

# 2014 Report Card on Racial and Ethnic Disparities

December 2014



# Letter from the Director

The Multnomah County 2014 Report Card on Racial and Ethnic Disparities report presents a devastating picture of racial and ethnic health disparities in our county. While the report focuses on numbers, it is important to remember that these are not just numbers. The numbers represent lives—our own lives as well as the lives of siblings, parents, co-workers, children, aunts, uncles, friends, and neighbors to all of us.

The report highlights that all communities of color in Multnomah County experience disparities in areas critical to leading healthy, happy, and productive lives. Despite medical advances, rigorous public health practices, and a wide range of community-based efforts, communities of color experience a serious and sobering number of disparities. These differences are unfair, unacceptable, and affect the well-being of individuals and the entire county.

Monitoring and reporting on the health of the community is a core Health Department function. We present this comprehensive report in order to broaden understanding of the health of our communities and to further our collective work to address these disparities.

Although the report focuses on poor outcomes, Multnomah County recognizes that these communities also possess myriad strengths and remarkable resilience. The Health Department is committed to working with communities to build on those strengths.

The Health Department will work to reduce inequity in all forms by joining with community partners, engaging communities in a meaningful way, and changing our policies and practices to achieve our vision of healthy people in healthy communities. But we cannot do this work alone.

Closing these disparities requires improving policy, practices and service delivery across sectors including economic development, employment, school success, social service supports, urban planning, and environmental health. Addressing these entrenched problems will require our combined efforts over a sustained period. We must put the full weight of our collective community effort to bear.

I believe we can do this.

Thank you to Chair Deborah Kafoury and to the Multnomah County Board of Commissioners for your forward thinking policy and commitment to driving for change.

Thank you to our community partners for your willingness to work with your local government to create health in all of our communities.

Thank you to all the staff of the Multnomah County Health Department who created this report and brought their hearts, as well as their minds, to the work.

Sincerely,



Joanne Fuller M.S.W.  
Health Department Director

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## Author's Note

Multnomah County Health Department recognizes that race is a social construct, that there is diversity within “racial” groups, and that race categories change over time. Though racial and ethnic categories cannot adequately represent the complexity of racial and ethnic identity, they are necessary to do this type of analysis.

These groupings of mutually exclusive categories allow for comparisons to be made more easily across racial and ethnic groups. Aggregation in these larger categories may mask serious disparities in sub-groups within the larger categories. It is important to continue to analyze disaggregated data to uncover hidden disparities.

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We hope this report is a useful resource. We encourage your comments and suggestions for improving this work. Please contact us with questions or feedback, and to let us know how you use this information.

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The full report *2014 Report Card on Racial and Ethnic Disparities* can be found at [www.multco.us/health](http://www.multco.us/health)

# Report Card on Racial & Ethnic Disparities: Executive Summary

“Healthy people in healthy communities” is the vision of the Multnomah County Health Department. In partnership with the communities we serve, the Health Department seeks to assure, promote and protect the health of *all* people in the county in order to realize this vision.

One core function of a health department is monitoring and reporting information on the health of the community in order to identify and address health problems. In doing so, it is important to recognize that a person’s health status is shaped by more than genetics and behavior choices. Health status is also shaped by other health factors, including the social, economic, and environmental conditions where we live, work, learn, and play.

The goal of this report is to provide a comprehensive analysis of local data on racial and ethnic disparities in health and health factors. These disparities translate into more illness and disability, shorter life spans, and lost opportunities that put specific populations and the entire county at a disadvantage.

Examining racial and ethnic disparities is critical, given that research has shown the negative impact racism has on health independent of genetics, behavior, community characteristics, and socio-economic factors. Racism in all its forms—at the institutional and the individual levels—is a fundamental cause of racial and ethnic disparities.

The current analysis is needed to guide a broad array of essential public health activities for the Health Department and its partners, such as planning services, developing and evaluating interventions, and setting policy priorities. The Health Department is committed to working collectively with partners across sectors to invest in addressing the health disparities highlighted in this report and their root causes.

## What is different about this report?

Although this is the fifth release of a racial and ethnic health disparities report for Multnomah County, it is the first report to look at health disparities more broadly. Whereas previous reports focused on measures of health conditions and deaths, this report highlights some measures of the underlying causes of health outcomes including clinical care, health behaviors, social and economic conditions, as well as the physical environment.

## Overview of Analysis and Methods

This report presents comparisons between five racial and ethnic groups—non-Latino Whites, non-Latino Black/African Americans, non-Latino Asian/Pacific Islanders, non-Latino American Indian/Alaska Natives, and Latinos—for 33 indicators.

Analysts calculated a disparity ratio for each indicator except the two that focus on the physical environment. Disparity ratios are calculated by dividing the measure (i.e., prevalence, incidence rate, mortality rate) for each community of color by the measure for the non-Latino White population. A disparity ratio of one means the measure for the community of color is the same as for non-Latino Whites. Analysts tested whether the disparity ratios were significantly different than one. *Significantly* means that statistical tests indicated that the difference in measures between groups was likely *not* due to chance.

Because some communities of color in Multnomah County are relatively small, it can be difficult to detect significant differences in measures with statistical tests, even when a real difference exists. Therefore, in some cases another method was used to identify potential disparities. When a disparity ratio was greater than one, but did not reach statistical significance,

analysts looked at trends in Multnomah County over time (when available), [Oregon's State of Equity Report](#)<sup>1</sup>, or other available analyses (e.g., Behavioral Risk Factor Surveillance System Race Oversample) for additional evidence of a disparity. Disparities were then categorized as described in Table 1 below.

In addition, if trend data were available, statistical tests were conducted to determine if the rates changed significantly over time within racial and ethnic groups, and the trends were described.

For the physical environment indicators, analysts could not calculate a disparity ratio in the same way as the other 31 indicators, but used a similar approach. For the two physical environment indicators, analysts calculated a *geographic disparity ratio* by dividing the summary measure for each group of census tracts having more than 15% of the population identifying as a particular community of color by the measure for the group of census tracts with at least 90% of the population identifying as non-Latino White. Geographic disparity ratios of 1.1 or greater were considered a disparity and are depicted with checkerboard blue boxes as shown in Table 1.

**Table 1: Definitions for Levels of Concern for Disparities Identified in This Report for All Indicators Except the Physical Environment Indicators**

Level of Concern	Definition
<b>Requires Intervention: Identified through statistical significance</b>	The analyses of these indicators showed disparities between the community of color and the non-Latino White population. The disparity ratio was 2.0 or greater and was statistically significantly greater than 1. These disparities are high priorities for policy, systems, and/or environmental change interventions.
<b>Needs Improvement: Identified through statistical significance</b>	The analyses of these indicators showed disparities between the community of color and the non-Latino White population. The disparity ratio was between 1.1 and 1.9 and was statistically significantly greater than 1. These disparities have the potential to worsen and may require intervention.
<b>Needs Improvement: Identified by local trends over time and/or disparities at the state level</b>	The analyses of these indicators suggested disparities between the community of color and the non-Latino White group. Though the disparity ratio was 1.1 or greater, it was not statistically significantly different from 1. However, there was a consistent trend of the community of color faring more poorly than non-Latino Whites over time and/or there was a significant disparity for the population at the state level. These disparities have the potential to worsen and may require intervention.
<b>No Disparity Detected</b>	The disparity ratio comparing the group of color to non-Latino Whites shows little or no difference between the two groups. For some indicators, communities of color fared better than non-Latino Whites as represented by a disparity ratio of less than 1.0. Disparity ratios that are statistically significantly less than 1 are marked with an asterisk (*).
<b>Geographic disparity detected</b>	The analyses of these indicators suggested a disparity between census tracts with 15% or more of a community of color and census tracts with at least 90% non-Latino White. The geographic disparity ratio was greater than 1.1

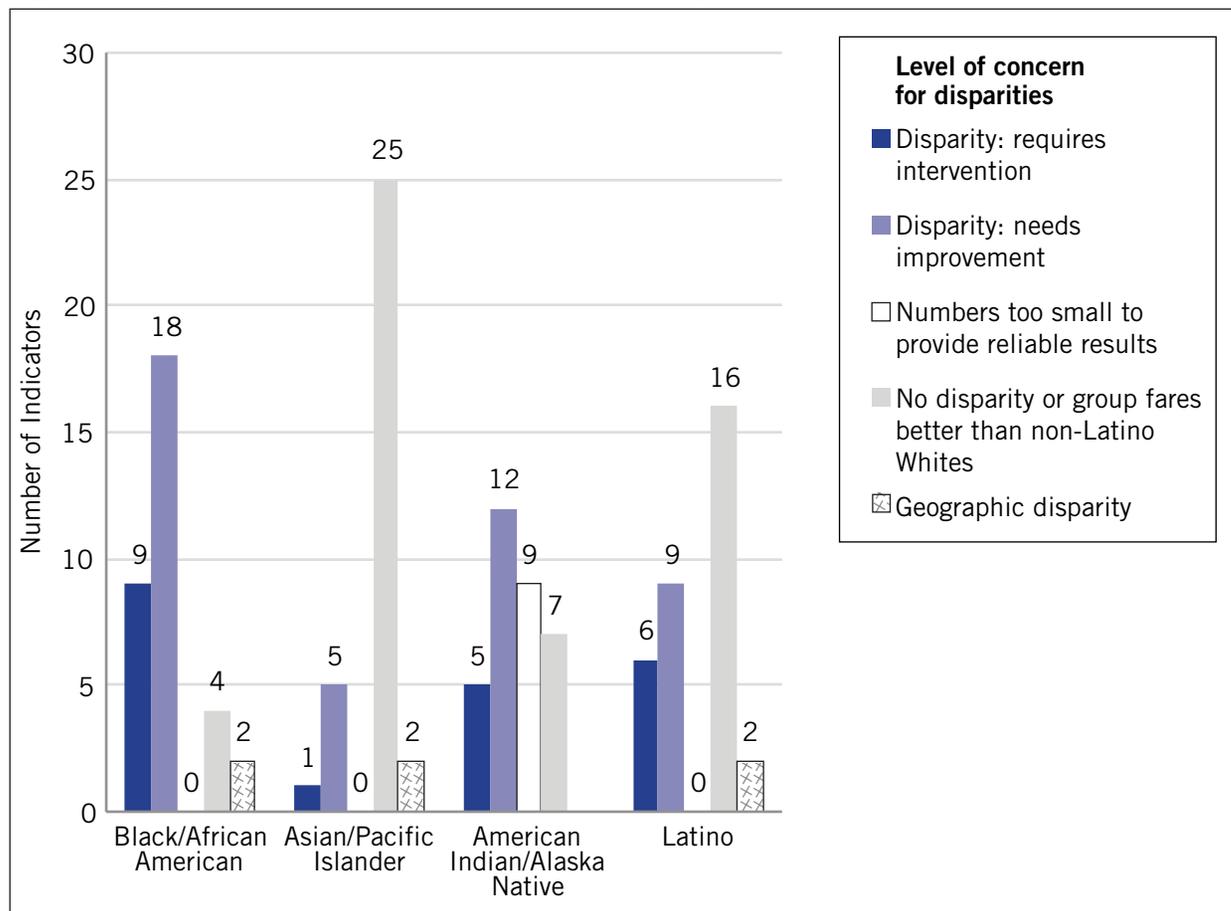
<sup>1</sup> Oregon Health Authority. (2013, September). *Office of Equity and Inclusion*. Retrieved November 9, 2013, from Oregon.gov: <http://www.oregon.gov/oha/oei/Documents/soe-report-ph2-2013.pdf>

## Summary of Findings

In Multnomah County, all racial and ethnic groups examined in this report experienced some disparities relative to their non-Latino White counterparts (Figure 1). A striking number of disparities exist for Black/African Americans and American

Indian/Alaska Natives. Numerous disparities also exist for Latinos and Asian/Pacific Islanders, but those communities also fared better than non-Latino Whites for some indicators.

**Figure 1: Type and Number of Disparities Identified by Communities of Color, Multnomah County**



## Physical Environment

Table 2, below, summarizes the findings for the physical environment section. This section of the report explores data on characteristics of the *census tracts* where people live, rather than on health behaviors or individual health outcomes as the other indicators do. Looking at census tract characteristics allows us to more thoroughly describe the environments in which different populations of color live, as well as to consider these factors in context of the other disparities discussed in this report.

A major shortcoming of the methodology used is that no census tract had more than 15% of the population identifying as American Indian/Alaska Native, so analysts were unable to include the group in this analysis. The three communities of color that could be included in these analyses experienced disparities for both the air quality and the retail food environment indicators.

**Table 2: Identified Geographic Disparities: Communities of Color\* as Compared to Non-Latino Whites\*\***

INDICATORS	Census Tract Grouping				
	non-Latino White	Black/African American, alone or in combination	Asian/Pacific Islander, alone or in combination	American Indian/Alaska Native, alone or in combination	Latino, all races
<b>Physical Environment Factors</b>					
2017 Modeled diesel particulate matter (DPM)	reference			--	
Ratio of less healthy food retail outlets to healthier retail food outlets (Retail Food Environment Index - RFEI)				--	
*Census tracts with at least 15% of the total tract population identifying as Black/African American, Asian/Pacific Islander, or Latino either alone or in combination with another race or ethnicity.					
**Census tracts with at 90% of the total tract population identifying as non-Latino White.					
	A geographic disparity ratio of 1.1 or greater was detected.				
--	No census tracts have more than 15% of the population identifying as American Indian/Alaska Native so analysts were unable to include the group in this analysis				

**Footnotes to table:**

State of Oregon Department of Environmental Quality, Portland Air Toxics 2017 Modeling Study, 2006

Produce markets, farmers markets, and convenience stores reported to Oregon Department of Agriculture in January 2014 or listed on Oregon Farmers Market website April 2014. In: Built Environment Atlas: Active Living, Healthy Eating, Multnomah County, Oregon, 2011

## All Other Indicators

Table 3 details which communities of color experienced disparities for the other 31 indicators, as well as the level of concern for those disparities. All communities of color examined for this report experienced a disparity at either the *needs improvement* or *requires intervention* level for the following indicators:

- › Students not meeting third-grade reading standards
- › Adults with a high school education or less
- › First trimester prenatal care
- › Homicide (Three groups had disparities; the number of cases was too small to provide reliable results for non-Latino American Indian/Alaska Natives.)

**Table 3: Level of Concern for Identified Disparities: Communities of Color as Compared to Non-Latino Whites**

INDICATORS	non-Latino White	non-Latino Black/African American	non-Latino Asian/Pacific Islander	non-Latino American Indian/Alaska Native	Latino
<b>Social and Economic Factors</b>					
Children under age 18 in poverty <sup>1</sup>	reference				
Children that live in single-parent household <sup>1</sup>					
Students not meeting third-grade reading level standards <sup>2</sup>					
Ninth-grade cohort that did not graduate high school in 4 years with a regular diploma <sup>3</sup>		*			
Adults aged 25+ with high school education or less <sup>1</sup>					
Population age 16+ unemployed, but seeking work <sup>1</sup>					
<b>Health Factors - Health behaviors</b>					
Adults reporting current cigarette smoking <sup>4</sup>	reference				
Adults reporting a BMI $\geq$ 30 (obese) <sup>4</sup>					
Adults reporting no physical activity outside of work <sup>4</sup>					
Teen birth rate per 1,000 female population, ages 15-19 <sup>5</sup>		*			

**Table 3: Level of Concern for Identified Disparities: Communities of Color as Compared to Non-Latino Whites (continued)**

INDICATORS	non-Latino White	non-Latino Black/African American	non-Latino Asian/Pacific Islander	non-Latino American Indian/Alaska Native	Latino
<b>Health Factors - Clinical care</b>					
Adults without health insurance <sup>4</sup>	reference				
Mothers not accessing 1 <sup>st</sup> trimester prenatal care <sup>5</sup>					
Children in grades 1-3 with untreated tooth decay <sup>6</sup>				--	
Hospitalization rate for ambulatory-care sensitive conditions per 1,000 adults 18 years and older <sup>7</sup>			*		*
<b>Health Outcomes - Morbidity</b>					
Adults reporting fair or poor health <sup>4</sup>	reference				
Adults with any incapacity last 30 days due to physical or mental health <sup>4</sup>					*
Adults reporting mental health not good in 2 of the past 4 weeks <sup>4</sup>					
Gonorrhea rate per 100,000 population <sup>8</sup>			*		
Human Immunodeficiency Virus (HIV) rate per 100,000 population <sup>9</sup>				--	
Live births with low birthweight (< 2500 grams) <sup>5</sup>					

	<b>Requires intervention - statistically significant disparity (2.0+ disparity ratio)</b>	<b>* Significantly better than non-Latino Whites</b>
	<b>Needs improvement - statistically significant disparity (1.1-1.9 disparity ratio)</b>	<b>^Does not include Pacific Islanders with Asians</b>
	<b>Needs improvement - disparity ratio 1.1+, did not reach statistical significance, but community consistently fared more poorly over time, or a disparity at the state level exists</b>	<b>--Numbers too small to provide reliable results</b>
	<b>No disparity or group fares better than non-Latino White</b>	

**Table 3: Level of Concern for Identified Disparities: Communities of Color as Compared to Non-Latino Whites (continued)**

INDICATORS	non-Latino White	non-Latino Black/ African American	non-Latino Asian/ Pacific Islander	non-Latino American Indian/Alaska Native	Latino	
<b>Health Outcomes - Mortality</b>						
Years of Potential Life Lost (YPLL) before age 65 rate per 100,000 population <sup>5</sup>	reference		*		*	
Infant mortality rate per 1,000 births <sup>10</sup>						
Coronary heart disease mortality rate per 100,000 population <sup>5</sup>			*		*	
Stroke mortality rate per 100,000 population <sup>5</sup>						
Diabetes mortality rate per 100,000 population <sup>5</sup>				--		
All cancer mortality rate per 100,000 population <sup>5</sup>			*		*	
Lung cancer mortality rate per 100,000 population <sup>5</sup>			*		*	
Female breast cancer mortality rate per 100,000 population <sup>5</sup>			*	--	*	
Colorectal cancer mortality rate per 100,000 population <sup>5</sup>			*	--	*	
Prostate cancer mortality rate per 100,000 population <sup>5</sup>			*	--		
Homicide rate per 100,000 population <sup>5</sup>					--	

	<b>Requires intervention - statistically significant disparity (2.0+ disparity ratio)</b>	<b>* Significantly better than non-Latino Whites</b>
	<b>Needs improvement - statistically significant disparity (1.1-1.9 disparity ratio)</b>	<b>^Does not include Pacific Islanders with Asians</b>
	<b>Needs improvement - disparity ratio 1.1+, did not reach statistical significance, but community consistently fared more poorly over time, or a disparity at the state level exists</b>	<b>--Numbers too small to provide reliable results</b>
	<b>No disparity or group fares better than non-Latino White</b>	

**Footnotes to Table—Data Years and Sources:**

<sup>1</sup> 2006-2010 American Community Survey, U.S. Census Bureau

<sup>2</sup> 2011-2012 Portland State University Analysis of Oregon Department of Education data

<sup>3</sup> 2010-2011 Oregon Department of Education

<sup>4</sup> 2010-2011 Oregon Behavioral Risk Factor Surveillance System Race Oversample

<sup>5</sup> 2007-2011 Center for Health Statistics, Oregon Health Authority

<sup>6</sup> 2012 Oregon Smile Survey, Oregon Health Authority

<sup>7</sup> 2010-2011 Hospital Discharge Data, Oregon Healthcare Enterprises

<sup>8</sup> 2007-2011 HIV/STD/TB Program, Oregon Health Authority

<sup>9</sup> 2008-2013 HIV/STD/TB Program, Oregon Health Authority

<sup>10</sup> 2007-2011 Oregon linked birth and death certificates from Center for Health Statistics, Oregon Health Authority

## Results by Community of Color *(as shown in Tables 2 and 3)*

### Non-Latino Black/African American

Black/African Americans experienced the greatest number of disparities with the highest level of concern relative to other communities of color. As shown in Figure 1, of the 33 indicators examined in this report, Black/African Americans experienced disparities for nine indicators that *require intervention* and 18 indicators that *need improvement*. There were only four indicators where a disparity was not detected. There were no indicators where the group fared significantly better than the non-Latino White comparison group.

Black/African Americans experienced a geographic disparity for each of the physical environment indicators.

### Specific Findings

- › Black/African Americans experienced disparities for each of the indicators in the social and economic category. Four of the six *require intervention*. Specifically, the group was almost four times as likely to have children living in poverty, more than twice as likely to have children living in single-parent households and to have children not meeting third-grade reading standards, and twice as likely to be unemployed (age 16 and over) compared to non-Latino Whites.
- › Black/African Americans also fared poorly for three of the four health behavior categories, with cigarette use and obesity at the *needs improvement* level, and teen birth rates at the *requires intervention* level. Although the birth rates among Black/African American teens have decreased significantly since 1998, the group remains almost two and a half times more likely to give birth than their non-Latino White counterparts.
- › Black/African Americans experienced disparities in all four clinical care indicators. Adults without health insurance, first trimester prenatal care, children with untreated tooth decay, and preventable hospitalization rates all were at the *needs improvement* level.
- › Black/African Americans fared poorly for four of the six morbidity indicators, particularly for gonorrhea, which *requires intervention*. The incidence of gonorrhea in Black/African Americans was seven times higher than in non-Latino Whites, and had not changed significantly since 2000.
- › Black/African Americans fared particularly poorly on 10 of the 11 mortality indicators with three of these indicators at the *requires intervention* level: infant mortality, diabetes mortality, and homicide rates. Black/African American infant mortality and diabetes mortality rates were more than two and a half times higher, and homicide rates about six times higher, than their non-Latino White counterparts. These rates for Black/African Americans have not changed significantly since 1998.
- › Black/African Americans experienced a geographic disparity for both the air quality and retail food environment indicators.

### Non-Latino Asian/Pacific Islander

For 11 indicators, Asian/Pacific Islanders, did significantly better than non-Latino Whites. However, one indicator *requires intervention*, and five indicators *need improvement* (Figure 1). Asian/Pacific Islanders experienced a geographic disparity for each of the physical environment indicators. Though this group, as a whole, fared well for many indicators, it is likely that aggregation of data into this large group is masking some disparities being experienced by sub-groups of Asian/Pacific Islanders. More attention should be given to disaggregated data for this population. A supplemental report focusing on Pacific Islander health disparities is forthcoming.

#### Specific Findings

- › Asian/Pacific Islanders experienced a disparity for two indicators in the social and economic category, at the *needs improvement* level—third-grade reading level and post-high school education.
- › Asian/Pacific Islanders had three other indicators at the *needs improvement* level: first trimester prenatal care, low birthweight, and homicide rates.
- › Adults without health insurance was the one indicator at the *requires intervention* level for Asian/Pacific Islanders. The percentage without health insurance is more than two times higher among non-Latino Asian/Pacific Islanders in Multnomah County than among non-Latino Whites.
- › Asian/Pacific Islanders experienced a geographic disparity for both the air quality and the retail food environment indicators.

### Non-Latino American Indian/Alaska Native

The American Indian/Alaska Native group did not fare well overall, with five indicators at the *requires intervention* level and 12 at the *needs improvement level* (Figure 1). The American Indian/Alaska Native group did not fare significantly better than non-Latino Whites for any of the indicators. It is important to note that, for seven other indicators, numbers of cases were too small to provide reliable results, so it is possible that more disparities exist than were detected.

Analysts did not calculate geographic disparity ratios for the American Indian/Alaska Native group because there were no census tracts having more than 15% of the population identifying as American Indian/Alaska Native.

#### Specific Findings

- › American Indian/Alaska Natives experienced disparities for each of the indicators in the social and economic category. Two of the economic indicators *require intervention*. Specifically, the group was almost three times as likely to have children living in poverty and more than twice as likely to be unemployed (age 16 and over) compared to non-Latino Whites.
- › American Indian/Alaska Natives fared particularly poorly for each of the health behavior indicators. Teen births, current cigarette smoking, and adults with no physical activity outside of work all *require intervention*. The teen birth rate among American Indian/Alaska Natives has not changed significantly since 1998; they remained more than twice as likely to experience a teen birth than their non-Latino White counterparts. American Indian/Alaska Natives were about twice as likely to currently smoke cigarettes and to report no physical activity outside of work in the past 30 days.

- › One clinical care measure was at the *needs improvement* level for American Indian/Alaska Natives: first trimester prenatal care.
- › American Indian/Alaska Natives had six disparities at the *needs improvement* level in the morbidity and mortality categories, including self-reported mental health, overall health, low birthweight, premature death (i.e., years of potential life lost), infant mortality, and stroke mortality. For six indicators in these categories numbers were too small to provide reliable results.

### Latino

Results for the Latino group were notably mixed. The Latino group experienced six indicators that *require intervention* and nine that *need improvement* (Figure 1). However, there were also eight indicators where Latinos fared significantly better than non-Latino Whites.

Latinos experienced a geographic disparity for each of the physical environment indicators.

### Specific Findings

- › Latinos experienced disparities for each of the indicators in the social and economic category. Three of the six *require intervention*. Specifically, Latinos are more than twice as likely to have children living in poverty, to have children not meeting third-grade reading standards, and to lack a post-high school education.
- › Latinos had three indicators in the health behaviors and clinical care categories that *need improvement*: obesity, first trimester prenatal care, and untreated tooth decay. Teen birth rate and lack of health insurance reached the *requires intervention* level. Although the teen birth rate for Latinas has significantly decreased since 1998, the rate remained three and a half times the rate among non-Latina Whites. In addition, Latino adults were two times more likely to lack health insurance than non-Latino Whites.
- › Latinos generally fared relatively well in the morbidity and mortality categories. However, three indicators were at the *needs improvement* level: overall health status, HIV incidence, and diabetes mortality rate. The homicide rate reached the *requires intervention* level, with the rate among Latinos being two times greater than non-Latino Whites.
- › Latinos experienced a geographic disparity for both the air quality and retail food environment indicators.

## Conclusion

This analysis of a comprehensive set of health and health factor indicators reveals the breadth and seriousness of the disparities that exist for four communities of color in Multnomah County. A striking number of disparities exist across a broad range of indicators for Black/African Americans and American Indian/Alaska Natives. Numerous disparities also exist for Latinos and Asian/Pacific Islanders, but those communities also fared better than non-Latino Whites for some indicators.

Although the report focuses on the challenges facing communities of color, the Health Department also recognizes the myriad strengths these communities possess. Without these unique community strengths, the disparities observed in this report would likely be worse.

These findings supplement reports by the Coalition of Communities of Color, the Regional Equity Atlas, and others, which call for increased investment and coordination in areas where data show the greatest need. Together, they increase local awareness of the persistent and unacceptable differences that represent some of the most pressing community health challenges.

The Health Department and community partners are working to reduce health disparities. But public health strategies alone cannot address the complex societal issues that perpetuate differences in health outcomes, including racism, poverty, substandard housing, and lack of employment, education, and opportunity.

Addressing the disparities highlighted in this report will require concerted collective effort across Multnomah County departments and between its many partners. Strategies must be informed by authentic community engagement, partnership and accountability. The protective factors communities possess,

including family systems, cultural pride, and traditional ways of living and sharing knowledge, are central to developing policy and program interventions.

The next steps for the Health Department include engaging our partners in other sectors, sharing the results, setting priorities in partnership with the community, planning action, and tracking and reporting on our progress. Specific Health Department actions include:

- › Supporting the Multnomah County Board of Commissioners/Board of Health's capacity to act
- › Increasing investment in early childhood and adolescence
- › Using quality improvement tools to develop more racially equitable policies and programs
- › Creating a Public Health Advisory Board and Community Health Improvement Plan
- › Increasing culturally-specific and community-specific approaches, including trauma-informed care

The Multnomah County Health Department will engage those communities most affected by disparities, convene community partners across sectors, and keep the goal of eliminating health disparities at the forefront of efforts to improve community health. But public support, political will, and strategic investments are needed to create the policy, systems and environmental changes that can disrupt the cycles of racism, poverty and trauma that are at the root of health disparities.

## Glossary of Terms

**Age-adjustment:** A mathematical procedure used to remove the influence of age differences when comparing rates of disease, death, injuries, or other health outcomes between two or more populations.

**Body mass index (BMI):** A measure calculated from using a person's weight and height. BMI is used to screen for weight categories that may lead to health problems.

**Discrimination:** The practice of unfairly treating a person or group of people differently from other people or groups of people.

**Disparity ratio:** The rate or prevalence in a particular group divided by the rate or prevalence in another group. This measure is used to assess health disparities between groups.

**Health disparity:** Differences in health status among distinct segments of the population including differences that occur by gender, race/ethnicity, education, income, disability, or living in various geographic localities.

**Health inequity:** Disparities in health that are a result of systemic, avoidable, and unjust social and economic policies and practices which create barriers to opportunity.

**Incidence rate:** The number of new cases of a disease occurring during a specified time period divided by the population.

**Morbidity:** Any departure, subjective or objective, from a state of physiological or psychological well-being. (Last et al., 2000)

**Mortality rate:** The number of deaths from a specific cause during a particular time period divided by the population.

**Notifiable/reportable diseases:** Diseases that are required to be reported to a public health agency when they are diagnosed by doctors or laboratories because they are considered to be of great public health importance.

**Prevalence:** The proportion of individuals within a group with some attribute at a point or period in time.

**Racism:** Racism is power combined with racial prejudice (Operario et al., 1998). **Root cause:** Related to *upstream*, and referring to a cause being more foundational, or nearer a true source of an issue rather than an effect that may appear to be causal.

**Social determinants of health:** The social and economic factors that influence people's health (Canadian Public Health Association, 2014). They are the conditions in which people are born, grow, live, work, and age. These circumstances are shaped by the distribution of money, power, and resources at global, national and local levels (World Health Organization, 2014). The social determinants of health are complex, interacting, and overlapping and are created by equally complex social and economic structures. These structures include the social environment, physical environment, health services, and structural and societal factors (Centers for Disease Control and Prevention, 2014)(World Health Organization, 2008).

**Statistical significance:** A designation given to results based on statistical testing to determine the likelihood that the result occurred by chance. Results that are statistically significant are unlikely to have occurred by chance.

**Upstream:** A reference to a popular public health analogy of a river, first coined by John McKinlay in an address to the American Heart Association in 1974 (Upstream Public Health, 2014). The analogy conceives of approaches to public health issues being relatively *downstream* or *upstream* with more foundational or primary causes and conditions being considered upstream of more downstream effects.

# Introduction

“Healthy people in healthy communities” is the vision of the Multnomah County Health Department. In partnership with the communities it serves, the Health Department seeks to assure, promote and protect the health of *all* people in the county in order to realize this vision.

One core function of a health department is monitoring and reporting information on the health of the community in order to identify and address health problems. In doing so, it is important to recognize that a person’s health status is shaped by more than genetics and behavior choices. Health status is also shaped by the other health factors, including the social, economic, and environmental conditions where people live, work, learn, and play.

The goal of this report is to provide a comprehensive analysis of local data on racial and ethnic disparities in health and health factors. These disparities translate into more illness and disability, shorter life spans, and lost opportunities that put specific populations and the entire county at a disadvantage.

Examining racial and ethnic disparities is critical, given the history of these disparities in the community. In addition, research has shown the negative impact racism has on health independent of genetics, behavior, community characteristics, and socio-economic factors. Racism in all its forms—racism perpetuated at the institutional level, racism between people, and internalized racism—is a fundamental cause of racial and ethnic disparities.

The current analysis is needed to guide a broad array of essential public health activities for the Health Department and its partners, such as planning services, developing and evaluating interventions, and setting policy priorities. The Health Department is committed to working collectively with partners across sectors to invest in addressing the disparities highlighted in this report and their root causes.

## Disparities and Inequities

This report identifies disparities in both health outcomes and factors that influence these outcomes.

*Disparities* are the simple differences in outcomes among groups. Health disparities, like those identified through these analyses, are often caused by inequitable access to resources—social, economic, environmental, or healthcare resources.

*Inequities* are systemic, avoidable, unfair, and unjust differences in health status and mortality rates, as well as in the distribution of disease and illness across population groups (Hofrichter, 2006). Inequities reflect the intersections of health outcomes and the social factors affecting them.

Public health strategies alone cannot address the complex societal issues that perpetuate health disparities and inequities. Addressing the disparities uncovered in this report will require a collaborative effort—between partners, across sectors, among those with a collection of unique skill sets. Multnomah County Health Department welcomes the opportunity to serve as a convener for these joint efforts.

# Background

## Framework

This is the fifth release of a racial and ethnic health disparities report for Multnomah County. Previous reports were released in 2004, 2006, 2008, and 2011 (Multnomah County Health Department, 2004) (Multnomah County Health Department, 2006) (Multnomah County Health Department, 2008) (Multnomah County Health Department, 2011). The first four reports focused solely on health outcomes—the prevalence of health conditions and common causes of death routinely tracked by public health agencies.

This report is broader and examines disparities more holistically. The report includes indicators that reflect that a person's health status is shaped by more than genetics and behavior

choices. Health status is also shaped by the social, economic, and environmental conditions where people live, work, learn, and play. The context in which people live their lives, the limits of their choices, and the environmental burdens they experience are important to consider when examining health disparities. The lack of healthy options in the physical environment contributes to some of the other health disparities examined in this report such as obesity, diabetes deaths, and being physically active outside of work hours. Recent analyses have shown that communities of color are increasingly being displaced from their historic neighborhoods due to gentrification of close-in Portland neighborhoods. This displacement may prevent communities of color from benefitting from being in a health-promoting physical environment.

Figure 2 summarizes a growing body of literature that affirms the strong influence of external factors on an individual's health (World Health Organization, 2008). The figure shows that environmental factors such as social, economic and political factors, living and working conditions, and public services make a larger contribution to a person's overall health status than individual factors and behaviors. Though the precise contributions of each determinant are not precisely known, some researchers have estimated that these environmental factors account for more than 50% of health status (Centers for Disease Control and Prevention, 2014).



**Figure 2: Factors influencing individual health**

Source of graphic: Oregon Public Health Institute

## The Impact of Racism on Health

Racial and ethnic health disparities have existed for decades and are well documented at the state and national levels (Oregon Health Authority, 2013)(Centers for Disease Control and Prevention, 2013). Many factors contribute to these disparities, including racism.

Studies have shown that racism negatively impacts health— independent of genetics, behavior, community characteristics and socio-economic factors (Paradies, 2006).

Dr. Camara Jones, a scientist from the Centers for Disease Control and Prevention, offers this global definition of racism:

*Racism is a system of structuring opportunity and assigning value based on phenotype (race), that:*

- › *Unfairly disadvantages some individuals and communities*
- › *Unfairly advantages other individuals and communities*
- › *Undermines realization of the full potential of the whole society through the waste of human resources.* (Jones, 2003)

Jones defines three levels of racism:

- › **Institutionalized/systemic racism** is defined as the structures, policies, practices, and norms resulting in differential access to the goods, services, and opportunities of society by “race.” As noted in the Multnomah County Health Department’s Equity and Empowerment Lens, institutional/systemic racism in particular, is supported by institutional power and by powerful (often unexamined) ideas which make racism look normal and justified (Lopes et al., 2006).

- › **Personally-mediated racism (individual)** is defined as prejudice and discrimination, where prejudice is differential assumptions about the abilities, motives, and intents of others by “race,” and discrimination is differential actions towards others by “race.” Individual racism can be either intentional or unintentional.
- › **Internalized racism** is defined as acceptance by members of the stigmatized “races” of negative messages about their own ability and intrinsic worth. According to Jones, “it is characterized by our not believing in others who look like us, and not believing in ourselves” (Jones, 2003).

Racism at these three levels must be understood to be a fundamental cause in “racial” disparities.

## Local Context

Most of the local disparities identified in previous versions of this report have persisted over time. The disparities identified are, to some degree, a result of the on-going racism communities of color experience.

A recent series of reports issued by the Coalition of Communities of Color has detailed how local policies and practices have perpetuated a lack of opportunity for non-White communities in Multnomah County (Curry-Stevens, 2013) (Curry-Stevens, 2012) (Curry-Stevens, 2011) (Curry-Stevens, 2010) (Curry-Stevens, 2012). In other words, institutionalized racism has made it more difficult for local communities of color to engage in healthy behaviors, and to have access to health promoting public services, infrastructure, and living and working conditions.

## About this Report

This report expands on previous reports in several important ways:

- › **A refined list of indicators:** Indicators not only include select health behavior and outcome data by race and ethnicity, but also include indicators for the root causes of health, such as economic, educational, and environmental conditions.
- › **Expanded analyses:** Disparities were identified through statistical significance as well as through examination of other evidence.
- › **More transparency about the data analyses:** There is more detail about how and why analytic decisions were made, and about limitations of the available data.
- › **Refined racial and ethnic categories:** Latino<sup>1</sup> ethnicity was separated from the White, Black/African American, American Indian/Alaska Native, and Asian/Pacific Islander groups for the analyses.

Given these improvements, the results in this report are not *directly* comparable to previous health disparities reports.

## Overview of Analysis and Methods

This report presents comparisons between five racial and ethnic groups for 33 indicators. The indicators are grouped under the following headings:

- › Physical environment
- › Social and economic factors
- › Health behaviors
- › Clinical care
- › Morbidity (experiencing a health or social condition)
- › Mortality (death caused by a health or social condition)

<sup>1</sup> Throughout the report “Hispanic/Latino” will be abbreviated to “Latino” to reflect local community preference.

## Racial and Ethnic Groupings

The groupings in this report are consistent with the U.S. Office of Management and Budget (OMB) guidelines (U.S. Office of Management and Budget, 2000) that are similar to the Department of Education standards (Department of Education, 2007), as well as those used in other studies of disparities (Centers for Disease Control and Prevention, 2013) (Oregon Health Authority, 2013). The groupings include:

- › Latino
- › Non-Latino Black/African American
- › Non-Latino American Indian/Alaska Native
- › Non-Latino Asian/Pacific Islander
- › Non-Latino White

These groupings of mutually exclusive categories allow for comparisons to be made more easily across racial and ethnic groups.

There is no multiracial category in this report. Grouping people of various combinations of races and ethnicities into one multiracial category makes it difficult to draw conclusions about the results. People who identify as multiracial are represented in these analyses in different ways depending on the data source. The primary race/ethnicity that people identified was used whenever possible; otherwise, the best estimate of primary identification was used. For more information, see the technical appendix.

For the two physical environment indicators, the racial and ethnic categories were modified somewhat: a person was considered as being in a particular community of color if they reported being that race alone or in combination with another race.

Throughout the report, non-Latino White is used as the comparison group. Non-Latino White is the comparison group because the group has not experienced either interpersonal or institutional racism, while groups of color have.

## Selection and Source of Indicators

Many of the mortality and morbidity indicators in this report have been included in previous reports and are commonly tracked public health metrics.

Three indicators that were included in the previous report released in 2011 do not appear in this report. Specifically, the trend for motor vehicle crash mortality has remained stable over recent years and no apparent disparities exist, so it was not included in this report. All-cause mortality was replaced with Years of Potential Life Lost (YPLL). Though they measure similar things, YPLL provides more information about the degree of the disparity—not just that death was premature, but by how many years. Chlamydia was not included because about half of the cases were missing racial/ethnic data and there is a known problem with misclassification of American Indian/Alaska Native persons in these data.

