census Zip Code Business Patterns	2009

<http://www.countyhealthrankings.org/rankings/ranking-methods/download-rankings-data/OR>

## County Health Rankings Ranked Measure Data, 2012

	Crook	Deschutes	Jefferson
Population	22566	158629	19959
< 18	22.9	22.8	27.4
65 and over	17.5	14.3	13.5
African American	0.1	0.7	0.8
American Indian/ Alaskan Native	1.5	1.3	17.2
Asian	0.5	1.1	0.4
Native Hawaiian/ Other Pacific Islander	0.0	0.1	0.3
Hispanic	7.8	6.7	20.9
Population	20338	144970	20043
# not proficient in English	579	4212	1719
% not proficient in English	2.8	2.9	8.6
Female	50.5	50.5	50.1
Rural	46.4	37.1	61.8
% diabetic	9	7	9
95% CI - Low	7	6	6
95% CI - High	12	9	11
Population	22566	158629	19959
HIV Rate	26	55	73

## Appendix

	Crook	Deschutes	Jefferson
# Mental Health Providers	0	54	0
Mental Health Providers Rate	0	34	0
Mental Health Providers Ratio	22892:0	2921:1	20375:0
Costs	7161	7283	5789
# Uninsured	3335	23248	3596
% Uninsured	25	24	31
95% CI - Low	23	22	28
95% CI - High	28	26	34
Sample Size	254	1691	253
% Couldn't Access	17	14	18
# Dentists	4	83	2
Dentist Rate	18	54	9
Dentist Ratio	5454:1	1838:1	10930:1
Household Income	39867	46631	40888
95% CI - Low	35472	43032	36762
95% CI - High	44262	50230	45014
# high housing costs	3060	25999	2735
Households	8754	63190	7795
% high housing costs	35	41	35
% Free lunch	43	31	65
% illiterate	12.7	7.9	15.8
95% CI - Low	6.2	3.7	7.9
95% CI - High	22.2	14.5	27.1
Homicide Rate		2	
95% CI - Low		1	
95% CI - High		3	
# Drive Alone	6859	55316	5868
Workers	9059	71038	8269
% Drive Alone	76	78	71
Zip Codes with Healthy Foods	1	6	2
# Zip Codes	4	7	5
% Healthy Foods	25	86	40

NOTE: These data indicators are chosen by County Health Rankings. For more information on indicator choices, methods and approaches, visit <http://www.countyhealthranking.org> or <http://www.countyhealthrankings.org/ranking-methods/data-sources-and-measures>

To download the above Oregon data and other relevant data, visit: <http://www.countyhealthrankings.org/rankings/ranking-methods/download-rankings-data/OR>

# Appendix

Table 99 2004-2007 Oregon Behavioral Risk Factor Surveillance System Data

ADULT HEALTH STATUS							
OREGON ADULTS IN GOOD GENERAL HEALTH, 2004-2007							
NOT ADJUSTED							
Good general health: Reported that their health in general was "excellent", "very good", or "good" when asked on a five-point scale ("excellent", "very good", "good", "fair", and "poor").							
Source: Oregon Behavioral Risk Factor Surveillance System							
Adults 18 years & Older	PERCENT (weighted %)	95% C.I. Upper %	95% C.I. Lower %	Small #	Number unweighted N	Interviews unweighted N	
OREGON	85.3	84.9	85.7		35841	42992	
CROOK	85.7	80.1	89.9		235	290	
DESCHUTES	88.7	86.9	90.3		1506	1733	
JEFFERSON	81.8	74.7	87.3		222	270	
OREGON ADULTS IN GOOD GENERAL HEALTH, 2004-2007							
AGE ADJUSTED							
Adults 18 years & older	PERCENT (weighted %)	S.S.*	95% C.I. Lower % Upper %		Small #	Number unweighted N	Interviews Unweighted N
OREGON	85.4		85.0	85.9		35841	42992
CROOK	86.3		80.5	90.6		235	290
DESCHUTES	89.1	s+	87.3	90.7		1506	1733
JEFFERSON	82.0		74.3	87.8		222	270
OREGON ADULTS WHO HAVE ANY LIMITATIONS IN ANY ACTIVITIES, 2004-2007†							
AGE ADJUSTED							
†Due to Physical, Mental or Emotional Problems							
Adults 18 years & older	PERCENT (weighted %)	S.S.*	95% C.I. Lower % Upper %		Small #	Number unweighted N	Interviews Unweighted N
OREGON	22.4		21.9	23.0		10002	36572
CROOK	22.2		16.6	28.8		77	235
DESCHUTES	19.4	s-	17.1	21.9		351	1482
JEFFERSON	23.3		15.6	33.4		65	239
* S.S. = Statistical Significance: s+ indicates that the county estimate is greater than the statewide rate; s-, less than the statewide rate; a blank, not different from the statewide rate.							
** % based on less than 50 respondents total or fewer than 12 in any one of the three age groups may not accurately reflect behavior of the entire county.							
NOTE: Age adjustment is based on three age groups: 18-34; 35-54; and 55+, per U.S. Standard Million Population.							



