

## MEMORANDUM

**TO:** The Honorable Sen. Elizabeth Steiner Hayward, Senate Co-Chair  
The Honorable Rep. Dan Rayfield, House Co-Chair  
Subcommittee on Human Services

**FROM:** Janell Evans, Budget Director, Oregon Health Authority

**DATE:** March 6, 2017

**SUBJECT:** Responses to March 2 Public Hearing Questions

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During OHA's presentation before your committee on Thursday, March 2, committee members asked questions that required additional follow-up. Here are those questions and our responses:

**Sen. Winters:** Have you been collecting the data in a sufficient enough manner to have an age breakdown and race breakdown [for suicide data]? **Sen. Steiner Hayward:** It would be helpful to provide this information by demographic – age, race, etc. **Rep. Buehler:** What's the rate for suicides on college campuses in Oregon?

Suicide is one of the five leading causes of death for Oregonians aged 10-54 years and rates are higher among men than women. Whites, especially males aged 65 years and older, have the highest suicide rate in Oregon. Compared to the rate in whites, African Americans, Asian/Pacific Islanders, and people of Hispanic ethnicity have lower rates. Please see the attached *Suicide Indicators* document.

The data showing place of suicide incident contains information about occurrences at colleges and universities; however, the data are aggregated with lower level educational level locations (high school, middle school). A table of all locations can be found in the attached *Suicide Indicators* document.

**Rep. Buehler:** How many overdoses related to Fentanyl are you seeing?

There have been 12 deaths confirmed as illicit Fentanyl-related in Oregon since 2014, though the 2016 count is not yet complete.

2014 – 1

2015 - 4

2016 - 7 (not complete count yet)

Please see the attached *Fentanyl* document for county maps.

**Sen. Steiner Hayward:** Yesterday you mentioned MOUs, is it fair to assume this model incorporates more cross-agency work and leveraging?

Below is the location of the fact sheet for the Statewide Public Health Modernization Plan. The second priority addresses how state and local public health will expand collaborations within OHA, with other state agencies, and with health care and other partners to build shared responsibility for improving health outcomes.

<https://public.health.oregon.gov/About/TaskForce/Documents/statewidemodernizationplan.pdf>

**Sen. Winters:** How much of the funding that you have is passed through to the counties?

The total amount of pass-through in the Public Health budget is \$409.8 million. Of this amount, 70.5% (\$289.1 million) flows through Local Public Health Departments (\$140 million of this amount is WIC vouchers.) The remainder of the pass through payments go to tribal nations, medical related services to community-based providers for other health related services (e.g., persons living with HIV, reproductive health services), distributions to other agencies (e.g., OHSU, DEQ), vendor payments to Oregon hospitals for emergency preparedness, tobacco prevention and Education program (TPEP), and vaccines.

**Rep. Hayden:** On dental sealants – Why are we looking at 5 year old data? Currently, we're not allowed to use hydrophilic sealants which can be difficult to get on an uncooperative child... That may need updating.

A Rules Advisory Committee, consisting of 20 stakeholders including representation from several Dental Care Organizations, finalized rules on January 9, 2016, to implement Senate Bill 660. To ensure all school-based sealant programs certified by the Oregon Health Authority adhered to a minimum set of quality standards, the committee decided on the following requirements: the use of

resin-based sealant material, portable equipment (compressed air), the four-handed technique to ensure a dry field, and retention checks at one year to ensure quality sealants are being placed. These requirements follow the recommendations of the American Dental Association (2016), Centers for Disease Control and Prevention (2016), and the Association of State and Territorial Dental Directors (2017).

- Resin-based sealant material vs. glass ionomer: “When assessing retention, glass ionomer sealants may have 5 times greater risk of experiencing loss of retention from the tooth compared with resin-based sealants after 2 to 3 years of follow-up.”<sup>1</sup> A well-placed resin sealant lasts an average of 9 years.<sup>2</sup>
- Portable equipment: “Sealants must be placed by a licensed dental professional with dental equipment.”<sup>3</sup>
- Four-handed technique (two-person team): “Sealant delivery with a two-person team using a four handed technique is more effective than using a single operator.”<sup>4</sup>
- School dental sealant programs must maintain a quality assurance system (e.g., retention checks at one year): “Technical quality generally refers to a high rate of retention for sealants (one-year retention rates of well-applied sealants usually averages between 80 to 90%).”<sup>4</sup>

The Journal of the American Dental Association acknowledges glass ionomer for use when a dry field cannot be maintained: “In situations in which dry isolation is difficult, such as a tooth that is not fully erupted and has soft tissue impinging on the area to be sealed, then a material that is more hydrophilic (for example, GI) would be preferable to a hydrophobic resin-based sealant. On the other hand, if the tooth can be isolated to ensure a dry site and long-term retention is desired, then a resin-based sealant may be preferable.”<sup>1</sup>

Programs depending on glass ionomer, however, often advocate for one provider, applying the material with a thumb, and using no equipment. In this situation, maintaining a dry site is indeed difficult or impossible. These techniques may be useful in third-world countries where resources are limited, but certainly compromise long-term quality. Certifying these programs would be extremely difficult, as the recommended quality checks would no longer apply.

Oregon was recognized by the Pew Charitable Trusts (2015) as one of only three states receiving all points for school dental sealant programs.<sup>5</sup> Oregon is noted for adherence to quality measures. The state sealant program has maintained an average of 89% retention over the past five years.

The Dental Quality Alliance states, “The terms ‘quality measures’ and ‘performance measurement’ have been largely elusive in dentistry. Two IOM reports, have identified a lack of quality measures as a barrier to improving oral health and reducing oral health disparities. Besides direct quality improvement, measurement is done to uphold public trust, provide consumer information, and account to policy makers, payers and others who purchase care. It is done to demonstrate that funding provided for healthcare services is being used for its stated purpose and is producing effective results.”<sup>6</sup>

#### References:

<sup>1</sup>Wright, John T. et al. (2016). Evidence-based clinical practice guideline for the use of pit-and-fissure sealants. *Journal of the American Dental Association*, 147 (8), 672-682, e12

<sup>2</sup>Ahovuo-Saloranta, A. Forss, H., Walsh, T., Hiiri, A., Nordblad, A., Makela, M., & Worthington, H. V. (2013) Sealants for preventing dental decay in the permanent teeth (review). *The Cochrane Collaboration*, Reprint 2013, Issue 3, 1-155.

<sup>3</sup>Griffiths, S. O., Wei, L., Gooch, B. F., Weno, K., & Sepinoza, L. (2016). Vital signs: Dental sealant use and untreated tooth decay among U.S. school-aged children. *Morbidity and Mortality Weekly Report*, 65(41), 1141-1145. Retrieved from <https://www.cdc.gov/mmwr/volumes/65/wr/pdfs/mm6541e1.pdf>

<sup>4</sup>Association of State and Territorial Dental Directors. (2017). *Best practice approaches for state and community oral health programs*. Retrieved from <http://www.astdd.org/docs/sealant-bpar-update-02-2017-final.pdf>

<sup>5</sup>Pew Charitable Trusts. (2015). *States stalled on dental sealants. Oregon fact sheet*. Retrieved from [http://www.pewtrusts.org/~media/assets/2015/04/pewdentalsealantsreportcards2015/pew\\_dental\\_sealants\\_oregon.pdf?la=en](http://www.pewtrusts.org/~media/assets/2015/04/pewdentalsealantsreportcards2015/pew_dental_sealants_oregon.pdf?la=en)

<sup>6</sup>Dental Quality Alliance. (2016). *Quality measurement in dentistry: A guidebook*. Retrieved from [http://www.ada.org/~media/ADA/Science%20and%20Research/Files/DQA\\_2016\\_Quality\\_Measurement\\_in\\_Dentistry\\_Guidebook.pdf?la=en](http://www.ada.org/~media/ADA/Science%20and%20Research/Files/DQA_2016_Quality_Measurement_in_Dentistry_Guidebook.pdf?la=en)

### Fee Ratification Bill

**Sen. Winters** (1 hr 10 min): Can you share the public comments about the fee? Did you receive any comment from the industry that would be affected?

Public Health will retrieve the comments and provide them later this week.

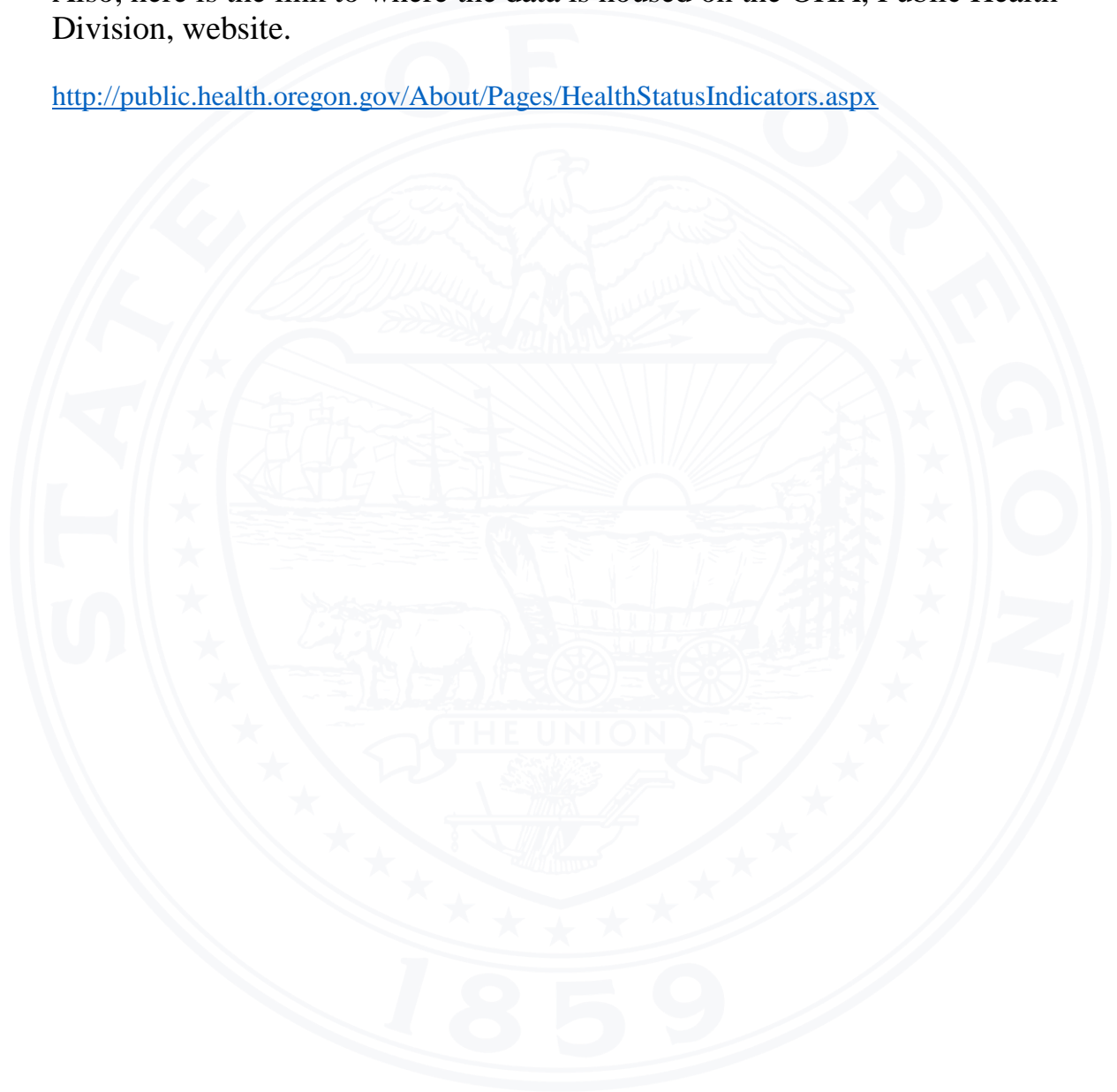
## **Additional Information:**

The committee was interested in receiving information on the status of Public Health's indicators in the areas within the State Health Improvement Plan. Please see the attached documents that report on these indicators:

- *Communicable Disease (HIV) Indicators*
- *Dental Indicators*
- *Immunization Rate Indicators*
- *Obesity Indicators*
- *Tobacco Use Indicators*

Also, here is the link to where the data is housed on the OHA, Public Health Division, website.