The selection of new indicators was guided by the County Health Rankings (CHR), a national collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute (County Health Rankings Model, 2013). The CHR model is based on a framework -- like the one above -- that recognizes the range of health factors that influence health status, including the physical environment, social and economic factors, clinical care, and health behaviors. CHR indicators were chosen because the scientific literature supports a link between the health factor and health status, either positive or negative. The analysis in this report includes many of the same indicators as CHR with some adaptations to reflect local priorities identified by the report advisory group (e.g., oral health and third grade reading proficiency).

## Data Sources

Data used for these analyses came from the following sources:

- › Oregon Health Authority, Center for Vital Statistics, Behavioral Risk Factor Surveillance System (BRFSS), and Acute and Communicable Disease Program
- › Oregon Healthcare Enterprise, Hospital Discharge Data
- › Oregon Department of Education, Communications Department reports
- › Oregon Department of Employment, Quarterly Census on Employment and Wages
- › U.S. Census Bureau, American Community Survey
- › Oregon Department of Environmental Quality's Portland Air Toxics Solutions Program
- › Oregon Department of Agriculture
- › Oregon Farmer's Market Association

## Identifying and Categorizing Disparities

For all the indicators in this report, except the two physical environment indicators, analysts calculated a disparity ratio by dividing the measure (i.e., prevalence, incidence rate, mortality rate) for each racial/ethnic group by the measure for the non-Latino White population. A disparity ratio of one means the measure for the community of color is the same as for non-Latino Whites. Analysts tested whether the disparity ratios were significantly different than one (Boyle et al., 1991). *Significantly* means that statistical tests indicated that the difference in measures between groups was likely *not* due to chance.

Because some groups of color in Multnomah County are relatively small, it can be hard to detect significant differences in rates with statistical tests, even when a real difference exists. Therefore, in some cases another method was used to identify

potential disparities. When a disparity ratio was 1.1 or greater before rounding, but did not reach statistical significance, analysts looked at trends in Multnomah County over time (when available), Oregon’s State of Equity Report (Oregon Health Authority, 2013), or other available analyses (e.g., Behavioral Risk Factor Surveillance System Race Oversample) for additional evidence of a disparity.

Disparities were then categorized as described in the table below. Though the rules below were used to categorize the disparities detected, this report also provides the data itself (i.e., disparity ratios) so that communities and partners can make their own judgments about the severity of a particular disparity.

**Table 4: Definitions for Levels of Concern for Disparities Identified in This Report**

Level of Concern	Definition
<b>Requires Intervention: Identified through statistical significance</b>	The analyses of these indicators showed disparities between the community of color and the non-Latino White population. The disparity ratio was 2.0 or greater and was statistically significantly greater than 1. These disparities are high priorities for policy, systems, and/or environmental change interventions.
<b>Needs Improvement: Identified through statistical significance</b>	The analyses of these indicators showed disparities between the community of color and the non-Latino White population. The disparity ratio was between 1.1 and 1.9 and was statistically significantly greater than 1. These disparities have the potential to worsen and may require intervention.
<b>Needs Improvement: Identified by local trends over time and/or disparities at the state level</b>	The analyses of these indicators suggested disparities between the community of color and the non-Latino White group. Though the disparity ratio was 1.1 or greater, it was not statistically significantly different from 1. However, there was a consistent trend of the community of color faring more poorly than non-Latino Whites over time and/or there was a significant disparity for the population at the state level. These disparities have the potential to worsen and may require intervention.
<b>No Disparity Detected</b>	The disparity ratio comparing the group of color to non-Latino Whites shows little or no difference between the two groups. For some indicators, communities of color fared better than non-Latino Whites as represented by a disparity ratio of less than 1.0. Disparity ratios that are statistically significantly less than 1 are marked with an asterisk (*).
<b>Geographic disparity detected</b>	The analyses of these indicators suggested a disparity between census tracts with 15% or more of a community of color and census tracts with at least 90% non-Latino White. The geographic disparity ratio was 1.1 or greater.

For the two physical environment indicators, disparity ratios could not be calculated the same way they were for the other 31 indicators, but analysts used a similar approach. For these two indicators, a geographic disparity ratio was calculated by dividing the summary measure for each census tract having more than 15% of the population identifying as a particular community of color by the measure for census tracts with at least 90% of the population identifying as non-Latino White. Geographic disparity ratios of 1.1 or greater were considered a disparity and are depicted with checkerboard blue boxes (Table 4). The methods are described in more detail in the physical environment section of the report.

## Visualizing and Analyzing Trends

Trend data are presented for indicators when available. Trends are displayed in graphs using multi-year rolling or moving rates over time. To calculate rolling rates, data were collapsed across time periods by combining the numerators and denominators for two, three, or five years of data. This approach increases the stability of the resulting rates by increasing the sample size at each time point, thus creating a more stable visual trend line.

Statistical analysis was used to identify and describe changes in the measures over time within each racial and ethnic group. Specifically, Joinpoint statistical software from the National Cancer Institute was used to test whether annual measures significantly increased or decreased over time. If rates significantly increased or decreased over time, the trends are marked with an asterisk on the indicator trend charts. Trends that could not be analyzed due to small numbers of cases per year are also noted.

## Context for Interpreting the Findings

It is important to note that these methods do not tell us about the health of the county overall. Identifying disparities is just one way to measure a community's health status. These analyses only provide *a relative comparison between groups*—for example, comparing non-Latino Whites in Multnomah County to Black/African Americans in Multnomah County. Also, these methods do not tell us how the county compares to other jurisdictions or to a “gold standard.”

To put the local findings in context, national estimates are provided as well as the Healthy People 2020 benchmarks or County Health Rankings benchmarks when available.

## Technical Appendix

The technical appendix includes more information about the data sets and methods used. Table 12 in the appendix shows which indicators came from each data source, the time period covered, strengths and limitations of the data sources, and how representative they are of the population. Lastly, the appendix includes a more in-depth description of the methods.

## Organization of the Results

The results begin with a description of the racial/ethnic composition of Multnomah County, including the forecasted growth of racial/ethnic communities.

Findings from the disparities analysis are then presented by group of indicators, as follows:

- › Physical Environment
- › Social and Economic Factors
- › Health Behaviors
- › Clinical Care
- › Morbidity
- › Mortality

Each *Findings* section starts with a summary of the key findings for the group of indicators, organized by race/ethnicity.

For the physical environment indicators, there is a short statement about why the indicator is important, information about how the indicator was measured, the calculated indicator and geographic disparity ratios, and maps displaying results.

For each of the other indicators, there is a short statement about why the indicator is important, the calculated indicator and disparity ratios, and information about how Multnomah County results compare to the United States (if comparable national data are available). The calculated indicators and ratios reflect the most current data available. Many calculated indicators represent a period of time (e.g., from 2007 to 2011) because in any given year there were too few events to analyze. When possible, data trends and national benchmarks are presented. Some measures were age-adjusted to remove the influence of age differences when comparing measures between populations. This adjustment is indicated in the results.

# Indicators: Physical Environment Factors

## Physical Environment Factors: Key Findings by Race/Ethnicity

Identified Geographic Disparities: Communities of Color\* as Compared to Non-Latino Whites\*\*

INDICATORS	Census Tract Grouping				
	non-Latino White	Black/African American, alone or in combination	Asian/Pacific Islander, alone or in combination	American Indian/Alaska Native, alone or in combination	Latino, all races
<b>Physical Environment Factors</b>					
2017 Modeled diesel particulate matter (DPM)	reference			--	
Ratio of less healthy food retail outlets to healthier retail food outlets (Retail Food Environment Indicator - RFEI)				--	
*Census tracts with at least 15% of the total tract population identifying as Black/African American, Asian/Pacific Islander, or Latino either alone or in combination with another race or ethnicity.					
**Census tracts with at 90% of the total tract population identifying as non-Latino White.					
	A geographic disparity ratio of 1.1 or greater was detected.				
--	No census tracts have more than 15% of the population identifying as American Indian/Alaska Native so analysts were unable to include the group in this analysis				

**Footnotes to table:**

State of Oregon Department of Environmental Quality, Portland Air Toxics 2017 Modeling Study, 2006

Produce markets, farmers markets, and convenience stores reported to Oregon Department of Agriculture in January 2014 or listed on Oregon Farmers Market website April 2014. In: Built Environment Atlas: Active Living, Healthy Eating, Multnomah County, Oregon, 2011

- › **The three communities of color that could be included in these analyses** fared poorly for this group of indicators.
- › **Black/African Americans, alone or in combination with another race**, experienced geographic disparities for both the air quality and the retail food environment indicators.
- › **Asian/Pacific Islanders, alone or in combination with another race**, experienced geographic disparities for both the air quality and the retail food environment indicators.
- › **Latinos (all races)** experienced geographic disparities for both the air quality and the retail food environment indicators.

# Physical Environment

The physical environment, including public services and infrastructure (e.g., road and rail network), living and working conditions, and social, economic, and political factors, greatly impacts health. All of these factors together may have more of an impact on our health than our genetics, our age, our behaviors, and our access to health care. (Booske et al. , 2010) Examining whether communities of color disproportionately live in areas with fewer health-promoting factors is important for identifying needs and informing policy, systems, and environment interventions.

## Methods

### Selection of census tracts for analyses

In contrast to other sections of this report, this section explores data for *census tracts* where people live, rather than data based on *individual people*. Census tracts were categorized by the proportion of the population in the census tract from a particular racial or ethnic group in 2011. Specifically, census

tracts were identified that had at least 15% of the total tract population identifying as Black/African American, Asian/Pacific Islander, or Latino—either alone or in combination with another race or ethnicity. While 15% of the total tract population may seem low, it is a relatively sizeable population for Multnomah County.

Table 5 shows the number of census tracts for each racial/ethnic grouping and the size of the community of color that lives in them. The comparison census tracts were those that had at least 90% of the total tract population identifying as non-Latino White. The 15% and 90% thresholds for categorizing census tracts are arbitrary, but were chosen after examining the racial/ethnic distribution across census tracts for Multnomah County.

A major shortcoming of this approach is that no census tracts have more than 15% of the population identifying as American Indian/Alaska Native, so analysts were unable to include the community in this analysis.

**Table 5: Categorization of Multnomah County Census Tracts (n=171) Based on Racial/Ethnic Representation per Tract**

Racial/Ethnic Group	Number of Census Tracts in the Grouping	Range of the Percent of the Total Census Tract Population Identifying as a Group Member	Number of People Represented by the Racial/ethnic Group in the Census Tract Grouping
<b>Black/African American, alone or in combination</b>	21	15-30%	19,950
<b>Asian/Pacific Islander, alone or in combination</b>	26	15-33%	22,769
<b>Latino, alone or in combination</b>	41	15-37%	47,522
<b>Non-Latino White</b>	42	>90%	146,392

Source: Portland State University Population Research Center (2011 estimates) (College of Urban & Public Affairs: Population Research Center, 2012). Sixty census tracts were not in any of these groupings.

It is important to note that these groupings were not mutually exclusive. Eighteen census tracts were in two of the communities of color census tract groupings. One census tract (Tract 95.02 in the Argay neighborhood) was in three of the communities of color census tract groupings.

**Geographic Information Systems Methods**

Analysts used spatial analysis to describe the physical environments where relatively large groups of communities of color live in Multnomah County. Two indicators, slightly adapted, from the County Health Rankings methodology (County Health Rankings Model, 2013) were analyzed to broadly characterize the physical environment: air quality based on diesel particulate matter concentration and the retail food environment. One indicator is from the [2011 Built Environment Atlas](#) that assessed the retail food environment (Clapp, 2011). For the other indicator, air quality data was obtained from the Department of Environmental Quality’s (DEQ) air toxics modeling project (Portland Air Toxics Assessment, 2006). Though these two indicators were selected for this report, there are many other important physical environment indicators that impact health, such as access to public transportation, access to parks and trails, proximity to brownfields, and water quality.

For the air quality indicator, analysts conducted raster analyses. In other words, they used a Geographic Information System (GIS) software program to divide census tracts into equally-sized square cells. The resulting cells are very much like pixels used to display digital images. For this analysis, the cells were about the size of a Portland city block.

Each cell’s data reflected the number of times greater that area’s diesel particulate matter concentration was compared to the Oregon health benchmark. The measure used was the median of all of the cell values in each racial/ethnic groups’ census tract cells, resulting in one summary value for each census tract grouping.

For the Retail Food Environment Indicator (RFEI), analysts used a different analysis method. RFEI was created by the California Center for Public Health Advocacy to summarize the food environment in highly populated areas (California Center for Public Health Advocacy, 2007). The method computes a ratio of unhealthy food sources to healthy food sources. The higher the RFEI score, the less healthy the food environment. The measure was computed for the racial/ethnic group census tracts and a surrounding 0.25 mile buffer around each tract. The buffer was included because many census tract boundary lines are major streets where retail food outlets are located. It is problematic for this type of analysis when the two sides of the street are in different census tracts. The quarter-mile buffer prevents retail food outlets from being left out of the analysis if they are very close to the census tract boundary line.

<b>RFEI</b>	Number of convenience and fast food restaurants divided by number of grocery stores, produce vendors, farmers markets
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**Assessing Geographic Disparities**

For these two physical environment indicators, analysts could not calculate a disparity ratio in the same way they did for the other 31 indicators. Instead, they used a similar, but different approach. For these two indicators, a geographic disparity ratio was calculated by dividing the summary measure for each census tract having more than 15% of the population identifying as a particular community of color (tracts defined in Table 4) by the measure for census tracts with at least 90% of the population identifying as non-Latino Whites. Geographic disparity ratios of 1.1 or greater were considered a disparity and are depicted with checkerboard blue boxes.

## Physical Environment Factors: Air Quality

### 2017 Modeled diesel particulate matter (DPM)

#### Why is this indicator important?

There are both short-term and long-term health risks associated with exposure to diesel emissions. Short-term health problems include irritation of the eyes, throat, and lungs; as well as asthma symptoms (e.g., coughing, difficulty breathing). Long-term exposure to diesel emissions can lead to early death caused by heart disease, lung disease, and a variety of cancers (Pope, 1995) (World Health Organization, 2012). Those most susceptible to severe health problems from diesel emissions are: youth, pregnant women, the elderly, those with pre-existing heart and lung problems, and outdoor workers.

#### How is this indicator measured?

The Department of Environmental Quality (DEQ) estimated concentrations of diesel particulate matter for 2017 (Portland Air Toxics Assessment, 2006). The estimates are based on measured and estimated emissions from business and industry, motor vehicles, and residential activities. According to the DEQ, the main source of diesel particulate matter is heavy-duty trucks and non-road equipment like construction equipment (Environmental Protection Agency, 2011).

According to DEQ, an ambient health benchmark is “the annual average concentration of a toxic chemical in the air that a person could breathe continuously for a lifetime without experiencing any non-cancer health effects or without increasing their excess cancer risk by greater than one chance

in a million.”<sup>3</sup> The degree to which an air toxic exceeds a health benchmark helps determine the level of concern for the population’s health. It is important to note that the DEQ estimates that *all* of Multnomah County will have levels of DPM that are over the DPM health benchmark in 2017 as shown on maps 7-9.

For this indicator, each cell’s data reflected the number of times greater the area’s DPM concentration was compared to the Oregon health benchmark. The measure used was the *median* of all of the cell values in each racial/ethnic groups’ census tracts. This resulted in one summary value for each census tract grouping.

#### Findings

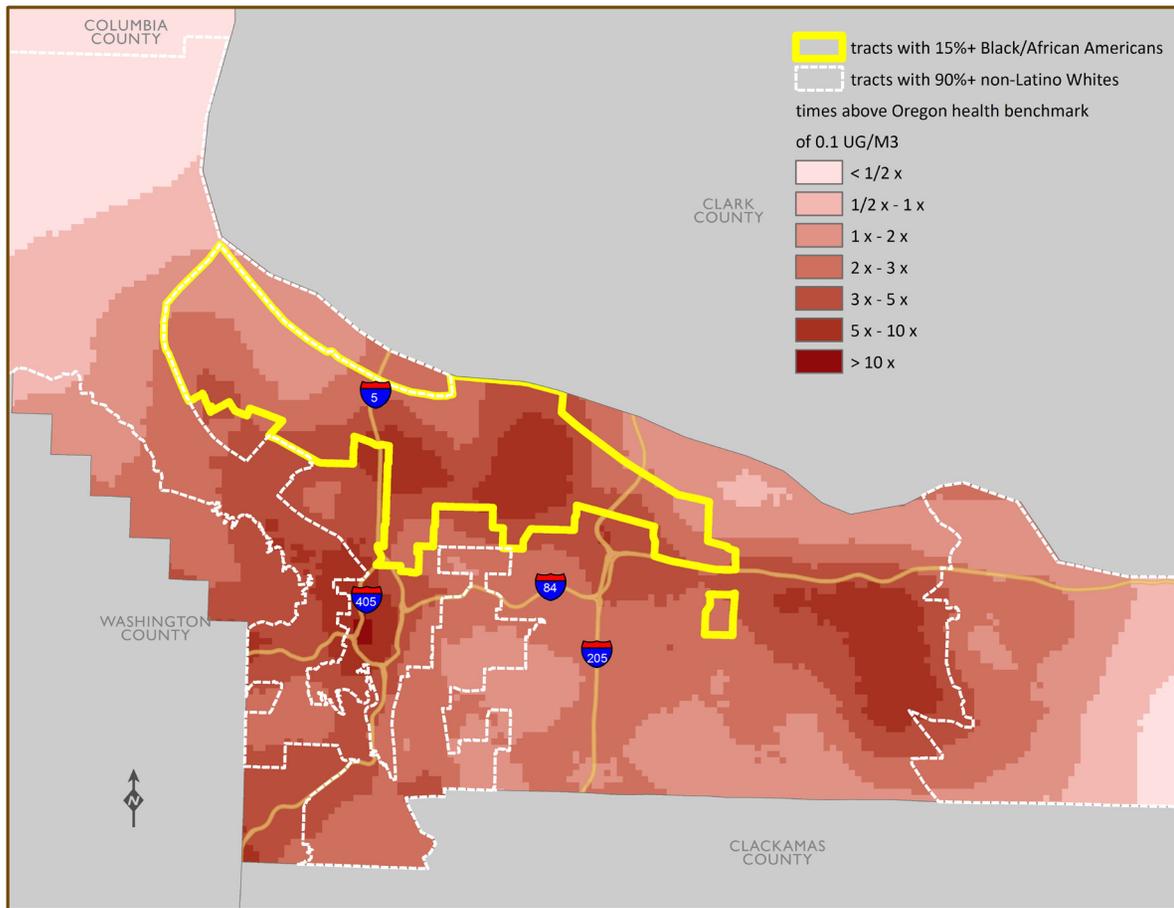
As shown in the table below, Multnomah County census tracts that had at least 15% of total tract population identifying as Black/African American, Asian/Pacific Islander, or Latino had an estimated two to three times higher median levels of diesel particulate matter than census tracts with 90% or more non-Latino White populations.

<sup>3</sup> Oregon Department of Environmental Quality. Oregon Air Toxics Benchmarks. Available at: <http://www.deq.state.or.us/aa/toxics/benchmark.htm>

Census Tract Grouping	Median Cell Value in Tracts Combined (times above OR benchmark)*	Geographic Disparity Ratio <sup>4</sup>
<b>Census tracts with Black/African Americans alone or in combination (15-30% tract population)</b>	9	3.0
<b>Census tracts with Asian/Pacific Islanders alone or in combination (15-33% tract population)</b>	7	2.3
<b>Census tracts with Latinos (all races) (15-37% tract population)</b>	8	2.7
<b>Census tracts with majority non-Latino Whites (90% or more tract population)</b>	3	Comparison group
<p><sup>4</sup>Relative difference compared to census tracts with 90% or more non-Latino White population.</p> <p>*According to DEQ, an ambient health benchmark is “the annual average concentration of a toxic chemical in the air that a person could breathe continuously for a lifetime without experiencing any non-cancer health effects or without increasing their excess cancer risk by greater than one chance in a million.”</p>		
	<p>A geographic disparity ratio of 1.1 or greater was detected.            Analysts were unable to determine if the difference was statistically significant.</p>	

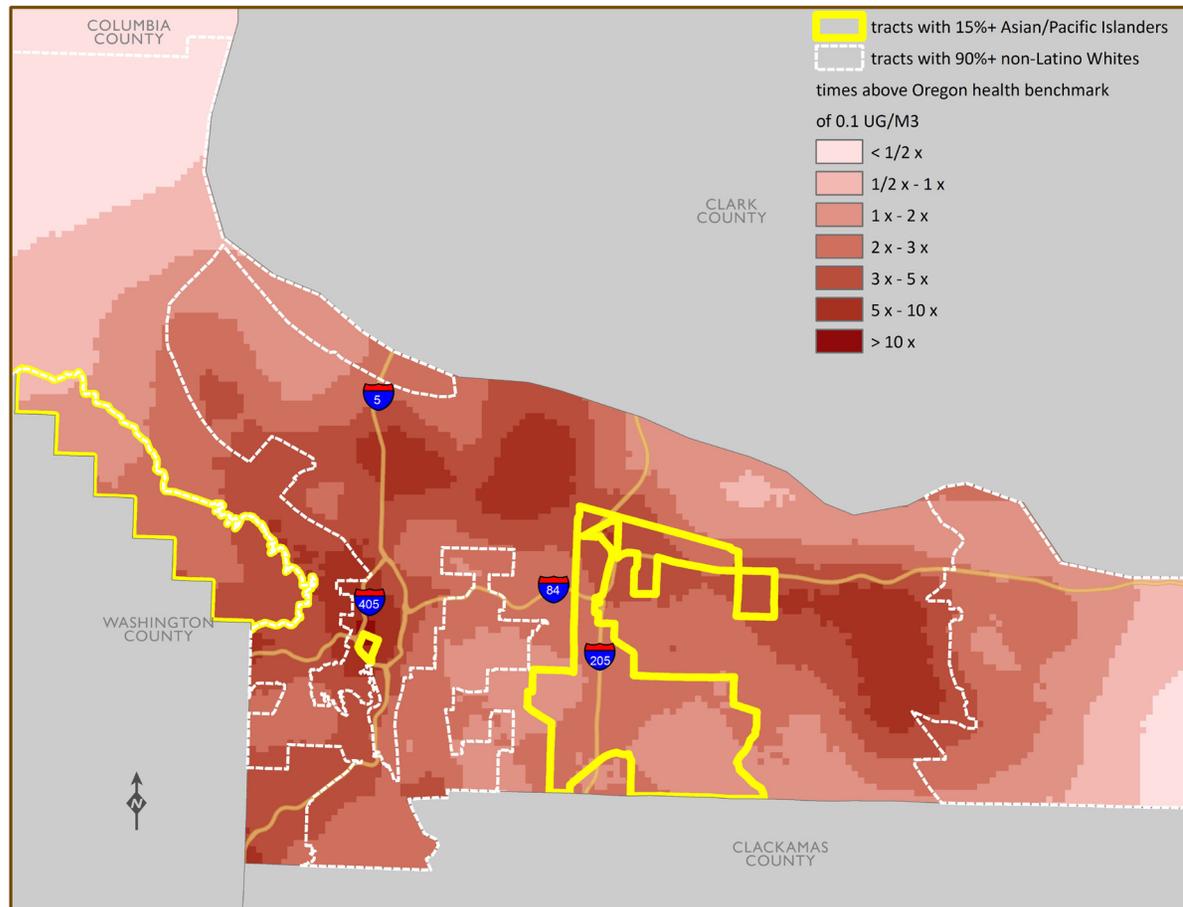
On these maps, darker shaded areas suggest poorer air quality and could benefit from policy, systems, and environment interventions.

**Map 1: 2017 Diesel Particulate Matter Modeling Results and Census Tracts with at Least 15% of the Tract Population Identifying as Black/African American, Alone or in Combination with Another Race/Ethnicity**



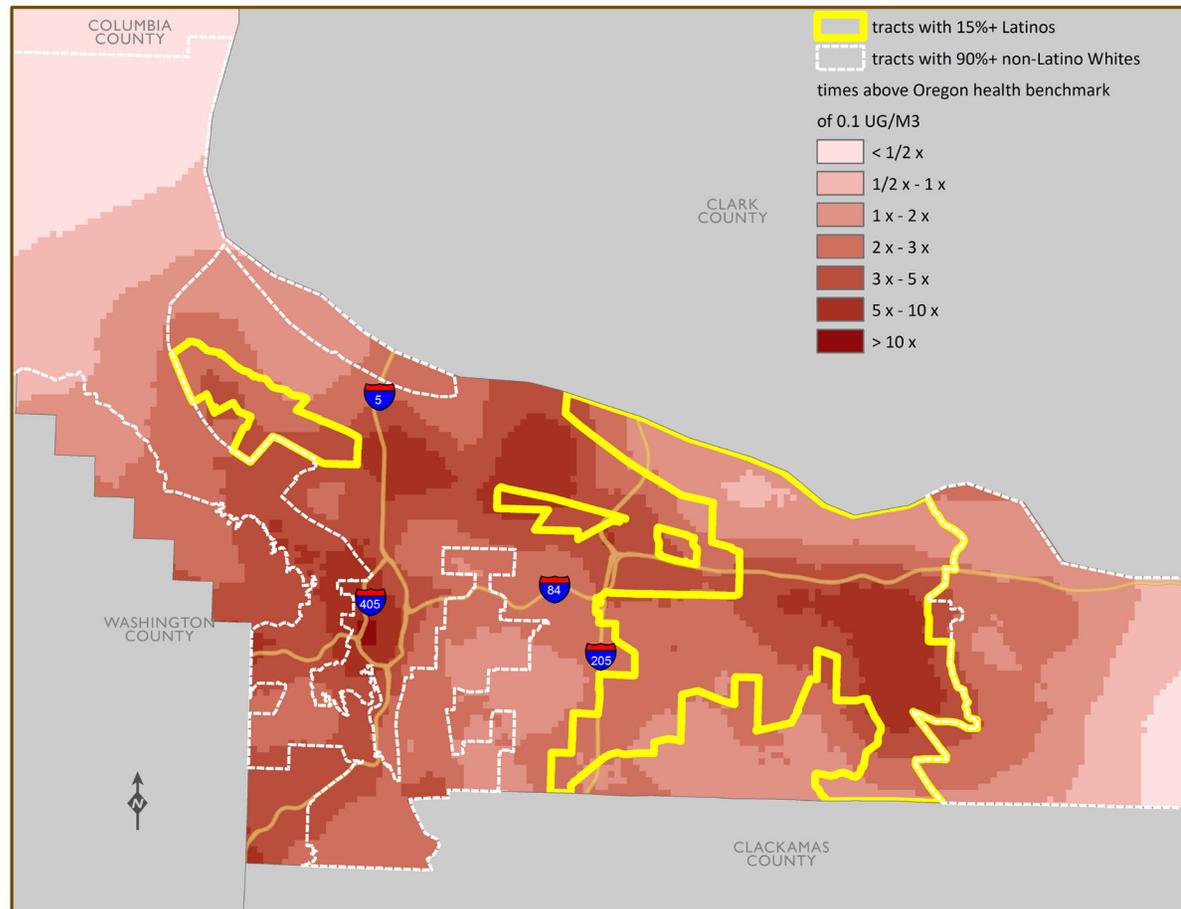
**Map 1** shows that census tracts with higher proportions (15-30%) of Black/African Americans are located in areas with generally higher levels of diesel particulate matter, such as the Kenton Neighborhood (North Portland) and the Piedmont Neighborhood (North and Northeast Portland) near I-5, and the Cully Neighborhood (Northeast Portland) near Portland International Airport. This is consistent with the geographic disparity ratio of 3.0 shown in the table above.

**Map 2: 2017 Diesel Particulate Matter Modeling Results and Census Tracts with at Least 15% of the Tract Population Identifying as Asian/Pacific Islander, Alone or in Combination with Another Race/Ethnicity**



**Map 2** shows that census tracts with higher proportions (15-33%) of Asian/Pacific Islanders are generally not located in areas with the highest levels of diesel particulate matter emissions, yet there is still a geographic disparity compared to tracts that are 90% non-Latino White or greater. This is consistent with the geographic disparity ratio of 2.3 shown in the table above.

**Map 3: 2017 Diesel Particulate Matter Modeling Results and Census Tracts with at Least 15% of the Tract Population Identifying as Latino, Alone or in Combination with Another Race/Ethnicity**



**Map 3** shows that census tracts with higher proportions (15-37%) of Latinos are located in areas with moderate to high diesel particulate matter concentrations. Parts of Gresham, Wood Village, and Fairview (east Multnomah County) have both large Latino populations (e.g., up to 35% of the population in Wood Village are Latino) and high estimated diesel particulate matter concentrations, more than ten times the health benchmark. This is consistent with the geographic disparity ratio of 2.7 shown in the table above.

## Physical Environment Factors: Retail Food Environment Index (RFEI) Ratio of less healthy food retail outlets to healthier retail food outlets

### Why is this indicator important?

The food available in the local environment influences people’s diets. Living near full-service grocery stores that sell a variety of produce is associated with eating slightly more fruits and vegetables and maintaining a healthy weight. Conversely, studies have shown that greater access to fast food restaurants and lower-priced fast food menu items are related to a less healthy diet. In addition, living near a convenience store is associated with an increased risk of obesity (U.S. Department of Agriculture, 2009).

### How is this indicator measured?

The Retail Food Environment Index (RFEI) was created by the California Center for Public Health Advocacy (California Center for Public Health Advocacy, 2007) to summarize the

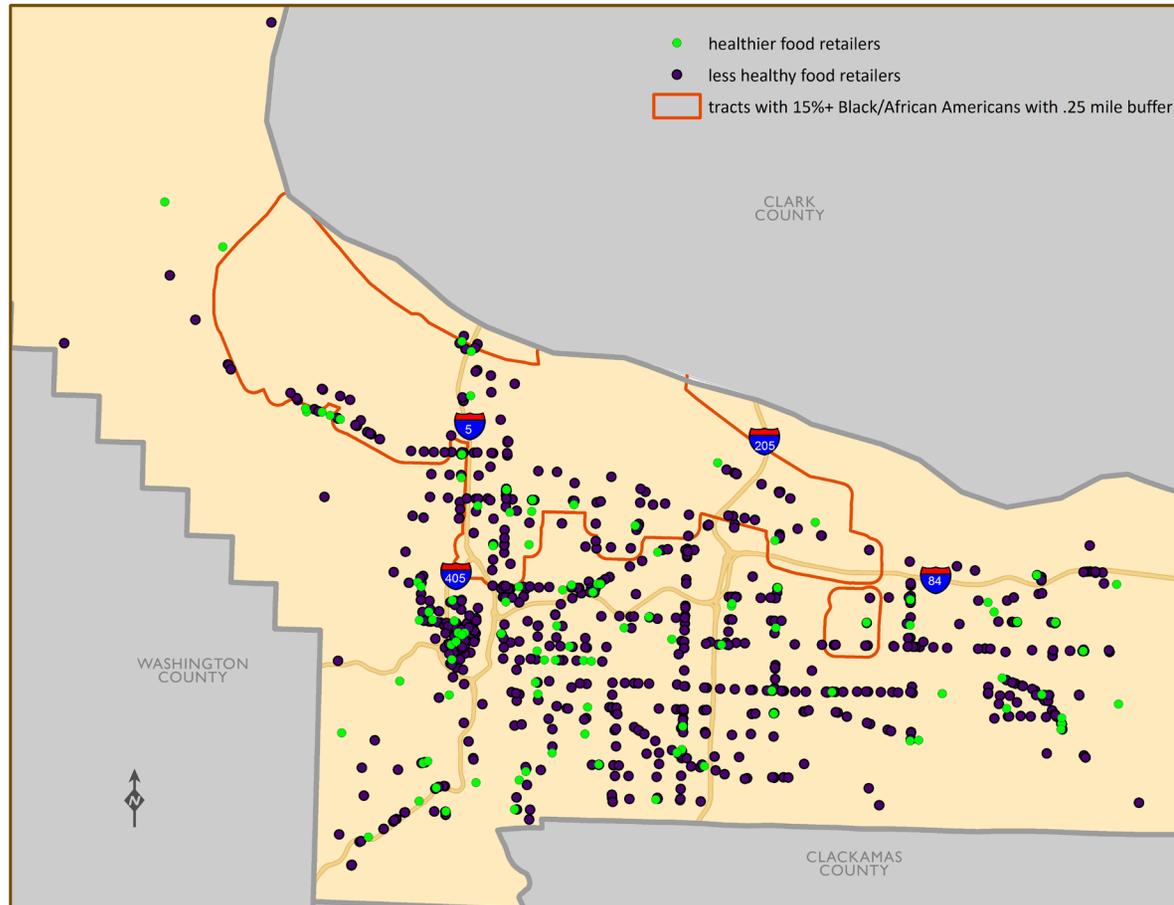
food environment in highly populated areas. The measure computes a ratio of unhealthy food sources to healthy food sources. The higher the RFEI score, the less healthy the food environment.

### Findings

As shown in the table below, Multnomah County census tracts that had at least 15% of total tract population identifying as Black/African American, Asian/Pacific Islander, or Latino had estimated RFEI scores that were two to three times higher (less healthy) than census tracts with 90% or more non-Latino White populations.

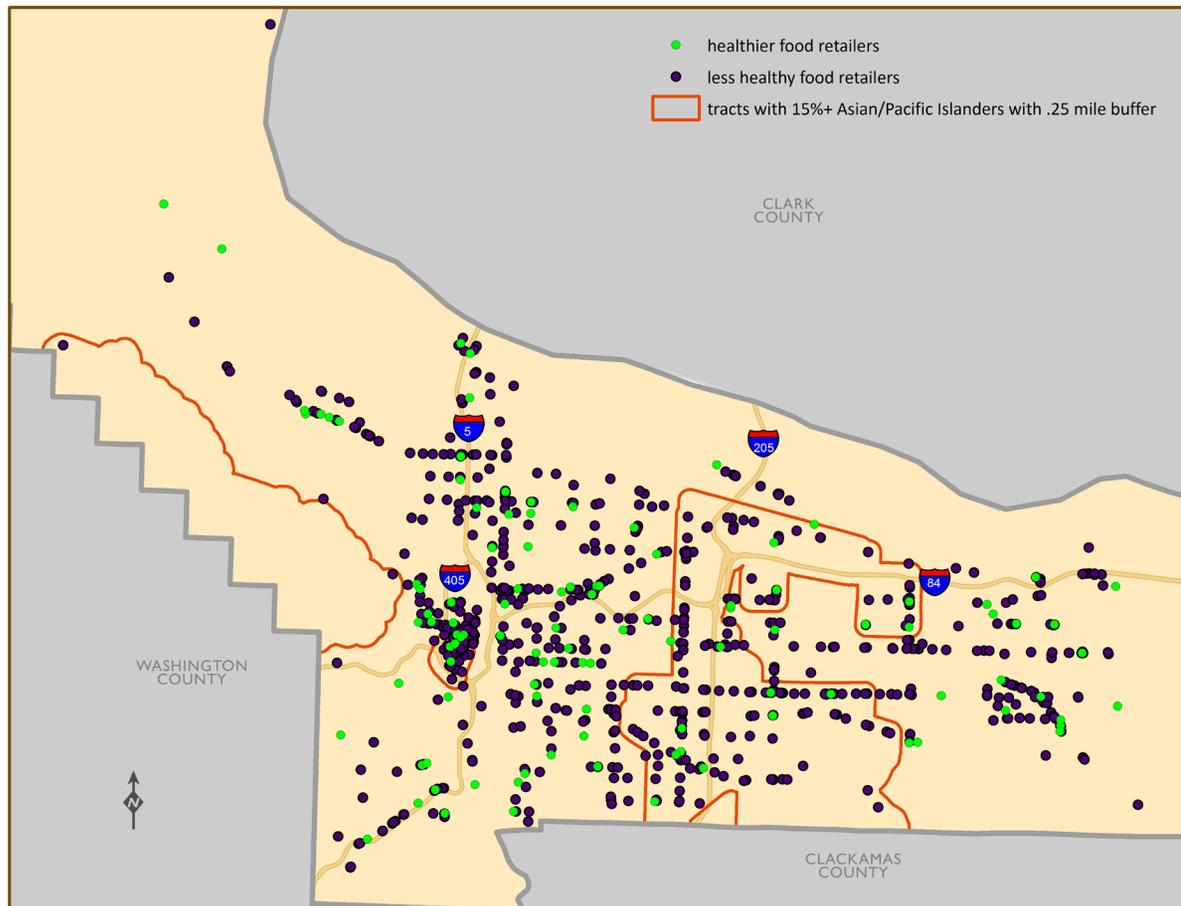
Census Tract Grouping	Number of Less Healthy Food Retailers	Number of Healthier Food Retailers	RFEI Score <sup>5</sup>	Geographic Disparity Ratio <sup>6</sup>
Census tracts with Black/African Americans alone or in combination (15-30% tract population)	130	17	8	2.0
Census tracts with Asian/Pacific Islanders alone or in combination (15-33% tract population)	223	18	12	3.2
Census tracts with Latinos (all races) (15-37% tract population)	307	41	7	2.0
Census tracts with majority non-Latino Whites (90% or more tract population)	183	48	4	Comparison group
<sup>5</sup> Ratio of less healthy retail food outlets to healthier retail food outlets.				
<sup>6</sup> Relative difference compared to census tracts with 90% or more non-Latino White population.				
A geographic disparity ratio of 1.1 or greater was detected.				

**Map 4: Density of Healthier Food Retailers and Less-Healthy Food Retailers in Census Tracts with at Least 15% of Tract Population Identifying as Black/African American**



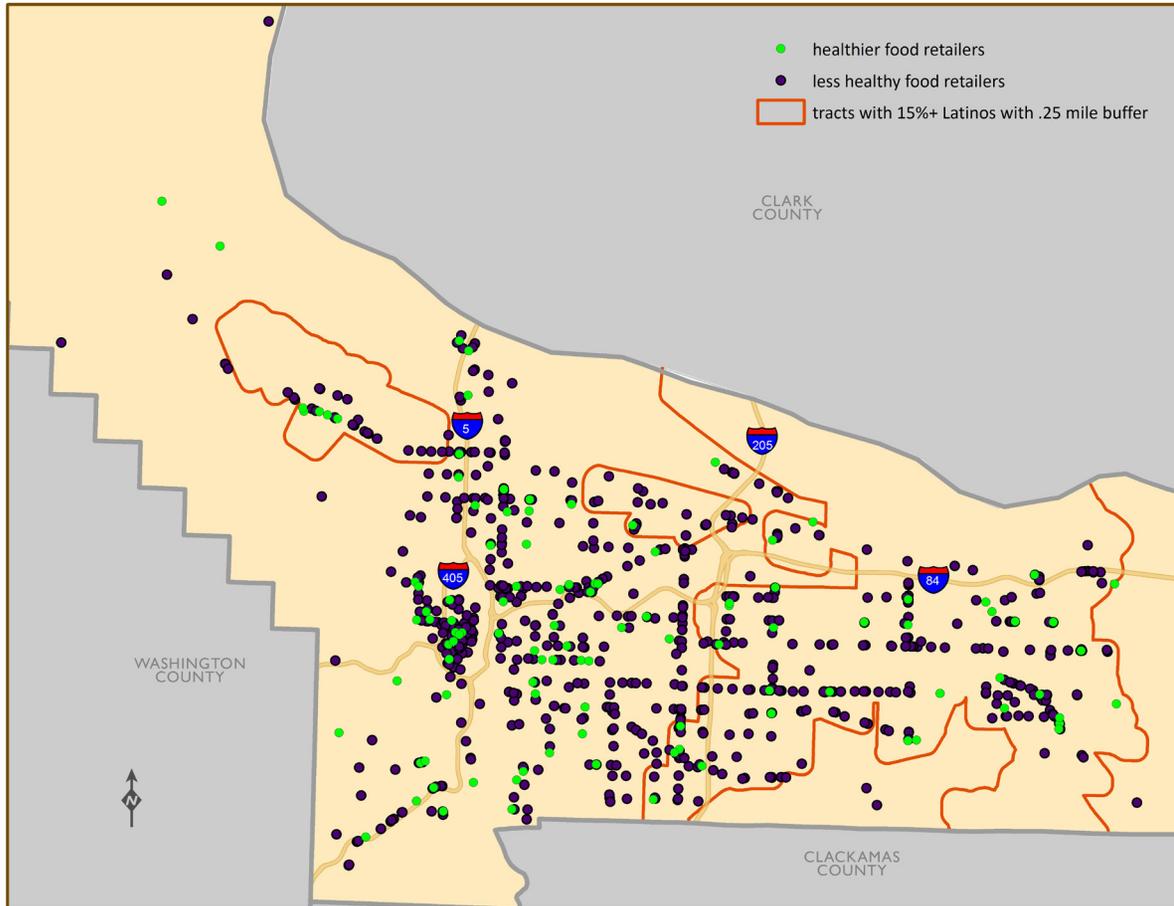
**Map 4** shows that the census tracts with relatively high proportions of Black/African Americans are located in areas of the county that have a less healthy food environment—North Portland and Central Northeast Portland. This is consistent with the geographic disparity ratio of 2.0 shown in the table above.

