Public Health Division

Office of the State Public Health Director

OREGON HEALTH AUTHORITY

State Health Assessment

August 2025

Contents

Introduction: Dr. Dean Sidelinger

Dear Colleagues,

I am pleased to present Oregon's 2025 State Health Assessment. This effort attempts to present a picture of the health of people living in Oregon. This is not an easy task. In public health we seek out data that is trusted and can be tracked over time so we can see our progress to improving health. We want the information presented to be relevant to people. People want to see themselves in the information – be included, represented. Tracking, relevance and representation can sometimes be hard to reconcile. Sometimes data that has been collected over time and is considered reliable by scientists and data analysts in public health can present a biased picture of the health of people living in Oregon because of how it was collected or presented. Sometimes the data and stories from communities that tell a fuller picture of the health of people in those communities is not available across all communities and thus is harder to use to assess the state of health across Oregon.

When we present data on poor health outcomes and behaviors that can lead to poor health, we often look across groups such as by race and ethnicity; sex and gender; geography; and the economic status of individuals represented. Even among these smaller groups, the way we present data can mask differences among the people represented. Also, by presenting the data differences between groups, some people then relate those disparities to differences among the individuals in the groups. But that may mask what is usually occurring. The differences we are seeing are because of social and structural determinants of health – meaning differences in how people are treated by institutions; their access to culturally effective, accessible services; and impacts of historical polices that may no longer be in force, but have impacted institutions, beliefs, and relationships. These issues are often manifested in racism, trauma, and stress that impact people's health directly and their ability to access services. We have tried to present data on the health indicators in this context. We are also trying to address the comments from our Youth Data Council – to highlight the

weaknesses in systems that lead to the inequities we present while striving to highlight the strengths in people. We have a long way to go to meet their request.

We have also tried to pare these indicators from our previous health assessment. We worked with colleagues and partners to identify and report on some representative indicators of the work public health does. While we realize that the impacts on health are broad, public health has focused work on prevention, communicable disease, environmental health and preparedness. There is more data available by topic areas from public health and partner programs – so we invite people who want a more in-depth look at a topic to seek information out from our programs – on their websites, data dashboards, and reports.

I want to express my gratitude to all who contributed to this report. This document, along with online data visualizations, represents a tremendous amount of work. I'd like to thank my OHA Public Health Division colleagues for the work they've done in community engagement, data collection, data analysis, compilation, and reporting that resulted in this assessment. I'd like to thank my colleagues and partners from across the public health system in Oregon for their valuable contributions to this work – and for guiding us toward a product that is more representative of the people included in the paragraphs, tables, and graphs. We had tremendous input from state, tribal, and local public health colleagues as well as partners in community organizations and health care that are critical members of our public health system.

This work will serve as a useful resource for all of us as we work together to improve the health of people in Oregon and eliminate health inequities.

Sincerely,

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Acknowledgements

We are grateful for the efforts of the steering committee, staff and subject matter experts throughout the Oregon Health Authority.

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Executive Summary

Oregon's 2024 State Health Assessment discerns health needs, gathers information on Oregon's changing population and identifies the capacity of the public health system to serve that population.

An external Steering Committee of community and public health system partners developed the framework, direction and focus of this assessment. This committee informed the selection and framing of the state population health indicators (SPHIs), which describe the health of Oregon residents. Periodic review of these indicators will monitor progress in improving the current and future health of residents. The Steering Committee emphasized the importance of regional and upstream focus of these indicators. These indicators represent a cross-section of state health needs and upstream factors that include primary ways that state and local public health can support health improvement.

State population health indicators reveal disparities in health for many groups. This analysis found that race, age, ethnicity, socio-economic status and geography affected health behaviors and health outcomes.

This report also includes a review of major indices of state public health capacity through three recent assessments including: state and local public health capacity for a modernized public health system, complementary community-based organization public health capacity, and an assessment of the public health workforce. Additionally, OHA reviewed health improvement priorities around the state and lessons of the previous State Health Improvement Plan (SHIP) to provide context and guidance for this health improvement cycle.

These assessments indicate that Oregon's legislative investments in public health modernization have increased capacity in foundational public health capabilities; that Oregon's public health workforce is committed and flexible but strained; and that focusing on core public health work would support future implementation of state health priorities.

Information from this assessment will guide the development and implementation of the 2025-29 State Health Improvement Plan. That plan will include goals, strategies and community and partner engagement to support the next phases of health improvement in Oregon.

1. Introduction

The State Health Assessment (SHA) is a review of current and historic data to identify trends in the health of people and communities in Oregon. Working with representatives from across the state, The Oregon Health Authority (OHA) reviewed health improvement initiatives, assessed public health capacity, and developed priority health indicators. The SHA is a critical document for understanding the health of Oregon communities and their strengths, needs, and the public health system's capacity to respond.

As a nationally accredited health department through the Public Health Accreditation Board, OHA is required to conduct and publish a SHA every five years.

Using the SHA

The findings of the SHA guide the development of the State Health Improvement Plan (SHIP), which outlines how the state will address identified health needs. Together, the SHA and the SHIP have broad implications for understanding the health of people in Oregon and the strategies taken to improve health. These conclusions inform two key areas: collaborative activities across the governmental public health system and with Oregon's coordinated care organizations (CCOs) and second, strategic investment areas within the state to improve health.

For the first, Oregon Health Authority contracts with coordinated care organizations to provide Medicaid services and invest in community health. The state population health indicators (SPHIs) and the public health data sources used to assess health are tools used by coordinated care organizations, local public health authorities and other groups responsible for community health assessments.

Within OHA, the findings in the SHA are used to shape strategic planning for the agency and partners. OHA's strategic plan includes areas outside of public health, such as Medicaid, the state hospital and behavioral health,

and the SHA creates opportunities for alignment with these other fields. For the agency strategic plan, SHA data is used for indicators, supporting greater alignment on community-determined priorities. OHA intentionally works to compare and align SHA SPHI data with state public health accountability metrics.[1,2]

The SHA has affected how OHA collaborates with partners, and the agency's updated strategic plan highlights the need to make collective investments and choices to improve the health of all Oregonians.

Enhanced demographic data

Where possible, OHA has been working to enhance data on race, ethnicity and language to better represent communities in Oregon.[3] Analyzing disaggregated data would make the health outcomes and health behaviors across groups clearer. Information in this report will refer to efforts to improve data collection for race, ethnicity, language, disability along with sexual orientation and gender identity. Data and data trends are emerging.

2. Members of the Steering Committee

The SHA is guided by a committee with members from across Oregon, representing community-based organizations, health care organizations, the Nine Federally Recognized Tribes in Oregon, local public health authorities and OHA. Many have experience participating in previous local and state health assessments and improvement plans.

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3. Guiding values

This SHA was guided by the mission and vision set by the Steering Committee. These define the approach for this SHA and the SHIP that will follow.

Vision

Each person living in Oregon can obtain affordable, appropriate and adequate resources that they need to reach optimal health and well-being.

Mission

We draw on community voices, experiences, and ideas to shape state health focus areas and solutions so that all people living in Oregon have the resources and opportunities to thrive. It is important to recognize the government-to-government relationship between the state of Oregon and the Nine Federally Recognized Tribes in honoring Tribal sovereignty and the role Tribes play in improving health in Tribal communities.

4. Developing this assessment

OHA based the SHA development process on the Mobilizing Action through Planning and Partnership (MAPP 2.0)[4] framework, written by the National Association of County and City Health Officials. OHA adapted the framework to be consistent with the agency's commitment to eliminating health inequities and used existing assessments of statewide and public health partner capacity in place of some assessments recommended in the MAPP 2.0 framework.

OHA performed the following assessments:

- The Starting Point Assessment, which gathered lessons from the previous SHA and SHIP cycle to inform this SHA and SHIP.
- An assessment of capacity to perform public health work: OHA used findings from pre-existing assessments on Oregon's public health workforce and Oregon's public health funding and capacity.
- A review of coordinated care organization community health improvement plans (CHIPs) to identify trends in community priorities.
- A quantitative assessment to examine health information from a variety of sources to describe the health status of Oregonians.

Committees

To perform these assessments, OHA established three groups according to the MAPP process: a Core group, a Steering Committee (SC) and SC subcommittees.

Core group

The Core Group included a representative cross section of OHA staff with expertise in public health data or community engagement. This group recruited for the SC and conducted the Starting Point Assessment.

Steering committee and subcommittees

The SC provided direction and recommendations for the SHA and SHIP. It developed key aspects of the framework, determined the mission, vision and values, then defined priorities for Oregon's SPHIs. The group reviewed reports and assessments as they were completed. Subcommittees within the SC informed a strategy for engaging residents in rural areas, general community engagement and data collection priorities.

Evolution of representation over time

OHA has been working with committees of public members to direct the state health assessment since 2017. This committee builds on Oregon's previous SHA steering committee by increasing its size and the geographic and cultural diversity of representatives.

- The size of the committee more than doubled from 12 to 25.
- Local public health and CCO seats were each doubled to four to increase regional diversity.
- Thirteen seats were held by representatives of community-based organizations, representing health care, direct community services and community specific advocacy.
- Tribal representation was determined by Tribal Health Directors of the Nine Federally Recognized Tribes in Oregon, which kept their number of representatives stable at two.
- Two representatives from the previous SHIP's steering committee joined to provide continuity.

Steering committee activities

The SC held its monthly virtual meetings to develop the SHA from April through December 2024. The group started by developing guiding principles for the SHA. This was followed by a retreat in September to review data and public health data sources. Next, the SC formed two subcommittees. These were focused on general community engagement and rural community engagement given the unique needs of rural outreach. Based on SC

interest, OHA hosted multiple ad hoc workgroups focused on data where OHA subject matter experts connected with the SC to answer questions and engage in conversation. These insights resulted in a set of considerations for state data, informed the rural feedback strategy, and developed strategies for funded community engagement.

Steering committee values

The SC developed the following four values, defining how they wanted to work together and with OHA throughout the SHA and SHIP process.

Equity

The steering committee will live this commitment to equity when it:

- Ensures an inclusive statewide process.
- Recognizes current and historical injustices and the enduring impact on individuals in communities when shaping state health priorities.

The equity value will be manifested in the context of the SHIP if it:

- Addresses the needs of all people as determined by people and communities themselves.
- Reflects a definition of people and communities that have historically been marginalized or underserved including older adults, young children, disabled people, domestic violence victims, veterans, single-parent households, and people living in rural/frontier areas - including those from all racial backgrounds.
- Encourages capacity building resources and long-term investments as determined by communities.
- Includes capacity building resources to support ongoing voice of individuals and communities as the plan is implemented.
- Addresses immediate health concerns as well as long-term well-being for people living in Oregon.

Transparency

OHA maintains open lines of communication with the SC and communities, and there is clarity around the process, goals, and outcomes of the work. The SHA and SHIP priorities are clear, focused, and actionable.

Accountability

- The steering committee is centered and driven by the shared group agreements. Each member understands their roles and responsibilities and contributes to the best of their ability to help OHA develop a plan informed by data that accounts for the needs of each person in the state.
- Regular opportunities for feedback are provided to committee members to ensure open communication and adjustments in how the process is managed and facilitated by OHA.

Collaboration

- The committee works towards common goals and fosters a sense of shared purpose for public health outcomes.
- The steering committee is engaged in collaborative partnerships with local organizations, health care systems, and community leaders to inform community-driven priorities to guide planning and priorities.

Population health indicators

Population health indicators were informed by the SC, which identified characteristics of priority indicators, the data to include and useful context for each indicator. The committee was focused on actionable information that incorporated upstream data with a focus on social and structural determinants of health. Upstream data refers to the broad, social and environmental conditions that affect individual and population health, such as housing, education, neighborhood safety. These affect the outcomes that individuals and populations experience, including mental and physical health outcomes.

The SC identified the following considerations. Indicators should:

- Be presented in the context of social determinants of health.
- Include strength-based framing and avoid deficit framing.
- Focus on prevention or tracking upstream information.
- Identify populations impacted, such as culturally specific populations, disparate effects based on disability, age and geography and more.
- Have a clear impact on the lives of Oregonians.

- Be measurable with high quality data that is reliable, representative and meaningful.
- Be easy to track over time through regular data updates and methods.
- Align with existing OHA priorities.
- Highlight broader public health issues.

The SHA SC met twice to discuss their health indicator priorities. These meetings had a visual scribe who represented the SC's priorities, goals, and concerns (Figure 4.1).

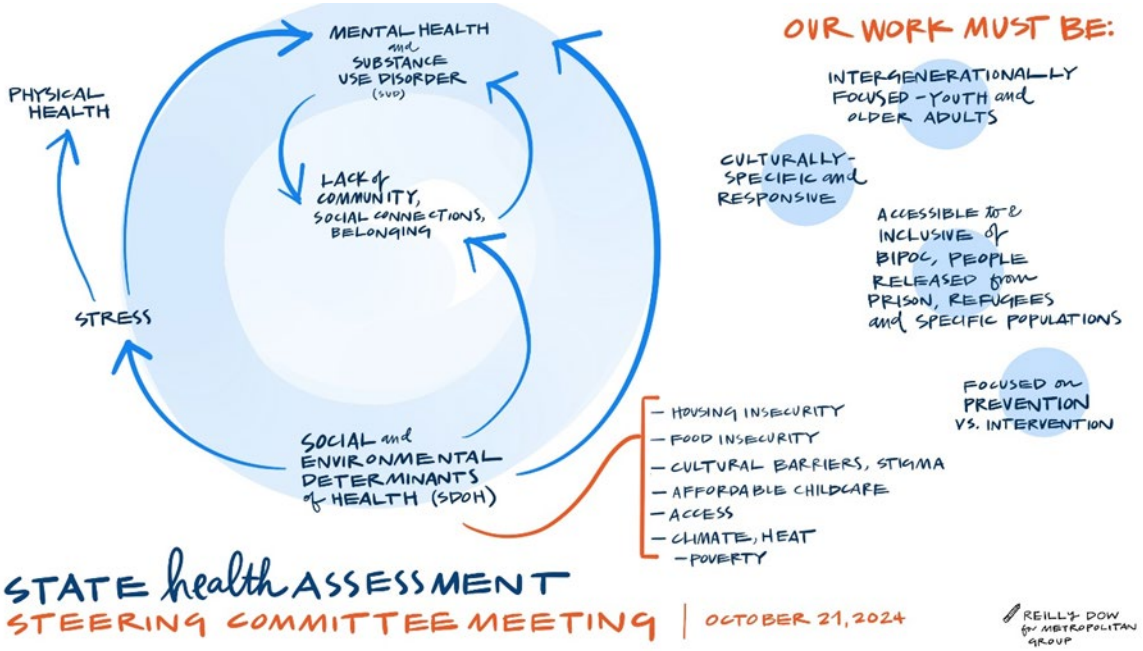

Figure 4.1

The following meeting focused on identifying additional priorities related to key public health topics. The SHA SC reiterated their interest in structural and systemic inequities that cause negative health outcomes (Figure 4.2).

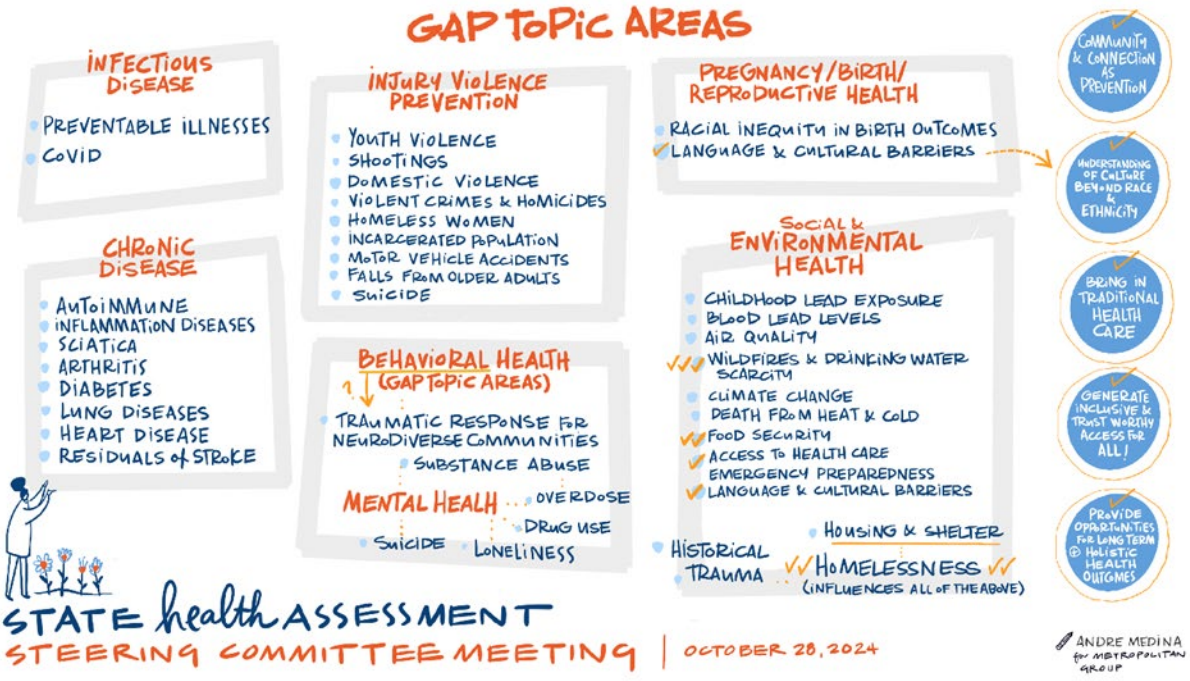
GAP TOPIC AREAS
INFECTIOUS DISEASE
PREVENTABLE ILLNESSES
COVID
CHRONIC DISEASE
AUTOIMMUNE
INFLAMMATION DISEASES
SCIATICA
ARTHRITIS
DIABETES
LUNG DISEASES
HEART DISEASE
RESIDUALS of STROKE
INJURY VIOLENCE PREVENTION
YOUTH VIOLENCE
SHOOTINGS
DOMESTIC VIOLENCE
VIOLENT CRIMES & HOMICIDES
HOMELESS WOMEN
INCARCERATED POPULATION
MOTOR VEHICLE ACCIDENTS
FALLS FROM OLDER ADULTS
SUICIDE
BEHAVIORAL HEALTH (GAP TOPIC AREAS)
TRAUMATIC RESPONSE FOR NEURODIVERSE COMMUNITIES
SUBSTANCE ABUSE
MENTAL HEALH
OVERDOSE
DRUG USE
SUICIDE
LONELINESS
PREGNANCY/BIRTH/ REPRODUCTIVE HEALTH
RACIAL INEQUITY IN BIRTH OUTCOMES
LANGUAGE & CULTURAL BARRIERS
SOCIAL & ENVIRONMENTAL HEALTH
CHILDHOOD LEAD EXPOSURE
BLOOD LEAD LEVELS
AIR QUALITY
WILDFIRES & DRINKING WATER SCARCITY
CLIMATE CHANGE
DEATH FROM HEAT & COLD
FOOD SECURITY
ACCESS TO HEALTH CARE
EMERGENCY PREPAREDNESS
LANGUAGE & CULTURAL BARRIERS
HISTORICAL TRAUMA
HOUSING & SHELTER
HOMELESSNESS
(INFLUENCES ALL OF THE ABOVE)
COMMUNITY & CONNECTION AS PREVENTION
UNDERSTANDING OF CULTURE BEYOND RACE & ETHNICITY
BRING IN TRADITIONAL HEALTH CARE
GENERATE INCLUSIVE & TRUST WORTHY ACCESS FOR ALL!
PROVIDE OPPORTUNITIES FOR LONG TERM & HOLISTIC HEALTH OUTCOMES
STATE health ASSESSMENT
STEERING COMMITTEE MEETING
OCTOBER 28, 2024
ANDRE MEDINA for METROPOLITAN GROUP

Figure 4.2

5. Community Engagement

Community engagement during the SHA process was to familiarize community members with the SHA and the SHIP, describe their importance to community health and gather feedback. This engagement took place from October through December 2024 and included twelve unique community spaces that were held virtually and in-person. Staff focused on engaging multiple organizations through geographically or culturally specific in-person and virtual meetings.

There was also periodic engagement with Oregon's Public Health Advisory Board, local public health authorities, coordinated care organizations and community-based organizations.

Engagement included presentations to community groups representing the following groups,[*] which included OHA's regularly convened groups or committees.

- Hispanic or Latino, Latina or Latinx community organizations.
- American Indian/Alaska Native and Tribal communities.
- Native Hawaiian/Pacific Islander communities.
- Community organizations that work with state and local public health work.
- Immigrant and refugee communities.
- Lesbian, gay, bisexual, transgender, queer, intersex, asexual/aromantic, two-spirit plus others (LGBTQIA2S+) led or serving community-based organizations.
- The Public Health Division's Youth Advisory Council[5] and Youth Data Council.[6]
- The Public Health Division's Black Public Health Strategy workgroup.
- The Systems of Care Advisory Committee's Youth Council.[7]

In these conversations, community members had holistic responses that brought up the interconnectedness of health and other factors. Some helpful

[*] A full list of these community meetings and dates is in Appendix C.

examples for understanding the meaning of health in people's lives are responses to open-ended questions, such as "What does being healthy mean to you?". Some representative community responses included:

- Being connected personally, with place, land, environment that is healthy and supports thriving where we are.
- Access to low barrier visits in affordable, local, socially and personally affirming health care provider networks, including behavioral, dental, emergency and preventive medical care, prescriptions, trauma and recovery, support
- Holistic wellness: physical, mental, emotional, financial, spiritual well-being where needs in each area are met.
- Connected socially with community and having social needs met in accessible ways (language, culture and functional limitations).

Respondents also noted that community health had different requirements than individual health. Some representative responses for the prompt, "A healthy community needs" included:

- Access to resources for living well including community/ social connection, culture, education, culturally and nutritionally healthy food, safe housing access to nature, stable employment and income to cover utilities and other necessities for everyone.
- Access to community funding and support systems, including health care, safe infrastructure and transportation, land and traditional foods.
- Support for surviving trauma and exposures to hate, disregard, disrespect and oppression.

All groups were offered ongoing updates on the SHA and SHIP, and most accepted. These initial meetings laid the foundation for community engagement to help determine priorities and strategies for the SHIP. This began in March 2025.

6. Assessments and other data

OHA conducts regular assessments to review governmental public health capacity and critical needs for state and local public health. This section contains summaries of five assessments. The first three review different aspects of Oregon's public health modernization work:

1. Oregon Public Health Modernization Capacity and Cost Assessment
   Public health capacity to support public health services and health improvement.
2. Community-based organizations program and activities reporting
   A review of state public health work with CBOs and CBO activity reporting.
3. Public Health System Workforce Assessment
   Knowledge and capacity of Oregon's public health workforce.

The last two assessments were developed for the SHA and SHIP process:

4. Analysis of local Oregon community health improvement plans
   A review of the priorities and strategies included in community health improvement plans across the state.
5. Starting Point Assessment
   Qualitative analysis and reflections of the previous State Health Improvement Plan by the previous public steering committee and OHA's Public Health Division leadership.

Overview: Oregon's public health modernization

Oregon's framework for governmental public health is called "public health modernization" or "PH modernization". This framework was developed in 2014 by Oregon's Future of Public Health Services Task Force and enacted in 2015 through House Bill 3100. Oregon statute defines a core set of foundational programs and capabilities that must be present to protect and promote the health of people in every area of the state. Since 2017, the Oregon Legislature has provided some funding to begin implementing and scaling up this framework,[8] with the majority of funds directly reaching

communities through allocations to local public health authorities, the Nine Federally Recognized Tribes of Oregon and the Urban Indian Health Program, and community-based organizations.[8] Foundational capabilities are cross-cutting skills and capabilities needed by the public health system to support basic public health protections and other programs and activities that are key to ensuring the community's health and achieving equitable health outcomes. The foundational capabilities are:

- Communication
- Policy and planning
- Leadership and organizational competencies
- Health equity and cultural responsiveness
- Community partnership development
- Emergency preparedness and response
- Assessment and epidemiology

The foundational programs are the four primary areas of public health work:

- Communicable disease
- Access to clinical preventive services,
- Environmental health, and
- Prevention and health promotion.

1. Oregon Public Health Modernization Capacity and Cost Assessment

A 2024 Public Health Modernization Capacity and Cost Assessment (CCA)[9] reviewed progress on modernizing Oregon's governmental public health system as described in state law.[10] The CCA collected data on staff expertise and capacity, current spending, and resources for the seven foundational capabilities and four foundational program areas.

The assessment data were collected using a standardized Excel tool developed by the Public Health Accreditation Board's Center for Innovation. Data were collected from 30 of 33 local public health authorities, covering 94% of the state's population, as well as from the state public health division. The first CCA was conducted in 2016; this 2024 assessment offered the first

updated understanding of the necessary workforce skillsets and resources to modernize the public health system in Oregon.

Key results

The CCA results provide helpful context on the capacity of the state and local governmental public health system to respond to health needs. This is important for the SHA because it demonstrates the capacity of Oregon's governmental public health system to address the health issues outlined in the SHA, including where capacity is increasing and where significant gaps in capacity exist.

The 2024 CCA results show higher capacity and expertise in certain foundational programs including communicable disease control, access to clinical preventive services and environmental health, indicating that Oregon's public health system is better prepared to address state health priorities in these areas.

The 2024 CCA results also show higher capacity in certain foundational capabilities including emergency preparedness, assessment and epidemiology, and community partnerships. These areas have also benefited from legislative investments in public health modernization. Higher capacity in these areas indicates that Oregon's public health system is better able to provide public health data and support partnerships that are needed to address state health priorities, as well as address community needs during public health emergencies.

The 2024 CCA results showed lower capacity in areas that are critical for advancing state health priorities, including prevention and health promotion, policy and planning and health equity. Building capacity in these areas should be a focus of planning for the 2025-29 SHIP, to ensure the public health system is prepared to make progress toward state health priorities. Of note, although Oregon's public health system has made significant investments in health equity, the lower rating in this area was due to a more nuanced understanding of what is required to meaningfully advance health

equity in Oregon compared to when the CCA was first conducted in 2016 (i.e., the bar is higher today than 10 years ago).

Figure 6.1.1 below shows the degree of implementation in each of the foundational programs and capabilities. The central-left column indicates the degree of implementation at the state, while the bar chart on the right indicates the approximate scale of implementation at local public health authorities throughout Oregon.

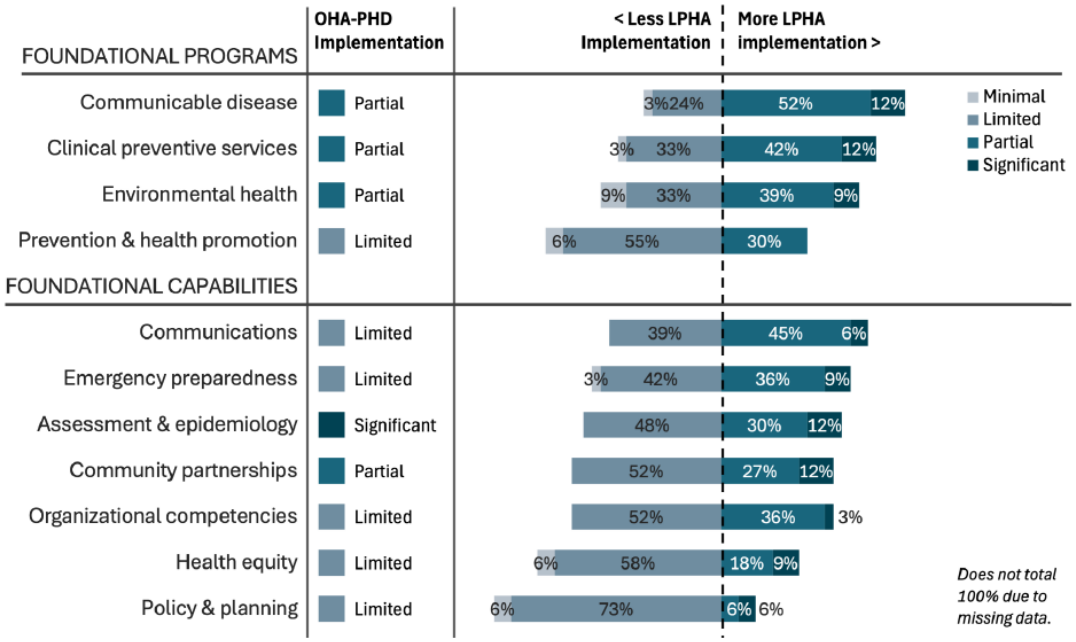

Figure 6.1.1

2. Community-based organizations in Oregon public health

One of the growing strengths in Oregon has been the increased public health focus on working with community-based organizations (CBOs). While individual programs partnered with local nonprofits previously, the COVID-19 pandemic was an opportunity for OHA and LPHAs to work in coordination across a wide array of CBOs to support a broad community response.

OHA's PH modernization framework identifies CBOs as essential to public health's ability to meet the health needs of communities across the state.[11] CBOs are a critical partner in building relationships with culturally specific communities. In the public health context, CBOs work closely with LPHAs and OHA to address local needs and provide helpful feedback and context to governmental public health. Identifying successes and opportunities from current collaboration with CBOs clarifies their contributions to the public health system contributors. Reflecting on shared work with CBOs can also be helpful to plan strategy and activity choices for the SHIP.

In 2021, OHA established a Public Health Equity grant program for CBOs, funded through state investments in PH modernization. In 2024, OHA awarded Public Health Equity grant funding to 194 culturally specific organizations. Of those, 137 were funded through state investments for PH modernization; this assessment draws from activity reporting from these organizations.

Funded CBOs contribute to progress on public health priorities by providing health education and communications; identifying and assessing community priorities; supporting prevention and health promotion activities; and developing policy priorities that reflect community values. CBOs enhance public health in the areas of cultural responsiveness, communication and culturally adaptive public health practices. CBOs are trusted members of their communities, which allows them to act as partners for eliminating health inequities in culturally and geographically specific communities.

Based on 2024 progress reporting to OHA, modernization-funded CBOs accomplished the following:[8]

- Served all 36 Oregon counties.
- 46% served people living in rural communities; 44% served people with disabilities; 41% served Black, African American, or African communities; 32% served houseless communities, and 32% served people with behavioral health conditions.
- 70% worked in a language other than English to ensure culturally responsive programming.

- Held 774 local events, including 298 for climate and health, 272 for emergency preparedness, and 261 for communicable disease control.
- Of these community-specific events, 336 (43%) provided community-specific public health programs, services, resources, and supports; 243 (31%) provided health education and communication; 23 (3%) mobilized communities to participate in and inform health policy priorities; and 58 (8%) identified and assessed community priorities.
- Most (87%) CBOs partnered with at least one other organization on their modernization-funded work; 27% of reported partnerships were new and developed because of work funded through modernization.
- Of the 1,053 partnerships reported by CBOs, 469 (45%) were other CBOs, 134 (11%) were local public health departments, 90 (9%) were health care systems, and 79 (8%) were schools or school districts.
- Among the 111 CBOs that responded to a question about funding sustainability, 81 (73%) reported that having Public Health Equity grant funding helped them obtain other sources of funding.

The unique skills and capacities of CBOs and the breadth of their work has been a valuable contribution to local community health activities.

3. Public Health System Workforce Assessment and Plan

The Public Health System Workforce Assessment is a comprehensive evaluation of Oregon's public health workforce to identify strengths, weaknesses and areas for improvement.[12] This 2024 assessment was used to develop a Public Health System Workforce Plan with actionable strategies to ensure a robust and skilled workforce that is representative of Oregon communities. The Public Health System Workforce Assessment and Plan provide important information to understand the state of the current workforce and what's needed to ensure a workforce that is prepared to advance state health priorities in the 2025-29 SHIP.

Background

In July 2023, the Oregon Public Health Advisory Board recommended that OHA form a workgroup to assess workforce strengths, weaknesses and

gaps and develop recommendations for improvement through a public health system workforce plan. The workgroup, which met between January 2024 through February 2025, comprised Public Health Advisory Board members and subject matter experts representing the public health system workforce, including the Nine Federally Recognized Tribes in Oregon, LPHAs, CBOs, and academic or educational partners. This workgroup analyzed findings from existing workforce data across foundational capabilities. Then it integrated findings with needs identified in public health workforce reports. Together, this helped the group determine top priorities, data gaps and relationship opportunities. Based on recommendations from the workgroup, OHA initiated qualitative data gathering with each sector of the workforce, resulting in a set of gaps, opportunities and recommendations for state workforce planning. OHA and the workgroup used these recommendations to develop a Public Health System Workforce Plan which was adopted by the Oregon Public Health Advisory Board in July 2025.

Figure 6.3.1 below depicts the five sectors that collaboratively develop, hire, sustain and invest in Oregon’s public health workforce.

Figure 6.3.1

Challenges

The primary challenges in achieving a robust Oregon public health workforce are staffing and retention. Public health staff are experiencing burnout, and state and local public health have insufficient funding for a robust workforce, particularly in rural and remote counties. Further, as the public health workforce ages, workforce forecasts show a clear need for succession planning. As the workforce changes, this plan identifies priorities in building up the workforce, interviewing for a more culturally and regionally representative workforce, supporting new staff members with clear

onboarding and ongoing training; and shared priorities and practices to support local mobility.

Strengths and resources

Oregon's public health workforce has significant strengths within a networked, connected public health system. For example, during the COVID-19 pandemic response, governmental public health developed surge capacity by flexibly deploying existing staff, working with experienced and licensed volunteers, and academic volunteers (such as health care professionals in training), and collaborating with CBOs for skilled activities like contact tracing.

The workforce plan builds on the assessment's high-level recommendations in the domains of training and development, recruitment, retention, leadership development, and developing workforce partnerships between community organizations and governmental public health.[13] Implementing these recommendations is necessary to ensure a robust and skilled workforce that is representative of Oregon communities and that is prepared to advance state health priorities in the 2025-29 SHIP.

4. Oregon Community Health Improvement Plans

Community health improvement plans (CHIPs) are long-term, systematic efforts to address community health issues, needs and priorities based on the results of community health assessment activities and the community health improvement plan process. Coordinated care organizations (CCOs) are expected to complete a CHIP every five years, per Oregon law and CCO contracts. This review* focused only on CCO CHIPs. Local public health

* Included as Appendix A

authorities are often partners in these plans, although some LPHAs lead public health CHIPs separate from the CCO CHIPs.

OHA conducted a thematic review of CHIPs, identifying areas of alignment between CHIP priorities and priorities in OHA's 2020-24 SHIP, Healthier Together Oregon (HTO). Overall, the areas of strongest alignment with HTO priority areas were behavioral health, economic drivers of health, and access to equitable preventive health care. The areas with the least HTO priority area alignment were institutional bias and adversity, trauma, and toxic stress. This thematic review helped to compare key priorities that emerged at the state level and at county and regional levels.

5. Starting Point Assessment

The Starting Point Assessment (SPA)* is a component of the NACCHO MAPP 2.0 framework. This assessment prompted OHA to evaluate the previous SHA and SHIP cycle to inform this round. The findings are briefly described here.

The OHA Core Group facilitated semi-structured conversations with two groups critical to the success of state health improvement to capture the successes and challenges they faced, reflections on what lessons were learned and ideas they had to offer those working on the next SHIP cycle.

PartnerSHIP input

The PartnerSHIP was a community advisory group comprising diverse community partners from across the state. They were asked to advise OHA on the implementation of HTO. The group of 19 members met for four years. It included representatives from culturally and geographically diverse communities, the disability community, LGBTQIA2S+ community, and others. Semi-structured focus groups were held in December 2023 and

* Included as Appendix B

January 2024 to collect feedback on the successes and challenges experienced by the PartnerSHIP.

Key takeaways from the PartnerSHIP reflections were:

- A purposefully diverse committee membership provided a depth and breadth of knowledge.
- OHA staffing, subject matter experts, and power sharing played a role in committee success. However, there were not enough fiscal resources to support the committee's work, and work was inequitably distributed amongst members.
- Barriers to success include an unclear purpose for the committee, challenging compensation systems, as well as limited methods to address high turnover rates.
- Committee members appreciated and wanted to continue to see more alignment of CHIP goals with SHIP goals, especially as they often represented local voices.

OHA Public Health Executive Leadership input

OHA Public Health Division (OHA-PHD) executive leadership is primarily responsible for advancing OHA-PHD's overall vision for eliminating health inequities by 2030.

Key takeaways from executive leadership reflections were:

- Leadership wanted requests of program staff capacity to be clear and focused on specific tasks.
- They saw value in the work to create a more community-led SHIP and highlighted the need to collaborate between community and PHD programs.
- Leadership highlighted a desire to engage leadership earlier and in a more sustained manner, such that they also could engage PHD programs and local public health partners more consistently.

7. Oregon demographics

This section reviews key factors that describe Oregon's population: where people live, their age, race and ethnicity, languages spoken and disability.

Oregon has a population of about 4.23 million.[14] Population growth has been flattening over the last few years (Figure 7.1). There are variances based on age and county.

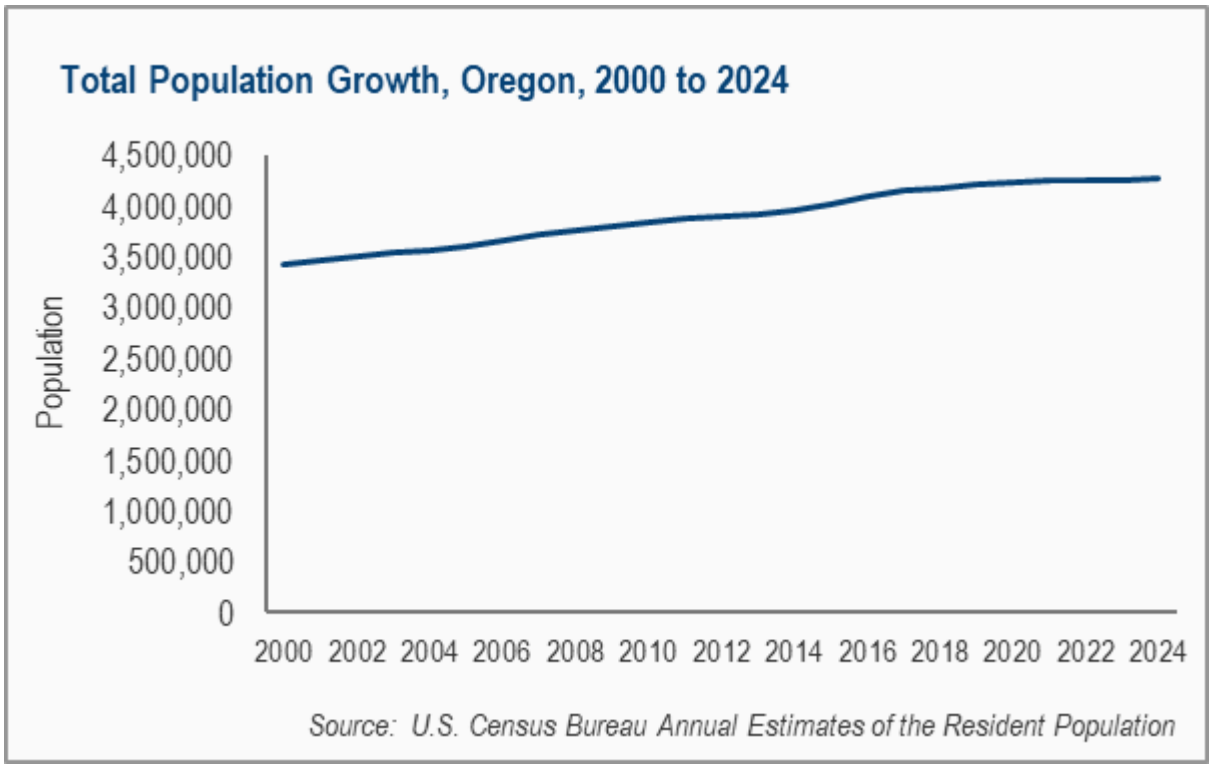

Figure 7.1

Population density and its impacts

Oregon's population is primarily on the west side of the state, resulting in wide variances in population density. The Oregon Office of Rural Health estimated in 2024 that while urban areas make up only 13% of the landmass, 65% of the population lives and works in these areas.[15] Counties in Oregon are designated as urban, rural, and frontier[16] based on population density and proximity to population centers of 40,000 people or more. More

sparsely populated than rural counties, Oregon's ten frontier counties, those with 6 or fewer people per square mile, are on the east side of the state.

Much of Oregon is designated a health professional shortage area, including most rural and frontier areas,[17,18] resulting in over 1.5 million Oregonians living in areas that have significant shortages in health professionals.[19] These shortages are not limited to rural areas; portions of dense urban areas are health professional shortage areas as well.

Age, race and ethnicity

Oregon's population shows two key trends: Oregon is aging, and younger generations are growing more diverse. The 2024 statewide population pyramid shows the highest population age groups between 30 and 44 years old (Figure 7.2). This is contrasted to data from 2014 which shows the most populous groups between 50 and 64 years old (Figure 7.3). However, 2024 was also the first year that there were more people aged 65 and over than people under the age of 18. Population forecasts from the Oregon Office of Economic Analysis anticipate that this trend will continue.[20]

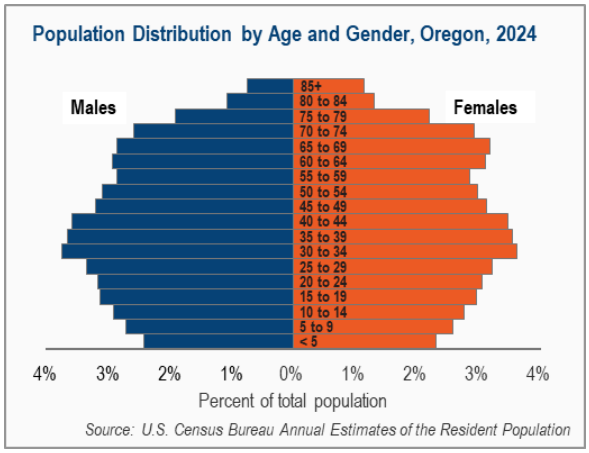

Figure 7.2

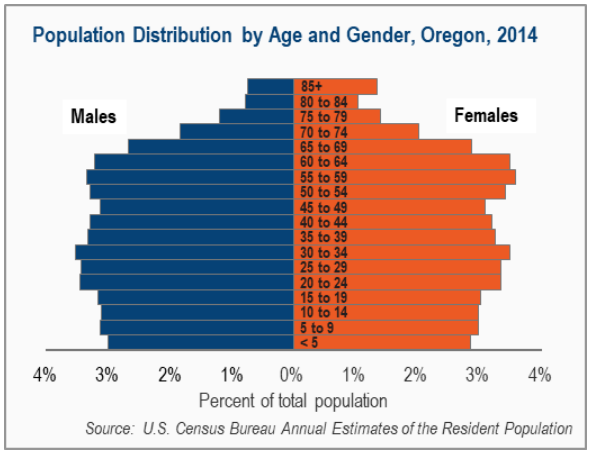

Figure 7.3

The US Census Bureau estimates that while a majority of Oregon is white (71.8%), this group had its highest share of the state's population in 2019 and has been decreasing since 2020. The Hispanic/Latina/o/x population (15.5%) is the fastest growing and the second largest. Other racial and

ethnic groups: Asian (5.3%), Black/African American (2.2%), Native Hawaiian/Pacific Islander (0.5%), and multiple race groups (3.7%) all increased by 11-17% from 2019-2024. American Indian/Alaska Native persons (1.1%) decreased slightly in the same period (Figure 7.4).

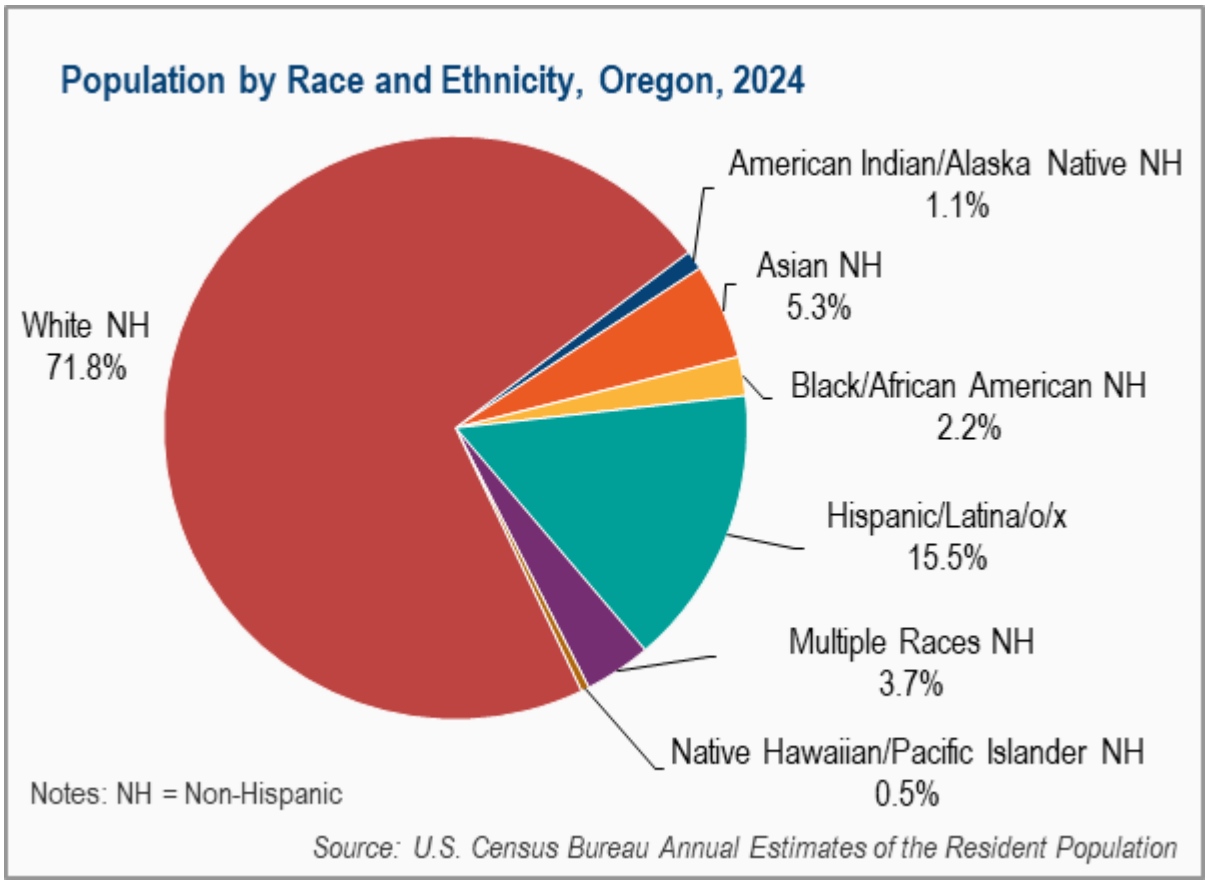

Figure 7.4

The Oregon Office of Economic Analysis published data showing younger generations have greater diversity in race and ethnicity than older generations.[21] It is difficult to determine race for youth so this data should not be taken as comprehensive.

Gender and sexual orientation

Two surveys provide population health data on people in Oregon who identify as Lesbian, Gay, or Bisexual: the adult Behavioral Risk Factor Surveillance System (BRFSS) survey, and in youth, the Oregon Student

Health Survey (SHS). In 2023 in Oregon, 3.1% of women and 3.3% of men identified as lesbian or gay (Figure 7.5). Population health data are not available on the percentage of adults who identify as transgender or gender non-conforming in Oregon.

Sexual Orientation by Gender in Adults Age 18+, Oregon, 2023

	Total	Female	Male
Gay or lesbian	3.2%	3.1%	3.3%
Straight	88.4%	85.5%	91.3%
Bisexual	5.9%	8.3%	3.3%
Something else	2.6%	3.1%	2.0%

Source: Behavioral Risk Factor Surveillance System

Figure 7.5

The Oregon Student Health Survey allows 11th grade students to select more than one sexual orientation and gender (Figures 7.6 and 7.7).

Gender Identity in 11th Graders, Oregon, 2024

	Percentage
Agender/No gender	0.8%
Boy or Man	45.4%
Demigirl/Demiboy	1.1%
Fa'afafine	0.1%
Fa'atane	0.1%
Genderfluid	1.8%
Genderqueer	1.1%
Girl or Woman	48.0%
I am not sure of my gender identity	0.6%
I do not know what this question is asking	0.1%
I prefer not to answer	1.5%
Leiti	0.1%
Mahu kane	0.1%
Mahu wahine	0.1%
Nonbinary	2.4%
Questioning	1.5%
Something else fits better	2.0%
Takatapui	0.1%
Two Spirit	0.2%

Source: Oregon Student Health Survey

Figure 7.6

Sexual Orientation in 11th Graders, Oregon, 2024

	Percentage
Asexual or Aromantic	2.9%
Bisexual	10.5%
Gay	2.1%
I am not sure of my sexual orientation	1.5%
I don't know what this question is asking	0.5%
I prefer not to answer	4.2%
Lesbian	2.8%
Pansexual	3.8%
Queer	2.6%
Questioning	2.4%
Something else fits better	2.1%
Straight	73.1%

Source: Oregon Student Health Survey

Figure 7.7

Language

The number of languages spoken in Oregon has also grown over time. According to U.S. Census American Community Survey data from 2023, 85% of Oregonians speak only English at home and 9.4% speak Spanish at home. The following languages were also reported as spoken at home by 1% or less of the population in Oregon (Figure 7.8).

Language Spoken at Home for the Population 5 Years and Over, Oregon, 2023

Language	Percent of Population
English only	85.0%
Spanish	9.4%
Chinese (incl. Mandarin, Cantonese)	0.8%
Russian, Polish, or other Slavic languages	0.7%
Vietnamese	0.5%
German or other West Germanic languages	0.4%
Tagalog (incl. Filipino)	0.3%
French, Haitian, or Cajun	0.2%
Arabic	0.2%
Korean	0.2%
Other Indo-European languages	0.9%
Other Asian and Pacific Island languages	1.0%
Other and unspecified languages	0.4%

Source: U.S. Census Bureau American Community Survey

Figure 7.8

The proportion of non-English speaking households is different among Medicaid recipients. Roughly 19% of Medicaid recipients report speaking a language other than English only at home.[22]

Another factor affecting language use is linguistic isolation, which is defined as the “percentage of households in which no one age 14 and over speaks English very well”. From 2007 to 2023, American Community Survey data shows average percentages of linguistic isolation across Oregon dropped from 3.6% to 2.5%. Rates in Oregon have consistently been lower than the

U.S., where the average was 4.4% in 2023. Data also show linguistic isolation is highest in urban counties (2.5%) and lowest in rural (1.3%) and frontier (1.7%) counties. Vietnamese-speaking households show the greatest linguistic isolation in Oregon (31.5%).

Disability

In Oregon, 15.3% of the population has at least one disability. The most common disabilities experienced by Oregonians are difficulties with independent living, cognition and mobility. Statewide, 34% of people aged 65 and older have a disability (Figure 7.9).

Percentage of Population with a Disability by Sex and Age, Oregon, 2023

Total	15.3%
Male	14.7%
Female	15.9%
Under 18 years	5.5%
18 to 64 years	12.4%
65 years and over	34.4%

Source: U.S. Census Bureau American Community Survey

Figure 7.9

Socioeconomic factors

In 2023, 11.8% of the adult population and 13.6% of the child population in Oregon lived below the federal poverty line. This is slightly lower than the U.S. rate of 11.5% and 16.0%, respectively. Today, one in eight Oregonians lives below the federal poverty line.