# Appendix

## OREGON ADULTS WITH LIMITATIONS THAT REQUIRE THEM TO USE SPECIAL EQUIPMENT†, 2004-2007 AGE ADJUSTED

†(e.g., a Cane, a Wheelchair, a Special Bed, a Special Telephone)

*Source: Oregon Behavioral Risk Factor Surveillance System*

Adults 18 years & older	PERCENT (weighted %)	S.S.*	95% Lower %	C.I. Upper %	Small #	Number unweighted N	Interviews Unweighted N
OREGON	7.2		6.9	7.5		3630	36704
CROOK	6.5		3.8	11.2		29	235
DESCHUTES	5.5	s-	4.4	6.8		115	1484
JEFFERSON	5.7		3.7	8.7		24	239

\* S.S. = Statistical Significance: s+ indicates that the county estimate is greater than the statewide rate; s-, less than the statewide rate; a blank, not different from the statewide rate.

\*\* % based on less than 50 respondents total or fewer than 12 in any one of the three age groups may not accurately reflect behavior of the entire county.

NOTE: Age adjustment is based on three age groups: 18-34; 35-54; and 55+, per U.S. Standard Million Population.

Oregon Health Authority/DHS, Public Health Division. Adult Behavior Risk Surveillance System, Selected Topics by County, 2004-2007. Retrieved from <http://public.health.oregon.gov/BIRTHDEATHCERTIFICATES/SURVEYS/ADULTBEHAVIORRISK/COUNTY/0407/Pages/index.aspx>

# Appendix

Table 100 2006-2009 Oregon Behavioral Risk Factor Surveillance System Data

ADULT HEALTH STATUS 2006-2009							
OREGON ADULTS IN GOOD GENERAL HEALTH, 2006-2009							
NOT ADJUSTED							
Good general health: Reported that their health in general was "excellent", "very good", or "good" when asked on a five-point scale ("excellent", "very good", "good", "fair", and "poor").							
Source: Oregon Behavioral Risk Factor Surveillance System							
Adults 18 years & Older	PERCENT (weighted %)	95% C.I. Upper %	95% C.I. Lower %	Small #	Number unweighted N	Interviews unweighted N	
OREGON	86.7	86.2	87.1		30,404	36,209	
CROOK	83.0	75.3	88.7		184	228	
DESCHUTES	90.1	88.0	91.8		1,362	1,543	
JEFFERSON	86.5	80.9	90.6		193	233	
AGE ADJUSTED							
Adults 18 years & older	PERCENT (weighted %)	S.S.*	95% C.I. Lower % Upper %		Small #	Number unweighted N	Interviews Unweighted N
OREGON	86.9		86.5	87.4		30,273	36,058
CROOK	83.1		74.6	89.1		183	227
DESCHUTES	90.6	s+	88.4	92.4		1,358	1,539
JEFFERSON	86.6		80.8	90.8		193	233
OREGON ADULTS WHO HAVE ANY LIMITATIONS IN ANY ACTIVITIES, 2006-2009†							
AGE ADJUSTED							
†Due to Physical, Mental or Emotional Problems							
Adults 18 years & older	PERCENT (weighted %)	S.S.*	95% C.I. Lower % Upper %		Small #	Number unweighted N	Interviews Unweighted N
OREGON	22.9		22.4	23.5		10,211	35,858
CROOK	28.5		21.3	36.9		76	225
DESCHUTES	22.2		19.7	25.0		402	1,534
JEFFERSON	24.5		19.1	30.9		73	232
* S.S. = Statistical Significance: s+ indicates that the county estimate is greater than the statewide rate; s-, less than the statewide rate; a blank, not different from the statewide rate.							
** % based on less than 50 respondents total or fewer than 12 in any one of the three age groups may not accurately reflect behavior of the entire county.							
NOTE: Age adjustment is based on three age groups: 18-34; 35-54; and 55+, per U.S. Standard Million Population.							