**Map 5: Density of Healthier Food Retailers and Less-Healthy Food Retailers in Census Tracts with at Least 15% of Tract Population Identifying as Asian/Pacific Islander**



**Map 5** shows that census tracts with relatively high proportions of Asian/Pacific Islanders are located in areas of the county with less healthy food environments—East Portland and Northwest Portland. This is consistent with the geographic disparity ratio of 3.2 shown in the table above.

**Map 6: Density of Healthier Food Retailers and Less-Healthy Food Retailers in Census Tracts with at Least 15% of Tract Population Identifying as Latino**



**Map 6** shows that census tracts with relatively high proportions of Latinos are located in areas of the county with moderately healthy to less healthy food environments—North Portland and east Multnomah County. This is consistent with the geographic disparity ratio of 2.0 shown in the table above.

# Social and Economic Factors

## Social and Economic Factors: Key Findings by Race/Ethnicity

Level of Concern for Identified Disparities: Communities of Color as Compared to Non-Latino Whites

INDICATORS	non-Latino White	non-Latino Black/AA	non-Latino Asian/PI	non-Latino American Indian/AN	Latino
<b>Social and Economic Factors</b>					
Children under age 18 in poverty	reference				
Children that live in single-parent household					
Students not meeting third-grade reading level standards					
Ninth-grade cohort that did not graduate high school in 4 years with a regular diploma		*			
Adults aged 25+ with high school education or less					
Population aged 16+ unemployed, but seeking work					

**KEY**

	<b>Requires intervention - statistically significant disparity (2.0+ disparity ratio)</b>	<b>* Significantly better than non-Latino White</b>
	<b>Needs improvement - statistically significant disparity (1.1-1.9 disparity ratio)</b>	<b>-- Not reported due to low numbers</b>
	<b>Needs improvement - disparity ratio 1.1+, did not reach statistical significance, but community consistently fared more poorly over time, or a disparity at the state level exists.</b>	
	<b>No disparity or group fares better than non-Latino White</b>	

**All groups, including the non-Latino White population** fared poorly for this group of indicators. In many cases, all groups did considerably worse than the national averages and none of the groups of color met national targets.

- › **Black/African Americans** experienced disparities for all of the indicators in this category. Children living in poverty, children living in single-parent households, students not meeting third-grade reading level standards, and unemployment all *require intervention*. The other two education-related indicators *need improvement*.
- › **Asian/Pacific Islanders** achieved the highest high school graduation rate of any of the groups, though it is still considerably lower than the national Asian/Pacific Islander rate. They experienced a disparity for the third-grade reading proficiency indicator that *needs improvement*.

- › **American Indian/Alaska Natives** also experienced disparities for each indicator. Children living in poverty and unemployment both fall at the *requires intervention* level, and the education-related and single-parent household indicators are at the *needs improvement* level.
- › **Latinos** also experienced disparities for each indicator. Children living in poverty, students not meeting third-grade reading level standards, and adults with a high school education or less all *require intervention*. Disparities for the other indicators fall at the *needs improvement* level.

## Social and Economic Factors: Children in Poverty

### Percent of children under age 18 in poverty

#### Why is this indicator important?

Meeting basic needs, such as having adequate food, clothing, and shelter, is essential to maintaining health. Poverty is commonly considered as having insufficient income to meet those needs (Brooks-Gunn et al., 1997). One study showed that if poverty were considered a cause of death in the U.S., it would rank among the top 10 causes (Krieger et al., 1997). Children are particularly vulnerable when living with poverty and may experience greater morbidity and mortality due to greater risk of accidental injury, lack of health care access, and poor educational achievement (Brooks-Gunn et al., 1997)(Aber et al., 1997). New multi-sector research is showing that toxic stress in childhood, such as living in poverty, has long-term negative impacts on physical and mental health. Many diseases diagnosed in adulthood are the result of this long-term stress (Shonkoff et al., 2012)

#### Findings

In Multnomah County, the prevalence of children living in poverty<sup>7</sup> is quite high for some groups. Half of Black/African American children and about one third of American Indian/Alaska Native and Latino children are estimated to be living in poverty. For every one non-Latino White child living in poverty, there are four Black/African American children living in poverty. The disparity ratios for these three groups are statistically significant and reach the *requires intervention* level. The disparity ratio for Asian/Pacific Islanders did not reach statistical significance and there was no disparity at the state level. Local poverty trends were not available.

<sup>7</sup> Children under the age of 18 who live in a family where the family income for the past 12 months is lower than the federal poverty level. The poverty threshold is dependent on three criteria: size of family, number of related children, and age of householder for 1- and 2-person families.

Race/Ethnicity	Percent of Children Living in Poverty	2013 County Health Rankings National Benchmark: 14%	Disparity Ratio	2006-2010 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	50.5	Does not meet	<b>3.8</b>	<b>Requires intervention</b>
<b>Asian/Pacific Islander (non-Latino)</b>	18.0	Does not meet	1.4 <sup>8</sup>	No disparity
<b>American Indian/Alaska Native (non-Latino)</b>	37.5	Does not meet	<b>2.8</b>	<b>Requires intervention</b>
<b>Latino</b>	35.2	Does not meet	<b>2.7</b>	<b>Requires intervention</b>
<b>White (non-Latino)</b>	13.2	Meets		Comparison group

<sup>8</sup>Not statistically significant. A state disparity was not detected and trend data were not available.  
 Data source: U.S. Census Bureau, 2006-2010 American Community Survey 5-year estimates.  
 Trend data were not available.

**How does Multnomah County compare to the United States?**

Multnomah County child poverty prevalence is higher for all communities of color than nationally, based on data from 2006–2010 (U.S. Census Bureau, 2011). The local prevalence for Black/African Americans is 50.5% compared to 35.4% nationally. The local prevalence for Asian/Pacific Islanders is 18.0% compared to 12.2% nationally. The local prevalence for American Indian/Alaska Natives is 37.5% compared to 33.7% nationally. And the local prevalence for Latinos is 35.2% compared to 29.2% nationally. The prevalence of poverty among non-Latino White children is higher locally (13.2%) than nationally (11.3%).

## Social and Economic Factors: Single-Parent Households

### Percent of children in single-parent households

#### Why is this indicator important?

While dominant cultural beliefs and government policies privilege families composed of two married, biological, heterosexual parents (Fiese et al., 2013; Ryan et al., 2009; Smith, 1993), more children live in different family structures, especially single-parent families (Fiese et al., 2013; Turner et al., 2013). The high prevalence of single-parent families in communities of color is largely due to government policies that have hurt these families' ability to stay together—including immigration and deportation policies, racially discriminatory incarceration and mandatory minimum sentencing laws, and institutionalized family separation due to slavery, forced relocation and mandated boarding school (Arditti et al., 2003; Garner et al., 2001; Ruggles, 1994; Satinsky et al., 2013; Weaver et al., 1997; Wildeman et al., 2010). A single-parent family structure<sup>9</sup> does not inherently lead to poor health, but the marginalized cultural, historical and policy context in which these families attempt to flourish can negatively impact important contributors to health, such as social support and economic security.

Social support and economic security are critical to health (Berkman et al., 2014). Despite prevailing beliefs, many children in single-parent families of color experience high levels of social support from extended family, non-residential parents, friends, and community (Garner et al., 2001; Jones et al., 2007). For example, evidence shows that African American non-residential fathers provide more social support and are

more involved with their children than White non-residential fathers (Jones et al., 2013; Taylor et al., 2011). Yet single-parent families of color, especially those headed by women, can experience high levels of toxic stress due to poverty (Barrett et al., 2005; Fiese et al., 2013; Turner et al., 2013). Racial discrimination and gender inequity has made it difficult for single-mothers of color to have equal access to social and economic opportunities that would enable them to provide a safe and nurturing environment for their children (Kerby, 2012; Perry et al., 2013). In Multnomah County, most single-parent families of color live in poverty and women of color are more likely to live in poverty than their White counterparts (Multnomah County Department of County Human Services, 2014). As a result, it is important to monitor this indicator within the context of examining what policies are in place to help these families thrive.

<sup>9</sup> Children under the age of 18 who live with their own single parent either in a family or subfamily. Single-parent families may include cohabiting unmarried couples, but do not include children that are living with their married stepparents.

**Findings**

The prevalence for Black/African Americans is particularly high for this indicator with nearly three-quarters of Black/African American children estimated to be living in a single-parent home. Disparity ratios are statistically significant for

Black/African Americans, American Indian/Alaska Natives and Latinos. The Black/African American group is at the *requires intervention* level, while the American Indian/Alaska Native and Latino groups are at the *needs improvement* level.

Race/Ethnicity	Percent of Children in Single-Parent Home	2013 County Health Rankings National Benchmark: 20%	Disparity Ratio	2006-2010 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	71.2	Does not meet	<b>2.6</b>	<b>Requires intervention</b>
<b>Asian/Pacific Islander (non-Latino)</b>	24.4	Does not meet	0.9	No disparity
<b>American Indian/ Alaska Native (non-Latino)</b>	46.1	Does not meet	<b>1.7</b>	<b>Needs improvement</b>
<b>Latino</b>	42.5	Does not meet	<b>1.6</b>	<b>Needs improvement</b>
<b>White (non-Latino)</b>	27.3	Does not meet	Comparison group	

Data source: U.S. Census Bureau, 2006-2010 American Community Survey 5-year estimates. Trend data were not available.

**How does Multnomah County compare to the United States?**

Multnomah County single-parent household prevalence is slightly higher than the national prevalence based on data from 2006–2010 for the Black/African American (71.2% vs. 65.3%), Latino (42.5% vs. 38.3%) and Asian/Pacific Islander (24.4% vs. 15.8%) groups (U.S. Census Bureau, 2011). The

local American Indian/Alaska Native prevalence is slightly lower than national (46.1% vs. 51.4%). The local prevalence is higher among non-Latino Whites (27.3%) compared to national (23.2%).

## Social and Economic Factors: Third-Grade Reading Level

### Percent of students that do not meet third-grade reading level standards

#### Why is this indicator important?

Third-grade reading level is a key learning benchmark. It is in the third grade that students shift from “learning to read” to “reading to learn.” Students who have not developed reading skills can fall behind, and for many of them the gap will continue to grow (Annie E. Casey Foundation, 2010). A student who can’t read at grade level by the third grade is four times less likely to graduate from high school by age 19 than a child who does read proficiently by that time (Hernandez, 2012).

#### Findings

Overall, nearly a third of Multnomah County third graders (32%) did not meet reading standards in 2011-2012. This is an improvement over the previous few years.<sup>10</sup> A significantly greater percentage of Black/African American and Latino third-graders do not meet third-grade reading level standards compared to non-Latino Whites, and this disparity *requires intervention*. There are disparities for Asian/Pacific Islander and American Indian/Alaska Native third-graders as well, which fall at the *needs improvement* level.

<sup>10</sup> In 2009-2010, 41% of children did not meet third-grade levels and in 2010-2011, 38% did not meet standards.

Race/Ethnicity	Percent of Students Not Meeting Third-grade Reading Level Standards	Disparity Ratio	2011-2012 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	49.1	<b>2.4</b>	<b>Requires intervention</b>
<b>Asian/Pacific Islander (non-Latino)</b>	30.9	<b>1.5</b>	<b>Needs improvement</b>
<b>American Indian/ Alaska Native (non-Latino)</b>	40.3	<b>1.9</b>	<b>Needs improvement</b>
<b>Latino</b>	54.3	<b>2.6</b>	<b>Requires intervention</b>
<b>White (non-Latino)</b>	20.8	Comparison group	

Data Source: 2011-2012 Portland State University Analysis of Oregon Department of Education Data.

#### How does Multnomah County compare to the United States?

Data are not available at the national level for a similar indicator.

## Social and Economic Factors: High School Graduation

### Percent of ninth-grade cohort that did not graduate in four years with a regular diploma

#### Why is this indicator important?

Research shows a relationship between education and health—those with more education tend to be healthier. Having higher education usually leads to having a better paying job. A better paying job usually provides better access to health insurance, as well as the income to access healthy resources, e.g., living in a good neighborhood with transportation and healthy food options. However, studies show that even people with higher education who do not have higher incomes or health insurance are healthier than those who are less educated (Cowell, 2006)(Cutler et al., 2006)(Egerter et al., 2009).

#### Findings

Black/African American, American Indian/Alaska Native, and Latino groups all have much lower ninth-grade cohort graduation rates than non-Latino Whites. The disparity ratios for all three groups are statistically significant and fall into the *needs improvement* category.

Race/Ethnicity	Percent of Students Who did not Graduate in Four Years with a Regular Diploma	Healthy People 2020 Target: 82.4%	Disparity Ratio	2010-2011 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	46.1	Does not meet	<b>1.4</b>	<b>Needs improvement</b>
<b>Asian/Pacific Islander (non-Latino)</b>	28.7	Does not meet	0.9*	No disparity
<b>American Indian/ Alaska Native (non-Latino)</b>	57.9	Does not meet	<b>1.8</b>	<b>Needs improvement</b>
<b>Latino</b>	51.5	Does not meet	<b>1.6</b>	<b>Needs improvement</b>
<b>White (non-Latino)</b>	32.2	Does not meet	Comparison group	

\*Significantly better than non-Latino Whites.

Data source: Oregon Department of Education, 2010-2011. Trend data were not available.

**How does Multnomah County compare to the United States?**

All racial and ethnic groups fare more poorly locally than nationally based on data from 2010–2011 on this indicator (Institute of Education Sciences, 2014). The prevalence of this indicator (not graduating from high school within four years) among local Black/African Americans is 46.1% compared to 33% nationally. The local prevalence for American Indian/Alaska Natives is 57.9% compared to 32% nationally. The local prevalence for Latinos is 51.5% compared to 25% nationally, and the local prevalence for Asian/Pacific Islanders is 28.7% compared to 7% nationally. Non-Latino Whites in Multnomah County were twice as likely to not graduate in four years compared to the national average (32.2% vs. 16%).

## Social and Economic Factors: High School Education or Less

### Percent of population aged 25 and older with high school education or less

#### Why is this indicator important?

Not only does one's education level affect his or her health, education can have implications for the health of future generations (Cutler et al., 2006)(Egerter et al., 2009). Evidence links maternal education with child health (Cutler et al., 2006). In general, educated parents have higher-paying jobs that allow families to live in better neighborhoods with access to healthy resources and quality education (Egerter et al., 2009).

#### Findings

Latinos have a statistically significant disparity ratio that *requires intervention*. The disparity ratios for Black/African Americans, American Indian/Alaska Natives, and Asian/Pacific Islanders are also statistically significant and fall into the *needs improvement* category.

Race/Ethnicity	Percent of Population Aged 25 and Older with More Than a High School Education	2013 County Health Rankings National Benchmark: 70%	Percent of Population Aged 25 and Older with High School Education or Less	Disparity Ratio	2006-2010 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	55.1	Does not meet	44.9	<b>1.7</b>	<b>Needs improvement</b>
<b>Asian/Pacific Islander (non-Latino)</b>	56.3	Does not meet	43.7	<b>1.6</b>	<b>Needs improvement</b>
<b>American Indian/ Alaska Native (non-Latino)</b>	62.3	Does not meet	37.7	<b>1.4</b>	<b>Needs improvement</b>
<b>Latino</b>	34	Does not meet	66.0	<b>2.5</b>	<b>Requires intervention</b>
<b>White (non-Latino)</b>	73	Meets	27.0		Comparison group

Data source: U.S. Census Bureau, 2006-2010 American Community Survey 5-year estimates. The benchmark is from the 2013 County Health Rankings.  
Trend data were not available.

**How does Multnomah County compare to the United States?**

Black/African American and American Indian/Alaska Native communities in Multnomah County have higher educational attainment than these groups at the national level based on data from 2006–2010 (U.S. Census Bureau, 2011). For Black/African Americans the local prevalence of persons with a high school education or less is 44.9% compared to 51.5% nationally. The local prevalence for American Indian/Alaska Native is 37.7% compared to 53.2% nationally. The local prevalence for Latinos is similar to the national (66% and 65.3% respectively). For Asian/Pacific Islanders in Multnomah County, the prevalence of person with a high school education or less (43.7%) is higher than the national prevalence (30.9%). Educational attainment for non-Latino Whites is higher in Multnomah County than nationally (27% vs. 39.7%).

## Social and Economic Factors: Unemployment

### Percent of population aged 16+ unemployed, but seeking work

#### Why is this indicator important?

About twenty-five years ago, a British study published the first convincing evidence that unemployment leads to declines in health status (Moser et al, 1987). Numerous studies have since confirmed that finding (Mathers et al., 1998). Being employed is associated with both being healthy and with slower declines in health status over time (Ross et al., 1995). Being unemployed can lead to unhealthy behaviors such as drinking more alcohol, using more tobacco, having a poorer diet, and getting less exercise, which can result in an increased risk for disease or mortality (Dooley et al., 1996).

#### Findings

The unemployment rates<sup>11</sup> for the Black/African American and American Indian/Alaska Native groups are quite a bit higher than the other groups, and because the disparity ratios are statistically significant, they fall into the *requires intervention* category. The Latino disparity ratio was also statistically significant and fell into the *needs improvement* category.

<sup>11</sup> The number of unemployed civilians aged 16 years and over as a percentage of the civilian work force. The civilian work force excludes: people whose only work activity is around the house or unpaid volunteer work; all institutionalized people; and people on active duty in the United States Armed Forces.

Race/Ethnicity	Percent of Population Aged 16+ Unemployed Civilian Labor Force	2013 County Health Rankings National Benchmark: 5%	Disparity Ratio	2006-2010 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	15.9	Does not meet	<b>2.0</b>	<b>Requires intervention</b>
<b>Asian/Pacific Islander (non-Latino)</b>	8.8	Does not meet	1.1	No disparity
<b>American Indian/ Alaska Native (non-Latino)</b>	18.0	Does not meet	<b>2.3</b>	<b>Requires intervention</b>
<b>Latino</b>	10.7	Does not meet	<b>1.3</b>	<b>Needs improvement</b>
<b>White (non-Latino)</b>	8.0	Does not meet	Comparison Group	

Data source: U.S. Census Bureau, 2006-2010 American Community Survey 5-year estimates. Trend data were not available. A limitation of this analysis is that employment data can be volatile and subject to large changes over time.

**How does Multnomah County compare to the United States?**

For all racial and ethnic groups in Multnomah County, the prevalence of unemployment is slightly higher or somewhat higher than the national average based on data from 2006–2010 for these groups (U.S. Census Bureau, 2011). The local prevalence for unemployment for Black/African Americans is 15.9% compared to 14% nationally. The local prevalence for Asian/Pacific Islanders is 8.8% compared to 6.5% nationally. The local prevalence for American Indians/Alaska Natives is 18% compared to 14% nationally, and the local prevalence for Latinos is 10.7% compared to 9.6% nationally. The local prevalence for non-Latino Whites is 8% compared to 6.5% nationally.

# Health Factors: Health Behaviors

## Health Behaviors: Key Findings by Race/Ethnicity

Level of Concern for Identified Disparities: Communities of Color as Compared to Non-Latino Whites

INDICATORS	non-Latino White	non-Latino Black/AA	non-Latino Asian/PI	non-Latino American Indian/AN	Latino
<b>Health Factors - Health Behaviors</b>					
Adults reporting current cigarette smoking	Reference				
Adults reporting a BMI ≥ 30 (obese)					
Adults reporting no physical activity outside of work					
Teen birth rate per 1,000 female population, ages 15-19			*		

**KEY**

	<b>Requires intervention - statistically significant disparity (2.0+ disparity ratio)</b>	<b>* Significantly better than non-Latino White</b>
	<b>Needs improvement - statistically significant disparity (1.1-1.9 disparity ratio)</b>	<b>-- Not reported due to low numbers</b>
	<b>Needs improvement - disparity ratio 1.1+, did not reach statistical significance, but community consistently fared more poorly over time, or a disparity at the state level exists.</b>	
	<b>No disparity or group fares better than non-Latino White</b>	

- › **All groups except for the Asian/Pacific Islander group** failed to meet the national targets for current smoking and obesity prevalence. There were no national targets for the other two indicators in this category.
- › **Black/African Americans** experienced disparities in three of the four indicators in this category. Teen births among 15-19-year-olds were at the *requires intervention* level. Current tobacco smoking and obesity indicators were at the *needs improvement* level. One of the only indicators in this report where a disparity was not detected for this group was the percentage of adults with no physical activity outside of work.
- › **Asian/Pacific Islanders** fared particularly well in this category. No health disparities were detected.
- › **American Indian/Alaska Natives** fared particularly poorly for this category and experienced disparities for each indicator. Teen births, current tobacco smoking, and adults with no physical activity were all at the *requires intervention* level. Obesity among adults was at the *needs improvement* level.
- › **Latinos** experienced disparities in two of the four indicators. The teen birth disparity was at the *requires intervention* level, while adult obesity was in the *needs improvement* category.

## Health Behavior: Current Smoker

### Percent of adults reporting current cigarette smoking

#### Why is this indicator important?

It is widely known that tobacco use, particularly cigarette smoking, causes health problems such as lung and other cancers, chronic obstructive pulmonary disease (e.g., emphysema and chronic bronchitis), coronary heart disease, and stroke. Secondhand smoke is also dangerous and children who are exposed to it are more likely to suffer from health problems such as bronchitis, pneumonia, ear infections, and asthma. Quitting smoking causes immediate improvements to health (Office on Smoking and Health, 2014).

Tobacco use is the leading cause of preventable death in the United States. Tobacco-related healthcare and loss of productivity cost the United States more than \$193 billion in 2004 (American Lung Association 2014). In 2011, 21% of Multnomah County deaths were due to tobacco-related causes (Oregon Tobacco Prevention and Education Program, 2011).

#### Findings

Current cigarette smoking prevalence<sup>12</sup> was particularly high among the American Indian/Alaska Native group, with 42% of adults reporting that they smoke compared to 20% of the non-Latino White population. The disparity ratios for American Indian/Alaska Natives and Black/African Americans were statistically significant. American Indian/Alaska Natives fell into the *requires intervention* category and the Black/African American disparity reached the *needs improvement* level.

<sup>12</sup> Current cigarette smokers were defined as respondents who had smoked  $\geq 100$  cigarettes during their lifetime and responded “every day” or “some days” to the question, “Do you now smoke cigarettes every day, some days, or not at all?”

Race/Ethnicity	Age-Adjusted Percent of Current Cigarette Smokers	Healthy People 2020 Target: 12%	Disparity Ratio	2010-2011 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	29.9	Does not meet	<b>1.5</b>	<b>Needs improvement</b>
<b>Asian/Pacific Islander (non-Latino)</b>	12.4 <sup>13</sup>	Meets	0.6	No disparity
<b>American Indian/ Alaska Native (non-Latino)</b>	42.2	Does not meet	<b>2.1</b>	<b>Requires intervention</b>
<b>Latino</b>	27.0	Does not meet	1.3 <sup>14</sup>	No disparity
<b>White (non-Latino)</b>	20.4	Does not meet	Comparison group	

<sup>13</sup>The estimate could vary considerably from year to year due to small numbers in the group. Interpret with caution.  
<sup>14</sup>Not statistically significant. There was no state-level disparity and trend data were not available.  
 Data source: Oregon Behavioral Risk Factor Surveillance System Race Oversample 2010-2011.  
 Estimates were age-adjusted to the 2000 U.S. population.  
 Trend data were not available.

### How does Multnomah County compare to the United States?

Data are not available at the national level for a similar indicator that was age-adjusted to the 2000 U.S. population.

## Health Behavior: Obesity

### Percent of adults who report a Body Mass Index (BMI)<sup>15</sup> of $\geq 30$ (obese)

#### Why is this indicator important?

Obesity is a complex health issue. Behavior, environment, and genetic factors may all play a role in causing people to be obese. Individuals who are obese are at increased risk for a number of chronic diseases including type 2 diabetes, hypertension, high cholesterol, coronary heart disease, stroke, and certain types of cancer, e.g., breast and colon cancer. These health problems have an adverse impact on quality of life and increase the risk of premature mortality (Christopher et al., 2013).

<sup>15</sup> BMI (Body Mass Index) is a person's weight in kilograms divided by their height in meters squared.

#### Findings

The disparity ratios for the Latino, the Black/African American, and the American Indian/Alaska Native groups fell into the *needs improvement* category. Though the disparity ratios for the American Indian/Alaska Native and Latino groups were not statistically significant, a disparity at the state level existed. Locally, Latinos, Black/African Americans, and American Indian/Alaska Natives were more than one and a half times more likely to be obese than non-Latino Whites. In Multnomah County, the non-Latino White and Asian/Pacific Islander groups met the Healthy People 2020 target.

Race/Ethnicity	Age-Adjusted Percent of Obese Adults	Healthy People 2020 Target: 30.5%	Disparity Ratio	2010-2011 Health Disparity Summary
Black/African American (non-Latino)	34.8	Does not meet	1.6	Needs improvement
Asian/Pacific Islander (non-Latino)	20.0 <sup>16</sup>	Meets	0.9	No disparity
American Indian/ Alaska Native (non-Latino)	36.2 <sup>17</sup>	Does not meet	1.7 <sup>18</sup>	Needs improvement
Latino	33.4	Does not meet	1.6 <sup>19</sup>	Needs improvement
White (non-Latino)	21.5	Meets	Comparison group	

<sup>16</sup>The estimate could vary considerably from year to year due to small numbers in the group. Interpret with caution.

<sup>17</sup>The estimate could vary considerably from year to year due to small numbers in the group. Interpret with caution.

<sup>18</sup>Not statistically significant, but a disparity was detected at the state-level.

<sup>19</sup>Not statistically significant, but a disparity was detected at the state-level.

Data sources: Oregon Behavioral Risk Factor Surveillance System Race Oversample 2010-2011, Oregon Health Authority and HealthyPeople.gov.

Estimates were age-adjusted to the 2000 U.S. population.

Trend data were not available.

**How does Multnomah County compare to the United States?**

Obesity prevalence among Black/African Americans, Latinos, and non-Latino Whites is lower in Multnomah County than national data from 2005–2008 (Centers for Disease Control and Prevention, 2011). The local prevalence of obesity among Black/African Americans is 34.8% compared to 44% nationally. The local prevalence for Latinos is 33.4% compared to 36% nationally, and the local prevalence for non-Latino Whites is 21.5% compared to 33% nationally. National estimates were unavailable for the Asian/Pacific Islander and the American Indian/Alaska Native groups.

## Health Behavior: Physical Activity

### Percent of adults who report no physical activity outside of work<sup>20</sup>

#### Why is this indicator important?

Regular physical activity can improve the health and quality of life of all people. Physical activity can lower the risk of type 2 diabetes, cancer, stroke, hypertension, cardiovascular disease, and premature mortality (I-Min et al., 2012).

#### Findings

The American Indian/Alaska Native disparity ratio for physical activity was statistically significant and *requires intervention*.

<sup>20</sup> In the Behavioral Risk Factor Surveillance System Survey (BRFSS) respondents were asked, "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?"

Race/Ethnicity	Age-Adjusted Percent With No Physical Activity Outside of Work	Disparity Ratio	2010-2011 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	19.2	1.3 <sup>21</sup>	No disparity
<b>Asian/Pacific Islander (non-Latino)</b>	19.7 <sup>22</sup>	1.4 <sup>23</sup>	No disparity
<b>American Indian/ Alaska Native (non-Latino)</b>	30.5 <sup>24</sup>	<b>2.1</b>	<b>Requires intervention</b>
<b>Latino</b>	27.2 <sup>25</sup>	1.9 <sup>26</sup>	No disparity
<b>White (non-Latino)</b>	14.5	Comparison group	

<sup>21</sup>Not statistically significant. There was no state-level disparity and trend data were not available.

<sup>22</sup>The estimate could vary considerably from year to year due to small numbers in the group. Interpret with caution.

<sup>23</sup>Not statistically significant. There was no state-level disparity and trend data were not available.

<sup>24</sup>The estimate could vary considerably from year to year due to small numbers in the group. Interpret with caution.

<sup>25</sup>The estimate could vary considerably from year to year due to small numbers in the group. Interpret with caution.

<sup>26</sup>Not statistically significant. There was no state-level disparity and trend data were not available.

Data source: Oregon Behavioral Risk Factor Surveillance System Race Oversample 2010-2011, Oregon Health Authority.

Estimates were age-adjusted to the 2000 U.S. population.

Trend data were not available.

#### How does Multnomah County compare to the United States?

Data are not available at the national level for a similar indicator.

## Health Behavior: Teen Births

### Teen birth rate per 1,000 female population, ages 15-19

#### Why is this indicator important?

There are cultural differences in the way teen birth is viewed. In some cultures, teen birth is better supported by family, friends, and community resources than in others. When these supports are unavailable, teen birth can lead to poorer factors associated with health. Pregnancy and birth are associated with higher high school dropout rates for teen girls. This may have a significant impact on future education and employment opportunities (Ng et al., 2012). Children of teen parents tend to have lower levels of school achievement and higher high school dropout rates. They are also at higher risk for health problems, incarcerations during adolescence, and for becoming teen parents themselves (Jaffee et al., 2001).

#### Findings

The Black/African American, American Indian/Alaska Native, and Latino teen birth disparity ratios were statistically significant and all reached the *requires intervention* level. The disparity ratio is particularly high for Latina teens and was 3.5 times greater than non-Latino Whites in Multnomah County.

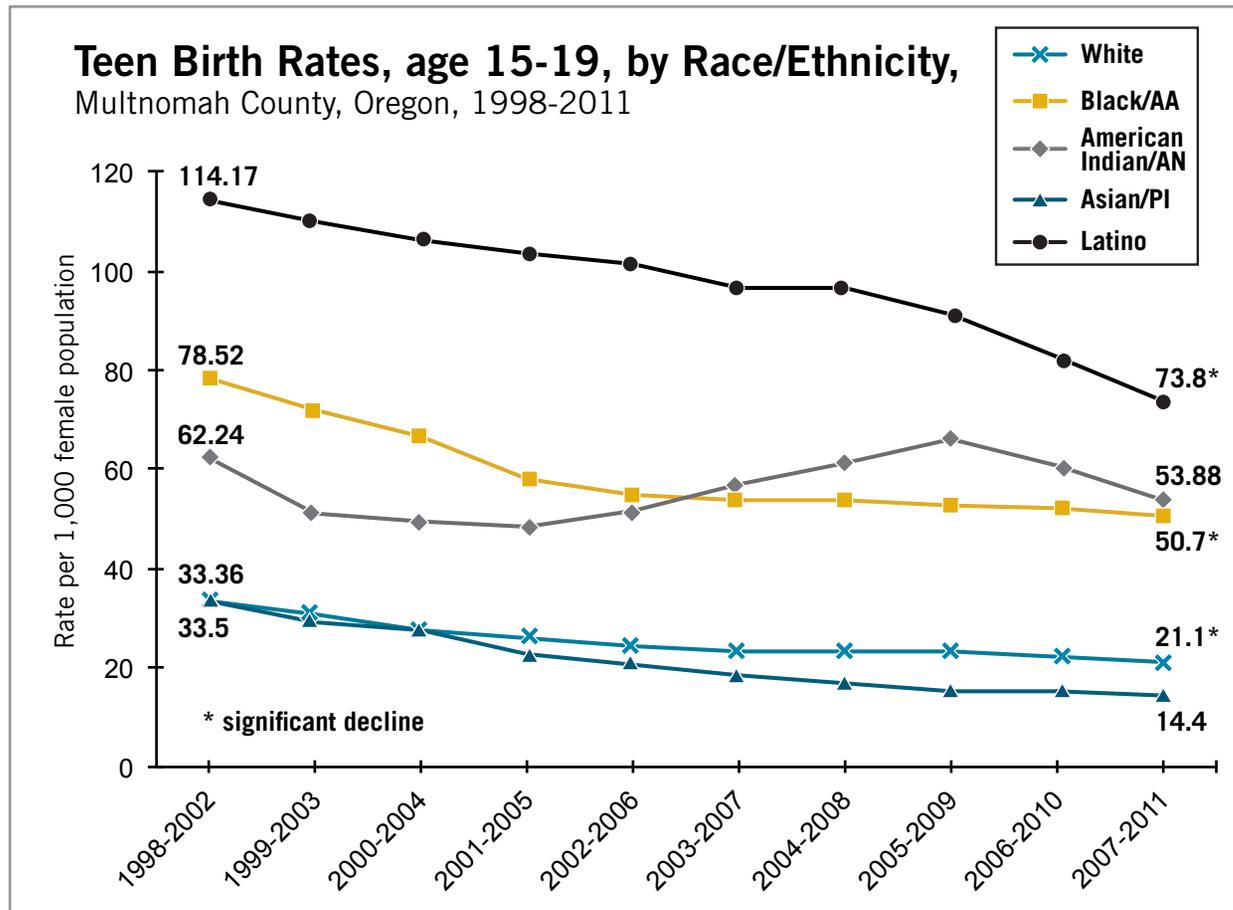
Race/Ethnicity	Age-Specific Birth Rate (per 1,000 population)	2012 County Health Rankings National Benchmark: 21.0	Disparity Ratio	2007-2011 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	50.7	Does not meet	<b>2.4</b>	<b>Requires intervention</b>
<b>Asian/Pacific Islander (non-Latino)</b>	14.4	Meets	0.7*	No disparity
<b>American Indian/Alaska Native (non-Latino)</b>	53.9	Does not meet	<b>2.6</b>	<b>Requires intervention</b>
<b>Latino</b>	73.8	Does not meet	<b>3.5</b>	<b>Requires intervention</b>
<b>White (non-Latino)</b>	21.1	Does not meet	Comparison group	

\*Significantly better than non-Latino Whites.

Data source: Center for Health Statistics, Oregon Health Authority, 2007–2011.

The benchmark is from the 2013 County Health Rankings.

Age-specific rates include only the specified age group in both the numerator and denominator (i.e., 15-19 years of age).



Data source: Center for Health Statistics, Oregon Health Authority.

#### Trends

All groups except American Indian/Alaska Natives have had a significant decline in teen birth rates over time.

#### How does Multnomah County compare to the United States?

The teen birth rates for Black/African Americans, Asian/Pacific Islanders and American Indian/Alaska Natives in Multnomah County are lower than national estimates for each group

based on data from 2009 (Martin et al., 2011). The local teen birth rate (per thousand) for Black/African Americans is 50.7 compared to 59.0, nationally. The local rate for Asian/Pacific Islanders is 14.4 compared to 14.7 nationally. The local rate for American Indian/Alaska Natives is 53.9 compared to 55.5 nationally, and the local rate for Latinas is 73.8 compared to 70.1 nationally.

# Health Factors: Clinical Care

## Clinical Care: Key Findings by Race/Ethnicity

Level of Concern for Identified Disparities: Communities of Color as Compared to Non-Latino Whites

INDICATORS	non-Latino White	non-Latino Black/AA	non-Latino Asian/PI	non-Latino American Indian/AN	Latino
<b>Health Factors - Clinical Care</b>					
Adults without health insurance <sup>27</sup>	reference				
Mothers not accessing 1 <sup>st</sup> trimester prenatal care					
Children in grades 1-3 with untreated tooth decay <sup>^</sup>				--	
Hospitalization rate for ambulatory-care sensitive conditions per 1,000 adults 65 years and older			*		*

<sup>27</sup>These data do not reflect the expansion of insurance coverage under the Affordable Care Act.

### KEY

	Requires intervention - statistically significant disparity (2.0+ disparity ratio)	* Significantly better than non-Latino White
	Needs improvement - statistically significant disparity (1.1-1.9 disparity ratio)	^ Does not include Pacific Islanders
	Needs improvement - disparity ratio 1.1+, did not reach statistical significance, but community consistently fared more poorly over time, or a disparity at the state level exists.	-- Estimate not reliable due to small numbers or small population size
	No disparity or group fares better than non-Latino White	

- › Overall, **none of the groups** met the national targets for the insurance coverage and first trimester prenatal care indicators. All communities of color fared poorly on the accessing first trimester prenatal care indicator.
- › **Black/African Americans** experienced disparities at the *needs improvement* level for all four indicators in this category. This is the only group of indicators where Black/African Americans did not have a disparity that reached the *requires intervention* level.
- › **Asian/Pacific Islanders** experienced two disparities related to access to care. Adults lacking health insurance is the only indicator in this report that *requires intervention* for this group. The accessing early prenatal care indicator *needs improvement*.
- › **American Indian/Alaska Natives** experienced one disparity that *needs improvement*: accessing early prenatal care. The oral health indicator could not be assessed due to small numbers in the group.
- › **Latinos** experienced one disparity—lack of insurance—that *requires intervention*, and two that reached the *needs improvement* level, accessing early prenatal care and untreated tooth decay during childhood.

## Clinical Care: Insurance Coverage

### Percent of adults without health insurance

#### Why is this indicator important?

Lack of health insurance is a significant barrier to accessing health care. Uninsured individuals are less likely to receive medical care and are more likely to be diagnosed late and to die earlier (Fronstin et al., 2009)(Institute of Medicine, 2003). Having access to primary care has been found to reduce health care costs and improve the overall quality of the care (Steinbrook, 2009).

<sup>28</sup> These data do not reflect the expansion of insurance coverage under the Affordable Care Act.

<sup>29</sup> Based on the following BRFSS question: “Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, government plans such as Medicare, or Indian Health Service?”

#### Findings<sup>28</sup>

Lack of health insurance<sup>29</sup> among Latinos and Asian/Pacific Islanders was two times greater than among non-Latino Whites in Multnomah County. Both disparity ratios were statistically significant and fell into the *requires intervention* category. The Black/African American disparity ratio was also statistically significant, but fell into the *needs improvement* category.