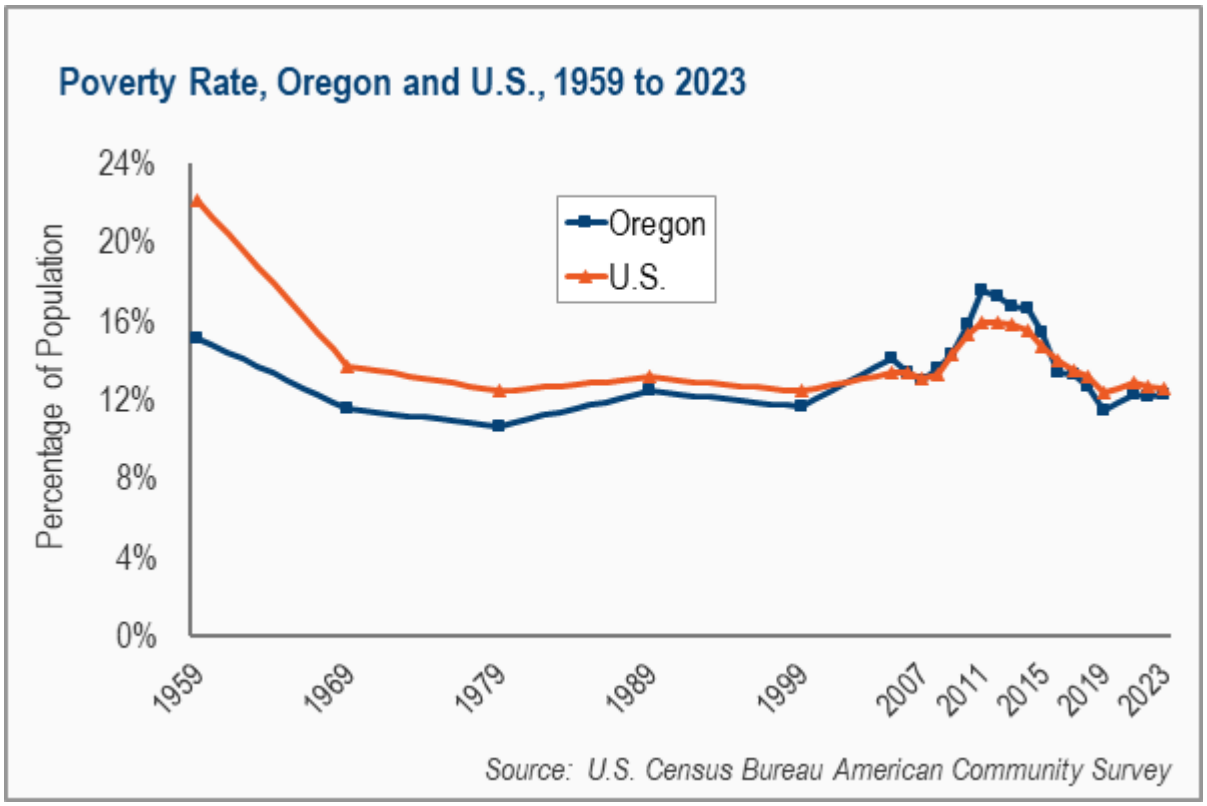

Figure 7.10

Of the Oregon residents experiencing poverty, half are in households that earn less than half the federal poverty threshold. This is called "deep poverty" by the Census.[23] For an individual, deep poverty is an annual income of less than $7,500; for a family of four, it's less than $16,000. Even though the overall poverty rate has decreased in recent years, the number of people in deep poverty has gone up since 2019 (Figures 7.10 and 7.11).

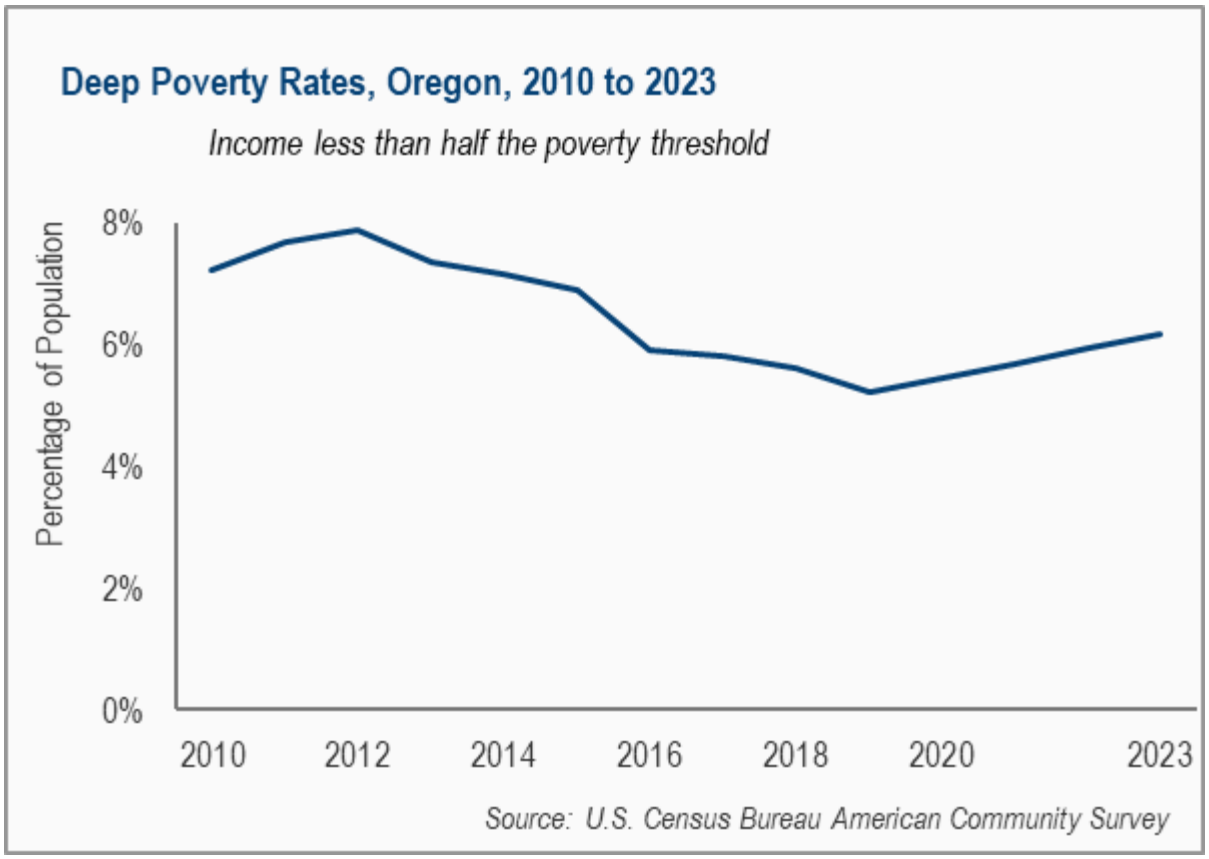

Figure 7.11

The federal poverty line does not indicate the full picture. Poverty is contextual and depends on the local cost of living. ALICE, asset limited, income constrained and employed, is an index that includes households that face financial challenges in affording basic necessities. In 2023, 42% of Oregon households faced financial instability as defined by ALICE or the federal poverty level.[24]

Poverty affects other social determinants of health. These include access to healthy food, ability to live in a healthy and safe community, reliable transportation with access to jobs and housing that is safe and affordable.

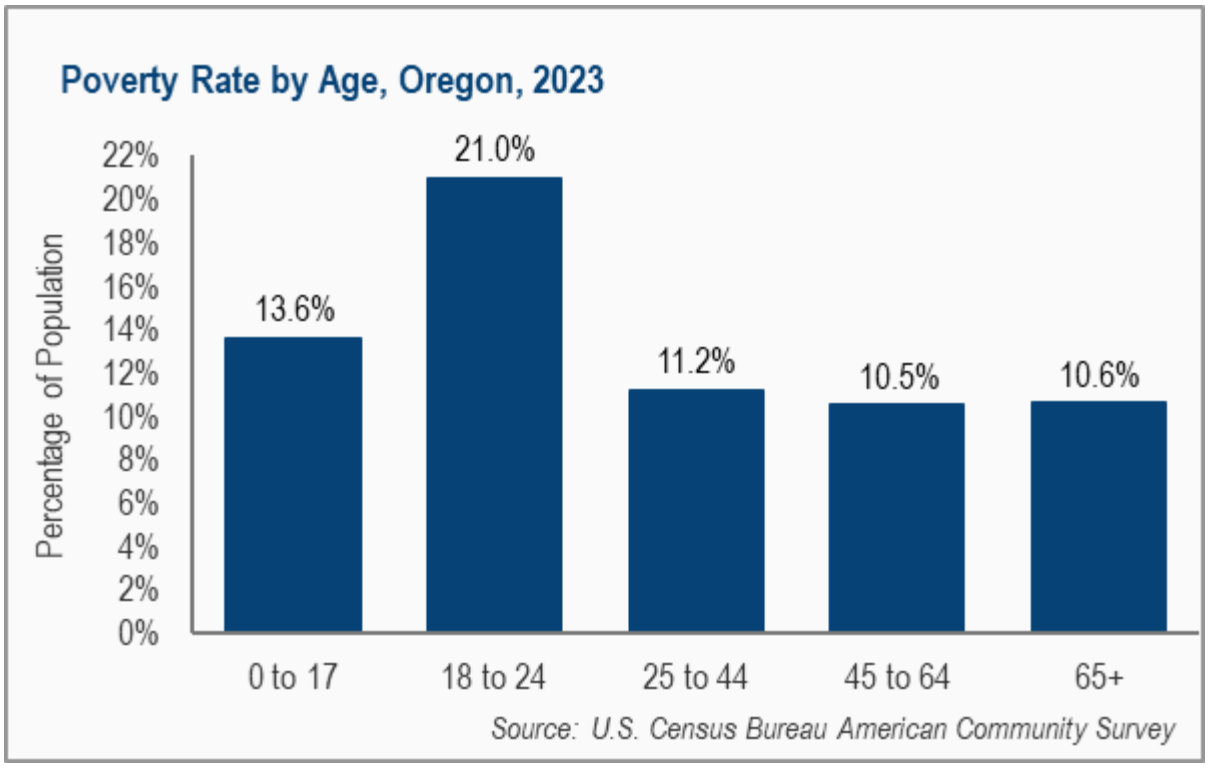

Figure 7.12

Poverty rates differ by age. For adults over 25, the poverty rate is between 10.5% and 11.2%. But for adults aged 18 to 24, it's 21% (Figure 7.12).

Poverty also differs by race and ethnicity. Certain communities experience higher poverty rates with the highest experienced by Black/African American and Native Hawaiian/Pacific Islander people at 24.8% and 26.8% respectively (Figure 7.13).

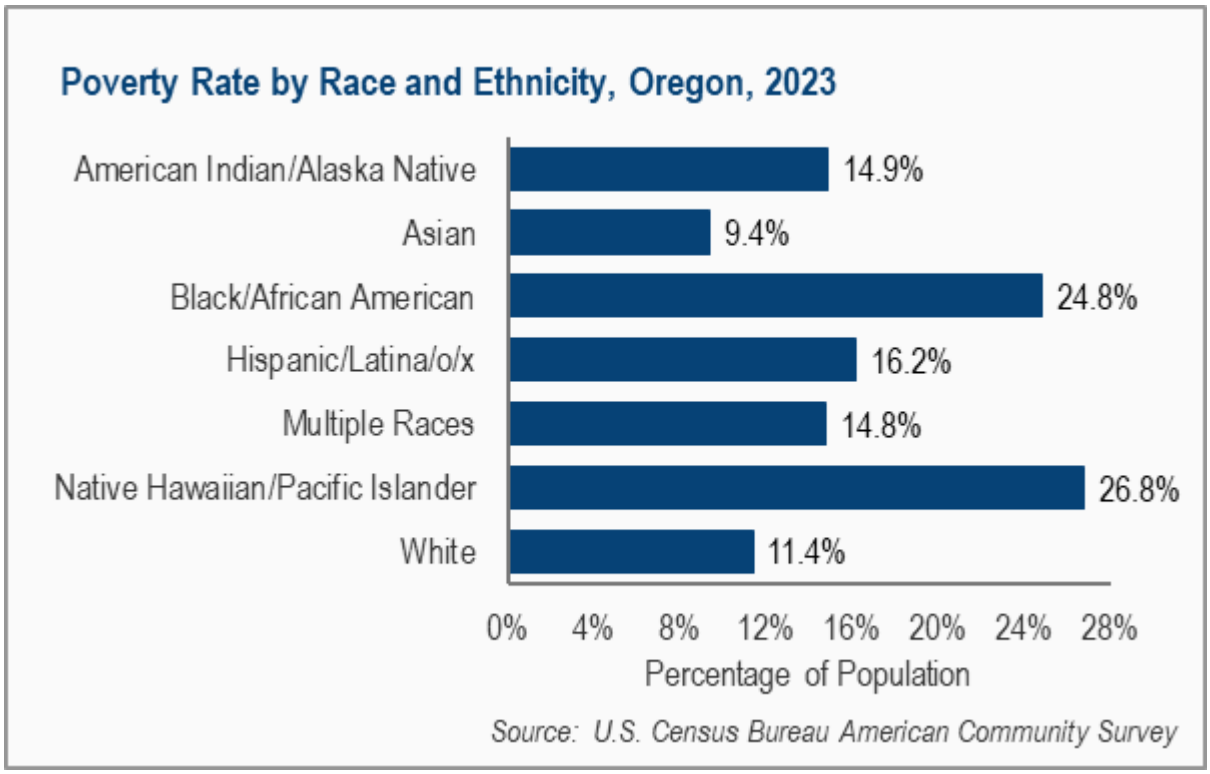

Figure 7.13

There are also disparities based on location, with frontier and rural areas experiencing higher rates of poverty than urban counties in Oregon (Figure 7.14).

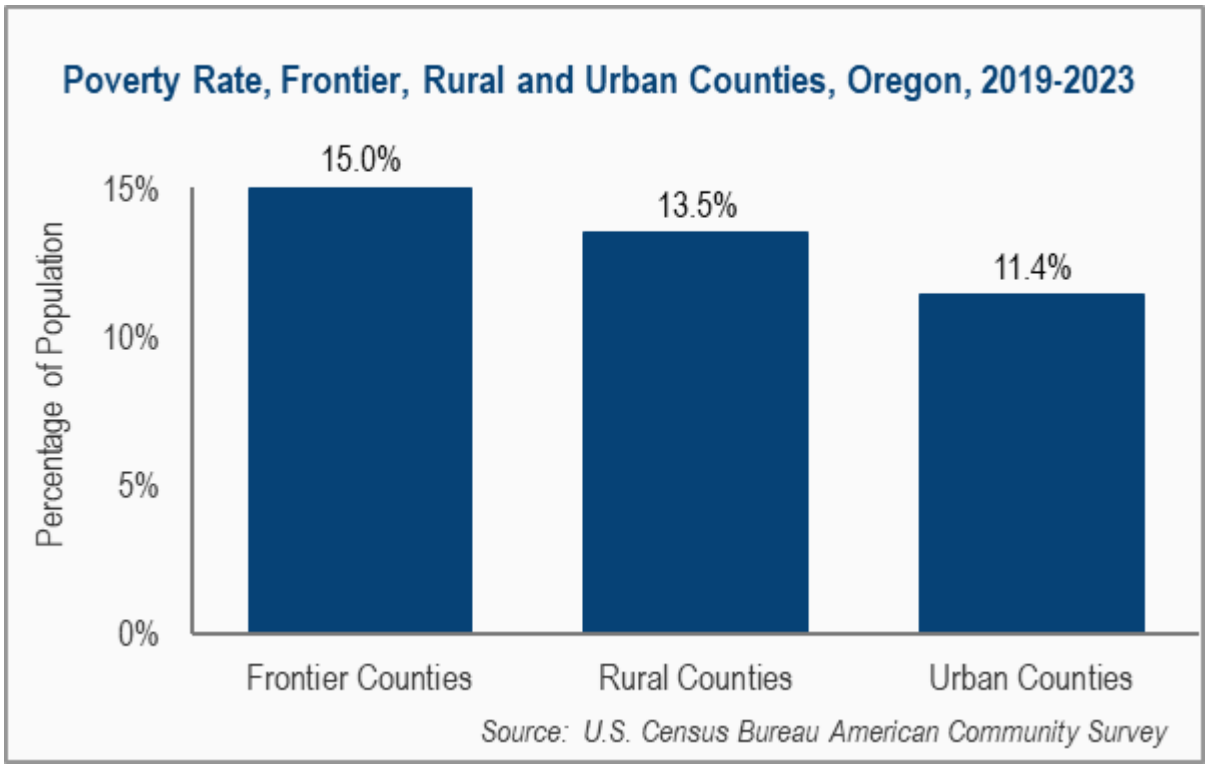

Figure 7.14

The primary approach to reducing poverty is through employment. In recent years, the unemployment rate in Oregon and the U.S. spiked during the 2020 pandemic. In 2024, 4.2% of the Oregon population was unemployed compared to 4.0 percent of the U.S. population (Figure 7.15).

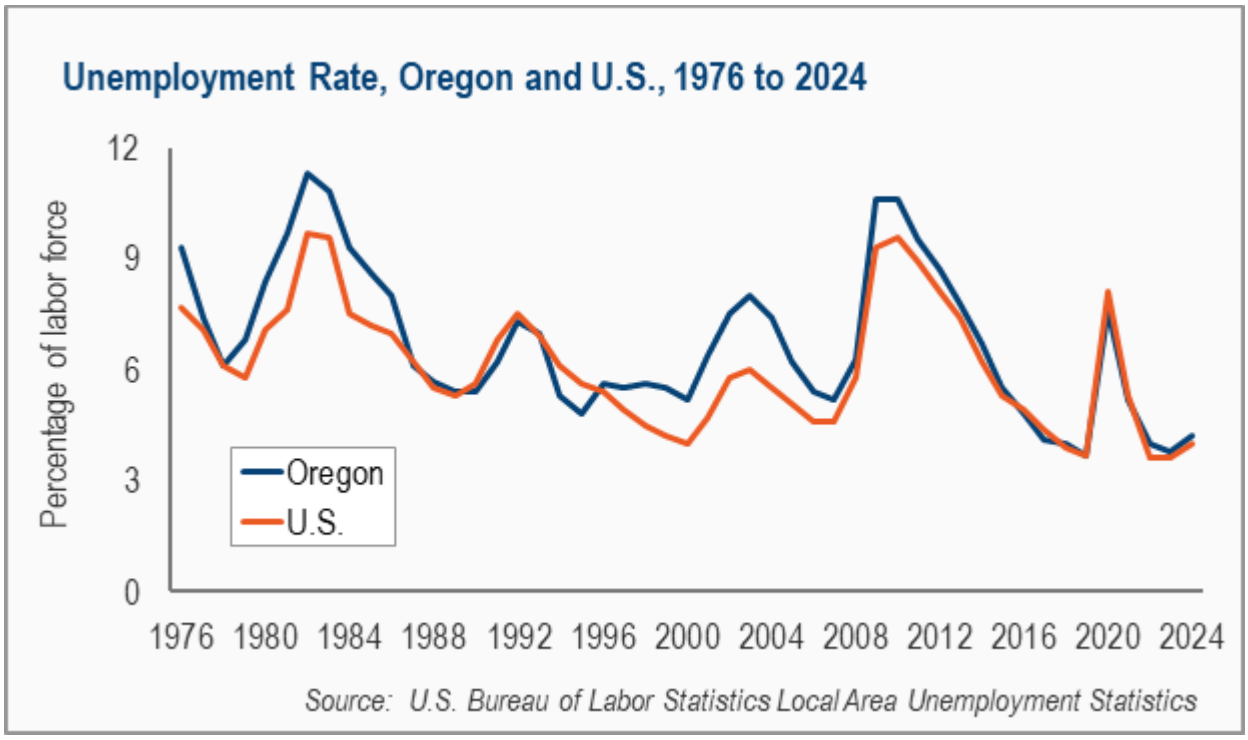

Figure 7.15

However, employment rates tell a partial story. Obtaining a job that pays a living wage and includes paid sick leave is critical to being healthy. People fear the impact of taking time off work for health reasons, for themselves or as caregivers. Even full-time employment doesn't guarantee that Oregonians can afford housing. In 2023, 53.4% of Oregon renters spent more than 30% of their income on rent. That's higher than the 51.8% in the U.S. as a whole. The percentage of Oregonians who are rent burdened varies widely by income. For those earning $75,000 or more per year only 12.1% are rent burdened while that figure is 91.3% for those earning less than $20,000 (U.S. Census Bureau, American Community Survey).

Educational outcomes are a critical determinant of health and income. Higher levels of education are associated with better health outcomes and longer, more productive lives. Overall, high school graduation rates in Oregon have improved over the last ten years from 72.0% in the 2013-2014 school year to 81.8% in 2023-2024. But graduation rates remain low among certain groups of students such as those currently or formerly incarcerated (39%), those in foster care (51%), homeless students (61.3%), students

recently arrived in the country (66.8%), students with a disability (68.8%), and students in poverty (69.2%) (Oregon Department of Education).

People in Oregon need equitable access to health care, including physical and behavioral health care services. Access depends on having health insurance coverage, a health care provider, and transportation for visits.

After passage of the Affordable Care Act (ACA)'s measures to expand health insurance coverage went into effect and more Oregon residents had insurance coverage as a result. Between 2013 and 2015, the percentage of Oregonians with health insurance increased from 85.5% to 94.7%. In 2024, the insured rate was 97.3% (Figure 7.16). Among Oregon children that rate is 99.2%.

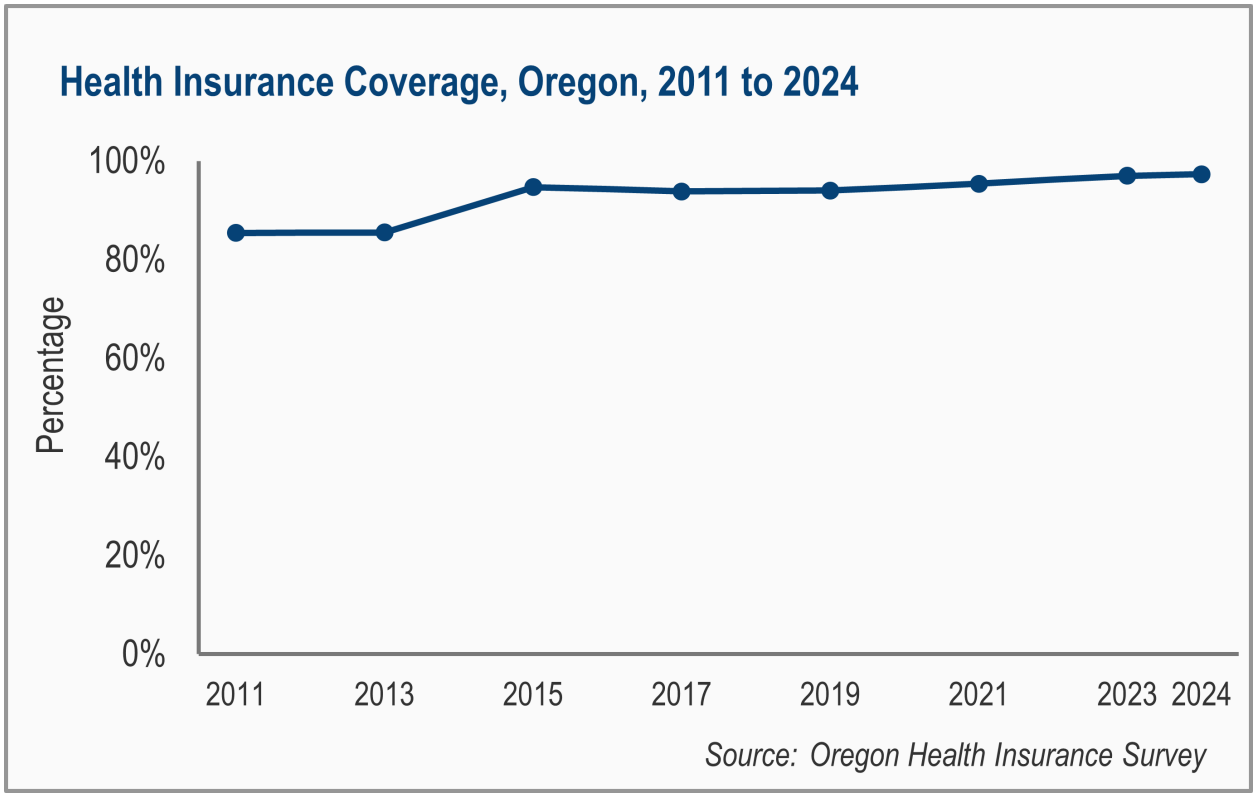

Figure 7.16

8. Health outcomes and behaviors

The following state population health indicators (SPHIs) were chosen with the help of the SC to build upon the ongoing discussion of health outcomes by exploring the contexts and behaviors that contribute to them. Illustrating social and structural factors that drive health behaviors and outcomes draws more attention to early intervention opportunities the public health system can better identify and leverage along the way.

Indicators include health behaviors and health status of Oregonians, compared across race, ethnicity and rurality, along with other demographic factors.

SPHIs indicate that Oregon populations are affected by factors that can impact access to services, like poverty, disability and rurality. These can compound with historical factors that have disproportionate negative effects on the health of certain groups. In addition, other experiences, such as previous military service, can affect health.

Together, this set of SPHIs identifies key areas of opportunity for the health and well-being of Oregon residents and the behaviors and outcomes that Oregon's public health system is monitoring and working to change.

Health equity

Most of the indicators depict an uneven distribution of health burdens on Oregon residents. Many of the sources of the inequities across populations, whether based on race or geography, are rooted in social determinants of health.[25]

The conditions in which people live influence health across the course of their lives. Issues like lack of access to health care cannot be attributed to stand-alone factors like having or lacking health insurance. Programmatic efforts to best support people's health must be based on a comprehensive understanding of which barriers exist in the different social and structural

contexts of people's lives and how those barriers interact with and drive individual health behaviors and outcomes.

Figure 8.0.1 depicts the socioecological model, which identifies structural determinants of health, social determinants, individual behaviors and health outcomes. The structural and social determinants of health shape individual behaviors, contributing to health outcomes. The World Health Organization defines structural determinants of health as "the wider set of forces and systems shaping the conditions of daily life", which include government policies, economic systems, political engagement, social hierarchies and the built environment. Social determinants are the circumstances of people's daily lives, affecting how and where people live, work and play."[26]

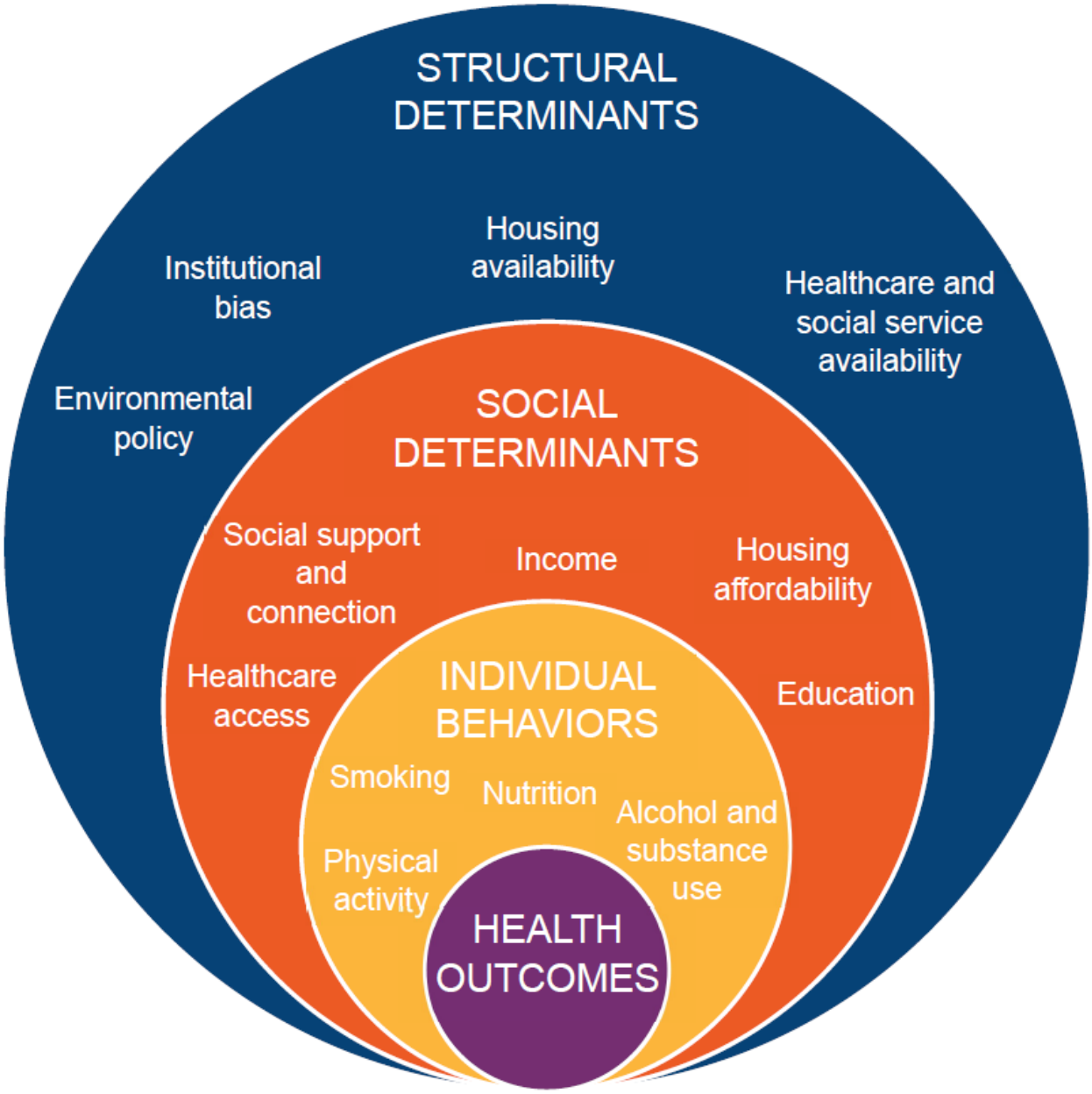

Figure 8.0.1

For a more specific application, below is a graphic demonstrating a critical pathway for heart disease deaths (Figure 8.0.2). This is one possible example for how social and structural determinants of health can coalesce to limit individual level factors. It presents determinants linearly for simplicity; however, it builds on the concepts presented in Figure 8.0.1

The relationships between factors across and between levels are also presented more simply than they play out in reality. It's nearly impossible to

show all the social and structural factors that may influence individual level behaviors. However, it's important to demonstrate how some of these upstream factors can converge to drive adverse health outcomes. For a more detailed discussion of heart disease deaths, please see the Heart Disease Deaths chapter.

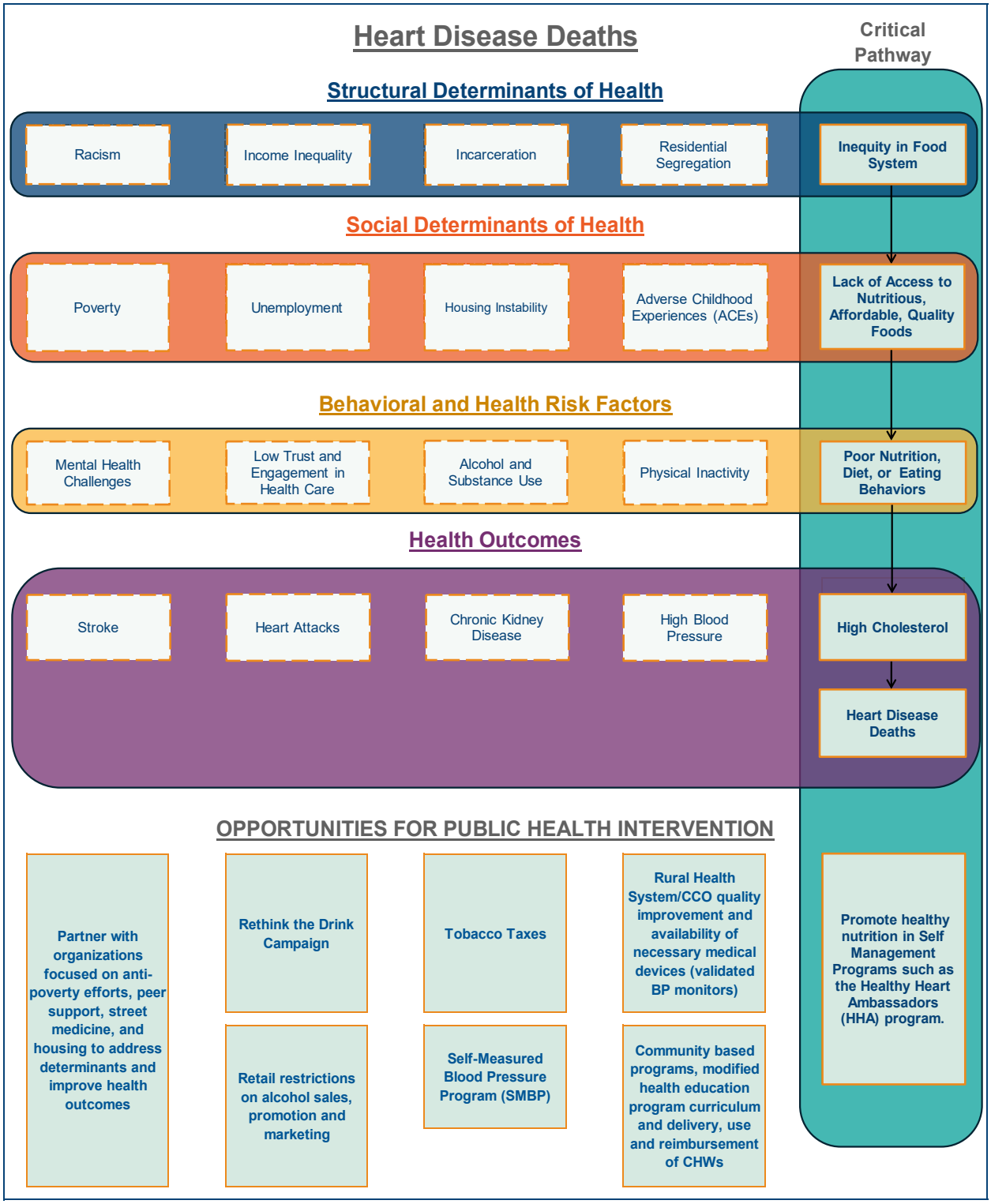
Heart Disease Deaths
Critical Pathway
Structural Determinants of Health
Racism
Income Inequality
Incarceration
Residential Segregation
Inequity in Food System
Social Determinants of Health
Poverty
Unemployment
Housing Instability
Adverse Childhood Experiences (ACEs)
Lack of Access to Nutritious, Affordable, Quality Foods
Behavioral and Health Risk Factors
Mental Health Challenges
Low Trust and Engagement in Health Care
Alcohol and Substance Use
Physical Inactivity
Poor Nutrition, Diet, or Eating Behaviors
Health Outcomes
Stroke
Heart Attacks
Chronic Kidney Disease
High Blood Pressure
High Cholesterol
Heart Disease Deaths
OPPORTUNITIES FOR PUBLIC HEALTH INTERVENTION
Partner with organizations focused on anti-poverty efforts, peer support, street medicine, and housing to address determinants and improve health outcomes
Rethink the Drink Campaign
Retail restrictions on alcohol sales, promotion and marketing
Tobacco Taxes
Self-Measured Blood Pressure Program (SMBP)
Rural Health System/CCO quality improvement and availability of necessary medical devices (validated BP monitors)
Community based programs, modified health education program curriculum and delivery, use and reimbursement of CHWs
Promote healthy nutrition in Self Management Programs such as the Healthy Heart Ambassadors (HHA) program.

Figure 8.0.2

Health behaviors

Positive health behaviors are precursors to lifelong health. These behaviors include building social connections and belonging (SPHI: Trusted adult outside school), school engagement (SPHI: Chronic school absenteeism), avoiding substance use (SPHIs: Binge drinking among adults and commercial tobacco use), and proactively seeking preventive care (SPHIs: Colorectal cancer screening and dental visits among children and adults).

Health behaviors are strongly correlated to race, income and region. For example, behaviors such as smoking, getting vaccinated and getting colorectal cancer screening vary widely due to factors like targeted marketing in specific neighborhoods (tobacco use); or provider access and beliefs around health and health practices (immunization and colorectal cancer screening).

It is important to understand that when looking at data, race and ethnicity are not biological groupings, they are social ones. As such, there are differences between groups that reflect current and historic exclusions due to structural and social determinants of health. Public health practitioners continue to seek a comprehensive understanding of the role of belonging, prejudice and racism in practicing healthy behaviors.

Data sources

The population health indicators are primarily drawn from primary data collected for or by OHA and other government entities. These include survey-based tools: the Behavioral Risk Factor Surveillance Survey (BRFSS) and the Student Health Survey; and other population-based data systems.

A primary barrier to identifying health disparities and measuring their severity is the lack of expanded demographic support for some primary data sources. For example, disaggregated race, ethnicity, language and disability categories would allow for a more nuanced understanding of where

disparities lie across the state and what types of culturally specific approaches may yield more effective interventions. One of the ways Oregon is working to address this barrier is with the investment in data standards for enhanced demographics in Race, Ethnicity, and Language, Disability (REALD) and Sexual Orientation, Gender Identity (SOGI).[27] While this will greatly enhance the state's ability to identify certain health disparities in greater detail, it is by no means the only demographic data solution needed.

Behavioral Risk Factor Surveillance Survey (BRFSS) overview

Many of the indicators draw from BRFSS measure data, which is a telephone survey administered over the full year. BRFSS data have limits in describing the health of Oregon residents. Some of these limitations are common to telephone-based surveys, others are related to how well this particular survey captures mental health status. For instance:

- BRFSS only includes English or Spanish speakers.
- Participation by people in the disabilities community may be limited based on their access to assistive technology and inability to do proxy interviews.
- Self-reported poor mental health days as a measure may suffer from bias and not be an accurate reflection of an individual's overall mental health (which is complex and depends on many things including an individual's environment and context).

However, because BRFSS and its measures are publicly available, use a repeatedly validated methodology, are representative at the state and national level and have been collected for more than 30 years, it is useful to monitor trends over time and for comparison to other jurisdictions. For example, reporting more poor mental health days on the BRFSS measure has been shown in previous research to be associated with worse socioeconomic status, a higher likelihood of risky health behaviors such as heavy drinking and smoking, as well as with a higher prevalence of chronic conditions, depression and worse oral health outcomes.[28, 29]

Student Health Survey (SHS) overview

Much of the youth health behavior data is collected by the Student Health Survey (SHS). This is a comprehensive youth health surveillance tool administered annually to 6th, 8th and 11th graders across the state. It employs a prevention-oriented approach designed to provide actionable insights that inform prevention programs and targeted interventions.

Key features of the survey:

- Participation: Parents and guardians receive advance notice and may opt their children from participation. Students may decline participation entirely or skip individual questions.
- Accessibility: The survey is administered in English or Spanish, survey materials are offered in four additional languages. Materials are at a 6th grade reading level to ensure accessibility.
- Unique value: The survey works to examine not only health issues but why they occur locally and how communities can address them through comprehensive data collection on protective factors, demographic factors and social determinants of health.

Limitations of the SHS:

- The SHS is not administered in private schools, virtual/online schools and health or detention facilities.
- Coverage gaps exist due to 22% district non-participation (concentrated in rural areas), varying response rates among participating districts, and reduced participation from parental opt-outs and youth non-participation choices.

Health outcomes

Health behaviors influence health outcomes in Oregon. Some upstream indicators capture information that can affect behaviors which, in turn, affect outcomes. For example, upstream indicators like adverse childhood experiences and social connection affect behaviors like marijuana use, binge drinking, and commercial tobacco use. These behaviors can lead to outcomes like poor mental health, drug-related overdose deaths and deaths by suicide.

One way of understanding Oregon's outcomes is by reviewing the leading causes of death in Oregon and comparing those to national numbers (Figure 8.0.3). Many of these outcomes and their causes are reviewed in the SPHIs.

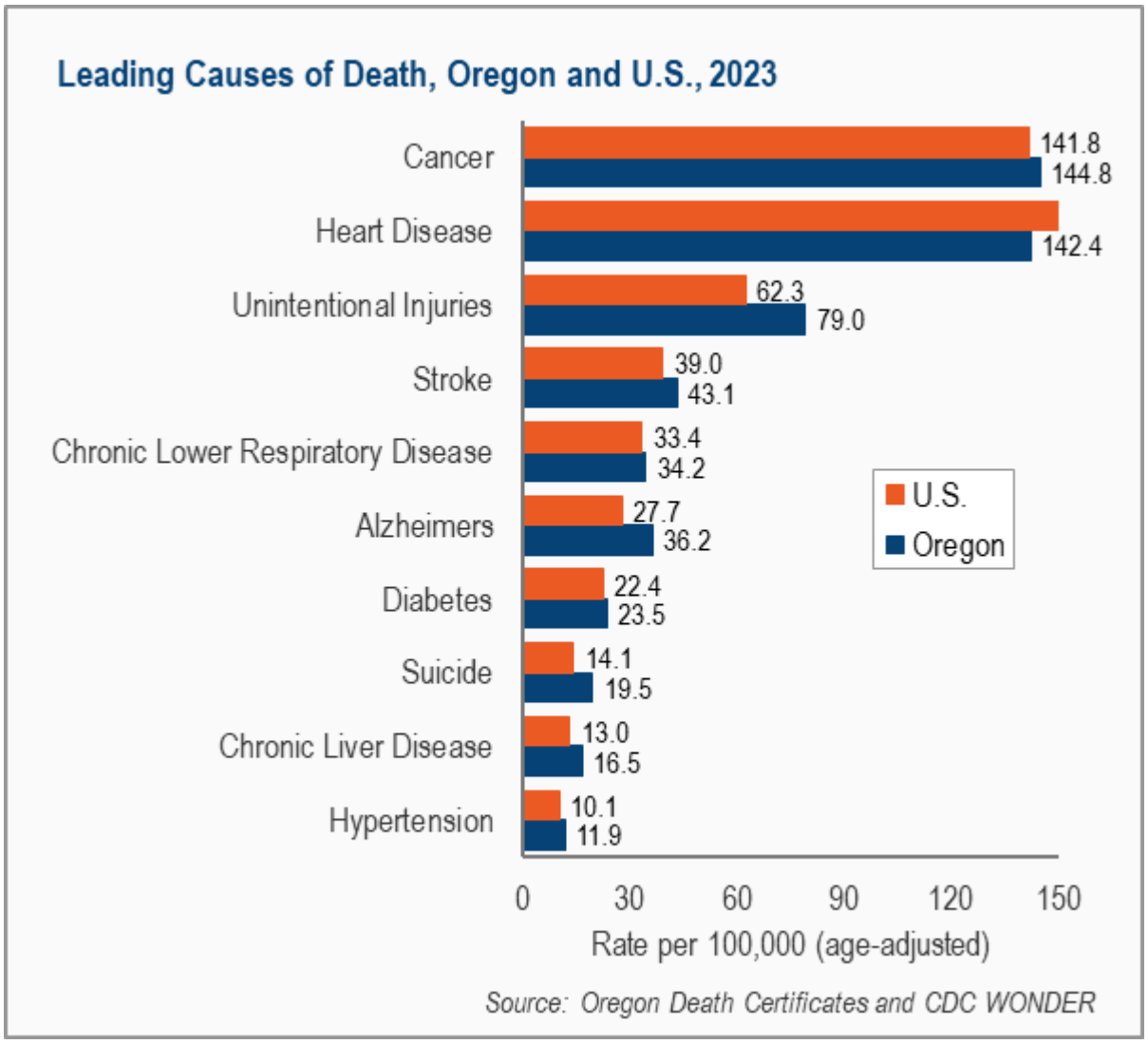

Figure 8.0.3

These outcomes are affected by access to structural determinants of health. For example, residents in rural areas may not always have the ability to seek the services they need due to lack of access to health care providers. This barrier is often higher for those who primarily communicate in a language other than English.

Rural communities encounter challenges

In Oregon, rural communities are alluring places to visit and live for access to spectacular natural areas, recreation, sense of community, and a robust agricultural industry. However, these communities can face challenges to accessing health care providers, particularly for specialty care. Distance is often a significant barrier to obtaining services, finding work, and pursuing care, making good health harder to achieve. For example, lack of access to prenatal care is a concern for those at higher risk of maternal morbidity and infant mortality. Lack of access to mental and behavioral health services in rural areas also affect health outcomes like suicide.

Race and ethnicity can have significant effects

Health impacts due to structural racism can have profound effects over generations. These impacts are reflected as differences in health outcomes when data are disaggregated across different racial and ethnic groups. Centuries of targeted disinvestment and intentional restricting of access to resources in certain populations have contributed to poorer mental and physical health. Some trends can be seen in indicators like drug-related overdose deaths, poor mental health among adults and increases in congenital syphilis. The reasons for these disparate impacts are complex. For example, the Alcohol Harm Paradox (binge drinking indicator) demonstrates that alcohol use tends to harm white people less than others, even though binge drinking behaviors between groups could be similar, or lower for non-white groups.

While Oregon has seen health improvements for some, other groups continue to experience an unjust burden of disease, are more exposed to hazards and have fewer resources to support resilience and recovery, including less access to care and to culturally responsive interventions and care. Qualitative and quantitative research over years have shown that social and structural discrimination are key factors in this disparity.

State Population Health Indicators (SPHIs)

The following indicators provide information on the health of Oregon residents through descriptions of data, structural systems, and social determinants of health that affect these indicators. For some indicators, individual-, community- and policy-level solutions are recommended and described as present actions within Oregon.

These SPHIs may have repeated information across indicators because each indicator is written to be an independent report that will be available individually on OHA's website.

1. Chronic school absenteeism

School absenteeism refers to excused or unexcused absences from school in kindergarten through grade twelve. Chronic absenteeism (missing at least 10% of school days per academic year) is a serious concern in Oregon that affects every grade. High absenteeism rates are associated with many risks, including: lower graduation rates; decreased academic success; adverse sexual health outcomes; increased rates of both emotional and behavior disorders; and increased use of alcohol, tobacco, cannabis and other substances. [30,31]

School absenteeism is a complex issue that requires a thoughtful and multifaceted response. Schools and students cannot fix this problem alone.

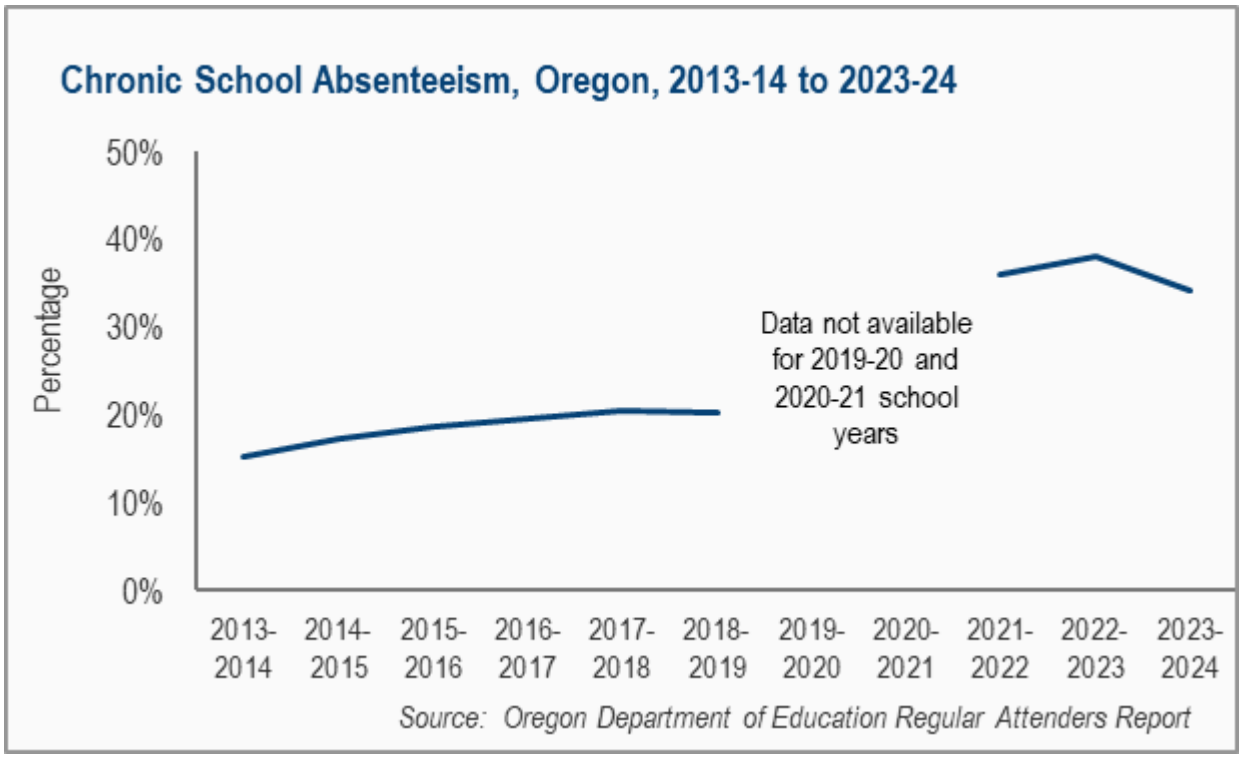

Figure 8.1.1

In the 2023-24 school year, nearly 180,000 students in Oregon—more than one in three students—were chronically absent from school (Figure 8.1.1). Oregon consistently ranks among the 20 percent of U.S. states that have the highest rates of chronic absenteeism.[32] Nationally, the rate of chronic absenteeism reached a record high of 31% in the 2021-2022 school year. While chronic absenteeism is a concern for Oregon students in every grade, the highest rates are in kindergarten, first grade, and high school (Figure 8.1.2). Rates of chronic absenteeism also vary widely by student race and ethnicity (Figure 8.1.3).