# Appendix

**OREGON ADULTS WITH LIMITATIONS THAT REQUIRE THEM TO USE  
SPECIAL EQUIPMENT†, 2006-2009  
AGE ADJUSTED**

†(e.g., a Cane, a Wheelchair, a Special Bed, a Special Telephone)

*Source: Oregon Behavioral Risk Factor Surveillance System*

Adults 18 years & older	PERCENT (weighted %)	S.S.*	95% Lower %	C.I. Upper %	Small #	Number unweighted N	Interviews Unweighted N
OREGON	7.0		6.7	7.3		3,833	3,5999
CROOK	6.0		3.1	9.1		28	226
DESCHUTES	5.1	s-	4.1	6.3		121	1,539
JEFFERSON	5.7		3.6	9.0		23	234

\* S.S. = Statistical Significance: s+ indicates that the county estimate is greater than the statewide rate; s-, less than the statewide rate; a blank, not different from the statewide rate.

\*\* % based on less than 50 respondents total or fewer than 12 in any one of the three age groups may not accurately reflect behavior of the entire county.

NOTE: Age adjustment is based on three age groups: 18-34; 35-54; and 55+, per U.S. Standard Million Population.

Oregon Health Authority/DHS, Public Health Division. Adult Behavior Risk Surveillance System, Selected Topics by County, 2006-2009. Retrieved from <http://public.health.oregon.gov/BIRTHDEATHCERTIFICATES/SURVEYS/ADULTBEHAVIORRISK/COUNTY/INDEX/Pages/index.aspx>

# Appendix

Table 101 Two-Year Old Up to Date Immunization by County & Year, 2005-2010

Percent of Central Oregon Two Year Olds with Up-to-Date Immunizations, By County & Year, 2005-2010																		
	Crook						Deschutes						Jefferson					
	2005	2006	2007	2008	2009	2010	2005	2006	2007	2008	2009	2010	2005	2006	2007	2008	2009	2010
4:3:1 (b)	70.7%	**	76.2%	82.3%	75.0%	82.7%	59.3%	**	84.0%	80.0%	78.5%	74.8%	77.3%	**	85.1%	82.9%	85.2%	79.8%
4:3:1:3 (c)	69.3%	64.0%	75.6%	81.9%	64.8%	79.7%	59.0%	68.1%	83.3%	78.4%	55.1%	73.3%	77.3%	77.5%	83.6%	82.0%	77.5%	78.4%
4:3:1:3:3 (d)	67.0%	61.8%	**	81.9%	64.3%	78.2%	57.9%	66.2%	**	77.3%	53.1%	71.8%	77.3%	76.3%	**	81.4%	77.4%	78.4%
4:3:1:3:3:1 (e)	55.2%	54.1%	68.2%	76.4%	62.4%	75.9%	51.0%	50.6%	78.0%	74.0%	50.9%	69.4%	74.5%	72.9%	80.8%	78.8%	75.3%	77.1%
4:3:1:3:3:1:4 (f)	**	**	**	**	**	71.7%	**	**	**	**	**	64.9%	**	**	**	**	**	73.5%
4 doses DTaP	74.0%	**	77.1%	83.9%	76.1%	83.3%	64.3%	**	85.6%	82.0%	82.2%	77.8%	84.7%	**	85.3%	84.6%	86.8%	83.3%
3 doses IPV	89.1%	**	88.5%	91.6%	93.2%	97.2%	78.0%	**	94.4%	90.8%	93.3%	89.1%	87.3%	**	97.2%	95.0%	96.7%	94.9%
1 dose MMR	86.0%	**	88.2%	91.0%	88.4%	95.3%	77.1%	**	89.9%	89.2%	89.4%	90.2%	90.4%	**	93.4%	92.3%	94.8%	91.6%
3 doses Hib	87.7%	**	86.5%	91.9%	78.9%	93.0%	82.6%	**	84.2%	92.5%	67.5%	90.3%	94.5%	**	92.6%	94.0%	87.9%	92.9%
3 doses HepB	87.3%	**	91.1%	92.3%	94.2%	98.6%	77.6%	**	93.8%	91.0%	91.6%	90.8%	95.0%	**	98.7%	96.2%	96.3%	96.0%
1 dose Varicella	75.6%	**	79.4%	86.8%	85.9%	91.9%	67.9%	**	83.7%	86.3%	85.1%	86.9%	87.4%	**	89.7%	90.2%	90.9%	90.1%
4 dose PCV	**	**	**	**	70.7%	81.2%	**	**	**	**	73.7%	76.5%	**	**	**	**	83.1%	82.1%
1 dose HepA	**	**	**	**	89.1%	90.7%	**	**	**	**	84.2%	87.0%	**	**	**	**	92.1%	90.9%
3 dose Rota	**	**	**	**	**	37.4%	**	**	**	**	**	52.3%	**	**	**	**	**	42.4%
Women Infants & Children (WIC) Clients (g)	57.2%	46.1%	73.0%	78.7%	65.3%	**	56.7%	48.8%	80.6%	73.7%	49.8%	**	71.6%	67.1%	84.3%	81.6%	79.8%	**
Non-WIC clients	50.9%	66.6%	62.9%	73.6%	56.5%	**	43.7%	53.4%	76.3%	74.1%	52.1%	**	84.6%	92.9%	73.8%	71.5%	54.2%	**
Enrolled in DMAP (h)	**	**	74.3%	78.4%	66.9%	**	**	**	79.6%	73.3%	47.9%	**	**	**	80.4%	80.1%	78.8%	**
Not enrolled in DMAP	**	**	64.3%	74.7%	58.6%	**	**	**	77.1%	74.4%	53.3%	**	**	**	81.4%	76.4%	70.0%	**