<http://public.health.oregon.gov/About/Pages/HealthStatusIndicators.aspx>

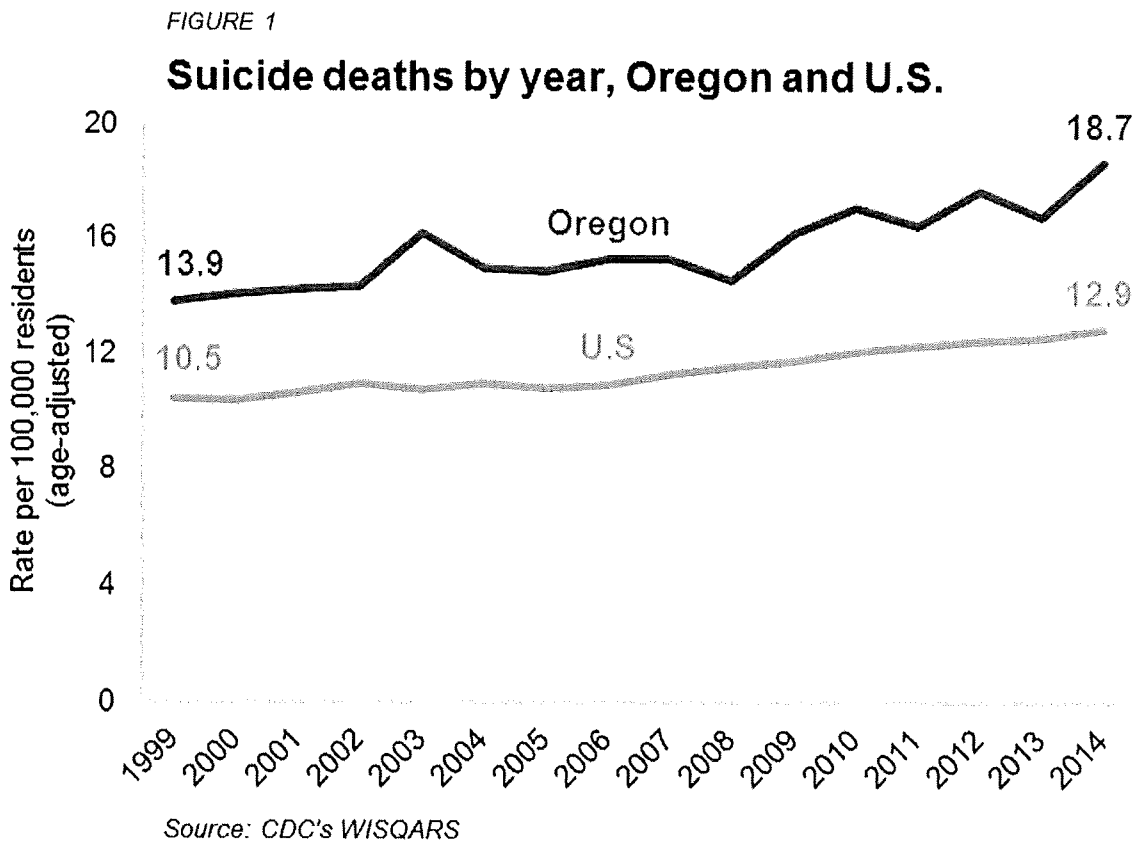




## Causes of Death

# Suicide

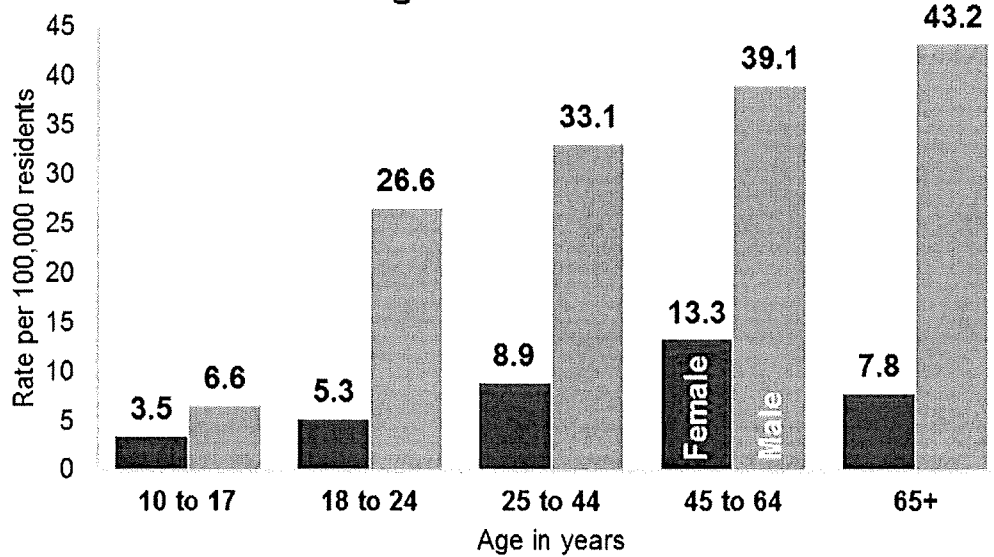
Suicide is one of the leading causes of premature death in Oregon. In 2014, 782 people in Oregon died by suicide (18.7 per 100,000 residents). Rates in Oregon have consistently been higher than the U.S. for the past 30 years. Suicides in Oregon and the U.S. have steadily increased since 2000 (Figure 1).



Suicide is one of the five leading causes of death for Oregonians aged 10-54 years, and rates are higher among men than women (Figure 2).

FIGURE 2

### Suicide deaths by sex and age, Oregon, 2010–2014 average

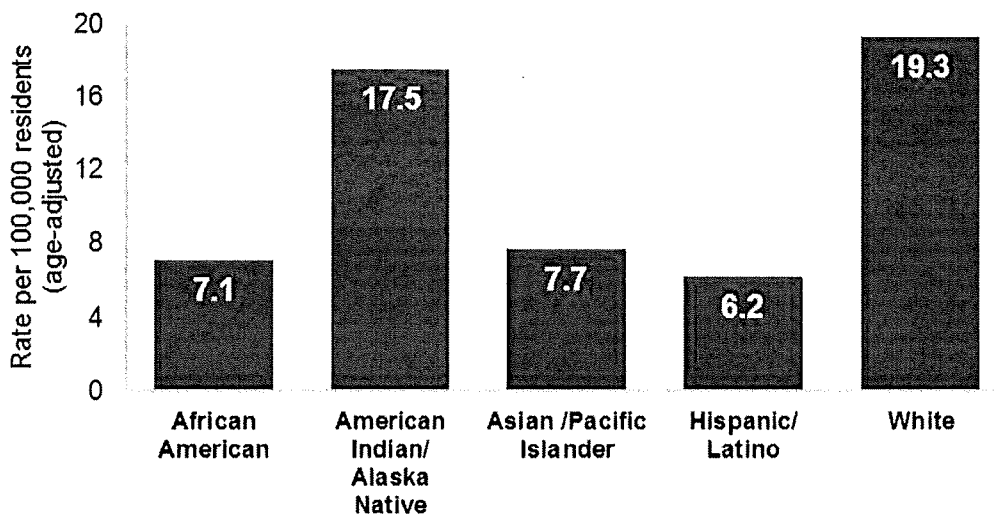


Source: CDC's WISQARS

Whites, especially males aged 65 years and older, have the highest suicide rate in Oregon. Compared to the rate of whites, African Americans, Asian/Pacific Islanders, and people of Hispanic ethnicity have a lower rate (Figure 3).

FIGURE 3

### Suicide deaths by race/ethnicity, Oregon, 2010–2014 average



Notes: All other groups exclude Hispanic ethnicity

Source: CDC's WISQARS

**Additional Resources:** [Injury and Fatality State Plans and Reports](#)

**About the Data:** Data sources are the Centers for Disease Control and Prevention Web-Based Injury Statistics Query and Reporting System. Data include deaths resulting from the intentional use of force against oneself. Deaths relating to the Death with Dignity Act (e.g., physician-assisted suicides) are not classified as suicides. All rates are age-adjusted to the 2000 U.S. population. Population estimates used in calculating rates are from the National Center for Health Statistics (NCHS).

**For More Information Contact:** Xun Shen, [xun.shen@state.or.us](mailto:xun.shen@state.or.us)

**Date Updated:** August 8, 2016

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### *Type of suicide*

The majority of suicide incidents in Oregon involved one death. Multiple suicides (suicide pacts) occurred rarely. From 2003-2012, there were five suicide incidents that involved more than one death, which counted for 0.2 percent of total suicide deaths. Eighty-nine suicides (1.4%) were involved a homicide (combined homicide-suicide).

### *Location of suicide*

Suicides occur in a variety of locations; however, four in five suicides occurred at a house or apartment (Table 7).

**Table 7. Location of suicide incidents, by sex, Oregon, 2003-2012**

Type of location	Males	%	Females	%
House / Apartment	3,539	74	1,097	80
Natural Area (e.g. field, river, woods)	318	7	82	6
Park / Public use area	173	4	39	3
Street / Road	202	4	42	3
Parking lot / Garage	95	2	8	<1
Motor Vehicle	45	<1	10	<1
Motel / Inn /Hotel	84	2	42	3
Jail / Prison	56	1	3	<1
Highway	33	<1	4	<1
Hospital	17	<1	9	<1
Commercial area	23	<1	0	<1
Supervised Resident Facilities	11	<1	4	<1
Railroad	17	<1	2	<1
Bank / Office building	13	<1	1	<1
Industrial or construction areas	15	<1	2	<1
* College/University/School	9	<1	1	<1
Abandoned house, building	4	<1	0	<1
Synagogue, Church, Temple	6	<1	0	<1
Farm	6	<1	0	<1
Other	78	2	13	<1
Unknown	35	<1	7	<1

Source: ORVDRS

Oregon overdose deaths associated with non-pharmaceutical fentanyl/fentanyl analogs, 2014-2016		
Year	County	Count (N)
2014	Deschutes	1
2015	Deschutes	1
2015	Washington	1
2015	Multnomah	1
2015	Clackamas	1
2016	Lane	1
2016	Columbia	1
2016	Multnomah	1
2016	Benton	1
2016	Deschutes	1
2016	Clackamas	1
2016	Jackson	1
		<b>12</b>

Oregon Public Health Division, March, 2017

Data source: Oregon Medical Examiner Data

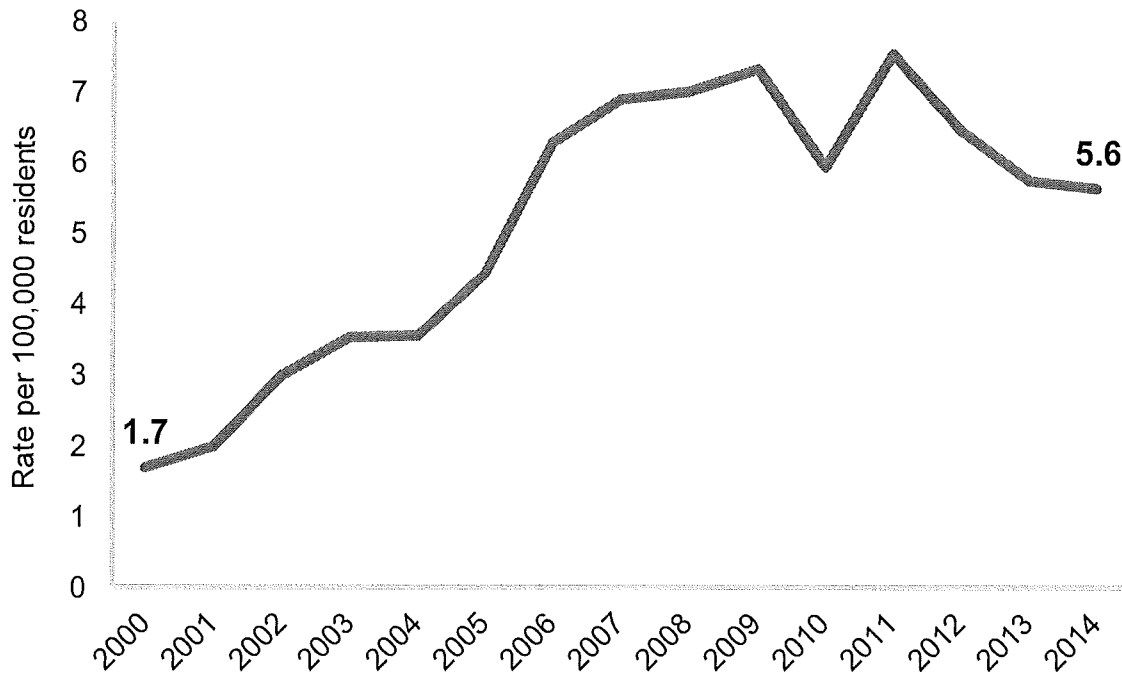
*Causes of Death*

# Opioid-related overdose deaths

Unintentional opioid-related overdose is one of the leading causes of injury mortality in Oregon. Opioid overdose deaths have markedly increased during the past decade, from 58 total deaths during 2000 to 292 deaths in 2011. Since then there has been a significant decrease to 224 deaths in 2014 (Figure 1).