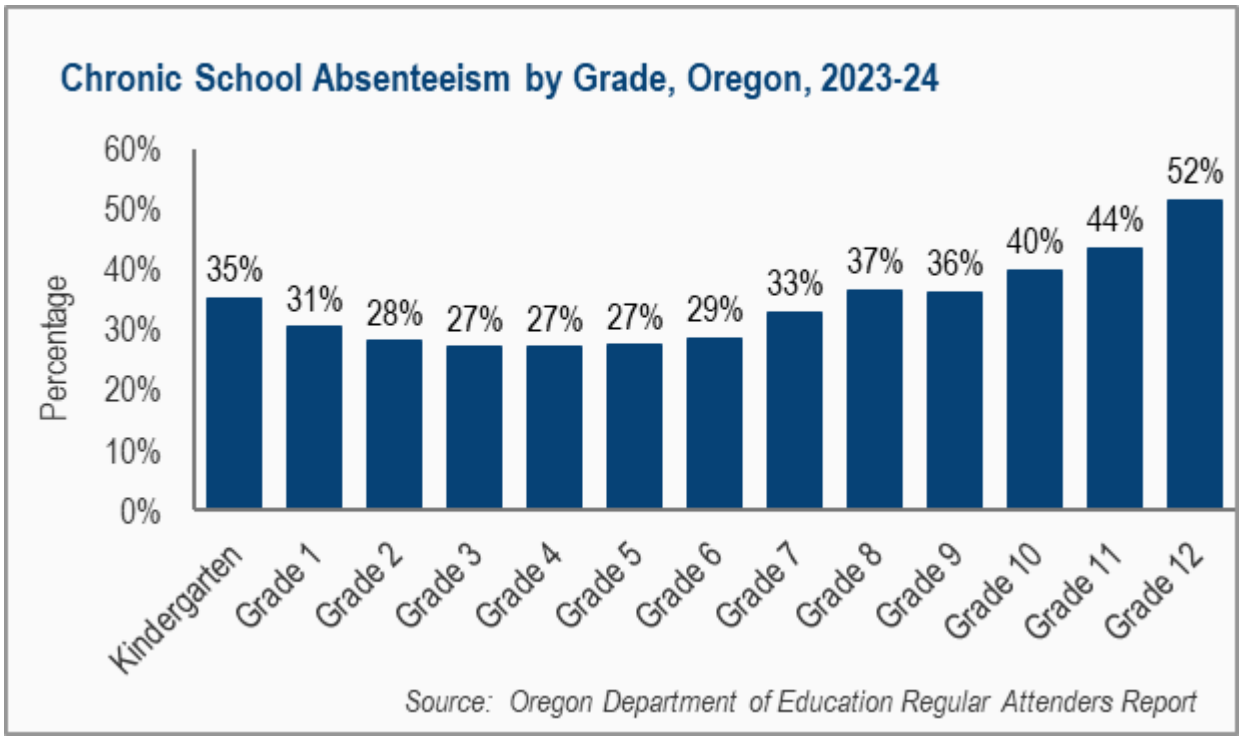

Figure 8.1.2

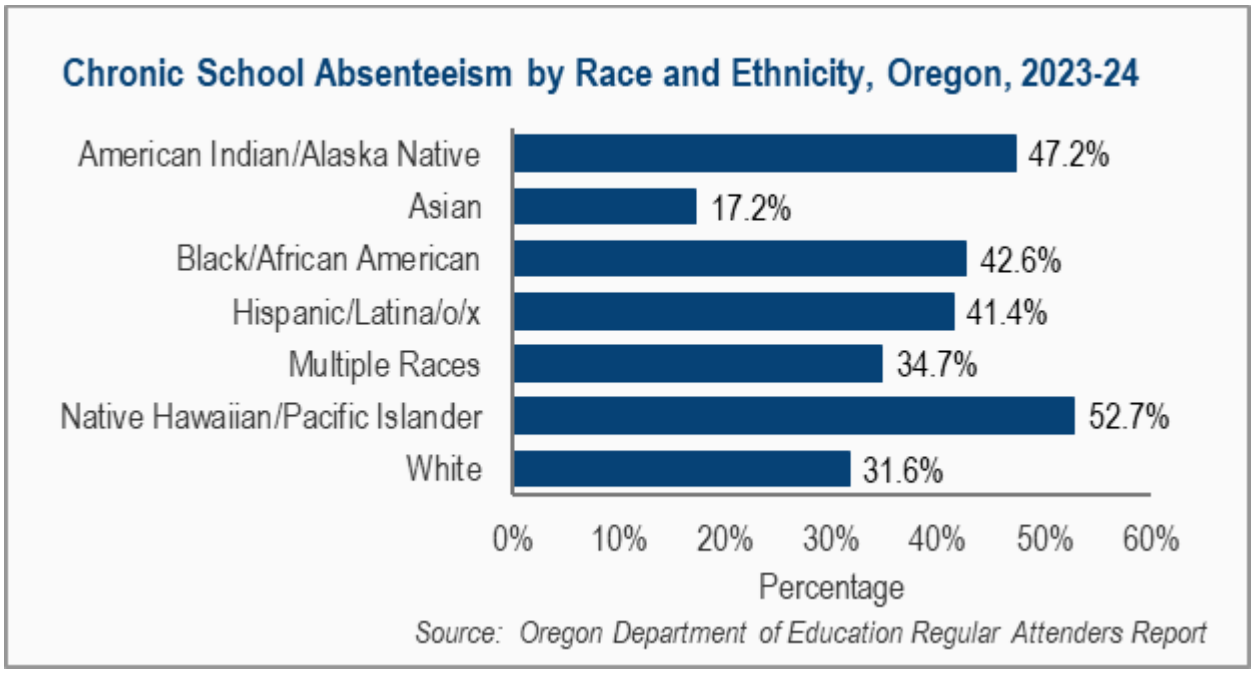

Figure 8.1.3

Chronic absenteeism in Oregon has a disproportionate impact on certain communities. Oregon data from the most recent school year (SY 23-24) show that certain students experience higher rates of school absenteeism:

- 42% of Black/African American, Hispanic/Latina/o/x, American Indian/Alaska Native, and Native Hawaiian/Pacific Islander students;
- 41% of students with disabilities;
- 65% of students currently or formerly enrolled in Youth Corrections Education Programs (YCEP) and Juvenile Detention Education Programs (JDEP);
- 40% of students who are learning English or for whom English is not their first language;
- 43% of students in foster care;
- 56% of students experiencing houselessness; and
- 48% of students experiencing poverty.

Risk and protective factors

Belonging is critical to school attendance, as students who do not feel that they belong in their school are less likely to attend. Examples of this include students who experience an unwelcoming school climate, biased disciplinary and suspension practice, or an undiagnosed disability or a lack of disability

accommodations are less likely to attend.[33] Students are less likely to miss school if they feel connected to students and teachers, feel welcome in school, and find their coursework relevant. Family experiences can affect this too, with caregivers who have had negative educational experiences decreasing a sense of belonging.

Structural determinants of health

The causes of chronic absenteeism are typically connected to larger, frequently interconnected issues for students and their families. These include barriers to health care and family support, negative school experiences, lack of engagement in school, and misconceptions related to attendance.[33,34]

Social determinants of health

A student's family situation impacts every aspect of their life, including their attendance at school. Studies have shown that caregivers experiencing adverse social determinants of health such as material hardship, poverty, limited educational attainment, and health problems are more likely to struggle with engagement in their children's education.[35] Students who are responsible for sibling or elder care, working to support their family, lack reliable transportation, and have unmet health care needs are at higher risk for chronic absenteeism.[36] State and local policies and programs that can support student attendance include those that positively impact a family's income, housing, health care (including mental health support), and transportation. Individual protective factors that can help reduce school absenteeism include connections with positive adult role models, increased sleep, and a positive growth mindset.[37]

Policies, programs, and support that encourage and assist schools to initiate early and frequent communication with the student's parents about absences can be beneficial in reducing student absenteeism. Negative school experiences and lack of student engagement in school can also result in absenteeism.[33] Biased disciplinary practices for students of color

resulting from institutional discrimination and racism increase the risk of school absenteeism.[33] These students experience more suspensions, bullying, harassment, discrimination and thus a lack of positive school culture and climate.

Data opportunities

The Oregon Revised Statutes (ORS) and the Oregon Administrative Rules (OAR) codify the legal requirements for Oregon's school-aged children and provide schools with the requirements for student attendance.[38] Once a student has been enrolled in school, they are required to attend regularly. Parents and guardians are required to send children ages six to 18 who have not completed the twelfth grade to school and to maintain a child's regular attendance during the entire school year. To support this, Oregon has statutes that require districts to have policies to communicate about and support attendance.

The Oregon Department of Education (ODE) tracks the percentage of students missing 10 percent or more of school days in a school year and whether they were excused, unexcused, or discipline related. Students are included if they were attending school on the first school day in May and were enrolled for a total of 75 or more days. However, the data do not include the most common reasons why students may be chronically absent. Ongoing and upcoming data collection at the state level will examine school discipline policies, school-based health services, and family engagement. Further data collection and an increased understanding of student circumstances related to absenteeism are critical to implementing effective interventions.

Public health interventions

While current rates of chronic absenteeism are high, this is not a new problem. In 2015, HB 4002 directed ODE and the Chief Education Office to develop a joint statewide education plan to address chronic absences of students. HB 4002 also specified elements of the plan and directed the two

agencies to collaborate with representatives of the Department of Human Services, Oregon Health Authority, Early Learning Division and community and education partners.

Tackling the root causes of chronic absenteeism involves partnerships between school districts, students and caregivers, health departments and health providers, and community-based organizations that center students' sense of self, belonging, and well-being both within schools and the larger community. ODE's Every Day Matters (EDM) Program focuses on reducing absenteeism by elevating partnerships and root cause understanding through multiple routes and funding interventions focused on attendance, belonging and engagement at all school districts.[33] Technical assistance and coaching support districts in implementing their plans and advancing statewide goals on student belonging and attendance.

Public health interventions require strong cross-sector partnerships between local and state health agencies, community-based organizations, community and business members and families that can be leveraged to provide essential wraparound support for students and families.[39] Partnerships that increase student and family health and well-being as well as welcoming school environments can impact absenteeism rates, high school graduation rates, school discipline and academic performance. Resources and programs that enable students to get their needs met while at school reduce the likelihood students will be absent for health reasons and will miss less classroom time for medical and other appointments. Examples include adequate school nursing, school-based health centers (SBHCs), mental health supports, and connections to social services. Best and promising practices are most successful when they are systematically applied with knowledge of the local context.

2. Adverse childhood experiences among adults

Early childhood experiences influence the growing brain. Adversity and trauma during sensitive periods of development can create toxic stress and interrupt normal brain development.[40] Adverse childhood experiences (ACEs) are a root cause of many social, emotional, physical and cognitive impairments that lead to increased incidence of developmental delays and other problems in childhood, as well as adult health risk behaviors (such as smoking, alcoholism), mental illness (such as depression and suicide), diseases (such as heart disease, cancer, diabetes), disability, and premature mortality.[41, 42]

The original ACEs study was a short survey that examined instances of abuse, neglect, and household dysfunction, including factors such as household substance abuse, mental illness, parental divorce, incarceration of a household member, and exposure to domestic violence.[43] The data in this report is gathered through the Behavioral Risk Factor Surveillance Survey (BRFSS), a nationally standardized survey that identifies eight adverse childhood experiences. Some ACEs surveys also include other experiences such as historical trauma, discrimination, community violence or war, being a refugee, school violence and bullying, or experiencing severe social deprivation including poverty, hunger and homelessness.

ACEs are common and their related health impacts, beginning in childhood and continuing throughout the lifespan, worsen with an increasing number of ACEs. Overall, one in four adults in Oregon experienced four or more ACEs during their childhood. In 2023, the most commonly reported types of ACEs among adults were emotional abuse, household substance use, parental separation or divorce, and physical abuse (Figure 8.2.1).

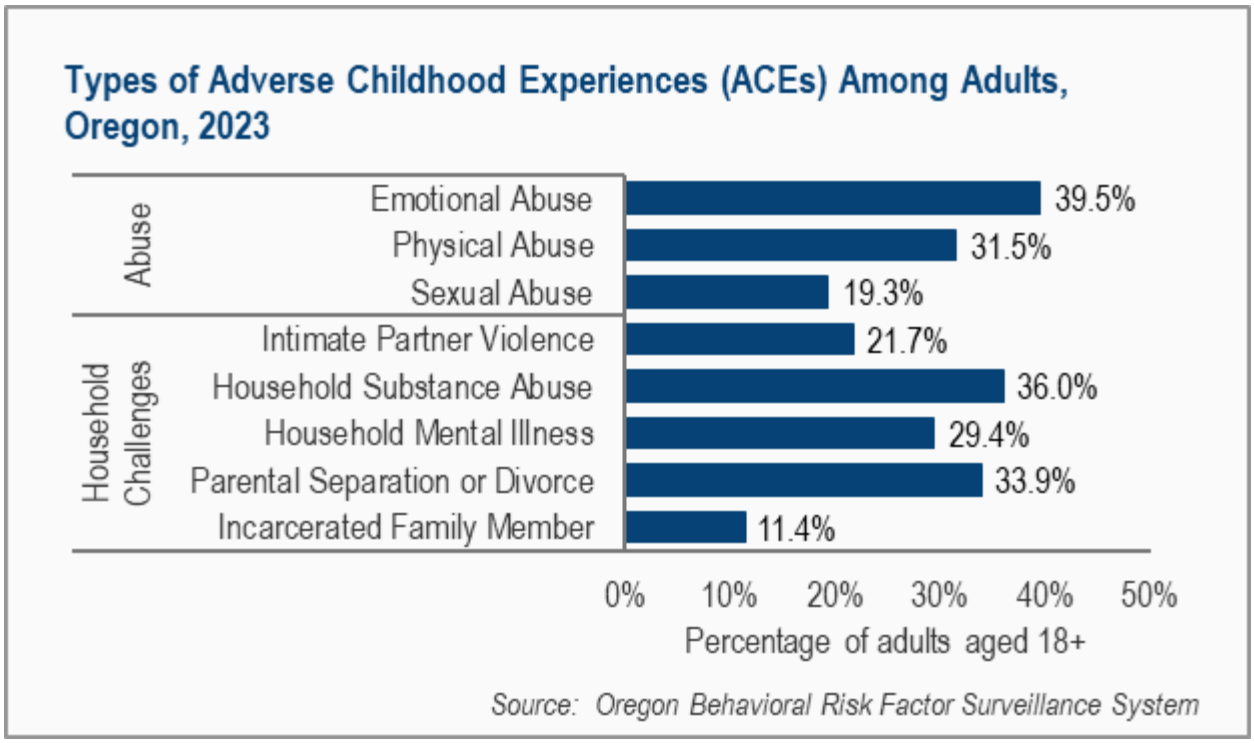

Figure 8.2.1

From 2018 to 2021, the percentage of Oregon adults aged 18 and older who experienced four or more ACEs was highest for American Indian/Alaska Native people, followed by Black/African American people. Percentages for Hispanic/Latina/o/x people, white people, and Native Hawaiian/Pacific Islanders were similar, while the percentage of people identifying as Asians was lowest (Figure 8.2.2).

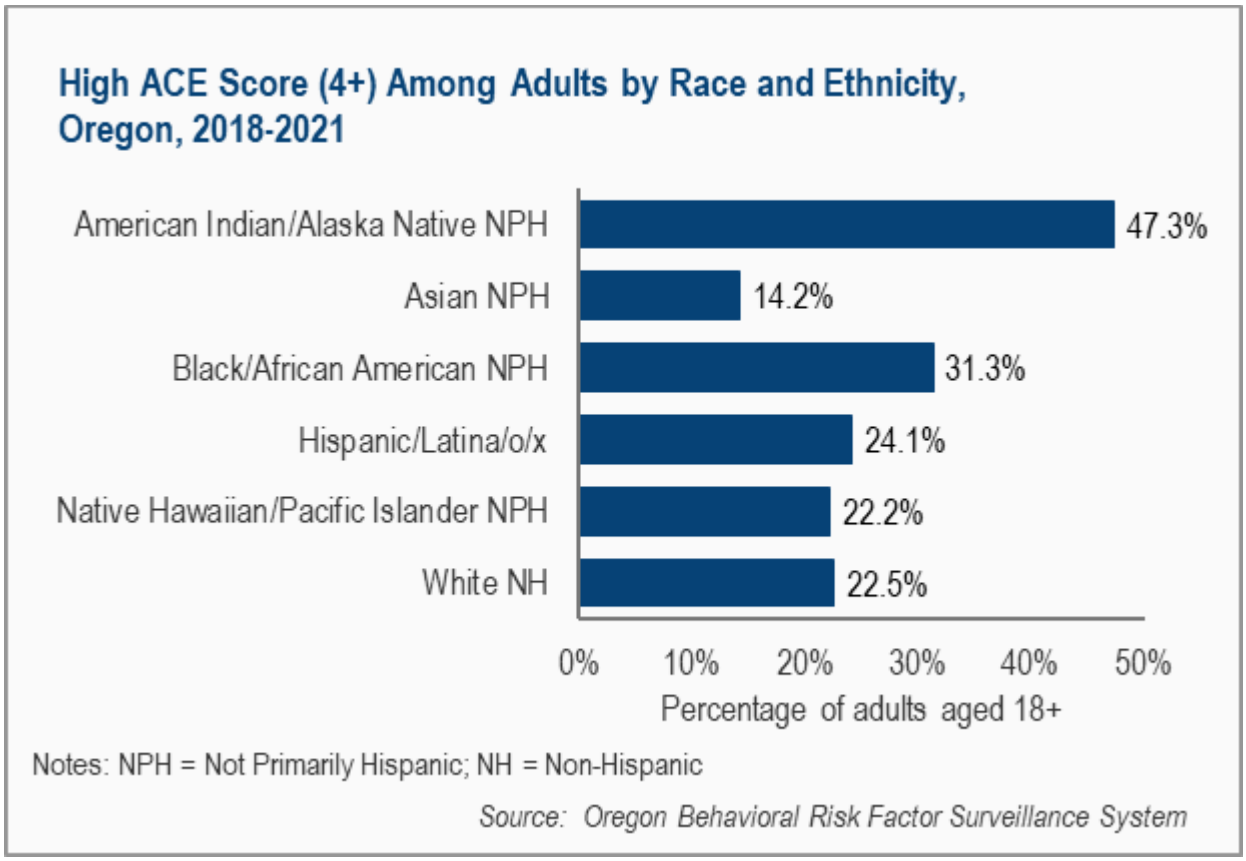

Figure 8.2.2

Risk and protective factors

Risk and protective factors at individual, relationship, community, and societal levels influence the likelihood and impact of ACEs. Risk factors include caregivers with a high number of ACEs, low household income, lack of social support, food/housing insecurity, community violence, and limited opportunities for youth.[44, 45, 46]

Many protective factors that reduce ACEs risk also build resilience, meaning individuals with high ACE exposure may not experience long-term negative effects. Protective factors help mitigate stress and promote lifelong well-being. Protective factors include emotional and financial support for parents, stable housing, strong family and peer connections, healthy emotional communication, supportive non-parent adults, and community involvement.[47, 48, 49] Many of these protective factors have been classified into a framework known as Positive Childhood Experiences, which have

been shown to have the opposite impact on adult and child outcomes than ACEs.[50,51]

ACEs prevalence is similar in both rural and urban areas and is higher than in frontier parts of the state (Figure 8.2.3).

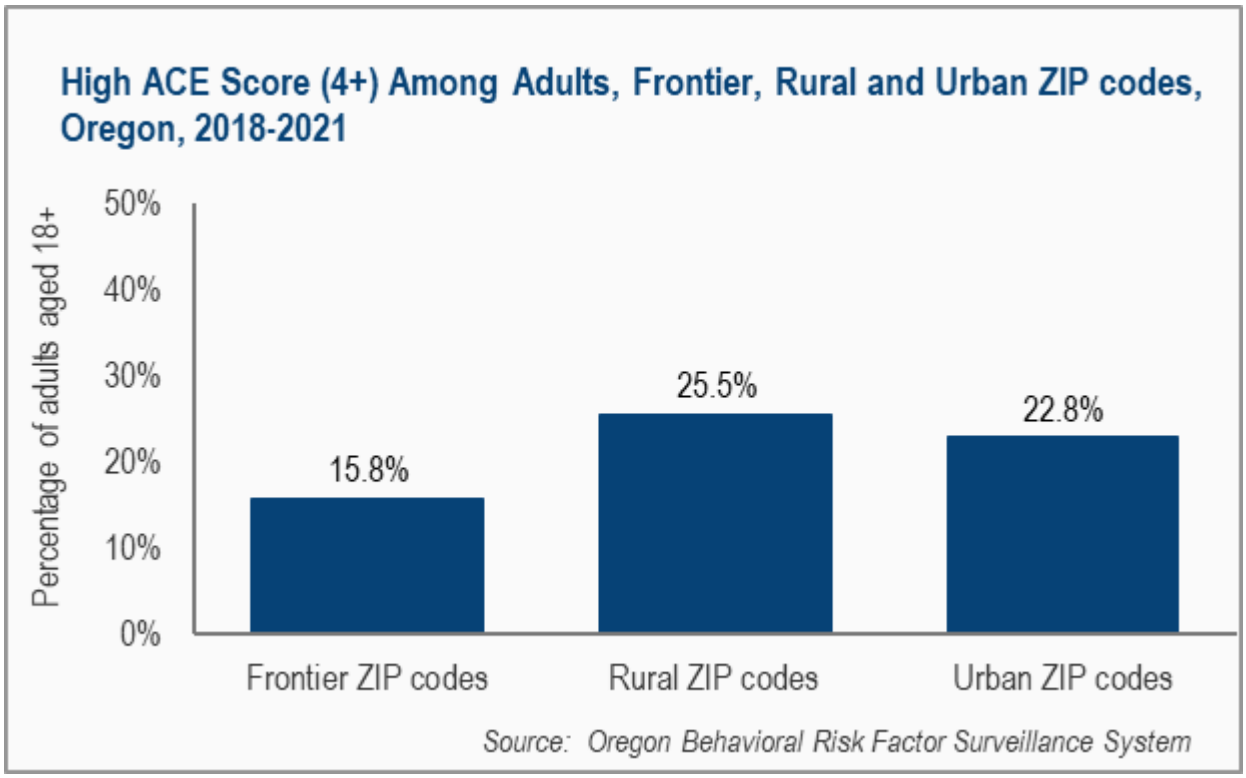

Figure 8.2.3

ACEs in Oregon adults are more common in women, people with disabilities, those living below the poverty line, and those with less than a college degree. People who identify as gay, lesbian, bisexual or other are also disproportionately impacted (Figure 8.2.4).

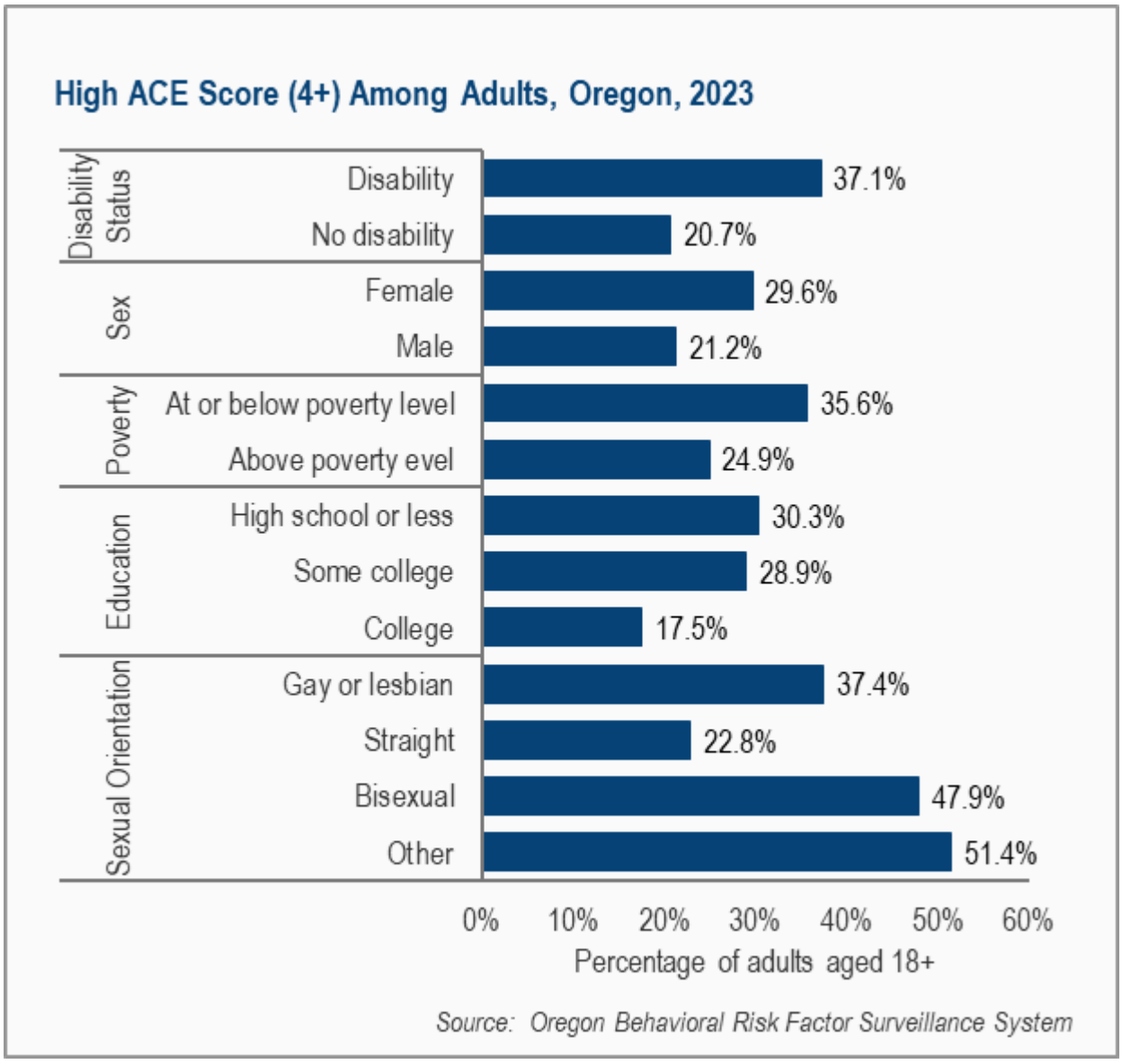

Figure 8.2.4

Data for this measure come from the BRFSS, which asks adults 18 years and older to recall ACEs that occurred during their own childhood. These data are used to examine adult outcomes associated with ACEs. To increase understanding of this health topic, it is useful to examine data from child and adolescent health surveys, including the National Survey of Children's Health (NSCH) and the Oregon Student Health Survey (SHS). The NSCH asks parents to report on ACEs on behalf of their children under 18 years of age. The SHS asks students to report on their own experiences of ACEs. These two data sources can be utilized to examine the social

determinants of health associated with ACEs, as well as risk and protective factors that are occurring more recently. It can also be useful to examine data on positive childhood experiences (PCEs) and resiliency. More data on PCEs among adults 18 years and older would help support the development of programs and policies to address and mitigate the impacts of ACEs.

Also note that aside from the BRFSS, there are other ACEs scales that include components such as historical trauma, discrimination, community violence or war, being a refugee, school violence and bullying, and experiencing severe social deprivation including poverty, hunger and homelessness. Having state-level ACEs information based upon these factors would provide further clarity.

Structural determinants of health

Key structural determinants that influence both the occurrence and impact of ACEs in Oregon include employment and economic opportunities and structural racism. Parental job insecurity can contribute to unstable housing, decreased time available for interacting with children, and limited economic mobility that can perpetuate intergenerational trauma and exposure to ACEs.[52, 53] The repercussions of historical discriminatory housing practices, known as redlining, contributes to underfunded schools in some neighborhoods. These schools may lack the resources needed to support children facing trauma, leading to educational disparities and poorer outcomes for these children as adults.

Social determinants of health

Social determinants also have a complex interrelationship with the experience of and the impact caused by ACEs. Examples of these factors that can increase ACEs for children and lead to less resiliency in adulthood for those who experienced many ACEs include lack of supportive family relationships, low availability of early childhood education and gender discrimination.

Understanding the prevalence and impact of Adverse Childhood Experiences (ACEs) informs efforts to prevent trauma, promote individual, family and community resilience, and create trauma informed systems and services. OHA's Family and Child Health (FCH) Section addresses ACEs with numerous programs and funding, including home visiting and Title V state and local grantee programming. All FCH's home visiting programs, including universally offered home visiting, address the social determinants of health that are associated with ACEs and focus on strengthening families and improving the health status of women and children. Oregon's Title V maternal and child health block grant is used to address ACEs through programs designed to engage families and build parent capabilities, and to promote stable and responsive parent-child relationships and resilient and connected children, youth, families and communities.

Evidence-based policies that improve social and health equity, strengthen food and housing security for families, and enable culturally responsive family and parenting support services in multiple languages can help decrease ACEs prevalence and mitigate their effects in Oregon.

Collaboration among legislators, other state agencies, local public health, community partners, and Tribal governments is essential, as each has a necessary and interconnected role in reducing ACEs throughout the state.

3. Trusted adult outside of school

Research shows that youth having a trusted adult in their life provides an important benefit to their well-being. Trusted adults can be family members, grandparents, teachers or social workers and these relationships can have a positive impact on physical, mental and social outcomes including:[54,55,56]

- Less risk-taking behavior;
- Higher self-esteem;
- More motivation to succeed in school and other activities;
- Positive employment outcomes later in life; and
- Improved physical and mental health.

Adverse childhood experiences have been defined as stressful experiences occurring during childhood that directly harm a child or affect the environment in which they live. They represent a variety of negative experiences; for example, physical and sexual abuse, and neglect; or growing up in a house with a harmful family environment as a result of domestic violence or substance abuse.[57,58] While adverse childhood experiences have a negative impact on mental and physical health across a person's life-course, these effects may be substantially mitigated by having support from a trusted adult.[59] Research indicates that people affected by ACEs value emotional support from a trusted adult; they desire service providers who are empathetic, non-judgmental, and active listeners.

In Oregon, students who report a disability, identify as non-binary, or are LGBTQIA2S+ are less likely to report having a trusted adult in their lives.[60] By race and ethnicity, the 11th grade students least likely to report having a trusted adult outside of school are North African, American Indian/Alaska Native, and Native Hawaiian/Pacific Islander (Figure 8.3.1).

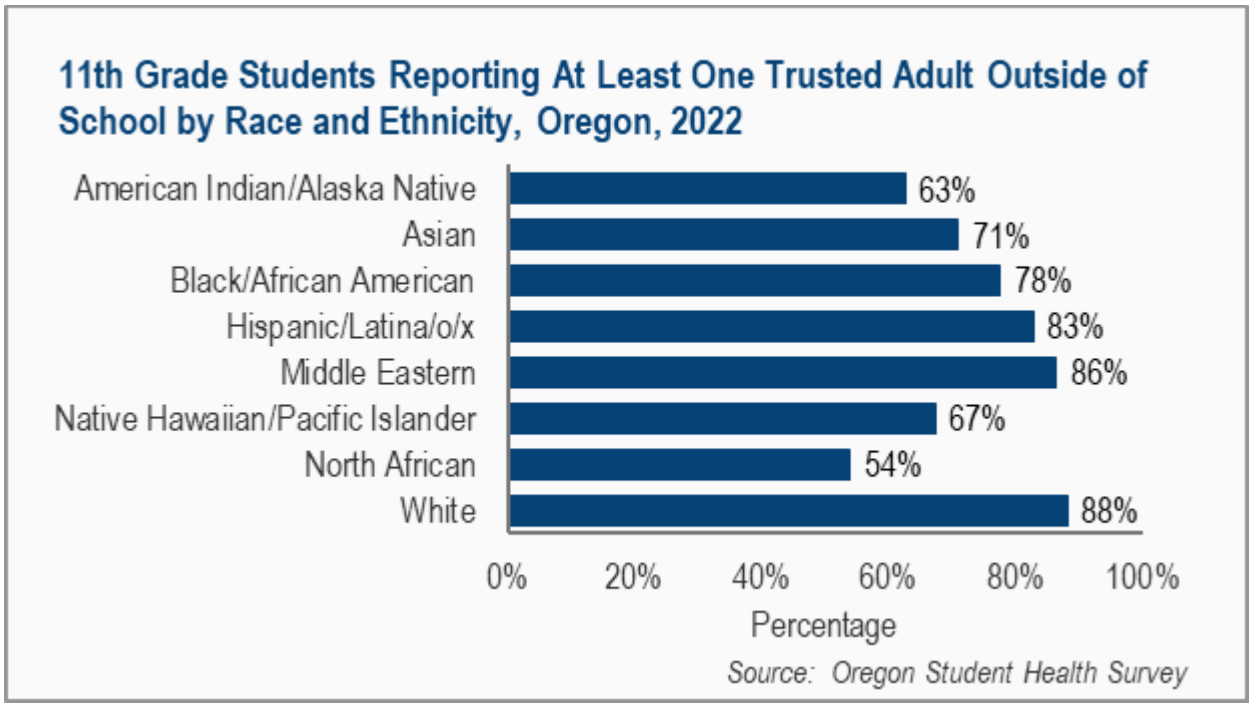

Figure 8.3.1

Overall, most students in all grades reported having a trusted adult to go to for help outside of school, 11th graders reported the highest percent of 85% (Figure 8.3.2).

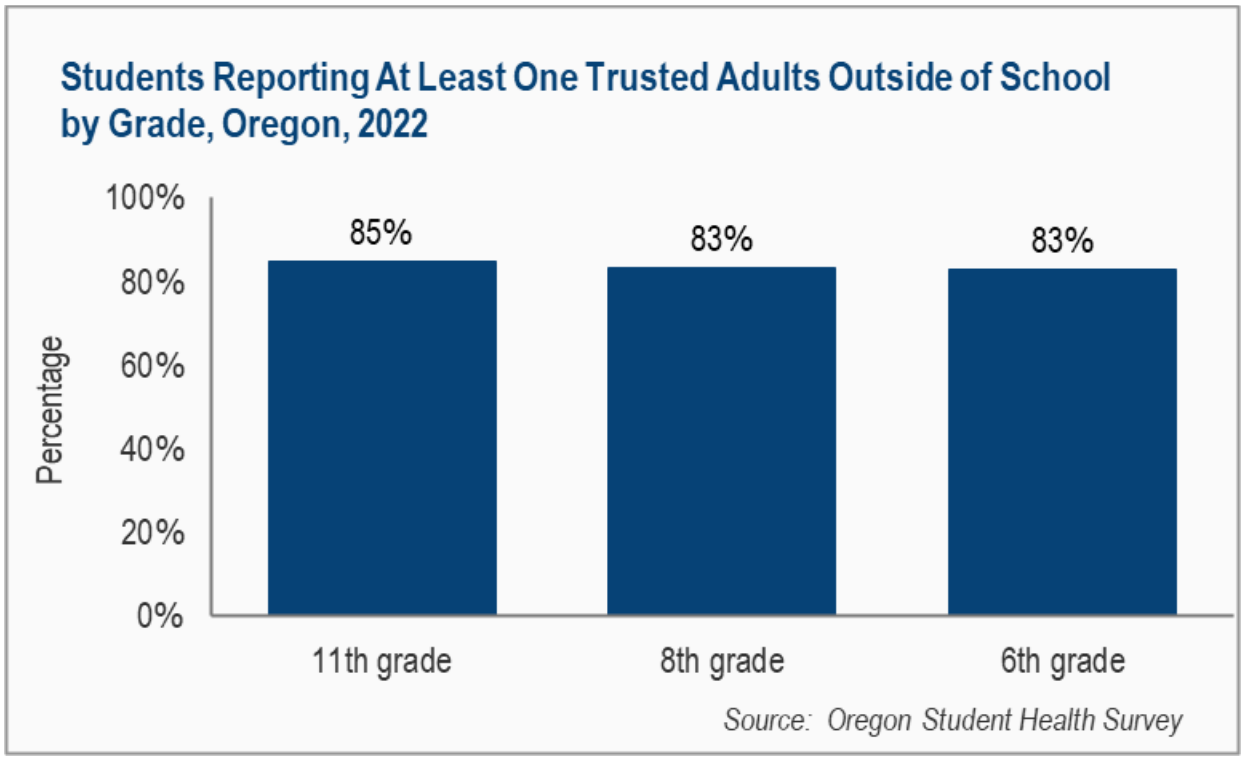

Figure 8.3.2

Structural and social determinants of health

Youth without a trusted adults outside of school that they can go to for help are more vulnerable to poor health outcomes due to social isolation, economic instability and limited access to supportive networks which are linked to increased risk for mental health challenges, substance use, and engagement with the juvenile justice system.[61]

Public Health can support these youth with the following:[62]

- Youth centered approaches: engaging youth directly in designing and evaluating programs and policies to ensure interventions are culturally appropriate, relevant and empowering.
- School and community linkages: Strengthen partnerships between schools and community-based organizations and local public health authorities to provide wrap-around support and services such as behavioral health support, family engagement activities, and after school programs that foster a sense of belonging.

- Trauma-informed systems: support training for school staff in trauma-informed care to better recognize and respond to the effects of adverse childhood experiences, including the absence of supportive relationships.

Supporting youth mental health is crucial.[63] Youth having a trusted adult outside of school that they can connect with is a protective factor. Public health can support schools, school districts, and community organizations with additional funding to programs that support youth mental health, such as NAMI (National Alliance on Mental Health Illness) and School Based Health Centers. Public health can also maintain support for trauma informed care.[64]

4. Childhood immunizations and adult influenza vaccination rates

Immunizations are one of the most effective public health interventions and are responsible for significant reductions in infectious disease incidence in the US. However, one consequence of the COVID-19 pandemic was a sharp reduction in routine immunization of children, adolescents and adults, leaving groups at higher risk of diseases that are preventable. Even before the drop in vaccination rates during the COVID-19 pandemic, Oregon experienced vaccination rate disparities for decades, with communities of color less likely to be vaccinated and more likely to experience a disproportionate burden of disease compared to white communities. Systemic barriers to vaccination access contribute to immunization rate disparities.

Prior to the COVID-19 pandemic, immunization rates in children and adults had been rising for nearly a decade (Figure 8.4.1). This coincided with the implementation of health care incentive measures and significant health care system reform and contributed to a 10-percentage point increase in vaccination rates for two-year-olds between 2012 and early 2020. Oregon's declining rates following the COVID-19 pandemic are in sharp contrast to that trend. The public health system can improve vaccination rates by addressing barriers to accessing vaccines, providing culturally relevant outreach and education, and working with health care providers and community partners.

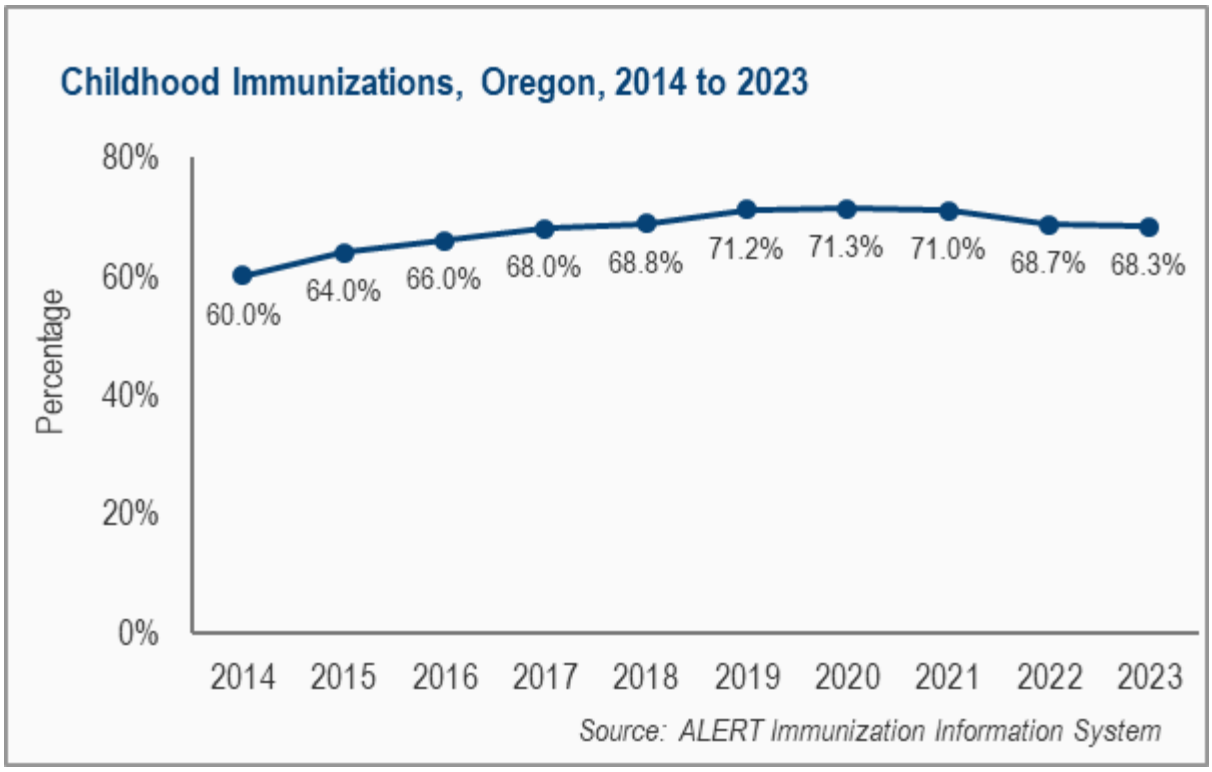

Figure 8.4.1

Statewide 2-year-old vaccination series (4313314)

Despite CDC recommendations to prioritize early childhood well-child visits during the COVID-19 pandemic, a decreasing trend in up-to-date rates of childhood immunizations since the peak in 2020 highlights that more children are falling behind on their immunizations. CDC guidelines currently recommend vaccination with the combined 7 vaccine series by the time a child reaches 24 months of age. This includes vaccines for the following 14 potentially serious illnesses: 4 doses diphtheria, pertussis, tetanus, 3 doses poliovirus, 1 dose measles, mumps, rubella, 3 doses hepatitis b, 3 doses Haemophilus influenzae B, 1 dose varicella, and 4 doses of pneumococcal (Figure 8.4.2).

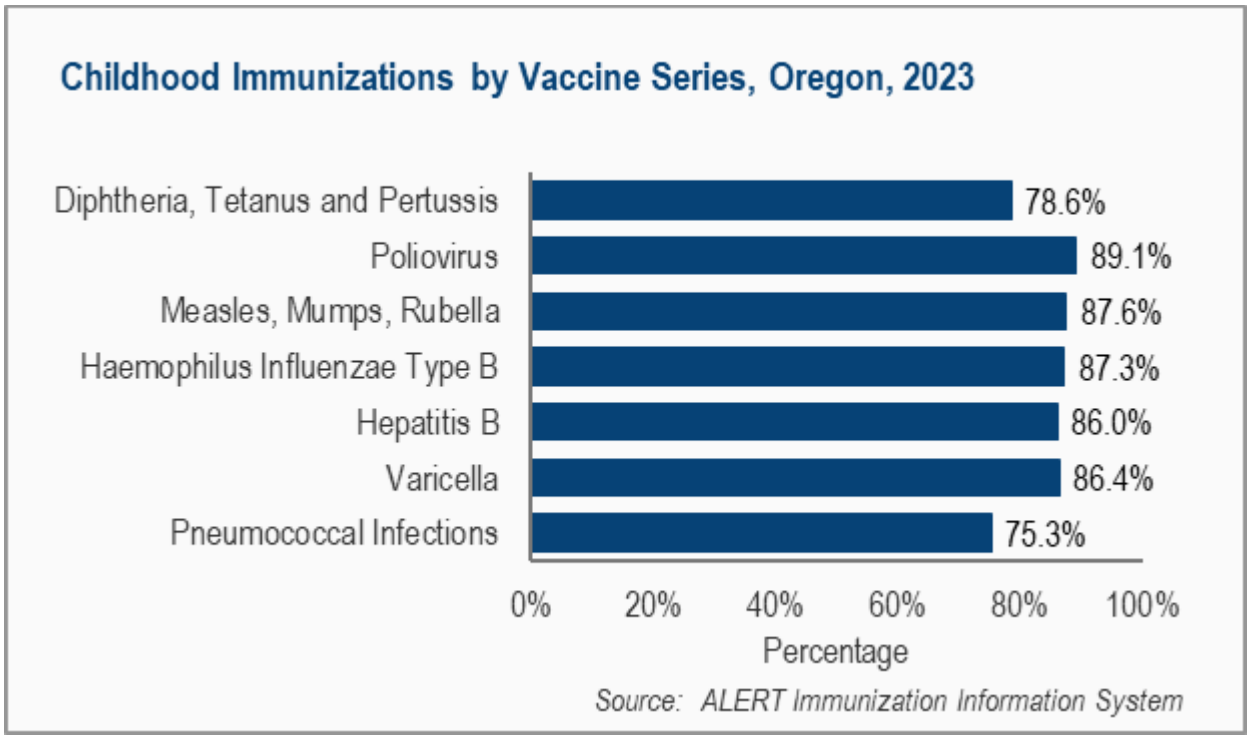

Figure 8.4.2

Generally, 2-year old immunization rates tend to be higher in western, Willamette Valley counties than in other areas of the state (Figure 8.4.3).

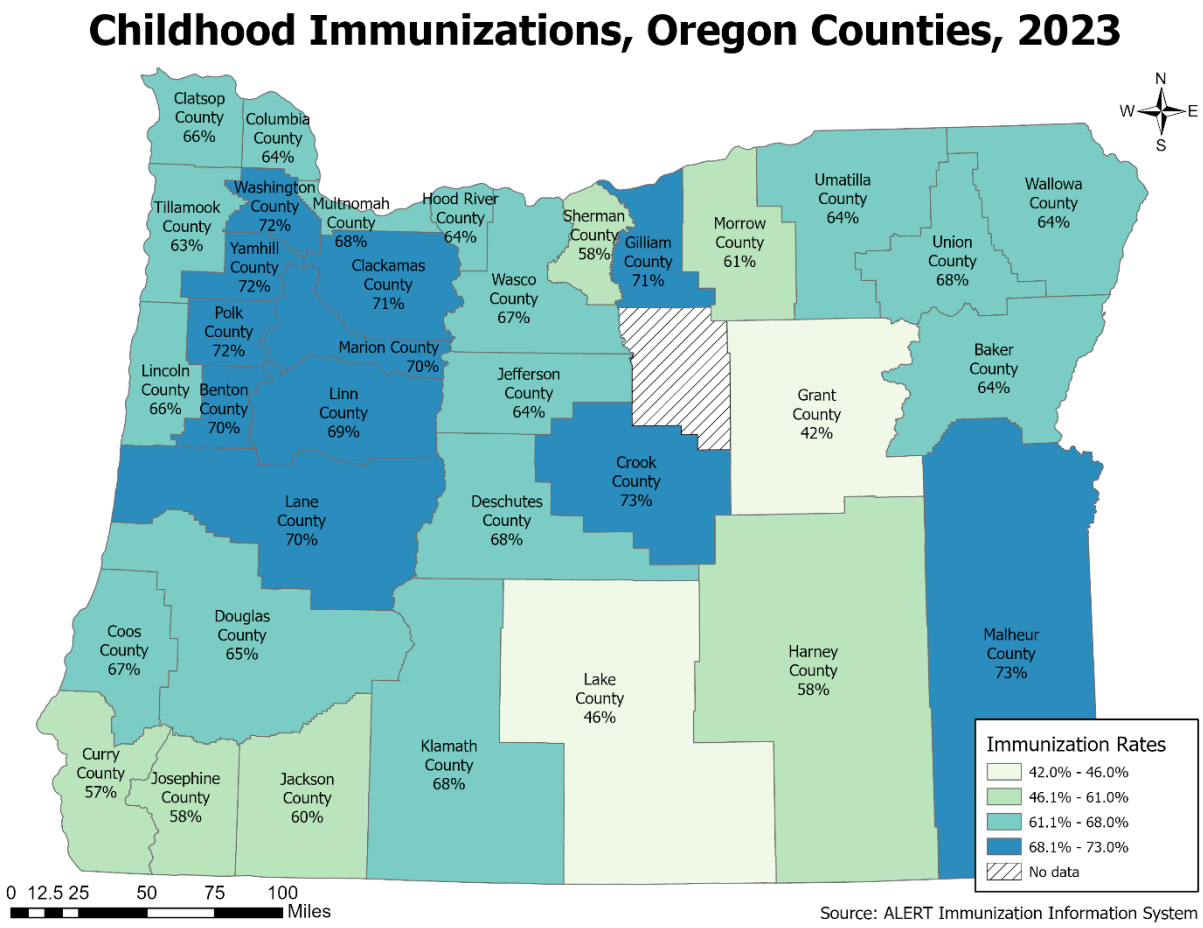

Figure 8.4.3

Statewide influenza vaccination 65+

Influenza can be a serious illness, especially for older adults and infants. People 65 years of age and older are at high risk for developing serious complications from the flu compared with healthy young adults. This risk is in part due to changes in the immune system with increasing age. While flu seasons vary in severity, during most seasons, people 65 and over bear the greatest burden of severe disease and death, especially those with additional risk factors such as chronic medical conditions and weakened immune systems. Annual flu vaccination is the best way to reduce the risk of flu and its potentially serious consequences.

Influenza vaccination rates among older Oregonians declined somewhat after the 2020-2021 flu season (Figure 8.4.4).

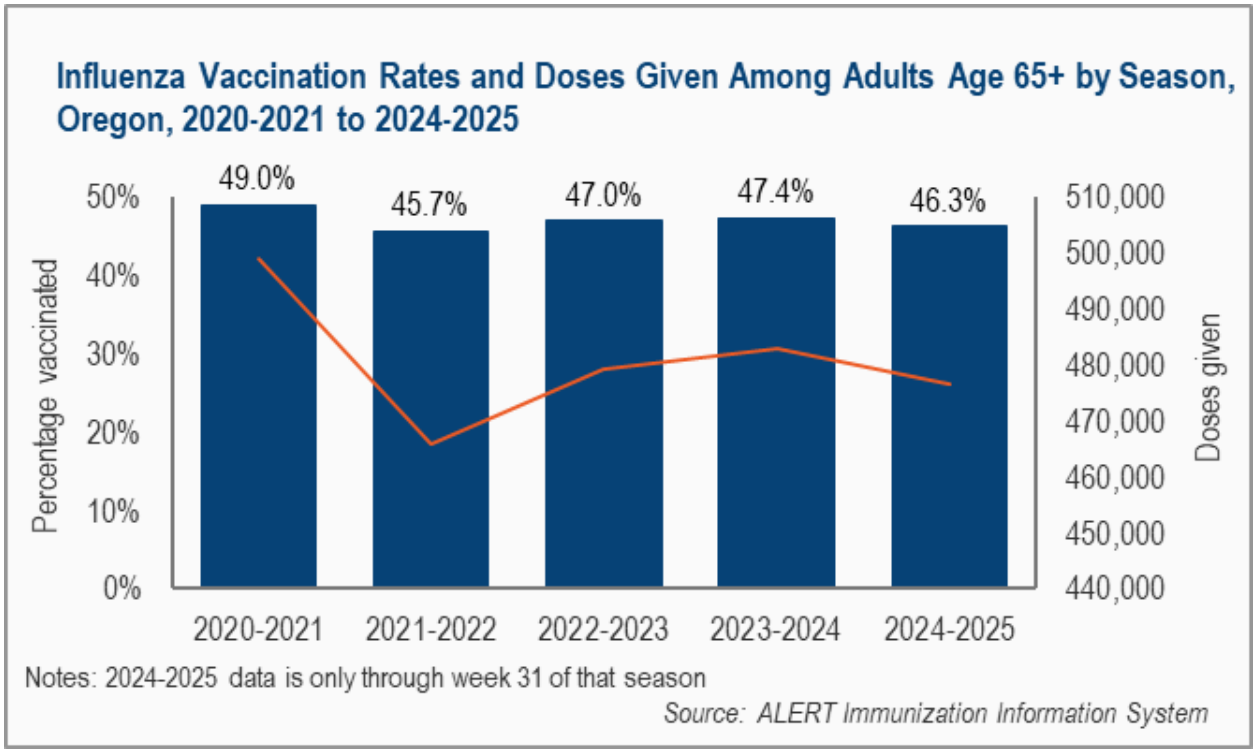

Figure 8.4.4

Many factors influence changes in vaccination rates in Oregon. Risk factors include the growing presence of vaccine misinformation and increasing vaccine hesitancy which can lead to distrust in scientific consensus and public health recommendations. Additionally, access to health care and socioeconomic factors, which may include a lack of nearby providers, inadequate transportation, or an inability to take time off work to vaccinate themselves or their children may impact people's ability to seek health care. This has a disproportionate impact on access in rural areas in Oregon (Figure 8.4.5). Specific community or cultural concerns and a lack of ability for the health care system to provide effective culturally specific care may impact vaccination in small close-knit communities.