It is important to note that these data do not reflect the recent expansion of insurance coverage under the Affordable Care Act (ACA). Data for lack of health insurance and disparities related to lack of health insurance will likely look different after the implementation of ACA.

Race/Ethnicity	Age-Adjusted Percent of Adults Without Insurance Coverage	Healthy People 2020 Target: 100% with coverage	Disparity Ratio	2010-2011 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	27.7	Does not meet	<b>1.8</b>	<b>Needs improvement</b>
<b>Asian/Pacific Islander (non-Latino)</b>	33.9	Does not meet	<b>2.2</b>	<b>Requires intervention</b>
<b>American Indian/Alaska Native (non-Latino)</b>	20.0 <sup>30</sup>	Does not meet	1.3 <sup>31</sup>	No disparity
<b>Latino</b>	30.9	Does not meet	<b>2.0</b>	<b>Requires intervention</b>
<b>White (non-Latino)</b>	15.3	Does not meet	Comparison group	

<sup>30</sup>The estimate could vary considerably from year to year due to small numbers in the group. Interpret with caution.

<sup>31</sup>Not statistically significant. There was no state-level disparity and trend data were not available.

Data source: Oregon Behavioral Risk Factor Surveillance System Race Oversample 2010-2011.

Oregon Health Authority Estimates were age-adjusted to the 2000 U.S. population.

Trend data were not available.

#### How does Multnomah County compare to the United States?

Data are not available at the national level for a similar indicator that was age-adjusted to the 2000 U.S. population.

## Clinical Care: First Trimester Prenatal Care

### Percent of mothers not accessing first trimester prenatal care<sup>32</sup>

#### Why is this indicator important?

Starting prenatal care during the first trimester of pregnancy is important for the health of both mother and child. The first three months in pregnancy are a critical stage in fetal development especially for organ formation. Early and routine prenatal care is associated with healthy birthweight and full-term delivery (U.S. Department of Health and Human Services, 2009).

Early prenatal care helps in reducing a mother’s illness, disability, and death by allowing health care providers to assess her risk for complications and provide necessary treatment (McCormick et al., 2001). Early and ongoing care during pregnancy also provides opportunities for health education to address behavioral factors, such as smoking and alcohol use that contribute to poor health outcomes.

#### Findings

Beginning in 2008, Oregon implemented the latest revision of the U.S. Standard Certificate of Live Birth that collects information about the day and month of the first prenatal visit. Prior to 2008, the certificate only collected the month prenatal care began. The 2008 change in data collection procedures created very different results compared to previous years. Therefore, trend data are not presented.

The disparity ratios for all populations of color were statistically significant and reached *the needs improvement* level.

<sup>32</sup> Calculated from birth certificate data listing day and month of first prenatal care visit.

Race/Ethnicity	Percent Not Receiving First Trimester Prenatal Care	Healthy People Target 2020: 22.1%	Disparity Ratio	2007-2011 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	37.2	Does not meet	<b>1.5</b>	<b>Needs improvement</b>
<b>Asian/Pacific Islander (non-Latino)</b>	33.5	Does not meet	<b>1.4</b>	<b>Needs improvement</b>
<b>American Indian/Alaska Native (non-Latino)</b>	42.4	Does not meet	<b>1.7</b>	<b>Needs improvement</b>
<b>Latino</b>	36.5	Does not meet	<b>1.5</b>	<b>Needs improvement</b>
<b>White (non-Latino)</b>	24.3	Does not meet	Comparison group	
Data source: Center for Health Statistics, Oregon Health Authority, 2007-2011 Trend data were not available.				

**How does Multnomah County compare to the United States?**

The prevalence of not receiving prenatal care is higher in Multnomah County for Asian/Pacific Islanders (33.5%) and Latinos (36.5%) than 2008 national estimates for Asian/Pacific Islanders (22.1%) and Latinos (35.3%) (National Vital Statistics, 2011). The proportion of Black/African Americans in Multnomah County not receiving first trimester prenatal care (37.2%) is lower than the national proportion (39.7%). The local proportion among American Indian/Alaska Native (42.4%) is lower than the national proportion (45.1%).

## Clinical Care: Untreated Tooth Decay

### Percent of children in grades 1 through 3 with untreated tooth decay<sup>33</sup>

#### Why is this indicator important?

Tooth decay is a significant public health concern and causes needless pain and suffering for many children. Children who have tooth decay are more likely to experience oral pain and infection, which can affect a child’s school attendance and performance. It may also lead to impaired speech development, poor nutrition, and increased health care costs ( Oregon Health Authority, 2012).

<sup>33</sup> Oregon Smile Survey data on untreated tooth decay gathered by dental hygienists who completed a visual screen of children in grades 1 to 3 from a statewide representative sample of elementary schools.

#### Findings

The disparity ratio for the Black/African American group was statistically significant and reached the *needs improvement* level. Though the disparity ratio for the Latino group was not statistically significant, a disparity at the state level existed. The American Indian/Alaska Native data did not meet the criteria for statistical reliability, data quality, or confidentiality and were not reported.

Race/Ethnicity	Percent of Children in Grades 1 through 3 with Untreated Tooth Decay	Healthy People 2020 Target: 25.9%	Disparity Ratio	2012 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	32.9%	Does not meet	<b>1.7</b>	<b>Needs improvement</b>
<b>Asian (non-Latino)<sup>34</sup></b>	16.3%	Meets	0.8	No disparity
<b>American Indian/Alaska Native (non-Latino)</b>	--	--	--	--
<b>Latino</b>	26.3%	Does not meet	1.4 <sup>35</sup>	Needs improvement
<b>White (non-Latino)</b>	19.3%	Meets	Comparison group	

<sup>34</sup>Does not include Pacific Islanders.

<sup>35</sup>Not statistically significant, but a disparity was detected at the state-level.

-- Estimate not reliable due to small numbers or small population size.

Data source: 2012 Oregon Smile Survey, Oregon Health Authority.

Trend data were not available.

**How does Multnomah County compare to the United States?**

National data from 2009-2010 were only available for the non-Latino White, Black/African American, and Latino groups (Dye et al., 2012). The prevalence of untreated tooth decay among Black/African American children in Multnomah County is nearly twice as high as the national prevalence among the same group (32.9% vs. 18.6%). The local prevalence among Latino children (26.3%) was about the same as the national (25.8%). The local prevalence among non-Latino White children was 40% higher than the national (19.3% vs. 13.9%).

## Clinical Care: Hospitalization

### Hospitalization rate for ambulatory-care-sensitive conditions per 1,000 adults 65 years and older

#### Why is this indicator important?

This indicator is a measure of avoidable hospitalizations for adults aged 65 and older. In other words, this indicator measures the proportion of total hospitalizations that could have been treated *outside* of the hospital (e.g., in a clinic, doctor’s office, or urgent care facility). Conditions considered ambulatory-care-sensitive or preventable include: asthma, seizures, dehydration, diabetes, chronic pulmonary obstructive disease, pneumonia, congestive heart failure, hypertension, angina, and cellulitis.

This indicator is important to consider because it is a measure of the quality of care provided in the outpatient setting (Brumley et al., 2007) and it may also represent the population’s tendency to overuse the hospital as a source of care (Bindman et al., 1995).

#### Findings

Asian/Pacific Islanders, American Indian/Alaska Natives, and Latinos had statistically significantly lower rates of preventable hospitalizations than non-Latino Whites. Black/African Americans have a statistically significant disparity ratio that falls into the *needs improvement* category.

Race/Ethnicity	Age-Specific Rate per 1,000	Disparity Ratio	2010-2011 Health Disparity Summary
Black/African American (non-Latino)	17.3	1.9	Needs improvement
Asian/Pacific Islander (non-Latino)	3.5	0.4*	No disparity
American Indian/Alaska Native (non-Latino)	9.5	1.1 <sup>36</sup>	No disparity
Latino	3.3	0.4*	No disparity
White (non-Latino)	9.0	Comparison group	

<sup>36</sup>Disparity ratio rounded up to 1.1

\*Significantly better than non-Latino Whites.

Data source: Hospital Discharge Data, Oregon Healthcare Enterprises, 2010-2011.

Trends by race were not available as data collection for race/ethnicity began in 2008.

A limitation of this analysis is that up to 20% of racial/ethnic data were missing from this data set. Missing data was not accounted for in the analysis.

#### How does Multnomah County compare to the United States?

Data are not available at the national level for a similar indicator.

# Morbidity

## Morbidity: Key Findings by Race/Ethnicity

Level of Concern for Identified Disparities: Communities of Color as Compared to Non-Latino Whites

INDICATORS	non-Latino White	non-Latino Black/AA	non-Latino Asian/PI	non-Latino American Indian/AN	Latino
<b>Health Outcomes - Morbidity</b>					
Adults reporting fair or poor health	reference				
Adults reporting any incapacity last 30 days due to physical or mental health					*
Adults reporting mental health not good in 2 of the past 4 weeks					
Gonorrhea rate per 100,000 population			*		
Human Immunodeficiency Virus (HIV) incidence per 100,000				--	
Live births with low birthweight (< 2500 grams)					

**KEY**

	<b>Requires intervention - statistically significant disparity (2.0+ disparity ratio)</b>	<b>* Significantly better than non-Latino White</b>
	<b>Needs improvement - statistically significant disparity (1.1-1.9 disparity ratio)</b>	<b>-- Estimate not reliable due to small numbers or small population size</b>
	<b>Needs improvement - disparity ratio 1.1+, did not reach statistical significance, but community consistently fared more poorly over time, or a disparity at the state level exists.</b>	
	<b>No disparity or group fares better than non-Latino White</b>	

- › The only indicator in this category that has a national target is low birthweight. **All groups except Black/African American and Asian/Pacific Islander** met the target.
- › **Black/African Americans** experienced disparities for self-reported fair or poor health status, low birthweight, and HIV incidence that reached the *needs improvement* level. The disparity for gonorrhea *requires intervention*.
- › **Asian/Pacific Islanders** fared relatively well for this set of indicators. Only one indicator revealed a significant disparity. The disparity ratio for low birthweight reached the *needs improvement* level. Asian/Pacific Islander was the only community of color that did not experience a disparity for the self-reported health status indicators.
- › **American Indian/Alaska Natives** experienced disparities for three indicators at the needs improvement level: two of the self-reported health status indicators and low birthweight. The HIV incidence indicator could not be assessed due to the small number of cases and group size.
- › **Latinos** experienced disparities in two indicators at the *needs improvement* level: self-reported poor health and HIV incidence.

## Morbidity: Health Status Fair or Poor

### Percent of adults reporting fair or poor health<sup>37</sup>

#### Why is this indicator important?

Self-reported health status is a widely used measure for overall health and health-related quality of life. Self-reported health status is a good predictor of future disability, physician utilization, and mortality (Idler et al., 1997; Idler et al., 1995).

#### Findings

Among Black/African Americans in Multnomah County, self-reported poor health status was significantly greater than that of non-Latino Whites, and reached the *needs improvement* level. The prevalence of self-reported poor health among Multnomah County Latinos and American Indian/Alaska Natives was

not statistically different than non-Latino Whites. However, since a disparity at the state level exists for these groups, the disparities were included in the *needs improvement* category. For Asian/Pacific Islanders, the prevalence of self-reported poor health was also not significantly different than that of Whites, but there was no disparity at the state level and no trend data were available to examine. Therefore, no disparity was identified for this group.

<sup>37</sup> In the Behavioral Risk Factor Surveillance System Survey (BRFSS) respondents were asked, "Would you say that in general, your health is excellent, very good, good, fair or poor?"

Race/Ethnicity	Age-Adjusted Percent of Poor/ Fair General Health Days	Disparity Ratio	2010-2011 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	24.5	<b>1.6</b>	<b>Needs improvement</b>
<b>Asian/Pacific Islander (non-Latino)</b>	19.4 <sup>38</sup>	1.2 <sup>39</sup>	No disparity
<b>American Indian/Alaska Native (non-Latino)</b>	18.1 <sup>40</sup>	1.2 <sup>41</sup>	Needs improvement
<b>Latino</b>	19.6 <sup>42</sup>	1.3 <sup>43</sup>	Needs improvement
<b>White (non-Latino)</b>	15.6	Comparison group	

<sup>38</sup>The estimate could vary considerably from year to year due to small numbers in the group. Interpret with caution.

<sup>39</sup>Not statistically significant and no disparity was detected at the state level. Local trend data were not available.

<sup>40</sup>The estimate could vary considerably from year to year due to small numbers in the group. Interpret with caution.

<sup>41</sup>Not statistically significant, but a disparity was detected at the state level.

<sup>42</sup>The estimate could vary considerably from year to year due to small numbers in the group. Interpret with caution.

<sup>43</sup>Not statistically significant, but a disparity was detected at the state level.

Data source: Oregon Behavioral Risk Factor Surveillance System Race Oversample 2010-2011, Oregon Health Authority. Estimates were age-adjusted to the 2000 U.S. population. Trend data were not available.

**How does Multnomah County compare to the United States?**

National data from 2012 were only available for the non-Latino White, Black/African American and Latino groups (Behavioral Risk Factor Surveillance System, 2012). Black/African Americans in Multnomah County had a higher proportion of adults reporting fair or poor health (24.5%) than nationally (22.2%). Latinos in Multnomah County had a lower proportion of self-reported fair or poor health (19.6%) than nationally (23.8%).

## Morbidity: Incapacity Due to Poor Physical or Mental Health

### Percent of adults reporting any incapacity in the previous 30 days due to physical or mental health<sup>44</sup>

#### Why is this indicator important?

This indicator can be used to identify the burden of impaired physical or mental health among populations (Jia et al., 2004).

<sup>44</sup> In the Behavioral Risk Factor Surveillance System Survey (BRFSS), respondents were asked about the number of physically and mentally unhealthy days they experience per month. These questions were followed by a subsequent question regarding how many days in a month poor physical or mental health kept the respondent from doing their usual activities such as self-care, work, or recreation.

#### Findings

In Multnomah County, data did not indicate any significant racial or ethnic disparities for incapacity due to poor health. Black/African Americans reported a slightly higher prevalence of incapacity due to poor health than non-Latino Whites, although this difference did not reach statistical significance.

Race/Ethnicity	Age-Adjusted Percent of adults with 1+ Days of Incapacity Due to Physical or Mental Health	Disparity Ratio	2010-2011 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	36.0	1.3 <sup>45</sup>	No disparity
<b>Asian/Pacific Islander (non-Latino)</b>	23.4	0.8	No disparity
<b>American Indian/Alaska Native (non-Latino)</b>	29.5	1.0	No disparity
<b>Latino</b>	24.9	0.9*	No disparity
<b>White (non-Latino)</b>	28.4	Comparison group	

<sup>45</sup>Not statistically significant and a disparity was not detected at the state level.

\*Significantly better than non-Latino Whites.

Data source: Oregon Behavioral Risk Factor Surveillance System Race Oversample 2010-2011, Oregon Health Authority. Estimates were age-adjusted to the 2000 U.S. population.

#### How does Multnomah County compare to the United States?

National data from 2012 were only available for non-Latino White, Black/African American and Latino groups (Behavioral Risk Factor Surveillance System, 2012). In Multnomah County, the prevalence of incapacity due to physical or mental health

among Black/African Americans (36.0%) and Latinos (24.95) were substantially higher than national estimates (21.2% and 14.9%, respectively).

## Morbidity: Mental Health Not Good

### Percent of adults reporting 14+ days of poor mental health in past month<sup>46</sup>

#### Why is this indicator important?

Mental health is essential to personal well-being, family and interpersonal relationships, and the ability to contribute to community and society. Mental health disorders are the leading cause of disability in the United States, accounting for 25 percent of all years of life lost to disability and premature mortality (World Health Organization, 2004). Suicide is the eighth leading cause of death in Multnomah County (Oregon Center for Health Statistics, 2011).

It is important to remember that among all populations, cultural and social contexts can influence attitudes towards and characterizations of mental health. Cultural norms and perceptions of stigma might inhibit the disclosure of frequent mental distress which may be reflected in a lower prevalence of frequent mental distress.

#### Findings

At the state level, frequent mental distress was significantly higher among American Indian/Alaska Natives compared to non-Latino Whites. Because this pattern was seen in Multnomah County results as well, the disparity was identified as *needs improvement* even though the findings were not statistically significant.

<sup>46</sup> In the Behavioral Risk Factor Surveillance System Survey (BRFSS), respondents were asked “Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?” Respondents reporting 14 or more days in which their mental health was not good due to these issues were identified as having “frequent mental distress.”

Race/Ethnicity	Age-Adjusted Percent of Adults Reporting Mental Health Not Good in 2 of the Last 4 Weeks	Disparity Ratio	2010-2011 Health Disparity Summary
Black/African American (non-Latino)	17.9	1.4 <sup>47</sup>	No disparity
Asian/Pacific Islander (non-Latino)	7.1 <sup>48</sup>	0.5	No disparity
American Indian/Alaska Native (non-Latino)	26.1 <sup>49</sup>	2.0 <sup>50</sup>	Needs improvement
Latino	14.9 <sup>51</sup>	1.2 <sup>52</sup>	No disparity
White (non-Latino)	12.9	Comparison group	

<sup>47</sup>Not statistically significant and no disparity was detected at the state level.

<sup>48</sup>The estimate could vary considerably from year to year due to small numbers in the group. Interpret with caution.

<sup>49</sup>The estimate could vary considerably from year to year due to small numbers in the group. Interpret with caution.

<sup>50</sup>Not statistically significant, but a disparity was detected at the state level.

<sup>51</sup>The estimate could vary considerably from year to year due to small numbers in the group. Interpret with caution.

<sup>52</sup>Not statistically significant and no disparity was detected at the state level.

Data source: Oregon Behavioral Risk Factor Surveillance System Race Oversample 2010-2011, Oregon Health Authority. Estimates were age-adjusted to the 2000 U.S. population.

**How does Multnomah County compare to the United States?**

Data are not available at the national level for a similar indicator.

## Morbidity: Gonorrhea Incidence

### Gonorrhea rate<sup>53</sup> per 100,000 population

#### Why is this indicator important?

Gonorrhea is the second most common reportable disease in the United States. Although an individual’s sexual behavior can increase the risk of acquiring gonorrhea, the spread of sexually transmitted diseases is directly affected by social, economic, and structural factors as well (Krieger et al., 2003). Such factors may cause obstacles to sexually transmitted disease prevention due to their influence on social and sexual networks, access to and provision of care (Institute of Medicine, 2002), willingness to seek care, and social norms regarding sex and sexuality. In addition, once an infectious disease is entrenched in a specific

community or socio-sexual network, individuals with low-risk behaviors will still be at significantly higher risk of infection than individuals outside the community/socio-sexual network.

#### Findings

The Black/African American disparity ratio was particularly high and *requires intervention*.

<sup>53</sup> All laboratory confirmed cases of Gonorrhea reported to the Oregon Public Health Division.

Race/Ethnicity	Age-Adjusted Rate (per 100,000)	Disparity Ratio	2007-2011 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	411.4	<b>7.0</b>	<b>Requires intervention</b>
<b>Asian/Pacific Islander (non-Latino)</b>	19.3	0.3*	No disparity
<b>American Indian/Alaska Native (non-Latino)</b>	62.4	1.1 <sup>54</sup>	No disparity
<b>Latino</b>	62.4	1.1 <sup>55</sup>	No disparity
<b>White (non-Latino)</b>	58.6	Comparison group	

<sup>54</sup>Disparity ratio rounded up to 1.1

<sup>55</sup>Disparity ratio rounded up to 1.1

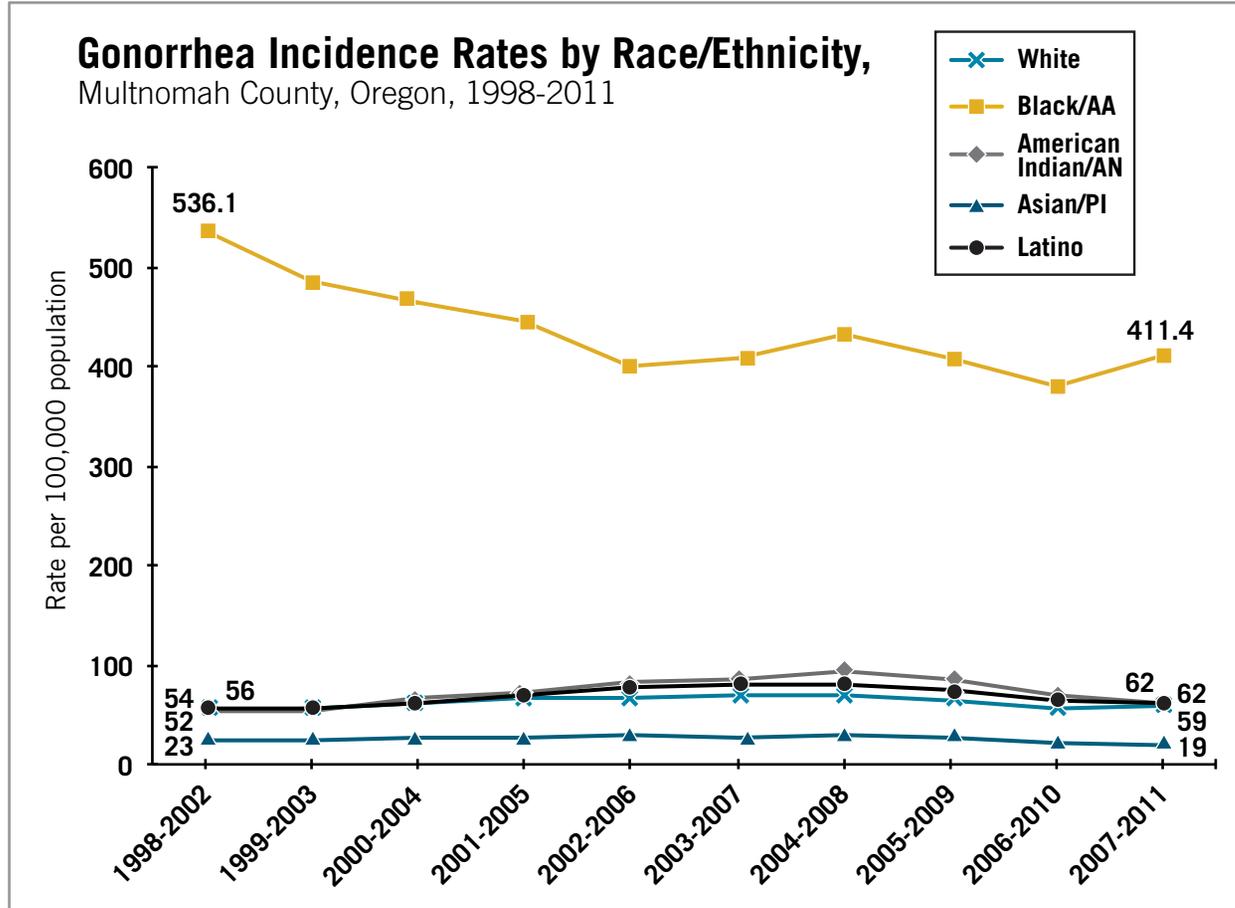
\*Significantly better than non-Latino Whites

Data source: STD and HIV/AIDS Reports, HIV/STD/TB Program, Oregon Health Authority.

Rates were age-adjusted to the 2000 U.S population

A limitation of this analysis is that up to 20% of racial/ethnic data were missing from this data set. Missing data was not accounted for in the analysis.

### Gonorrhea Incidence Rates by Race/Ethnicity, Multnomah County, Oregon, 1998-2011



Data source: STD and HIV/AIDS Reports, HIV/STD/TB Program, Oregon Health Authority.

Rates were age-adjusted to the 2000 U.S population. Trend analysis based on annual data from 2000–2011.

#### Trends

Though Black/African American gonorrhea rates have declined since 2000, this decline did not reach statistical significance. Their rates have been consistently higher than rates for other racial/ethnic groups. Incidence rates for the other racial/ethnic groups have been relatively stable over time.

#### How does Multnomah County compare to the United States?

The local rate for gonorrhea among Black/African Americans (411.4) is consistent with the national 2011 rate (427)(U.S. Department of Health and Human Services, 2012). The local rates for the Asian/Pacific Islander (19.3) and Latino groups (62.4) are similar to national rates (15.1 and 53.8, respectively). The local rate among American Indian/Alaska Natives (62.4) is roughly half the national rate(115.7). The local non-Latino White gonorrhea rate is relatively high compared to national estimates (58.6 vs. 25.2, respectively).

## Morbidity: Human Immunodeficiency Virus (HIV) Incidence

### Rate of newly reported Human Immunodeficiency Virus (HIV) cases per 100,000 population

#### Why is this indicator important?

HIV is a preventable disease. Effective HIV prevention interventions have been proven to reduce HIV transmission. According to the Centers for Disease Control and Prevention (CDC), an estimated 1.1 million Americans currently live with HIV. Medical advances have made it possible for those living with HIV to have symptom-free and productive lives. However, approximately one out of five persons with HIV is unaware of his or her HIV positive status (Centers for Disease Control and Prevention, 2008). Without this knowledge there is a continued risk of transmission to others, along with missed opportunities for improved health, and increased mortality among HIV positive individuals.

HIV continues to be an important public health problem.

The number of people living with HIV/AIDS continues to grow, presenting challenges for prevention and clinical services. At the end of 2013, roughly half of people believed to be living with HIV/AIDS in Oregon resided in Multnomah County (3,295 of 6,444) (Oregon Health Authority, 2014).

#### Findings

In Multnomah County, the disparity ratios for HIV incidence rates<sup>56</sup> for Black/African Americans and Latinos fall into the *needs improvement* category. The American Indian/Alaska Native data did not meet the criteria for statistical reliability, data quality, or confidentiality and were not reported.

<sup>56</sup> All laboratory confirmed cases of HIV/AIDS reported to the Oregon Public Health Division that had not been previously reported with HIV/AIDS in another state.

Race/Ethnicity	Rate (per 100,000)	Disparity Ratio	2008-2013 Health Disparity Summary
Black/African American (non-Latino)	24.4	1.5	Needs improvement
Asian/Pacific Islander (non-Latino)	8.7	0.5	No disparity
American Indian/Alaska Native (non-Latino)	--	--	--
Latino	22.5	1.4	Needs improvement
White (non-Latino)	15.9	Comparison group	
--Estimate not reliable due to small numbers or small population size Data source: HIV/STD/TB Program, Oregon Health Authority. Six years of data (2008-2013) were averaged. A Healthy People 2020 benchmark for HIV incidence is in development.			

**How does Multnomah County compare to the United States?**

At the local level, the HIV rate for Black/African Americans (24.4) and Asian/Pacific Islanders (6.5) is lower than the 2011 national rates (60.4 and 8.7, respectively)(Centers for Disease Control and Prevention, 2013). The local rate among Latinos (22.5) is higher than national rate (19.5). The local non-Latino White HIV rate is double the national estimates (15.9 vs. 7, respectively).

## Morbidity: Low Birthweight

### Percent of live births with low birthweight

#### Why is this indicator important?

Low birthweight babies are at higher risk of dying within the first year of life. Health care interventions that can improve infant birthweight can also improve infant survival rates substantially. Even after surviving the first year, low birthweight infants are more likely to experience long-term developmental and neurological problems compared with normal birthweight infants (Paneth, 1995).

A leading cause of low birthweight births is maternal smoking (accounting for 20% to 30% of low birthweight births in the U.S). Maternal smoking can slow the growth of the fetus within the uterus during pregnancy (Abbott et al., 2012). Further, studies examining the role of maternal stress due to racial discrimination on birth outcomes have found a greater rate of low birthweight among Black/African Americans reporting experiences of discrimination compared with non-Latino Whites (Giurgescu et al., 2011).

#### Findings

Black/African Americans and Asian/Pacific Islanders had statistically significantly higher proportions of low birthweight births than non-Latino Whites. The disparities for both groups reached the *needs improvement* level. Though the disparity ratio for the American Indian/Alaska Native group did not reach statistical significance, it was categorized as a disparity that *needs improvement* because this group has consistently fared more poorly than non-Latino Whites over time. All racial and ethnic groups with the exception of Black/African Americans and Asian/Pacific Islanders have met the Healthy People 2020 target for reducing low birthweight births.

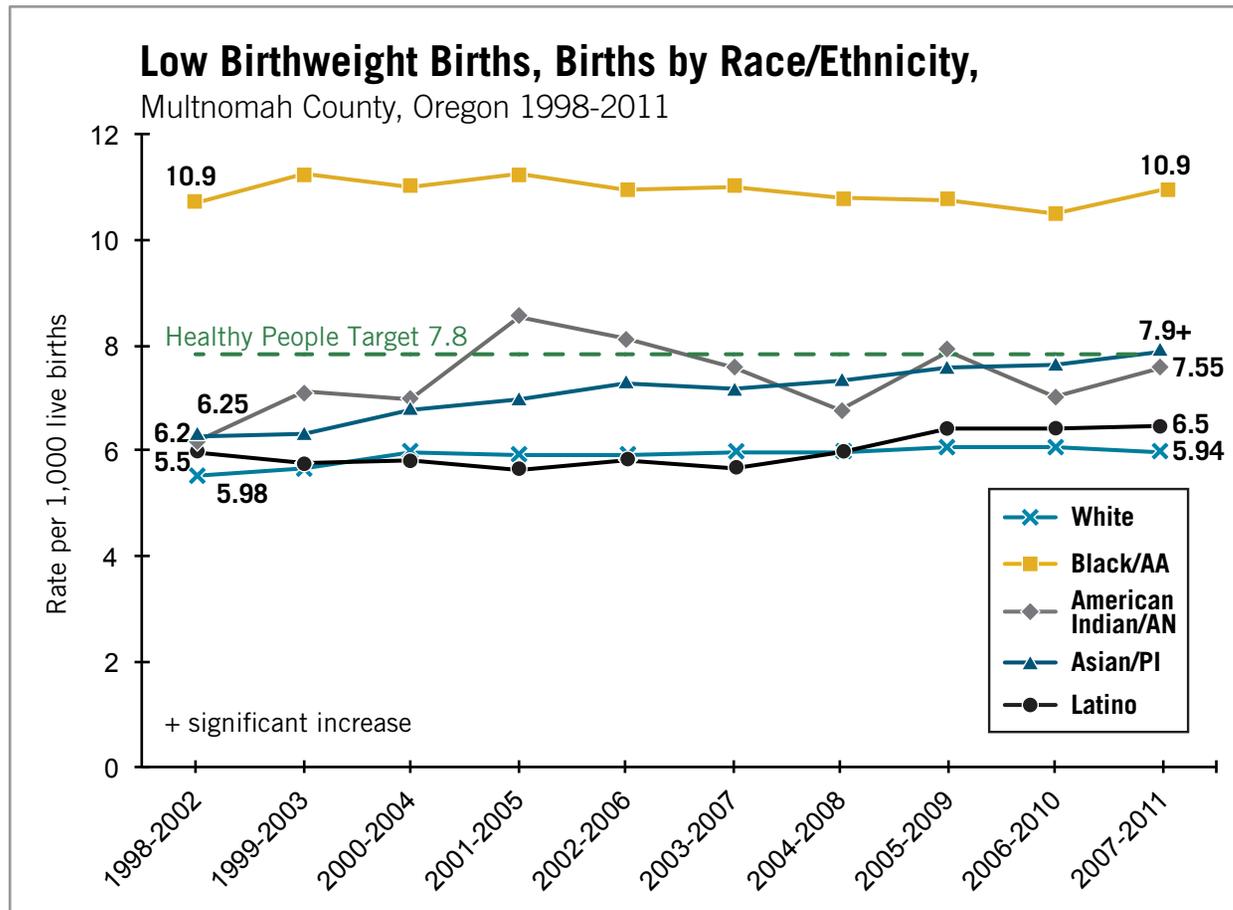
Race/Ethnicity	Percent of Live Births with Low Birthweight*	Healthy People Target: 7.8%	Disparity Ratio	2007-2011 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	10.9	Does not meet	<b>1.8</b>	<b>Needs improvement</b>
<b>Asian/Pacific Islander (non-Latino)</b>	7.9	Does not meet	<b>1.3</b>	<b>Needs improvement</b>
<b>American Indian/Alaska Native (non-Latino)</b>	7.6	Meets	1.3 <sup>57</sup>	Needs improvement
<b>Latino</b>	6.5	Meets	1.1 <sup>58</sup>	No disparity
<b>White (non-Latino)</b>	5.9	Meets	Comparison group	

<sup>57</sup>Not statistically significant, but a consistent local trend of American Indian/Alaska Natives faring more poorly than non-Latino Whites exists.

<sup>58</sup>Disparity ratio rounded up to 1.1

Data source: Center for Health Statistics, Oregon Health Authority

\*Low birthweight is defined as a birthweight of less than 2500 grams or about 5.5 lbs.



Data source: Center for Health Statistics, Oregon Health Authority

#### Trends

The Black/African American proportion of low birthweight births has remained persistently higher than other racial and ethnic groups over time. The low birthweight rates did not significantly change over time among any racial/ethnic group, except for Asian/Pacific Islanders: their low birthweight rate has increased significantly over time. The Asian/Pacific Islander and Black/African American groups do not meet the Healthy People 2020 national target.

#### How does Multnomah County compare to the United States?

National data from 2011 were only available for non-Latino Whites, Black/African Americans, and Latinos (National Center for Health Statistics, 2013). The percentage of low birthweight infants in Multnomah County is lower among Black/African Americans (10.9%) and Latinos (6.5%) than nationally (13.3% and 7%, respectively).

# Mortality

## Mortality: Key Findings by Race/Ethnicity

Level of Concern for Identified Disparities: Communities of Color as Compared to Non-Latino Whites

INDICATORS	non-Latino White	non-Latino Black/AA	non-Latino Asian/PI	non-Latino American Indian/AN	Latino
<b>Health Outcomes—Mortality</b>					
Years of Potential Life Lost (YPLL) before age 65 per 100,000 population	reference		*		*
Infant mortality per 1,000 births					
Coronary heart disease mortality per 100,000 population			*		*
Stroke mortality per 100,000 population					
Diabetes mortality per 100,000 population				--	
All cancer mortality per 100,000 population			*		*
Lung cancer mortality per 100,000 population			*		*
Female breast cancer mortality per 100,000 population			*	--	*
Colorectal cancer mortality per 100,000 population			*	--	*
Prostate cancer mortality per 100,000 population			*	--	
Homicide per 100,000 population					--

**KEY**

	Requires intervention - statistically significant disparity (2.0+ disparity ratio)	* Significantly better than non-Latino White
	Needs improvement - statistically significant disparity (1.1-1.9 disparity ratio)	-- Estimate not reliable due to small numbers or small population size
	Needs improvement - disparity ratio 1.1+, did not reach statistical significance, but community consistently fared more poorly over time, or a disparity at the state level exists.	
	No disparity or group fares better than non-Latino White	

- › **Black/African Americans** experienced disparities for all indicators in this category except female breast cancer mortality. Three disparities—infant mortality, diabetes mortality, and homicide—all reached the *requires intervention* level. The rest of the disparities were at the *needs improvement* level. For all of the indicators where there was a national target (nine out of eleven in this category), the Black/African American group did not meet the targets.
- › **Asian/Pacific Islanders** experienced only one disparity in this category. The homicide indicator was at the *needs improvement* level. For nearly all of the indicators in this category, the group fared better than non-Latino Whites.
- › **American Indian/Alaska Natives** experienced three disparities at the *needs improvement* level: premature death (YPLL), infant mortality, and stroke mortality. No assessment could be made for five of the indicators due to the small number of cases and/or small population size.
- › **Latinos** experienced disparities for two indicators. Diabetes mortality was at the *needs improvement* level and homicide reached the *requires intervention* level. For the majority of the indicators, Latinos fared better than non-Latino Whites.

## Mortality: Premature Mortality

### Rate of Years of Potential Life Lost before age 65 per 100,000 population<sup>59</sup>

#### Why is this indicator important?

Years of Potential Life Lost (YPLL) is a measure of premature mortality. Every death that occurs before age 65 can be viewed as a premature death and potentially preventable. The difference between age at death and age 65 is viewed as years of potential life lost. For example, if someone in Multnomah County dies at age 60, they have lost five years of potential life. If someone dies at age 20, they have lost 45 years of potential life. Calculating YPLL can be used to assess the impact of deaths at younger ages on a community (Lee, 1998).

#### Findings

YPLL rates were 1.5 times greater for Black/African Americans and 1.1 times greater for American Indian/Alaska Natives compared to non-Latino Whites. These disparities were at the *needs improvement* level. This disparity in YPLL indicates that Black/African Americans and American Indian/Alaska Natives are dying at significantly younger ages than non-Latino Whites.

<sup>59</sup> The total number of years of potential life lost for a group is derived by summing years of life lost in that group. Rates are derived by dividing years of life lost by the total population in the group.

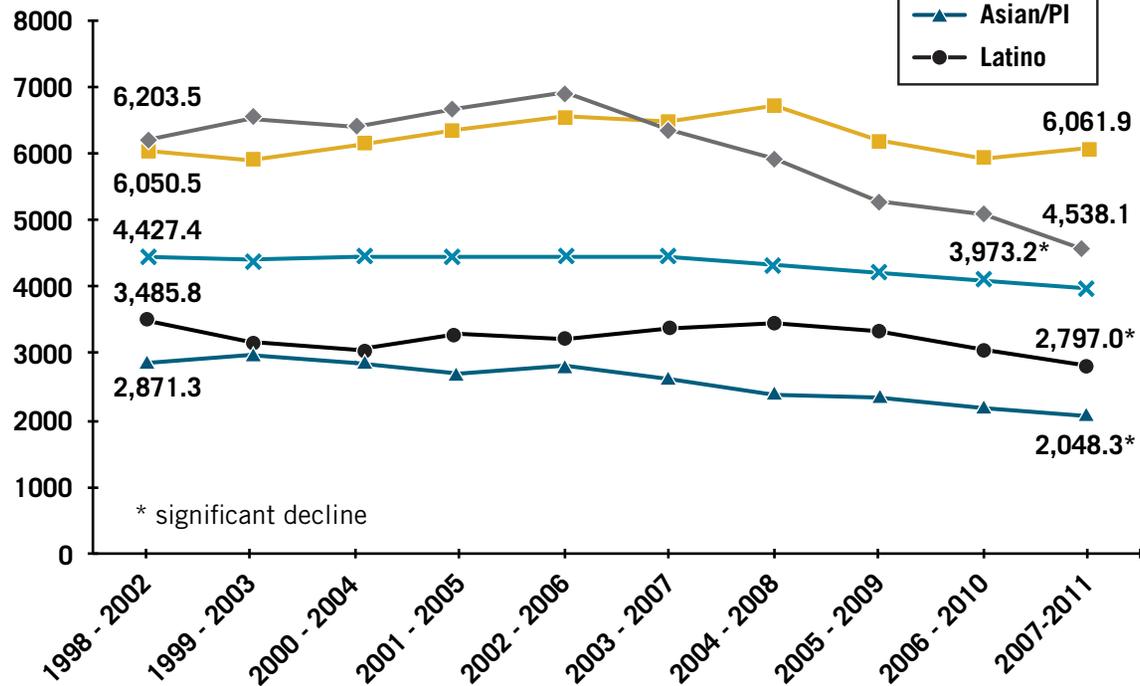
Race/Ethnicity	Rate (per 100,000)	Disparity Ratio	2007-2011 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	6,061.9	<b>1.5</b>	<b>Needs improvement</b>
<b>Asian/Pacific Islander (non-Latino)</b>	2,048.3	0.5*	No disparity
<b>American Indian/Alaska Native (non-Latino)</b>	4,538.1	<b>1.1</b>	<b>Needs improvement</b>
<b>Latino</b>	2,797.0	0.7*	No disparity
<b>White (non-Latino)</b>	3,973.2	Comparison group	

\*Significantly better than non-Latino Whites.