FIGURE 1

**Opioid-related overdose death rate by year, Oregon**

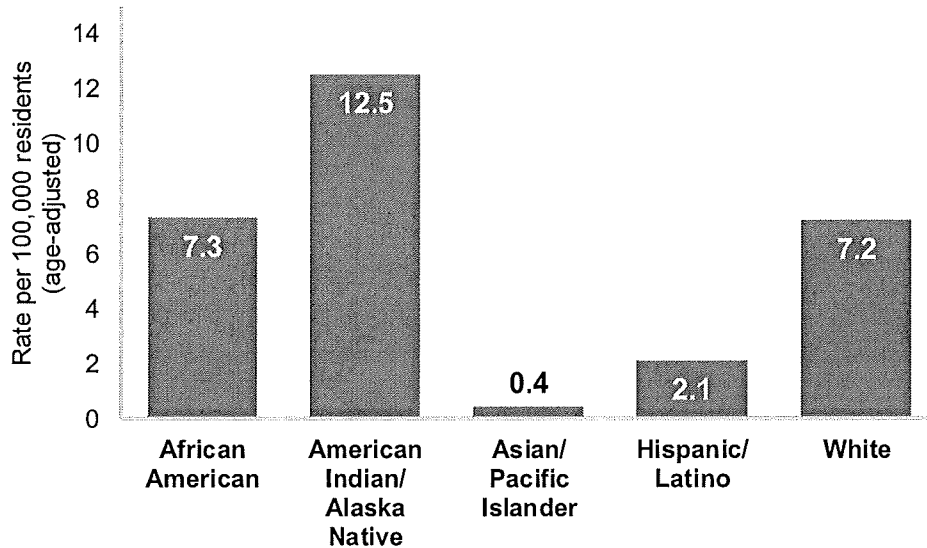


Source: Oregon Death Certificate Data

Opioid-related overdose death rates vary by race/ethnicity (Figure 2). The highest average age-adjusted mortality rate from 2010 to 2014 occurred among American Indians/Alaska Natives (12.5 per 100,000), followed by African-Americans (7.3 per 100,000) – both higher than the rate among whites during the same time period (7.2 per 100,000). The lowest rates of Opioid-related overdose death occurred among Asian/Pacific Islanders (0.4 per 100,000), and Hispanics (2.1 per 100,000).

FIGURE 2

### Opioid-related overdose death rate by race/ethnicity, Oregon, 2010–2014 average



Notes: All other groups exclude Hispanic ethnicity  
Source: Oregon Death Certificate Data

Efforts targeted at patients who use opioids as well as clinicians who prescribe them are needed to address this important public health problem.

#### **Additional Resources:** [Injury and Fatality State Plans and Reports](#)

**About the Data:** Data source is Oregon Death Certificate Data. Data include deaths for which the underlying cause of death was accidental poisoning and opium, heroin, methadone, other synthetic narcotics or other opioids were listed among the contributing causes. Population estimates used in calculating rates are from the National Center for Health Statistics (NCHS).

**For More Information Contact:** Matt Laidler, [Matthew.Laidler@state.or.us](mailto:Matthew.Laidler@state.or.us)

**Date Updated:** July 19, 2016

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# Non-Pharmaceutical Fentanyl Deaths

According to CDC, "Fentanyl is a synthetic (man-made) opioid that is 50 times more potent than morphine. There are two types of fentanyl:

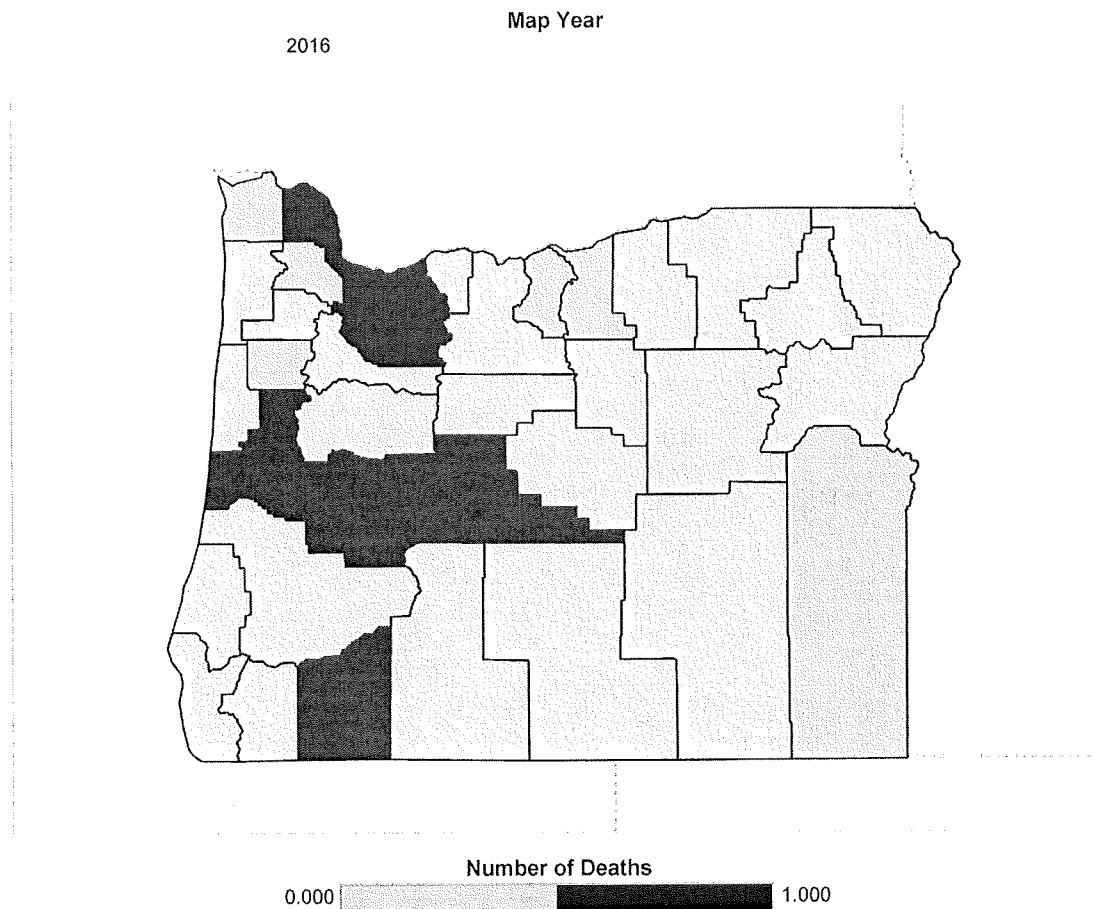
1. Pharmaceutical fentanyl, which is primarily prescribed to manage acute and chronic pain associated with cancer.
2. Non-pharmaceutical fentanyl (NPF), which is illegally made and often mixed with heroin and/or cocaine - with or without the user's knowledge - in order to increase the drug's effect."

(<http://www.cdc.gov/drugoverdose/data/fentanyl.html>)

Several states have recently reported a significant and sizeable increase in NPF-related overdose deaths. In March 2015, DEA issued a nationwide alert identifying fentanyl as a threat to public health and safety(<http://www.dea.gov/divisions/hq/2015/hq031815.shtml>).

Due to increased potential for overdose deaths linked to NPF and the lethality of these drugs, Oregon will continue to monitor overdose deaths related to fentanyl, including NPF.

Use the slider below to choose a year



Non-pharmaceutical fentanyl death data comes from medical examiner data based upon circumstances of death and toxicology results. There is a significant time lag for this data so data for 2016 includes only the first half of 2016. County displayed represents county of death, which may be different than county of residence.