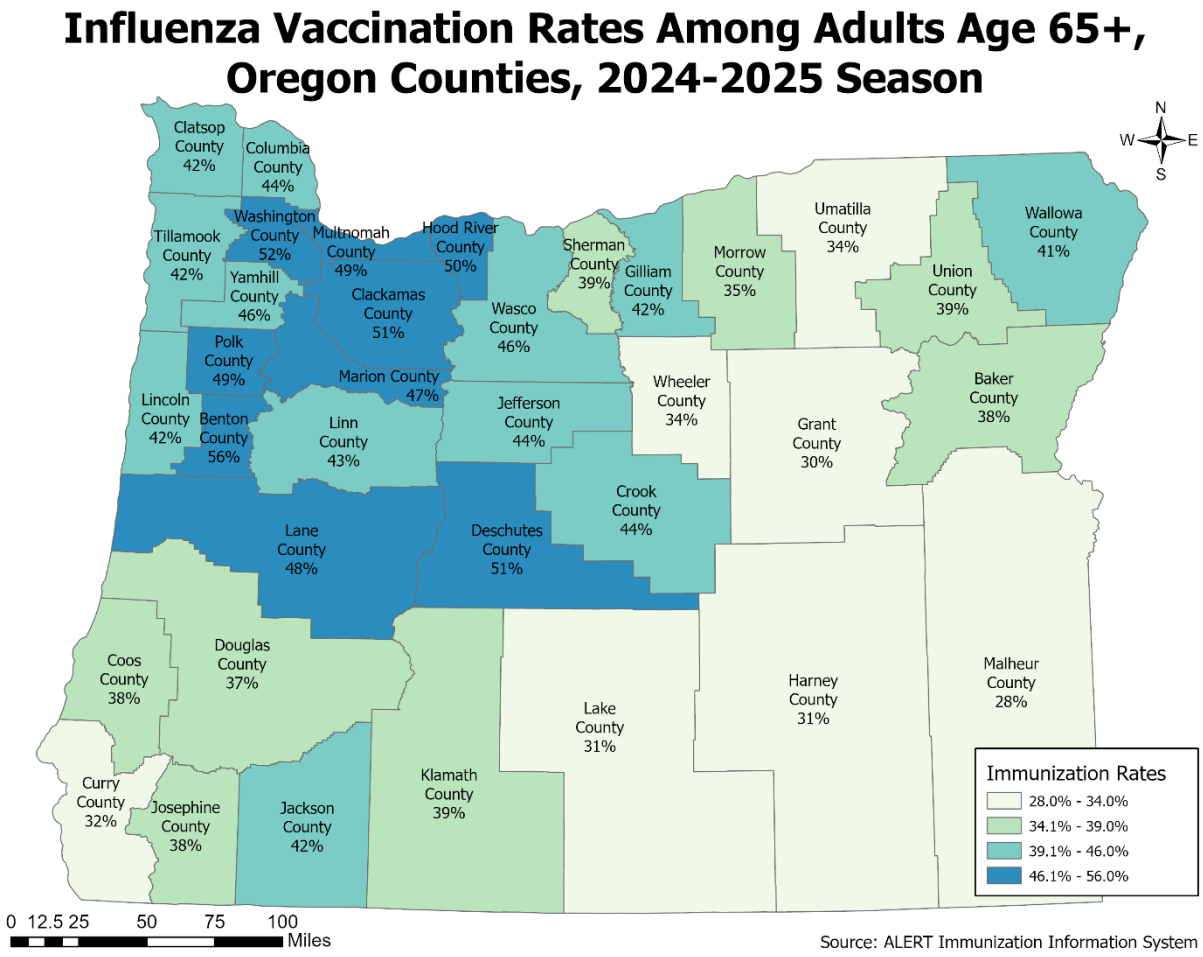

Figure 8.4.5

Additionally, Oregon's vaccine finance model is outdated, fragmented, and burdensome for providers and patients and unable to handle the increasing costs of vaccines and growing complexity of managing immunization programs. These challenges exacerbate existing disparities in vaccine access, particularly for low-income populations, rural communities, and historically marginalized groups. The current model is not sustainable, and reform is necessary to support equitable vaccine access statewide.[65]

Public health system investments can often alleviate these risk factors. School immunization requirements, culturally relevant public health initiatives and promotional campaigns, strong health care provider recommendations, community outreach and partnerships with trusted messengers, and

granular data for local program planning all contribute to the public health system's ability to address decreases in immunization rates.

Vaccine preventable diseases have a disproportionate impact on infants and young children, older adults, individuals with weakened immune systems or chronic conditions, and communities with lower income that live in close proximity, or that have been economically or socially disadvantaged. These groups occur throughout Oregon, but these risk factors often have a greater impact on communities of color, immigrant and refugee communities, and other groups with poor health care access and socioeconomic barriers.

Structural determinants of health

Structural determinants of health significantly influence vaccine access in Oregon, with economic disparities creating barriers for those lacking health insurance or stable income, limiting their ability to afford or reach vaccination sites. Cultural factors, including language barriers and mistrust of medical institutions stemming from historical injustices, can also decrease vaccine uptake within certain communities. Furthermore, political decisions regarding health care funding and resource allocation directly affect the availability of vaccines, leading to uneven distribution and lower rural access. Systemic racism and discrimination within the health care system itself also play a role in creating unequal access to, and trust in, vaccinations.

Social determinants of health

Social determinants of health profoundly shape vaccination access in Oregon. Geographic isolation in rural areas creates logistical hurdles, limiting access to clinics and pharmacies offering vaccines. Income disparities influence the ability to afford transportation or take time off work for appointments, especially for hourly wage earners. Health literacy differences can lead to varying levels of understanding and acceptance of vaccine information and exposure to vaccine misinformation may impact motivation confidence to overcome access barriers. Disruptions in housing

or health care access may mean that people seeking out vaccination must invest additional time and resources to get vaccinated.

Public health interventions

To improve vaccination rates among 2-year-olds and those 65+ in Oregon, public health initiatives must leverage data to develop community specific programs and collaborative partnerships. Partnerships with health care providers can help with streamlining vaccination access during routine check-ups and establishing convenient clinic hours or provide off site vaccination clinics to bring vaccine services to the community. Community outreach through community-based organizations and trusted partners can effectively disseminate accurate vaccine information and address concerns within specific populations and begin to address vaccine misinformation and community concerns. Improving health care provider participation in the national Immunization Quality Improvement Program (IQIP) and other quality improvement programs can improve the implementation of best practices, data reporting, and quality vaccine administration. For the 65+ population, increasing access to seasonal flu vaccines in long-term care facilities is paramount. Mobile vaccination clinics and on-site immunization programs can eliminate transportation barriers and ensure residents receive timely protection. Investments at the state level in vaccination systems such as the state's vaccine finance model are also critical to support ongoing equitable vaccine access throughout Oregon.

Resources

- Evidence-based Strategies for Improving Childhood and Adolescent Immunization Rates: A Guide for CCOs, Health Plans and Clinics
- CDC Vaccines and Immunization Page
- American Academy of Pediatrics Immunizations Page

5. Dental visits among children and adults

The number of dental visits per child and adult is an important indicator to the health of people in Oregon because regular dental care helps prevent and treat oral health issues before they become severe. Routine checkups and cleanings play a significant role in preventing dental diseases like cavities, gum disease, and infections, which can lead to pain, tooth loss, and costly treatments. Additionally, dental visits allow for the early detection of health issues such as oral cancer, diabetes, and heart disease, enabling timely intervention. Poor oral health is linked to chronic conditions like heart disease, diabetes, and respiratory infections, so regular visits help reduce these risks and improve overall health.

In Oregon, disparities in dental care access based on income, geography, and race can be addressed by increasing the number of dental visits, which can help close these gaps and enhance community health. For children, untreated cavities can affect their ability to eat, speak, and concentrate in school, while regular dental care supports healthy development and academic success. Preventive care is also far less expensive than emergency treatments, helping to avoid costly procedures and reduce strain on the health care system. By increasing access to and awareness of dental visits, Oregonians can improve their oral and overall health while reducing long-term health care costs.

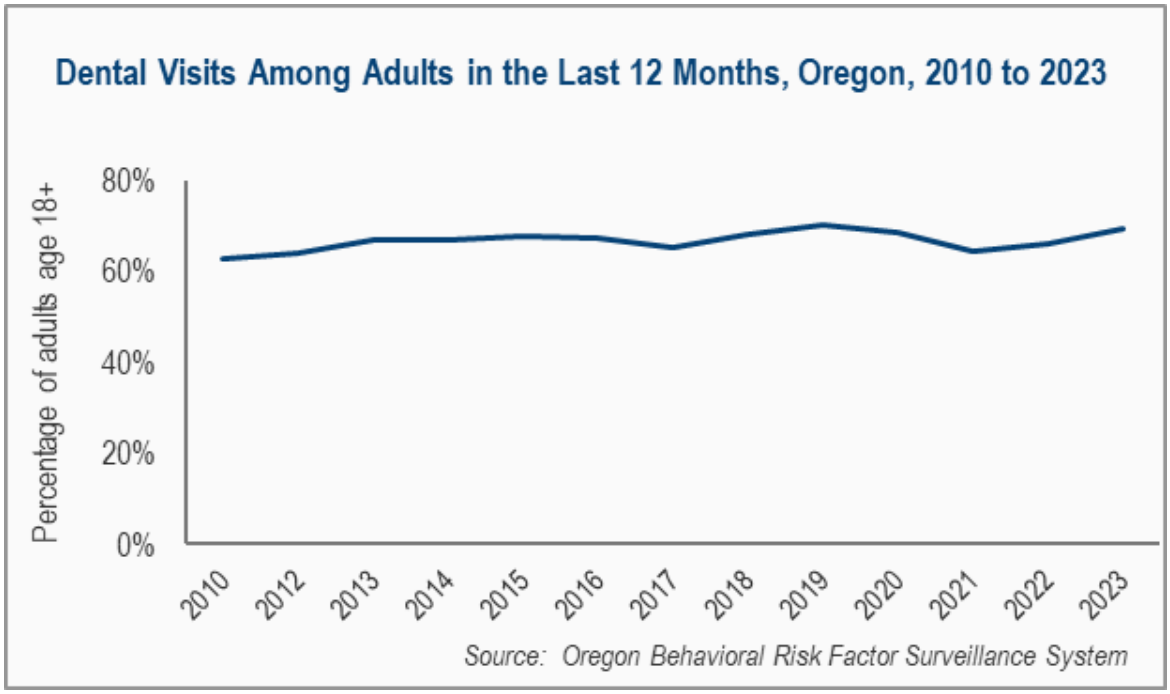

Figure 8.5.1

Current trends in Oregon have shown relatively stable rates of adult dental visits (Figure 8.5.1), although some disparities persist. Overall, in 2023, 69.3% of adults and 86.3% of children (age 1 to 17) reported seeing a dental provider in the past 12 months. Among adults, women (72.4%) are more likely than men (66.1%) to report having a recent dental visit. Wider disparities can be seen based on race/ethnicity, with the percentage of adults with a recent dental visit was highest among white and Asian populations and lowest among American Indian/Alaska Native and Native Hawaiian/Pacific Islander populations (Figure 8.5.2).

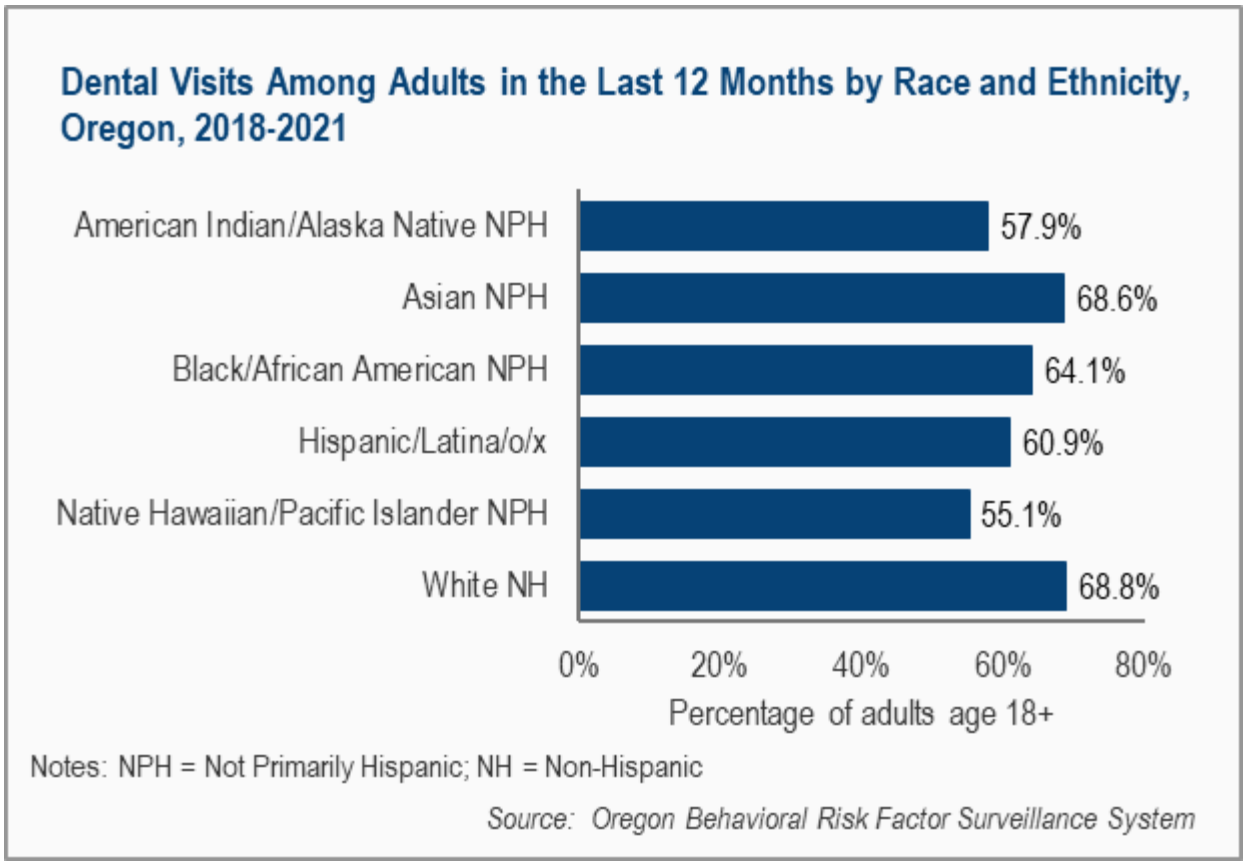

Figure 8.5.2

Across all populations, children had much higher rates of dental care visits than adults. Similarly to adult rates, among children, white populations had the highest rate of any dental visit, while the lowest rate in children was among Asian populations (Figure 8.5.3).The relatively stable trend in dental visits in Oregon, with women being more likely to have had a dental visit in the past 12 months, is influenced by a combination of risk, protective, and other factors. Public health campaigns and preventive care programs are focused on women and children, including school-based sealant programs and mobile dental units, and encourage higher dental visit rates. State policies, such as expanding Medicaid dental coverage, further support increased access to care, particularly among women and children. Together, these factors contribute to the observed trends in dental care utilization in Oregon.

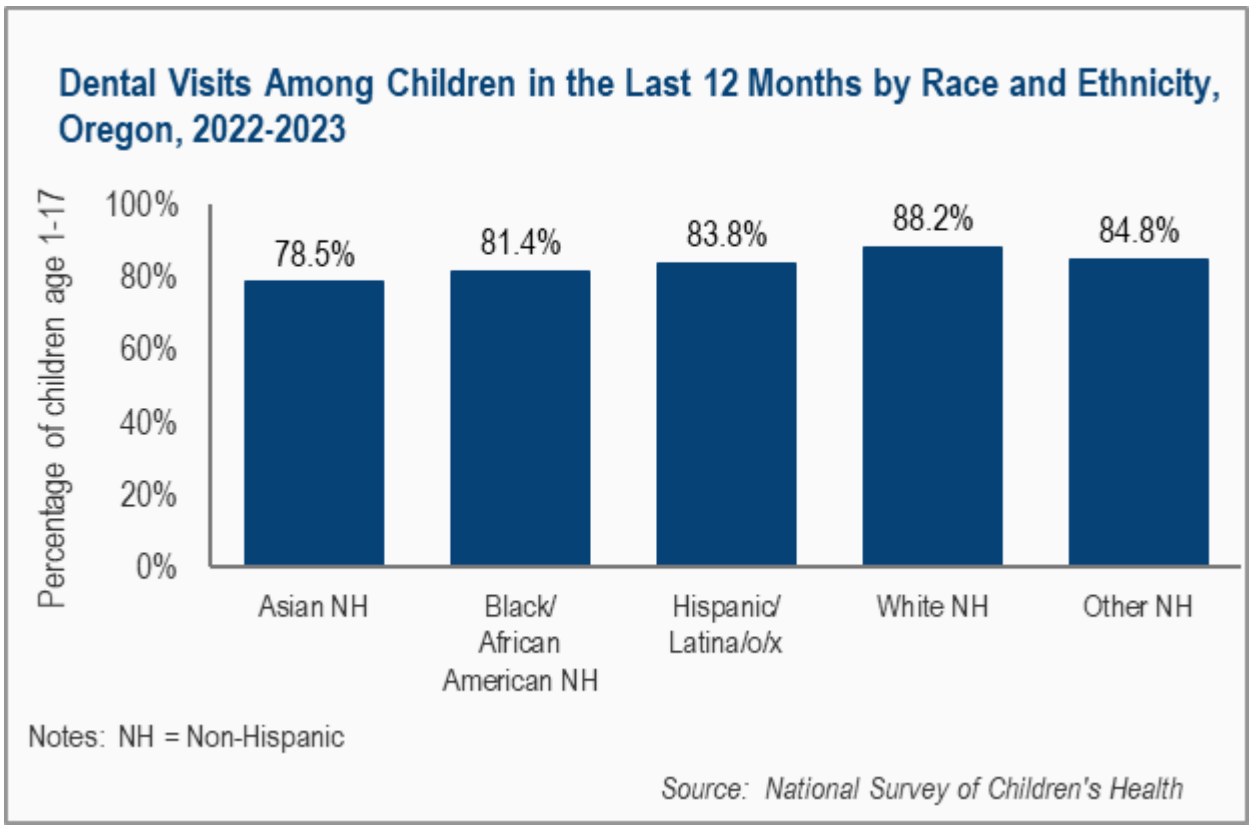

Figure 8.5.3

Rates of dental care utilization are highly correlated with other socioeconomic factors with both higher income and education serving as protective factors. Among adults, the lowest rates of dental care utilization were found among adults reporting income at or below 100% of the federal poverty level, 48.3%, compared to 70.7% of adults above the federal poverty level reporting a dental visit in the last year. Additionally, only 54.9% of adults with only high school education or less reported a dental visit, while 78.0% of college graduates did.

Among children, the rates of dental care utilization vary less between income levels and are consistently higher than adults, ranging from 78.9% for children under 100% of the federal poverty level to 91.0% of children above 400% of the federal poverty level.

Structural determinants of health

Structural determinants of health, such as economic, health care, and policy factors, significantly influence oral health outcomes in Oregon. Economic inequality, including low-wage jobs that lack dental insurance and high out-of-pocket costs, leaves many individuals with limited access to preventive dental care, leading to delayed treatment and more severe dental disease. While Oregon's Medicaid program offers some dental benefits, coverage limitations and limited provider networks, particularly for adults, create barriers to comprehensive care, and many middle-income individuals struggle to afford private insurance.

The state's health care system also faces challenges, such as a shortage of dental professionals, particularly in rural areas, and an unequal distribution of dental clinics, leaving many communities without adequate care. Rates of timely dental visits among adults vary widely by county. Additionally, the separation of dental and medical care within the health care system means oral health is often neglected in primary care settings, missing opportunities for early intervention.

Policy factors further contribute to disparities, with limited public health investment in oral health programs, inconsistent funding for preventive care, and only 21% of Oregon residents benefitting from fluoridated water.[66] These structural determinants highlight the need for comprehensive solutions to improve access to dental care and reduce oral health disparities in Oregon.

Social determinants of health

Social determinants of health significantly intersect with how people in Oregon experience dental disease. Cultural and social structures, such as language and cultural barriers, present challenges for non-English-speaking populations, including immigrants and refugees, who may struggle to navigate the health care system and access dental care. The lack of culturally competent providers further compounds these difficulties, limiting

understanding of dental care options. Additionally, stigma surrounding dental disease can discourage individuals from seeking care, especially for those with visible dental issues or those experiencing housing instability, as they may feel socially judged.

Geographic and infrastructure factors also play a role, particularly the rural-urban divide in Oregon. People living in rural areas face greater structural barriers, such as fewer dental providers, limited public transportation options, and reduced access to specialized dental services. Furthermore, low-income individuals and those in rural communities may lack reliable transportation to reach dental offices, making it difficult to access both routine and emergency care. These social determinants exacerbate disparities in dental health outcomes, highlighting the need for targeted interventions to address these complex barriers.

Public health interventions

Public health interventions aimed at improving dental health in Oregon can be implemented at various points in the prevention stream, targeting different levels of care.

Upstream interventions include policy changes like expanding Medicaid dental coverage, regulating sugar content in foods, and implementing public water fluoridation policies. Oregon's legislative efforts to authorize dental therapists, although hindered by a lack of educational programs, are also an important step in expanding access to care for underserved populations. Environmental changes, such as ensuring schools and workplaces have access to fluoridated water and healthy food options, can prevent dental issues from arising in the first place.

Midstream interventions focus on community-based dental programs like mobile clinics, school-based sealant programs and fluoride varnish applications in pediatric settings. Oral health education tailored to diverse communities through centers, WIC offices, and public housing can help raise

awareness. Encouraging medical providers to integrate oral health screenings into routine checkups further supports early detection.

Downstream interventions, such as referring patients from emergency departments to future preventive care, expanding free and low-cost dental clinics, and providing targeted outreach to high-risk populations, ensure immediate treatment for those in need. These comprehensive efforts across the public health stream aim to address dental health disparities and improve overall access to care in Oregon.

Improving dental access in Oregon requires strong partnerships and resources across various sectors. Key partnerships include health care providers, where collaboration between dentists, primary care doctors, pediatricians, and nurses can help promote oral health and integrate dental care into overall health care. Schools and early childhood programs are essential partners in promoting oral health through sealant programs and nutrition education, reaching children at an early age. Community organizations, including faith-based groups, local nonprofits, and advocacy groups, play a crucial role in outreach efforts, ensuring that dental health initiatives reach diverse and underserved populations. Government and policy leaders such as public health agencies, Medicaid offices, and legislators are key to implementing policy changes that expand access to dental care and improve coverage. Lastly, the private sector and philanthropy are vital for supporting and funding oral health programs, with dental organizations, insurance providers, and foundations providing financial resources and strategic partnerships to improve access and care. These collaborations can help address the systemic barriers to dental care and improve oral health outcomes for Oregonians.

6. Colorectal cancer screening

Colorectal cancer is the result of cells in the colon or rectum growing out of control. It's an increasingly serious issue in Oregon which causes a significant number of deaths. It is one of the most common cancers diagnosed each year in Oregon.

Colorectal cancer is the fourth leading cause of cancer death by the rate of deaths (12 deaths out of 100,000 Oregonians in 2022) and fourth leading by the number of deaths (666 in 2022). Over 1,600 Oregonians are diagnosed with colorectal cancer each year. Colorectal cancer is considered one of the most preventable kinds of cancer. Getting screened can prevent colorectal cancer by finding and removing precancerous polyps. Screenings also catch cancer early, when it is usually easier to treat, and the prognosis is better. Colorectal cancer can be screened for at-home or in a clinical setting. Nationally and in Oregon, the colorectal cancer incidence rate is increasing in people under 50. Some demographic groups, like those living in rural and frontier areas, some communities of color, and males are being diagnosed and are dying from colorectal cancer at higher rates than others.

Oregon has seen a steady increase in colorectal cancer screening rates over time (Figure 8.6.1). New national guidelines adopted in 2021 lowered the recommended age for first screening from 50 to 45, which meant that, suddenly, more people were eligible for screening.

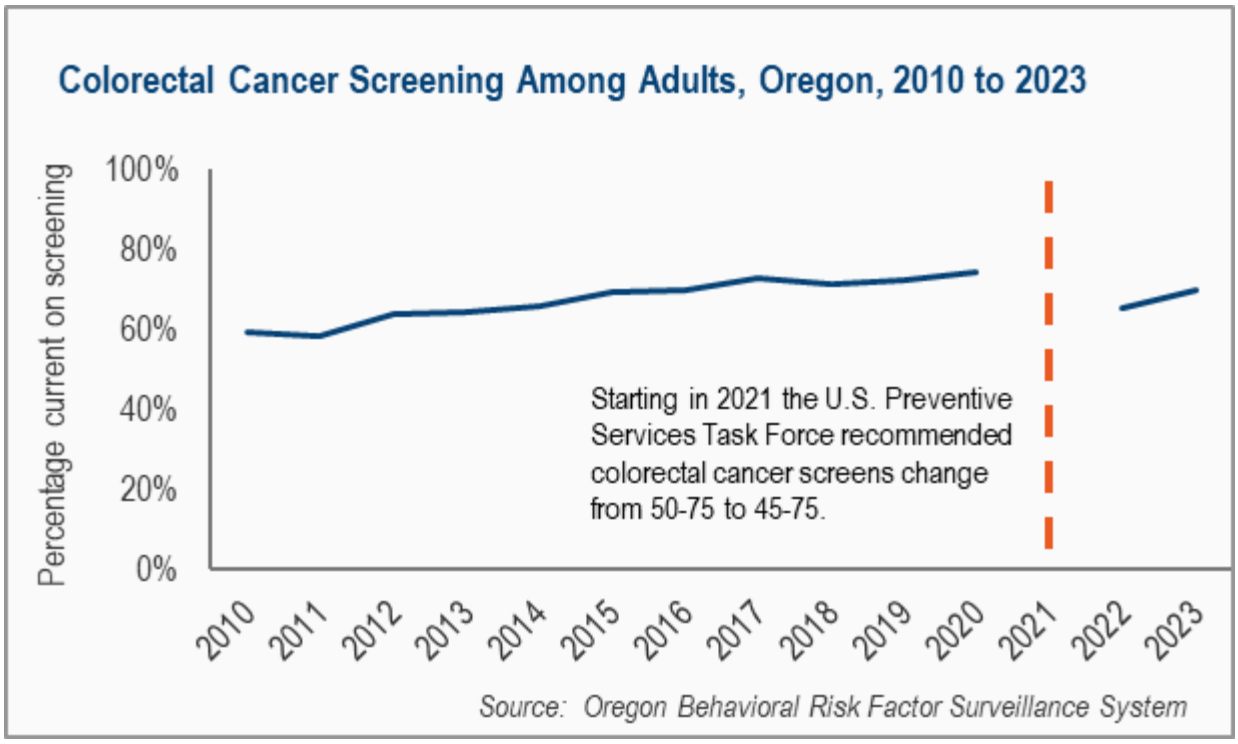

Figure 8.6.1

Although the risk of developing colorectal cancer increases with age, the rate of diagnoses in younger adults is steadily increasing in Oregon and nationally. From 1998-2002, people under 50 were diagnosed with colorectal cancer at a rate of 5.1 new cases per 100,000. By 2018-2022, the incidence rate for people under 50 had nearly doubled to 8.1 new cases per 100,000 (Figure 8.6.2) in Oregon. Counties with the highest incidence rate for colorectal cancer rates, from highest to lowest are Umatilla, Clatsop, Morrow, Union, Klamath, and Columbia. All of these are rural counties except for Columbia.

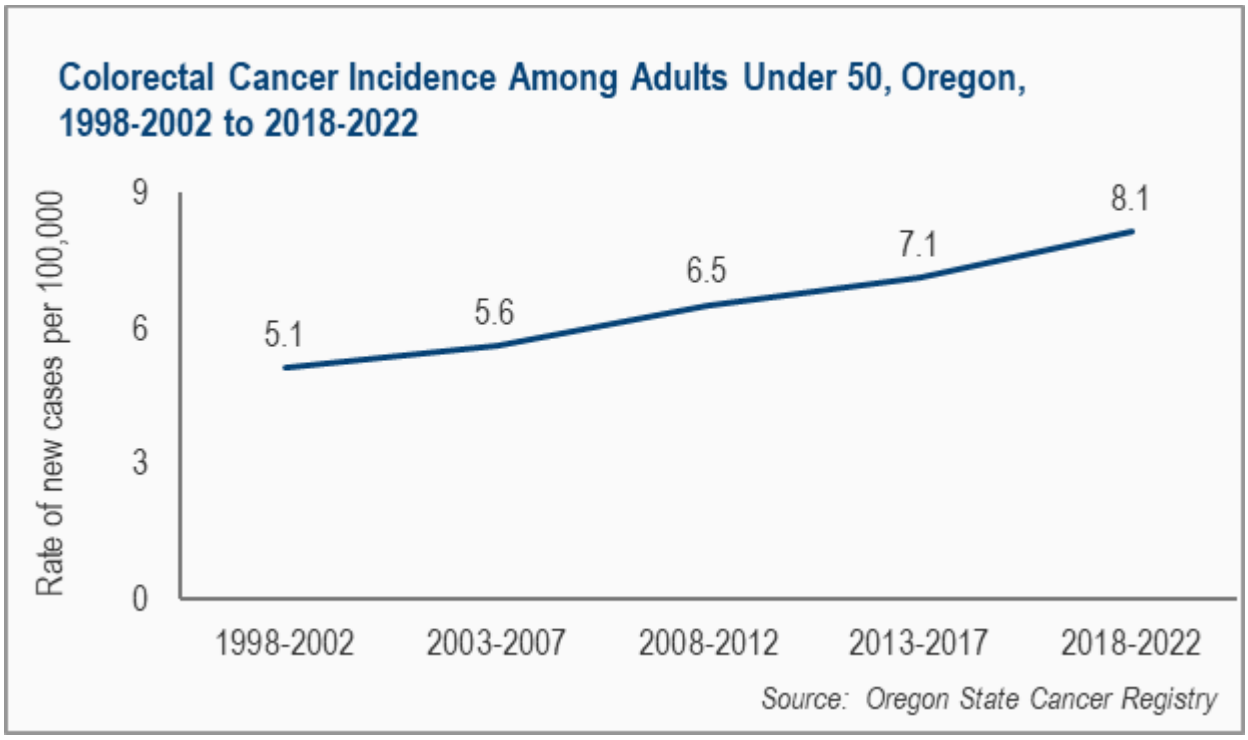

Figure 8.6.2

It's best to find cancer early, when it's easier to treat and the chances of survival are higher. Therefore, the National Colorectal Cancer Roundtable initiative set a screening goal of "80% in every community". This created a national goal for colorectal cancer screening rates of 80% or higher for everyone. In Oregon, Black and African American residents, people living in rural and frontier counties, and males have the highest rates of late-stage colorectal cancer. Native Hawaiian and Pacific Islander populations experience a higher rate of colorectal cancer mortality rates in Oregon, followed by Black and African American demographic groups, people living in rural and frontier, and males. Asian, Hispanic/Latina/o/x, American Indian/Alaska Native, and rural residents have the lowest colorectal screening rates (Figures 8.6.3 and 8.6.4). Unfortunately, no individual group in Oregon meets the National Colorectal Cancer Roundtable initiative's goal of "80% in every community".[67]

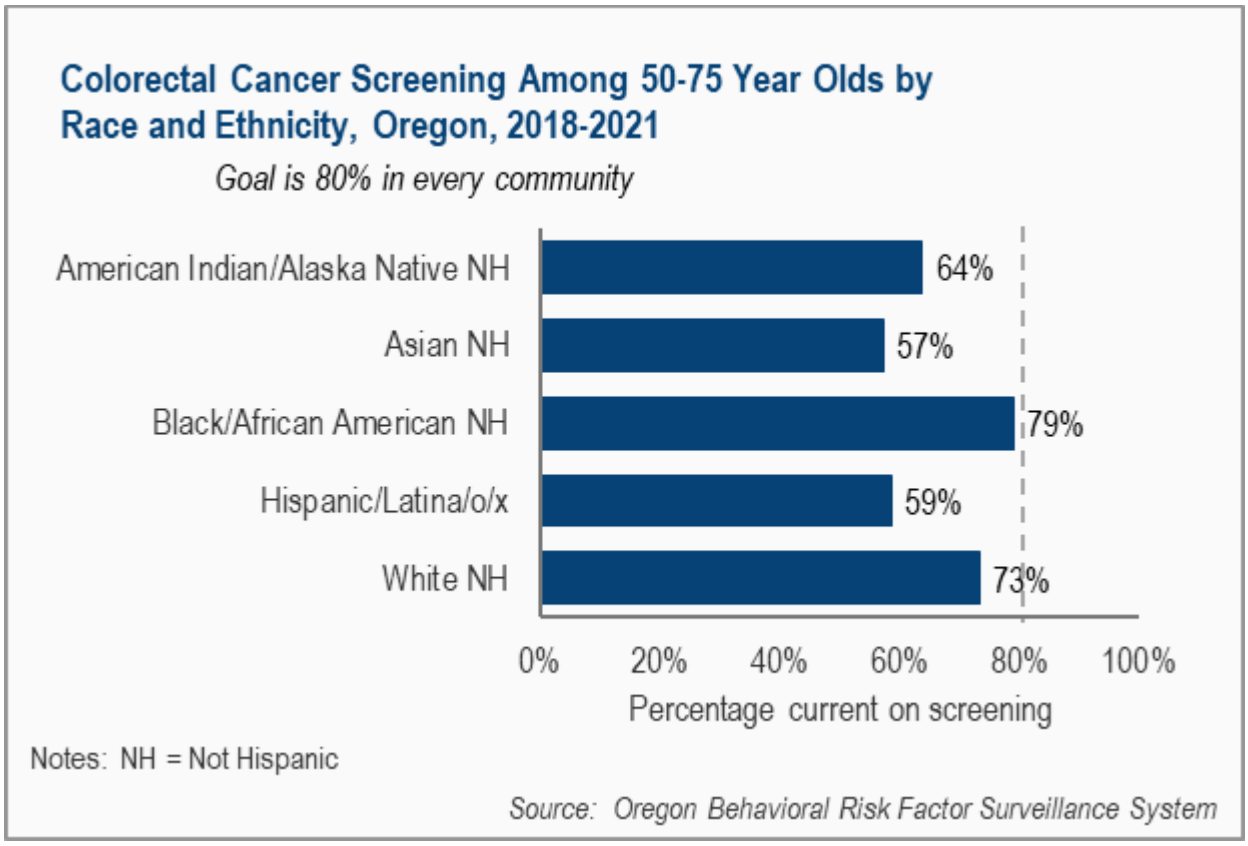

Figure 8.6.3

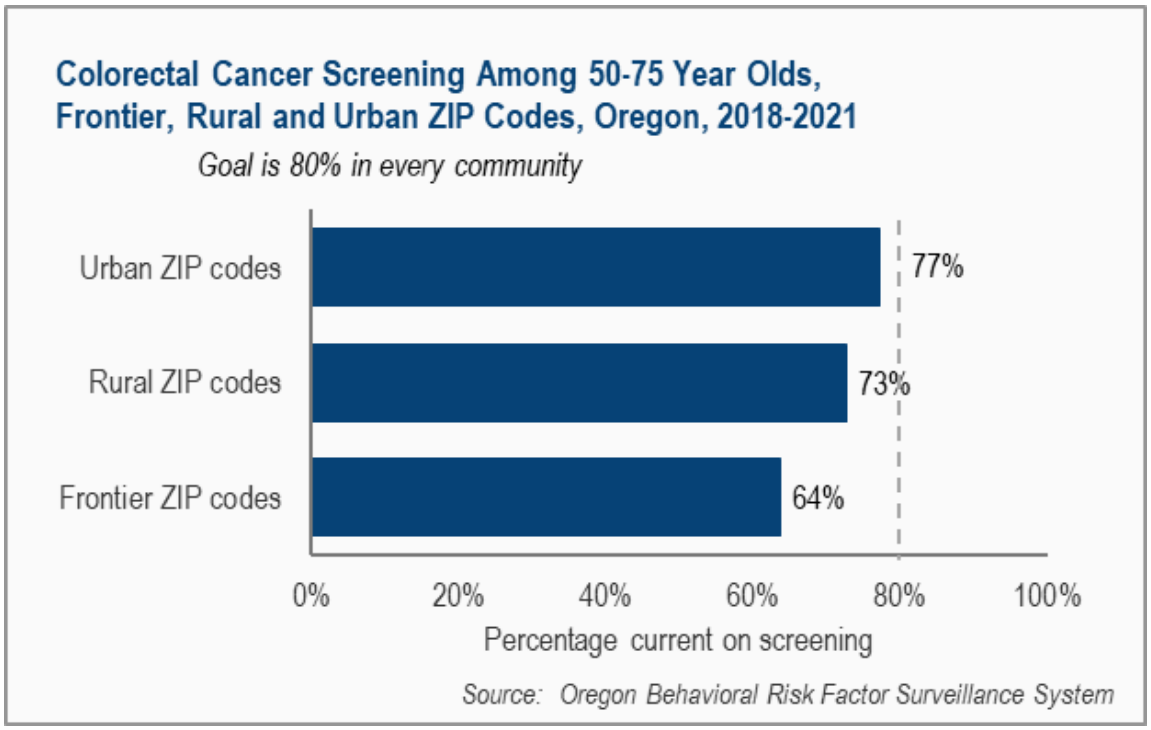

Figure 8.6.4

It is important to understand that when looking at data, race and ethnicity are not biological groupings, they are social ones. As such, there are differences between groups that reflect present-day and historic exclusions from opportunities for health.

Structural determinants of health

Communities of color, Tribal communities, those in rural communities, and males face the highest colorectal cancer burden in Oregon.

Health insurance status impacts screening rates. In 2023, people living in Oregon who did not have health insurance had a screening rate of 26.3%, those who were insured by the Oregon Health Plan (Oregon Medicaid) had a screening rate of 50%, and those who had health insurance other than the Oregon Health Plan have a screening rate of 72% (Figure 8.6.5). Insurance status often correlates to income status.

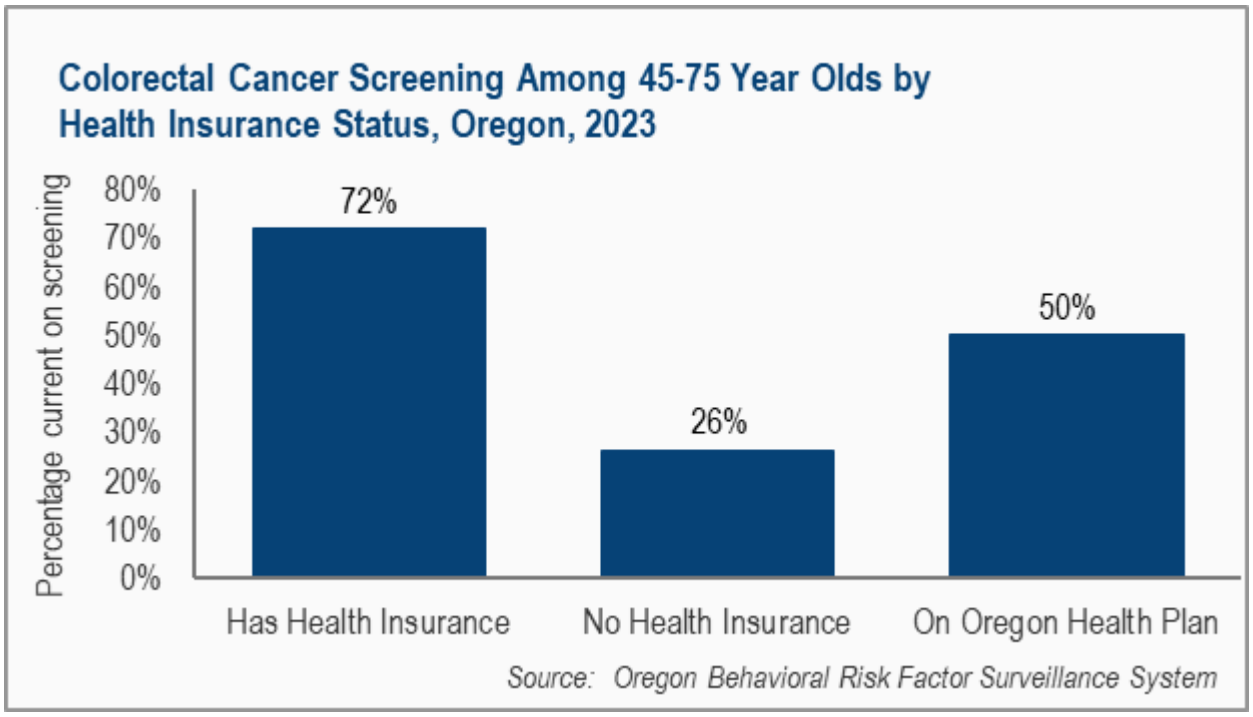

Figure 8.6.5

Institutional discrimination and racism such as historic limitations on educational equity, economic equity, concerns about cost of health care, and

access to trusted, culturally appropriate, high-quality medical care, have resulted in Oregon's communities of color and Tribal communities experiencing poorer health outcomes overall.

People living in rural and frontier areas can experience all these challenges, with the added challenges of geography and transportation. Primary care and specialty medical appointments for those living in rural or frontier areas often require hours of transportation time for each appointment and are associated with barriers such as needing childcare and lost wages.

Social determinants of health

It's important to note that there is often stigma around some body parts and functions including the colon, rectum, and issues around stool, which are felt by different cultures in different ways. This requires well-informed health education practices and materials, often specific to individual communities and demographic groups.

The gender difference between male and female colorectal cancer rates is thought to be due, in part, by gender differences in interaction with the health care system and gaps in health education.

There are several social determinants of health related to colorectal cancer. Low socioeconomic status limits access to health insurance and raises concerns about the cost of care, including lost wages due to attending appointments and the need for transportation services. In addition, access to high-quality health care, or any health care, is critical. For populations that are culturally and linguistically different from the dominant culture access to culturally appropriate health care and having access to language support while accessing health services are critical. Finally, it is important to have access to local health education supports that are accessible to diverse communities, with attention to health literacy needs.

Public health interventions

Public health can support improvements in colorectal cancer screening by advocating for policies and systems that support increased screening rates. One system that worked in the past was having colorectal cancer screening as an Oregon Health Plan Coordinated Care Organization incentive metric. Additionally, OHA Public Health Division and Oregon Health and Science University are completing a new state cancer plan, with a draft available later in 2025. This will provide information on what areas and interventions OHA will focus on.

Policies that are supportive of the Community Preventive Services Task Force (CPSTF) recommendations for multi-component interventions will increase screening for colorectal cancer. These include interventions to increase community demand: client reminders, client incentives, small media, mass media, group education, and one-on-one education; interventions to increase community access: reducing structural barriers and reducing client out-of-pocket costs; and interventions to increase provider delivery of screening services: provider assessment and feedback, provider incentives, and provider reminders.

Resources

- https://www.thecanceryoucanprevent.org/
- https://nccrt.org/
- https://www.cdc.gov/colorectal-cancer/index.html
- https://www.thecommunityguide.org/findings/cancer-screening-multicomponent-interventions-colorectal-cancer.html

7. Safe drinking water

Access to clean, safe drinking water is essential for public health. Oregon Health Authority (OHA) regulates approximately 3,300 public water systems statewide, ensuring they meet drinking water quality standards and provide safe water to Oregonians.

Oregon's larger water systems, which serve the majority of the state's population, generally meet the safe drinking water standards and compare well to public water systems nationwide. In 2023, 94% of Oregon's community water systems met the health-based standards compared to 93% national average (Figure 8.7.1).

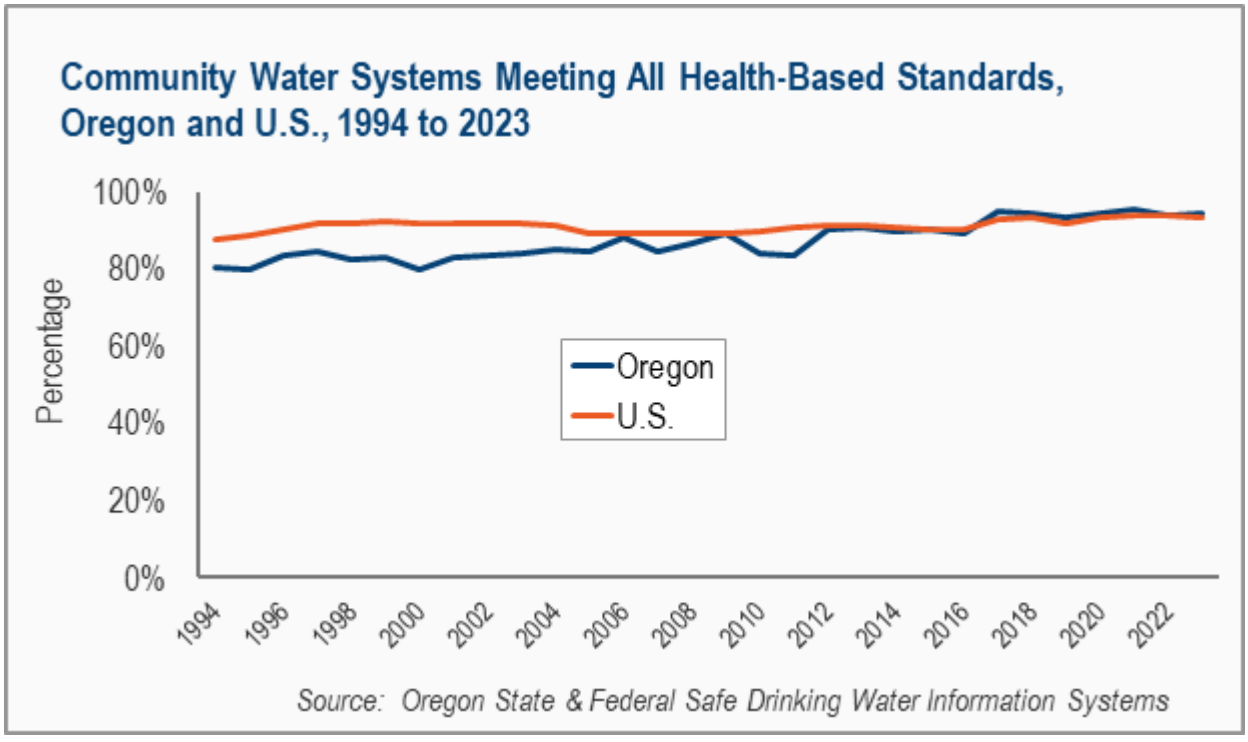

Figure 8.7.1

However, drinking water safety remains a concern across the nation due to contaminants such as lead, per- and polyfluoroalkyl substances (PFAS),

nitrates, and pathogens, as well as aging infrastructure and inequitable access. Oregon is confronted with similar challenges with prevalence of nitrates, pathogens, heavy metals, and pesticides in the state's waters, as well as aging infrastructure and impacts of climate change that threaten water quality and accessibility.

Structural determinants of health

Complex structural factors influence access to safe and reliable drinking water across the state. Economic disparities, particularly in rural and low-income communities, often result in inadequate water treatment facilities, outdated infrastructure, and a lack of qualified operational staff, which may render these systems out of compliance with increased potential exposure to contaminants.

Environmental stressors further compound these issues. Climate change-driven events like drought and wildfires increasingly threaten water quality in impacted communities. Meanwhile, federal funding for water infrastructure improvements is primarily loan-based, making it difficult for small systems with limited revenues to afford necessary upgrades. Moreover, private domestic wells not subject to the regulatory standards create additional challenges.

Social determinants of health

Social determinants further contribute to disparities. Older homes with substandard plumbing pose health risks, particularly in communities that have been economically and socially marginalized. Vulnerable populations including children, the elderly, and individuals with preexisting health conditions are particularly susceptible to waterborne illnesses and contaminants.

OHA is committed to a sustainable and equitable drinking water future for all Oregonians. This includes enforcing water quality standards, providing technical and financial assistance to public water systems, prioritizing

communities experiencing disadvantage, and assisting water systems with low-cost loans and grants to address their compliance challenges and creating resilient systems.

8. Elevated blood lead levels among children

Childhood lead poisoning, also called elevated blood lead levels, refers to a confirmed blood lead level that exceeds a state or national threshold. In Oregon, all blood lead levels are reportable, with those exceeding the threshold requiring case investigations.

Since 2012, the Centers for Disease Control and Prevention (CDC) has established a blood lead reference value (BLRV) that is based on national health and nutrition survey data. The BLRV represents the top 2.5% of children's blood lead levels. In 2021, the CDC lowered the BLRV to 3.5 ug/dL (micrograms per deciliter). In October 2023, Oregon adopted rules that revised its case definition to align with the BLRV (Oregon Administrative Rules 333-017 and 333-018).[68]

There is no identified safe level of lead exposure. According to the CDC, well-documented adverse health effects of child lead exposure include damage to the brain and nervous system; slowed growth and development; learning and behavior problems; and hearing and speech problems. These can impact a child's IQ and attention span, increase antisocial behaviors, and reduce performance in school. Exposure can also cause anemia, hypertension, and damage to kidneys and reproductive organs.

Children exposed to lead could be burdened with developmental delays, learning difficulties, and behavioral issues. Undiagnosed high blood levels could exacerbate chronic exposure to lead, resulting in increased bone storage of lead and greater harm during a person's lifetime. People with high blood lead levels who become pregnant are at greater risk of miscarriage, low birth weight, and other adverse effects on maternal health and infant outcomes. Adults with hobbies and occupations that expose them to lead

often take this home to their families, contaminating floors and surfaces with leaded dust from work clothes and shoes.[69] Adults with ongoing lead exposures are at increased risk of hypertension, fertility problems, and cancer.

Current trends show case numbers have increased to pre-pandemic levels. A large increase in cases with blood lead levels between 3.5-4.9 ug/dL beginning in 2023 reflects Oregon's lowered case definition as described above (Figure 8.8.1) (OHA, n.d.). Cases dropped as expected beginning in 2020 due to lower numbers of blood lead tests and missed pediatric appointments. This was part of a nationwide trend of declining pediatric medical services during the pandemic.[70] Decreases continued through 2022. Factors such as the end of the COVID-19 health emergency and an increase in Afghan refugees in Oregon with pre-existing lead exposures pushed case counts up in 2023.

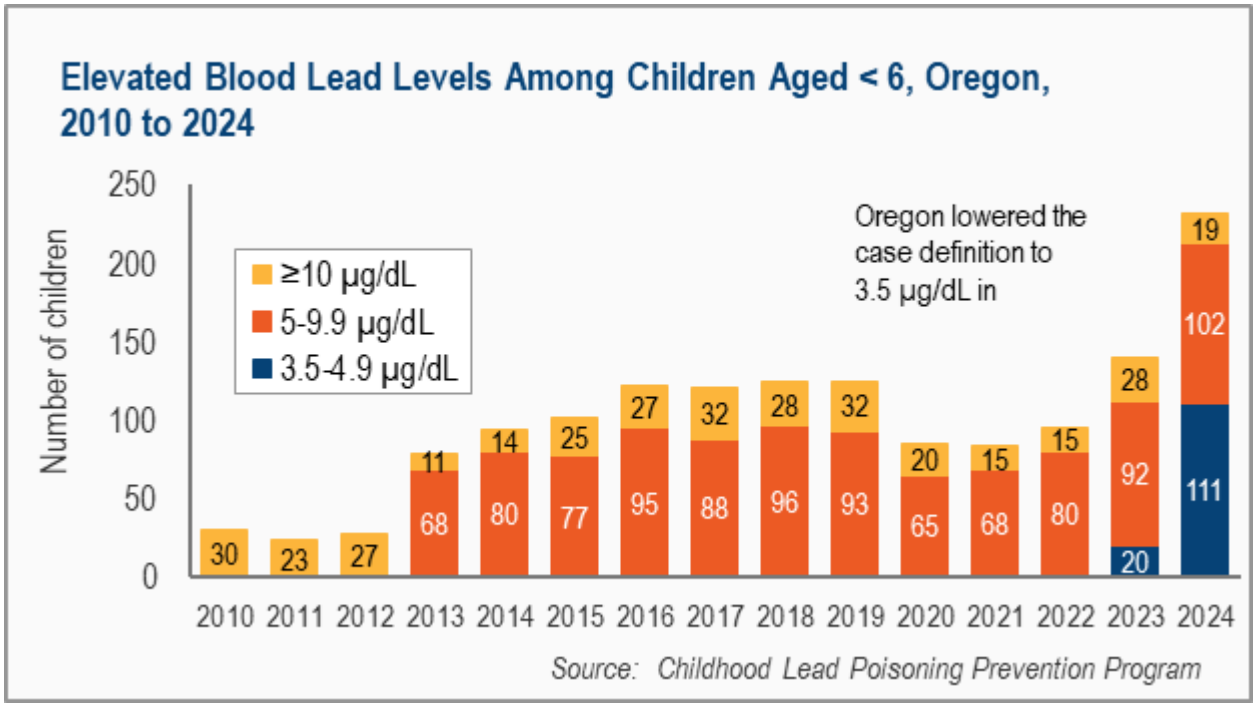

Figure 8.8.1

Children younger than 6 years are more likely to be exposed to lead from hand-to-mouth behavior, consumption of non-food items, and ingestion of lead-contaminated paint, dust or soil. According to the World Health

Organization (WHO), young children may absorb up to 4-5 times as much lead as adults.