Data source: Center for Health Statistics, Oregon Health Authority.

### Premature Mortality, (Years of Potential Life Lost before age 65) by Race/Ethnicity,

Multnomah County, Oregon 1998-2011



Data source: Center for Health Statistics, Oregon Health Authority

#### Trends

Premature death rates are declining over time for all racial and ethnic groups. The decline is statistically significant for Asian/Pacific Islanders, Latinos and non-Latino Whites.

#### How does Multnomah County compare to the United States?

YPLL rates are lower in Multnomah County than the 2011 national rates for all racial and ethnic groups except Asian/Pacific Islanders (National Center for Injury Prevention and Control, 2010). The local YPLL rate for Black/African Americans is 6061.9 compared to 6333 nationally. The local rate for American Indian/Alaska Natives is 4538.1 compared to 6614 nationally, and the local rate for Latinos is 2797.0 compared to 2892 nationally. Locally, the Asian/Pacific Islander YPLL rate is 2048.3 compared to 1852 nationally.

## Mortality: Infant Mortality

### Infant mortality rate per 1,000 births

#### Why is this indicator important?

Infant mortality<sup>60</sup> is an important indicator of the overall health of a community because it is sensitive to a broad array of community and individual factors that can contribute to infant death. These factors include maternal health, socioeconomic status, exposure to chronic stress, and access to health care. The leading direct causes of infant mortality are preterm birth and low birthweight (Hauck et al., 2011).

#### Findings

In Multnomah County, the Black/African American infant mortality rate was 2.6 times greater than the non-Latino White rate. This disparity is in the *requires intervention* cat-

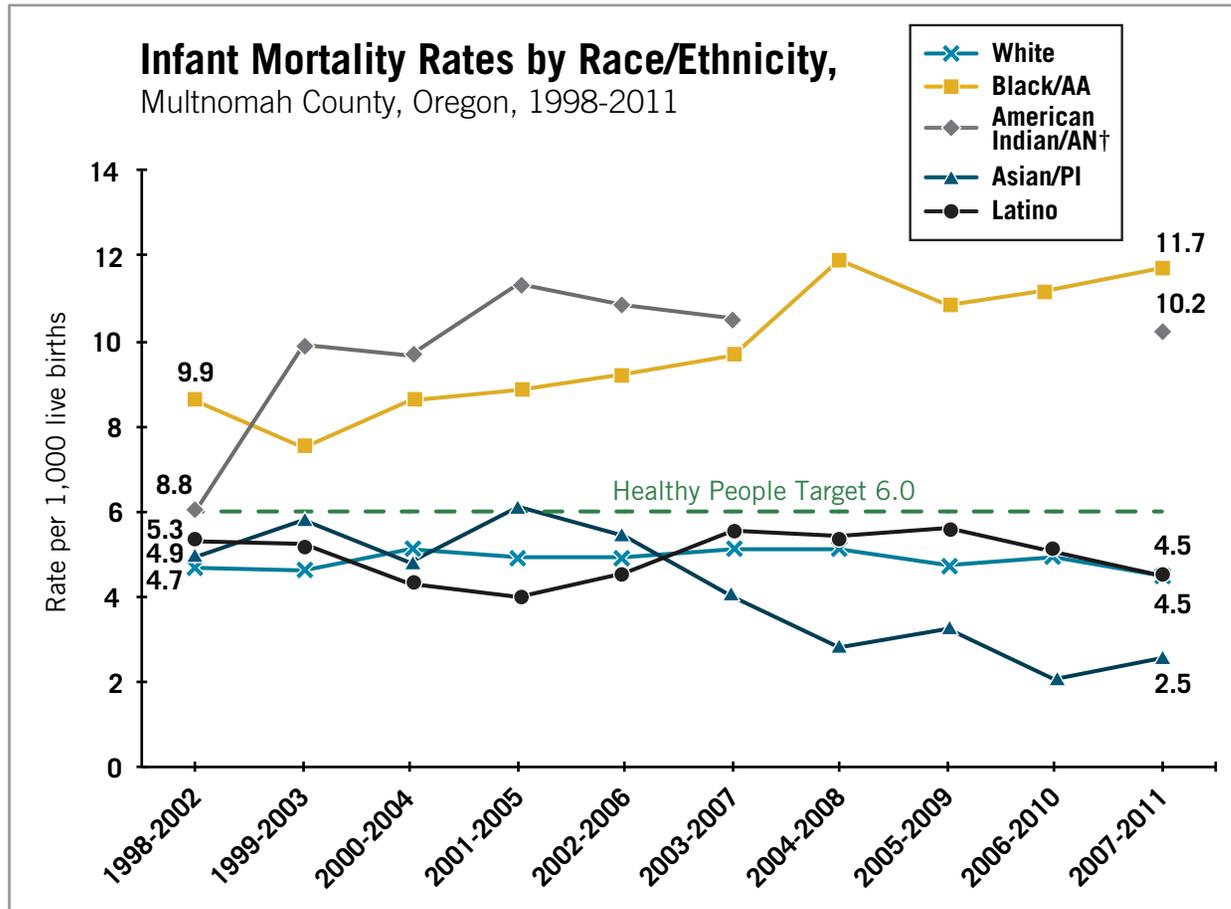
*egory*. Though the Black/African American and American Indian/Alaska Native disparity ratios were similar (2.6 and 2.3, respectively), the disparities were categorized differently for the two groups. The American Indian/Alaska Native population is smaller overall and there were very few cases, making it difficult to detect a statistically significant difference from the non-Latino White population rate. The American Indian/Alaska Natives disparity ratio is categorized as *needs improvement* because the rate has been consistently higher than the non-Latino White rate over time.

<sup>60</sup> The death of an infant prior to reaching their first birthday.

Race/Ethnicity	Rate (per 1,000)	Healthy People 2020 Target: 6.0%	Disparity Ratio	2007-2011 Health Disparity Summary
Black/African American (non-Latino)	11.7	Does not meet	2.6	Requires intervention
Asian/Pacific Islander (non-Latino)	2.5	Meets	0.6	No disparity
American Indian/Alaska Native (non-Latino)	10.2	Does not meet	2.3 <sup>61</sup>	Needs improvement
Latino	4.5	Meets	1.0	No disparity
White (non-Latino)	4.5	Meets	Comparison group	

<sup>61</sup>Not statistically significant, but there is a local trend of American Indian/Alaska Natives faring more poorly than non-Latino Whites. However, trend data were not available for the American Indian/Alaska Native population in the mid 2000s.

Data source: Oregon Linked Birth & Death Certificates, the Center for Health Statistics, Oregon Health Authority



Data source: Oregon Linked Birth & Death Certificates, Oregon Health Authority, Center for Health Statistics

Note: †=Insufficient cases for trend analysis for non-Latino American Indian/Alaska Natives

#### Trends

Although five years of data were combined, the number of cases in each racial/ethnic grouping remained small and so these analyses should be interpreted with caution. The infant mortality rate for Black/African Americans appears to be worsening, though the trend is not statistically significant. Again, due to the small number of cases, the data for American Indian/Alaska Natives were not reported for the 2003-2007 to 2006-2010 time periods and there were insufficient cases for trend analysis. American Indian/Alaska Native and Black African American groups did not meet the Healthy People 2020 national target.

#### How does Multnomah County compare to the United States?

Infant mortality rates in Multnomah County are lower than the 2008 national rates for all racial and ethnic groups except American Indian/Alaska Natives (Centers for Disease Control and Prevention, 2013). The local infant mortality rate for Black/African Americans is 11.7 compared to 12.7 nationally. The local rate for Asian/Pacific Islanders is 2.5 compared to 4.5 nationally, and the local rate for Latinos is 4.5 compared to 5.6 nationally. Locally, the American Indian/Alaska Native infant mortality rate is 10.2 compared to 8.4 nationally. However, due to small numbers of events, this comparison should be interpreted with caution.

## Mortality: Coronary Heart Disease

### Coronary heart disease mortality<sup>62</sup> rate per 100,000 population

#### Why is this indicator important?

Heart disease is the second leading cause of death in Multnomah County. Heart disease is a general category that includes rheumatic fever, heart failure, and coronary heart disease. Coronary heart disease is the major cause of heart disease mortality in Multnomah County (58% in 2011) (Oregon Health Authority, 2013). Coronary heart disease can result in disability, poorer quality of life, and economic loss, both to individuals and society. Coronary heart disease can be prevented by lifestyle and behavior changes like exercising regularly, eating healthy foods, and avoiding cigarette smoking (American Heart Association, 2014).

#### Findings

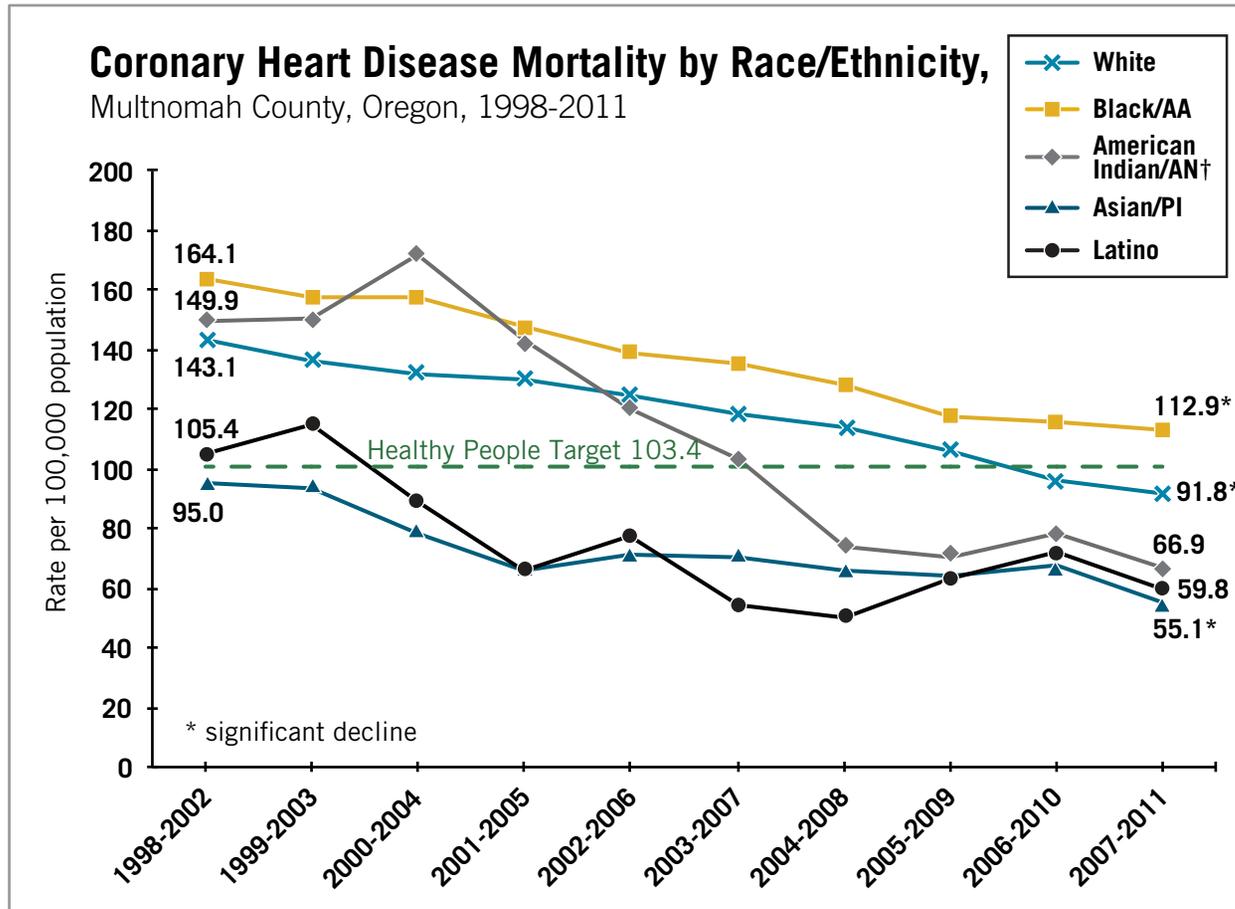
In Multnomah County, death rates due to coronary heart disease have declined significantly for non-Latino Whites, Black/African Americans, and Asian/Pacific Islanders. All groups except Black/African Americans met the Healthy People 2020 target for coronary heart disease deaths. The disparity for Black/African Americans falls into the *needs improvement* category.

<sup>62</sup> Coronary heart disease is a subset of “diseases of the heart” and includes only ICD-10 codes: I20-I25.

Race/Ethnicity	Age-adjusted Rate (per 100,000)	Healthy People 2020 Target: 103.4	Disparity Ratio	2007-2011 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	112.9	Does not meet	<b>1.2</b>	<b>Needs improvement</b>
<b>Asian/Pacific Islander (non-Latino)</b>	55.1	Meets	0.6*	No disparity
<b>American Indian/Alaska Native (non-Latino)</b>	66.9	Meets	0.7	No disparity
<b>Latino</b>	59.8	Meets	0.7*	No disparity
<b>White (non-Latino)</b>	91.8	Meets	Comparison group	

\*Significantly better than non-Latino Whites.

Data source: Center for Health Statistics, Oregon Health Authority  
Rates were age-adjusted to the 2000 U.S. population



Data source: Center for Health Statistics, Oregon Health Authority.

Note: †=Insufficient cases for trend analysis for non-Latino American Indian/Alaska Natives.

Rates were age-adjusted to the 2000 U.S. population.

#### Trends

Black/African Americans, non-Latino Whites, and Asian/Pacific Islanders have all experienced significant declines in coronary heart disease mortality over time. American Indian/Alaska Natives also experienced a decline, but there were insufficient cases for a trend analysis. All racial and ethnic groups, except Black/African Americans, meet the Healthy People 2020 target.

#### How does Multnomah County compare to the United States?

Multnomah County has lower rates of coronary heart disease than the 2009 national rates for all racial and ethnic groups (Centers for Disease Control and Prevention, 2013). The local coronary heart disease mortality rate among Black/African Americans is 112.9 compared to 141.3 nationally. The local rate among Asian/Pacific Islanders is 55.1 compared to 67.3 nationally. The local rate among American Indian/Alaska Natives is 66.9 compared to 92.0 nationally, and the local rate among Latinos is 59.8 compared to 86.5 nationally. The local rate for non-Latino Whites (91.8) is substantially lower than the national rate (117.1).

## Mortality: Stroke

### Stroke mortality rate<sup>63</sup> per 100,000 population

#### Why is this indicator important?

Stroke is the fourth leading cause of death nationally and the fifth leading cause of death in Multnomah County (Oregon Center for Health Statistics, 2011). People who recover from strokes can take months or years to do so, making strokes a leading cause of long-term disability in the U.S. Controlling health conditions like high blood pressure, high cholesterol, diabetes, and heart disease can reduce the risk of stroke. In addition, adequate physical activity, reduced tobacco use, and reduced alcohol use can also protect individuals from stroke (American Heart Association, 2014).

#### Findings

While not rising to the level of requiring intervention, there remains a consistent disparity among Black/African Americans that reaches the *needs improvement* level. Though the disparity for the American Indian/Alaska Native group was not statistically significant, there was a consistent trend of faring worse than non-Latino Whites—the disparity *needs improvement*.

<sup>63</sup> Defined as the underlying cause of death listed on death certificate with ICD-9 codes 430-434,436-438 or ICD-10 codes I60-I69 (cerebrovascular diseases).

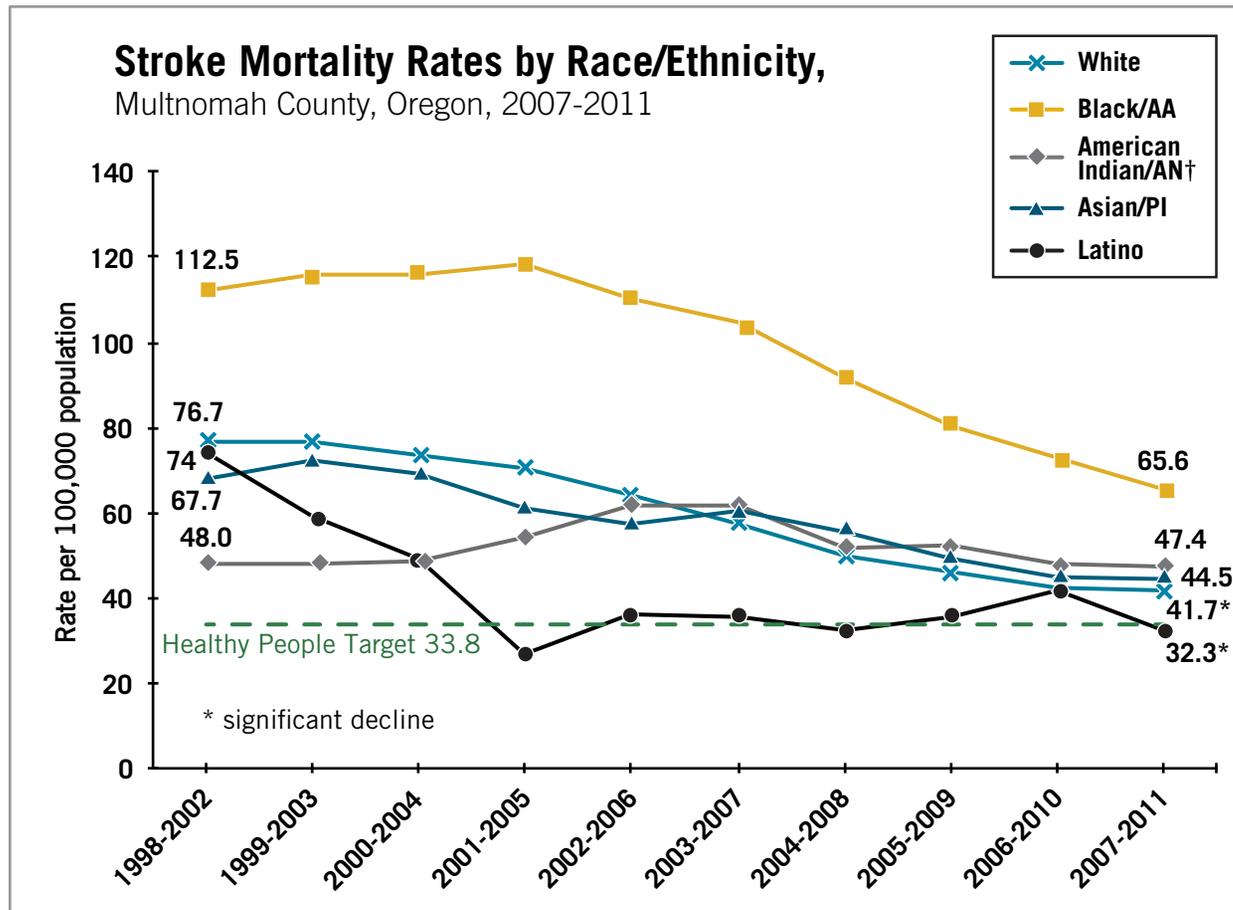
Race/Ethnicity	Age-Adjusted Rate (per 100,000)	Healthy People 2020 Target:33.8	Disparity Ratio	2007-2011 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	65.6	Does not meet	1.6	Needs improvement
<b>Asian/Pacific Islander (non-Latino)</b>	44.5	Does not meet	1.1 <sup>64</sup>	No disparity
<b>American Indian/Alaska Native (non-Latino)</b>	47.4	Does not meet	1.1 <sup>65</sup>	Needs improvement
<b>Latino</b>	32.3	Meets	0.8	No disparity
<b>White (non-Latino)</b>	41.7	Does not meet	Comparison group	

<sup>64</sup>Disparity ratio rounded up to 1.1.

<sup>65</sup>Not statistically significant, but there is a local trend of American Indian/Alaska Natives faring more poorly than non-Latino Whites.

Data source: Center for Health Statistics, Oregon Health Authority

Rates were age-adjusted to the 2000 U.S. population.



Data source: Center for Health Statistics, Oregon Health Authority

Note: †=Insufficient cases for trend analysis for non-Latino American Indian/Alaska Natives.

Rates were age-adjusted to the 2000 U.S. population.

#### Trends

The Black/African American stroke mortality rate has remained persistently higher than the other racial and ethnic groups over time. There has been a significant decline in stroke mortality for all racial/ethnic groups, except for American Indian/Alaska Natives. Their stroke mortality appears to have stayed fairly stable over time, but there were insufficient cases for conducting a trend analysis. Despite the decline for most groups, Latinos are the only group that has met the Healthy People 2020 national target.

#### How does Multnomah County compare to the United States?

Multnomah County rates of stroke mortality among all communities of color are higher than the 2009 national rates for these groups (Centers for Disease Control and Prevention, 2013). The local stroke mortality rate among Black/African Americans is 65.6 compared to 55.7 nationally. The local rate for Asian/Pacific Islanders is 44.5 compared to 31.6 nationally. The local rate for American Indian/Alaska Natives is 47.4 compared to 29.8 nationally, and the local rate for Latinos is 32.3 compared to 29.5 nationally.

## Mortality: Diabetes

### Diabetes mortality rate per 100,000 population

#### Why is this indicator important?

Diabetes is a metabolic disorder with the potential for serious complications such as heart disease, kidney failure, blindness, and lower limb amputations. The total estimated national cost of diagnosed diabetes in 2012 was \$245 billion, including \$176 billion in direct medical costs and \$69 billion in reduced productivity (American Diabetes Association, 2013). Although mortality is declining among racial and ethnic, age, socioeconomic, and disabled subgroups in the adult diabetic population, the annual incidence of diagnosed diabetes in the U.S. overall population is increasing. If these circumstances continue, the prevalence of diabetes among the U.S. population is projected to increase as much as 33% by 2050, posing

a major challenge for the nation. (Centers for Disease Control and Prevention, 2013).

#### Findings

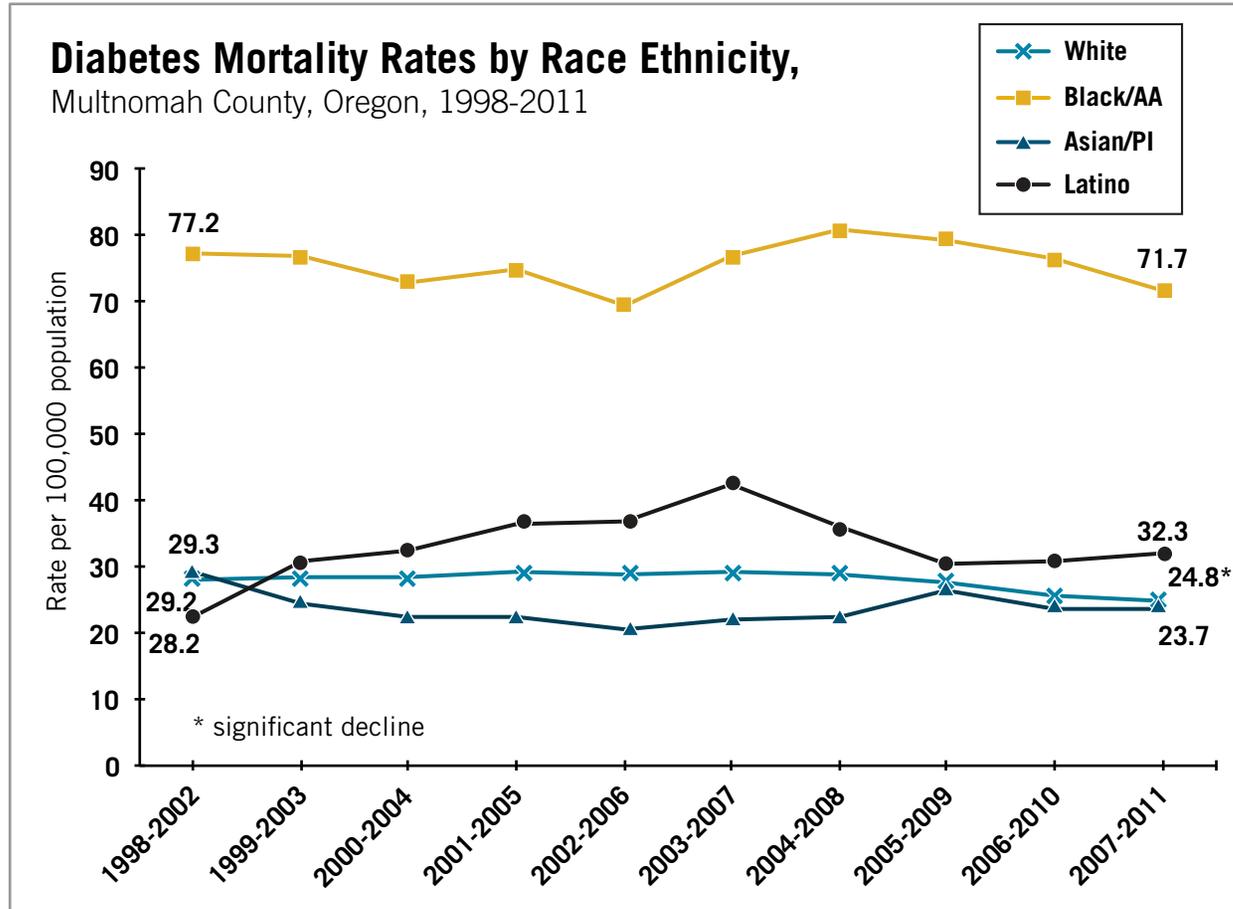
The Black/African American diabetes mortality rate is nearly three times that of non-Latino Whites and reaches the *requires intervention* level. Though it was not statistically significant, the Latino disparity is identified as *needs improvement* because diabetes mortality in Latinos has been persistently higher than non-Latino Whites in Multnomah County. The American Indian/Alaska Native data did not meet the criteria for statistical reliability, data quality, or confidentiality and were not reported.

Race/Ethnicity	Age-Adjusted Rate (per 100,000)	Disparity Ratio	2007-2011 Health Disparity Summary
Black/African American (non-Latino)	71.7	2.9	Requires intervention
Asian/Pacific Islander (non-Latino)	23.7	1.0	No disparity
American Indian/Alaska Native (non-Latino)	--	--	--
Latino	32.3	1.3 <sup>66</sup>	Needs improvement
White (non-Latino)	24.8	Comparison group	

<sup>66</sup>Not statistically significant, but there is a local trend of Latinos faring more poorly than non-Latino Whites.

-- Estimate not reliable due to small numbers or small population size.

Data source: Center for Health Statistics, Oregon Health Authority



Data source: Center for Health Statistics, Oregon Health Authority.

Insufficient cases to calculate rate or analyze trends for non-Latino American Indian/Alaska Natives.

Rates were age-adjusted to the 2000 U.S. population.

**Trends**

The Black/African American diabetes mortality rate has been consistently higher than the other racial and ethnic groups over time. The only group that has experienced a significant decline over time is the non-Latino White group.

**How does Multnomah County compare to the United States?**

For all racial and ethnic groups in Multnomah County, the diabetes mortality rate is higher than the 2009 national rate (Kochanek et al., 2012). The rate of diabetes mortality among Black/African Americans in Multnomah County is nearly double the national rate (71.7 vs. 30.4). The local rate among Asian/Pacific Islanders<sup>67</sup> is 23.7 compared to 11.9 nationally, and the local rate among Latinos is 32.3 compared to 13.0 nationally.

<sup>67</sup> The national rate for Asian/Pacific Islanders includes Latinos.

## Mortality: All Cancer

### All cancer mortality rate per 100,000 population

#### Why is this indicator important?

Although cancer mortality rates have declined in Multnomah County, cancer is the leading cause of death in the county (Oregon Health Authority, 2013) and the second leading cause of death in the U.S. (U.S. Cancer Statistics Working Group, 2013). Some forms of cancer can be detected through appropriate medical screening, resulting in fewer deaths. Screening is effective in identifying the following cancers:

- › Breast cancer (using mammography)
- › Cervical cancer (using Pap tests)
- › Colorectal cancer (using fecal occult blood testing, sigmoidoscopy, or colonoscopy)
- › Many cancers are preventable by reducing risk factors such as the following: (American Cancer Society)
- › Use of tobacco products
- › Physical inactivity
- › Poor nutrition

- › Obesity
- › Ultraviolet light exposure

In addition, vaccination against human papillomavirus and hepatitis B virus can protect against some cancers.

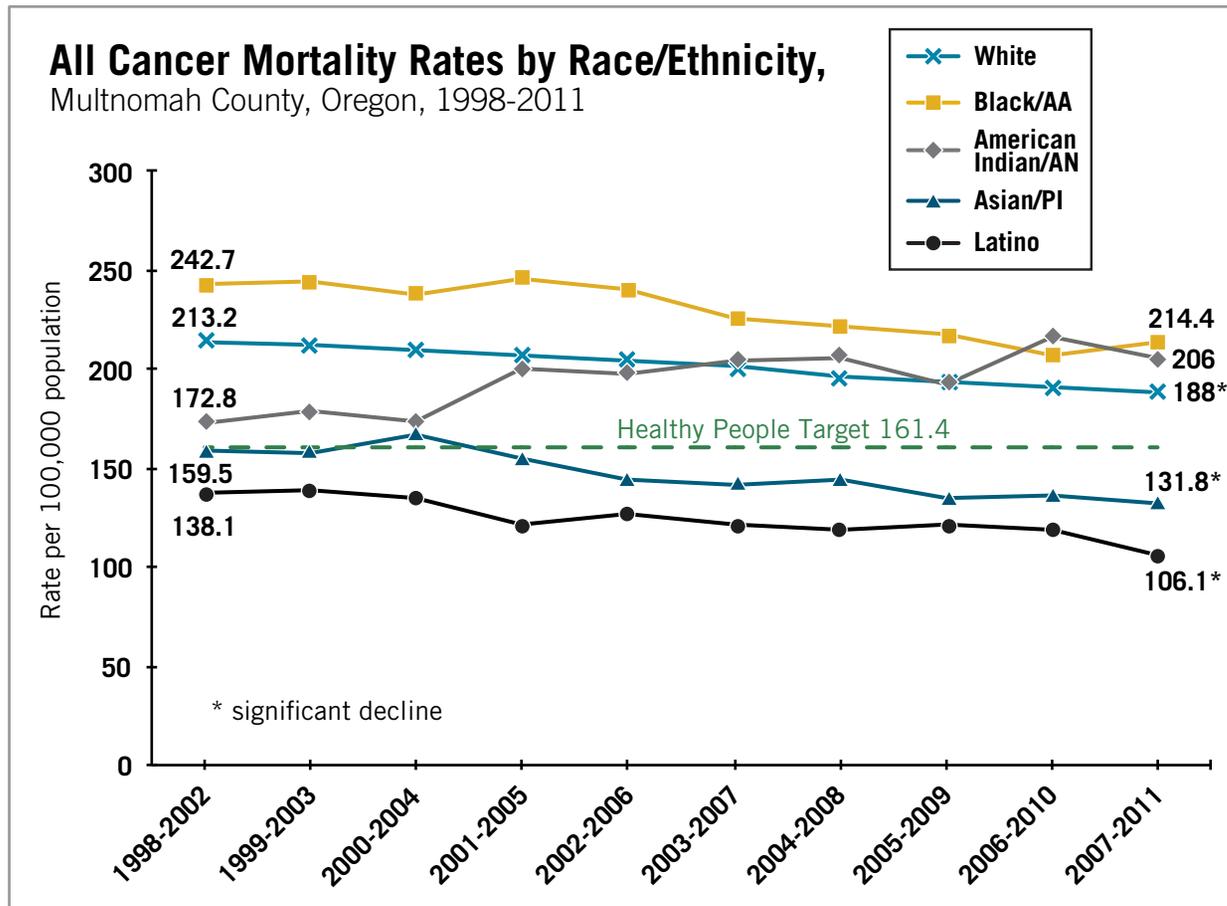
#### Findings

The Black/African American disparity is at the *needs improvement level*. The American Indian/Alaska Native disparity ratio was the same as the Black/African American ratio (1.1); however, it was not statistically significant, and no data were available on disparities at the state level. Though the American Indian/Alaska Native all cancer mortality rate appears to be rising and surpassing the non-Latino White rate, it was not identified as a disparity because it appeared to be a fairly recent trend.

Race/Ethnicity	Age-Adjusted Rate (per 100,000)	Healthy People 2020 Target: 161.4	Disparity Ratio	2007-2011 Health Disparity Summary
Black/African American (non-Latino)	214.4	Does not meet	1.1	Needs improvement
Asian/Pacific Islander (non-Latino)	131.8	Meets	0.7*	No disparity
American Indian/Alaska Native (non-Latino)	206.0	Does not meet	1.1 <sup>68</sup>	No disparity
Latino	106.1	Meets	0.6*	No disparity
White (non-Latino)	188.0	Does not meet	Comparison group	

<sup>68</sup>The disparity ratio was rounded up to 1.1

\*This group fared significantly better than non-Latino Whites.  
Data source: Center for Health Statistics, Oregon Health Authority  
Rates were age-adjusted to the 2000 U.S. population.



Data source: Center for Health Statistics, Oregon Health Authority

Rates were age-adjusted to the 2000 U.S. population.

#### Trends

For all of the time periods except one, the Black/African American all cancer mortality rate was higher than the rates in other racial and ethnic groups. The all cancer mortality rates for the Asian/Pacific Islander and Latino populations have declined significantly over time, and both groups meet the national target. Though the non-Latino White population cancer rate also significantly declined, the group has not yet met the Healthy People 2020 national target. The American Indian/Alaska Native all cancer mortality rate warrants monitoring as it appears to be on the rise.

#### How does Multnomah County compare to the United States?

All cancer mortality rates are higher in Multnomah County for Black/African Americans (214.4), Asian/Pacific Islanders (131.8), and Latinos (106.1) than 2009 national rates (164.6, 106.3, and 61.8 respectively) (Kochanek et al., 2012).<sup>69</sup> The local rate among non-Latino Whites (188.0) is lower than the national rate (226.2).

<sup>69</sup> The national rate for Asian/Pacific Islanders includes Latinos.

## Mortality: Lung Cancer

### Lung cancer mortality rate<sup>70</sup> per 100,000 population

#### Why is this indicator important?

Lung cancer is the leading cause of *cancer* deaths in Multnomah County and nationally. The primary risk factor for lung cancer is direct or indirect exposure to tobacco smoke. Other risk factors for this disease include exposure to radon, exposure to air pollution, and a diet low in fruits and vegetables (American Lung Association, 2014).

<sup>70</sup> Defined as the underlying cause of death listed on death certificate with ICD-9 code 162/ICD-10 codes C33–C34.

#### Findings

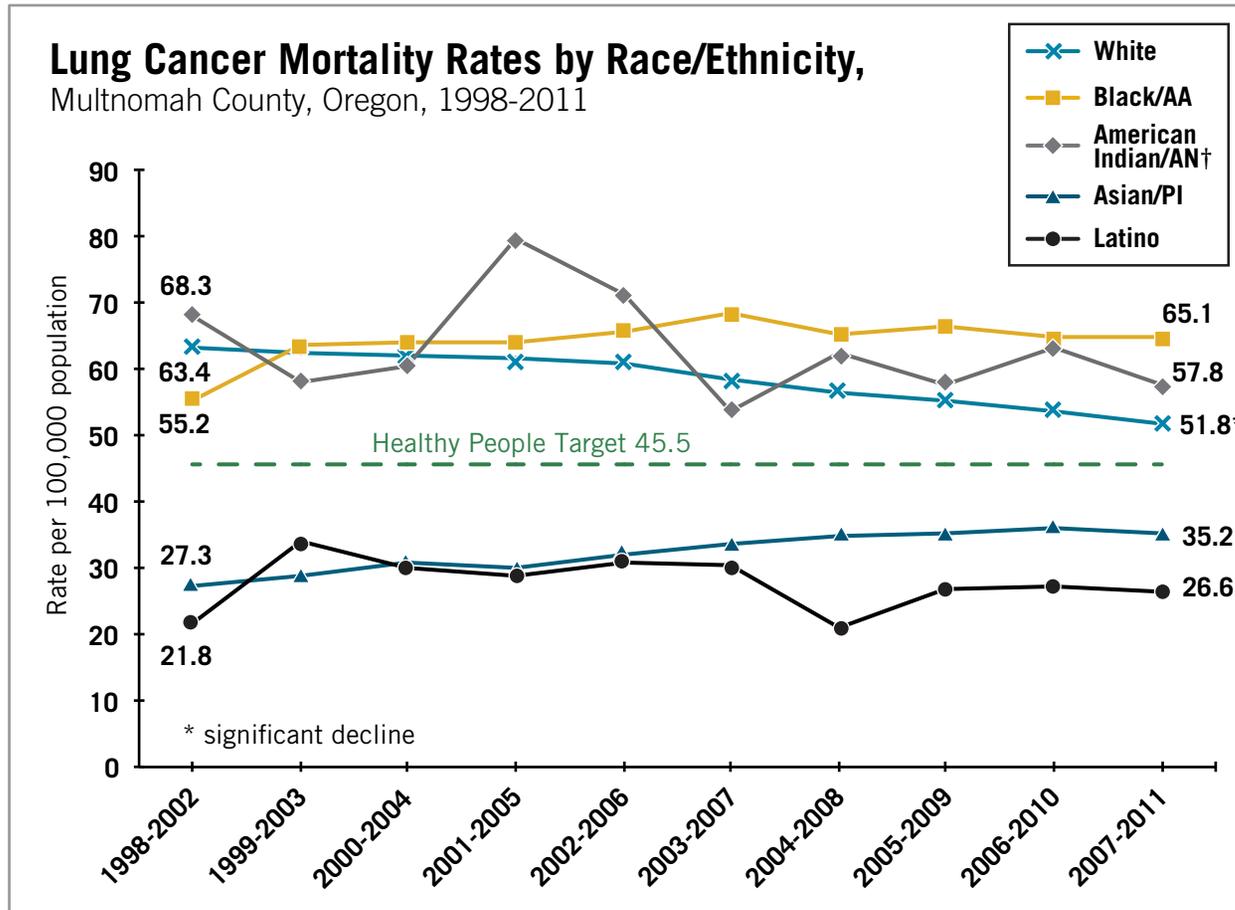
The Black/African American disparity ratio was statistically significant and falls into the *needs improvement* category. The American Indian/Alaska Native disparity ratio is similar to the Black/African American ratio (1.1 and 1.3, respectively), but is not statistically significant. There was no disparity identified at the state level for American Indian/Alaska Natives.

Race/Ethnicity	Age-Adjusted Rate (per 100,000)	Healthy People 2020 Target: 45.5	Disparity Ratio	2007-2011 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	65.1	Does not meet	<b>1.3</b>	<b>Needs improvement</b>
<b>Asian/Pacific Islander (non-Latino)</b>	35.2	Meets	0.7*	No disparity
<b>American Indian/Alaska Native (non-Latino)</b>	57.8	Does not meet	1.1 <sup>71</sup>	No disparity
<b>Latino</b>	26.6	Meets	0.5*	No disparity
<b>White (non-Latino)</b>	51.8	Does not meet	Comparison group	

<sup>71</sup>Not statistically significant. There was not a disparity at the state level and there was no consistent local trend.