\*\* Estimate unavailable

SOURCE: ALERT Immunization Information System, Oregon Immunization Program, DHS

"Two year olds" are children 24 to 35 months of age.

(a) Populations or sample sizes with fewer than 50 persons are not displayed to preserve confidentiality

(b) Immunization series includes 4 doses of DTaP, 3 doses of IPV, 1 dose of MMR vaccine

(c) All doses in the 4:3:1 series and 3 doses of Hib (or the two dose Merck series) vaccine

(d) All doses in the 4:3:1:3 series and 3 doses of HepB vaccine

(e) All doses in the 4:3:1:3:3 series and 1 dose of Varicella vaccine

(f) All doses in the 4:3:1:3:3:1 series and 4 doses of PCV

(g) DMAP inclusion for rates is based on at least 180 days of total DMAP enrollment by age two

(h) WIC inclusion for rates is based on any enrollment length by age two

(i) Rates in 2005 do not include a minimum six month spacing between 3rd and 4th DTaP

(j) Estimate based on survey responses from 2002-2005, non-age adjusted

(k) Estimate based on survey responses from 2004-2007, non-age adjusted

Oregon Health Authority DHS Oregon Immunization Program, Retrieved from

<http://public.health.oregon.gov/PreventionWellness/VaccinesImmunization/Pages/research.aspx#county>