Risk and protective factors

Factors that increase the risk for lead exposure and associated harmful effects for children include poor nutrition, low-income status or Medicaid enrollment, living in pre-1978 housing with lead-based paint, and living with adults that work in industries or have hobbies that expose them to lead. Immigrant and refugee children may also experience micronutrient deficiencies associated with malnourishment that could increase lead absorption. Immigrant and refugee children are also at greater risk due to consumption or use of products that contain lead, including imported spices, traditional cosmetics and traditional glazed clay pottery.

Structural determinants of health

Barriers to blood lead testing remain an ongoing challenge in Oregon. Limited access to health care, especially for rural and frontier families, reduces the chances of young children receiving tests at recommended ages due to other competing well-child priorities like vaccinations and developmental screenings. Working families with limited time or transportation may find it difficult to follow through with venipuncture orders at hospitals or offsite labs. Additionally, provider awareness, low reimbursement rates and technical challenges reduce the likelihood of additional children from receiving tests.

Social determinants of health

About half of all homes in Oregon were built before 1978. These homes could contain lead-based paint that is an exposure risk for children and adults. Families with low income have limited access to programs and resources to help to mitigate these risks, while families who rent have very few statutory protections from lead-based paint hazards. Laws and regulations are in place that require notification to home buyers and renters

about the possible presence of lead-based paint in pre-1978 homes, and the use of trained and licensed lead-safe contractors that renovate these homes. However, these laws are not always followed, putting families at risk for exposure to lead-based paint in their homes. Immigrant and refugee communities may arrive to the US with elevated blood lead levels due to few or no restrictions on use of lead in their home countries, lack of awareness about sources and risks of lead exposure, and limited access to health care before and after arriving to the US.

Data opportunities

Lead testing rates in Oregon have historically been low compared to other states. While children enrolled in Medicaid are required to receive blood lead tests at 12 and 24 months,[71] some Oregon counties have testing rates less than 10%. Overall, approximately 1/3 of children in families with low income are tested at least once for lead. Increased testing rates for all children at risk for lead exposure are needed to understand the true impact of this condition for children in Oregon.

Public health interventions

Promoting health care provider awareness about the importance of lead testing and screening for risks remains an ongoing public health effort. Partnerships at the state and local public health level are critical for case investigations to identify and reduce ongoing lead exposures and referrals for children and families to programs and services to reduce the negative health outcomes associated with lead exposures. Public education campaigns, such as soilSHOP events that screen soil and consumer products for lead contamination, can connect public health experts with local communities to increase awareness and access to services that can prevent exposures to lead.

Resources

The American College of Obstetricians and Gynecologists. Lead Screening During Pregnancy and Lactation. 2012 Aug/Reaffirmed 2023 [cited 2025 Feb 25]. Available from: https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2012/08/lead-screening-during-pregnancy-and-lactation

Centers for Disease Control and Prevention. Lead Exposure Symptoms and Complications. 2024 April 10 [cited 2025 Feb 24]. Available from: https://www.cdc.gov/lead-prevention/symptoms-complications/index.html

Centers for Disease Control and Prevention. Lead: Refugee Health Domestic Guidance. 2024 May 15 [cited 2025 Feb 25]. Available from: https://www.cdc.gov/immigrant-refugee-health/hcp/domestic-guidance/lead.html

Oregon Health Authority. Lead poisoning in Oregon. [Internet]. N.d. [cited 2025 March 26]. Available from https://www.oregon.gov/oha/ph/healthyenvironments/healthyneighborhoods/leadpoisoning/pages/index.aspx

World Health Organization. Lead poisoning [Internet]. 2024 Sept 27 [cited 2025 Feb 24]. Available from: https://www.who.int/news-room/fact-sheets/detail/lead-poisoning-and-health

9. Effective contraceptive use among 11th-grade youth

Access to reproductive health care, including contraception, is critical in equitably reducing unintended youth pregnancies. While historical approaches to teen pregnancy prevention viewed pregnant teens as a problem to solve, a modern, reproductive justice approach identifies the effect of geographic, regional, and cultural factors beyond individual behaviors, and includes youth themselves as valued partners in reducing unplanned pregnancies.

Youth must have medically accurate information about all types of birth control to make informed choices about their own lives and health. From 2015 to 2022, the proportion of sexually active 11th graders in Oregon who use long-acting reversible contraceptives (LARCs), such as IUDs or implants, increased from 8 percent to 14 percent. Use of other methods—such as birth control injections, pills, patches, and rings—decreased (Figure 8.9.1).

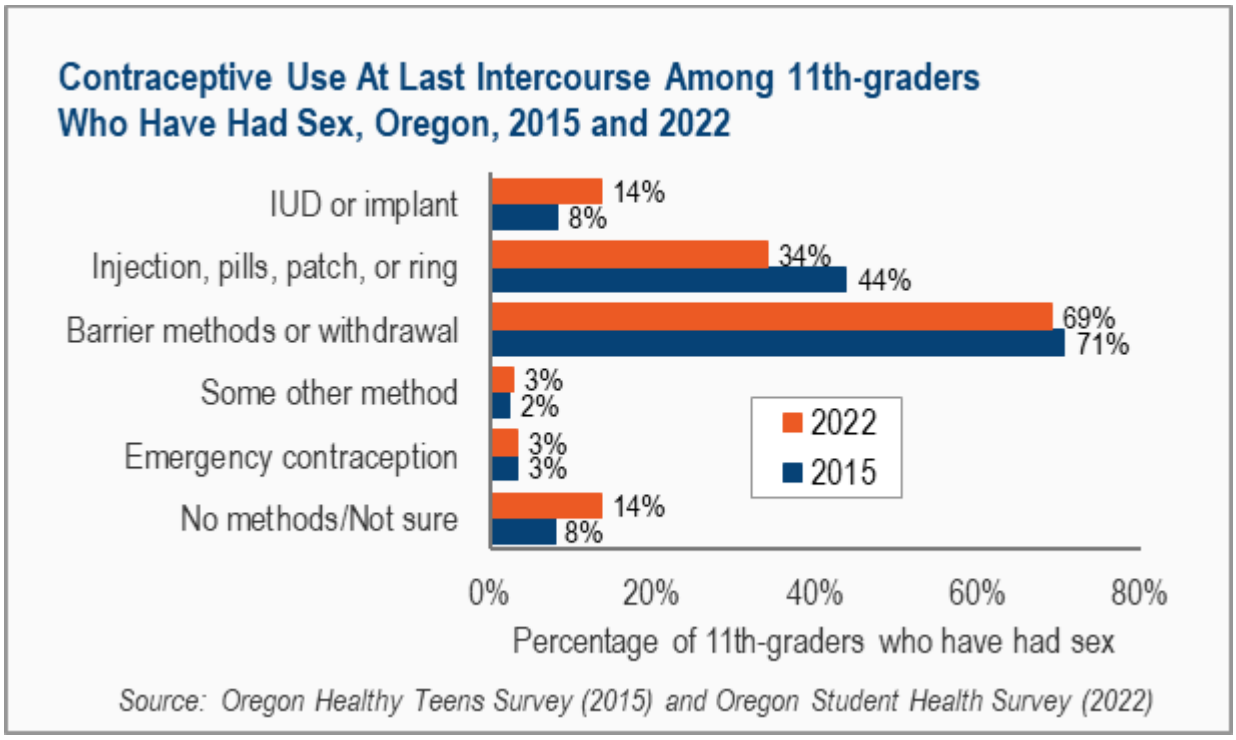

Figure 8.9.1

Thirty-three percent of sexually active 11th-grade youth used more than one contraceptive method the last time they had sex. It is essential for young people's reproductive health to ensure they have access to all contraceptive methods and receive health care in a stigma-free environment.

Across Oregon, many statewide partners, organizations, individuals, and youth themselves have contributed to a supportive environment that reduced unintended pregnancies. Pregnancies in Oregon among young people ages 15-19 decreased 69 percent from 2008 to 2021 (Figure 8.9.2).

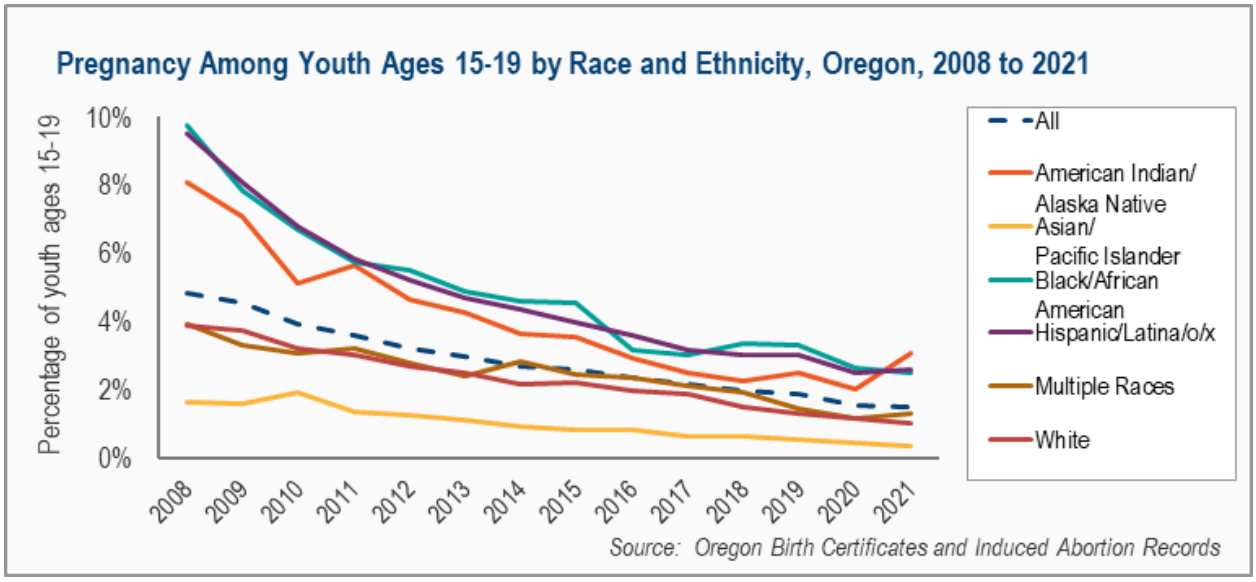

Figure 8.9.2

Comprehensive sex education, accessible and stigma-free reproductive health care, and increased youth voice in public policy are all evidence-based approaches to reducing unintended pregnancies that Oregon has and continues to prioritize.

Structural determinants of health

In 2022, about half of 11th-grade youth and less than one-third of eighth-grade youth report being taught in school about birth control and where to find it. There are also notable differences based on geographic area: Rural and frontier youth were less likely than their urban peers to report being taught in school about birth control (Figure 8.9.3). To address inequities in youth sexual health, including effective contraceptive use, comprehensive sex education must be taught equitably across the state.

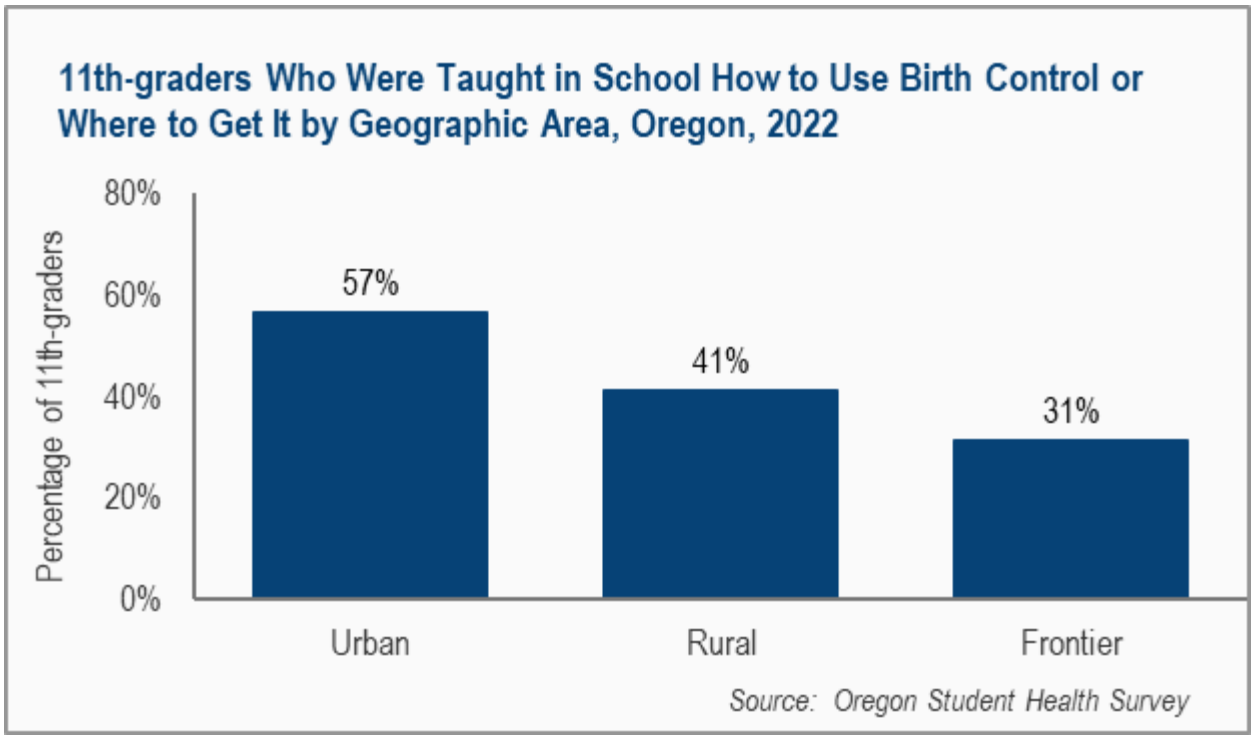

Figure 8.9.3

Social determinants of health

Despite the continuing decline in teen pregnancy rates, notable differences between racial and ethnic categories continue to exist. These inequities are linked to socioeconomic and environmental disadvantages. Racism contributes to health inequities through multiple avenues, including reproductive autonomy, access to quality health care without discrimination or stigma, access to quality education, employment opportunities, and pathways to socioeconomic mobility. Socioeconomic disadvantages such as lower income, less education, and less employment opportunity are all linked to higher teen birth rates.[72]

Public health interventions

School-based health centers (SBHCs) are one place young people can access care. Over the past 10 years, Oregon's certified SBHCs have substantially expanded access to birth control. Sixty-five percent of SBHCs offered LARCs on site in 2022, compared to only 38 percent in 2015.

As of 2022, 20 percent of SBHCs offer onsite access to a full range of contraceptive methods. Students who attended schools with SBHCs that dispensed a full range of contraceptive methods onsite were 40 percent more likely to use a highly or moderately effective contraceptive device during their last sexual contact, compared to students who attended a school without an SBHC or with SBHCs that did not dispense a full range of contraceptive devices.[73] Since highly and moderately effective contraceptive devices (IUDs, implants, injections, pills, patches, and rings) require access to health care providers and clinics, these results highlight the importance of youth access to both contraception *and* reproductive health care.

Skills-based comprehensive sex education gives young people the tools to make informed decisions about their life and health, including effective contraceptive use. Oregon's K–12 health standards were updated in 2024 and are among the most comprehensive in the United States, requiring medically accurate and age-appropriate instruction on contraception, abstinence, consent, healthy relationships, and sexual orientation/gender identity for all students.

In 2021, the Oregon Health Authority launched ONE at Home, a mail order condom delivery program. Oregon residents can receive an envelope of 20 free condoms delivered discreetly to their door up to twice per month. As of June 2025, over 32,000 condom orders have been filled, with 18 percent of them going to teens. Oregon youth consistently report rates of condom use comparable to nationwide rates.[74]

10. Physical inactivity outside of work among adults

Physical activity is defined as any activity that uses body movements and energy from the food that we eat. During physical activity, the lungs and heart work harder and faster to bring oxygen and nutrients from blood to bones and muscles, strengthening the body.

Physical activity includes exercises like aerobic exercise (cardio), muscle strengthening, flexibility, and balance. It also includes any type of movement that can be performed throughout the day, like yardwork and cleaning the house. This indicator focuses on physical inactivity, which is little to no movement. With physical inactivity, a person's body is not using more energy, blood and oxygen are not moving enough, and muscles and bones become weaker. As of 2023, almost 1 in 5 Oregon adults do not exercise outside of their work. This measure does not include those people who get physical activity through their work.

Over time, being physically inactive can be harmful to health, making it harder to manage blood pressure and cholesterol levels, as well as stress and anxiety. With physical inactivity, people may be more prone to disease, disability, injury, and overall lower quality and length of life. Engaging in enough physical activity is important for reducing the risk of these health complications. In 2023, 18.9% of Oregon adults reported not exercising outside of work.[75] Rates of physical inactivity have held steady over the past decade, with rates relatively unchanged between 2015 and 2023 (Figure 8.10.1).

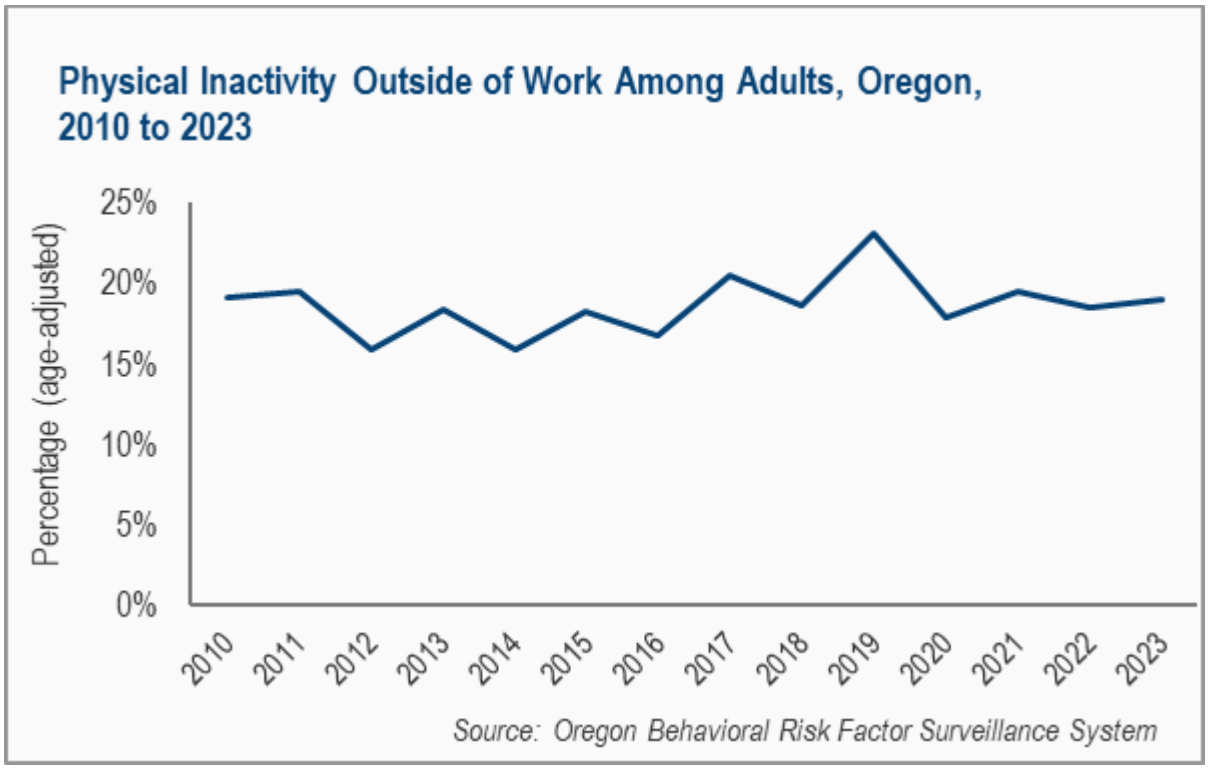

Figure 8.10.1

Physical activity differs by age, with older adults – age 65 and older – reporting higher rates of no activity outside of work than younger adults (Figure 8.10.2), which can put them at higher risk for falls.

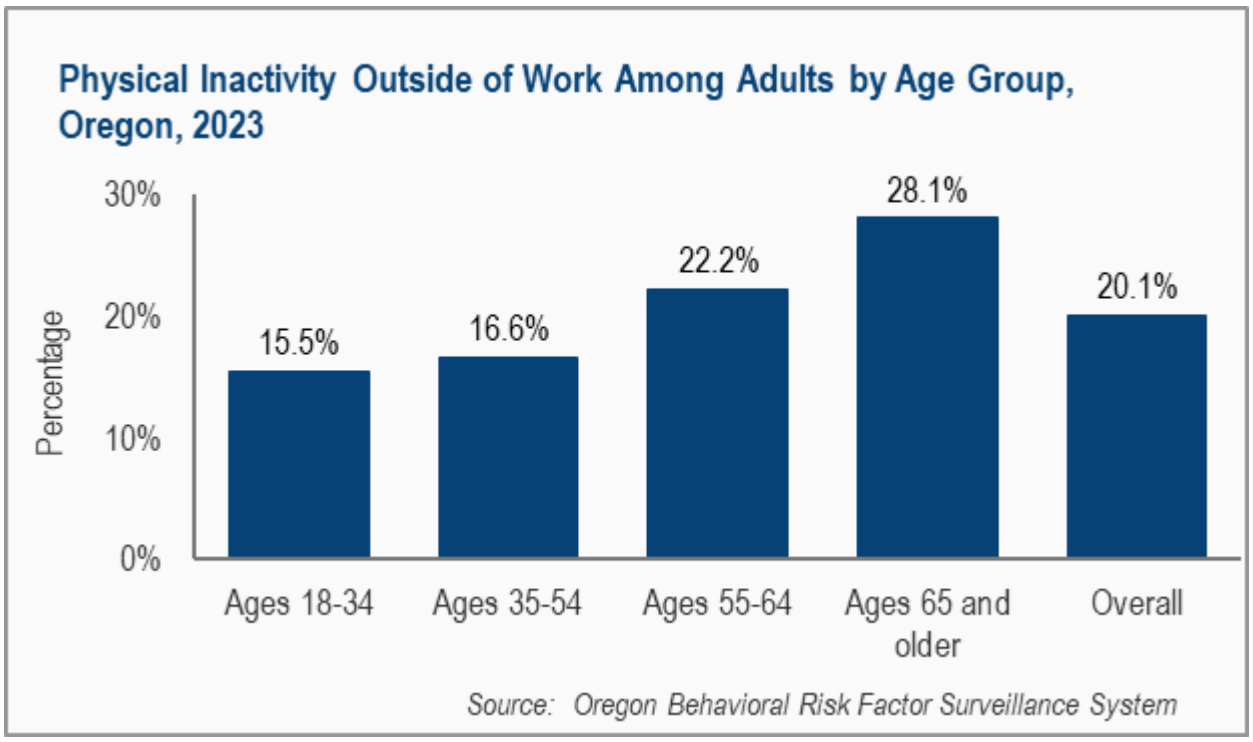

Figure 8.10.2

Rates of physical activity vary by demographic characteristics. Income is a significant factor: while 6.3% of adults with incomes of $150,000 or more report physical inactivity, this rate is nearly 34% among adults with incomes of less than $25,000 (Figure 8.10.3).

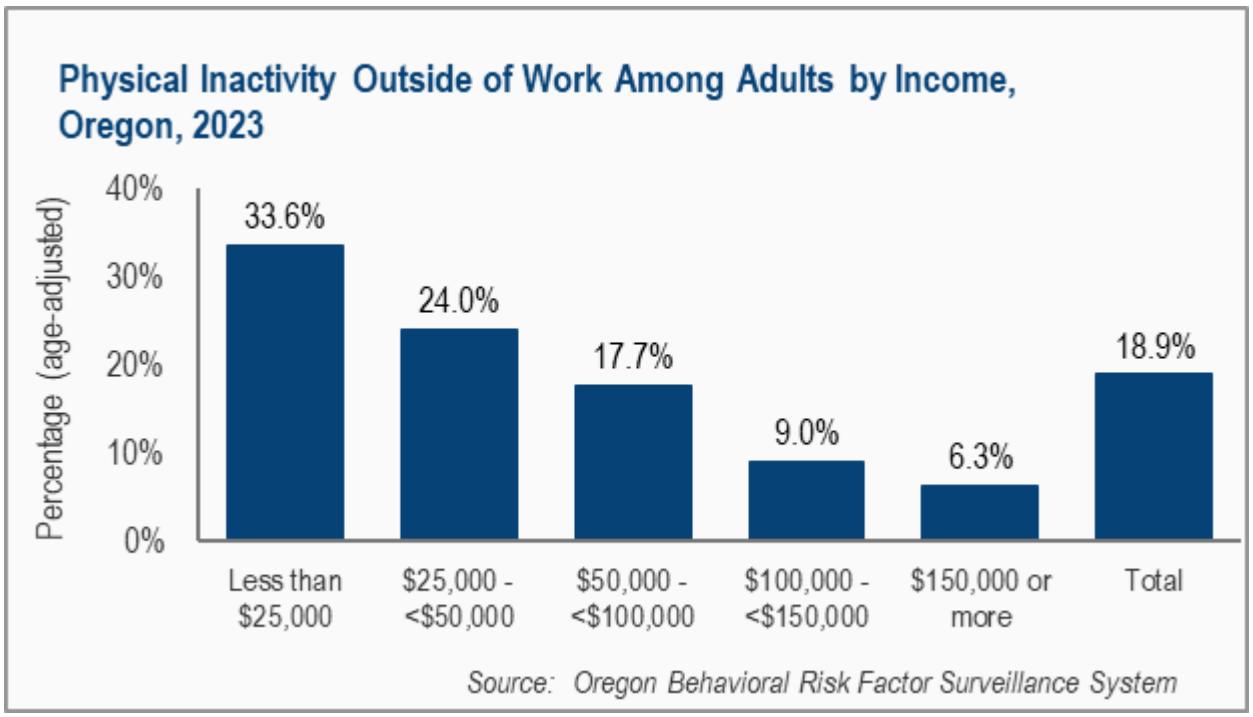

Figure 8.10.3

Women tend to report higher levels of physical inactivity as compared to men (20.8% vs. 17.0%). In addition, rates of no exercise outside of work are higher for certain racial/ethnic groups. While about 17% for white and Asian Oregonians reported no physical activity outside of work, this rate was 30.5% among Hispanic and Latina/o/x adults. American Indian/Alaska Native, Black and African American, and Native Hawaiian and Pacific Islander adults also reported high rates of inactivity (Figure 8.10.4).

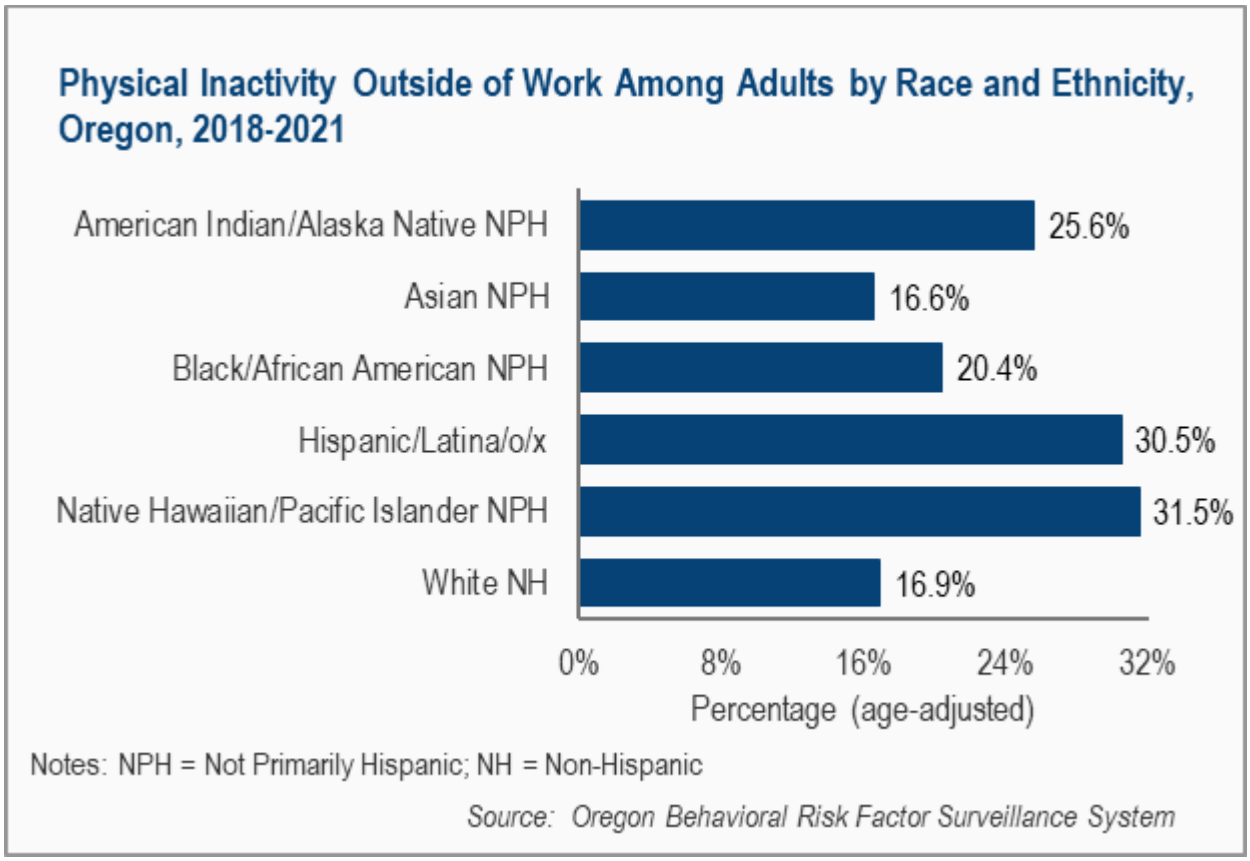

Figure 8.10.4

Structural determinants of health

Physical inactivity is largely caused by social, environmental and system-wide factors that individuals can't control. Low-income neighborhoods and communities of color face particular challenges because of limited investment in their health resources. Physical, human-made features of the surroundings where people live, work, and play are known as the built environment. The built environment includes things such as buildings, parks, and transportation systems. Historical practices like redlining still affect the places where people of color live, work, and play. These areas may have unsafe or poor-quality places for exercise due to crime, lack of sidewalks and lighting, and underdeveloped parks. In historically redlined or low-income neighborhoods public transportation may be less available or affordable, making it harder for people to reach places to be active. As a

result, people in these communities are more likely to have lower physical activity levels and a higher risk of chronic diseases.

Social determinants of health

Social determinants are individual factors that can change from person to person, depending on where they live, work, and play. Income is an important factor because it affects whether someone can afford to go to recreation areas, buy exercise equipment, clothing, gym memberships, or other things needed for exercise. Age is another factor, during some periods of life, people may have responsibilities like work and family that leave them with little time or energy for physical activity.

Cultural factors may also make it harder for some people to get enough physical activity. Some cultures may have needs for more privacy in changing rooms or more tailored gym facilities. Family responsibilities, like taking care of children, may also be prioritized over exercise. Other barriers to exercise may be language barriers and familiarity with available exercise equipment.

Data opportunities

Consistent measurement of physical activity would help Oregon Health Authority (OHA) track changes over time and provide more reliable information about exercise habits. Furthermore, better data on the built environment would help OHA assess access to safe, free spaces for physical activity throughout the state.

Public health interventions

Public health can adopt strategies to increase physical activity by supporting policies that improve the built environment. This can include supporting pedestrian and bike infrastructure to make walking and biking safer, and includes promoting community designs that include everyday destinations, such as grocery stores, restaurants, schools, pharmacies and other shops,

in walking or biking distance. Public health can also support access to places to be physically active, such as parks and recreation centers.

11. Binge drinking among adults

Binge drinking occurs when a woman has four or more drinks on a single occasion or when a man has five or more drinks on a single occasion in the past month.[76] Binge drinking is the most common form of excessive drinking, which also includes heavy drinking, any alcohol use by people under the age of 21 or drinking during pregnancy.[76]

Excessive alcohol use is the third leading cause of preventable death in the state and is responsible for over 3,000 deaths a year.[77] Binge drinking is a common behavior, with nearly one in six Oregon adults (16.3%) reporting binge drinking in the past month (Figure 8.11.1). Excessive drinking increases the risk of several long-term health issues, such as cancer, heart disease, diabetes, depression, liver disease and alcohol use disorder.[78] Because binge drinking impairs judgement, it increases the risk of injury, violence, suicide, motor vehicle crashes, and sexually transmitted infections.[78]

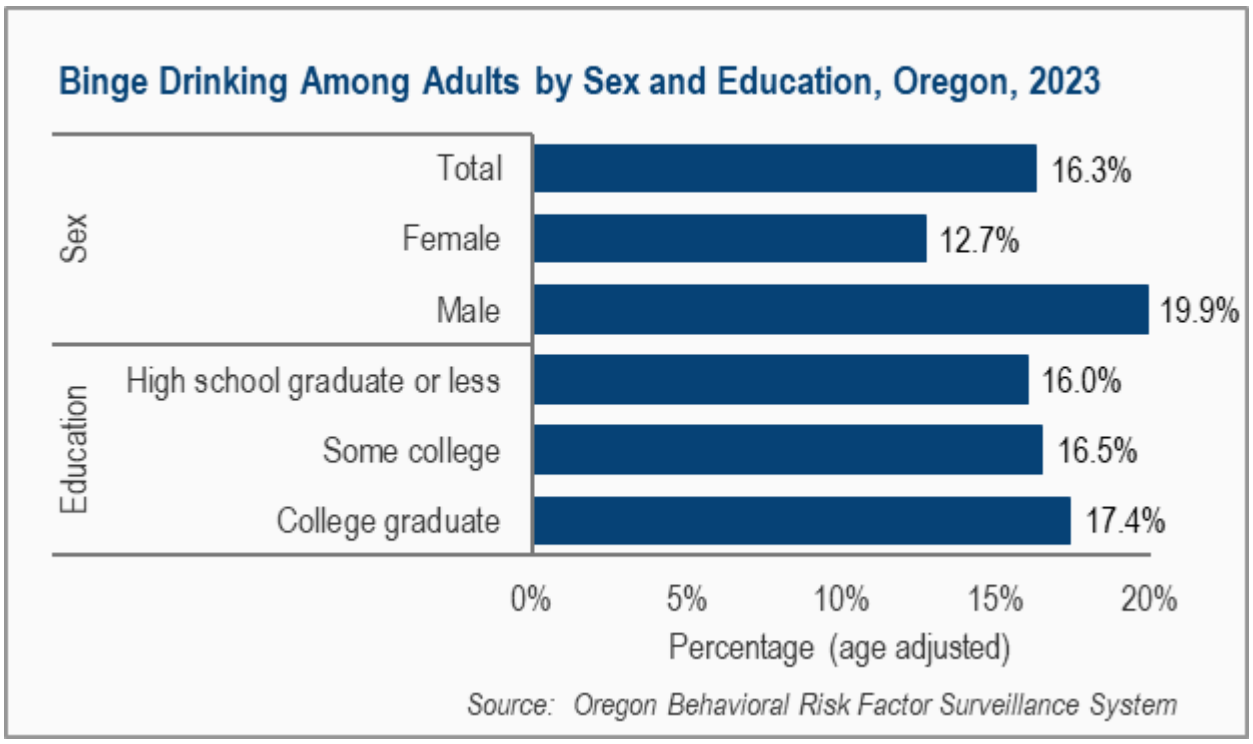

Figure 8.11.1

About one in six Oregon adults reported binge drinking in the past month. Men, younger age groups, and those with higher education have higher rates of binge drinking compared to women, older age groups and those with lower education (Figures 8.11.1 and 8.11.2). While most recent data show a promising downward trend (Figure 8.11.3), excessive alcohol use continues to drive many of Oregon's most pressing health and social challenges including cancer, liver disease, diabetes, and alcohol dependence.

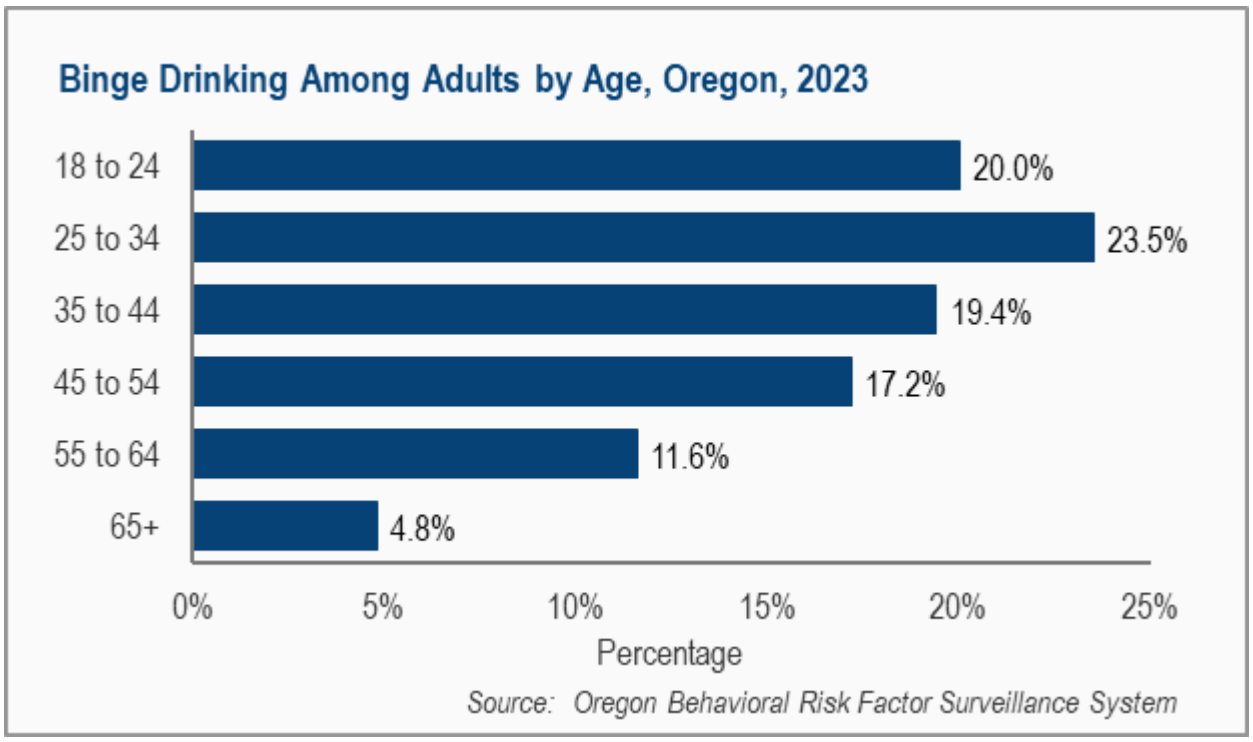

Figure 8.11.2

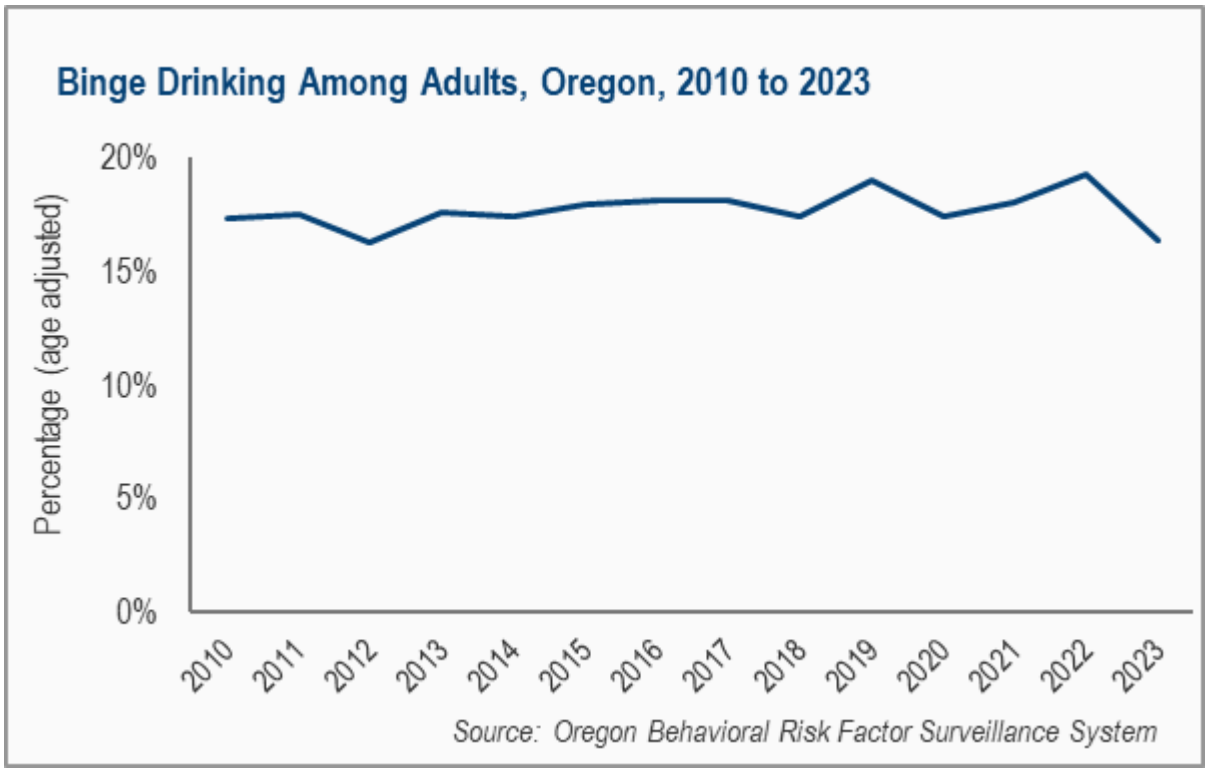

Figure 8.11.3

Structural determinants of health

People in Oregon of all racial and ethnic backgrounds, all sexualities, all gender identities, and all income levels drink excessively. However, some communities experience more harms than others due to systemic racism, discrimination, and unjust lack of resources. The result is that Oregon's communities of color and Tribal communities experience poorer alcohol-related health and legal outcomes, despite these groups having lower rates of binge and excessive drinking. This phenomenon resulting in lower burdens on white communities despite their higher rates of binge and excessive drinking is known as the *Alcohol Harm Paradox.*[79,80]

Social determinants of health

The harms of binge drinking and excessive alcohol use fall disproportionately on Oregon's communities of color, Tribal communities and people with lower incomes and less education. Rural and frontier counties also experience higher rates of alcohol related deaths than urban areas[77] (Figure 8.11.4). Having fewer economic and health care resources makes it harder to mitigate alcohol-related harms.

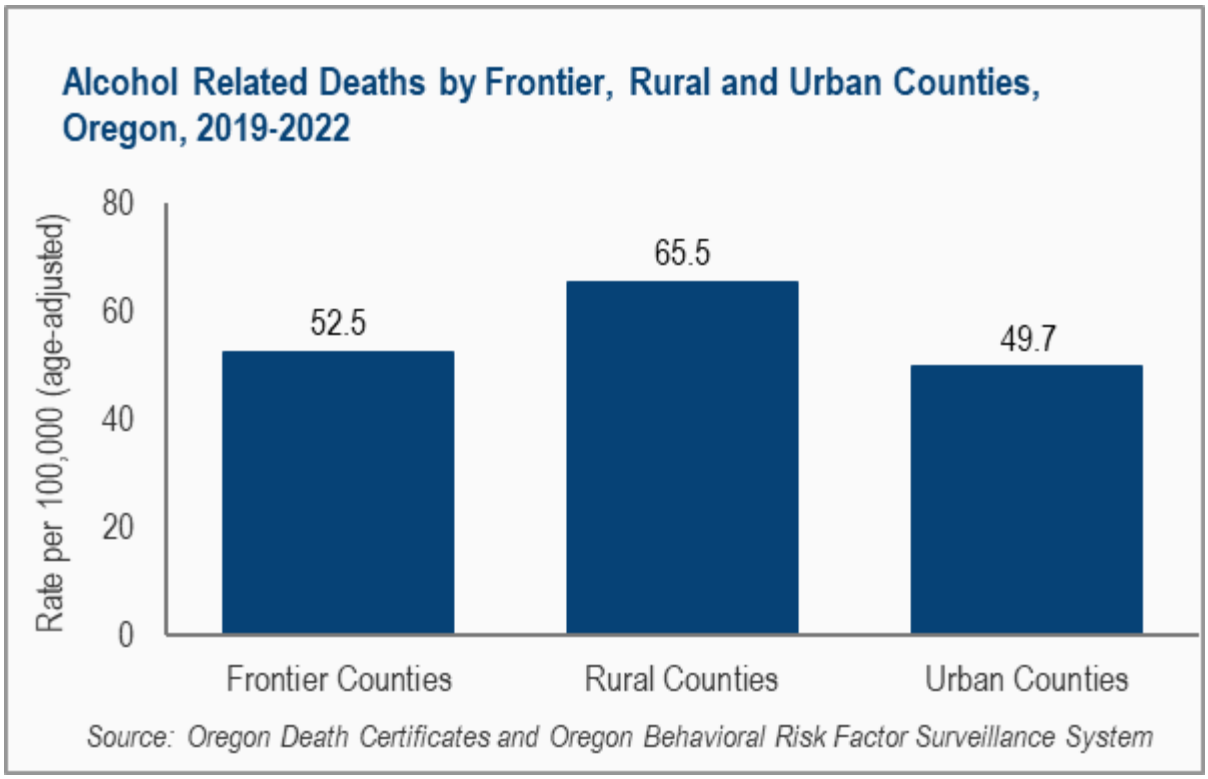

Figure 8.11.4

It is important to note that much of the research that informed the Centers for Disease Control and Prevention (CDC) drinking guidelines are based on cisgender male and female categories. More research is needed to assess the health impacts of excessive drinking for gender-diverse individuals.

Public health interventions

Oregon directly controls the sales of alcoholic beverages rather than private businesses. The Oregon Liquor & Cannabis Commission (OLCC) is the governing body responsible for regulating the sale and service of alcohol beverages throughout the state. The Oregon Health Authority can promote reducing excessive alcohol use by partnering with OLCC in their safety efforts.

Addressing excessive alcohol use at the population level can be done through evidence-based policy solutions. States and local governments can utilize proven strategies to prevent excessive alcohol use and lower alcohol-

related harms by regulating alcohol outlet density, such as only allowing a certain number of stores in an areas; increasing alcohol taxes at the federal, state, or local levels; implementing dram shop liability laws that hold retailers responsible for injuries or harms caused by serving certain customers illegally; limiting the hours and days that alcohol can be sold; screening for excessive alcohol use; enhancing enforcement of laws that prohibit sales to minors; and avoiding privatization of alcohol retail sales.[81]

12. Commercial tobacco use

Adults and youth currently use commercial tobacco at alarming rates. All commercial tobacco use is harmful, whether in a cigarette, pouch, or vape product. Tobacco use has been linked to chronic diseases, such as cancer, heart disease, and lung disease, which contributes to early death. Nicotine is highly addictive, making it very difficult to quit. Exposure to smoke and vapor in the air is harmful and continued exposure can lead to death.

Tobacco is the number one preventable cause of death and disability in Oregon and is responsible for more than 8,000 deaths annually. Tobacco-related diseases include asthma, arthritis, cancer, diabetes, heart disease and stroke. Tobacco also costs the state approximately $5.7 billion annually in health care costs, lost productivity, and premature death.[82] Although cigarette smoking rates for adults have been steadily declining and are now at 11%, e-cigarette use for adults has been steadily increasing and is currently 9.4% (Figure 8.12.1).

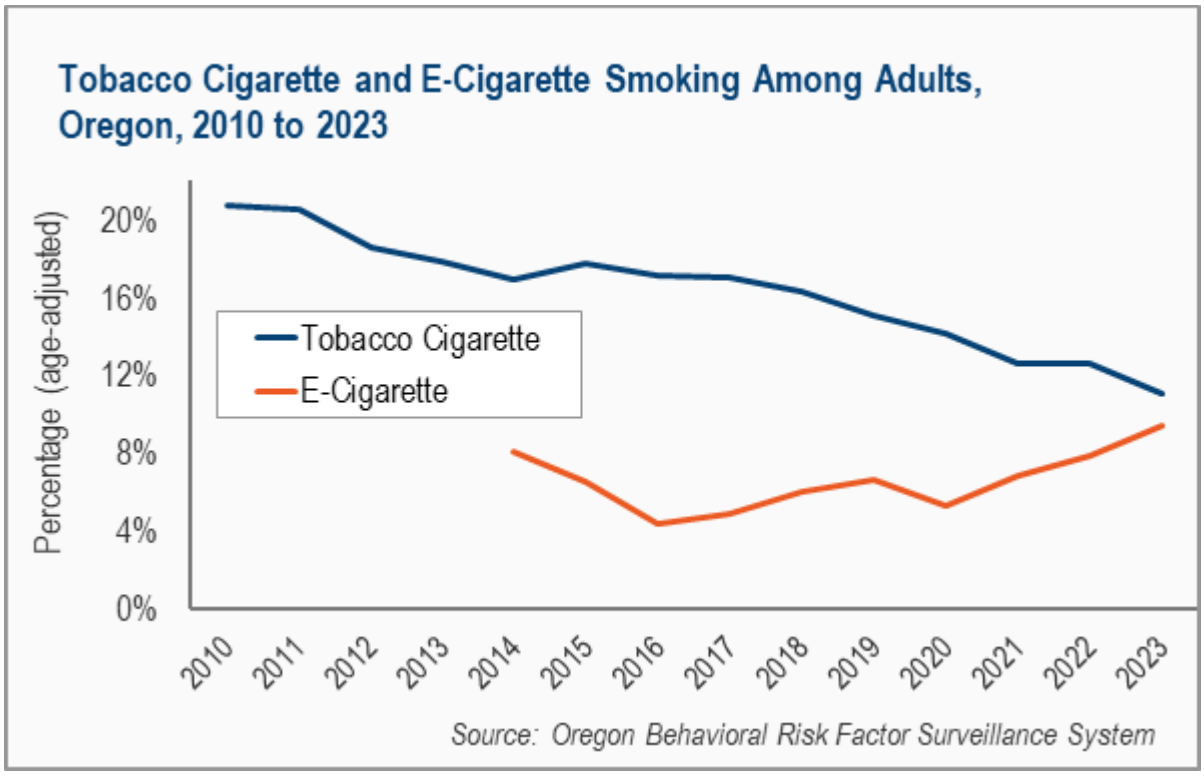

Figure 8.12.1

With nine out of ten adults who smoke reporting that they started smoking before turning 18, the tobacco industry actively targets youth with e-cigarettes that have candy-like packaging and sweet flavors. In Oregon between 2013 and 2019, e-cigarette use among 8th graders increased from 1.8% to 11.8%, Since 2020, e-cigarette use reported by 8th graders has been declining, and in 2022 was at 4.7% (Figure 8.12.2).