\*Group fared significantly better than non-Latino Whites.

Data source: Center for Health Statistics, Oregon Health Authority  
Rates were age-adjusted to the 2000 U.S. population.



Data source: Center for Health Statistics, Oregon Health Authority

Note: †=Insufficient cases for trend analysis for non-Latino American Indian/Alaska Natives.

Rates were age-adjusted to the 2000 U.S. population.

#### Trends

The only group with a significant decline in lung cancer mortality over time is the non-Latino White group. Though both the Latino and Asian/Pacific Islander groups currently meet the Healthy People 2020 target, the rising rate for the Asian/Pacific Islander group—though it does not reach statistical significance—warrants monitoring.

#### How does Multnomah County compare to the United States?

For all communities of color, Multnomah County lung cancer mortality rates are higher than 2009 national rates (Kochanek et al., 2012).<sup>72</sup> The local lung cancer mortality rate among Black/African Americans is 65.1 compared to 41.7 nationally. The local rate for Asian/Pacific Islanders is 35.2 compared to 25.0 nationally, and the local rate for Latinos is 26.6 compared to 9.9 nationally. The local mortality rate among non-Latino Whites (51.8) is lower than the national rate (65.9).

<sup>72</sup> The national rate for Asian/Pacific Islanders includes Latinos.

## Mortality: Female Breast Cancer

### Female breast cancer mortality<sup>73</sup> rate per 100,000 population

#### Why is this indicator important?

All women are at risk for breast cancer. Prevention and early detection are key to surviving breast cancer, as when it is found in the early stages, the five-year survival rate approaches 100 percent. Early screening exams are especially important because women who have breast cancer do not always have signs or symptoms. (American Cancer Society, 2014).

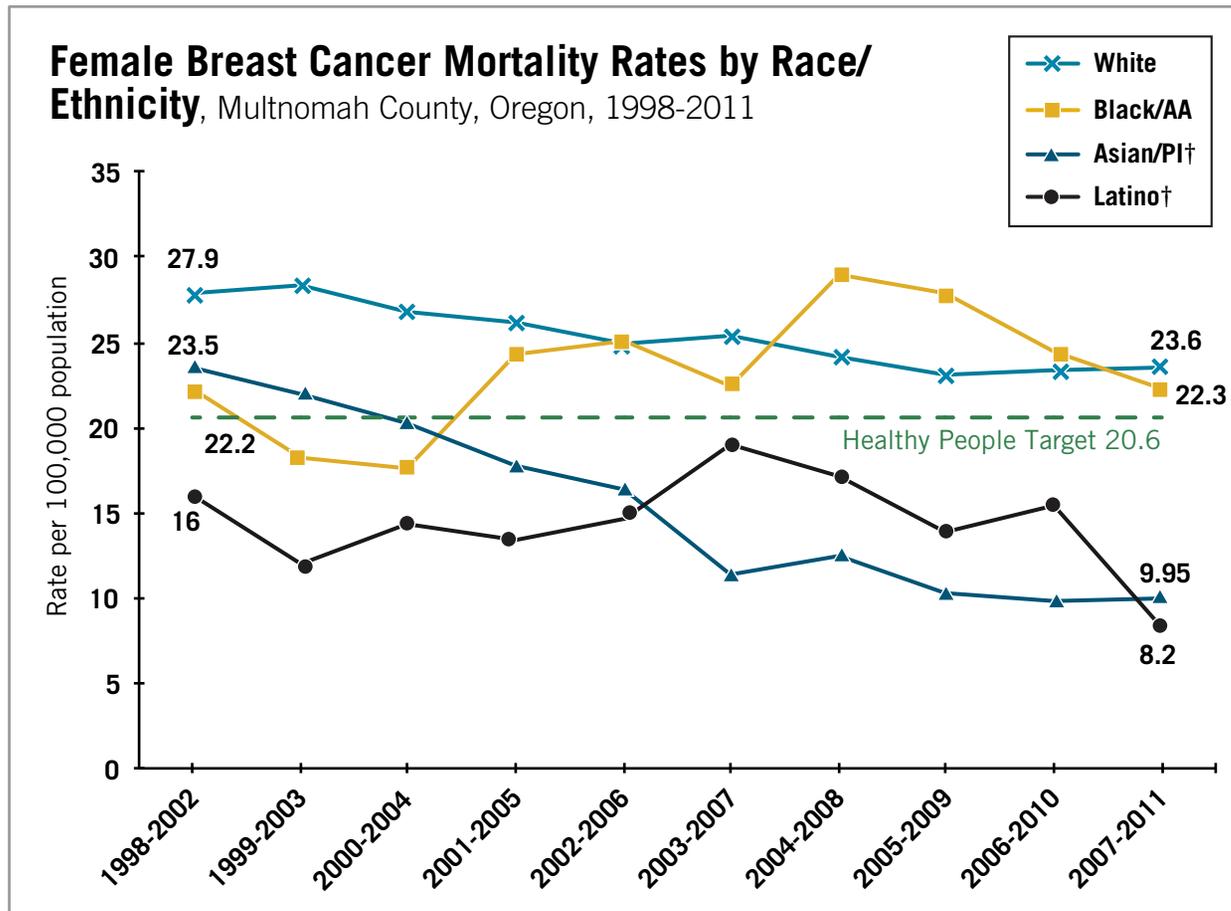
#### Findings

Multnomah County has no disparities by race/ethnicity for female breast cancer mortality. The American Indian/Alaska Native data did not meet the criteria for statistical reliability, data quality, or confidentiality and were not reported.

<sup>73</sup> Defined as the underlying cause of death listed on death certificate with ICD-9 codes 174–175/ICD-10 code C50.

Race/Ethnicity	Age-Adjusted Rate (per 100,000)	Healthy People 2020 Target:20.6	Disparity Ratio	2007-2011 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	22.3	Does not meet	0.9	No disparity
<b>Asian/Pacific Islander (non-Latino)</b>	10.0	Meets	0.4*	No disparity
<b>American Indian/Alaska Native (non-Latino)</b>	--	Unknown	--	--
<b>Latino</b>	8.2	Meets	0.3*	No disparity
<b>White (non-Latino)</b>	23.6	Does not meet	Comparison group	

\*Significantly better than non-Latino Whites.  
 -- Estimate not reliable due to small numbers or small population size.  
 Data source: Center for Health Statistics, Oregon Health Authority  
 Rates were age-adjusted to the 2000 U.S. population.



Data source: Center for Health Statistics, Oregon Health Authority

Note: †=Insufficient cases for trend analysis for non-Latino Asian/PI and Latino.

Insufficient cases to calculate rate or analyze trends for non-Latino American Indian/Alaska Natives.

Rates were age-adjusted to the 2000 U.S. population.

#### Trends

The only trends that could be analyzed were for the Black/African American and non-Latino White groups. For both groups, there was not a statistically significant decline in female breast cancer mortality. Multnomah County Asian/Pacific Islander and Latino female breast cancer mortality rates meet the Healthy People 2020 national target.

#### How does Multnomah County compare to the United States?

Female breast cancer mortality is lower in Multnomah County for Black/African Americans (22.3), Asian/Pacific Islanders (10.0), Latinas (8.2), and non-Latina Whites (23.6) than 2009 national rates (28.5, 11.4, 9.7, and 30.7, respectively) (Kochanek et al., 2012).<sup>73</sup>

<sup>73</sup> The national rate for Asian/Pacific Islanders includes Latinas.

## Mortality: Colorectal Cancer

### Colorectal cancer mortality<sup>74</sup> rate per 100,000 population

#### Why is this indicator important?

Colorectal cancer is the second leading cause of cancer-related deaths in the United States. The risk of colorectal cancer increases with age. Other risk factors for this disease include a family history of colorectal cancer, lack of regular physical activity, a diet low in fruits and vegetables, a low-fiber and high-fat diet, overweight and obesity, alcohol consumption, and tobacco use. Screening is effective in identifying and reducing colorectal cancer incidence and mortality (American Cancer Society).

#### Findings

The Black/African American disparity has persisted over time and recently reached the *needs improvement* level. The American Indian/Alaska Native data did not meet the criteria for statistical reliability, data quality, or confidentiality and were not reported.

<sup>74</sup> Defined as the underlying cause of death listed on death certificate with ICD-9 codes 153–154/ICD-10 codes C18–C21.

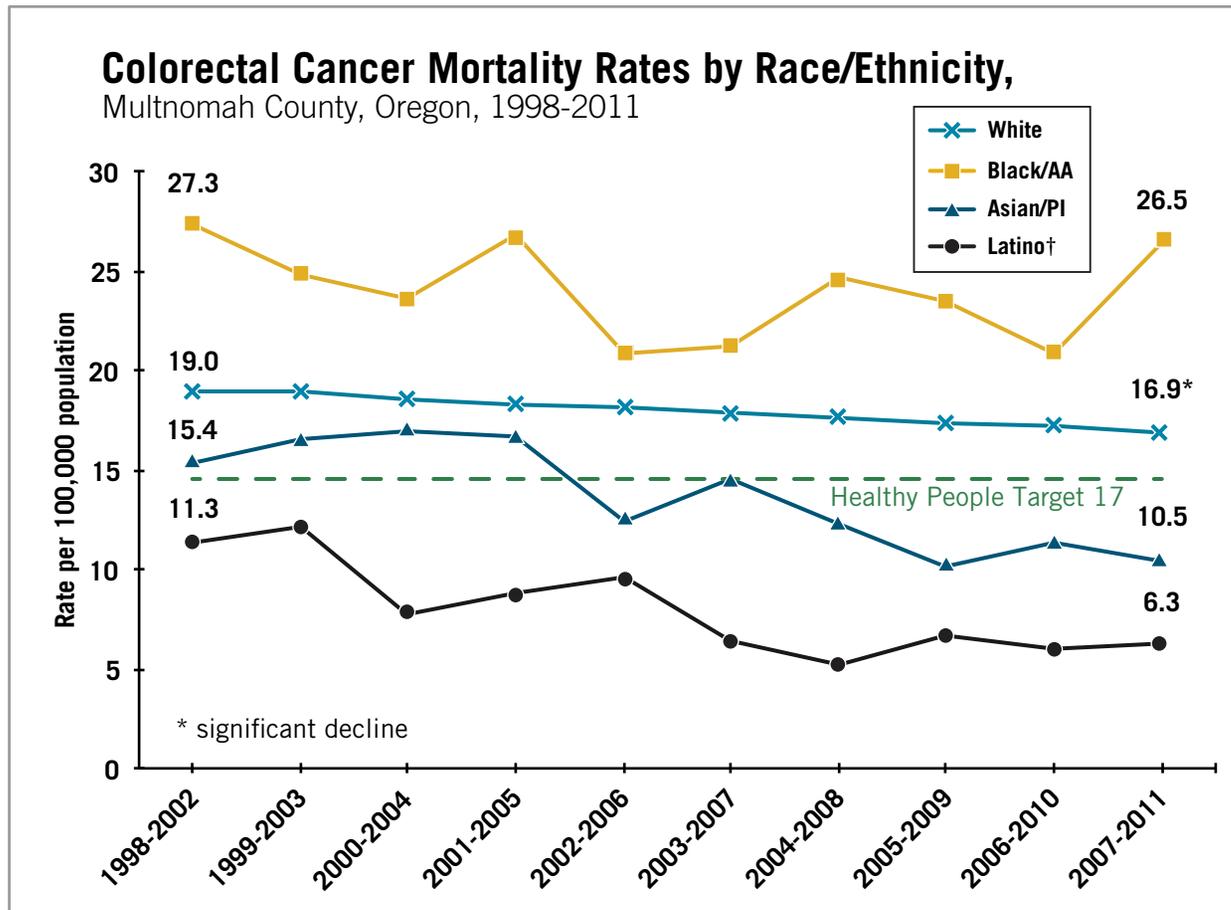
Race/Ethnicity	Age-Adjusted Rate (per 100,000)	Healthy People 2020 Target: 14.5	Disparity Ratio	2007-2011 Health Disparity Summary
Black/African American (non-Latino)	26.5	Does not meet	1.6	Needs improvement
Asian/Pacific Islander (non-Latino)	10.5	Meets	0.6*	No disparity
American Indian/Alaska Native (non-Latino)	--	--	--	--
Latino	6.3	Meets	0.4*	No disparity
White (non-Latino)	16.9	Does not meet	Comparison group	

\*Significantly better than non-Latino Whites.

-- Estimate not reliable due to small numbers or small population size.

Data source: Center for Health Statistics, Oregon Health Authority

Rates were age-adjusted to the 2000 U.S. population.



Data source: Center for Health Statistics, Oregon Health Authority.

Note: †=Insufficient cases for trend analysis for Latinos.

Insufficient cases to calculate rate or analyze trends for non-Latino American Indian/Alaska Natives.

Rates were age-adjusted to the 2000 U.S. population

#### Trends

The Black/African American colorectal cancer mortality rate has been persistently higher than the other racial and ethnic groups over time. Colorectal cancer mortality rates have declined significantly over time in Multnomah County for the non-Latino White population. Though the Asian/Pacific Islander trend appears to be declining, the decline is not statistically significant. The Latino trend could not be analyzed due to the small number of cases. Both the Asian/Pacific Islander and Latino groups meet the Healthy People 2020 national target.

#### How does Multnomah County compare to the United States?

In Multnomah County, the colorectal cancer mortality rate is higher for Black/African Americans (26.5) than the 2009 national rate (17.5), and the local Asian/Pacific Islander rate (10.5) is higher than the national (8.4) (Kochanek et al., 2012).<sup>75</sup> The local rates among Latinos (6.3) and non-Latino Whites (16.9) are lower than national rates (6.4 and 20.2, respectively).

<sup>75</sup> The national rate for Asian/Pacific Islanders includes Latinos.

## Mortality: Prostate Cancer

### Prostate cancer mortality<sup>76</sup> rate per 100,000 population

#### Why is this indicator important?

Prostate cancer is among the most common forms of cancer affecting men nationwide. About one man in seven will be diagnosed with prostate cancer during his lifetime. Men have a greater chance of developing prostate cancer if they are age 50 or older (American Cancer Society).

#### Findings

Though the disparity between Black/African Americans and non-Latino Whites has lessened, it has persisted over time. The Black/African American disparity reaches the *needs improvement* level. Data for the American Indian/Alaska Native group did not meet the criteria for statistical reliability, data quality, or confidentiality and were not reported.

<sup>76</sup> Defined as the underlying cause of death listed on death certificate with ICD-9 code 185/ICD-10 code C61.

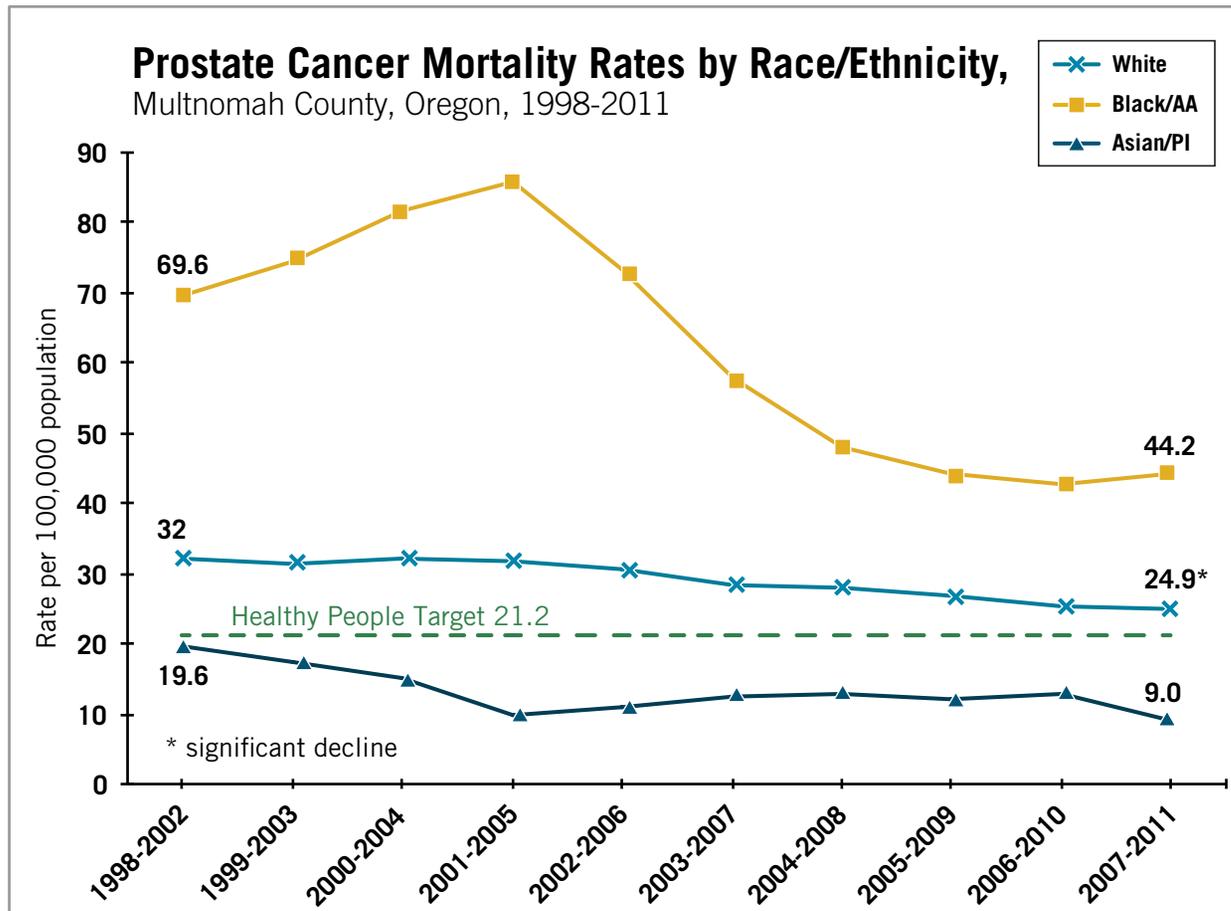
Race/Ethnicity	Age-Adjusted Rate (per 100,000)	Healthy People 2020 Target:21.2	Disparity Ratio	2007-2011 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	44.2	Does not meet	<b>1.8</b>	<b>Needs improvement</b>
<b>Asian/Pacific Islander (non-Latino)</b>	9.0	Meets	0.4*	No disparity
<b>American Indian/Alaska Native (non-Latino)</b>	--	--	--	--
<b>Latino</b>	21.9	Does not meet	0.9	No disparity
<b>White (non-Latino)</b>	24.9	Does not meet	Comparison group	

\*Significantly better than non-Latino Whites.

-- Estimates not reliable due to small numbers or small population size.

Data source: Center for Health Statistics, Oregon Health Authority

Rates were age-adjusted to the 2000 U.S. population.



Data source: Center for Health Statistics, Oregon Health Authority

Insufficient cases to calculate rate or analyze trends for non-Latino American Indian/Alaska Natives or Latinos.

Rates were age-adjusted to the 2000 U.S. population.

#### Trends

The Black/African American prostate cancer mortality rate has been persistently higher than the other racial and ethnic groups over time. This rate has sharply declined in recent years, though overall, the trend did not reach statistical significance. Non-Latino Whites have experienced a significant decline over the same period. Despite the decline in rates, both of these groups still do not meet the Healthy People 2020 national target. Asian/Pacific Islanders is the only group that meets the Healthy People 2020 national target for this indicator.

#### How does Multnomah County compare to the United States?

Multnomah County prostate cancer mortality rates are higher for all racial and ethnic groups than 2009 national rates (Kochanek et al., 2012).<sup>77</sup> The local rate among Black/African Americans is 44.2 compared to 25.5 nationally. The local rate among Asian/Pacific Islanders is 9.0 compared to 5.4 nationally. The local rate among Latinos is 21.9 compared to 5.7 nationally, and the local rate among non-Latino Whites is 24.9 compared to 21.5 nationally.

<sup>77</sup> The national rate for Asian/Pacific Islanders includes Latinos.

## Mortality: Homicide

### Homicide mortality<sup>78</sup> rate per 100,000 population

#### Why is this indicator important?

According to the Centers for Disease Control and Prevention (CDC), a complex interaction of individual, community, and broad societal factors determines a person's risk for being a victim or perpetrator of violence. At the individual level, age, education, income, substance abuse, or a history of abuse can increase the risk of violence (both as victim or perpetrator). Communities that foster healthy relationships between individuals can decrease the risk of violence. More broadly, social and cultural norms, economic factors, and social inequalities between groups can also affect the risk of violence (National Center for Injury Prevention and Control, 2013).

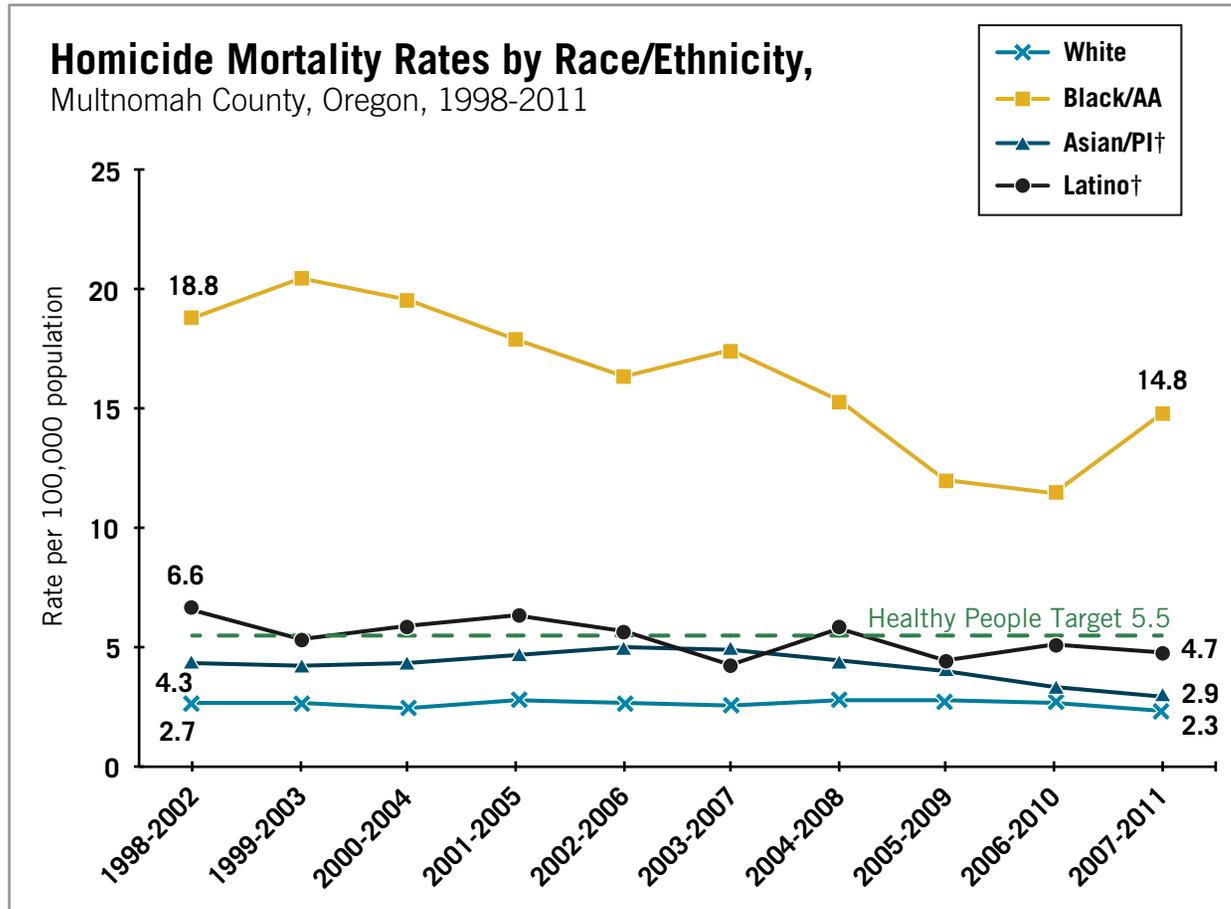
#### Findings

The homicide disparity reaches the *requires intervention* level for both Black/African Americans and Latinos. The Asian/Pacific Islander homicide rate was not statistically significant, but because it has been consistently higher than the non-Latino White rate, it is categorized as *needs improvement*. The American Indian/Alaska Native data did not meet the criteria for statistical reliability, data quality, or confidentiality and were not reported.

<sup>78</sup> Defined as the underlying cause of death listed on death certificate with ICD-9 codes E960-E969/ICD-10 codes U01-U02, X85-Y09, Y87.1.

Race/Ethnicity	Age-Adjusted Rate (per 100,000)	Healthy People 2020 Target: 5.5	Disparity Ratio	2007-2011 Health Disparity Summary
<b>Black/African American (non-Latino)</b>	14.8	Does not meet	<b>6.4</b>	<b>Requires intervention</b>
<b>Asian/Pacific Islander (non-Latino)</b>	2.9	Meets	1.3 <sup>79</sup>	Needs improvement
<b>American Indian/Alaska Native (non-Latino)</b>	--	--	--	--
<b>Latino</b>	4.7	Meets	<b>2.0</b>	<b>Requires intervention</b>
<b>White (non-Latino)</b>	2.3	Meets	Comparison group	

<sup>79</sup>Not statistically significant, but there is a local trend of Asian/Pacific Islanders faring more poorly than non-Latino Whites.  
 -- Estimate not reliable due to small numbers or small population size.  
 Data source: Center for Health Statistics, Oregon Health Authority  
 Rates were age-adjusted to the 2000 U.S. population.



Data source: Center for Health Statistics, Oregon Health Authority

Note: †=Insufficient cases for trend analysis for Asian/Pacific Islanders and Latinos.

Insufficient cases to calculate rate or analyze trends for non-Latino American Indian/Alaska Natives.

Rates were age-adjusted to the 2000 U.S. population.

#### Trends

The only trends that could be analyzed were for the Black/African American and non-Latino White groups. The homicide mortality rates for these groups have not significantly changed over time. The Black/African American homicide mortality rate has been consistently higher than all of the other racial and ethnic groups over time. All groups except Black/African Americans meet the Healthy People 2020 national target.

#### How does Multnomah County compare to the United States?

Homicide rates in Multnomah County for Black/African Americans (14.8) and Latinos (4.7) are lower than 2009 national rates (19.9 and 6.6, respectively) (Centers for Disease Control and Prevention, 2013). The local homicide rate for Asian/Pacific Islanders (2.9) is higher than the national rate (2.2).

# Summary of Findings

**Table 6: Identified Geographic Disparities: Communities of Color\* as Compared to Non-Latino Whites\*\***

INDICATORS	Census Tract Grouping					Census tract grouping: Latino, all races
	non-Latino White	Black/African American, alone or in combination	Asian/Pacific Islander, alone or in combination	American Indian/Alaska Native, alone or in combination	Latino, all races	
<b>Physical Environment Factors</b>						
2017 Modeled diesel particulate matter (DPM)	reference				--	
Ratio of less healthy food retail outlets to healthier retail food outlets (Retail Food Environment Index - RFEI)					--	
*Census tracts with at least 15% of the total tract population identifying as Black/African American, Asian/Pacific Islander, or Latino either alone or in combination with another race or ethnicity.						
**Census tracts with at 90% of the total tract population identifying as non-Latino White.						
	A geographic disparity of 1.1 or greater was detected.					
--	No census tracts have more than 15% of the population identifying as American Indian/Alaska Native so analysts were unable to include the group in this analysis					

**Footnotes to table:**

State of Oregon Department of Environmental Quality, Portland Air Toxics 2017 Modeling Study, 2006

Produce markets, farmers markets, and convenience stores reported to Oregon Department of Agriculture in January 2014 or listed on Oregon Farmers Market website April 2014. In: Built Environment Atlas: Active Living, Healthy Eating, Multnomah County, Oregon, 2011

**Table 7: Level of Concern for Identified Disparities: Communities of Color as Compared to Non-Latino Whites**

INDICATORS	non-Latino White	non-Latino Black/African American	non-Latino Asian/Pacific Islander	non-Latino American Indian/Alaska Native	Latino
<b>Social and Economic Factors</b>					
Children under age 18 in poverty <sup>1</sup>	reference				
Children that live in single-parent household <sup>1</sup>					
Students not meeting third-grade reading level standards <sup>2</sup>					
Ninth-grade cohort that did not graduate high school in 4 years with a regular diploma <sup>3</sup>		*			
Adults aged 25+ with high school education or less <sup>1</sup>					
Population age 16+ unemployed, but seeking work <sup>1</sup>					
<b>Health Factors - Health behaviors</b>					
Adults reporting current cigarette smoking <sup>4</sup>	reference				
Adults reporting a BMI >= 30 (obese) <sup>4</sup>					
Adults reporting no physical activity outside of work <sup>4</sup>					
Teen birth rate per 1,000 female population, ages 15-19 <sup>5</sup>		*			

**KEY**

	<b>Requires intervention - statistically significant disparity (2.0+ disparity ratio)</b>	<b>* Significantly better than non-Latino Whites</b>
	<b>Needs improvement - statistically significant disparity (1.1-1.9 disparity ratio)</b>	<b>^ Does not include Pacific Islanders with Asians</b>
	<b>Needs improvement - disparity ratio 1.1+, did not reach statistical significance, but community consistently fared more poorly over time, or a disparity at the state level exists</b>	<b>-- Numbers too small to provide reliable results</b>
	<b>No disparity or group fares better than non-Latino White</b>	

**Table 7: Level of Concern for Identified Disparities: Communities of Color as Compared to Non-Latino Whites (continued)**

INDICATORS	non-Latino White	non-Latino Black/African American	non-Latino Asian/Pacific Islander	non-Latino American Indian/Alaska Native	Latino
<b>Health Factors - Clinical care</b>					
Adults without health insurance <sup>4</sup>	reference				
Mothers not accessing 1 <sup>st</sup> trimester prenatal care <sup>5</sup>					
Children in grades 1-3 with untreated tooth decay <sup>6</sup>				--	
Hospitalization rate for ambulatory-care sensitive conditions per 1,000 adults 18 years and older <sup>7</sup>			*		*
<b>Health Outcomes - Morbidity</b>					
Adults reporting fair or poor health <sup>4</sup>	reference				
Adults with any incapacity last 30 days due to physical or mental health <sup>4</sup>					*
Adults reporting mental health not good in 2 of the past 4 weeks <sup>4</sup>					
Gonorrhea rate per 100,000 population <sup>8</sup>			*		
Human Immunodeficiency Virus (HIV) rate per 100,000 population <sup>9</sup>				--	
Live births with low birthweight (< 2500 grams) <sup>5</sup>					

**KEY**

	<b>Requires intervention - statistically significant disparity (2.0+ disparity ratio)</b>	<b>* Significantly better than non-Latino Whites</b>
	<b>Needs improvement - statistically significant disparity (1.1-1.9 disparity ratio)</b>	<b>^ Does not include Pacific Islanders with Asians</b>
	<b>Needs improvement - disparity ratio 1.1+, did not reach statistical significance, but community consistently fared more poorly over time, or a disparity at the state level exists</b>	<b>-- Numbers too small to provide reliable results</b>
	<b>No disparity or group fares better than non-Latino White</b>	

**Table 7: Level of Concern for Identified Disparities: Communities of Color as Compared to Non-Latino Whites (continued)**

INDICATORS	non-Latino White	non-Latino Black/African American	non-Latino Asian/Pacific Islander	non-Latino American Indian/Alaska Native	Latino
<b>Health Outcomes - Mortality</b>					
Years of Potential Life Lost (YPLL) before age 65 rate per 100,000 population <sup>5</sup>	reference		*		*
Infant mortality rate per 1,000 births <sup>10</sup>					
Coronary heart disease mortality rate per 100,000 population <sup>5</sup>			*		*
Stroke mortality rate per 100,000 population <sup>5</sup>					
Diabetes mortality rate per 100,000 population <sup>5</sup>					--
All cancer mortality rate per 100,000 population <sup>5</sup>			*		*
Lung cancer mortality rate per 100,000 population <sup>5</sup>			*		*
Female breast cancer mortality rate per 100,000 population <sup>5</sup>			*		--
Colorectal cancer mortality rate per 100,000 population <sup>5</sup>			*		--
Prostate cancer mortality rate per 100,000 population <sup>5</sup>			*		--
Homicide rate per 100,000 population <sup>5</sup>					--

**KEY**

	<b>Requires intervention - statistically significant disparity (2.0+ disparity ratio)</b>	<b>* Significantly better than non-Latino Whites</b>
	<b>Needs improvement - statistically significant disparity (1.1-1.9 disparity ratio)</b>	<b>^ Does not include Pacific Islanders with Asians</b>
	<b>Needs improvement - disparity ratio 1.1+, did not reach statistical significance, but community consistently fared more poorly over time, or a disparity at the state level exists</b>	<b>-- Numbers too small to provide reliable results</b>
	<b>No disparity or group fares better than non-Latino White</b>	

**Footnotes to Table—Data Years and Sources:**

<sup>1</sup> 2006-2010 American Community Survey, U.S. Census Bureau

<sup>2</sup> 2011-2012 Portland State University Analysis of Oregon Department of Education data

<sup>3</sup> 2010-2011 Oregon Department of Education

<sup>4</sup> 2010-2011 Oregon Behavioral Risk Factor Surveillance System Race Oversample

<sup>5</sup> 2007-2011 Center for Health Statistics, Oregon Health Authority

<sup>6</sup> 2012 Oregon Smile Survey, Oregon Health Authority

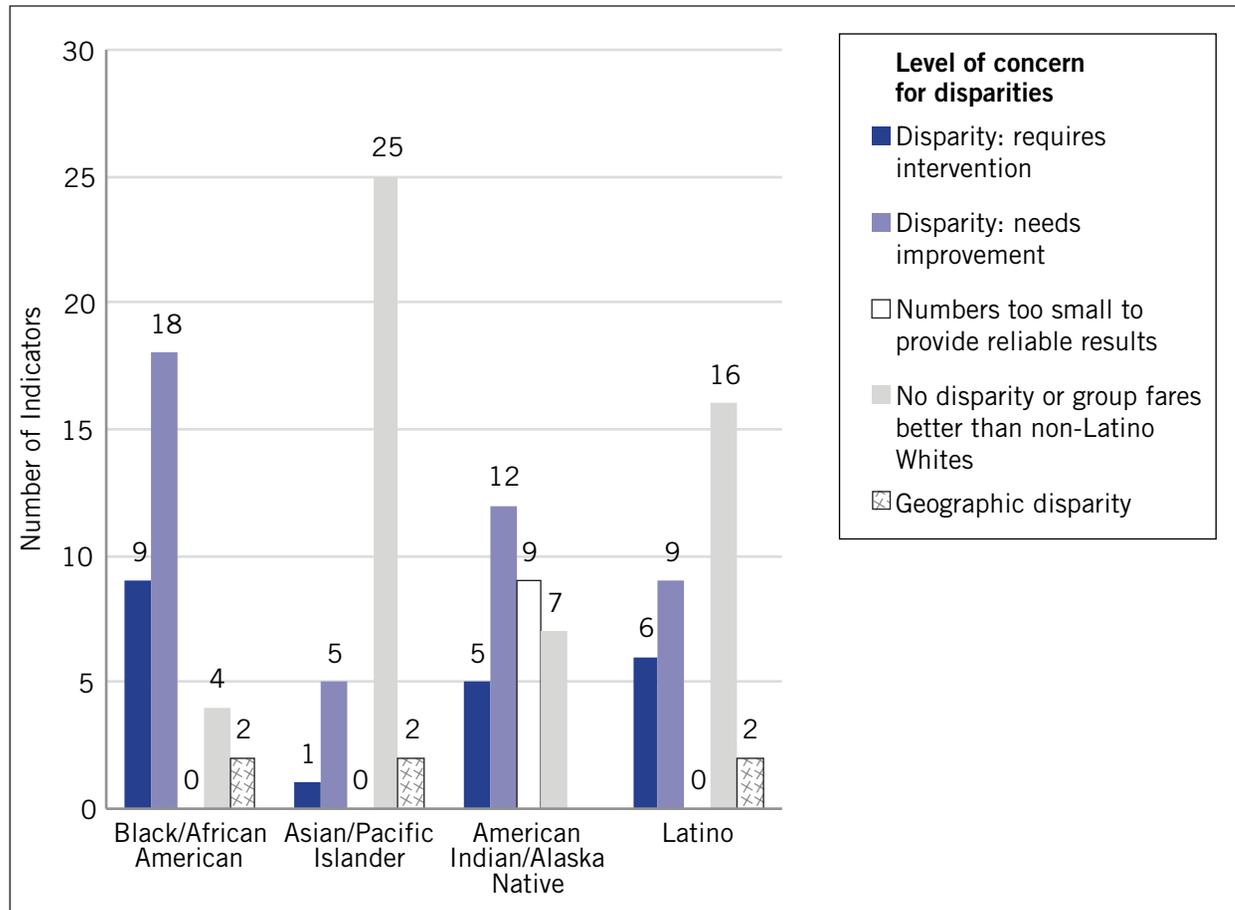
<sup>7</sup> 2010-2011 Hospital Discharge Data, Oregon Healthcare Enterprises

<sup>8</sup> 2007-2011 HIV/STD/TB Program, Oregon Health Authority

<sup>9</sup> 2008-2013 HIV/STD/TB Program, Oregon Health Authority

<sup>10</sup> 2007-2011 Oregon linked birth and death certificates from Center for Health Statistics, Oregon Health Authority

**Figure 3: Number and Type of Disparities Identified by Community of Color**



## Results by Community of Color *(as shown in Table 2 and 3)*

### Non-Latino Black/African American

Black/African Americans experienced the greatest number of disparities with the highest level of concern relative to other communities of color. As shown in Figure 1, of the 33 indicators examined in this report, Black/African Americans experienced disparities for nine indicators that *require intervention* and 18 indicators that *need improvement*. There were only four indicators where a disparity was not detected. There were no indicators where the group fared significantly better than the non-Latino White comparison group.

Black/African Americans experienced a geographic disparity for each of physical environment indicators.

### Specific Findings

- › Black/African Americans experienced disparities for each of the indicators in the social and economic category. Four of the six *require intervention*. Specifically, the group was almost four times as likely to have children living in poverty, more than twice as likely to have children living in single-parent households and to have children not meeting third-grade reading standards, and twice as likely to be unemployed (age 16 and over) compared to non-Latino Whites.
- › Black/African Americans also fared poorly for three of the four health behavior categories, with cigarette use and obesity at the *needs improvement* level, and teen birth rates at the *requires intervention* level. Although the birth rates among Black/African American teens have decreased significantly since 1998, the group remains almost two and a half times more likely to give birth than their non-Latino White counterparts.
- › Black/African Americans experienced disparities in all four clinical care indicators. Adults without health insurance, first trimester prenatal care, children with untreated tooth decay, and preventable hospitalization rates all were at the *needs improvement* level.
- › Black/African Americans fared poorly for four of the six morbidity indicators, particularly for gonorrhea, which *requires intervention*. The incidence of gonorrhea in Black/African Americans was seven times higher than in non-Latino Whites, and had not changed significantly since 2000.
- › Black/African Americans fared particularly poorly on 10 of the 11 mortality indicators with three of these indicators at the *requires intervention* level: infant mortality, diabetes mortality, and homicide rates. Black/African American infant mortality and diabetes mortality rates were more than two and a half times higher, and homicide rates about six times higher, than their non-Latino White counterparts. These rates for Black/African Americans have not changed significantly since 1998.
- › Black/African Americans experienced a geographic disparity for both the air quality and retail food environment indicators.