# Appendix

Table 102 Crook County Immunization Rates, 2005-2010

Crook County Immunization Rates (a)												
	2005		2006		2007		2008		2009		2010	
	%	95% CI (+/-)	%	95% CI (+/-)	%	95% CI (+/-)	%	95% CI (+/-)	%	95% CI (+/-)	%	95% CI (+/-)
<b>Two Year Olds Up-to Date Rate (1)</b>												
4:3:1 (b)	70.7%	5.8%	**	**	76.2%	6.0%	82.3%	5.3%	75.0%	5.3%	82.7%	5.1%
4:3:1:3 (c)	69.3%	5.8%	64.0%	5.3%	75.6%	5.8%	81.9%	5.3%	64.8%	5.9%	79.7%	5.4%
4:3:1:3:3 (d)	67.0%	6.0%	61.8%	5.4%	**	**	81.9%	5.3%	64.3%	5.9%	78.2%	5.6%
4:3:1:3:3:1 (e)	55.2%	6.3%	54.1%	5.5%	68.2%	6.3%	76.4%	5.9%	62.4%	6.0%	75.9%	5.8%
4:3:1:3:3:1:4 (f)	**	**	**	**	**	**	**	**	**	**	71.7%	6.1%
4 doses DTaP	74.0%	5.6%	**	**	77.1%	5.7%	83.9%	5.1%	76.1%	5.2%	83.3%	5.0%
3 doses IPV	89.1%	4.0%	**	**	88.5%	4.3%	91.6%	3.9%	93.2%	3.1%	97.2%	2.2%
1 dose MMR	86.0%	4.4%	**	**	88.2%	4.3%	91.0%	4.0%	88.4%	3.9%	95.3%	2.8%
3 doses Hib	87.7%	4.2%	**	**	86.5%	4.6%	91.9%	3.8%	78.9%	5.0%	93.0%	3.4%
3 doses HepB	87.3%	4.2%	**	**	91.1%	3.8%	92.3%	3.7%	94.2%	2.9%	98.6%	1.6%
1 dose Varicella	75.6%	5.4%	**	**	79.4%	5.4%	86.8%	4.7%	85.9%	4.3%	91.9%	3.7%
4 dose PCV	**	**	**	**	**	**	**	**	70.7%	5.6%	81.2%	5.3%
1 dose HepA	**	**	**	**	**	**	**	**	89.1%	3.8%	90.7%	3.9%
3 dose Rota	**	**	**	**	**	**	**	**	**	**	37.4%	6.5%
<b>Women Infants &amp; Children (WIC) Clients (g)</b>												
Non-WIC clients	50.9%	10.7%	66.6%	8.3%	62.9%	9.6%	73.6%	8.8%	56.5%	8.1%	**	**
Enrolled in DMAP (h)	**	**	**	**	74.3%	9.2%	78.4%	8.3%	66.9%	8.7%	**	**
Not enrolled in DMAP	**	**	**	**	64.3%	8.2%	74.7%	8.2%	58.6%	8.1%	**	**
<b>Adults age 65 and over (2)</b>												
Had an influenza shot within past year	(a)	(a)	**	**	68% (j)	15.8%	**	**	**	**	**	**
Ever had pneumococcal shot	(a)	(a)	**	**	66.2% (j)	15.9%	**	**	**	**	**	**

\*\* Estimate unavailable

(1) SOURCE: ALERT Immunization Information System, Oregon Immunization Program, DHS  
 "Two year olds" are children 24 to 35 months of age.

(2) SOURCE: Oregon Behavioral Risk Factor Surveillance System, Center for Health Statistics, DHS

(a) Populations or sample sizes with fewer than 50 persons are not displayed to preserve confidentiality

(b) Immunization series includes 4 doses of DTaP, 3 doses of IPV, 1 dose of MMR vaccine

(c) All doses in the 4:3:1 series and 3 doses of Hib (or the two dose Merck series) vaccine

(d) All doses in the 4:3:1:3 series and 3 doses of HepB vaccine

(e) All doses in the 4:3:1:3:3 series and 1 dose of Varicella vaccine

(f) All doses in the 4:3:1:3:3:1 series and 4 doses of PCV

(g) DMAP inclusion for rates is based on at least 180 days of total DMAP enrollment by age two

(h) WIC inclusion for rates is based on any enrollment length by age two

(i) Rates in 2005 do not include a minimum six month spacing between 3rd and 4th DTaP

(j) Estimate based on survey responses from 2002-2005, non-age adjusted

(k) Estimate based on survey responses from 2004-2007, non-age adjusted

Oregon Health Authority DHS Oregon Immunization Program Retrieved from

<http://public.health.oregon.gov/PreventionWellness/VaccinesImmunization/Pages/research.aspx#county>