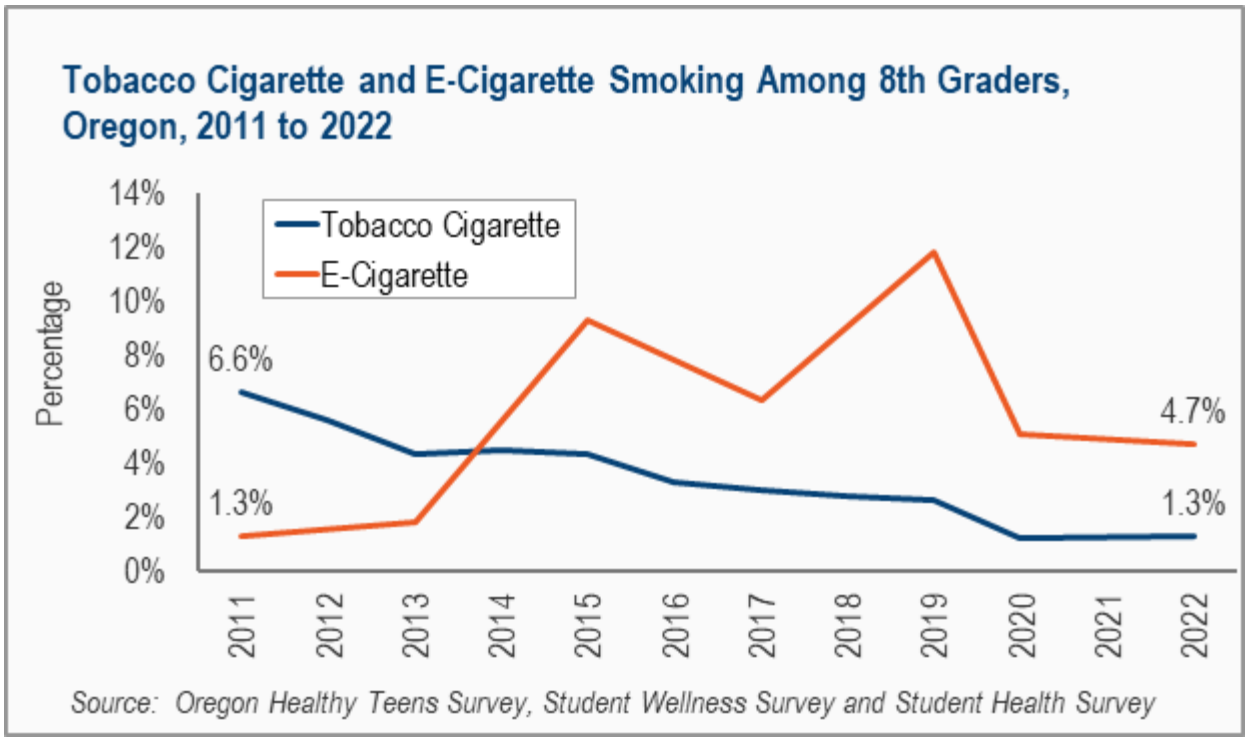

Figure 8.12.2

Evidence-based strategies that reduce or prevent tobacco use include comprehensive smoke-free policies, increasing the price of tobacco products, and making resources to quit tobacco use easily accessible.[83]

Structural determinants of health

For decades, the tobacco industry has targeted specific communities. According to the 2024 Eliminating Tobacco-Related Disease and Death: Addressing Disparities—A Report of the Surgeon General, "Intentionally designed and flavored tobacco products that deliver multisensory experiences, combined with decades of targeted marketing to certain minoritized racial and ethnic groups, sexual orientation and gender identity groups, age groups, and lower socioeconomic status (SES) groups, contribute to disparities across the tobacco use continuum".[84] For example, the tobacco industry has been targeting African Americans since the 1970s with messages that link menthol cigarettes to themes of Black empowerment and identity, in stores, neighborhoods and magazines.[85] Due in part to these targeted industry efforts, African Americans in Oregon bear a larger burden

of tobacco-related chronic disease. Sixty-one percent (61%) of African American adults in Oregon who smoke cigarettes use menthol cigarettes, a much higher rate compared to 17% of white residents.

Due to many reasons, including industry marketing, industry co-opting of traditional and medicinal uses of tobacco, and access to fewer financial resources, American Indian/Alaska Native populations have the highest rate of smoking when looking at populations by race/ethnicity in Oregon (Figure 8.12.3).

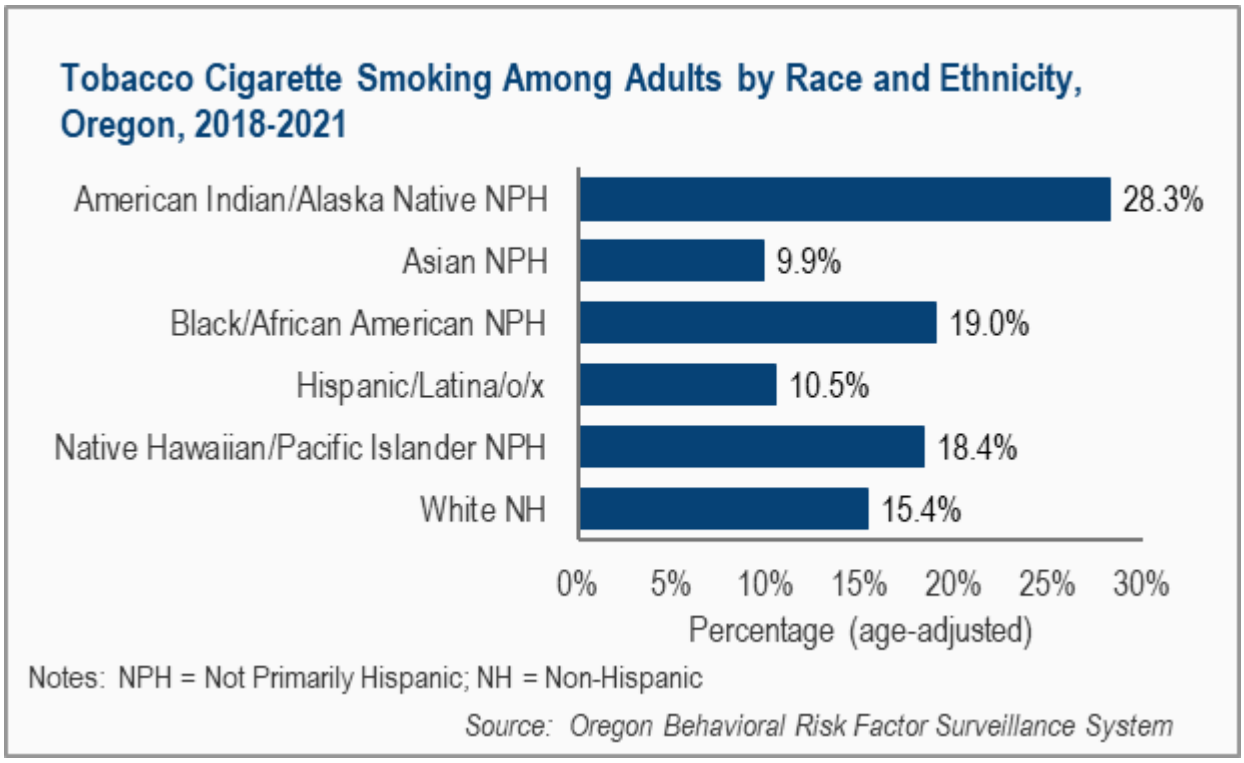

Figure 8.12.3

Tobacco companies sell their products in more stores, at deeper discounts, and place more ads in communities of color and lower-income neighborhoods, compared to wealthier, predominantly white neighborhoods.[84] Studies have shown that in-store tobacco marketing is more heavily concentrated in neighborhoods with higher racial diversity and lower income and education levels, contributing to ongoing health disparities.[84] As the 2024 Eliminating Tobacco-Related Disease and Death: Addressing Disparities—A Report of the Surgeon General also notes,

“Tobacco companies employ multiple tactics to undermine tobacco prevention and control efforts and enhance their corporate image”.[84] As a result, youth and adults in these communities who are trying to quit tobacco are more exposed to tobacco marketing, and nicotine products are more available.

Social determinants of health

While cigarette use in Oregon continues to decline overall, groups that historically have been targeted by the tobacco industry continue to use it at higher rates, including people with lower incomes, certain racial and ethnic groups, and members of the LGBTQIA2S+ community. Also, people living with mental illness and addiction to other drugs and alcohol use tobacco at higher rates than the general population. Because these communities use tobacco at higher rates, they experience the harshest health consequences, including higher rates of heart disease and other tobacco-related health problems.

Increased stress from experiences of poverty or discrimination, combined with higher numbers of tobacco retailers and targeted tobacco industry marketing, leads to increased exposure and tobacco use.[85] Lack of economic resources, lack of health insurance or limited health insurance leads to decreased access to cessation resources, making it harder to quit. Additionally, studies have shown that members of some racial or ethnic communities receive less counseling from their health care providers than white people.[86]

Tobacco use patterns, including type of products and use, vary widely among these different communities. Having more detailed data would help elevate these differences to better support tailored public health interventions to reduce tobacco use.

13. Marijuana use

Marijuana use is defined as any use of marijuana or cannabis in the past month. It includes use in several different ways, including smoking, vaping, dabbing or eating. It does not include the use of non-psychoactive cannabis products that only contain CBD (cannabidiol).

Marijuana use may have a wide range of health effects on the body and brain. Marijuana smoke, both firsthand and secondhand, contains many of the same cancer-causing chemicals as tobacco smoke and there is no safe exposure to any type of secondhand smoke.

The Oregon Health Authority has a role in protecting youth and other populations placed at higher risk from marijuana exposure and preventing youth from starting to use marijuana. Given its legal status in Oregon and in an increasing number of states, it is necessary to monitor marijuana use among Oregon youth and adults, including populations that may be disproportionately affected by marijuana use and its effects.

More than 1 in 5 (22%) Oregon adults report marijuana use in the past month. Among adults, marijuana use is higher among men, younger age groups, and those with lower education. Adult marijuana used increased in Oregon after retail legalization in 2015 through 2021 and has declined in more recent years (Figure 8.13.1).

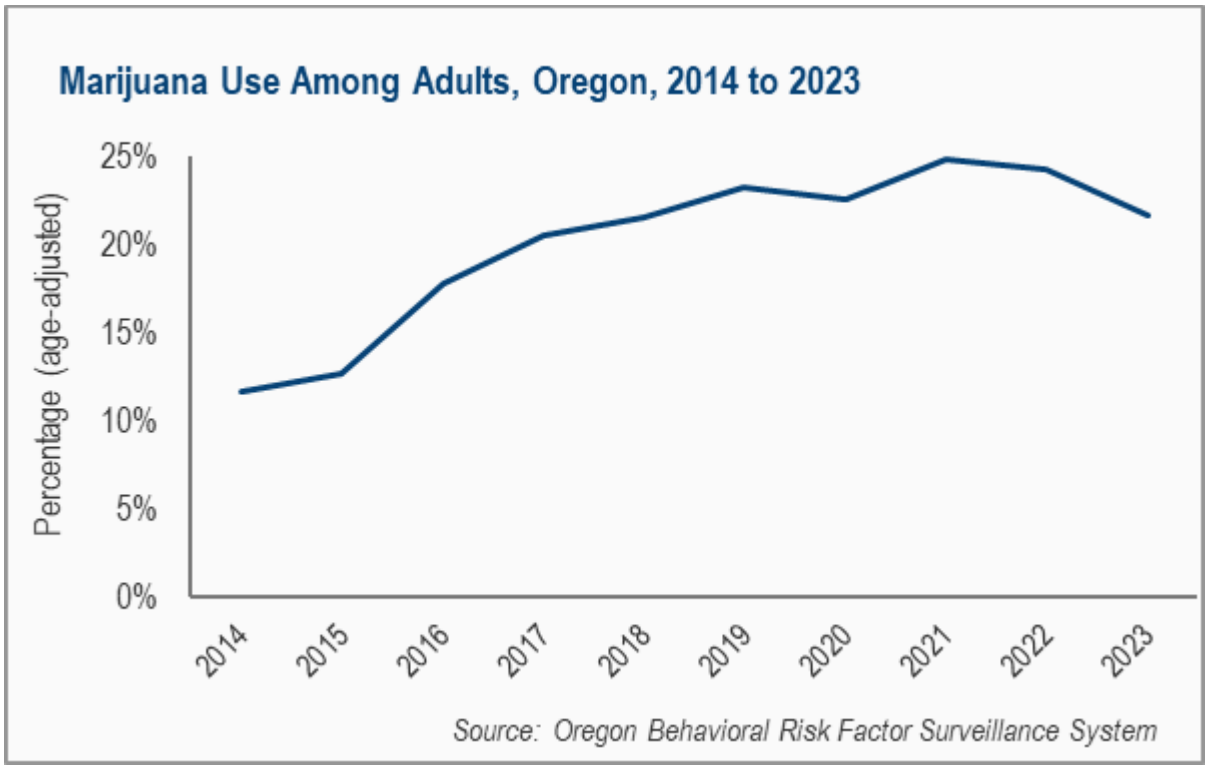

Figure 8.13.1

In 2022, 12% of Oregon 11th graders and 3% of 8th graders reported marijuana use in the past month. Among youth, marijuana use is higher among girls compared to boys (Figure 8.13.2). Marijuana use greatly decreased during the COVID-19 pandemic and remains low compared to earlier years.

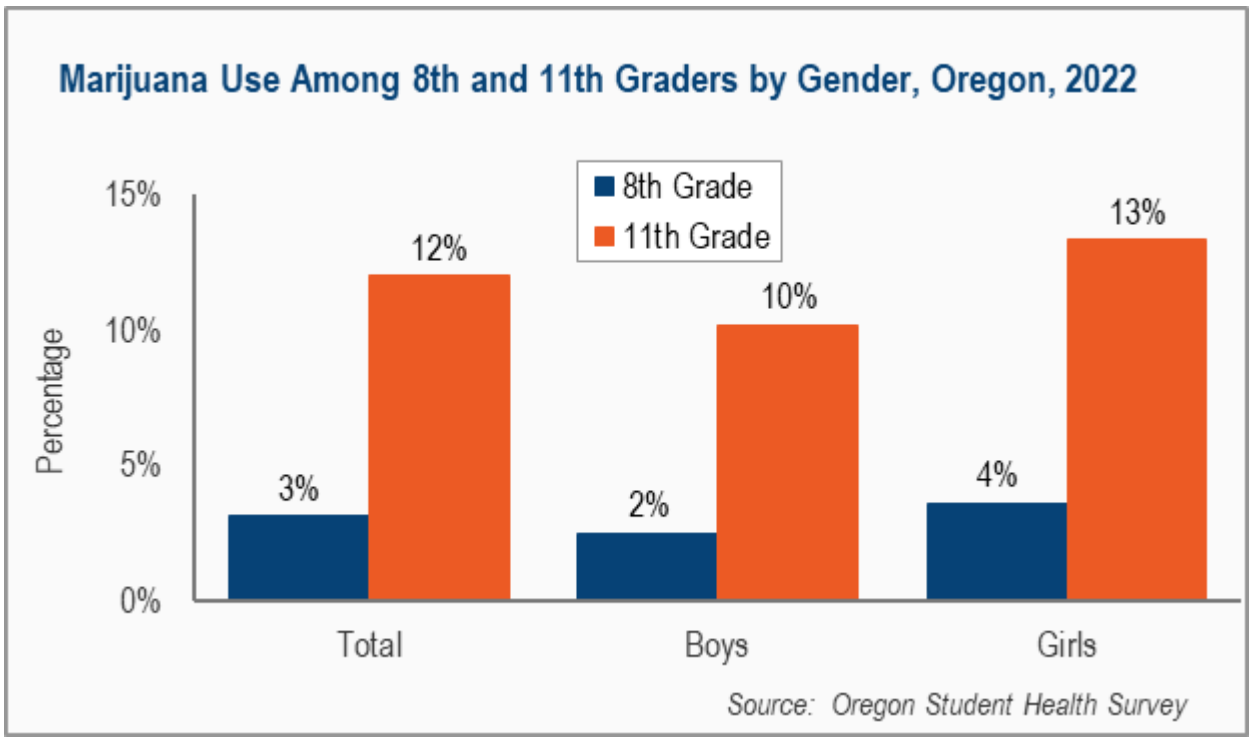

Figure 8.13.2

Structural determinants of health

Communities of color have historically experienced harsher consequences of the criminalization of cannabis use, possession, and sales. Disparities in arrests and legal consequences have contributed to health inequities since criminal records and stigma associated with it can influence the health of individuals and their families. It has limited economic security, employment, housing and education opportunities for communities of color.[87]

American Indian/Alaska Natives and Black and African Americans report higher use of cannabis compared to white, Hispanic and Latina/o/x, and Asian populations (Figure 8.13.3). Adults living in urban areas also report slightly higher cannabis use compared to those living in rural counties (24% and 22% respectively).

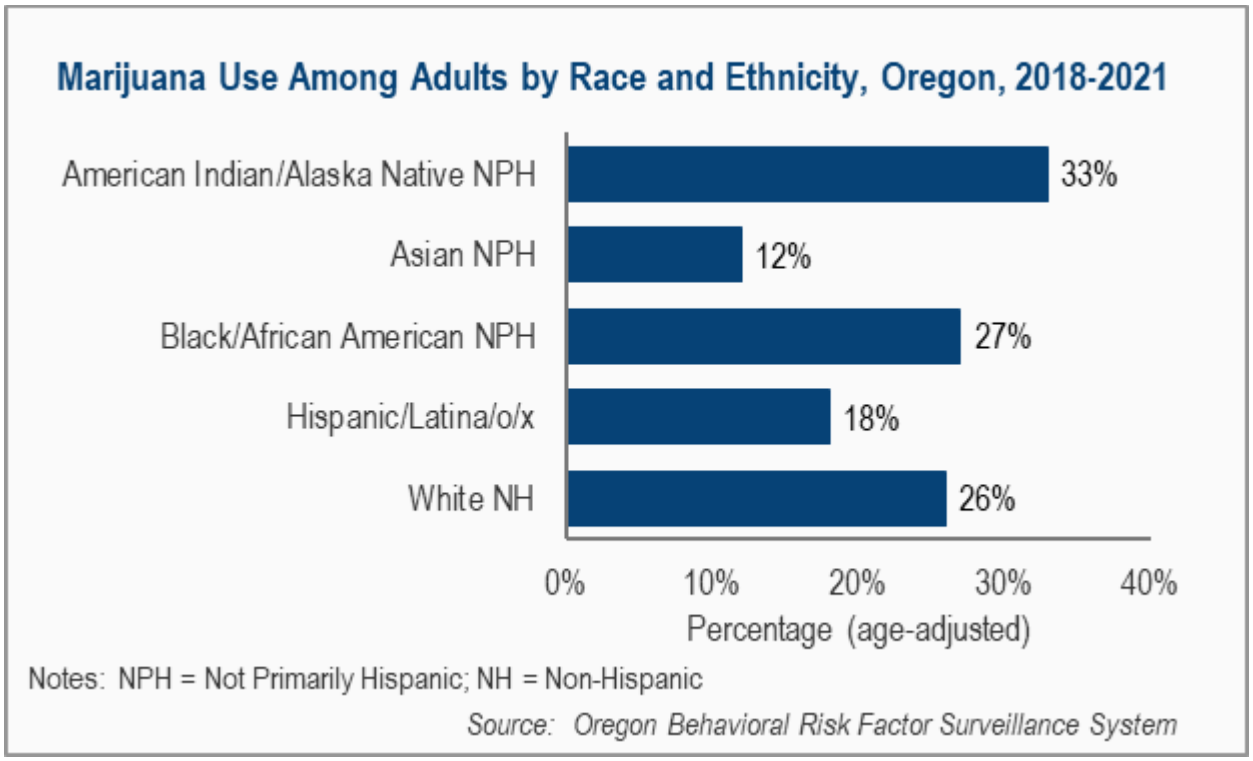

Figure 8.13.3

Social determinants of health

The quantity and concentration of cannabis marketing and retailers within low-income communities and communities of color may contribute increased cannabis use and related harms. Adults and youth who use cannabis are also more likely to use other substances such as alcohol and tobacco.[86]

14. Poor mental health among adults

People whose mental health impacts their ability to fully participate in their lives, the lives of their family, and their community are at higher risk for health and social outcomes such as unintentional injury, self-harm, poor chronic disease management, social isolation, and worse socioeconomic conditions.[28,88,89,90]

In Oregon, the number of adults reporting one or more poor mental health days in the past 30 days has increased from 39.3% in 2010 to 50.5% in 2023 (Figure 8.14.1), with the steepest increase from 2020 to 2022. The national average among adults was consistently lower during that time period than the rate in Oregon, but also had an increase after 2020,[29] potentially reflecting the mental health impact of the COVID-19 pandemic.[91]

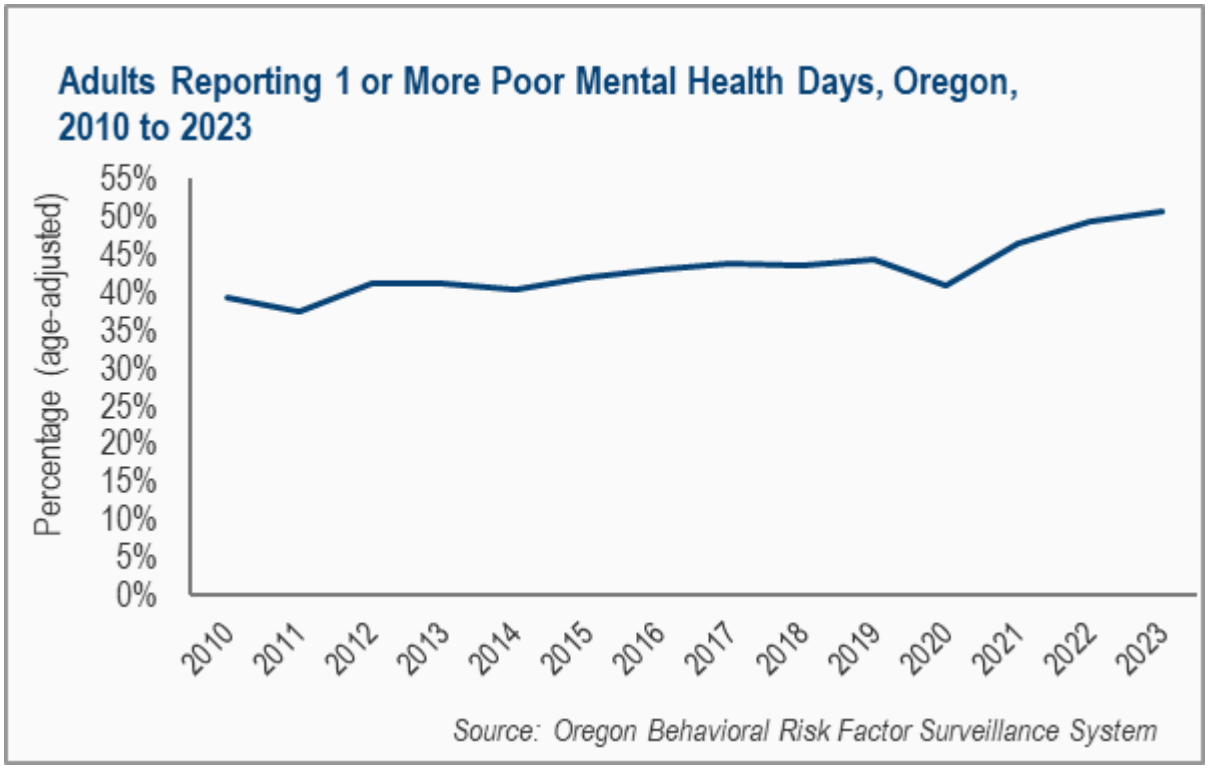

Figure 8.14.1

There are disparities in who reports experiencing one or more poor mental health day in Oregon. For instance, adults in urban areas, those who report being bisexual, those who have a disability, those with lower income, are female, and those who are younger were more likely to report having one or more poor mental health days. There are also differences by educational level and race and ethnicity (Figures 8.14.2, 8.14.3 and 8.14.4). Many of these subgroup patterns are similar to what has been observed at the national level.[29, 92, 93]

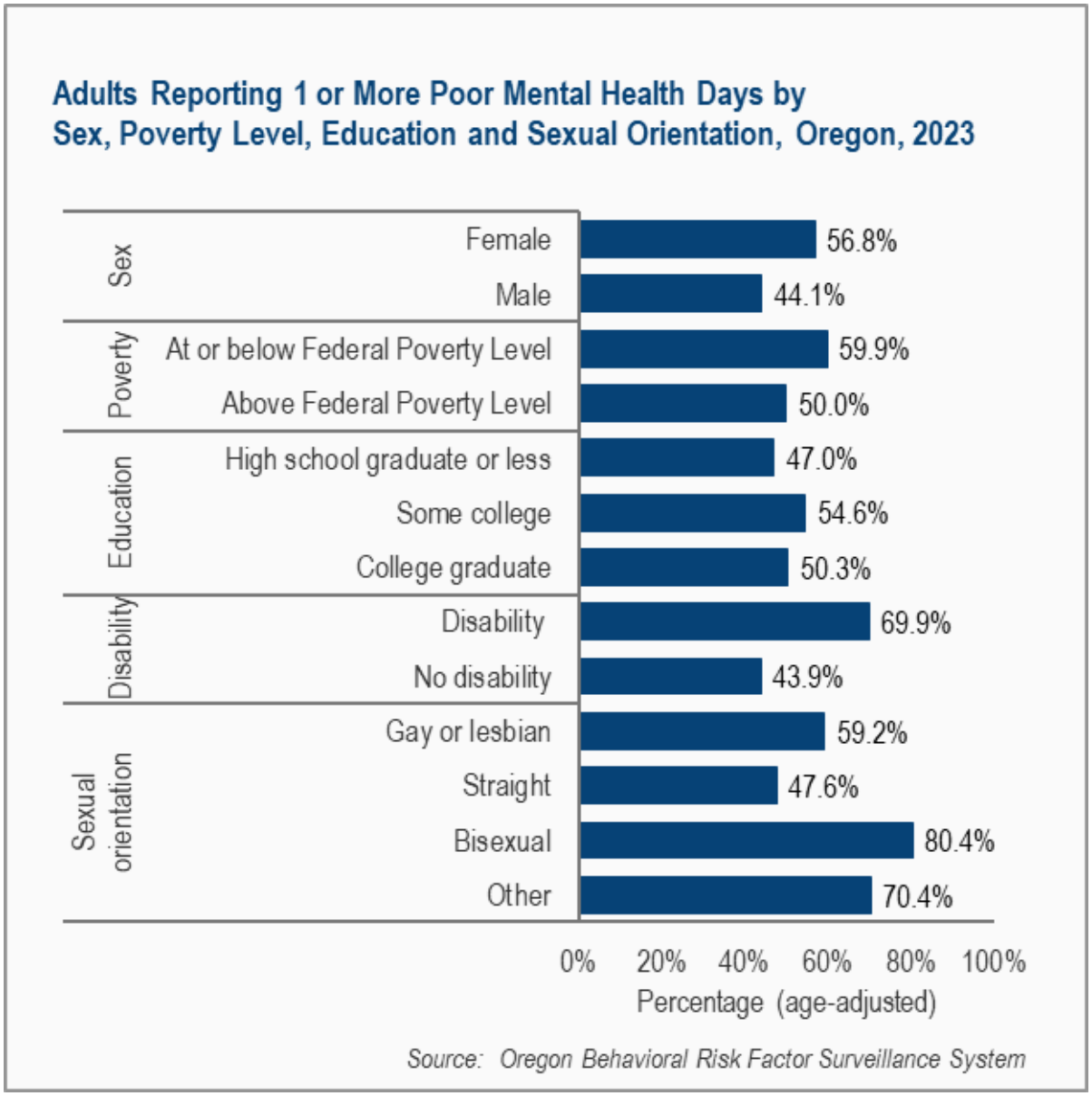

Figure 8.14.2

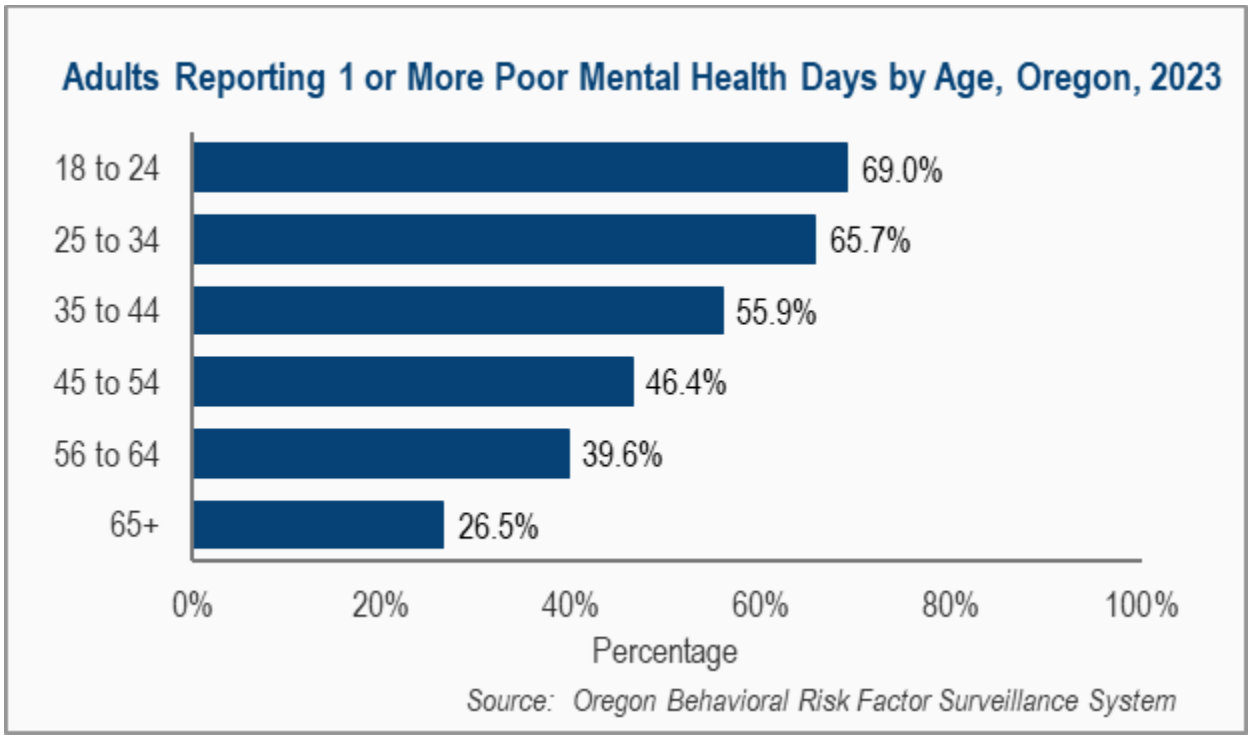
Adults Reporting 1 or More Poor Mental Health Days by Age, Oregon, 2023
18 to 24
25 to 34
35 to 44
45 to 54
56 to 64
65+
69.0%
65.7%
55.9%
46.4%
39.6%
26.5%
0%
20%
40%
60%
80%
100%
Percentage
Source: Oregon Behavioral Risk Factor Surveillance System

Figure 8.14.3

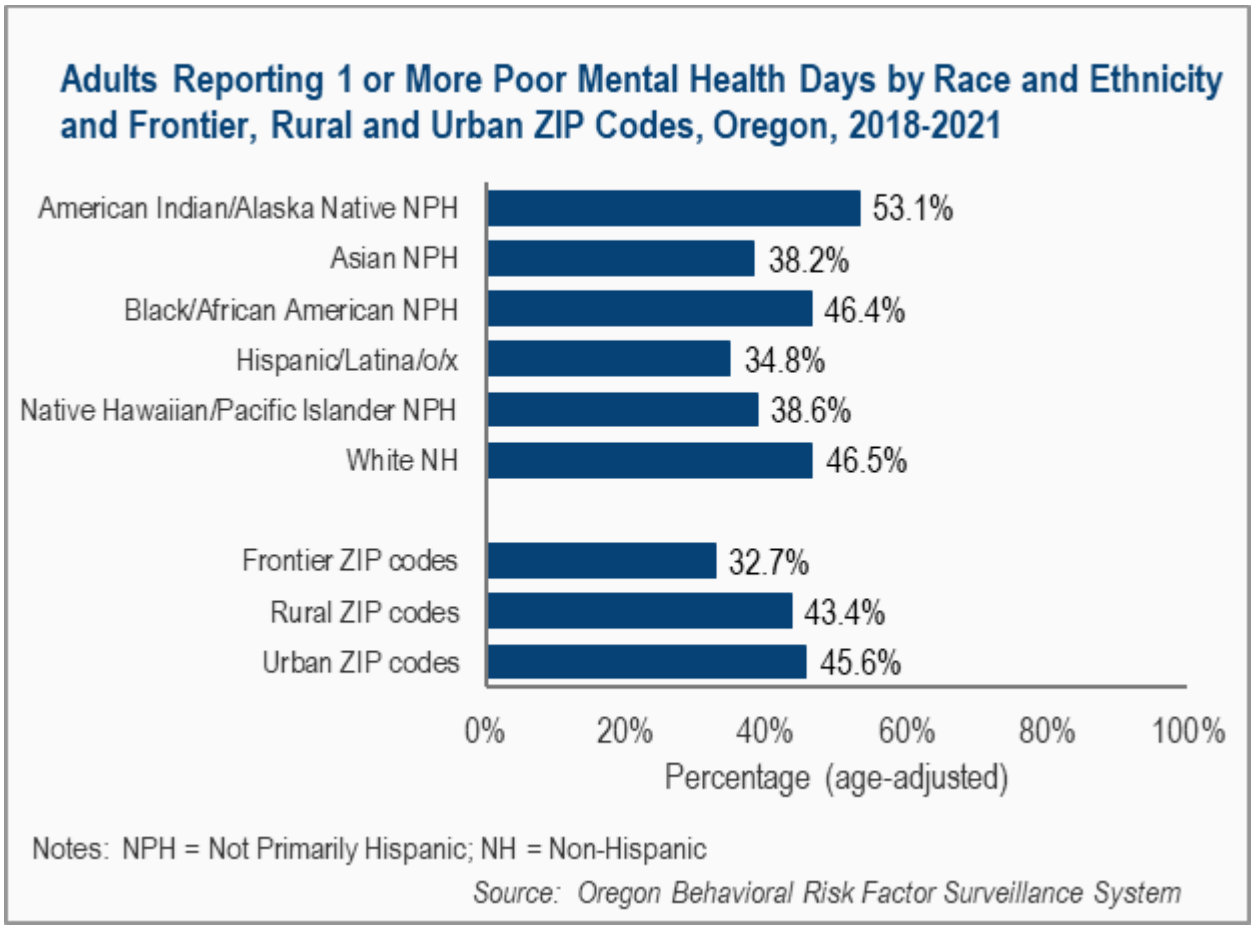

Figure 8.14.4

Structural and social determinants of health

Structural and social determinants of health intersect to influence the disparities in prevalence of poor mental health days in Oregon as evidenced by the groups with the highest risk of reporting one or more poor mental health days (Figures 8.14.2, 8.14.3 and 8.14.4).

Structural determinants of health like education, income, transportation, and housing opportunity can play a role in poor mental health days with institutional bias further driving inequities. Historical and contemporary institutional practices can further exacerbate inequities across different populations. Examples include discriminatory housing practices, known as redlining, and school disciplinary disparities for students of color.[94]

Social determinants of health also play an important role in poor mental health days. Lack of reliable transportation, including limited public transportation or long travel distances, can delay or prevent people from accessing mental health care and can result social isolation, a risk factor for negative mental health outcomes.[95] Higher income and socioeconomic status can increase the capacity to access health care for physical and mental health problems and to engage in health protective behaviors, such as exercise, which is associated with lower levels of chronic stress.[96] Stable affordable housing[97] and social support[98] can also be important protective factors for poor mental health days.

Data opportunities

Data for this report comes from the Behavioral Risk Factor Surveillance System (BRFSS) which is a telephone survey of adults in Oregon. Respondents are asked to self-report the number of days per month that they experience poor mental health. But there are opportunities for improving on how poor mental health is measured.

- Work with Tribal governments, Indigenous, LGBTQIA2S+ and disabled communities to develop community specific data-collection methodology to assess poor mental health.
- Ensure data collection method is accessible to all people, including those who speak other languages, are non-verbal, have hearing impairment, or are unable to complete the survey in a single sitting.
- Complement the use of the BRFSS measure in this report with other, validated measures of mental health and mental health status.
- Complement the use of the BRFSS measure in this report with community-level measures that may identify places where community factors may influence physical and mental health of residents.

Public health interventions

To reduce the number of poor mental health days public health should work with partners to:

- Expand access to care, particularly to patient-focused, culturally-sensitive, gender-affirming mental health care. A few examples of ways to increase access to care include:
  - Expand the number and distribution of systems, agencies and practitioners with the capacity to provide culturally- specific and trauma-informed mental health care and substance use disorder services.
  - Improve transportation options and access so that getting to care is both accessible and affordable, especially for those in rural and frontier zip codes and without access to personal transportation.
  - Ensure all people can afford care by expanding access to affordable, high-quality health insurance coverage.
- Increase use of telehealth to improve access in areas with provider shortages.
- Support and expand promising programs in Medicaid and elsewhere such as the Certified Community Behavioral Health Clinic program.
- Increase awareness about the importance of mental health and about mental health disorders, work to remove stigma from seeking treatment, and increase awareness of the availability of resources and of treatment in their communities.
- Connect people with resources to address other needs to support mental and physical health, such as stable, affordable housing which is easily accessible to services and social support networks.

Resources

Oregon:

- OHA poor mental health days dashboard
- OHA mental health services
- OHA Child Death Review and Prevention
- OHA Maternal Mortality and Morbidity Review Committee
- OHA Prescribing and Overdose Data
- OHA The Substance Use & Overdose Continuum Digest
- Northwest Portland Indian Health Board Tribal BRFSS projects

National:

- Centers for Disease Control and Prevention BRFSS information
- Centers for Disease Control and Prevention National Health and Nutrition Examination Survey
- Centers for Disease Control and Prevention National Health Interview Survey

- Centers for Disease Control and Prevention National Ambulatory Medical Care Survey
- Centers for Disease Control and Prevention Pregnancy Risk Assessment Monitoring System
- SAMHSA NSDUH information and general data resources
- Association of State and Territorial Health Officials: Public Health's Role in Mental Health Promotion and Suicide Prevention Framework
- Indian Health Services Division of Behavioral Health
- US Census Bureau Household Pulse Survey
- Centers for Disease Control Social Vulnerability Index information

15. Heat-related illness emergency department and urgent care visits

Extreme heat conditions are defined as weather that is significantly hotter and sometimes more humid than usual for a specific time and location.[99] Excessive heat can affect anyone, with wide-ranging health impacts that may worsen existing conditions and, for some people, lead to premature death or disability. Heat-related illness occurs when the body struggles to regulate its temperature or when electrolyte imbalances develop due to excessive sweating or dehydration. These conditions can manifest as heat cramps, heat exhaustion, heatstroke, or hyperthermia, which may require care at emergency departments, urgent care centers, or hospitals, and in some cases, can result in death.

Extreme heat and heat-related morbidity and mortality are on the rise in Oregon. The frequency, duration, and intensity of heat events are increasing, leading to greater exposure to high temperatures. As temperatures rise, so does the risk of illness and death.

The Oregon Climate Change Research Institute's (OCCRI) Sixth Oregon Climate Assessment reports that the number of nights warmer than 65°F is increasing across the state.[100] Warmer nights mean homes without air conditioning may not cool down overnight, preventing people from finding relief from the high daytime temperatures, particularly during consecutive days of extreme heat.

Extreme heat events in Oregon can vary from year to year due to changes in climate, weather patterns, and regional preparedness and response (Figure 8.15.1). This variability can result in fluctuations in emergency department and urgent care center visit rates for heat-related illnesses across different years. Estimating visit rates relative to the number of days reaching or

exceeding a specific temperature threshold helps account for this year-to-year variation. This underscores the importance of continuous monitoring, climate adaptation strategies, and public health preparedness to address the challenges posed by extreme heat in Oregon.

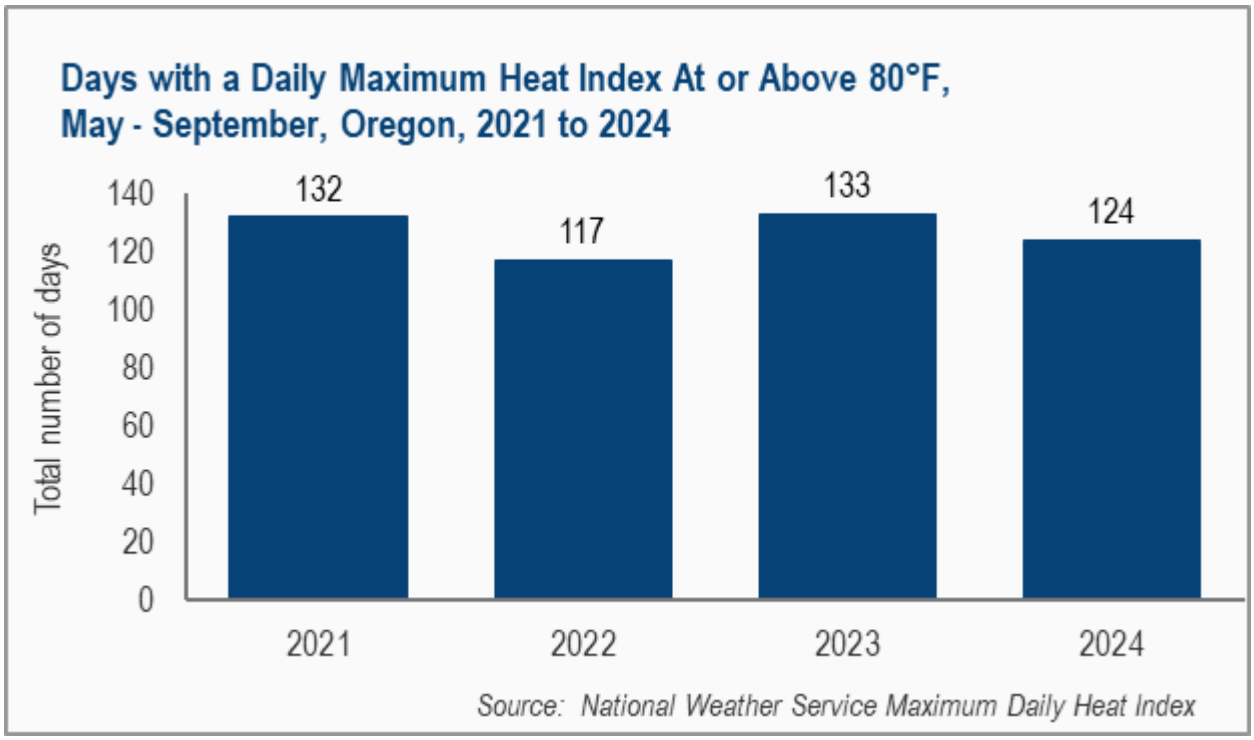

Figure 8.15.1

OHA has observed an increase in visits to emergency departments and urgent care centers on days when the daily maximum Heat Index reaches or exceeds 80°F. The Heat Index measures heat stress by factoring in relative humidity along with the actual air temperature.

The 2021 heat dome in Oregon was an extreme and unprecedented weather event that occurred in late June. It was part of a broader heatwave affecting much of the Pacific Northwest, breaking temperature records across the region and contributing to the loss of over 100 lives in Oregon. On days when the Heat Index reached or exceeded 80°F, heat-related illness visit rates to emergency departments and urgent care centers were higher in 2021 than in 2022-2024 (Figure 8.15.2). Statewide heat-related illness visit

rates were lower in 2023 than in 2021, 2022, and 2024, despite the higher number of Heat Index days reaching or exceeding 80°F.

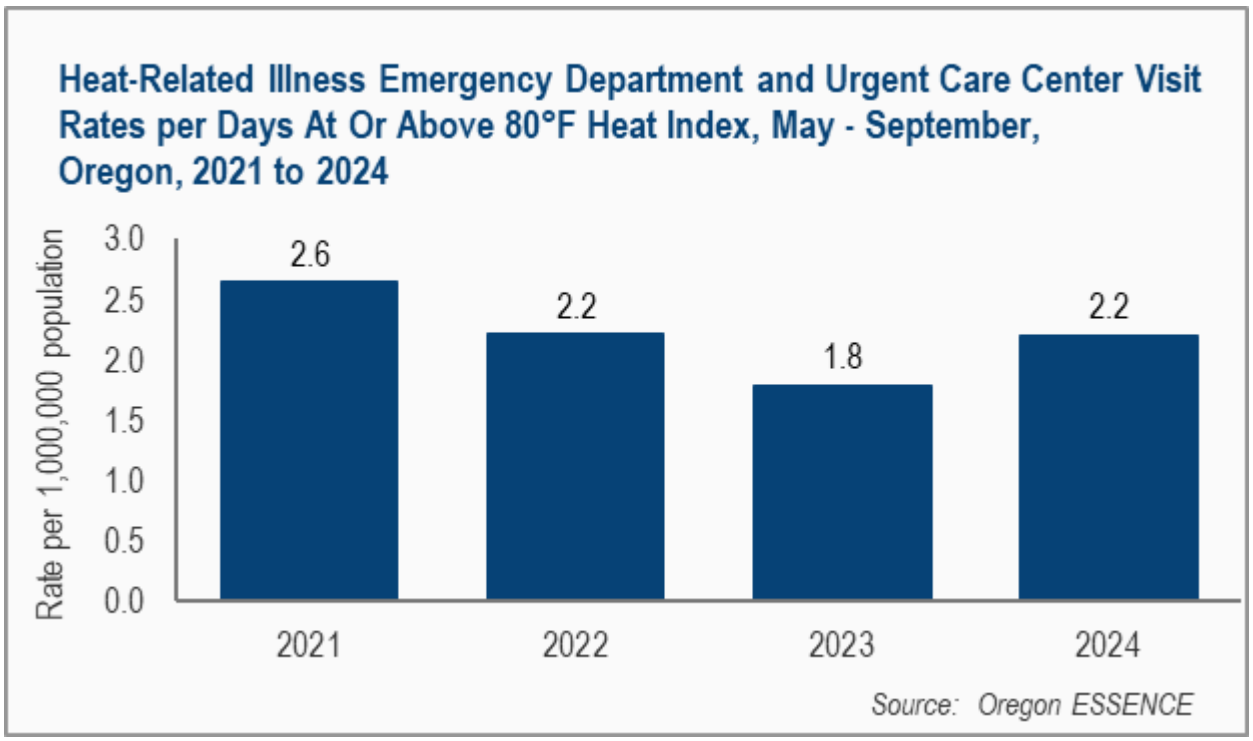

Figure 8.15.2

Populations most affected

Adults aged 65 and older, people who are socially isolated, pregnant women, infants and young children, people with mental illness or chronic conditions, those with lower incomes, people who are houseless, athletes, and outdoor workers are at increased risk of heat-related illness.[99,101] Environmental factors that increase susceptibility to heat-related illness include high humidity, lack of acclimatization, and exposure to consecutive days of heat with limited overnight cooling.

Risk and protective factors

A possible reason for the lower rates in 2023 is the improvement in protective public health actions following the 2021 heat dome, such as more targeted risk communication and the state-funded distribution of air conditioners through Section 7 of Senate Bill 1536 (2022).[102] Other factors

influencing year-to-year health outcomes from excessive heat include regional differences in heat index and temperature ranges, acclimatization, consecutive days of heat, and overnight cooling.

Structural determinants of health

In Oregon, structural determinants, including urban planning, housing policies, and public health infrastructure play a crucial role in heat vulnerability. The urban heat island effect, where cities become significantly hotter than surrounding rural areas due to dense construction and limited green space, intensifies the effects of extreme heat in urban areas. Structural inequalities in housing policies can leave lower-income neighborhoods without cooling resources, and inadequate public health systems may fail to provide sufficient cooling centers or outreach to isolated at-risk individuals during heatwaves. These factors combine to deepen disparities, making it more difficult for certain populations to protect themselves from extreme heat. Addressing these structural determinants, such as improving housing quality, expanding green spaces, and enhancing public health resources, is vital to mitigate the risks of extreme heat in Oregon.

Social determinants of health

In Oregon, social determinants of health shape how individuals and communities experience extreme heat and heat-related illness. Lower-income individuals and families often live in homes without air conditioning or adequate insulation, increasing their vulnerability during heatwaves. Those in older, poorly maintained homes are more likely to experience unsafe indoor temperatures.

Access to health care also influences how well individuals can manage heat-related health issues, as those without health insurance or those living in rural areas may struggle to get timely treatment or manage chronic conditions that increase their risk of heat-related illness.

Education and health literacy impact how well individuals understand the risks of extreme heat and how to protect themselves, while language barriers can prevent non-English-speaking communities from receiving crucial heat-related information.

Additionally, older adults, people with chronic conditions, outdoor workers, and socially isolated individuals face higher risks due to their limited ability to regulate body temperature or seek medical care during heatwaves. Addressing these social determinants is key to mitigating heat-related health disparities in Oregon.

Data opportunities

It is important to better understand how regional differences in extreme heat across different parts of Oregon—such as variations in temperature, humidity, and the frequency of heatwaves—affect health outcomes. These differences can influence how communities experience and respond to extreme heat, as factors like local infrastructure, public health resources, and acclimatization play a role. For example, urban areas with more concrete and less green space may experience the 'urban heat island' effect, making them significantly hotter than surrounding rural areas. Additionally, communities with fewer resources or those located in areas with historically cooler climates may be less prepared to cope with extreme heat, leading to disparities in health outcomes. Robust data supporting the correlations among these factors can inform policies and strategies aimed at communities with elevated risk.

Public health interventions

There have been many recent investments through local, state and federal programs to support access to cool homes and reducing temperatures in cities and neighborhoods. The state passed Senate Bill 1536 (2022), which protects renters' rights to use portable air conditioners and requires rental units to have sufficient electrical capacity to safely run cooling devices.[102] In support of this, the Oregon Department of Energy (ODOE) offers two heat

pump incentive programs: the Rental Home Heat Pump Program (for landlords of rental properties, active through 2026), and the Heat Pump Purchase Program (for homeowners, launching in June 2025), supported by a $24 million federal EPA grant. Urban greening efforts— supported by more than $58 million in federal tree-canopy funding, include the Friends of Trees Coalition and the Portland–Vancouver Canopy Collective via ELSO, Inc., both funded by the USDA Urban and Community Forestry Grant (2023), and Metro's Cooling Corridors Study and the Equitable Tree Canopy initiative—help reduce urban heat islands.

Local cooling centers, transportation assistance, and community-based organization outreach—funded through nearly $42 million in state climate and health grants—further expand access to cooling.[103]

Finally, individuals are encouraged—through guidance from the Oregon Health Authority, local public health authorities, community-based organizations, and PublicAlerts—to adopt home cooling strategies, develop heat safety plans, and strengthen social connections to support one another during extreme heat events.

16. Severe maternal morbidity

Severe maternal morbidity (SMM) is defined by the Centers for Disease Control and Prevention as “unexpected outcomes of labor and delivery that result in significant short- or long-term consequences to a woman’s health”.[104] It encompasses very serious health conditions that, even with timely intervention, have harmful impacts and could result in maternal death. Many of these cases can be considered a “near miss” for maternal mortality (i.e. that the individual was at significant risk of dying). Based on Oregon data for 2018 through 2021, for every case of pregnancy-related death, there were approximately 35 cases of severe maternal morbidity. These situations are associated with higher medical costs and longer hospital stays. SMM can have serious health implications for the person affected, including long-term physical consequences, and these events can be very traumatizing for the birthing person and the family.