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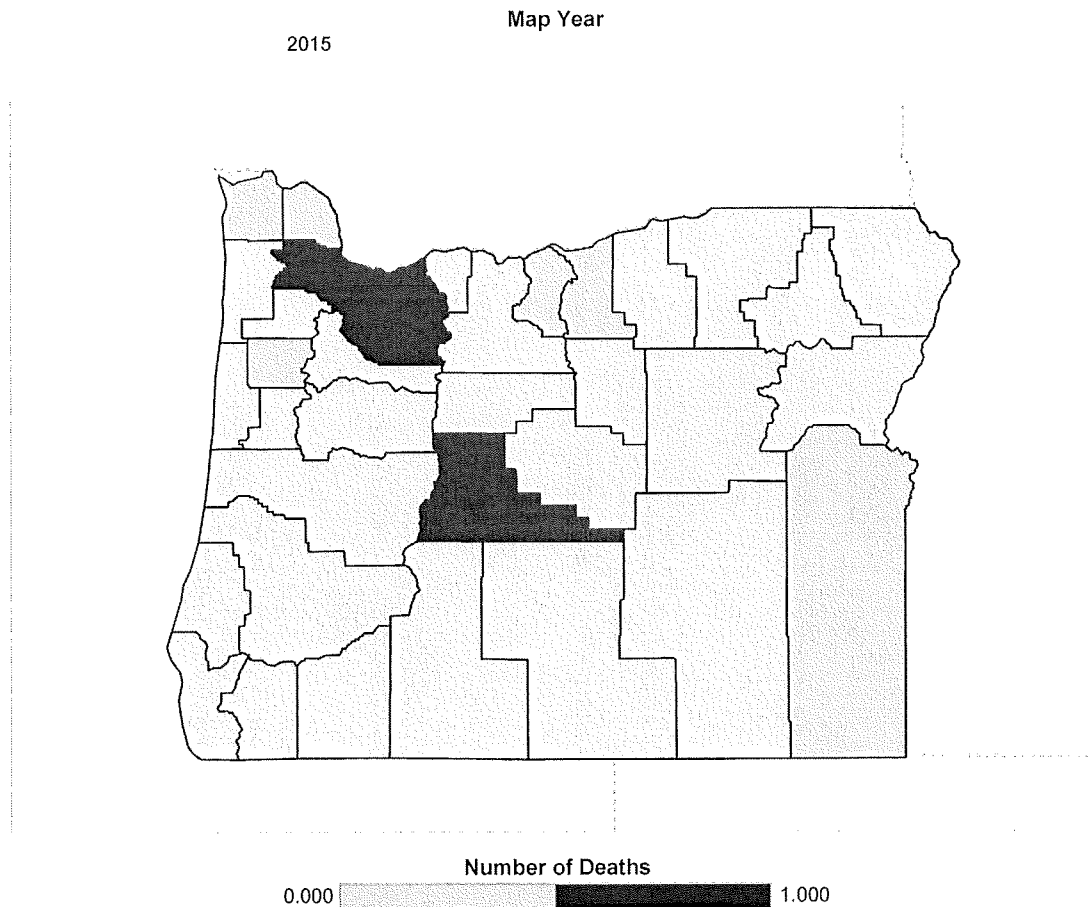
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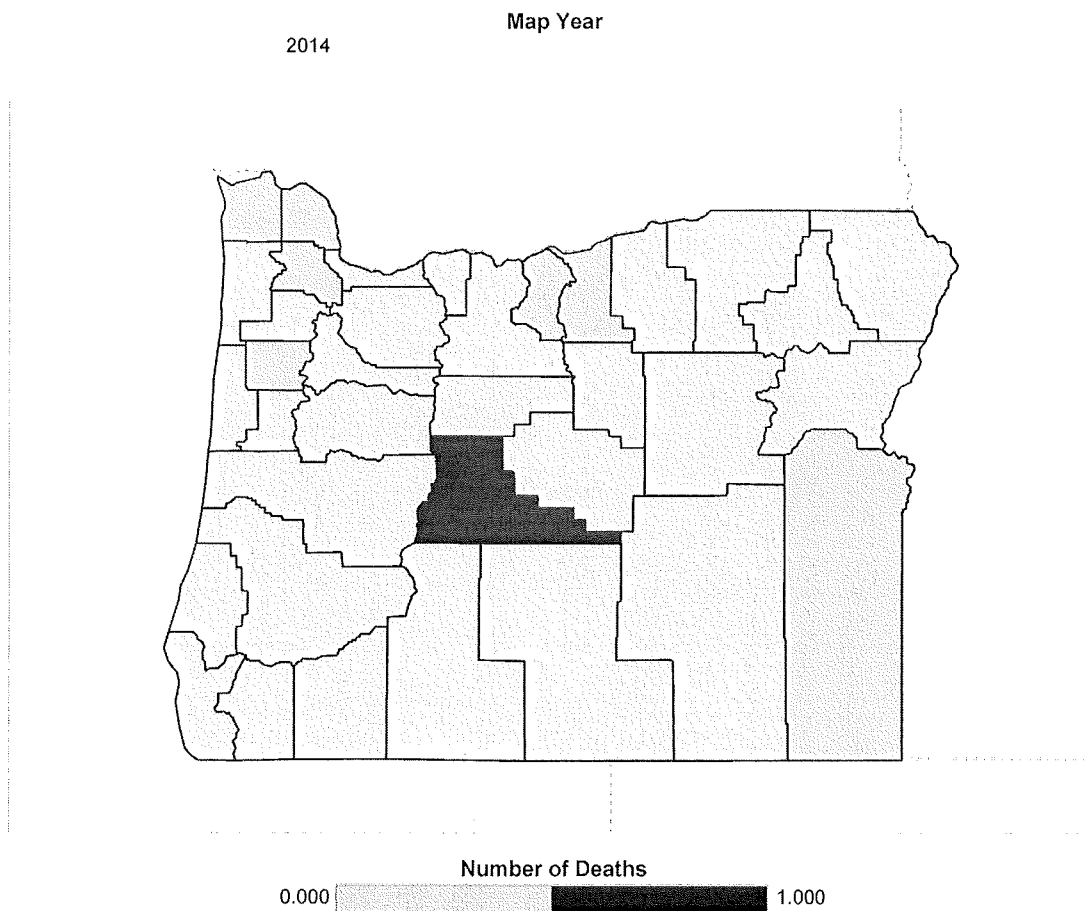
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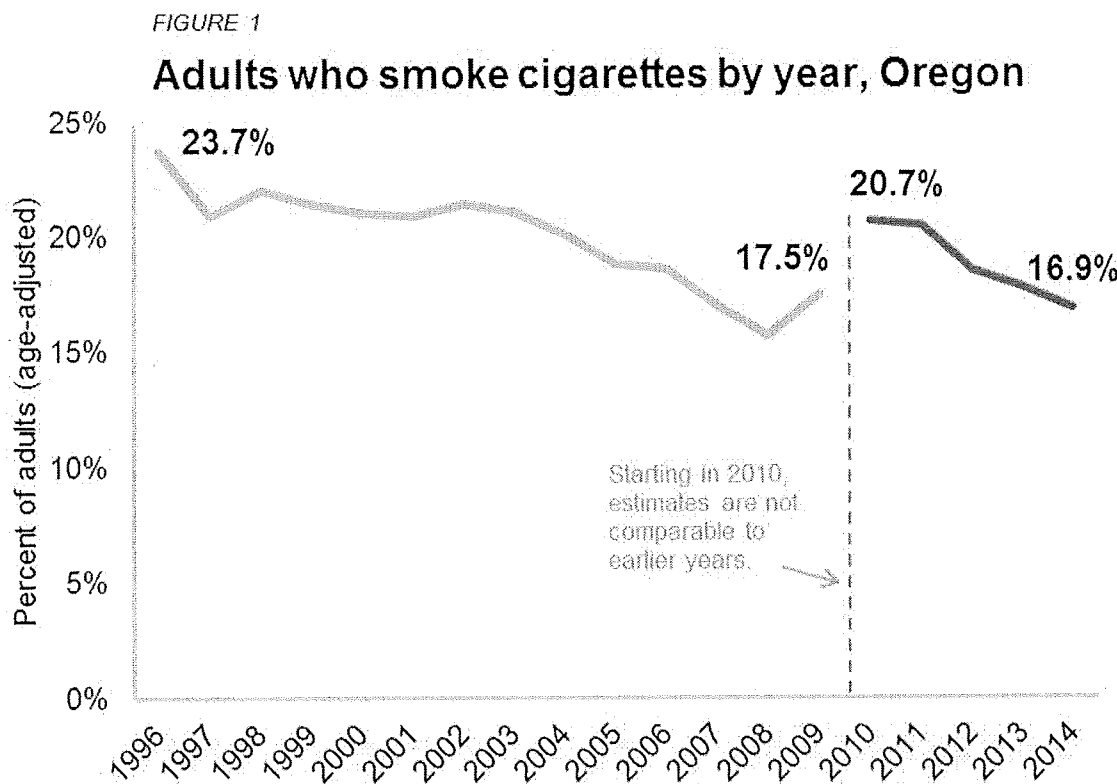
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*Health Behaviors*

# Current cigarette smoking

Cigarette smoking is the most common cause of preventable death and disease in Oregon. It kills more than 7,000 Oregonians annually, and costs the state \$2.5 billion in health care costs and lost productivity due to premature death.

In 2014, 16.9% of Oregon adults smoked cigarettes (Figure 1). When compared with the 23.7% of Oregon adults who smoked cigarettes in 1996 this is a 29% decline.

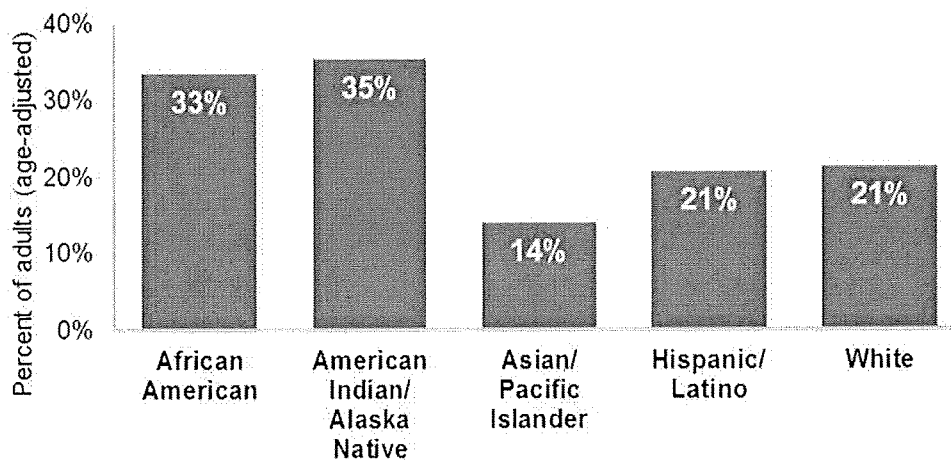


Source: Oregon Behavioral Risk Factor Surveillance System (BRFSS)

Cigarette smoking is higher among adult African Americans (33%) and American Indian/Alaska Natives (35%) compared with whites (21%, Figure 2).

FIGURE 2

### Adults who smoke cigarettes by race/ethnicity, Oregon, 2010–2011



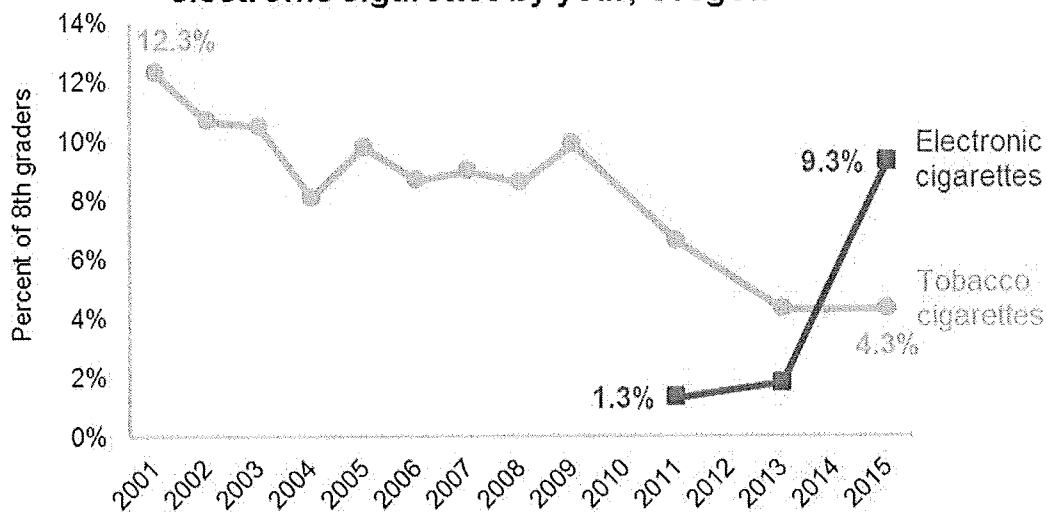
Notes: All other groups exclude Hispanic ethnicity

Source: Oregon Behavioral Risk Factor Surveillance System (BRFSS) Race Oversample

Among Oregon eighth-graders, tobacco cigarette smoking has dropped since 2001, from a high of 12.3% to a low of 4.3% in 2015. This represents a 65% decline in tobacco cigarette smoking among eighth graders. Meanwhile, from 2010 to 2015 we have seen a dramatic increase in use of electronic cigarettes by 615% among 8<sup>th</sup> grade youth (Figure 3).

FIGURE 3

### 8th-graders who smoke tobacco cigarettes and electronic cigarettes by year, Oregon



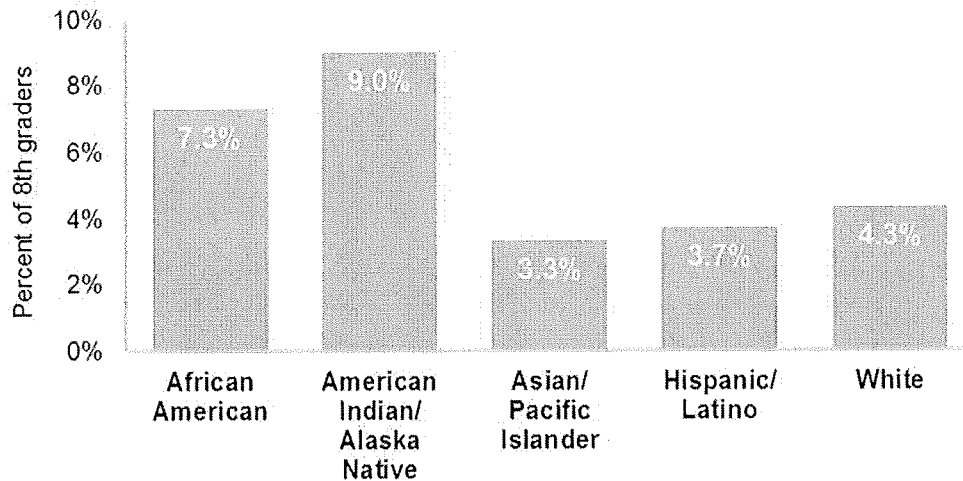
Note: There was no survey in 2010, 2012 or 2014.

Source: Oregon Healthy Teens Survey

American Indian/Alaska Native (9.0%) and African American (7.3%) eighth graders were more likely to smoke cigarettes than all other race and ethnic groups (Figure 4).

FIGURE 4

**8th-graders who smoke cigarettes by race/ethnicity, Oregon, 2015**



Notes: All other groups exclude Hispanic ethnicity  
 Source: Oregon Healthy Teens Survey

Oregon has experienced notable successes in tobacco control, but smoking remains a major public health problem. Cigarettes continue to addict nearly 1 in 5 Oregon adults, and cigarette smoking has a disproportionate effect on some of Oregon’s most vulnerable groups.