# Appendix

Table 103 Deschutes County Immunization Rates, 2005-2010

## Deschutes County Immunization Rates (a)

	2005		2006		2007		2008		2009		2010	
	%	95% CI (+/-)	%	95% CI (+/-)	%	95% CI (+/-)	%	95% CI (+/-)	%	95% CI (+/-)	%	95% CI (+/-)
<b>Two Year Olds Up-to Date Rate (1)</b>												
4:3:1 (b)	59.3%	2.5%	**	**	84.0%	2.0%	80.0%	1.8%	78.5%	1.9%	74.8%	2.0%
4:3:1:3 (c)	59.0%	2.5%	68.1%	2.6%	83.3%	1.7%	78.4%	1.8%	55.1%	2.3%	73.3%	2.0%
4:3:1:3:3 (d)	57.9%	2.5%	66.2%	2.6%	**	**	77.3%	1.8%	53.1%	2.3%	71.8%	2.0%
4:3:1:3:3:1 (e)	51.0%	2.5%	50.6%	2.8%	78.0%	1.9%	74.0%	1.9%	50.9%	2.3%	69.4%	2.1%
4:3:1:3:3:1:4 (f)	**	**	**	**	**	**	**	**	**	**	64.9%	2.1%
4 doses DTaP	64.3%	2.4%	**	**	85.6%	1.6%	82.0%	1.7%	82.2%	1.7%	77.8%	1.9%
3 doses IPV	78.0%	2.1%	**	**	94.4%	1.1%	90.8%	1.3%	93.3%	1.1%	89.1%	1.4%
1 dose MMR	77.1%	2.1%	**	**	89.9%	1.4%	89.2%	1.4%	89.4%	1.4%	90.2%	1.3%
3 doses Hib	82.6%	1.9%	**	**	84.2%	1.7%	92.5%	1.2%	67.5%	2.1%	90.3%	1.3%
3 doses HepB	77.6%	2.1%	**	**	93.8%	1.1%	91.0%	1.3%	91.6%	1.3%	90.8%	1.3%
1 dose Varicella	67.9%	2.4%	**	**	83.7%	1.7%	86.3%	1.5%	85.1%	1.6%	86.9%	1.5%
4 dose PCV	**	**	**	**	**	**	**	**	73.7%	2.0%	76.5%	1.9%
1 dose HepA	**	**	**	**	**	**	**	**	84.2%	1.7%	87.0%	1.5%
3 dose Rota	**	**	**	**	**	**	**	**	**	**	52.3%	2.2%
<b>Women Infants &amp; Children (WIC) Clients (g)</b>												
Non-WIC clients	43.7%	3.4%	53.4%	4.2%	76.3%	2.6%	74.1%	2.5%	52.1%	3.0%	**	**
Enrolled in DMAP (h)	**	**	**	**	79.6%	3.1%	73.3%	3.1%	47.9%	3.4%	**	**
Not enrolled in DMAP	**	**	**	**	77.1%	2.5%	74.4%	2.6%	53.3%	3.0%	**	**
<b>Adults age 65 and over (2)</b>												
Had an influenza shot within past year	67.5%	8.4%	**	**	72.2%	6.0%	**	**	**	**	**	**
Ever had pneumococcal shot	69.7%	8.4%	**	**	69.0%	6.6%	**	**	**	**	**	**

\*\* Estimate unavailable

(1) SOURCE: ALERT Immunization Information System, Oregon Immunization Program, DHS  
 "Two year olds" are children 24 to 35 months of age.  
 (2) SOURCE: Oregon Behavioral Risk Factor Surveillance System, Center for Health Statistics, DHS  
 (a) Populations or sample sizes with fewer than 50 persons are not displayed to preserve confidentiality  
 (b) Immunization series includes 4 doses of DTaP, 3 doses of IPV, 1 dose of MMR vaccine  
 (c) All doses in the 4:3:1 series and 3 doses of Hib (or the two dose Merck series) vaccine  
 (d) All doses in the 4:3:1:3 series and 3 doses of HepB vaccine  
 (e) All doses in the 4:3:1:3:3 series and 1 dose of Varicella vaccine  
 (f) All doses in the 4:3:1:3:3:1 series and 4 doses of PCV  
 (g) DMAP inclusion for rates is based on at least 180 days of total DMAP enrollment by age two  
 (h) WIC inclusion for rates is based on any enrollment length by age two  
 (i) Rates in 2005 do not include a minimum six month spacing between 3rd and 4th DTaP  
 (j) Estimate based on survey responses from 2002-2005, non-age adjusted  
 (k) Estimate based on survey responses from 2004-2007, non-age adjusted