### Non-Latino Asian/Pacific Islander

For 11 indicators, Asian/Pacific Islanders, did significantly better than non-Latino Whites. However, one indicator *requires intervention*, and five indicators *need improvement* (Figure 1). Asian/Pacific Islanders experienced a geographic disparity for each of the physical environment indicators. Though this group, as a whole, fared well for many indicators, it is likely that aggregation of data into this large group is masking some disparities being experienced by sub-groups of Asian/Pacific Islanders. More attention should be given to disaggregated data for this population. A supplemental report focusing on Pacific Islander health disparities is forthcoming.

### Specific Findings

- › Asian/Pacific Islanders experienced a disparity for two indicators in the social and economic category, at the *needs improvement* level—third-grade reading level and post-high school education.
- › Asian/Pacific Islanders had three other indicators at the *needs improvement* level: first trimester prenatal care, low birthweight, and homicide rates.
- › Adults without health insurance was the one indicator at the *requires intervention* level for Asian/Pacific Islanders. The percentage without health insurance is more than two times higher among non-Latino Asian/Pacific Islanders in Multnomah County than among non-Latino Whites.
- › Asian/Pacific Islanders experienced a geographic disparity for both the air quality and the retail food environment indicators.

### Non-Latino American Indian/Alaska Native

The American Indian/Alaska Native group did not fare well overall, with five indicators at the *requires intervention* level and 12 at the *needs improvement level* (Figure 1). The American Indian/Alaska Native group did not fare significantly better than non-Latino Whites for any of the indicators. It is important to note that, for seven other indicators, numbers of cases were too small to provide reliable results, so it is possible that more disparities exist than were detected.

Analysts did not calculate geographic disparity ratios for the American Indian/Alaska Native group because there were no census tracts having more than 15% of the population identifying as American Indian/Alaska Native.

### Specific Findings

- › American Indian/Alaska Natives experienced disparities for each of the indicators in the social and economic category. Two of the economic indicators *require intervention*. Specifically, the group was almost three times as likely to have children living in poverty and more than twice as likely to be unemployed (age 16 and over) compared to non-Latino Whites.
- › American Indian/Alaska Natives fared particularly poorly for each of the health behavior indicators. Teen births, current cigarette smoking, and adults with no physical activity outside of work all *require intervention*. The teen birth rate among American Indian/Alaska Natives has not changed significantly since 1998; they remained more than twice as likely to experience a teen birth than their non-Latino White counterparts. American Indian/Alaska Natives were about twice as likely to currently smoke cigarettes and to report no physical activity outside of work in the past 30 days.

- › One clinical care measure was at the *needs improvement* level for American Indian/Alaska Natives: first trimester prenatal care.
- › American Indian/Alaska Natives had six disparities at the *needs improvement* level in the morbidity and mortality categories, including self-reported mental health, overall health, low birthweight, premature death (i.e., years of potential life lost), infant mortality, and stroke mortality. For six indicators in these categories numbers were too small to provide reliable results.

### Latino

Results for the Latino group were notably mixed. The Latino group experienced six indicators that *require intervention* and nine that *need improvement* (Figure 1). However, there were also eight indicators where Latinos fared significantly better than non-Latino Whites.

Latinos experienced a geographic disparity for each of the physical environment indicators.

### Specific Findings

- › Latinos experienced disparities for each of the indicators in the social and economic category. Three of the six *require intervention*. Specifically, Latinos are more than twice as likely to have children living in poverty, to have children not meeting third-grade reading standards, and to lack a post-high school education.
- › Latinos had three indicators in the health behaviors and clinical care categories that *need improvement*: obesity, first trimester prenatal care, and untreated tooth decay. Teen birth rate and lack of health insurance reached the *requires intervention* level. Although the teen birth rate for Latinas has significantly decreased since 1998, the

rate remained three and a half times the rate among non-Latina Whites. In addition, Latino adults were two times more likely to lack health insurance than non-Latino Whites.

- › Latinos generally fared relatively well in the morbidity and mortality categories. However, three indicators were at the *needs improvement* level: overall health status, HIV incidence, and diabetes mortality rate. The homicide rate reached the *requires intervention* level, with the rate among Latinos being two times greater than non-Latino Whites.
- › Latinos experienced a geographic disparity for both the air quality and retail food environment indicators.

### Disparities experienced by multiple groups of color

Commonality is a factor to consider when determining how best to eliminate disparities. All communities of color examined for this report experienced a disparity at either *the needs improvement* or *requires intervention* level for the following indicators:

- › Students not meeting third-grade reading standards
- › Adults with a high school education or less
- › Mothers not accessing first trimester prenatal care
- › Homicide (Three groups had disparities; the number of cases was too small to provide reliable results for American Indian/Alaska Natives)

In addition, the three communities of color that could be included in the physical indicator analyses experienced disparities for both the air quality and retail food environment indicators.

## Discussion

This analysis of a comprehensive set of health and health factors reveals the breadth and seriousness of the disparities that exist for four communities of color in Multnomah County. A striking number of disparities exist across a broad range of indicators for Black/African Americans and American Indian/Alaska Natives. Numerous disparities also exist for Latinos and Asian/Pacific Islanders, but those communities also fared better than non-Latino Whites for some indicators.

Though this report focuses on many challenges facing communities of color in Multnomah County, it is important to also recognize the many strengths communities possess. Communities of color have a wealth of protective factors, as well as histories of strength and resiliency. Without these community strengths, the disparities observed in this report would likely be worse.

The findings from this report supplement a number of analytical reports and data visualization tools that already exist in our community (e.g., Regional Equity Atlas [clfuture.org/equity-atlas](http://clfuture.org/equity-atlas), Coalition of Communities of Color [coalitioncommunitiescolor.org](http://coalitioncommunitiescolor.org)) and call for investing resources and achieving better coordination in communities where the data show the greatest need for support. Jointly, these reports increase community awareness of disparities as persistent problems that represent some of the most pressing health challenges in our community.

## Disparities over the Course of a Lifetime

The effects of disparities accumulate over a lifetime. To illustrate, Figure 4 below displays potential disparities across the life span for Black/African Americans in Multnomah County. Disparities exist for social, economic, and environmental—or upstream—factors (top of figure) as well as for individual health outcomes (bottom of figure). These disparities start before a child is born (left side of figure) and persist over the course of a lifetime until death (right side of figure).

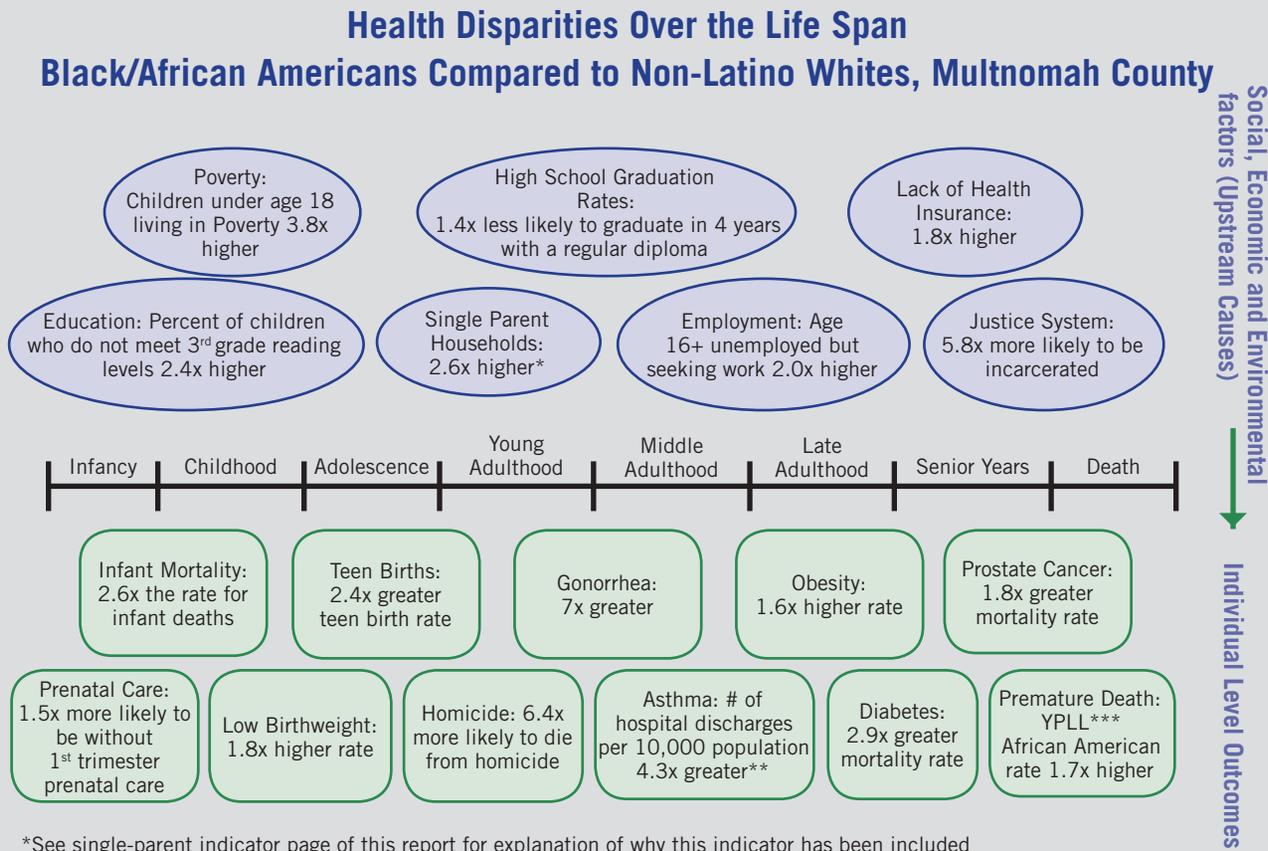
Figure 4 highlights that changes need to occur within many sectors in addition to the health sector, including in education, criminal justice, and economic development to name a few. Individual behavior is often blamed for health disparities. Though we know it plays a role in some health outcomes, the majority of the disparity burden can be attributed to unequal opportunities for a healthy life based on poverty, racism, and the effects of toxic stress.

As stated in the *Urban League's 2009 State of Black Oregon Report*, "Supporting healthy individual behaviors helps to counteract inequity...however, these behaviors are shaped by social and physical environments, and by what community leaders do, or fail to do, through public policy, mass media and funding (Urban League of Portland, 2009).

It is difficult, if not impossible, to quantify the *cumulative* impacts of disparities experienced over a lifetime. However, the toll is clear and is borne by individuals, communities, and the entire county. Physical illnesses, mental illnesses, and premature deaths limit the contributions that individuals can provide to their own lives and their communities. When individuals and communities are experiencing optimal health, everyone benefits.

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**Figure 4: Health Disparities Over the Life Span**



\*See single-parent indicator page of this report for explanation of why this indicator has been included

\*\*Oregon data

\*\*\*YPLL = Years of Potential Life Lost

**Table 8: Data Sources for Figure 4**

Indicator	Source	Same as Report?
1. Poverty	2006-2010 American Community Survey Selected Population Tables	Yes
2. High School Graduation Rates	Oregon Department of Education, 2010-2011	Yes
3. Lack of Health Insurance	Oregon Behavioral Risk Factor Surveillance System Race Oversample 2010-2011	Yes
4. Third-grade Reading Level	Portland State University analysis of the 2011-2012 Oregon Department of Education Data	Yes
5. Single-Parent Households	2006-2010 American Community Survey Selected Population Tables	Yes
6. Unemployment Age 16+	2006-2010 American Community Survey Selected Population Tables	Yes
7. Incarceration	<i>The Sentencing Project: Uneven Justice: State Rates of Incarceration by Race and Ethnicity, July 2007</i> Data from 2005 Bureau of Justice Statistics	Not in report
8. Infant Mortality	Oregon Linked Birth and Death Certificates, the Center for Health Statistics, Oregon Health Authority, 2007-2011	Yes
9. Teen Births	Center for Health Statistics, Oregon Health Authority, 2007-2011	Yes
10. Gonorrhea	HIV/STD/TB Program, Oregon Health Authority, 2007-2011	Yes
11. Obesity	Oregon Behavioral Risk Factor Surveillance System Race Oversample 2010-2011	Yes
12. Prostate Cancer Mortality	Center for Health Statistics, Oregon Health Authority, 2007-2011	Yes
13. Prenatal Care	Center for Health Statistics, Oregon Health Authority, 2007-2011	Yes
14. Low Birthweight	Center for Health Statistics, Oregon Health Authority, 2007-2011	Yes
15. Homicide	Center for Health Statistics, Oregon Health Authority, 2007-2011	Yes
16. Asthma Hospital discharges	<i>The Burden of Asthma in Oregon: 2013</i> , Oregon Health Authority	Not in report
17. Diabetes Deaths	Center for Health Statistics, Oregon Health Authority, 2007-2011	Yes
18. Years Potential Life Lost (YPLL)—Premature Death	Center for Health Statistics, Oregon Health Authority, 2007-2011	Yes

## Data Limitations

This report has several methodological limitations.

- › Race, along with ethnic/cultural identity, is a complex social construction. The data collection systems used in this report are limited by their definitions of various racial and ethnic groups. The categories used in this report do not necessarily reflect the lived experience of individuals.
- › The racial/ethnic categories used in this report combine sub-groups of some very different populations. For example, the Black/African American category includes both African Americans whose families have been in this country for many generations and new African immigrants coming from multiple African countries. Similarly, the Asian/Pacific Islander category includes people from many different countries and cultures throughout Asia, as well as a diverse group of Native Hawaiians and Pacific Islanders. Therefore, analysts were not able to detect disparities that likely exist between the sub-groups within the racial/ethnic categories.
- › This report lacks separate categories for people identifying with more than one race, or as mixed-race, because analysts could not calculate reliable estimates for each racial/ethnic combination given small numbers of individuals within each group (Table 2).
- › The Coalition of Communities of Color documented challenges faced by the local Slavic community (Curry-Stevens A. C.-H., *Communities of Color in Multnomah County: An Unsettling Profile*, 2010), but analysts did not have health data specific to that community to report here.
- › For some indicators, specifically gonorrhea and avoidable hospitalizations, there is a large quantity of missing data on race/ethnicity (up to 20%).
- › Some of the indicators relied on self-reported health conditions and behaviors collected by a phone survey (e.g., mental health and cigarette smoking). Social and cultural norms as well as stigmas can influence a person's willingness to report these. For example, survey respondents from some racial/ethnic communities may be less likely to report certain conditions and behaviors to an interviewer over the phone than non-Latino Whites, making it more difficult to detect disparities that exist.
- › It is important to supplement these analyses with information on the communities' experiences and perceptions. Although an indicator may not have shown a disparity through the analyses in this report, it might still be a community concern.

### Recommendations for data-related action

Improving the methods for collecting data on race and ethnicity would increase the ability to accurately detect and monitor changes in disparities, specifically:

- › Standardize race/ethnicity data collection procedures within MCHD and the County. Create more specific response options to questions about race/ethnicity that would differentiate subgroups of people who now fall into large categories such as “Asian/Pacific Islander.” Consider following the recently adopted *Oregon “Race, Ethnicity, Language, and Disability Data Collection Standards.”* (Oregon Office of Equity and Inclusion)
- › Continue to improve the training for MCHD staff who collect data on race/ethnicity in order to get more complete and accurate information.
- › Supplement the data provided in this report with other data such as: qualitative data, social media data, and supplemental population-based survey data on sub-groups of communities of color in order to calculate measures for them (e.g., within specific geographic areas or among those who speak another language in the home).

# Conclusion and Next Steps

This report provides critical data analyses for the Health Department and its community partners to use in planning, implementing, and evaluating efforts to address the disparities outlined here.

The Health Department and its community health partners are working to reduce health disparities. But public health strategies alone cannot address the complex societal issues that perpetuate differences in health outcomes, including racism, poverty, substandard housing, and lack of employment, education, and opportunity.

Addressing the disparities highlighted in this report will require concerted collective effort across Multnomah County departments and between its many partners. Strategies must be informed by authentic community engagement, partnership, and accountability. The protective factors communities

of color possess, including family systems, cultural pride, and traditional ways of living and sharing knowledge, are central to developing policy and program interventions.

## Multnomah County Health Department Next Steps

The Multnomah County Health Department is committed to taking action. This means aligning Health Department work around several strategies that hold promise for reducing disparities and their root causes. All of these strategies involve some degree of collaboration with external partners in the health sector and in other sectors; involvement of members of communities impacted by disparities; and engagement of the Multnomah County Board of Commissioners.

The strategies are described below using the framework introduced early in this report.



**Figure 5: Factors influencing individual health**

Source of graphic: Oregon Public Health Institute

## Social, Economic, and Political Factors

While addressing social, economic, and political factors may seem a big task for a local public health agency, Multnomah County Health Department has a responsibility for aligning its internal processes to better address upstream factors—such as racism—that lead to racial and ethnic health disparities. Two ways the Health Department is addressing these factors are through:

- › Applying the *Equity and Empowerment Lens* to internal processes
- › Committing to equity and empowerment in workforce development

### *Applying the Equity and Empowerment Lens*

The *Equity and Empowerment Lens* is a Multnomah County tool for creating more racially and ethnically equitable policies, processes, and programs. The Health Department is committed to increasing use of the Lens to guide key decisions to redress institutional racism and create more equitable conditions in the department. For instance, the tool will be used to inform how the Health Department makes decisions about allocating resources.

### *Committing to Equity and Empowerment in Workforce Development*

The Health Department offers training for staff, on health inequity, cultural competence, and related subject areas, that calls for self-reflection and shifts in practice toward racial equity. The Department is also improving its practices for recruiting and retaining employees of color in an intentional effort to build a multiracial and multicultural public health workforce.

## Living and Working Conditions

Much of the Health Department's work focuses on improving living and working conditions, to create healthier options where people live, work, play, learn, and worship. The Health Department is committed to increasing the focus on racial equity in this area by:

- › Increasing investment in stages of the life course that can have the greatest impact
- › Prioritizing *Health in All Policies* efforts that reduce disparities
- › Building the capacity of the Multnomah County Board of Commissioners, as the local Board of Health, to understand and act on health disparities

### *Increasing Investment in Stages of the Life Course that can have the Greatest Impact*

The life course health model is a way of considering health over the life span. This model tells us that today's experiences and exposures influence tomorrow's health, and that individual health is strongly affected during critical periods, such as early childhood and adolescence. The life course health model also highlights that the broader community environment strongly affects the ability of individuals to be healthy. Shifting Health Department practice to promote life course health means increasing department investment in early childhood and adolescence among families of color and families living in poverty.

*Prioritizing Health in All Policies Efforts that Reduce Disparities*

*Health in All Policies* is an approach to improving the health of all people by incorporating health considerations into decision-making across sectors, like transportation and planning. The Health Department has experience engaging different sectors in considering health in policy decisions, and will increase its commitment in this area by prioritizing *Health in All Policies* efforts that reduce disparities.

*Building the Capacity of the Multnomah County Board of Commissioners, as the Local Board of Health, to Understand and Act on Health Disparities*

The Multnomah County Board of Commissioners can act as the Board of Health in order to enhance its ability to make policy decisions that impact the public's health. The Health Department is working with the Board of Commissioners to educate and empower them to act to reduce health disparities. The Health Department will work with the Board of Health to create and carry out a joint plan to monitor efforts to reduce disparities.

**Public Services and Infrastructure**

In order to improve its capacity as a local public health agency to deliver services that reduce disparities, the Health Department commits to:

- › Creating a Public Health Advisory Board to inform Health Department decisions
- › Supporting culturally-specific approaches to reducing disparities

*Creating a Public Health Advisory Board to Inform Health Department Decisions*

A Public Health Advisory Board is a group of partners, clients, and community members who advise the Health Department on key decisions affecting the public's health. The Health Department will create an Advisory Board to help inform work related to disparities reduction, and to hold the Department accountable for making progress.

*Building up Culturally-Specific Approaches to Reduce Disparities*

Many times, services are designed for mainstream culture by default and may not be effective for communities of color. Culturally-specific approaches are a promising strategy for reducing disparities. The Health Department has had some success with strengths-based, culturally-specific approaches, and is committed to building on what has worked, as well as exploring new pathways with community partners.

**Individual Behaviors**

Multnomah County Health Department is increasingly aware of the improvements that can be made related to awareness of trauma and the use of trauma-informed care and approaches. To help people who experience racial and ethnic disparities heal from trauma and better care for themselves and each other, the Health Department commits to:

- › Increasing support for and use of trauma-informed approaches

*Increasing Support for and Use of Trauma-Informed Approaches*  
Generations of untreated trauma from causes such as racism, poverty, and violence persist in individuals, families, and communities. Trauma disrupts healthy development, harms relationships, and contributes to challenges like substance abuse and domestic violence. Trauma-informed approaches involve recognizing and responding to the effects of all types of trauma. The Health Department is working to increase its capacity to use trauma-informed approaches, both in service delivery and in program planning.

### **Community Health Improvement Plan**

A Community Health Improvement Plan is a long-term, community-driven effort to address public health problems. The Health Department commits to:

- › Conducting a *Community Health Improvement Plan* focused on reducing disparities
- › Monitoring progress at reducing disparities

The Health Department will work with current and new partners to ensure a community-led, inclusive, strengths-based and empowering process for reducing disparities and improving health equity in Multnomah County. As part of that process, results from this report will be supplemented with information on the communities' experiences and perceptions. This will both provide context for the disparities enumerated in this report, and highlight disparities not identified in this report.

## **Conclusion**

Addressing the disparities highlighted in this report will require concerted collective effort across Multnomah County departments and between its many partners. Strategies must be informed by authentic community engagement, partnership and accountability. The protective factors communities possess, including family systems, cultural pride and traditional ways of living and sharing knowledge, are central to developing policy and program interventions.

The Multnomah County Health Department will engage those communities most affected by disparities, convene community partners across sectors, and keep the goal of eliminating health disparities at the forefront of efforts to improve community health. But public support, political will and investments are needed to create the policy, systems and environmental changes that can disrupt the cycles of racism, poverty and trauma that are at the root of health disparities.

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# Appendix 1: The Racial and Ethnic Composition of Multnomah County

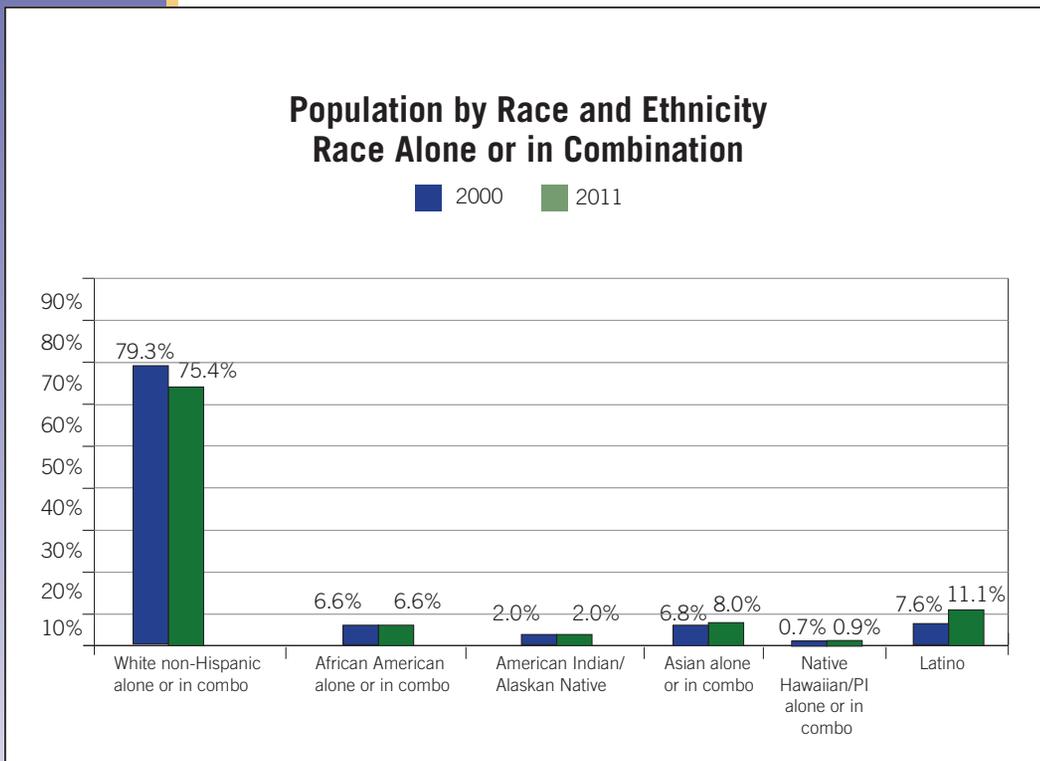
## Overview

Multnomah County is the most populous county in Oregon. It is home to 19% of the state’s population (United States Census Bureau, 2010). Overall, the population of Multnomah County has increased 13% in the last decade. The population

increased from 660,486 in 2000 to 748,031 in 2011 (College of Urban & Public Affairs: Population Research Center, 2012).

The growth in the overall population is explained primarily by an 8% increase in the size of the Latino population. The Latino population remains the largest non-White community in Multnomah County (see Figure 2). Between 2000 and 2011, the size of the non-Latino White population declined somewhat, while the Black/African American, Asian/Pacific Islander, and American Indian/Alaska Native populations remained approximately the same size.<sup>2</sup>

**FIGURE 6—Multnomah County Population Change from 2000—2011 by Race/Ethnicity**



Source: U.S. Census

## Age

The non-Latino White population is considerably older than the Black/African American, Asian/Pacific Islander, and Latino populations. In 2011, the median age of non-Latino Whites was 38.9 years as compared to the Latino median age of 25.4 years. (U.S. Department of Commerce, 2011)

<sup>2</sup> It is important to note that communities of color are often undercounted. The data provided in Figure 3 may be an underestimate.

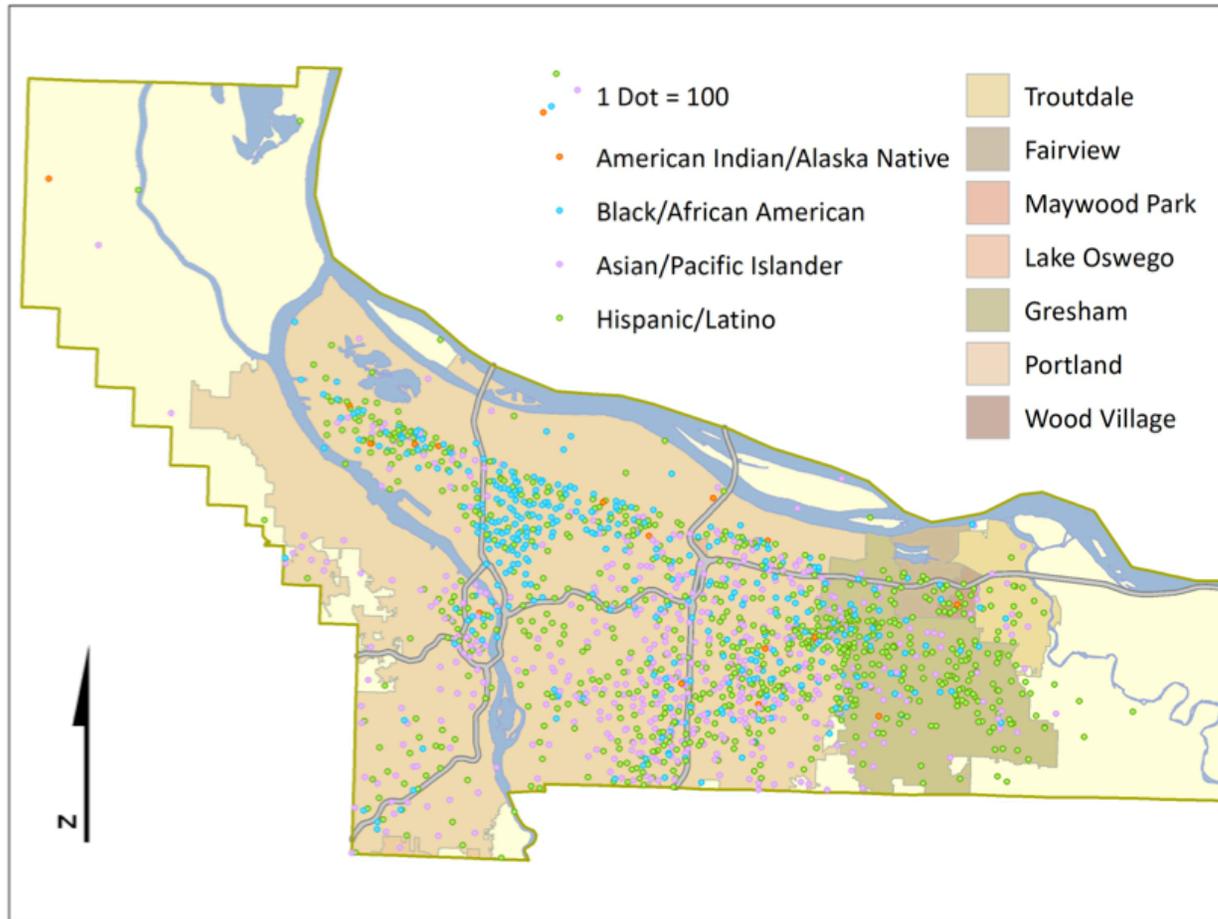
## Population Density

There are different patterns of population density for each of the racial and ethnic groupings in Multnomah County. Mid-County and East County have the greatest proportion of the county's Latino population. The greatest proportion of the Black/African American population is in North/Northeast Portland, followed by Mid-County (see Map 1—Population Density by Race/Ethnicity 2010). The Asian/Pacific Islander population is most dense near Interstate 205 in Mid-County. In contrast, the American Indian/Alaska Native group is dispersed throughout the county.

## Language

In Multnomah County, 16.9% of the population five years of age or older speak a language other than English at home. This percent varies by geographic area. The percent of the population that speaks a language other than English at home is greatest in East County (24.5%) and lowest on the west side (5.6%) and central eastside of Portland (6.3%)(U.S. Department of Commerce, 2011).

MAP 7—Population Density by Race/Ethnicity 2010 (source: U.S. Census, 2010)



## Diversity within Racial and Ethnic Categories

Each of the racial/ethnic categories used in this report are comprised of diverse communities. People within each category have different countries of origin, different cultural backgrounds, different languages, and different immigration histories. For example, the Asian/Pacific Islander community is particularly diverse in Multnomah County. People from more than fourteen different countries are represented in the *Asian* category and more than four countries are represented in the *Pacific Islander* category. The Chinese and Vietnamese populations are the largest populations within the *Asian/Pacific Islander* category; however, no one country of origin represents even a third of the people grouped into the *Asian/Pacific Islander* grouping (U.S. Department of Commerce, 2012).

**Table 9—Country of Origin among Asian and Pacific Islanders in Multnomah County, Oregon, 2010-2012**

Asian	Percent of total
Asian Indian	3.6%
Cambodian	1.8%
Chinese, except Taiwanese	25.7%
Filipino	9.1%
Hmong	1.0%
Indonesian	0.5%
Japanese	6.7%
Korean	5.4%
Laotian	4.9%
Pakistani	0.7%
Taiwanese	0.4%
Thai	1.5%
Vietnamese	31.9%
Other Asian	6.8%
<b>Native Hawaiian and Other Pacific Islander</b>	
Native Hawaiian	10.4%
Guamanian or Chamorro	5.3%
Samoan	11.3%
Other Pacific Islander	73.0%

Data source: American Community Survey, 2010-2012

## Multiracial Populations in Multnomah County

In Multnomah County, 3.6% of the non-Latino population selected two or more races in the 2010 Census. The largest groups in the more than one race category were: White and Asian (1.13%), White and Black/African American (.83%), and White and American Indian/Alaska Native (.78%). Table 3 presents the results of the 2010 Census race and ethnic categories (U.S. Census Bureau, 2010).

**Table 10—Racial/Ethnic Composition in Multnomah County, Oregon, 2010**

<b>Single race selected (non-Latino)</b>	<b>85.5%</b>
White alone	72.1%
Black or African American alone	5.4%
Asian alone	6.5%
Native Hawaiian/Other Pacific Islander alone	0.5%
American Indian/Alaska Native alone	0.8%
Some Other Race alone	0.2%
<b>More than one race selected (non-Latino)</b>	<b>3.6%</b>
White; Asian	1.13%
White; Black or African American	0.83%
White; American Indian and Alaska Native	0.78%
Black or African American; American Indian and Alaska Native	0.10%
Asian; Native Hawaiian and Other Pacific Islander	0.10%
White; Native Hawaiian and Other Pacific Islander	0.10%
Black or African American; Asian	0.06%
White; Some Other Race	0.06%
Asian; Some Other Race	0.03%
American Indian and Alaska Native; Asian	0.02%
Black or African American; Native Hawaiian/Other Pacific Islander	0.02%
Black or African American; Some Other Race	0.01%
Native Hawaiian/Other Pacific Islander; Some Other Race	0.01%
American Indian/Alaska Native; Native Hawaiian/Other Pacific Islander	0.01%
American Indian/Alaska Native; Some Other Race	0.00%
Three or more races	0.34%
<b>Latino</b>	<b>10.9%</b>
White alone	4.4%
Black or African American alone	0.20%
Asian alone	0.06%
Native Hawaiian/Other Pacific Islander alone	0.02%
American Indian/Alaska Native alone	0.31%
Some Other Race alone	4.9%
Two or more races	1.0%

Data source: U.S. Census, 2010

## Forecasted Growth of Populations of Color (Estimates)

The racial and ethnic composition of Multnomah County's census tracts is expected to change between 2010 and 2025, reflecting both racial/ethnic change for the county's population as a whole and movement of people within the county.

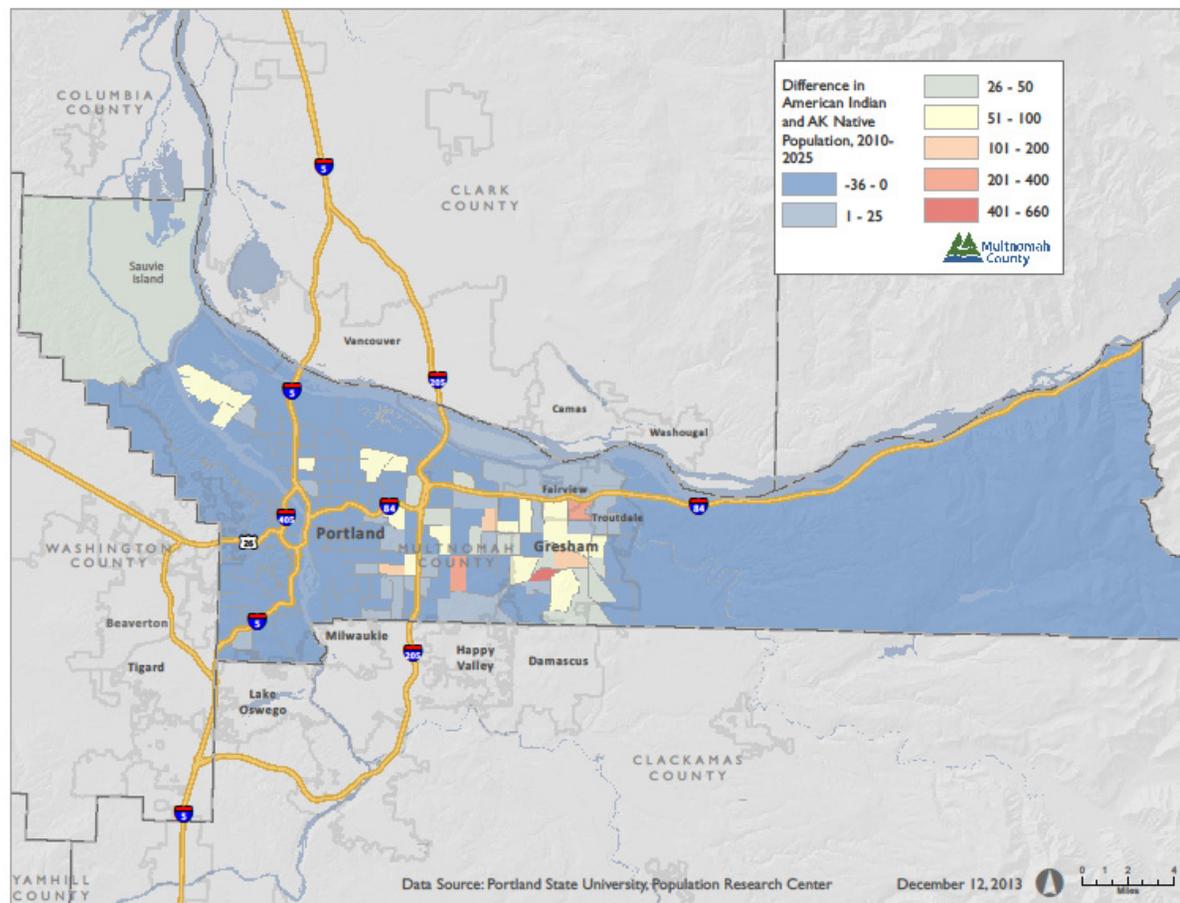
The following series of maps summarizes projected changes in the numbers of people of a given racial or ethnic group living in Multnomah County's census tracts. The projections are produced by demographers on the basis of historical change (College of Urban & Public Affairs: Population Research Center, 2012). Some areas of the greatest expected change include those areas that have been experiencing infill development, rapidly increasing property values, and displacement of long-term residents, such as inner Northeast Portland. Other areas where great change is likely are neighborhoods with lower-cost housing. These neighborhoods (e.g., East Portland and Gresham) are perceived to be the destination for many people displaced from inner neighborhoods. Numbers of people from most every group are expected to increase in the areas near Mount Scott and Happy Valley in East Portland, as increasing numbers of housing units are built there.

## American Indian/Alaska Native Population

As shown in Map 2, in most areas of the county, the American Indian/Alaska Native population size within census tracts is projected to stay the same or to decrease by a few people. The American Indian/Alaska Native population is expected to remain dispersed throughout the county, and the county

will likely not have a particular area with a concentration of American Indian/Alaska Natives. However, some tracts are projected to experience an increase, most notably in Gresham, where one tract is expected to have more than 400 more American Indian/Alaska Native residents by 2025.