Severe maternal morbidity in delivery hospitalizations is identified using a nationally validated list of 21 clinical indicators and their corresponding diagnosis or procedure codes. The presence of any of these indicators, except for blood products transfusion alone, identifies a case of SMM. These indicators are grouped into the following categories:

- Hemorrhage complications
- Respiratory complications
- Cardiac complications
- Renal complications
- Sepsis complications
- Other obstetric complications
- Other medical complications

The current measure of SMM is limited to severe medical events that occur during the delivery hospitalization and does not encompass the wider context of pregnancy related morbidity that may occur later during

postpartum recovery. Additionally, data sets currently used have limited demographic information. Future work to expand the definition of SMM to include a wider set of indicators that are also implicated in maternal mortality, including mental health conditions, may help to illuminate a clearer picture of the maternal health needs in Oregon. Mental health conditions are the leading contributor to maternal death in the state of Oregon, with substance misuse, depressive disorders and anxiety being of significant concern.

The rate of severe maternal morbidity, excluding blood product transfusion only, has been increasing over time from a low in 2016 of 61.9 per 10,000 delivery hospitalizations to a high in 2023 of 94.0 per 10,000 delivery hospitalizations (Figure 8.16.1). Among all deliveries with any morbidity in 2023, 30% were identified as having two or more SMM diagnoses or procedures.

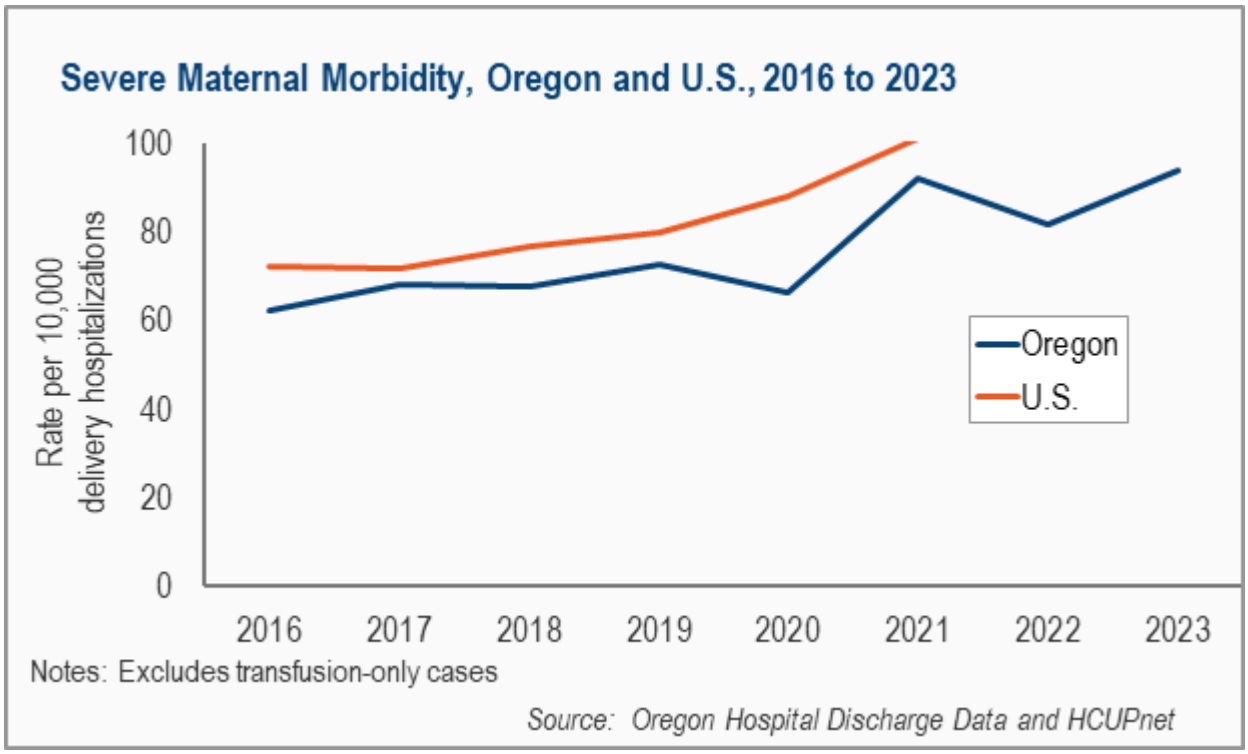

Figure 8.16.1

While there is data on SMM by race and ethnicity, due to low numbers, data are provided as four-year averages to preserve patient anonymity. It is

important to note that race and ethnicity data from hospital records can be of variable quality due to missing data and varying methods of collection and categorization compared to similar data contained in public health vital records. The lowest rates of severe maternal morbidity were for Hispanic/Latina/o/x populations, followed by those identified as white. Overall, the highest severe maternal morbidity rates were seen among people identified as Native Hawaiian/Pacific Islander and Other race/ethnicity, followed by American Indian/Alaska Native, Asian, and Black/African American. The upward trend of increasing morbidity seen in the overall measure is echoed for most groups, however American Indian/Alaska Native, and Native Hawaiian/Pacific Islander populations have seen improvements between 2016-2019 and 2020-2023 (Figure 8.16.2).

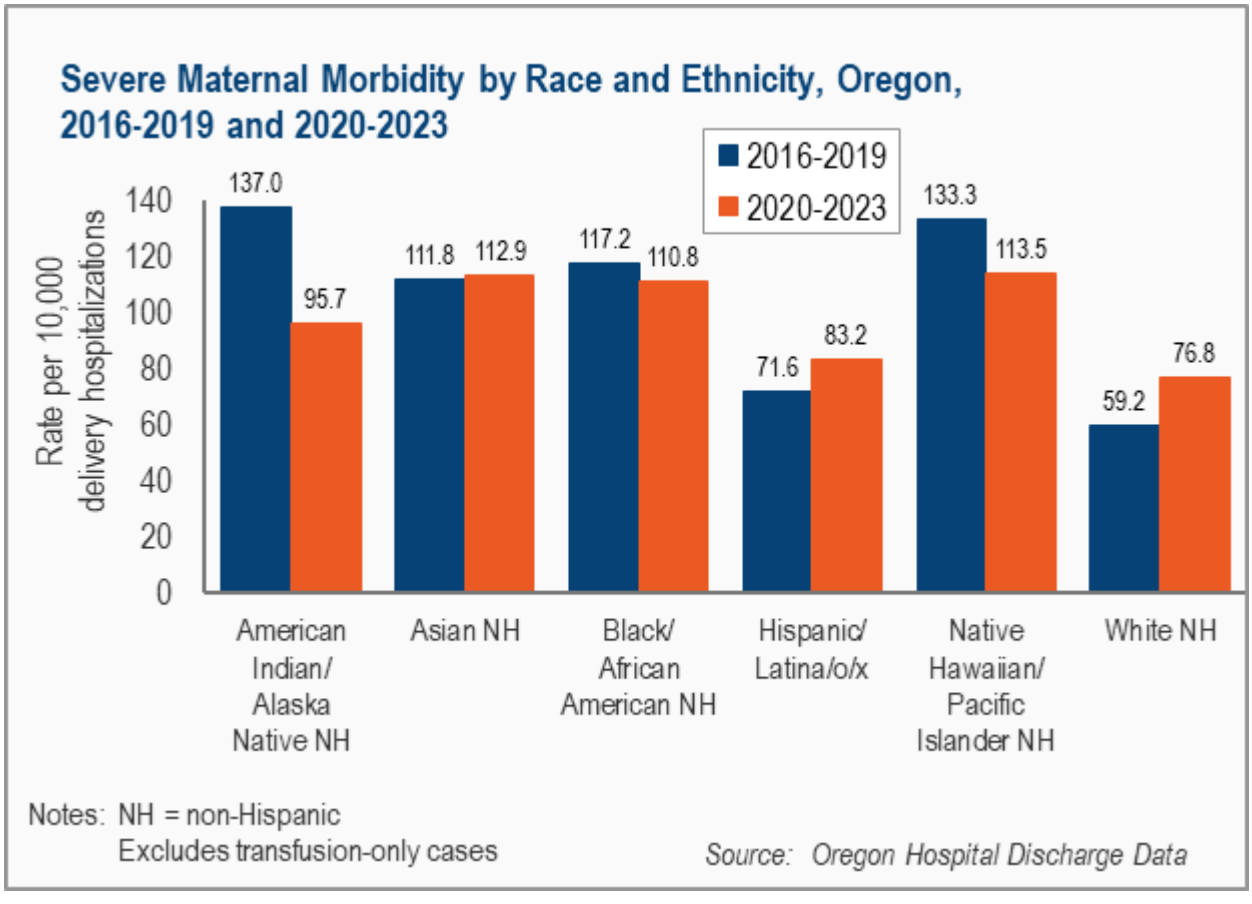

Figure 8.16.2

Besides blood products transfusion alone, the leading maternal morbidities were acute renal failure, disseminated intravascular coagulation, sepsis, shock and hysterectomy (Figure 8.16.3).

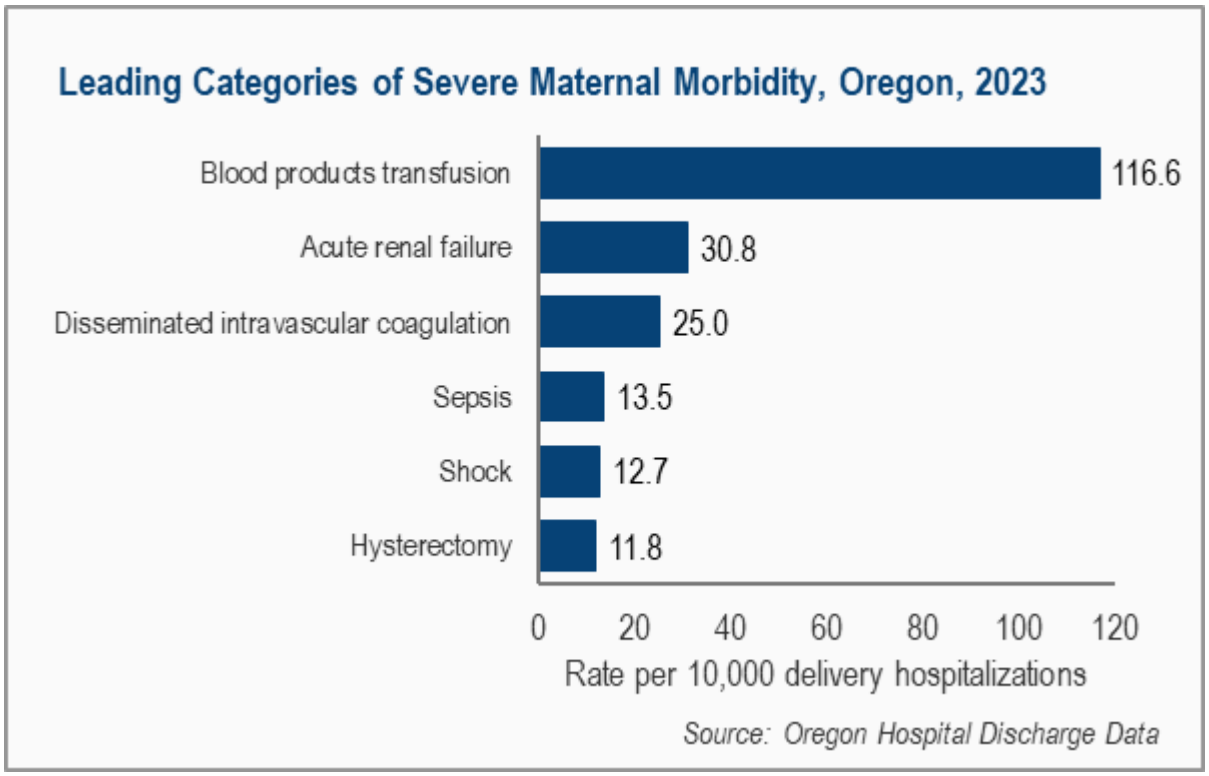

Figure 8.16.3

Age is also a positive correlating factor to the rate of SMM, with 2023 rates lowest for women ages 20-24 (70.1 per 10,000 delivery hospitalizations) and highest for women ages 35-39 (107.2 per 10,000 delivery hospitalizations) and younger than 20 years (119.7 per 10,000 delivery hospitalizations).

Structural determinants of health

Severe maternal morbidity is affected by multiple upstream determinants of health. These include structural determinants such as health care insurance coverage and provider access for prenatal services, where patients have less access to reproductive and prenatal care (for example, local providers who do not take Medicaid coverage as payment); systems which lack health care or social service providers with shared language or cultural

backgrounds with their patients; and transportation barriers that decrease access to healthy food. Oregon has several geographical areas considered "maternity deserts" in which labor and delivery hospitals have closed and families must travel long distances to deliver their baby at a hospital.[105,106] Consequently, there are discrepancies in SMM by county.

Social determinants of health

Increases in pregnancy-related complications throughout the United States may be, in part, connected to changes in the overall health of the population of people giving birth. Interrelated social determinants such as education level, employment, and income have an impact, with SMM more prevalent for people with less education or those from low-income households. Employment type can factor in to whether a pregnant person has a job in which they can predict their hours and schedule and have paid time off for medical appointments.

Other structural determinants that significantly affect the birthing population of Oregon are houselessness and mental health disorders, including substance use disorder.

Public health interventions

Efforts to decrease SMM must start far upstream, with policies that support healthy families, communities, and health insurance and robust health delivery systems that include mental health. Evidence-based policies that improve social and health equity, strengthen food and housing security for families, and enable culturally responsive support services in multiple languages can help decrease SMM prevalence. Oregon already has some strong approaches, such as paid family leave, the Medicaid 1115 Waiver which addresses health-related social needs including housing support and nutritional assistance, and protection from climate change events.

OHA's Family and Child Health section (FCH) has an important role in SMM prevention through use of data, direct services and key partnerships. The

Maternal Mortality Review Committee provides systems-level and specific recommendations for preventing maternal mortality based upon detailed examinations of the causes leading to preventable maternal deaths in the state, which include policy, health system, and labor and delivery unit health care provider recommendations. Partnerships and programs that intervene in pathways leading to SMM include the community programs Healthy Start, which provides family support from pregnancy to a child's second birthday; Nurture Oregon, for families experiencing substance use issues; and FCH's multiple home visiting programs support pregnant people and families where they live. Strong partnerships with statewide quality improvement initiatives for maternal care (Oregon Perinatal Collaborative and Comagine Health's Maternal Health Innovation grant) are moving these data-driven recommendations into action.

17. Diabetes among adults

Diabetes is a chronic health condition where the body cannot effectively use sugar, resulting in a build-up of sugar in the bloodstream. Diabetes can lead to serious health complications, damaging the heart and blood vessels, nerves, kidneys, eyes, feet, and other complications. As of 2023, almost one in ten adults in Oregon has been diagnosed with diabetes.

There are three main types of diabetes: type 1, type 2, and gestational diabetes, which is diabetes while pregnant. This indicator focuses on type 2 diabetes. With type 2 diabetes, the body is unable to keep blood sugar at normal levels. It develops over many years and is usually diagnosed in adults but is becoming more common in children, teens, and young adults.

Well-managed diabetes and keeping blood sugar levels within a target range can prevent serious health complications that can develop over time, including heart disease, vision loss, kidney damage, and blood vessel and nerve damage that could lead to limb loss.

As of 2023, 9.1% of adults in Oregon have been diagnosed with diabetes. An additional 13% report that they have been diagnosed with pre-diabetes, however people without access to regular care may go undiagnosed. Over the past decade, diabetes rates have remained relatively stable, with 2023 rates similar to those in 2015 (Figure 8.17.1). Diabetes rates vary across different demographic groups, with older adults experiencing rates ten times higher than younger adults. While 1.9% of adults between the ages of 18 and 34 have diagnosed diabetes, 20.2% of adults 65 and older have diagnosed diabetes. Additionally, diabetes rates are generally higher among men (10.4%) compared to women (7.9%). Urban and rural adults reported relatively similar rates of diabetes (8.1% vs. 9.2%).

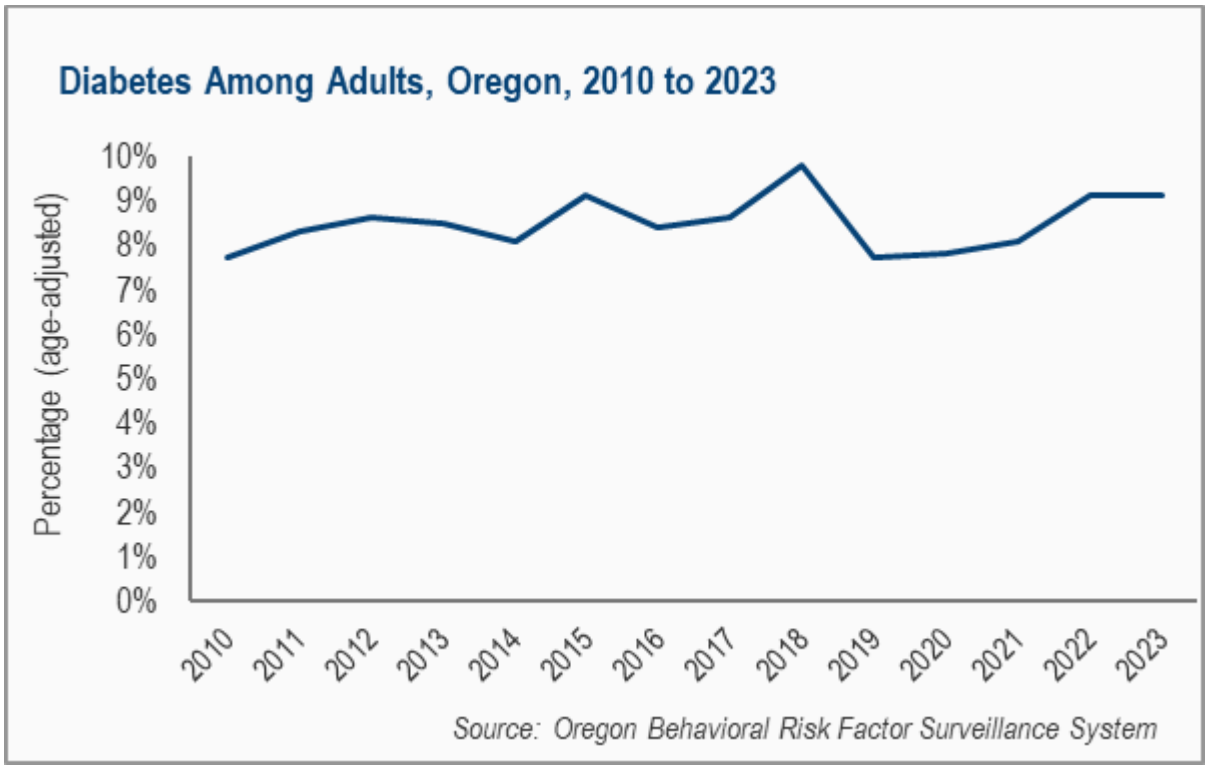

Figure 8.17.1

Healthy weight management, getting regular physical activity, eating a nutritious diet, and getting regular health screenings all protect against developing type 2 diabetes or experiencing diabetes complications.

Structural determinants of health

Structural factors including insurance coverage and access to health care providers, such as diabetes specialists, can influence the likelihood that someone receives support to prevent diabetes. People who get a timely diagnosis of diabetes can receive the appropriate care to prevent complications.

Additionally, many of the health education programs to support people with diabetes were developed for English-speaking, dominant culture participants and may not be culturally relevant for other populations.

Factors such as access to healthy food and areas to exercise can support a person to better manage diabetes. Many people do not have easy access to

spaces to exercise or to grocery stores, which can make it difficult to manage the condition.

Social determinants of health

Social determinants of health can impact both the chances that someone will develop type 2 diabetes and can make them more likely to have complications if they already have diabetes. People with lower incomes are more likely to develop type 2 diabetes, experience more complications, and die sooner than those with higher incomes. In Oregon, adults with incomes less than $25,000 reported diabetes rates of 12.3%, while adults with higher incomes ($150,000 and above) reported rates of 5.6%. Additionally, people with diabetes have medical expenses that are approximately 2.3 times higher than those who do not have diabetes. People experiencing housing instability may not have access to proper storage for diabetes medications, which can need refrigeration.

Diabetes and pre-diabetes rates also vary widely by race/ethnicity. In Oregon, rates among white and Asian adults are lower than rates among Black and African American, American Indian/Alaska Native, Native Hawaiian and Pacific Islander, and Hispanic or Latina/o/x adults (Figure 8.17.2). Similar differences are seen among rates of pre-diabetes.

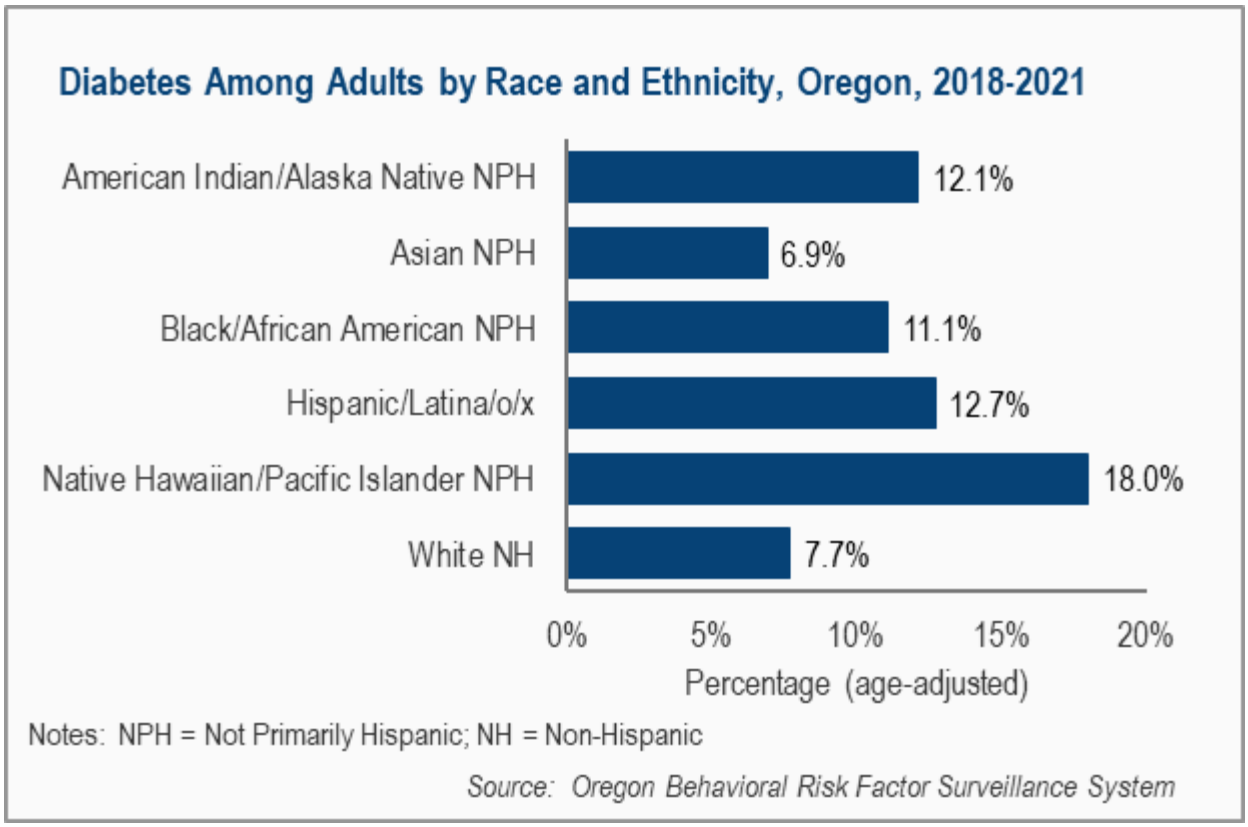

Figure 8.17.2

Data opportunities

Additional data can enhance OHA's understanding of diabetes prevalence, costs, and prevention opportunities in our state. Expanding diabetes-specific data across different racial and ethnic groups will help OHA identify and address the unique challenges faced by various communities, ensuring everyone has equitable access to the resources and support needed to manage their condition.

Social determinants of health play a significant role in an individual's risk of developing diabetes or experiencing complications. More data on these social factors would enable targeted public health efforts to reduce barriers to care and improve access to support services.

Additionally, gathering more information about the built environment and the availability of healthy food staples will deepen our understanding of how to effectively support diabetes prevention initiatives.

Public health interventions

Public health initiatives to address diabetes can both prevent more people from being diagnosed with diabetes and support people with diabetes in managing their condition with the goal of preventing additional health complications. Public health can support policy and system changes that increase access to nutritious foods and opportunities for physical activity to reduce barriers to healthy eating and active lifestyles. Public health can also support access to evidence-based programs such as the National Diabetes Prevention Program and Diabetes Self Management Education to support people with or at risk for developing diabetes in building healthy habits.

18. Shiga toxin-producing Escherichia coli (E. coli) infections

Shiga toxin-producing *E. coli* infections (STEC) are one of the most severe causes of infectious gastroenteritis. Bloody diarrhea can be a hallmark of infection and can result in post-diarrheal hemolytic uremic syndrome (HUS). STEC infections are spread by the fecal-oral route where an individual ingests food or water that has been contaminated with feces. STEC can also result from exposure to contamination by several types of animals that can carry the bacteria with or without being ill. The most common of which are grazing animals: cattle, goats, deer, etc. Transmission often occurs from consumption of contaminated food or water, as well as direct person-to-person spread and environmental exposures. In the United States and Oregon, O157, O26, O45, O103, O111, O121 and O145 are the most common serogroups of the enterohemorrhagic *E. coli,* making up more than half of the reported cases since 2013. O157 infections are much more likely to result in HUS than infection by other STEC.

The incidence of STEC infections in Oregon has generally been higher than that of the United States as a whole (Figure 8.18.1). Over the past 10 years, the number of STEC cases reported statewide has ranged between 189 and 354 annually. After climbing to a peak of 8.4 cases per 100,000 persons in 2019, STEC rates began declining. In 2022, the rate of 6.4 per 100,000 persons was down from the 2021 rate of 6.9 per 100,000. Persons aged less than five years have the highest rates of infection, whether this is due to increased testing or actual disease incidence is unknown. This age group does have the highest proportion of complications including HUS. Rural, eastern Oregon counties have higher rates of infection than other parts of the state.

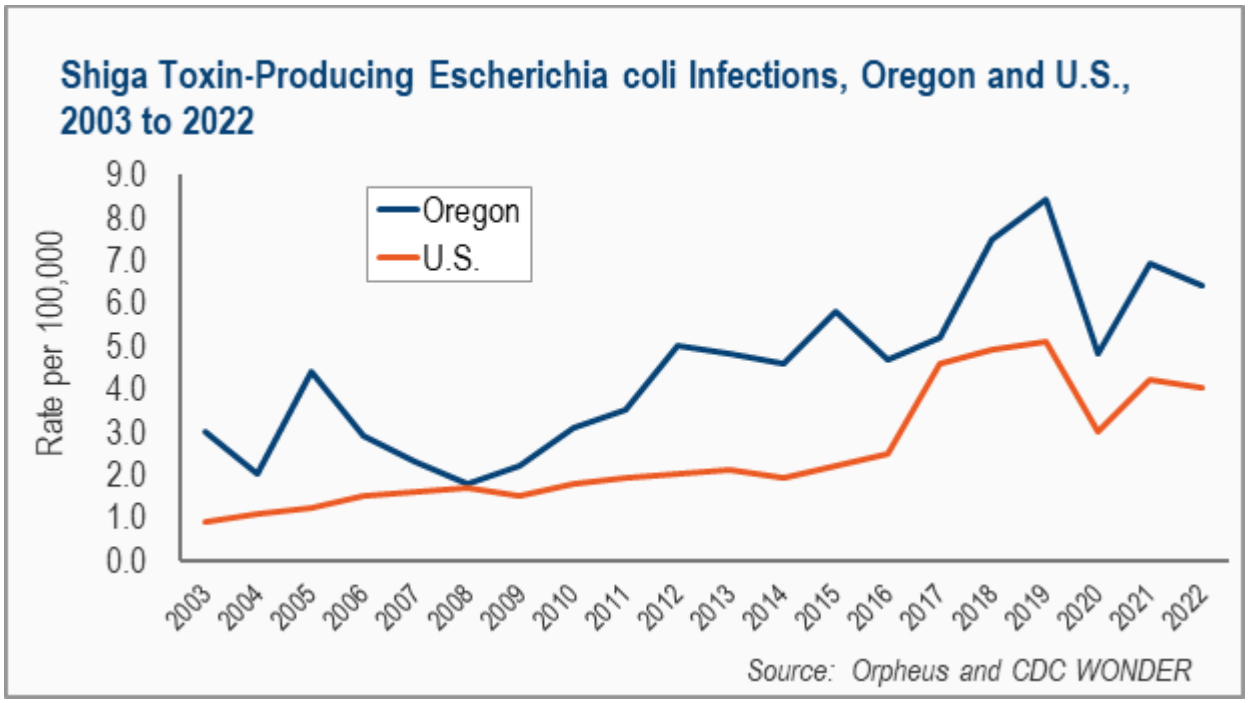

Figure 8.18.1

Much of the work to prevent infections must be done by minimizing contamination of crops and processing equipment before there is an opportunity to infect grazing animals. Hazard Analysis and Critical Control Point (HACCP) practices focus on documenting and controlling risks during food processing and commercial food preparation, as well as efforts to control water and other potential environmental sources of infection.

Structural determinants of health

Structural determinants of health include a person's access to health care, which impacts ability to see a provider for testing and confirmation of STEC. As STEC testing is costly, uninsured individuals may be less likely to be tested. Barriers to accessing medical care could result in more severe infections, including HUS.

Social determinants of health

Some recent studies have suggested higher STEC incidence among higher socioeconomic status households and neighborhoods.[107,108] It is less clear

how much of this disparity may be linked to income and access to testing. Other factors that affect exposure to STEC include occupation or cultural and dietary behavior. Unpasteurized milk and undercooked beef are a primary foodborne pathway for STEC.

People who work, live, or recreate in agricultural settings, particularly where cattle are present, are at increased risk of exposure. These factors are more common in rural Oregon counties.

Oregon is launching a mapping portal to layer data sets to understand how social vulnerabilities such as housing status, income and other neighborhood characteristics affect the rates of infection.

19. Syphilis among people who can become pregnant

Syphilis is a critical public health indicator with significant implications for pregnancy-capable people aged 15-44. If untreated or inadequately treated, syphilis during pregnancy can be transmitted to the fetus, resulting in congenital syphilis (CS). Congenital syphilis is a serious and potentially fatal condition that can cause a range of problems for a fetus, including miscarriage, poor growth, and death. It can also result in significant health consequences affecting nearly every organ system in the newborn. Approximately 10% of CS cases in Oregon are either stillbirths (never alive outside the womb) or neonatal deaths (death within the first 28 days after birth). CS is a condition that has serious and acute risks that highlights inadequacies in our health care system, as it is entirely preventable through appropriate screening and treatment.

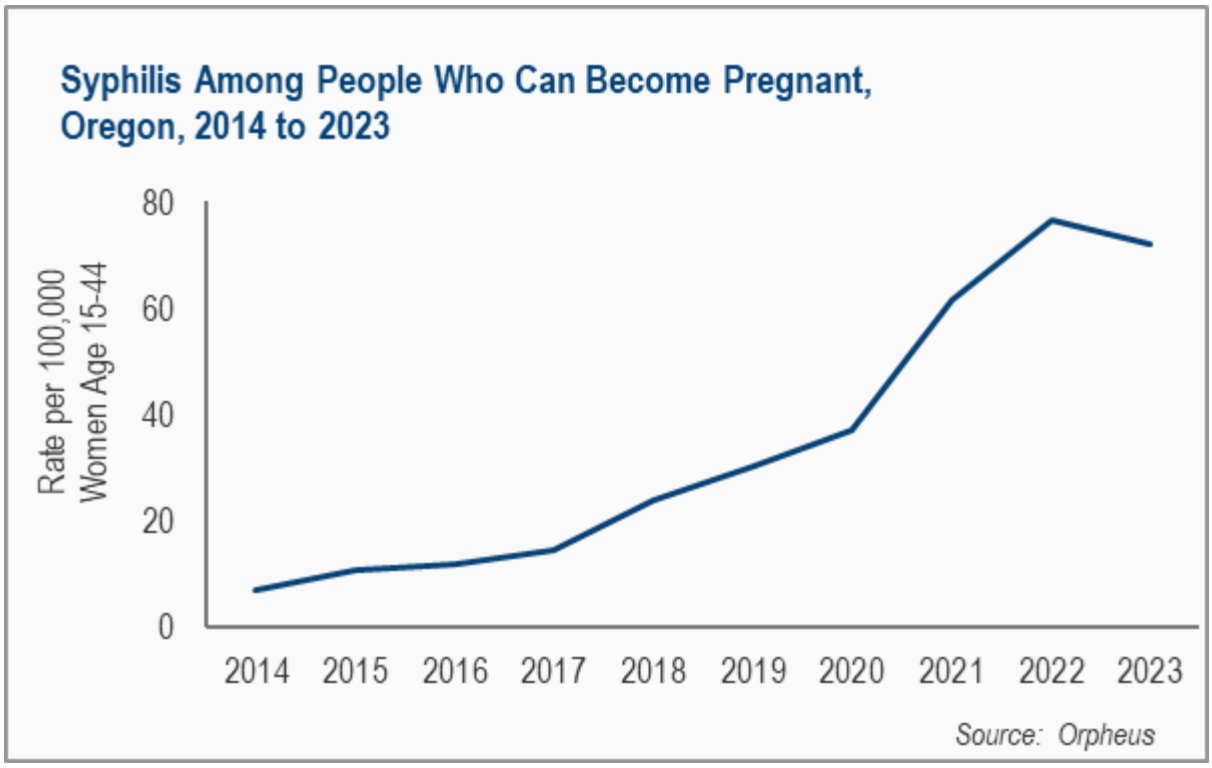

Figure 8.19.1

Syphilis rates among people who can become pregnant in Oregon have risen sharply, from 6.8 per 100,000 in 2014 to 72.2 per 100,000 in 2023—a more than tenfold increase (Figure 8.19.1). This surge is mirrored by rising syphilis cases during pregnancy and congenital syphilis, which jumped from 6 cases in 2015 to 45 in 2024 (Figure 8.19.2). Despite a brief plateau in 2023, both syphilis in pregnancy and congenital syphilis reached record highs in 2024, highlighting a persistent and growing public health concern.

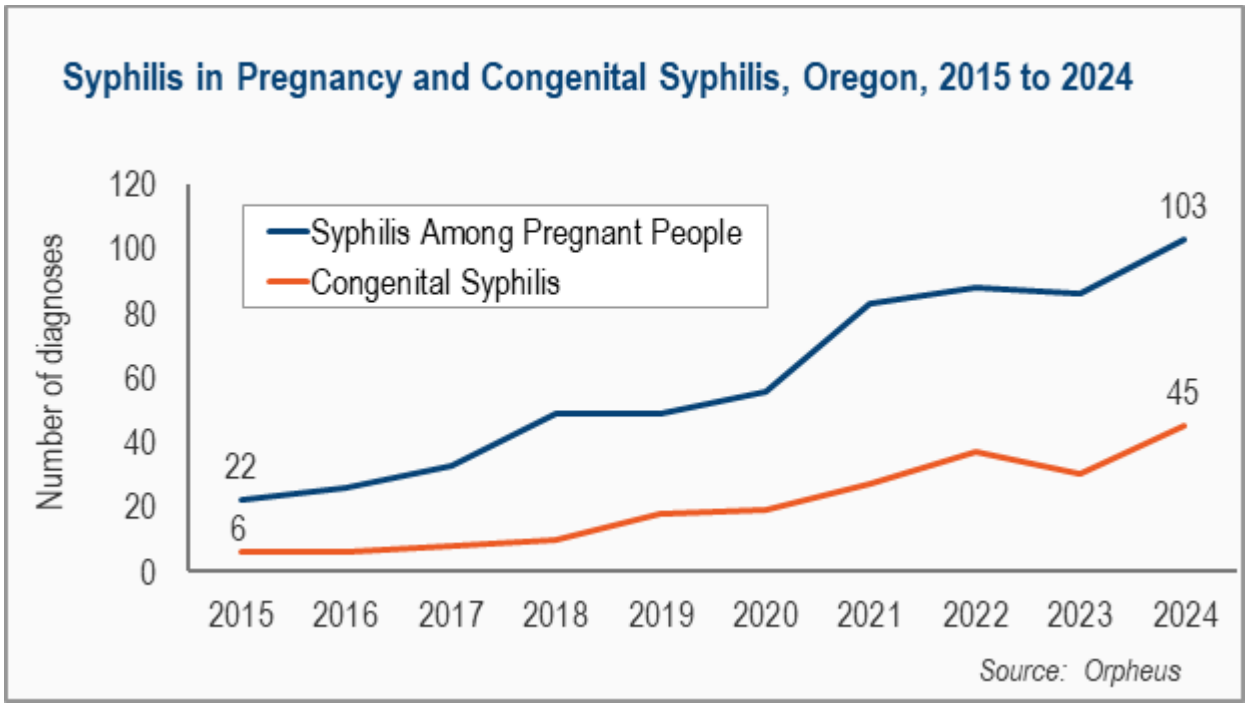

Figure 8.19.2

Several factors have driven these trends:

- Lack of access to health care, particularly prenatal care, which directly affects opportunities for screening and treatment.[109]
- Intermittent treatment recalls and shortages, most recently in 2023: Benzathine Penicillin G is the only safe and effective treatment for syphilis in pregnancy and only one pharmaceutical company manufactures it in the U.S. Depending on the duration of the infection, a person needs either 1 or 3 doses.
- Increased cases among females assigned at birth: While males account for most infections, the rate of increase has been steeper among females in recent years. The rate rose from 11.3 per 100,000 in 2018 to 35.0 per 100,000 in 2023, representing a threefold increase compared with a twofold increase in males.
- Lack of screening or treatment for sexual partners: Reinfection can occur when sexual partners aren't treated.

Coinfections and missed opportunities: In 2023, 27% of pregnant people associated with a CS case had been diagnosed with chlamydia and/or gonorrhea in the previous two years.

- Challenges in diagnosis: Some health care providers may have difficulty recognizing syphilis due to its varied presentations and historically low prevalence.

Social determinants

Factors such as racism, poverty, housing instability, substance use, mental health challenges, and involvement in the corrections system contribute to the spread of syphilis. American Indian/Alaska Native, Native Hawaiian/Pacific Islander, and Black/African American, people who can become pregnant experience disproportionately high rates of syphilis (Figure 8.19.3) and CS. These disparities *are not caused* by race or ethnicity but by social, economic, and environmental conditions that disproportionately affect certain groups and create barriers to achieving optimal sexual health.[110]

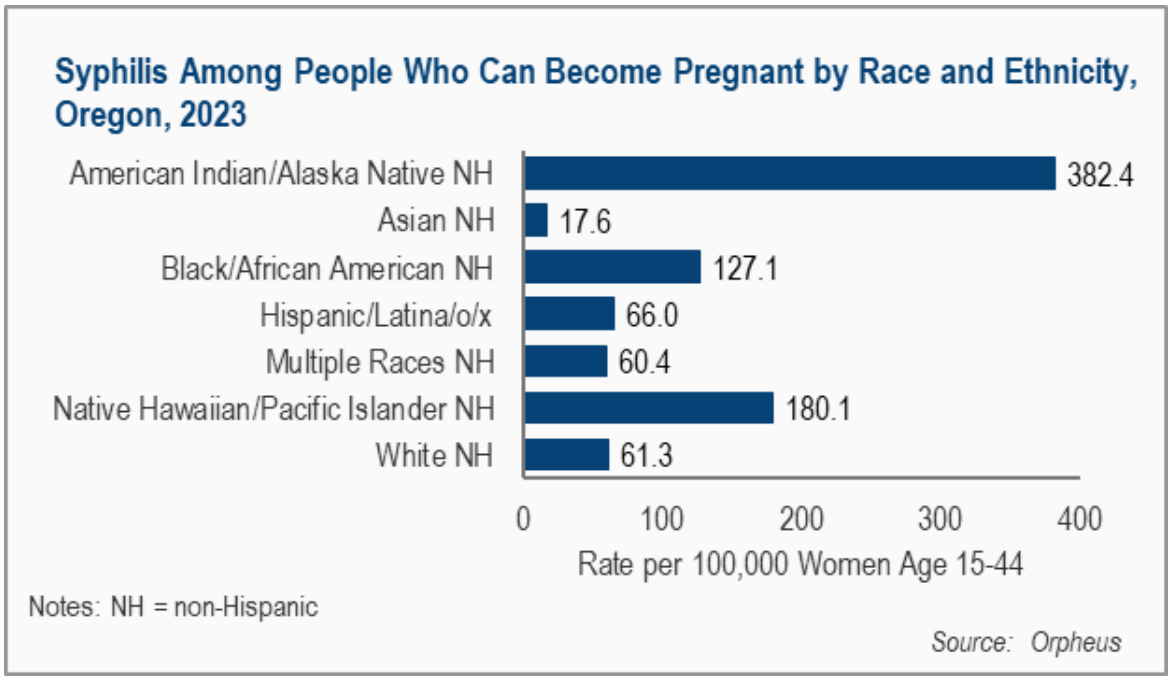

Figure 8.19.3

Structural determinants

Structural, behavioral, and interpersonal factors may influence syphilis acquisition.

- Although most congenital syphilis diagnoses occur in urban areas, the rate of increase has been especially pronounced in rural and frontier regions between 2019 and 2023 (Figure 8.19.4).
- County-level violent crime rate, unemployment, income inequality, and adverse childhood experiences increase the risk of CS.

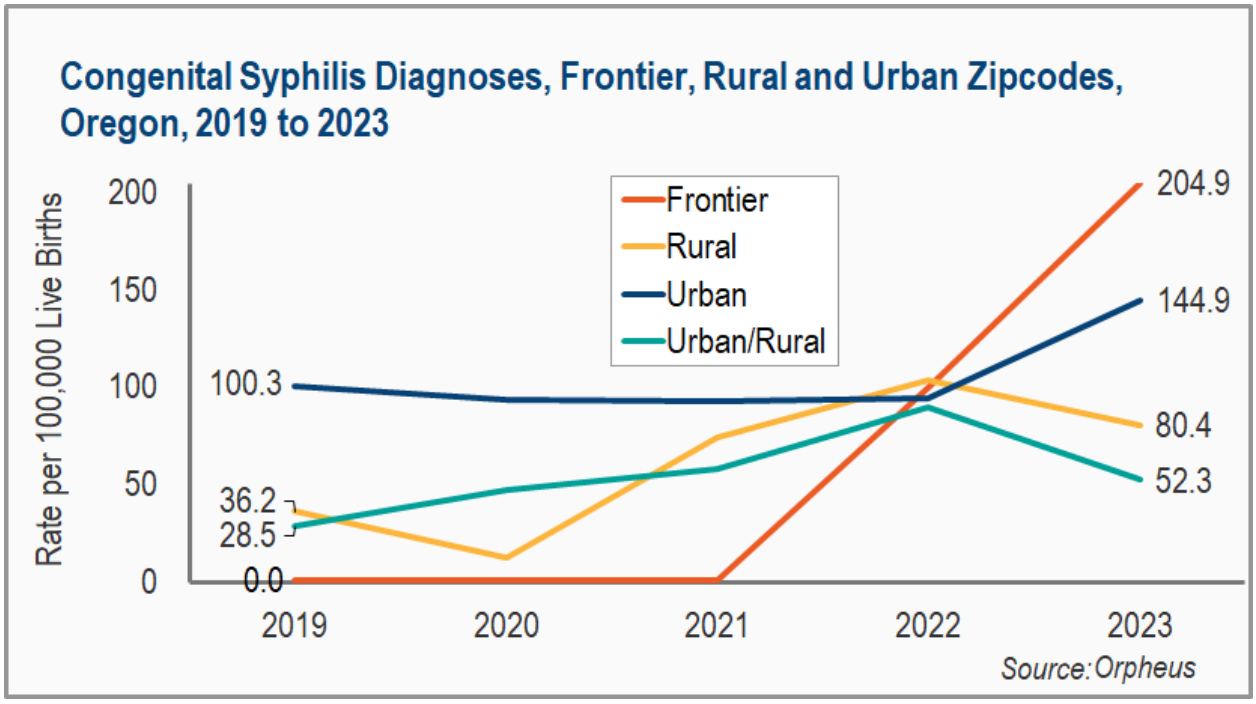

Figure 8.19.4

Data opportunities

Improving data begins with more accurate case information, higher interview rates, and more complete data on sexual partners. Local health departments have varying resources to interview people diagnosed with syphilis and interview rates vary by jurisdiction. Pregnant people with syphilis are prioritized for interviews. Data on prenatal care and sexual partners is also limited. In addition, analysis would benefit from expanded demographic details and more comprehensive information on social determinants of health—such as access to education, economic opportunity, poverty, and experiences of discrimination at both individual and community levels.

Public health interventions

Public health has a range of interventions to address congenital syphilis, focusing on three primary areas: improving access to prenatal care, strengthening syphilis care in clinical settings, and preventing reinfection through partner services. Efforts to improve prenatal care could include incentivizing engagement and partnering with organizations focused on anti-poverty work, peer support, street medicine, mobile health clinics, and housing. These partnerships could help reach people who are disconnected from health or housing systems and connect them to care. In clinical settings, public health could work with health care providers to enhance syphilis care through education, implementation of best practice alerts in electronic medical records, and promotion of routine, universal screening at key points during pregnancy. This could include expanding screening to diverse settings such as emergency departments, correctional facilities, syringe service programs, and substance use treatment centers. To prevent reinfection, public health could also work with partners to prioritize testing and treatment of sexual partners, using both traditional and innovative strategies to reach and treat them effectively.

Resources:

1. Oregon Health Authority Congenital Syphilis Public Facing Tableau dashboards: https://public.tableau.com/app/profile/oregon.health.authority.public.health.divison/viz/STI_17068215959980/790Glossary
2. Think Out Loud, OPB: Syphilis cases are on the rise across Oregon and the US https://www.opb.org/article/2023/11/21/sexually-trasmitted-infection-syphilis-oregon-health-std-/
3. About Congenital Syphilis (CDC): https://www.cdc.gov/syphilis/about/about-congenital-syphilis.html
4. 2024 Health of Women and Children Report: Oregon State Summary (America's Health Rankings):

https://www.americashealthrankings.org/learn/reports/2024-health-of-women-and-children-report/state-summaries-oregon

20. HIV infection

HIV remains a significant public health concern with far-reaching implications for individuals and communities. If left undiagnosed or untreated, HIV can lead to increased susceptibility to opportunistic infections and premature death. Unlike when HIV first emerged decades ago, people currently living with HIV who receive adequate treatment can now live healthy lives with normal life expectancies.

HIV treatment is also a form of prevention. People with HIV who have low levels of the virus in their blood that can't be detected on a test cannot transmit HIV to their sexual partners. Additionally, HIV is preventable – PrEP (pre-exposure prophylaxis), available as an oral or injectable medication, can prevent HIV acquisition. Syringe exchange programs also help prevent HIV transmission by providing people who inject drugs with access to sterile syringes, reducing the likelihood of sharing used equipment and the spread of bloodborne infections.

HIV diagnoses in Oregon and the United States declined from 2012 to 2020. However, in 2022, new HIV diagnoses in Oregon rose to 5.8 per 100,000 persons (244 cases) and remained stable in 2023 (Figure 8.20.1). National data from 2022 and 2023 is not available. In addition to the expected number of new infections, increases in HIV rates post-pandemic were likely due to increased testing and a backlog of delayed diagnoses.

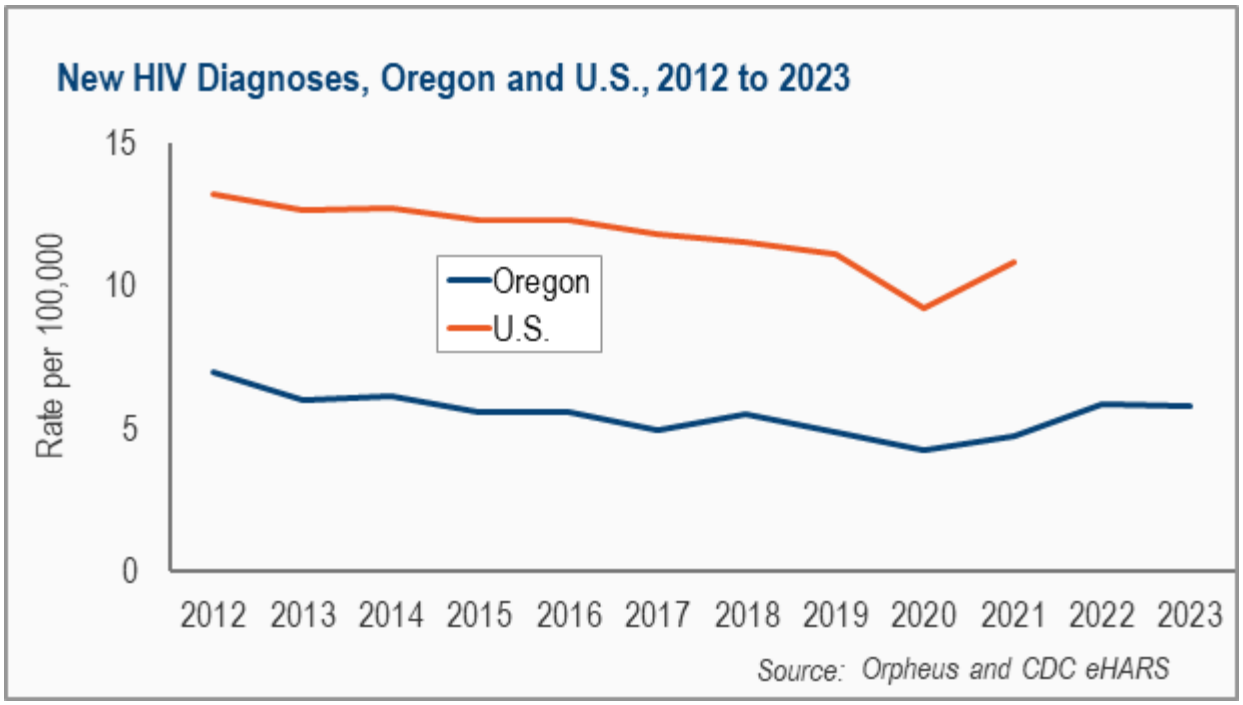

Figure 8.20.1

Not all communities have equal access to HIV testing, prevention, and treatment resources, leading to persistent disparities. These disparities particularly affect certain groups, including people assigned male at birth, communities of color—such as Black/African American, Hispanic/Latina/o/x, American Indian/Alaska Native, and Native Hawaiian/Pacific Islander populations—people who inject drugs, individuals living in rural areas, those experiencing houselessness, and adults aged 25 to 34 years.

Several factors have contributed to these disparities including lack of equitable access to routine and HIV-related health care.

In 2023, only 42% of the Oregon adult population reported ever being screened for HIV in their lifetime.

Although the number of PrEP prescriptions have significantly increased since its FDA approval in 2012, only about a quarter of people who could benefit from PrEP were prescribed PrEP in Oregon in 2023. The PrEP needs of Black or African American, Hispanic and Latina/o/x, and female Oregonians remain unmet compared to their counterparts.

Since 2019, new HIV diagnoses have increased in frontier regions, rising from 0 per 100,000 in 2019 to 5.1 per 100,000 in 2023. Urban areas have also seen an uptick, with new HIV diagnoses increasing from 7.3 per 100,000 in 2020 to 12.4 in 2023 (Figure 8.20.2).