# Appendix

Table 104 Jefferson County Immunization Rates, 2005-2010

## Jefferson County Immunization Rates (a)

	2005		2006		2007		2008		2009		2010	
	95% CI		95% CI		95% CI		95% CI		95% CI		95% CI	
	%	(+/-)	%	(+/-)	%	(+/-)	%	(+/-)	%	(+/-)	%	(+/-)
<b>Two Year Olds Up-to Date Rate (1)</b>												
4:3:1 (b)	77.3%	4.8%	**	**	85.1%	4.0%	82.9%	3.9%	85.2%	3.7%	79.8%	4.3%
4:3:1:3 (c)	77.3%	4.8%	77.5%	4.8%	83.6%	3.8%	82.0%	3.9%	77.5%	4.4%	78.4%	4.4%
4:3:1:3:3 (d)	77.3%	4.8%	76.3%	4.9%	**	**	81.4%	4.0%	77.4%	4.4%	78.4%	4.4%
4:3:1:3:3:1 (e)	74.5%	5.0%	72.9%	5.1%	80.8%	4.1%	78.8%	4.2%	75.3%	4.5%	77.1%	4.5%
4:3:1:3:3:1:4 (f)	**	**	**	**	**	**	**	**	**	**	73.5%	4.8%
4 doses DTaP	84.7%	4.1%	**	**	85.3%	3.7%	84.6%	3.7%	86.8%	3.5%	83.3%	4.0%
3 doses IPV	87.3%	3.8%	**	**	97.2%	1.7%	95.0%	2.2%	96.7%	1.9%	94.9%	2.4%
1 dose MMR	90.4%	3.4%	**	**	93.4%	2.6%	92.3%	2.7%	94.8%	2.3%	91.6%	3.0%
3 doses Hib	94.5%	2.6%	**	**	92.6%	2.7%	94.0%	2.4%	87.9%	3.4%	92.9%	2.8%
3 doses HepB	95.0%	2.5%	**	**	98.7%	1.2%	96.2%	2.0%	96.3%	2.0%	96.0%	2.1%
1 dose Varicella	87.4%	3.8%	**	**	89.7%	3.1%	90.2%	3.0%	90.9%	3.0%	90.1%	3.2%
4 dose PCV	**	**	**	**	**	**	**	**	83.1%	3.9%	82.1%	4.1%
1 dose HepA	**	**	**	**	**	**	**	**	92.1%	2.8%	90.9%	3.1%
3 dose Rota	**	**	**	**	**	**	**	**	**	**	42.4%	5.3%
Women Infants & Children (WIC) Clients (g)	71.6%	5.8%	67.1%	5.8%	84.3%	4.6%	81.6%	4.5%	79.8%	5.5%	**	**
Non-WIC clients	84.6%	10.4%	92.9%	5.9%	73.8%	8.4%	71.5%	8.5%	54.2%	8.4%	**	**
Enrolled in DMAP (h)	**	**	**	**	80.4%	5.6%	80.1%	5.1%	78.8%	5.5%	**	**
Not enrolled in DMAP	**	**	**	**	81.4%	6.3%	76.4%	7.6%	70.0%	8.4%	**	**
<b>Adults age 65 and over (2)</b>												
Had an influenza shot within past year	(a)	(a)	**	**	(a)	(a)	**	**	**	**	**	**
Ever had pneumococcal shot	(a)	(a)	**	**	(a)	(a)	**	**	**	**	**	**

\*\* Estimate unavailable

- (1) SOURCE: ALERT Immunization Information System, Oregon Immunization Program, DHS  
"Two year olds" are children 24 to 35 months of age.
- (2) SOURCE: Oregon Behavioral Risk Factor Surveillance System, Center for Health Statistics, DHS
- (a) Populations or sample sizes with fewer than 50 persons are not displayed to preserve confidentiality
- (b) Immunization series includes 4 doses of DTaP, 3 doses of IPV, 1 dose of MMR vaccine
- (c) All doses in the 4:3:1 series and 3 doses of Hib (or the two dose Merck series) vaccine
- (d) All doses in the 4:3:1:3 series and 3 doses of HepB vaccine
- (e) All doses in the 4:3:1:3:3 series and 1 dose of Varicella vaccine
- (f) All doses in the 4:3:1:3:3:1 series and 4 doses of PCV
- (g) DMAP inclusion for rates is based on at least 180 days of total DMAP enrollment by age two
- (h) WIC inclusion for rates is based on any enrollment length by age two
- (i) Rates in 2005 do not include a minimum six month spacing between 3rd and 4th DTaP
- (j) Estimate based on survey responses from 2002-2005, non-age adjusted
- (k) Estimate based on survey responses from 2004-2007, non-age adjusted

## Appendix

Table 105 Notes: Religious Exemption Rates by School/Children's Facility, January 2011:NOTES/CALCULATIONS

**Notes for Religious Exemption Rates by School/Children's Facility in Crook, Deschutes, and Jefferson Counties" January, 2011**