**Additional Resources:** [Oregon Tobacco Laws and Policies, January 2014](#); [Oregon Tobacco Facts 2013](#).

**About the Data:** Data sources are the Oregon Behavioral Risk Factor Surveillance Systems (BRFSS) for adults and the Oregon Healthy Teens Survey (OHT) for youth. BRFSS is a telephone survey conducted annually among non-institutionalized adults age 18+. Since 2010, the Oregon BRFSS data have included cell phone respondents as well as those reached by landline, and data weighting methods have changed. Therefore, caution should be used in interpreting changes over time. Data on adults include those who have smoked 100 cigarettes in their lifetime and currently smoke every day or some days. For 8th graders, data include those who smoked cigarettes on 1 day or more during the past 30 days and using an electronic cigarette for 1 day or more during the past 30 days.

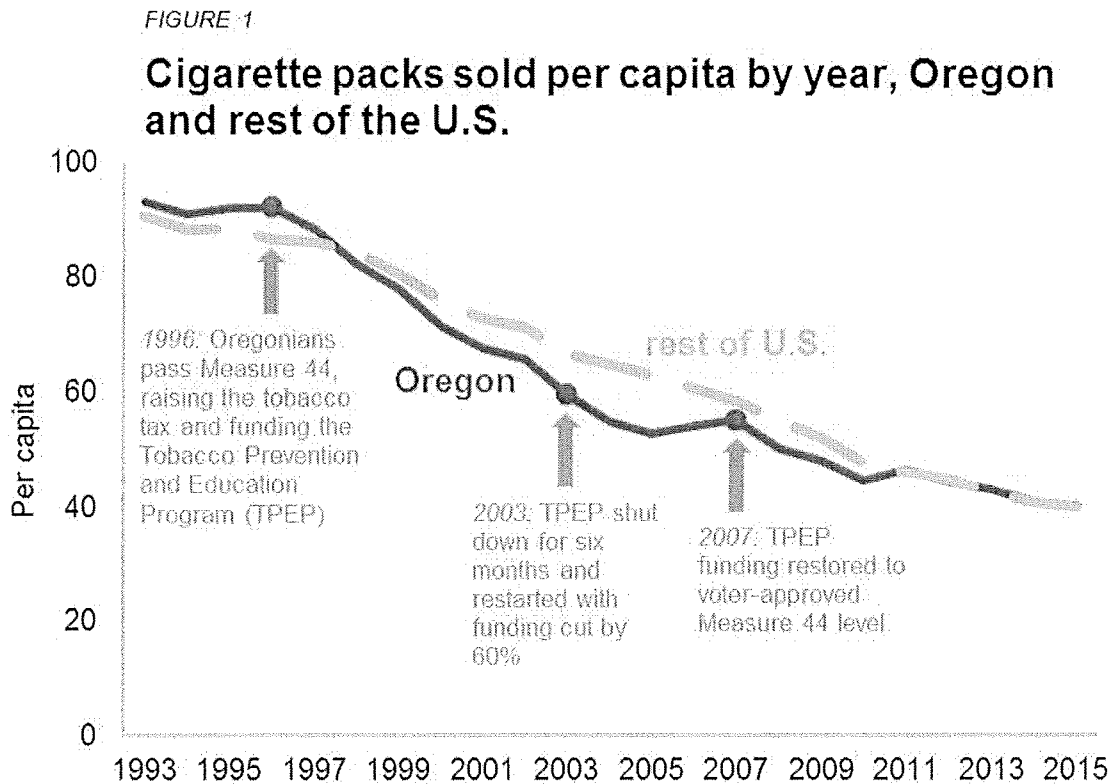
**For More Information Contact:** Luci Longoria, [luci.longoria@state.or.us](mailto:luci.longoria@state.or.us)

*Health Behaviors*

# Cigarette packs sold per capita

Smoking tobacco is the leading cause of preventable death and disease in Oregon. Tobacco use kills more than 7,000 Oregonians annually, and costs the state \$2.5 billion in health care costs and lost productivity due to premature death. Tobacco consumption, as measured by cigarette packs sold in the state (determined by tax collections), is one measure of tobacco use.

The number of cigarette packs sold per capita in Oregon has declined from 92.1 in 1996 to 40.0 in 2015, a 57% decline (Figure 1).



Source: Orzechowski and Walker, 2015

While Oregon has experienced notable successes in tobacco control, smoking remains a national and state public health crisis.

**Additional Resources:** [Oregon Tobacco Laws and Policies, January 2014](#); [Oregon Tobacco Facts 2013](#).

**About the Data:** Data source for cigarette consumption is Orzechowski and Walker, [The Tax Burden on Tobacco \(2015\)](#). Cigarette packs sold, as indicated by tax collections, are divided by the U.S. Census Bureau's mid-year population estimates of the Oregon population.

**For More Information Contact:** Luci Longoria, [luci.longoria@state.or.us](mailto:luci.longoria@state.or.us)

**Date Updated:** July 29, 2016

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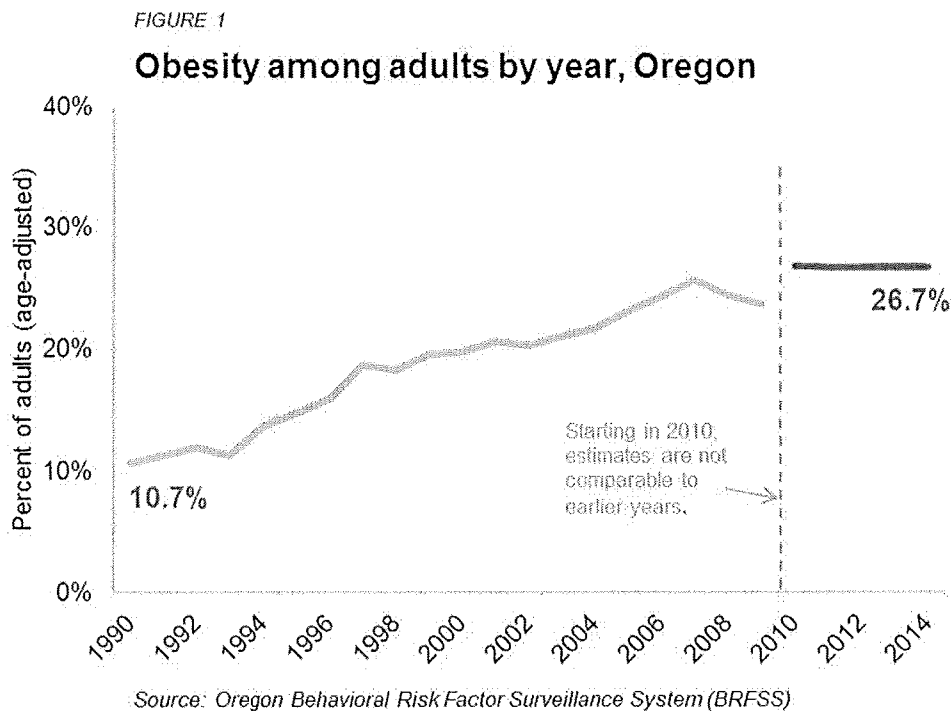


*Illness & Injury*

# Obesity among youth and adults

Obesity is the second leading cause of preventable death in Oregon, causing an estimated 1,500 deaths each year. Obesity is a major risk factor for high blood pressure, high cholesterol, diabetes, heart disease, and cancer. People who are obese are estimated to have annual medical costs that are \$1,429 higher than people who are not obese.

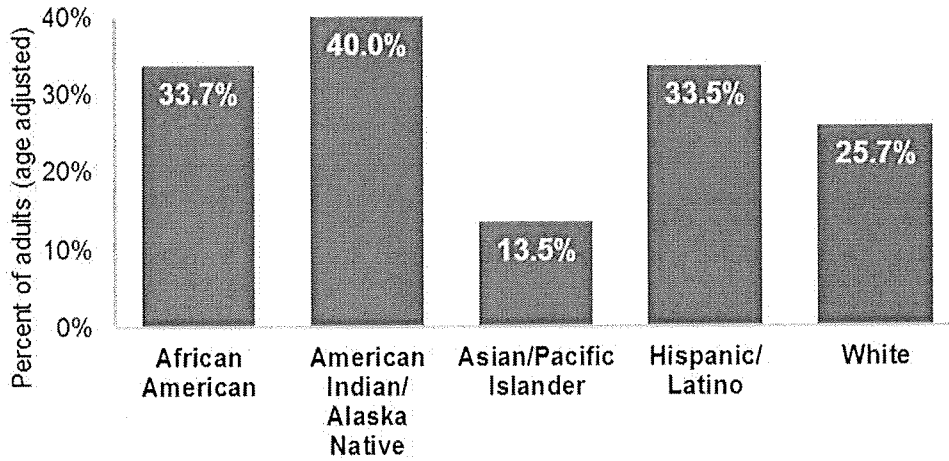
In 2014, 26.7% of Oregon adults were obese. That proportion has more than doubled since 1990, when 10.7% of Oregon adults were obese (Figure 1).



Adult African Americans (33.7%), American Indian/Alaska Natives (40.0%) and Hispanics (33.5%) are more likely to be obese than whites (25.7%) or Asian/Pacific Islanders (13.5%; Figure 2).

FIGURE 2

### Obesity among adults by race/ethnicity, Oregon, 2010 - 2011



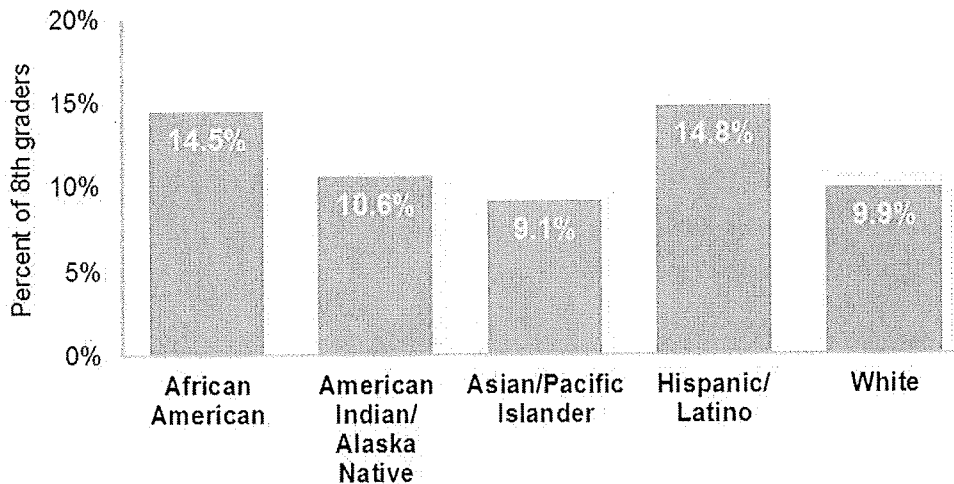
Notes: All other groups exclude Hispanic ethnicity

Source: Oregon Behavioral Risk Factor Surveillance System (BRFSS) Race Oversample

Among 8<sup>th</sup> grade youth, the pattern is similar with African Americans (14.5%) and Hispanics (14.8%) more likely to be obese than whites (9.9%), Asian/Pacific Islanders (9.1%) or American Indian/Alaska Natives (10.6%; Figure 3).