**MAP 8—American Indian/Alaska Native Estimated Population Change, 2010-2025 by Census Tract**

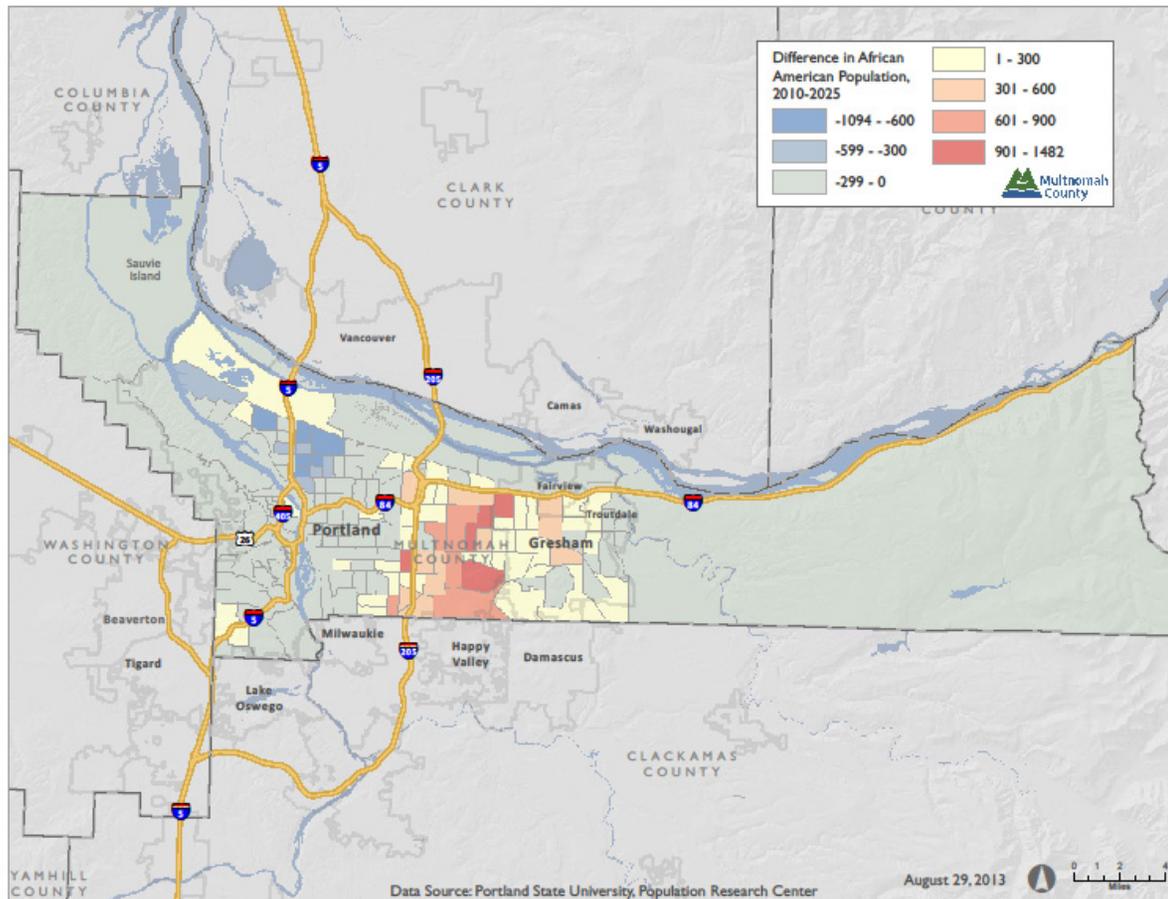


## Black/African American Population

Projected changes in the numbers of African Americans show clear geographic patterns. The number of African Americans per tract is expected to stay the same or decline in virtually every census tract west of Interstate-205. In Portland's historically Black Albina District, losses are expected to be very high, sometimes more than a thousand people per census tract. The Albina District includes neighborhoods such as Eliot, King,

Humboldt, Piedmont, and Irvington. Growth in the African American population is expected to occur primarily east of I-205, but within the City of Portland's borders, including the Powellhurst-Gibert and Hazelwood neighborhoods. Other pockets, including parts of Gresham and Fairview, are expected to see smaller increases.

**MAP 9—Black/African American Estimated Population Change, 2010-2025 by Census Tract**

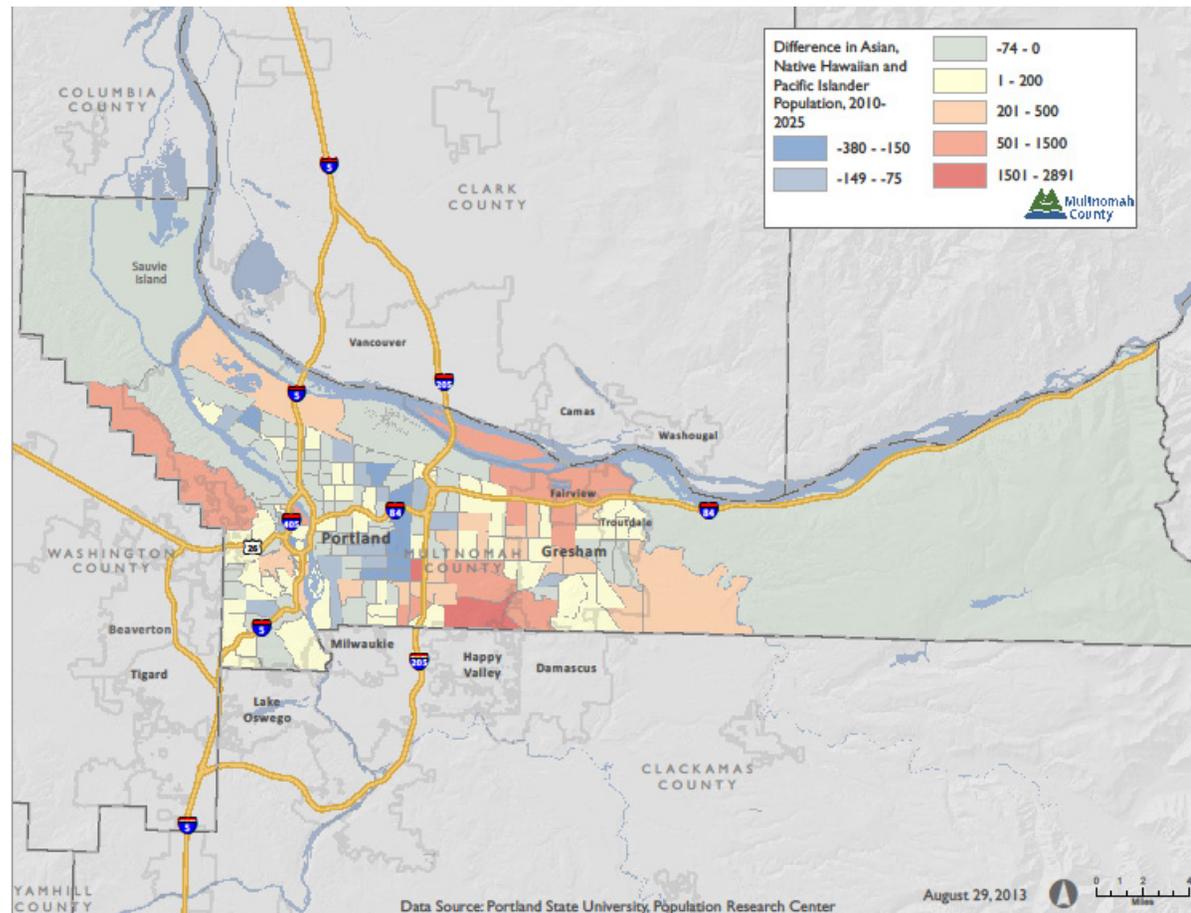


## Asian/Pacific Islander Population

The Asian/Pacific Islander population is expected to decline in Portland's inner east side and to increase in outer East Portland and East County municipalities. One notable estimated pattern is a belt of declining numbers along Southeast 82<sup>nd</sup> Avenue in Portland, an area variously described as *New Chinatown* and

*The Jade District* because of its present importance to people, businesses, and institutions associated with a wide variety of Asian/Pacific Islander cultures. The Asian/Pacific Islander population is also expected to increase on the west side of Portland near Forest Park.

**MAP 10—Asian, Native Hawaiian, and Pacific Islander Estimated Population Change, 2010-2025 by Census Tract**

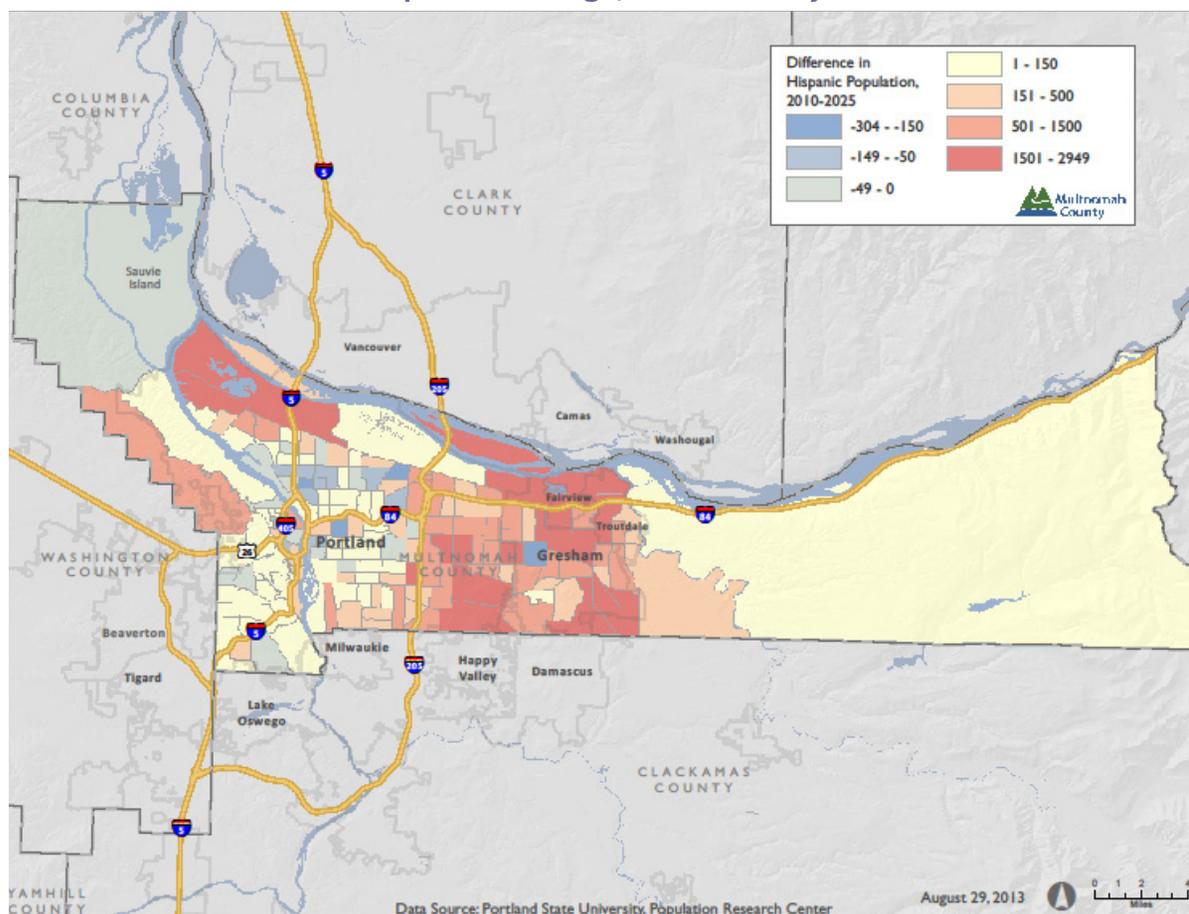


## Latino Population

A large increase in the number of Latino residents is expected in many parts of the county. While declines are predicted in the inner Northeast Albina District neighborhoods and one area of Gresham, the number of Latino residents is expected

to increase in virtually all other tracts. The growth is expected to be quite large in Portland and Gresham, with some tracts seeing increases of more than 2,500 Latinos.

**MAP 11—Latino Estimated Population Change, 2010-2025 by Census Tract**



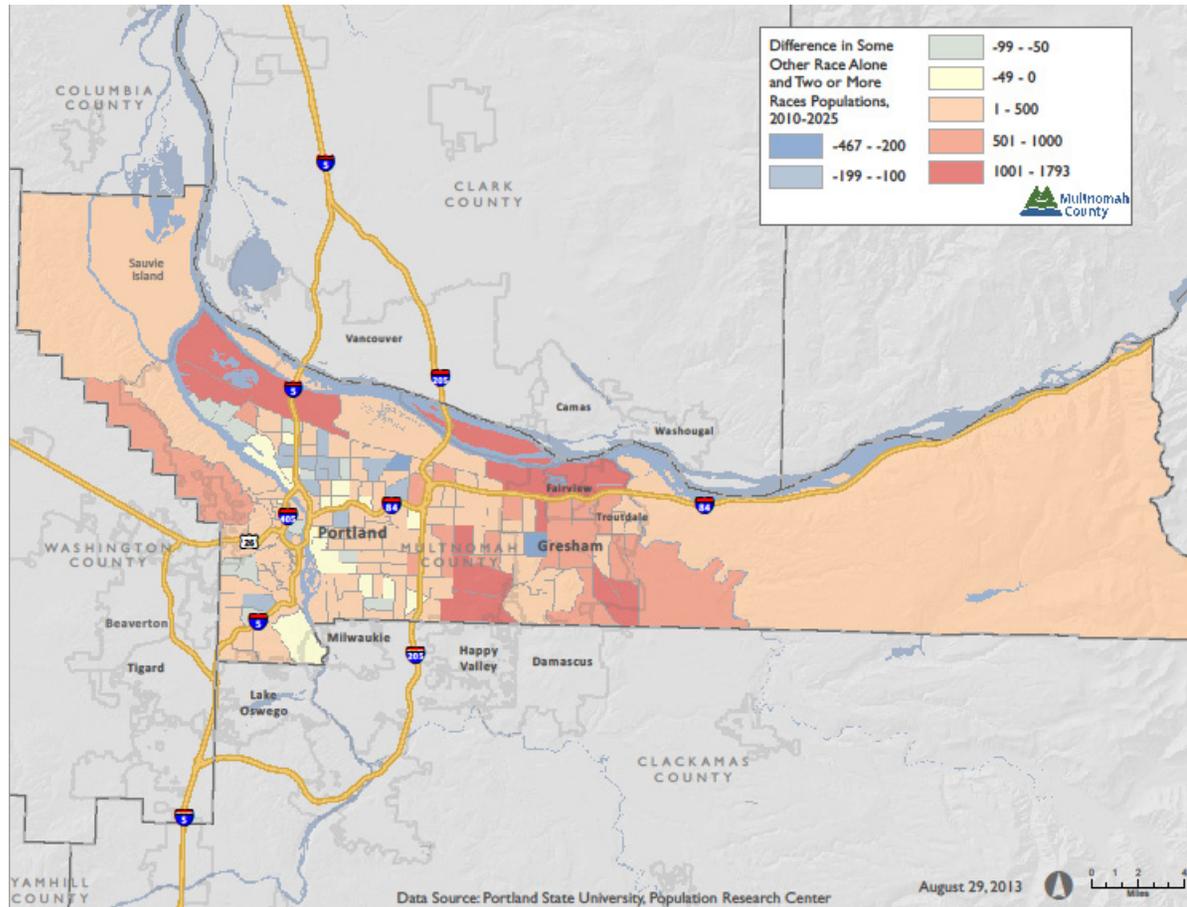
## White Population

The White population is anticipated to have a patchwork of increases and decreases in census tracts around the county. The one area where the increase is expected to be largest is in the Pearl/Old Town Districts near Downtown Portland, where much new housing has been constructed in recent years. Another geographical swath with a pattern of White population growth is close-in North and Northeast Portland, both areas where the African American population is expected to drop sharply. The White population is also expected to increase in the Lloyd District, which is currently dominated by retail and office space, but where many apartments are under construction. In contrast, the White population is expected to decline in the census tracts that line Interstate-84 east of I-205, as well as in Southwest Portland's residential neighborhoods.

## Multiracial Population

In virtually all of the county's census tracts, the number of people who report being of two or more races (multiracial) is expected to increase. While the Albina-area neighborhoods will likely see a decline, projections suggest that some tracts will see an increase of more than 1,000 multiracial residents.

MAP 12—Multiracial Estimated Population Change, 2010-2025 by Census Tract



## Appendix 2: Resources

- › Oregon Public Health Division: Oregon Health Authority, Racial and Ethnic Health Disparities in Oregon
- › Coalition of Communities of Color report series
- › MCHD's Maternal and Child Health Data Book (2014)
- › Multnomah County Health Equity Initiative 2009
- › Multnomah County Health Equity Initiative 2009 Executive Summary
- › Multnomah County Community Health Assessment Mobilizing for Action through Planning and Partnerships(MAPP) To Identify Health-Related Priorities
- › The Health Equity Initiative: A Five Year Reflection: The Policy Crosswalk
- › MCHD STD/HIV/HCV 2010 program report
- › All Hands Raised
- › Coalition For A Livable Future: Regional Equity Atlas
- › Greater Portland Pulse
- › Healthy Columbia Willamette Collaborative's website
- › Oregon State of Equity Reports
- › Urban League of Portland State of Black Oregon Reports
- › Community Health Rankings & Roadmaps
- › The Community Guide—Best and Promising Practices
- › Oregon's Healthy Future

# Appendix 3: Technical Information

## Methods

### How were disparities identified in this report?

In order to compare communities of color with the non-Latino White population, a disparity ratio was calculated for each indicator, except the two physical environment indicators. The disparity ratio was calculated by dividing the measure (i.e., prevalence, incidence rate, morality rate) for each racial/ethnic group by the measure for the non-Latino White group (comparison or reference group). The non-Latino White population is the comparison group in this report because the purpose of this report is to assess the magnitude of disparity between disadvantaged groups (communities of color) and an advantaged group.

For indicators using vital statistics, communicable disease, and American Community Survey (ACS) data, the confidence intervals or margin of error surrounding the disparity ratio was calculated in order to determine whether rates or point estimates differ significantly from each other. A disparity ratio of one means the measure for the community of color is the same as for non-Latino Whites. A disparity ratio confidence interval with a lower bound including or below 1.0 was not considered to represent a statistically significant disparity. In this report, when the text refers to estimates as “higher” or “lower” than each other, it means that these estimates are statistically significantly different from each other with 95% certainty.

For indicators from the Oregon Behavioral Risk Factor Surveillance System Race Oversample 2010-2011, a significant disparity in the disparity ratio was determined using statistical significance at  $p < 0.05$ .

In some instances, the disparity ratio was at least 1.1 before rounding, but did not reach statistical significance. In these cases, the trend of the health outcome was examined. If the measure for the population of color was consistently greater than the non-Latino White rate over time, the outcome was considered to represent a disparity despite the fact that the measure was not statistically significant. Additionally, for those indicators with a disparity ratio of 1.1 or greater without significance at the county level and without evidence of a consistent disparity over time, the Oregon state disparity ratio was examined. If there was a significant disparity at the state level, the county disparity was categorized as needing improvement.

**Table 11: Identification and Interpretation of Disparities**

Level of Concern	Definition
<b>Requires Intervention: Identified through statistical significance</b>	The analyses of these indicators showed disparities between the community of color and the non-Latino White population. The disparity ratio was 2.0 or greater and was statistically significantly greater than 1. These disparities are high priorities for policy, systems, and/or environmental change interventions.
<b>Needs Improvement: Identified through statistical significance</b>	The analyses of these indicators showed disparities between the community of color and the non-Latino White population. The disparity ratio was between 1.1 and 1.9 and was statistically significantly greater than 1. These disparities have the potential to worsen and may require intervention.
<b>Needs Improvement: Identified by local trends over time and/or disparities at the state level</b>	The analyses of these indicators suggested disparities between the community of color and the non-Latino White group. Though the disparity ratio was 1.1 or greater, it was not statistically significantly different from 1. However, there was a consistent trend of the community of color faring more poorly than non-Latino Whites over time and/or there was a significant disparity for the population at the state level. These disparities have the potential to worsen and may require intervention.
<b>No Disparity Detected</b>	The disparity ratio comparing the group of color to non-Latino Whites shows little or no difference between the two groups. For some indicators, communities of color fared better than non-Latino Whites as represented by a disparity ratio of less than 1.0. Disparity ratios that are statistically significantly less than 1 are marked with an asterisk (*).
<b>Geographic disparity detected</b>	The analyses of these indicators suggested a disparity between census tracts with 15% or more of a community of color and census tracts with at least 90% non-Latino White. The geographic disparity ratio was 1.1 or greater.

For the two physical environment indicators, disparity ratios could not be calculated the same way they were for the other 31 indicators, but analysts used a similar approach. For these two indicators, a geographic disparity ratio was calculated by dividing the summary measure for each census tract having more than 15% of the population identifying as a particular community of color by the measure for census tracts with at least 90% of the population identifying as non-Latino Whites. Geographic disparity ratios of 1.1 or greater were considered a disparity and are depicted with checkerboard blue boxes (Table 1). The methods are described in more detail in the physical environment section of the report.

**Why are several years of data combined?**

Analysts combined data from two or more years in order to permit the calculation and presentation of a rate or point estimate based on a sufficient number of cases for meaningful analysis. If fewer than five cases were available to calculate a particular measure, the measure was considered unreliable and no rate was calculated. In this report, the title of a chart, or table, indicates whether two or more years of data have been combined. Vital statistics and communicable disease indicators were calculated for a five-year period. For combined years, the U.S. Census data came from the 2006-2010 American Community Survey sample.

For some data systems, combining years is not sufficient and additional data collection must occur. For example, in 2010 and 2011, the Oregon Public Health Division conducted a survey among Oregon adults called the Oregon Behavioral Risk Factor Surveillance System (BRFSS) Race Oversample 2010-2011. The goal was to collect information from a large enough number of respondents to be able to analyze certain chronic diseases and health risk factors by race and ethnicity. To collect enough information from each of the smaller populations, special techniques were used. Even with those methods, the number of non-Latino Pacific Islander adult respondents was small, and their data had to be combined with those of non-Latino Asian adults.

#### **What is the minimum number of events needed to analyze data?**

In order to have confidence in the indicator rate a minimum number of events needs to be in the numerator and the denominator. For vital statistics data this report uses five events in the numerator. A minimum sample size for the American Community Survey was not necessary as sample sizes were large. For BRFSS data a numerator of five and denominator of at least 50 is required.

#### **What does the label “The estimate could vary considerably from year to year due to small numbers in the group. Interpret with caution.” mean?**

Estimates from the Oregon BRFSS Race Oversample 2010-2011 were assessed for reliability using the state’s Health Promotion and Chronic Disease Prevention Program’s guidelines, based on the relative standard error (RSE)—a measure of the variability of an estimate compared with its size. If the RSE was  $\geq 30$  and  $< 50$  for the county they were flagged with a notation that the estimate may be statistically unreliable and should be interpreted with caution.

#### **Why are some of the data older than other data?**

The most recent data available are presented in this report: some are older than others, and the availability varies by source. Several factors determine when data are available including the frequency of data collection, the post collection cleaning and verification process, and resources available to manage and analyze the data.

### **What population denominator data were used in this report?**

U.S. Census data by race were used for many of the population denominators in this report. However, two race classification systems have been used in the census, and it is important to distinguish between them. Prior to 1997, the census allowed only single-race responses, but in 1997 revised standards for race classification were issued by the Office of Management and Budget. The revised standards increased the minimum number of race categories from four (White, Black, American Indian or Alaska Native, and Asian or Pacific Islander) to five (White, Black or African American, American Indian or Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander). In addition, the data collection programs for these revised standards allow respondents to select more than one race category when responding to a query on their racial identity.

The introduction of the new multiple race classification posed a problem because single-race numerator data is incompatible with denominator data that allows respondents to choose a multiple race category. Therefore, a method was developed called “bridging” that uses multiple-race respondents’ specific combination of races, as well as other individual-level characteristics (age, sex, Latino origin) and contextual characteristics (region, level of urbanization, total county percent of more than one race), to predict probability of the respondents’ preferred single race. These bridged-race estimates are produced annually by the Population Estimates Program of the U.S. Census Bureau in collaboration with the National Center for Health Statistics (NCHS). In this way, data from systems that allow only a single-race classification can be analyzed even after the multiple-race classification system was initiated.

Bridging has also been performed for numerator data. In Oregon, bridged-race death certificate and birth certificate data are available from 2006 and 2008 on, respectively. This method allows for the analysis of long-term trends that include single-race numerators and denominators. For trends that spanned the period between single-race and multiple-race systems, bridged data were used when needed to conform to the single-race system.

For additional information on race bridging see the NCHS website. ([http://www.cdc.gov/nchs/nvss/bridged\\_race/data\\_documentation.htm](http://www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm))

### **How are multiracial individuals represented in these analyses?**

As noted, analysts did not include a multiracial category in the disparity analyses in this report. The multiracial population of Multnomah County is relatively small (3.6%) and quite varied, so analysts were unable to produce reliable estimates for each combination of races. In addition, some data sources do not include a multiracial category. Below is a description of how each of the data sources used handles multiracial status.

**Table 12: Information on Categorization of Race and Ethnicity by Data Source**

Source	Race and Ethnicity Groups*	Purpose
U.S. Census 2000 Decennial and 2011 American Community Survey One-Year Estimate	<ul style="list-style-type: none"> <li>› White non-Hispanic alone or in combination</li> <li>› African American alone or in combination</li> <li>› American Indian/Alaska Native alone or in combination</li> <li>› Asian alone or in combination</li> <li>› Native Hawaiian/Pacific Islander alone or in combination</li> <li>› Hispanic</li> </ul> <p>Multirace collected and analyzed through race combinations, not as a separate category.</p>	Population change in Multnomah County
PSU Population Research Center 2011 Multnomah County Population Estimates	<ul style="list-style-type: none"> <li>› White non-Hispanic alone</li> <li>› African American alone or in combination</li> <li>› American Indian/Alaska Native alone or in combination</li> <li>› Asian alone or in combination</li> <li>› Hispanic</li> </ul> <p>One time data set provided estimates of combinations of races.</p>	Physical Environment
U.S. Census Bureau, 2006-2010 American Community Survey 5-Year Estimate	<ul style="list-style-type: none"> <li>› White alone non-Hispanic</li> <li>› Black/African American alone non-Hispanic</li> <li>› Asian alone non-Hispanic (excludes Pacific Islanders)</li> <li>› American Indian/Alaska Native alone non-Hispanic</li> <li>› Hispanic</li> <li>› Native Hawaiian/Other Pacific Islander alone non-Hispanic (excluded from analysis)</li> <li>› Multiracial (excluded from analysis)</li> </ul>	Social and Economic Factors: <ul style="list-style-type: none"> <li>› Children in poverty</li> <li>› Single-parent household</li> <li>› High school education or less</li> <li>› Unemployment</li> </ul>
Oregon Department of Education	<ul style="list-style-type: none"> <li>› White non-Hispanic</li> <li>› Black/African American non-Hispanic</li> <li>› Asian non-Hispanic</li> <li>› American Indian/Alaska Native non-Hispanic</li> <li>› Hispanic</li> <li>› Multiracial (excluded from analysis)</li> </ul>	Social and Economic Factors: <ul style="list-style-type: none"> <li>› High school graduation</li> <li>› Third-grade reading level</li> </ul>

**Table 12: Information on Categorization of Race and Ethnicity by Data Source (continued)**

Source	Race and Ethnicity Groups*	Purpose
Behavioral Risk Factor Surveillance Survey Race Oversample 2010-2011	<ul style="list-style-type: none"> <li>› White non-Hispanic</li> <li>› Black/African American non-Hispanic</li> <li>› Asian/Pacific Islander non-Hispanic</li> <li>› American Indian/Alaska Native non-Hispanic</li> <li>› Hispanic</li> <li>› Multiracial, with question on preferred race</li> </ul> Analysis based on respondent's preferred race	Health Behavior: <ul style="list-style-type: none"> <li>› Current smoker</li> <li>› Obesity</li> <li>› No physical activity outside of work</li> <li>› Insurance coverage</li> <li>› Morbidity:</li> <li>› Health status</li> <li>› Incapacity due to poor physical or mental health</li> <li>› Mental Health</li> </ul>
2012 Oregon Smile Survey	<ul style="list-style-type: none"> <li>› White non-Hispanic</li> <li>› Black/African American non-Hispanic</li> <li>› Asian/Pacific Islander non-Hispanic</li> <li>› American Indian/Alaska Native non-Hispanic</li> <li>› Hispanic</li> </ul> No multiracial option	Clinical Care: <ul style="list-style-type: none"> <li>› Children with untreated tooth decay</li> </ul>
Hospital Discharge Database (numerator), National Center for Health Statistics (NCHS) Bridged Race (denominator)	<ul style="list-style-type: none"> <li>› White non-Hispanic</li> <li>› Black/African American non=Hispanic</li> <li>› Asian/Pacific Islander non-Hispanic</li> <li>› American Indian/Alaska Native non-Hispanic</li> <li>› Hispanic</li> </ul> No multirace option	Clinical Care: <ul style="list-style-type: none"> <li>› Preventable hospitalizations</li> </ul>

**Table 12: Information on Categorization of Race and Ethnicity by Data Source (continued)**

Source	Race and Ethnicity Groups*	Purpose
NCHS Bridged Race (numerator and denominator)	<ul style="list-style-type: none"> <li>› White non-Hispanic</li> <li>› Black/African American non-Hispanic</li> <li>› Asian/Pacific Islander non-Hispanic</li> <li>› American Indian/Alaska Native non-Hispanic</li> <li>› Hispanic</li> </ul> <p>Although a multiracial option is available in the U.S. Census , the NCHS bridged data set was used in order to include all events and not exclude individuals who chose more than one race.</p>	<p>Health Behavior:</p> <ul style="list-style-type: none"> <li>› Teen births</li> </ul> <p>Clinical Care:</p> <ul style="list-style-type: none"> <li>› First trimester prenatal care</li> </ul> <p>Morbidity:</p> <ul style="list-style-type: none"> <li>› Low birthweight</li> </ul> <p>Mortality:</p> <ul style="list-style-type: none"> <li>› Years of Potential Life Lost (YPLL)</li> <li>› Infant mortality</li> <li>› Coronary heart disease</li> <li>› Stroke</li> <li>› Diabetes</li> <li>› Cancer (Lung, Female Breast, Prostate, Colorectal)</li> <li>› Homicide</li> </ul>
Oregon Health Authority (numerator), NCHS bridged race (denominator)	<ul style="list-style-type: none"> <li>› White non-Hispanic</li> <li>› Black/African American non-Hispanic</li> <li>› Asian/Pacific Islander non-Hispanic</li> <li>› American Indian/Alaska Native non-Hispanic</li> <li>› Hispanic</li> </ul> <p>No multirace option</p>	<p>Morbidity:</p> <ul style="list-style-type: none"> <li>› Gonorrhea</li> </ul>
Oregon Health Authority (numerator and denominator)	<ul style="list-style-type: none"> <li>› White non-Hispanic</li> <li>› Black/African American non-Hispanic</li> <li>› Asian/Pacific Islander non-Hispanic</li> <li>› American Indian/Alaska Native non-Hispanic</li> <li>› Hispanic</li> </ul> <p>Multirace excluded from analysis.</p>	<p>Morbidity:</p> <ul style="list-style-type: none"> <li>› HIV incidence</li> </ul>

\*The term *Latino* is used in this report, but most data sources use the terms *Hispanic* or *Hispanic/Latino*.

**Table 13—Additional information for each data source used in this report**

Indicators Grouped by Source and Alphabetized	Years Data Reflect	Trend Analysis? (Y/N)	Previous Disparity Report? (Y/N)	Strengths	Limitations
<b>Center for Vital Statistics, Oregon Health Authority</b>				<ul style="list-style-type: none"> <li>› Ongoing data collection and availability</li> <li>› Standardized manner of data collection</li> <li>› Near complete coverage of vital events</li> </ul>	<ul style="list-style-type: none"> <li>› Death data lacking information on some co-morbidities (e.g., mental health, substance use), cause of death may be coded inconsistently.</li> <li>› Risk behavior, pregnancy condition, and neonatal outcome data may be incomplete.</li> <li>› Death Certificate race and ethnicity identification by funeral director, per family member report, or based on observation of decedent.</li> </ul>
All cancer mortality	2007-2011	Y	Y		
Colorectal cancer mortality	2007-2011	Y	Y		
Diabetes mortality	2007-2011	Y	Y		
Female breast cancer mortality	2007-2011	Y	Y		
Homicide	2007-2011	Y	Y		
Infant mortality	2007-2011	Y	Y		
Low birthweight (< 2500 grams)	2007-2011	Y	Y		
Lung cancer mortality	2007-2011	Y	Y		
Mothers not accessing first trimester prenatal care	2007-2011	N	Y		
Prostate cancer mortality	2007-2011	Y	Y		
Stroke mortality	2007-2011	Y	Y		
Teen births, ages 15-19	2007-2011	Y	Y		
Years of Potential Life Lost (YPLL)	2007-2011	Y	N		

**Table 13—Additional information for each data source used in this report (continued)**

Indicators Grouped by Source and Alphabetized	Years Data Reflect	Trend Analysis? (Y/N)	Previous Disparity Report? (Y/N)	Strengths	Limitations
<b>Behavioral Risk Factor Surveillance System, Oregon Health Authority</b>				<ul style="list-style-type: none"> <li>› Ongoing data collection and availability.</li> <li>› Rich data source for health and nutrition information on the adult population 18 years of age or older living in households.</li> <li>› Oversample by race and ethnicity.</li> <li>› Race and ethnicity identification is self-reported.</li> </ul>	<ul style="list-style-type: none"> <li>› Small sample size in specific populations even with periodic oversamples.</li> <li>› Missing groups: institutionalized, in dorms, barracks or nursing homes, homeless, non-English/Spanish speaking, without a phone or unable to respond by phone.</li> <li>› Unknown amount of measurement error due to self-report.</li> <li>› Response rate for phone surveys typically mid-50%</li> </ul>
Mental health not good'	2010-2011	N	N		
BMI >= 30	2010-2011	N	N		
Current smoking	2010-2011	N	N		
Poor or fair health	2010-2011	N	N		
Incapacity due to physical or mental health	2010-2011	N	N		
No physical activity outside of work	2010-2011	N	N		
No health insurance	2010-2011	N	N		
<b>Acute and Communicable Disease Program, HIV-STD Program, Oregon Health Authority</b>				<ul style="list-style-type: none"> <li>› Ongoing data collection and availability</li> </ul>	<ul style="list-style-type: none"> <li>› Clinical database.</li> <li>› Underreporting—only cases diagnosed by laboratory are reported; difficult to measure non-laboratory confirmed conditions in surveys/claims data because symptoms may be non-specific.</li> <li>› Incomplete collection of race and ethnicity.</li> <li>› Variations in incidence may be a result of variations in screening rates.</li> </ul>
Gonorrhea incidence		Y	Y		

**Table 13—Additional information for each data source used in this report (continued)**

Indicators Grouped by Source and Alphabetized	Years Data Reflect	Trend Analysis? (Y/N)	Previous Disparity Report? (Y/N)	Strengths	Limitations
HIV incidence	2008-2013	N	N	<ul style="list-style-type: none"> <li>› Data are de-duplicated by HIV cases diagnosed in Oregon.</li> <li>› Counts and rates presented to reflect the magnitude of the epidemic 2007-2011.</li> </ul>	<ul style="list-style-type: none"> <li>› Race/ethnicity determination may not consistently be by self-report.</li> <li>› Multiracial cases were not included, so overall number of diagnoses was greater than the sum of cases by race/ethnicity.</li> <li>› Immigrants to Oregon will appear as though they were diagnosed in Oregon; this number is small, but may include disproportionate numbers of African-Americans and Hispanics.</li> </ul>
<b>Hospital Discharge Data, Oregon Healthcare Enterprises</b>				<ul style="list-style-type: none"> <li>› Ongoing data collection and availability.</li> <li>› Detailed information on diagnosis and procedures.</li> </ul>	<ul style="list-style-type: none"> <li>› Only covers one small aspect of patient care; no outpatient or emergency department data.</li> <li>› Data set does not contain individual identifiers, unduplicated count not available.</li> <li>› Incomplete collection of race and ethnicity.</li> </ul>
Hospitalization rate	2010-2011	N	N		

**Table 13—Additional information for each data source used in this report (continued)**

Indicators Grouped by Source and Alphabetized	Years Data Reflect	Trend Analysis? (Y/N)	Previous Disparity Report? (Y/N)	Strengths	Limitations
<b>American Community Survey, U.S. Census Bureau</b>				<ul style="list-style-type: none"> <li>› Ongoing data collection and availability.</li> <li>› Race and ethnicity identification is self-reported.</li> </ul>	<ul style="list-style-type: none"> <li>› The margin of error (MOE) is large for smaller communities, making the estimates somewhat unstable. For the indicators in this report, the American Community Survey sample sizes for communities of color in Multnomah County ranged from 423 (<math>\pm 145</math> MOE) to 24,457 (<math>\pm 357</math> MOE).</li> </ul>
Adults aged 25 and older with high school education or less	2006-2010 5 year Selected Population Tables	N	N		
Children that live in single-parent households	2006-2010 5 year Selected Population Tables	N	N		
Children under age 18 in poverty	2006-2010 5 year Selected Population Tables	N	N		
Population age 16+ unemployed but seeking work	2006-2010 5 year Selected Population Tables	N	N		
<b>Communications, Oregon Department of Education</b>				<ul style="list-style-type: none"> <li>› Ongoing data collection and availability.</li> </ul>	<ul style="list-style-type: none"> <li>› Race and ethnicity identification is self-reported.</li> </ul>
Ninth-grade cohort that did not graduate in four years with a regular diploma	2010-2011	N	N		
Students not meeting third-grade reading level standards (Portland State University Analysis)	2011-2012	N	N		

**Table 13 - Additional Oregon State Disparity Analysis Conducted for This Report**

Race/ethnicity	Infant Mortality 2007-2011		Stroke Mortality 2007-2011		All Cancer Mortality 2007-2011	
	Not Age-Adjusted Rate per 100,000	Disparity Ratio	Age-Adjusted Rate per 100,000	Disparity Ratio	Age-Adjusted Rate per 100,000	Disparity Ratio
White non-Latino	4.8	Ref	42.2	ref	177.7	Ref
Black/African American non-Latino	9.2	1.9*	58.6	1.4*	201.4	1.1*
American Indian/Alaska Native non-Latino	10.6	2.2*	43.5	1.0	173.0	1.0
Asian/Pacific Islander non-Latino	3.5	0.7*	43.2	1.0	117.0	0.7*
Latino	4.8	1.0	33.8	0.8*	110.9	0.6*

Race/ethnicity	Children in Grades 1 through 3 with Untreated Tooth Decay 2012		1+ Days of Incapacity Due to Poor Physical or Mental Health 2010–2011		Mental Health Not Good in 2 of the Last 4 Weeks 2010-2011	
	Prevalence	Disparity Ratio	Age-Adjusted Prevalence	Disparity Ratio	Age-Adjusted Prevalence	Disparity Ratio
White non-Latino	18.1	Ref	25.7	ref	12.6	ref
Black/African American non-Latino	28.2	1.6*	31.9	1.2	18.9	1.4
American Indian/Alaska Native non-Latino	--	--	34.6	1.3*	23.6	1.8*
Asian/Pacific Islander non-Latino	20.0	1.1	22.9	0.9	6.2	0.5*
Latino	25.1	1.4*	19.1	0.8*	13.1	0.9

Note: These results were used to help determine whether there was a local disparity when the local disparity ratio was 1.1 or greater, but did not reach statistical significance. Age-adjusted estimates were adjusted to the 2000 U.S. population.

Data Sources: Center for Health Statistics, Oregon Smile Survey, and the Behavioral Risk Factor Surveillance System (BRFSS), Oregon Health Authority

\*Disparity ratio was significantly ( $p < 0.05$ ) different than 1.