<b>Variable</b>	<b>Definition</b>
<i>Health Department</i>	Local health department jurisdiction where the site is located
<i>School Type</i>	Type of site: Public School, Private School, Children's Facility, Head Start
<i>School Name</i>	Name of site
<i>Grades Evaluated</i>	Grades of site's population that the rate applies to
<i>Adjusted Enrollment Count</i>	Number of children enrolled in evaluated grades, adjusted to avoid double counting children enrolled in multiple sites
<i>Religious Exemption Count</i>	Number children with religious exemptions in evaluated grades
<i>Religious Exemption Rate</i>	Proportion of children in evaluated grades that have a religious exemption

$$\frac{\text{Religious } E}{\text{Adjusted } E} \times 100 = \% \text{ Religious Exemption}$$

\*In 2011, the Religious Exemption Count number includes children with a religious exemption for all required vaccines, and children with a religious exemption for one or more vaccines who are up-to-date or complete for vaccines to which they do not have exemptions. This number does not include children with a religious exemption for one or more vaccines who are incomplete for a vaccine to which they do not have an exemption.

## NOTE:

To preserve confidentiality, data are only presented for sites with 10 or more religious exemptions and 50 or more enrolled children.



# Appendix

Table 106 Immunization Religious Exemption Rates & Counts by School, School Type, and County

## Immunizations: Religious Exemption Rates by School, January 2011

School Type	County	School	Exemption Rate	# of Students Exempt
Pre	D	Circle of Friends	28.1%	16
	D	Mudpies and Lullabies	10.3%	12
Combined*	D	Central Christian School	7.2%	18
	D	Seven Peaks School	5.9%	15
	D	Terrebonne Community School	5.6%	21
	D	Trinity Lutheran	5.6%	17
	D	Tumalo Community School	8.0%	31
	D	Waldorf School of Bend	48.1%	26

School Type	County	School	Exemption Rate	# of Students Exempt
Middle School	C	Cascade Middle School	5.1%	47
	D	Crook County Middle School	1.9%	13
	D	Elton Gregory Middle School	2.7%	18
	D	High Desert Middle School	4.7%	36
	D	Obsidian Middle School	4.5%	31
	D	Pilot Butte Middle School	5.6%	34
	D	Realms	17.8%	19
	D	Sisters Middle School	8.5%	35
	D	Sky View Middle School	4.1%	28

School Type	County	School	Exemption Rate	# of Students Exempt
Elementary School	C	Amity Creek	33.9%	60
	D	Bear Creek Elementary	5.9%	27
	D	Buckingham Elementary	4.0%	19
	D	Buff Intermediate	3.0%	10
	D	Cecil Sly Elementary	2.5%	12
	D	Culver Elementary	5.6%	15
	D	Elk Meadow Elementary	7.3%	42
	D	High Lakes Elementary	9.6%	56
	D	Highland Elementary	14.2%	53
	D	Juniper Elementary	7.6%	41
	D	La Pine Elementary	3.3%	12
	D	Lava Ridge Elementary	5.3%	28
	D	MA Lynch Elementary	2.2%	10
	D	Miller Elementary	9.0%	47
	D	Pine Ridge Elementary	10.2%	57
	D	Pondersa Elementary	4.4%	26
	D	R E Jewell Elementary	4.0%	22
	D	Sage Elementary	5.3%	27
	D	Sisters Elementary	7.9%	28
	D	Three Rivers Elementary	5.6%	21
D	Tom McCall Elementary	4.9%	28	
J	Vern Patrick Elementary	4.5%	20	
J	Westside Village	35.4%	85	

School Type	County	School	Exemption Rate	# of Students Exempt
High School	C	Bend Senior High School	4.3%	62
	D	Crook County High School	3.1%	25
	D	La Pine High School	3.4%	18
	D	Mt. View High School	3.9%	52
	D	Redmond High School	1.8%	32
	D	Sisters High School	4.4%	23
	D	Summit High School	4.5%	59

C=Crook County  
 D=Deschutes County  
 J=Jefferson County

To preserve confidentiality, data are only provided for schools where there are 10 or more religious exemptions *and* 50 or more children enrolled.

\*In 2011, the Religious Exemption Count number includes children with a religious exemption for all required vaccines, and children with a religious exemption for one or more vaccines who are up-to-date or complete for vaccines to which they do not have exemptions. This number does not include children with a religious exemption for one or more vaccines who are incomplete for a vaccine to which they do not have an exemption.

Data Set: "Religious Exemption Rates by School/Children's Facility in Crook, Deschutes, and Jefferson Counties" January, 2011

# Appendix