FIGURE 3

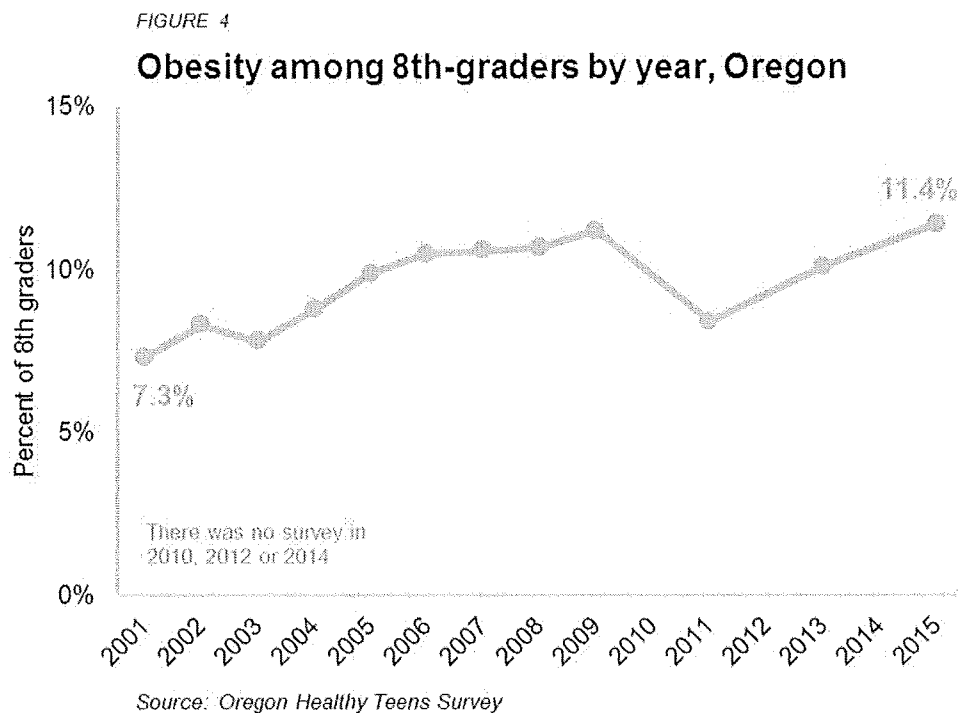
### Obesity among 8th-graders by race/ethnicity, Oregon, 2015



Notes: All other groups exclude Hispanic ethnicity

Source: Oregon Healthy Teens Survey

Between 2001 and 2015, obesity increased 56% among Oregon eighth-graders from 7.3% to 11.4% (Figure 4).



If the trend in obesity continues, Oregon’s medical care costs to treat obesity-related diseases will rise, and children born today will have shorter lives on average than their parents. Comprehensive strategies designed to improve diets and increase physical activity among Oregon’s population are urgently needed to address this problem.

**Additional Resources:** [2012 Oregon Overweight, Obesity, Physical Activity and Nutrition Facts](#)

**About the Data:** Data sources are the Oregon Behavioral Risk Factor Surveillance Systems (BRFSS) for adults and the Oregon Healthy Teens Survey (OHT) for youth. BRFSS is a telephone survey conducted annually among non-institutionalized adults age 18+. Since 2010, the Oregon BRFSS data have included cell phone respondents as well as those reached by landline, and data weighting methods have changed. Therefore, caution should be used in interpreting changes over time. OHT is a pencil and paper or online survey conducted every two years among Oregon 8<sup>th</sup> and 11<sup>th</sup> graders within schools.

Body Mass Index (BMI) is calculated using height and weight. For adults, obese is defined as having a BMI of 30 or greater. For children and teens, after BMI is calculated, the number

is plotted on the Centers for Disease Control and Prevention (CDC) BMI-for-age sex-specific growth charts to obtain a percentile ranking. Obese is defined as a BMI at or above the 95th percentile.

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Oregon State Health Profile

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*Health Behaviors*

# Physical activity

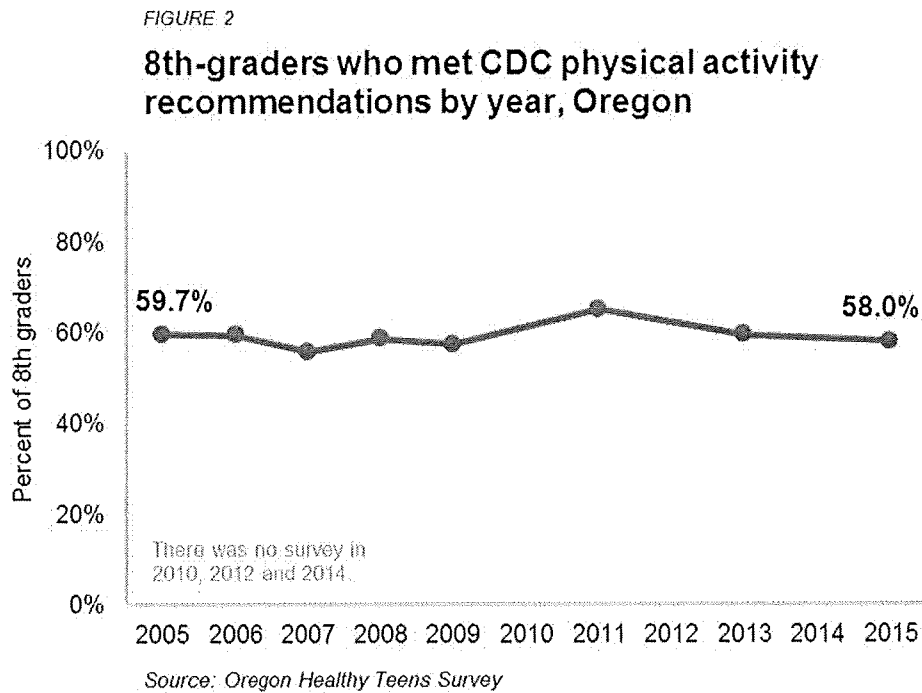
Regular physical activity improves overall health and helps to ensure healthy bones and muscles, control weight, reduce anxiety and stress, and improve blood pressure and cholesterol levels. In 2011, the Centers for Disease Control and Prevention (CDC) began reporting physical activity data aligned with the *2008 Physical Activity Guidelines for Americans*. The 2008 recommendation includes strengthening activities in addition to aerobic exercise; therefore, new data are not comparable to data reported in 2009 and earlier.

In 2013, 24.8% of Oregon adults reported meeting the new CDC physical activity recommendations (Figure 1). Meeting the new physical activity recommendations did not vary by sex; however, adults who had a healthy weight were more than twice as likely to meet CDC physical activity recommendations compared to those who were obese (33.8% vs. 15.0%).

FIGURE 1

<b>Adults who meet CDC physical activity recommendations by sex and body weight status, Oregon, 2013</b>	
<b>All adults</b>	<b>Percent<sup>1</sup> 24.8%</b>
<b>Sex</b>	
<b>Female</b>	<b>25.1%</b>
<b>Male</b>	<b>24.6%</b>
<b>Body weight status</b>	
<b>Healthy weight</b>	<b>33.8%</b>
<b>Overweight</b>	<b>23.7%</b>
<b>Obese</b>	<b>15.0%</b>
<sup>1</sup> Estimates are age-adjusted.	
Source: Oregon Behavioral Risk Factor Surveillance System (BRFSS)	

Fifty-eight percent of Oregon eighth-graders report engaging in the minimum amount of physical activity recommended by CDC, which has not changed over the past decade (Figure 2).



In 2015, boys were more likely than girls to meet the CDC physical activity recommendation, and those of a healthy weight were more likely to meet the recommendation compared with those who are obese (Figure 3).

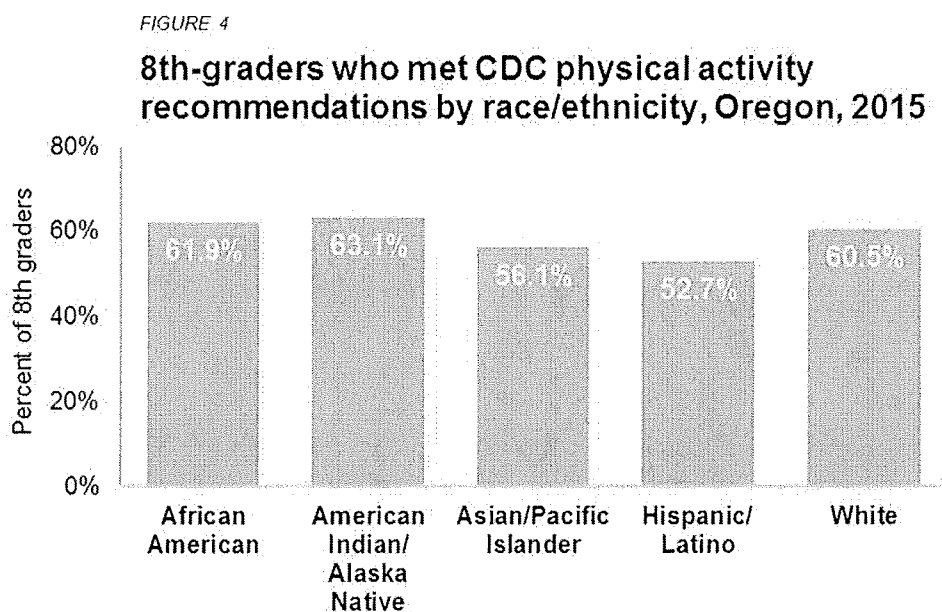
**FIGURE 3**  
**8th-graders who meet CDC physical activity recommendation by sex and body weight status, Oregon, 2015**

	Percent
<b>All 8th graders</b>	<b>58.0%</b>
<b>Sex</b>	
Female	49.8%
Male	66.5%
<b>Body weight status</b>	
Healthy weight	62.3%
Overweight	54.8%
Obese	52.3%

Source: Oregon Behavioral Risk Factor Surveillance System (BRFSS)



Hispanics (52.7%) and Asian/Pacific Islanders (56.1%) were less likely to meet the CDC physical activity recommendation compared to whites (60.5%), African Americans (61.9%), and American Indian/Alaska Natives (63.1%; Figure 4).



Notes: All other groups exclude Hispanic ethnicity  
 Source: Oregon Healthy Teens Survey

Increasing physical activity in both adults and youth is necessary to address the obesity epidemic, and the many chronic health conditions that are linked to obesity.

**Additional Resources:** [2012 Oregon Overweight, Obesity, Physical Activity and Nutrition Facts](#)

**About the Data:** Data sources are the Oregon Behavioral Risk Factor Surveillance Systems (BRFSS) for adults and the Oregon Healthy Teens Survey (OHT) for youth. BRFSS is a telephone survey conducted annually among non-institutionalized adults age 18+. Since 2010, the Oregon BRFSS data have included cell phone respondents as well as those reached by landline, and data weighting methods have changed. Therefore, caution should be used in interpreting changes over time. OHT is a pencil and paper or online survey conducted every two years among Oregon 8<sup>th</sup> and 11<sup>th</sup> graders within schools. Physical activity is measured by meeting the CDC recommendations.

In 2008, the CDC updated the recommendations for physical activity for adults. The CDC now recommends that adults be moderately active for greater than or equal to ( $\geq$ ) 150 minutes per week, or vigorously active for  $\geq$ 75 minutes per week (or equivalent combination), and participate in muscle strengthening activities on  $\geq$ 2 days per week.

The CDC recommends that adolescents be physically active for  $\geq 60$  minutes per day on most days of the week, preferably daily. The data presented above indicates the percentage of youth who are physically active for  $\geq 60$  minutes per day on  $\geq 5$  days of the week. In 2008, CDC also recommended that adolescents include muscle- and bone- strengthening activities  $\geq 3$  days per week as part of their 60 minutes of physical activity. However, the data presented here does not distinguish between activity types.

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## Oregon Population-Based Immunization Rates

	2008	2009(a)	2010	2011	2012	2013	2014	2015
<b>Two Year Olds Up-to Date Rate (1)</b>								
4:3:1 (b)	76%	75%	73%	74%	76%	74%	79%	82%
4:3:1:3 (c)	73%	65%	71%	73%	75%	73%	78%	81%
4:3:1:3:3 (d)	70%	62%	68%	69%	71%	69%	73%	76%
4:3:1:3:3:1 (e)	68%	60%	66%	68%	69%	68%	72%	75%
4:3:1:3:3:1:4 (f)	63%	56%	63%	62%	61%	58%	65%	70%
4 doses DTaP	77%	76%	75%	77%	79%	77%	81%	84%
3 doses IPV	91%	89%	89%	89%	92%	89%	92%	94%
1 dose MMR	91%	88%	87%	88%	89%	89%	92%	94%
3 doses Hib	88%	79%	90%	92%	93%	91%	92%	93%
3 doses HepB	89%	86%	85%	85%	87%	85%	88%	89%
1 dose Varicella	89%	87%	85%	86%	87%	87%	90%	91%
4 dose PCV	78%	76%	78%	76%	74%	70%	77%	82%
1 dose HepA	**	86%	85%	87%	89%	89%	91%	92%
3 dose Rotavirus	13%	38%	54%	59%	65%	67%	71%	72%
1 dose Flu (in most recent season)	33%	39%	39%	41%	47%	**	61%	57%
Women, Infants and Children (WIC) Clients (g)	**	**	68%	70%	72%	72%	74%	76%
Non-WIC Clients	**	**	65%	65%	65%	62%	70%	74%
Enrolled in DMAP (h)	**	**	70%	71%	74%	72%	75%	76%
Not enrolled in DMAP	**	**	64%	65%	65%	63%	69%	73%
One or more VFC vaccines (i)	**	**	70%	70%	72%	72%	75%	76%
No VFC vaccines	**	**	62%	65%	66%	62%	68%	72%
Hispanic (j)	80%	74%	77%	81%	84%	72%	79%	81%
White (j)	68%	60%	66%	68%	69%	64%	70%	74%
African American (j)	65%	58%	66%	67%	68%	67%	67%	70%
Asian (j)	70%	66%	71%	70%	74%	71%	78%	79%
American Indian and Alaskan Native (j)	74%	62%	64%	67%	71%	70%	68%	70%
Hawaiian/Pacific Islander (j)	**	**	58%	56%	61%	61%	63%	67%
Multiple Race (j)	**	**	66%	65%	72%	72%	77%	73%
Other/Unknown (j)	49%	50%	72%	73%	61%	55%	53%	73%

\* In accordance with Oregon Public Health Division confidentiality policy, immunization rates above 95% are suppressed so as to prevent the possible identification of individuals.

\*\* Estimate unavailable

(1) SOURCE: ALERT Immunization Information System, Oregon Immunization Program, DHS  
Two year olds are children 24 to 35 months of age.

(a) 2009 rates were recalculated in 2011 to reflect current methodology. Most changes were within the 95%

(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 vaccine

(g) 4:3:1:3:3:1 series. WIC inclusion for rates is based on any enrollment length by age two

(h) 4:3:1:3:3:1 series. DMAP inclusion for rates is based on at least one year enrollment starting by age one

(i) 4:3:1:3:3:1 series.

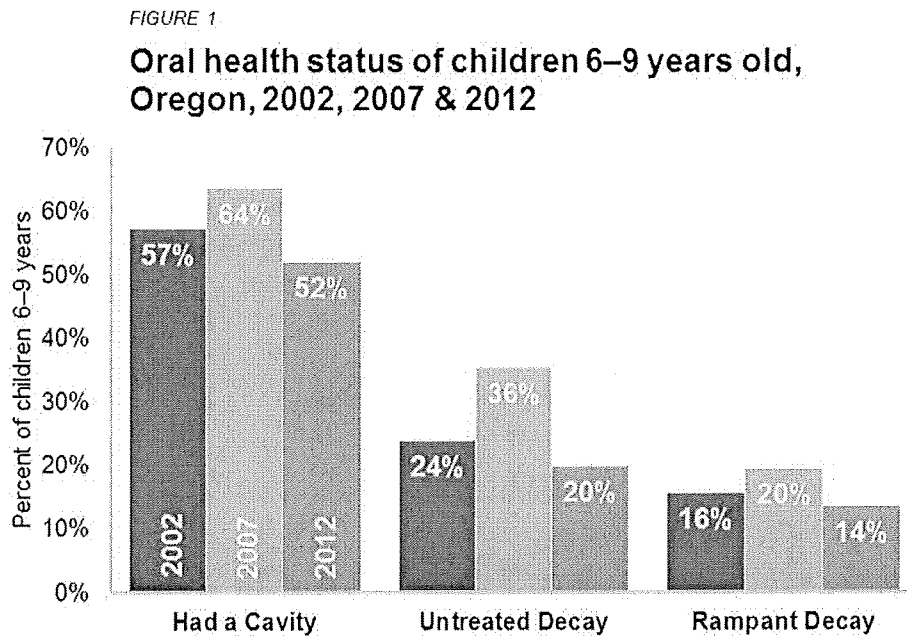
(j) 4:3:1:3:3:1 series. In 2010, race categorization was changed to reflect multiple rather than single race identifications, Hawaiian/Pacific Islander was distinguished from Asian, and "Other Race" was included. Starting in 2012, a proportion of those claiming multiple races are redistributed according to the deterministic NHIS fractions method to more equitably represent primary racial identity. In 2013, Hispanic was made independent of other races and Non-Hispanic was removed.

*Maternal and Child Health*

# Tooth decay

Despite being preventable, tooth decay (cavities) is one of the most common oral health conditions of childhood in the United States. Tooth decay in children may cause pain and lead to infection. Left untreated, tooth decay often has serious consequences that can negatively affect a child’s development and school performance. It can lead to diminished growth, social development, nutrition, speech development, and overall general health. Children with poor oral health have worse academic performance and are nearly three times more likely to miss school as a result of dental pain<sup>1</sup>. Over time, dental decay can become severe enough to require costly emergency treatment.

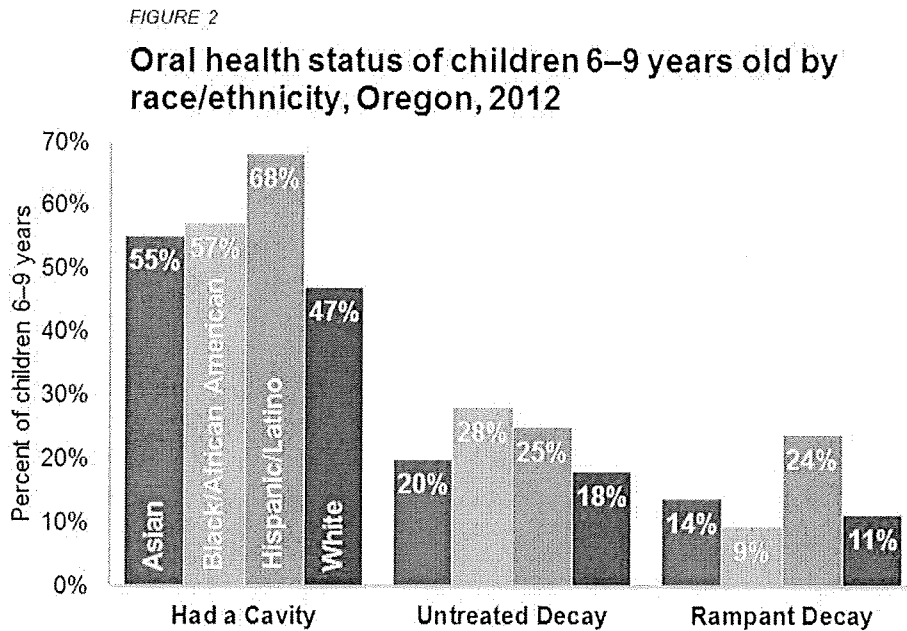
The oral health of Oregon’s school-age children worsened between 2002 and 2007 when the prevalence of cavities, untreated tooth decay and rampant decay all increased in children 6 to 9 years old (Figure 1). In 2012 there were improvements in all three measures, showing rates similar to those seen in 2002.



Source: Oregon Smile Survey, 2002, 2007 and 2012

<sup>1</sup>Jackson SL, VannWilliam F Jr, Kotch JB, Pahel BT, Lee JY. Impact of poor oral health on children’s school attendance and performance. American Journal of Public Health. 2011;101(10):1900-1906.

While improvements generally have been made between 2007 and 2012, there are substantial disparities in oral health for Oregon’s children based on geographic residence, household income, and race and ethnicity. Hispanic/Latino children have substantially higher rates of cavities, untreated decay, and rampant decay compared to white children, while Black/African American children have higher rates of untreated decay (Figure 2).



Source: Oregon Smile Survey 2012.

Concerted efforts, including limiting consumption of sugary drinks and snacks, improving oral hygiene, screening for and treatment of decay, increasing preventive interventions such as dental sealants and fluoride varnish, and water fluoridation are needed to address this important public health issue.

**Additional Resources:** [Oregon Smile Survey, 2012 Report](#)

**About the Data:** Data source is the Oregon Smile Survey which is done every five years (2002, 2007 and 2012). Trained dental hygienists screen children in 1st, 2nd and 3rd grades from a statewide representative sample of elementary schools in Oregon. Oral screening includes: 1) any cavities in primary or permanent teeth that are treated or untreated (health status); 2) untreated tooth decay in primary or permanent teeth (access); 3) decay in >7 teeth that is treated or untreated (severity).

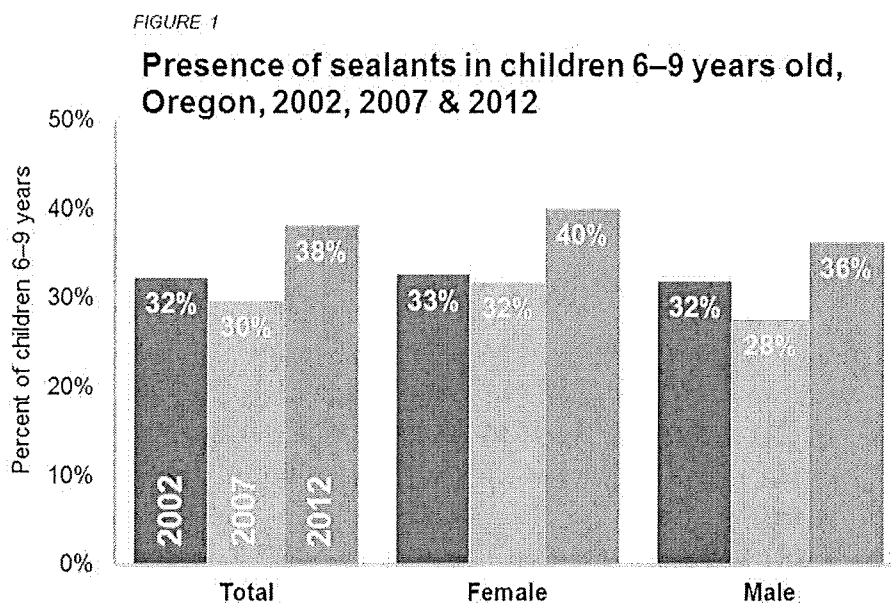
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*Maternal and Child Health*

## Dental sealants

Dental sealants are thin liquid coatings applied to the chewing surfaces of the back molar teeth to prevent tooth decay (cavities). The coating flows into the deep pits and grooves of the tooth “sealing out” bacteria and food debris that cause cavities. This highly effective, safe and low-cost intervention prevents about 50%–80% of decay in the treated teeth for at least 2 years, and protection lasts for about nine years<sup>1</sup>. When permanent molars begin to develop in first and second grades, children should get dental sealants at a dental visit or from a school dental sealant program. Children should get sealants again when the next permanent molars begin to develop in sixth and seventh grades.

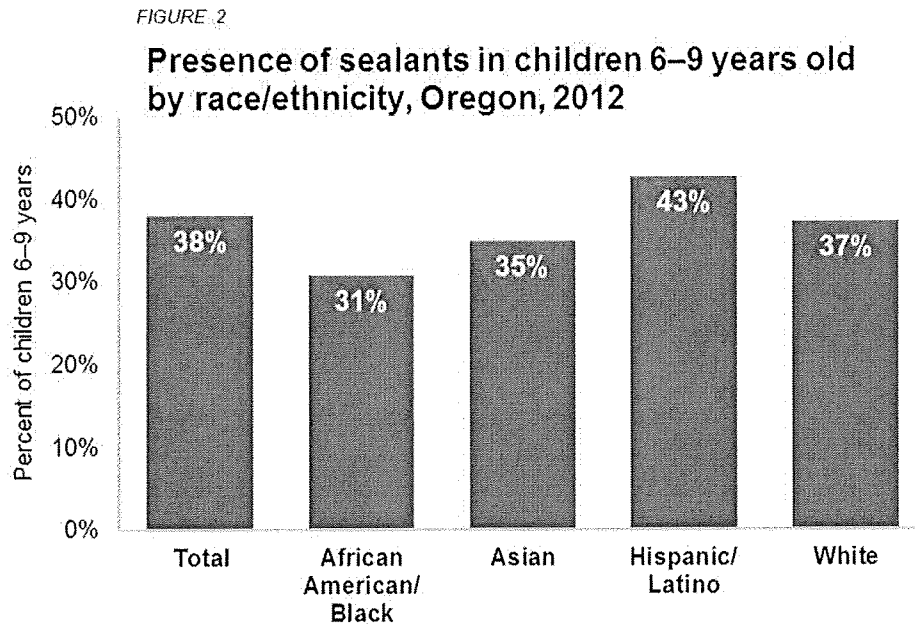
The number of Oregon’s school-age children receiving dental sealants increased from 2002 to 2012, with a slight decrease in 2007 (Figure 1). In 2012, 38% of 6- to 9-year-old children had dental sealants, representing about 48,000 children in 1st to 3rd grades. Oregon has already surpassed the Healthy People 2020 target for dental sealants for 6- to 9-year-olds.



Source: Oregon Smile Survey, 2002, 2007 and 2012

<sup>1</sup> <http://www.thecommunityguide.org/oral/supportingmaterials/RRschoolsealant.html>

Substantial oral health disparities exist for Oregon’s children based on geographic residence, household income, and race and ethnicity. Children from low-income families and certain racial and ethnic populations are at higher risk for tooth decay, but do not receive dental sealants that protect against cavities at the same level as higher-income children or white children (Figure 2).



Source: Oregon Smile Survey, 2012.

To help eliminate disparities, interventions such as school-based dental sealant programs are recommended since they can reach children from low-income families who are less likely to receive private dental care. During the 2015-16 school year, 88% of eligible elementary schools and 65% of eligible middle schools were being served by a school dental sealant program<sup>2</sup>.

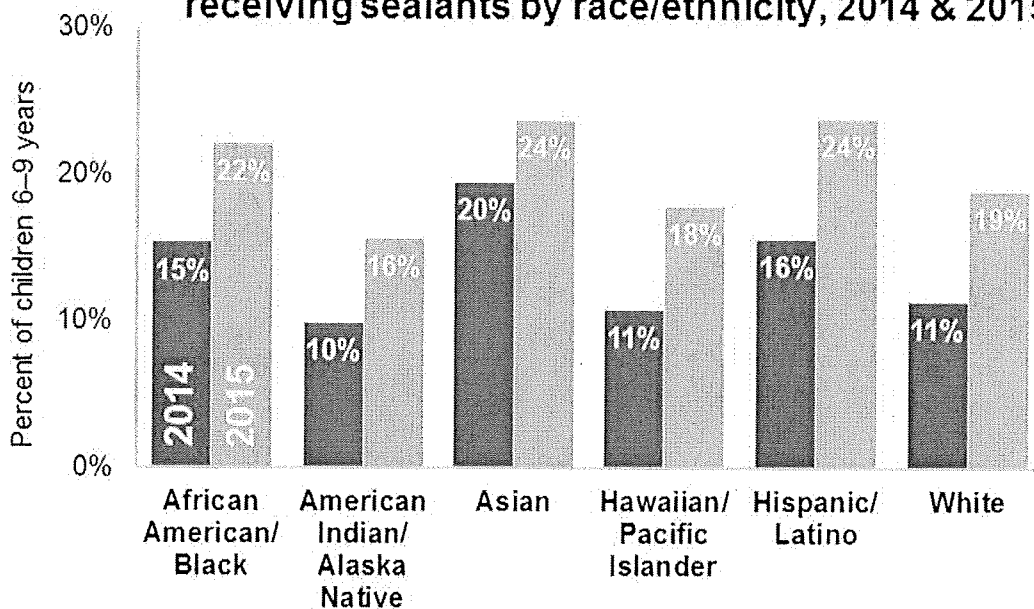
In Oregon, concerted efforts are being made to increase dental sealants for our Medicaid population. The percent of children ages 6-14 who received a dental sealant on a permanent molar in the past year increased 65% since 2014<sup>3</sup>. While increases have been observed across all racial and ethnic populations from 2014 to 2015, disparities continue to exist (Figure 3).

<sup>2</sup> Oregon Health Authority, Oral Health Unit.

<sup>3</sup> Oregon Health Authority. Oregon's health system transformation: CCO metrics 2015 final Report. June 2016.

FIGURE 3

**Children age 6–9 years on Oregon Health Plan receiving sealants by race/ethnicity, 2014 & 2015**



Source: Oregon Health Authority, CCO Metrics 2015 Final Report

**Additional Resources:** [2012 Smile Survey CCO Dental Sealants Metric Report](#)

**About the Data:** Data source is the Oregon SMILE Survey which is done every five years (2002, 2007 and 2012). Trained dental hygienists screen children in 1st, 2nd and 3rd grades from a statewide representative sample of elementary schools in Oregon. Oral screening includes: 1) any cavities in primary or permanent teeth that are treated or untreated (health status); 2) untreated tooth decay in primary or permanent teeth (access); 3) decay in >7 teeth that is treated or untreated (severity). Dental sealants is a new incentive measure for OHP CCOs beginning in 2015. Data source for CCO metrics are administrative (billing) claims. These numbers reflect children receiving new sealants and does not include those that are not candidates for sealants (e.g., those already sealed, not yet erupted, or with active decay).

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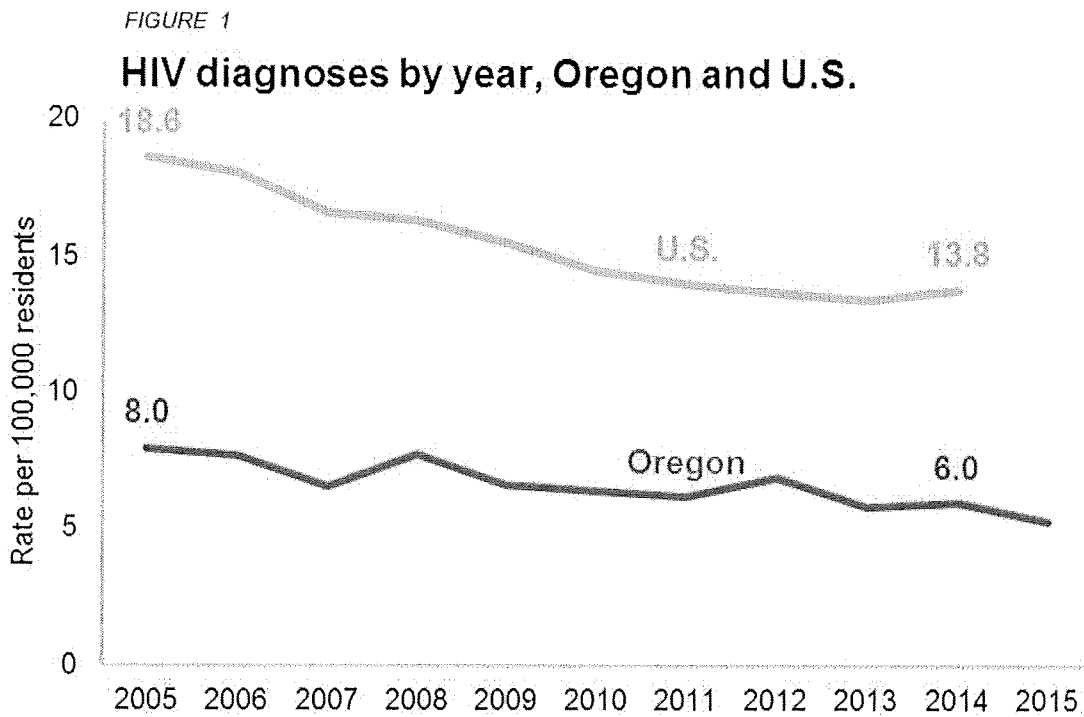


*Illness & Injury*

# HIV infection

The Human Immunodeficiency Virus (HIV) causes AIDS, a potentially fatal, blood-borne and sexually transmitted disease. It disproportionately affects sexual, racial and ethnic minority groups.

Oregon rates are approximately one third U.S. rates and have declined gradually since 2005 (Figure 1), likely due to increases in screening and early detection and improvements in treatment effectiveness that led to reduced HIV transmission.

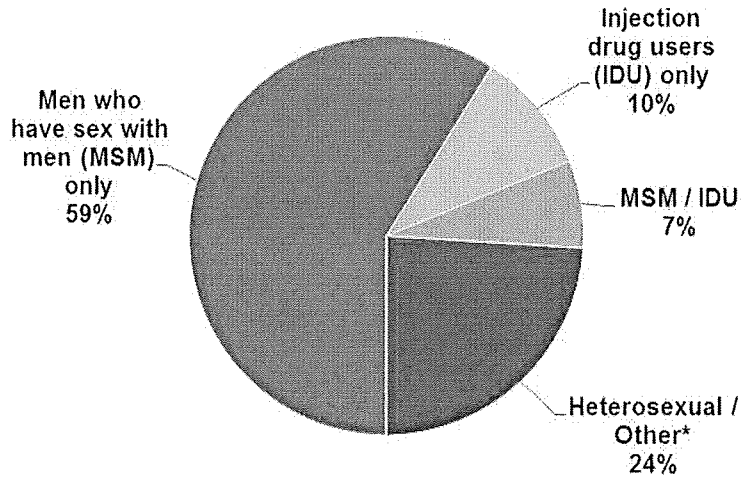


Notes: 2015 U.S. data are not available  
 Source: Oregon Reportable Diseases Database and CDC (U.S. data)

New HIV cases continue to be diagnosed, predominantly among men who have sex with men (MSM; Figure 2). Only 9% of new diagnoses occurred in women during 2015.

FIGURE 2

### Newly diagnosed HIV infection by likely mode of transmission, Oregon, 2015



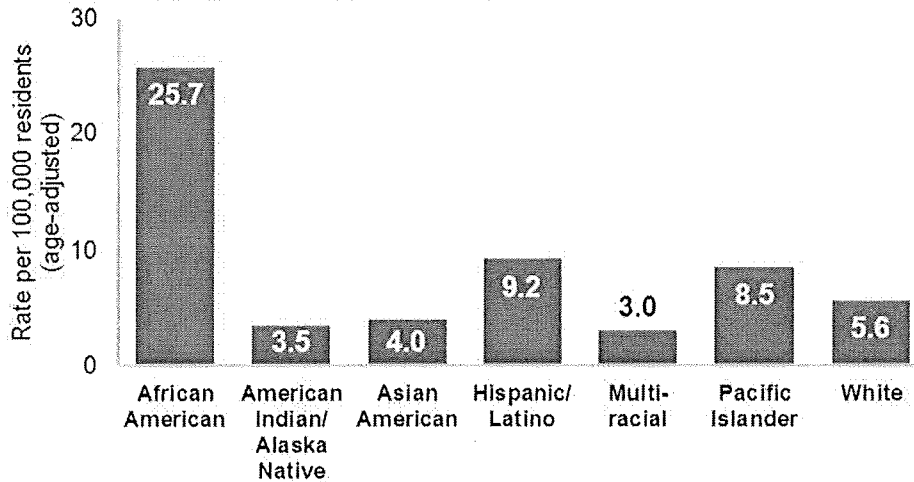
\*Includes cases for which no other known risk factor was collected

Source: Oregon Reportable Diseases Database

African Americans have the highest rate of new HIV infection among all race/ethnicity groups in Oregon (Figure 3).

FIGURE 3

### HIV diagnoses by race/ethnicity, Oregon, 2011–2015 average



Notes: All other groups exclude Hispanic ethnicity

Source: Oregon Reportable Diseases Database

Efforts to address transmission need to continue to focus on MSM as well as those persons who inject drugs (IDU). All adults aged 15 to 65 years should be tested at

least once for HIV, and up to 4 times a year for people at highest risk. Pre-exposure prophylaxis (PrEP) is a relatively new option for preventing HIV. PrEP involves taking a combination of anti-HIV drugs in a single daily pill to reduce the chance of acquiring HIV from an infected sex partner or someone with whom one shares needles for injecting drugs. People with a higher than usual likelihood of acquiring HIV infection, including some men who have sex with men and have already had one or other sexually transmitted infections, can reduce their chances of acquiring HIV by taking PrEP under the supervision of a health care provider.

**Additional Resources:** [Oregon HIV Surveillance data](#); [CDC HIV Surveillance Report](#)

**About the Data:** Data sources are the Oregon Reportable Diseases Database and CDC (U.S. data). Data are derived from mandatory case reporting by licensed health care providers and clinical laboratories. Data include all cases of laboratory confirmed human immunodeficiency virus infections in Oregon residents. Population estimates used in calculating rates are from the National Center for Health Statistics (NCHS).

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**Date Updated:** August 1, 2016

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