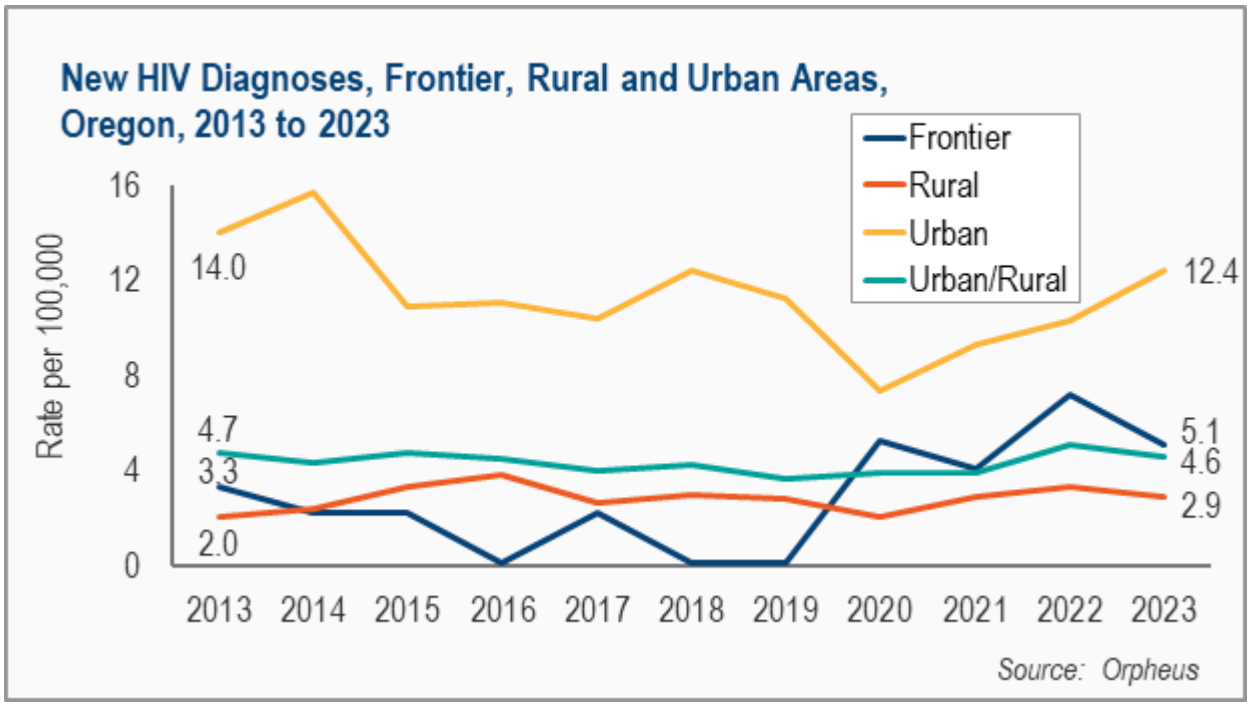

Figure 8.20.2

In 2023, 13% of people diagnosed with HIV had also been diagnosed with a sexually transmitted infection (syphilis, gonorrhea, or chlamydia) in the two years prior to their HIV diagnosis.

Structural and social determinants of health

HIV is a syndemic condition – meaning it's closely intertwined with structural, social, behavioral, environmental and health factors. Factors such as discrimination, poverty, housing instability, substance use, corrections involvement, and stigma contribute to HIV acquisition and can hinder effective management once HIV is acquired.

In Oregon, Black/African American, American Indian/Alaska Native; Hispanic or Latina/o/x; and Native Hawaiian/Pacific Islander people experienced

disproportionately high rates of HIV (Figure 8.20.3). *These disparities are not caused by race or ethnicity but by social, economic, and environmental conditions that create barriers to achieving optimal health.*

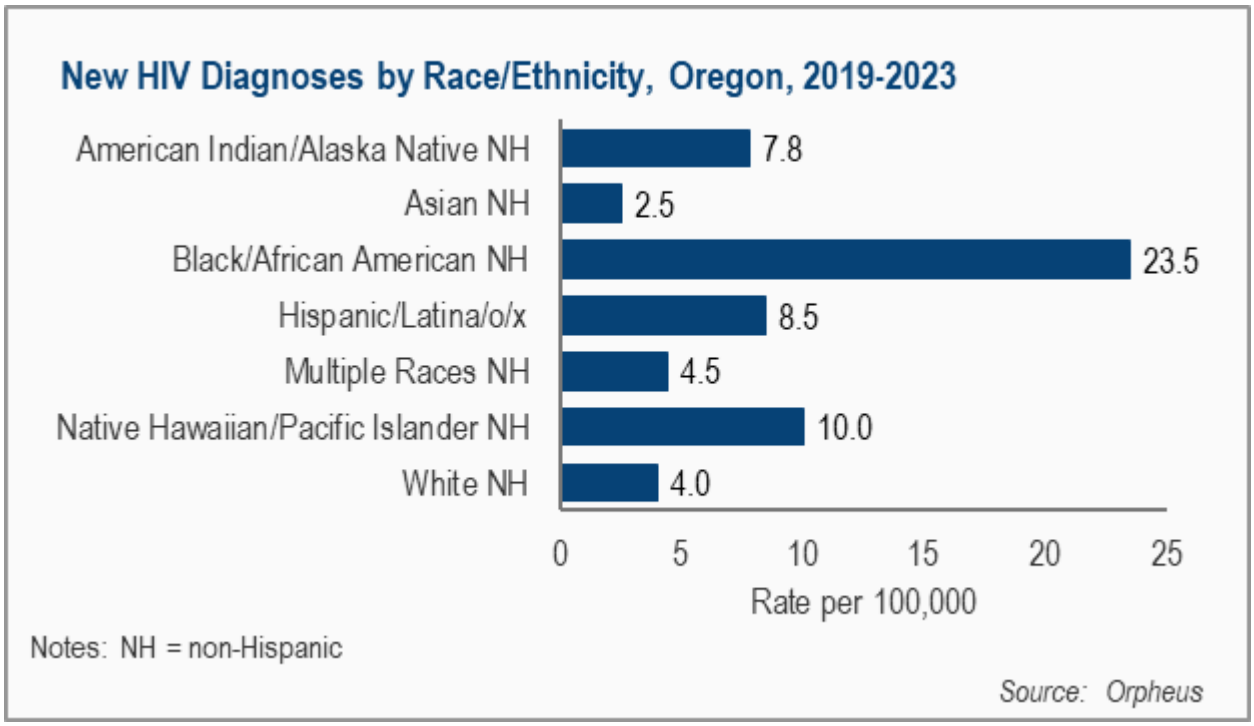

Figure 8.20.3

Despite systemic challenges, over 50% of Black/African American, Hispanic/Latina/o/x, American Indian/Alaska Native, and Native Hawaiian/Pacific Islander people reported having been screened for HIV in their lifetime in 2023, highlighting community resilience and assets.

Data opportunities

There are several data gaps where additional data could improve treatment and prevention of HIV transmission. Example of data gaps include limited data on social determinants of health, such as income and education, at both individual and community levels, insufficient information on sexual partners, incomplete or delayed data that prevents effective detection of HIV clusters, and lack of consensus on measuring and quantifying social determinants of health, including racism.

Public health interventions

Public health interventions should include an intentional examination of our educational, economic, housing, and criminal justice systems, a redistribution of power, and increased public health support for wellness and health promotion.

Interventions include improving access to health care and HIV care services, such partnering with organizations focused on anti-poverty efforts, peer support, street medicine, and housing to enhance HIV care and prevention engagement; Continuing and enhancing public health prevention, outreach, testing and treatment programs that support routine, convenient, universal HIV screening; Expanding screening to diverse settings, such as emergency departments, correctional facilities, syringe services, and substance use disorder treatment program; and ensuring timely and adequate treatment through initiatives such as Rapid Start, which prioritizes starting HIV treatment as soon as possible after diagnosis, typically within seven days.

Additionally, educating providers and assisting in implementing best practice alerts in electronic medical record systems used, testing and treating sexual partners of people diagnosed with HIV, and making harm reduction services more available can intervene in HIV acquisition.

Resources:

- U.S. Statistics: HIV.gov: Official U.S. government resource providing up-to-date statistics and trends on HIV, including incidence, diagnoses, demographics, and treatment outcomes for the United States. Includes detailed breakdowns by age, race/ethnicity, transmission category, and region, as well as information on people living with HIV and recent progress in HIV prevention and care (Updated February 21, 2025) https://www.hiv.gov/hiv-basics/overview/data-and-trends/statistics
- Think Out Loud: Oregon HIV cases see slight increase after years of decline (July 17, 2024) https://www.opb.org/article/2024/07/17/oregon-hiv-cases-trends/
- Oregon Health Authority HIV Public Facing Tableau dashboards:

- https://public.tableau.com/app/profile/oregon.health.authority.public.health.divison/viz/EndHIVOregon/EndHIVORHome
- https://public.tableau.com/app/profile/oregon.health.authority.public.health.divison/viz/HIVinOregon/HomePage
- CDC: Introduction to Syndemics: https://www.youtube.com/watch?v=rfSb-ogOfpI
- Syndemic video: https://www.youtube.com/watch?v=rfSb-ogOfpI

21. Infant mortality

Infant mortality, the death of a baby between birth and its first birthday, is an important marker for a population's health status, highlighting the health and social conditions of children and adults in a society. The infant mortality rate (number of infant deaths per 1,000 live births) is associated with factors such as maternal health, access to health care, and other social, economic, and environmental conditions.[111]

Worldwide, the infant mortality rate has showed a downward trend over time. Infant mortality has declined over the past 60 years in the U.S., largely due to medical advances and hospital care of premature infants. Nationally, the leading causes of infant death are birth defects, prematurity/low birth weight, sudden unexplained infant death syndrome (SUIDS), unintentional injuries, and maternal complications of pregnancy. The leading causes of infant mortality are similar in Oregon.

One of the Healthy People 2030 objectives is to reduce the infant mortality rate to 5.0 or lower.[112] The infant mortality rate in Oregon has been under 5.0 each year since 2018. In Oregon in 2023, 4.6 infants died per 1,000 live births among Oregon residents (Figure 8.21.1), which is below the U.S. rate.

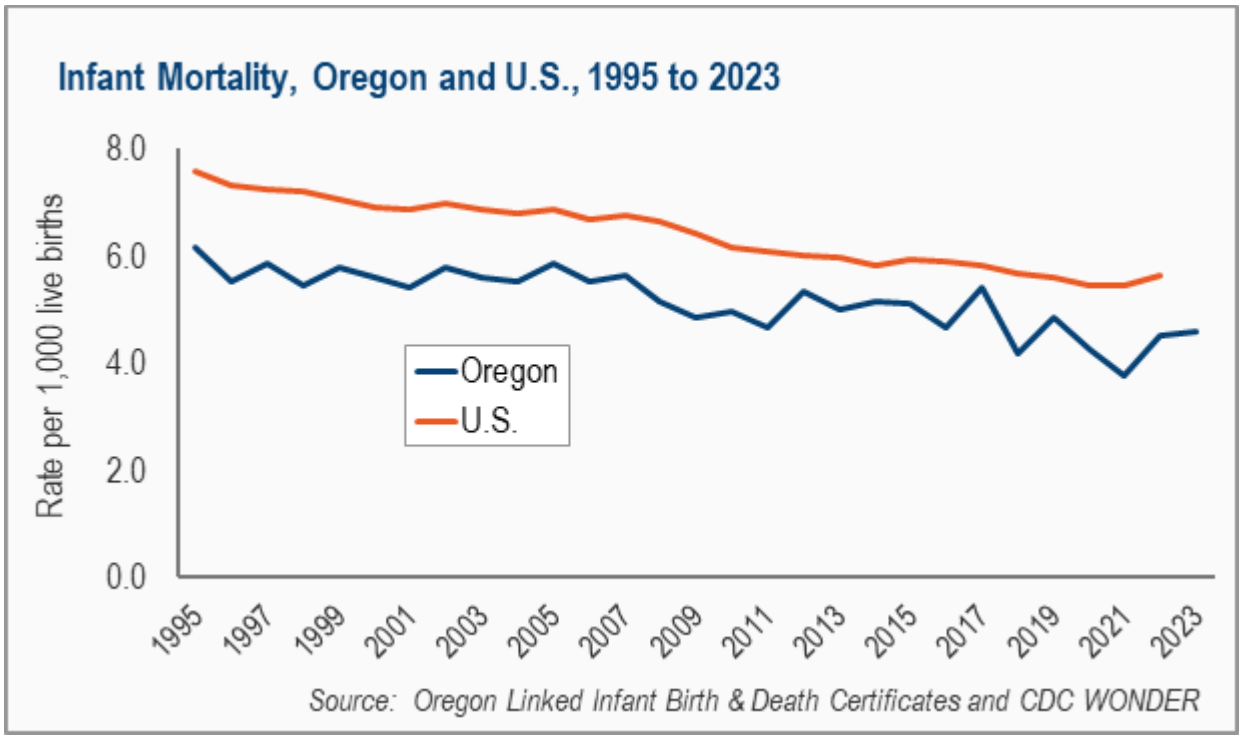

Figure 8.21.1

Oregon has significant and persistent racial and ethnic inequities in infant mortality. From 2019 to 2023, the infant death rate was highest among Black/African American and Native Hawaiian/Pacific Islander babies, followed by American Indian/Alaska Native and multiple race babies (Figure 8.21.2).

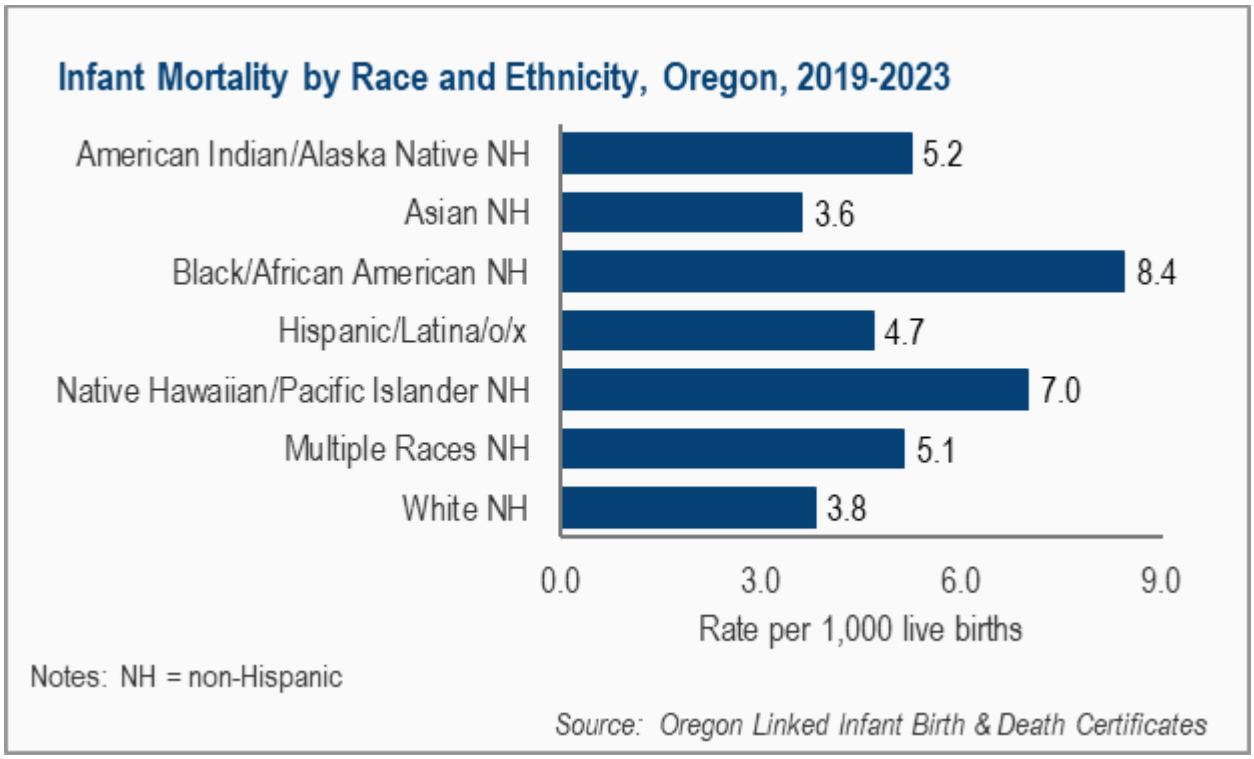

Figure 8.21.2

Inequities in Oregon infant mortality rates are also present by geography and by the birthing parent's age; rural counties have a higher infant mortality rate than frontier or urban counties (Figure 8.21.3).

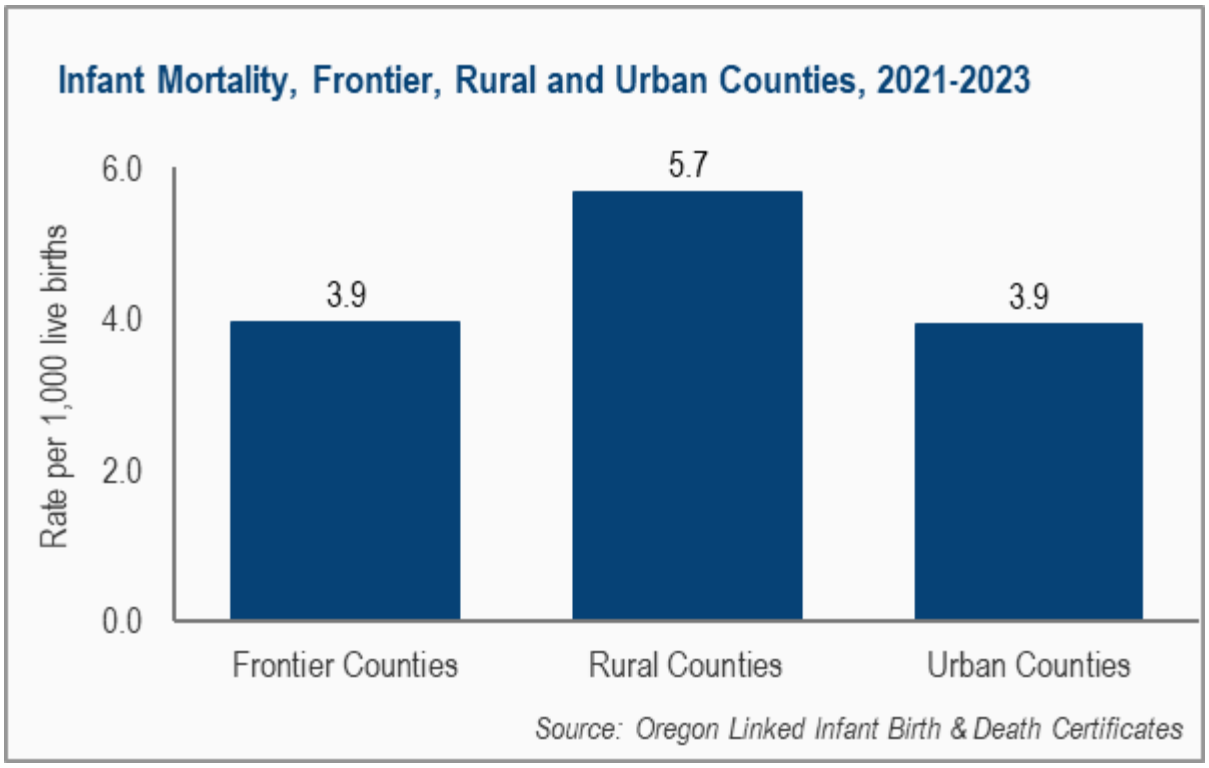

Figure 8.21.3

Parents who are teens (18 and 19 years of age) had the highest infant mortality rate of any age group (Figure 8.21.4).

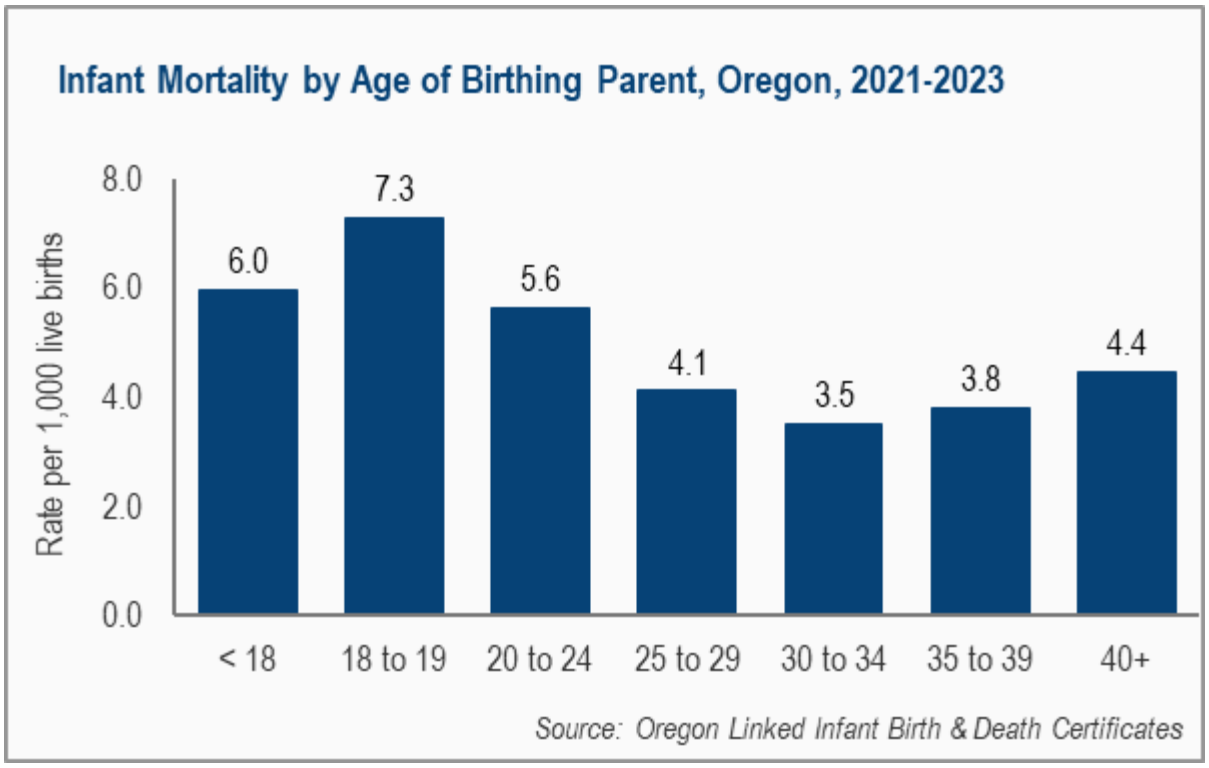

Figure 8.21.4

Some protective factors against infant mortality include folic acid supplementation to prevent neural tube defects, high quality prenatal care that includes stabilization and management of pre-existing chronic diseases, maternal and infant immunizations, breastfeeding, safe infant sleep education and support for parents, and multilevel support for new parents.[113,114]

Risk factors include poverty, lack of access to health care, food insecurity/poor nutritional status, maternal smoking, alcohol or drug use during pregnancy, poor environmental conditions, lack of culturally congruent supports, and the contributing factors of racism and discrimination.

Structural determinants of health

Economic systems, governance structure and power dynamics are structural determinants that influence infant mortality rates. For example, neighborhood segregation can result in families from some communities

having sustained exposure to environmental contaminants in the land, water or air. Clinics and hospitals in some regions of Oregon have few or no providers who can speak the language of some pregnant patients. There are also “maternity deserts” in Oregon where a pregnant person is unable to deliver in or near their own community. These are locations where an obstetrical emergency can be far more dangerous to the birthing parent and the baby and where there is no access to specialized neonatal intensive care. Further, much of Oregon is identified as a childcare desert for infants, which makes finding high quality daycare for infants difficult for families.[106,115,]

Social determinants of health

Social determinants such as education, housing, income and access to health care impact infant mortality rates. Families with fewer financial resources may struggle to afford or to have access to nutritious food, stable housing, or prenatal care. Education levels can be related to health literacy, affecting a parent's ability to navigate health care systems. Factors like racism, social support, and neighborhood conditions affect both maternal and infant health.[106,116] Less empowered or marginalized communities endure higher levels of infant mortality.

Data opportunities

Although some infant deaths are from preventable causes, others, such as most birth anomalies (birth defects) and rare genetic diseases are not. Premature births are multifactorial in cause, and despite decades of study, only partial preventive measures exist.[117, 118, 119] Therefore, it is key to continue tracking common causes of preventable infant deaths, to conduct infant death reviews that include information from families where possible, and to talk directly with more highly impacted communities to understand barriers they face in obtaining health care and needed supports before and during pregnancy and early parenthood.

Public health interventions

Prevention of infant mortality begins far upstream, with state-level support to promote healthy families, through education, job opportunities, affordable and healthy food and housing, family leave policies, community cohesion, good transportation, or violence prevention. Public health providers with more specific programs such as family/parent education, health provider and workforce training, and direct support to parents.

Safe sleep campaigns are an intervention that can decrease infant deaths, and with input from communities they can be tailored to specific cultural audiences. Workforce training can include training of rural paramedics in neonatal resuscitation techniques, best practices for nurse home visitors and expanding the range of support that traditional health workers can provide. Educational campaigns such as folic acid supplementation and highlighting the availability of Medicaid application assistance are other important arms of prevention efforts.

Oregon Health Authority (OHA) works with the Collaborative Improvement and Innovation Network to Reduce Infant Mortality, housed within the National Institute for Children's Health Quality, to focus on strategies to reduce infant deaths. These include the strategic areas of safe sleep practices, smoking cessation in mothers, preconception and planning future pregnancies, increasing the use of higher-level health facilities for deliveries in high-risk pregnancies, and improving social determinants of health and equity to impact pregnancy outcomes. Key programs to reduce infant mortality also include the Special Supplementation Nutrition Program for Women, Infants and Children (WIC), multiple nurse home visiting programs including universally offered home visiting, and the State Child Death Review and Prevention Team (co-chaired by the OHA Injury and Violence Prevention Program and the Oregon Department of Human Services Child Fatality Prevention and Review Program).

22. Heart disease deaths

Heart disease, also known as Cardiovascular Disease (CVD), refers to several types of heart conditions. The most common type of heart disease is coronary artery disease (CAD). CAD affects the blood flow to the heart, and decreased blood flow can cause a heart attack. A “heart disease death” is any death caused by the heart’s inability to function properly.

Heart disease is the second-leading cause of death in Oregon and in 2023, 7,834 Oregonians died from heart disease.

The drivers of heart disease include a combination of individual risk factors and social and structural risk factors. Individual risk factors include smoking, high blood pressure, high cholesterol, being overweight, physical inactivity, stress, excessive alcohol use, age, and family history. Other factors include comorbidities such as diabetes and unhealthy nutrition and diet. Structural factors include environmental factors like air pollution and race and ethnicity. CVD diagnosis is the largest risk factor associated with heart disease deaths. Irregular heartbeats, congenital heart defects, or infections that damage heart valves also contribute to heart disease deaths.

In 2023, 285,000 Oregonians (6.6%) were diagnosed with CVD, similar to national trends. Heart disease death trends in Oregon are associated with elevated risk factor indicators for CVD, with 30% of Oregonian adults diagnosed with high blood pressure and 29% diagnosed with high cholesterol. Interventions and self-management opportunities such as self-monitored blood pressure programs can provide health education on actions and behavior changes to improve blood pressure and other risk factors, as well as manage heart disease to reduce mortality. Promoting quality improvements within the systems of care that people can access also improve CVD outcomes, including strengthening coordination between community and clinical health care providers.

Although heart disease death rates in Oregon have decreased overall since 1999, they have increased significantly over the past 10 years from a rate of 130 deaths per 100,000 individuals in 2012 to 142 per 100,000 in 2023 (Figure 8.22.1).

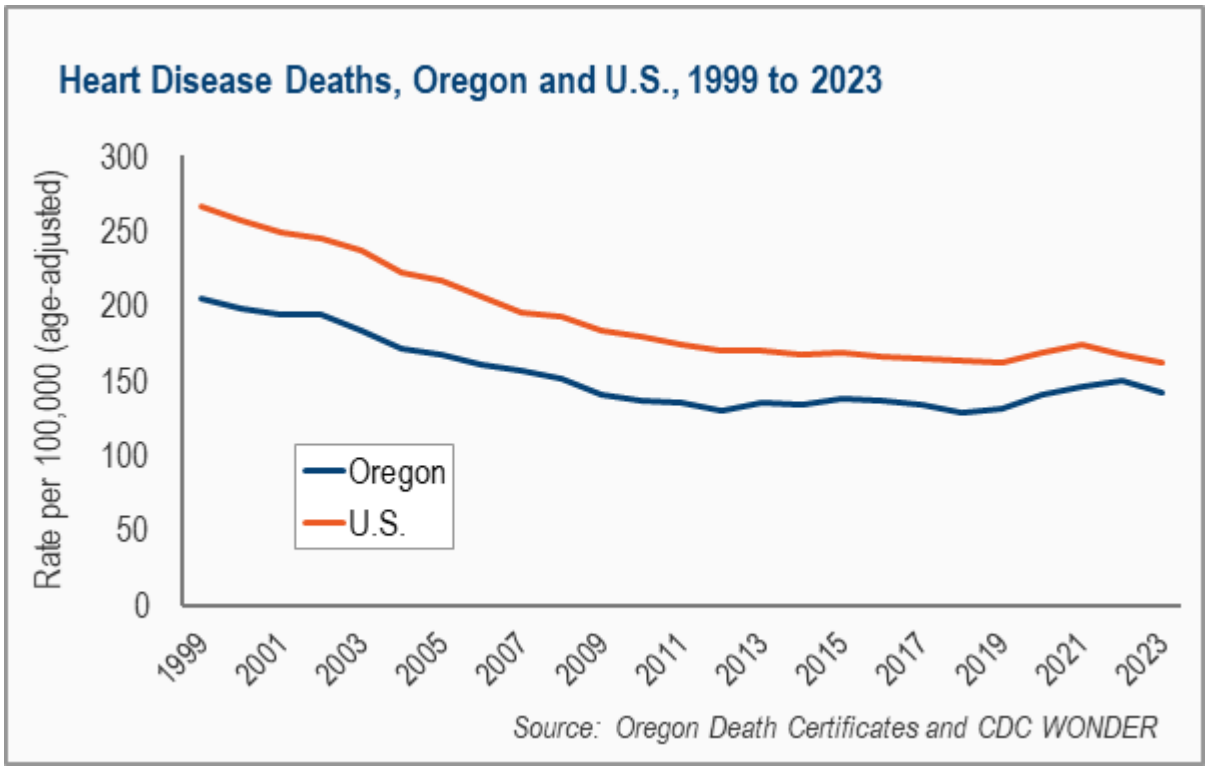

Figure 8.22.1

Similar to national data, males in Oregon had higher rates than females in 2023 (Figure 8.22.2).

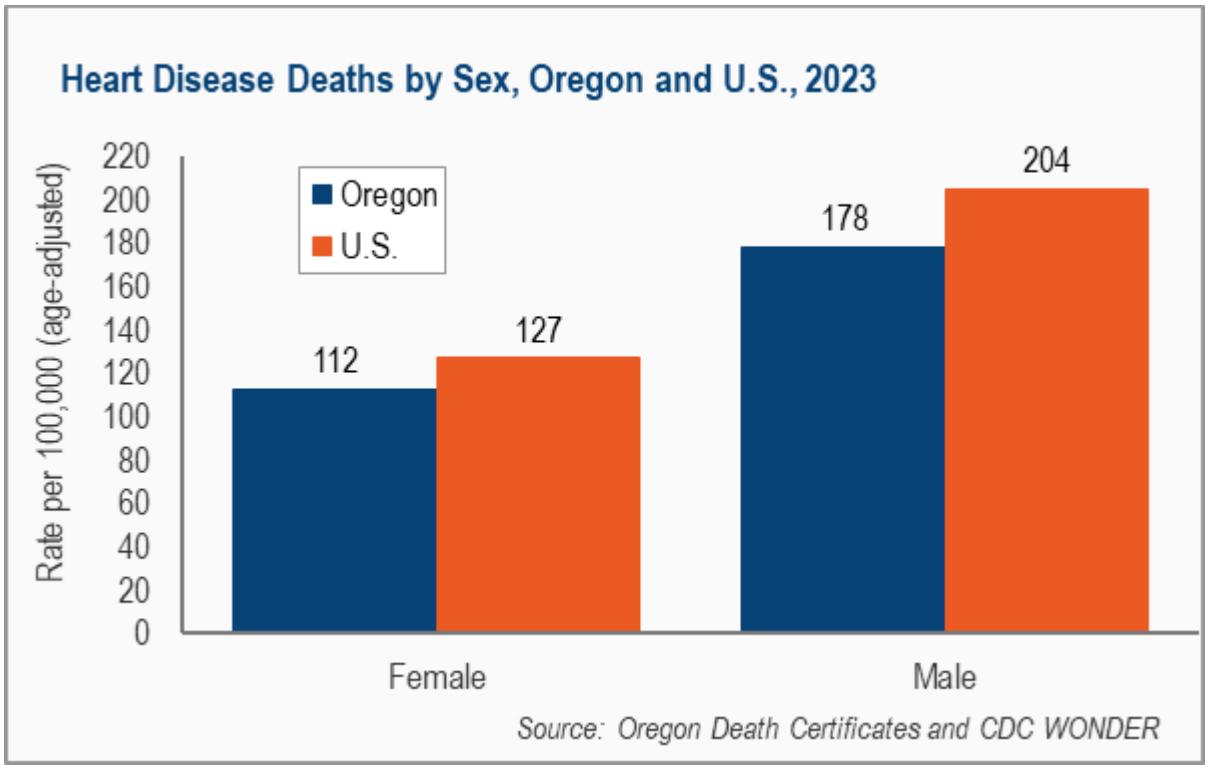

Figure 8.22.2

Heart disease death rates also varied across racial and ethnic groups, with Black/African American, Native Hawaiian/Pacific Islander, white, and American Indian/Alaska Native individuals having rates higher than those of Asian, Hispanic/Latina/o/x, and multiple race individuals (Figure 8.22.3).

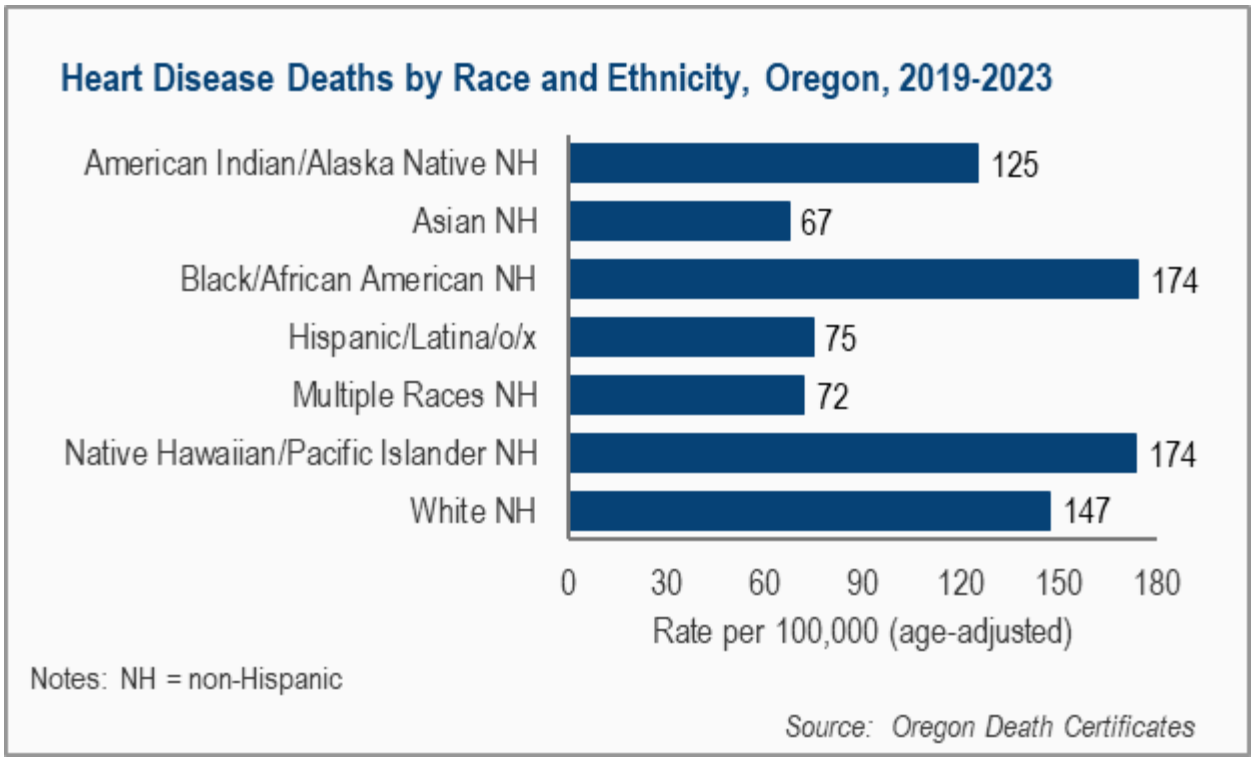

Figure 8.22.3

While Oregon has experienced a decrease in the percentage of people diagnosed with CVD between 2018 and 2023 (absolute decrease of 0.2% per year based on weighted survey data from 2018 (7.7%) to 2023 (6.6%)). The prevalence of risk factors such as hypertension, high cholesterol, type 2 diabetes, tobacco use, and physical inactivity have not shared similar trends of decline, indicating that additional factors are influencing rates of CVD in Oregon.

Structural determinants of health

Institutional discrimination and racism have resulted in Oregon's communities of color and Tribal communities experiencing poorer health outcomes. Historic limitations on access to health care, systemic racism and classism, and language barriers have affected quality of care. Other structural issues limiting cardiovascular health education and self-management programming include access limitations in frontier and rural

areas, concerns about cost among those with a lower income, and health literacy.

Social determinants of health

Eligibility for Oregon's state Medicaid program (Oregon Health Plan or OHP) is based in part on having low incomes. OHP members experience higher rates of CVD compared to non-OHP members. Those with household incomes of less than $25,000 per year experience 12% age-adjusted CVD prevalence rates compared with 6.6% in the general population. Furthermore, OHP members have higher levels of unemployment, lower levels of educational advancement, are more likely to live in rural communities, and are more likely to be a part of racial groups such as the Black or African American population. People within these demographic groups who are OHP members have a disproportionately high prevalence rate for CVD diagnosis and CVD-related death and risk factors overall. In addition, the prevalence of CVD among the American Indian and Alaska Native (AI/AN) population is also higher, with 12% having received a CVD related diagnosis.

These disparities highlight the continued need for an upstream approach to improving public health and focus on the predictors and contributing factors associated with CVD, including social and structural determinants of health.

Affordable housing, wealth distribution and living wages, quality education and health care, and prevailing unfair opportunity structures around access and use of resources are some of the social determinants of health that directly impact how heart healthy people can be. All these factors contribute to the cardiovascular health of Oregonians and are largely responsible for the disparities and inequities in cardiovascular health outcomes between different racial, income, and other social groups in Oregon. Disparities in rates of CVD are rooted in the social determinants of health and require immediate and increased attention, interventions, and investment. In the case of CVD prevention and treatment, this includes expanded availability, access, and sustainability of opportunities like self-measured blood pressure

programs to help Oregonian's manage their symptoms. Also needed are more culturally and community relevant approaches and settings for CVD prevention and self-management education and practice, and the improvement of built environments based on community priorities to support healthy living.

Public health interventions

Prevention and self-management opportunities include evidence-based health promotion and education programs such as "Self-Measured Blood Pressure (SMBP) Monitoring", where individuals receive guidance and follow up from their physician on how to regularly monitor their blood pressure with a cuff at home outside of a clinical setting, as well as support with adjusting prescribed medications accordingly. The Healthy Heart Ambassador (HHA) program is a 4-month program offered in a community setting, with a trained HHA facilitator (often a Community Health Worker) providing program participants with blood pressure self-monitoring (BPSM) instruction and counseling, as well as monthly nutrition seminars to promote healthy eating practices. Both SMBP and BPSM promote protective factors that help people manage and control their blood pressure effectively, lowering their CVD risk. These programs are more effective when tailored to the specific needs of the communities they serve, including adapting implementation to meet linguistic and cultural preferences, or when serving needs in rural and frontier communities.

23. Fall deaths among older adults

Unintentional falls are the number one injury affecting Oregonians aged 65 and older.[120] Unintentional falls lead to hospitalizations and emergency department visits affecting thousands of Oregonians annually and are the number one cause of injury related death for this age group. Falls are not just a hazard in themselves, additional injuries from a fall can include a hip fracture or traumatic brain injury. A hip fracture or traumatic brain injury can create further impacts on quality of life and health, including increased risks of death and social isolation and decreased independent living capacity and decreased quality of life.

These falls also cause a large societal cost. For the falls for those 65 years of age or older, individuals incurred an estimated $2.55 billion dollars (2023) in costs from unintentional fall related deaths. Further, in the same year there was $841,480,000 of unintentional fall related hospital and emergency department charges in Oregon visits.[121] Fall related hospital and emergency department visits have been increasing in Oregon since 2020 (Figure 8.23.1).

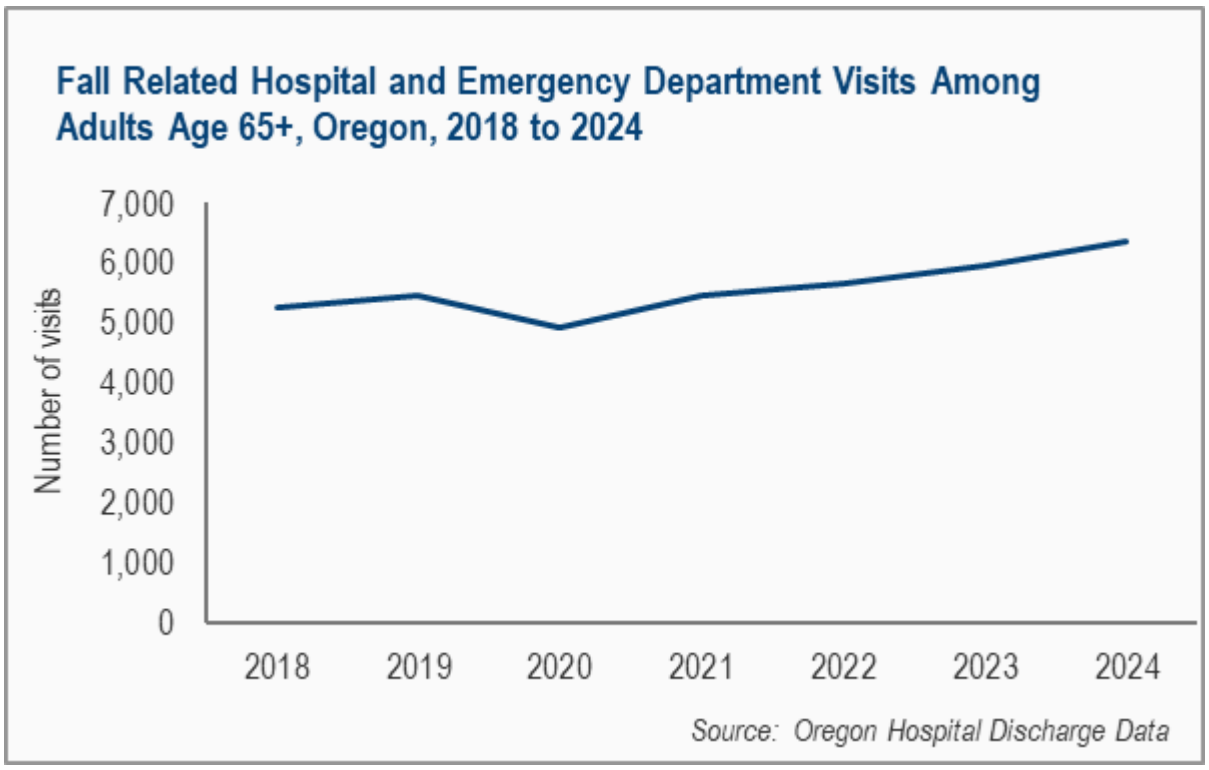

Figure 8.23.1

The rate for older adult fall deaths has increased in recent years and Oregon is consistently above the national average (Figure 8.23.2). In 2023 the Oregon rate was 127 fall deaths per 100,000 persons ages 65 and older while the same for the U.S. was 89 per 100,000.

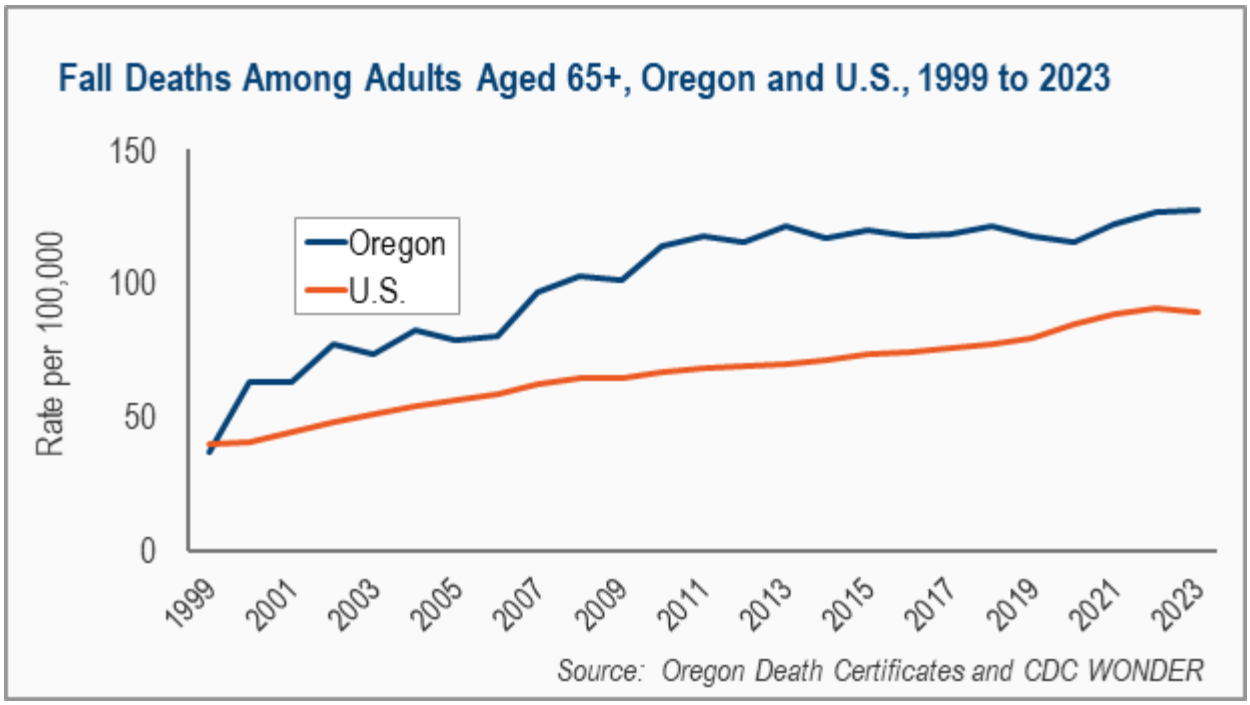

Figure 8.23.2

Prevention is the primary method to reduce falls or their severity. The primary methods and resources include:

- Regular exercise modified based on the person's ability, balance and strength exercises, walking gait training.
- Home fall-proofing with activities such as securing rugs.
- Regular vision and hearing checkups.
- Medication review to identify those that can increase chances for falls.
- Effective management of other health conditions or treatments (such as neurological conditions, chemotherapy, and other co-occurring health conditions) that can increase fall risk.
- Reducing effects of alcohol or other substance use through limiting or avoiding use.
- Decrease social isolation, since engagement supports an individual in their activities of daily living and the network that can help the individual reduce risks in their home or respond if a fall happens.

There are evidence-based programs that can provide support for fall prevention, such as CDC's STEADI, programs that can be done at home such as the Otago Exercise Program, the National Council on Aging's Home Hazard Removal program and strengthening program, A Matter of Balance; and CAPABLE, developed for aging in place. There are many opportunities

for fall prevention and one approach does not fit everyone. It's essential to assess individual needs and provide support.

Those age 85 and older are at highest risk for deaths and hospitalization in Oregon. Demographics by race also show white and American Indian and Alaska Native people are the most impacted by falls (Figure 8.23.3). Regardless of age or demographic characteristics, there are known effective fall preventions that can reduce risk, severity of injury and health care or living cost impacts.

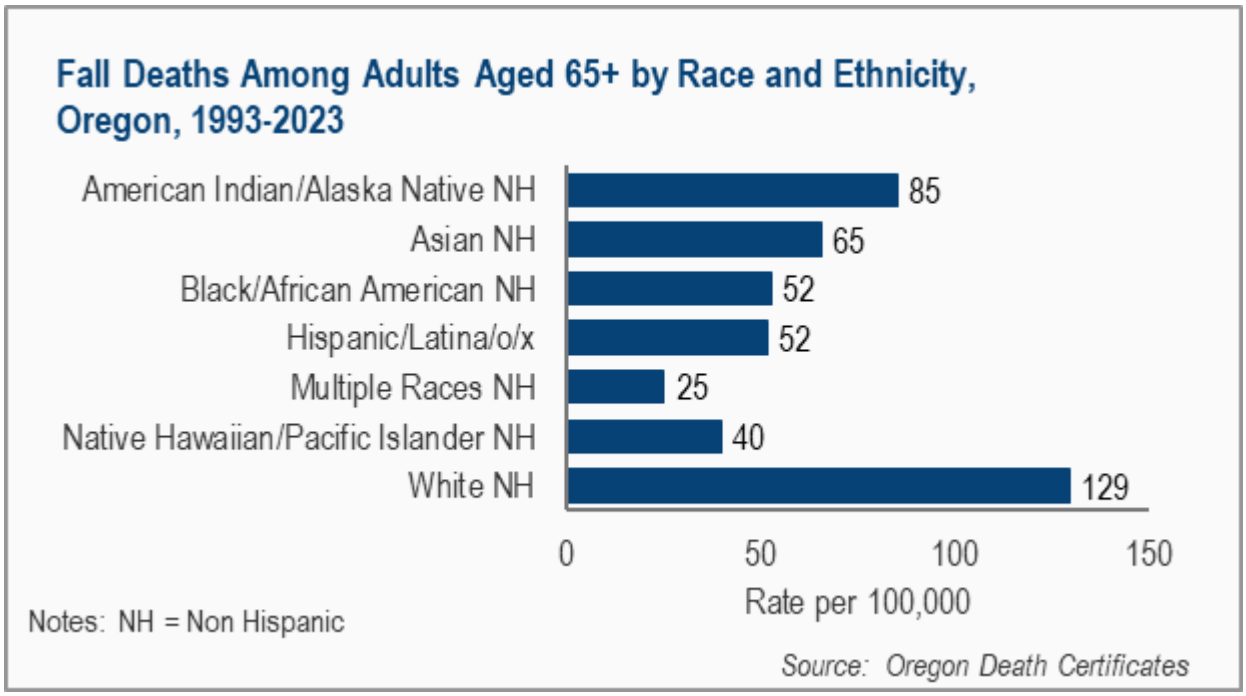

Figure 8.23.3

Structural determinants of health

Social determinants of health such as lack of stable housing, lack of transportation, lack of access to quality food or even not paying utility bills have been shown to increase risk for unintentional falls. There is limited reporting in health care systems but ongoing efforts to improve.

Social determinants of health

Having strong community support and connection is important for providing the prevention activities for older adults, as well as providing support for recovery to minimize impacts if an injury occurs. Often many of those who experience falls are financially constrained, which limits access to prevention activities. Lastly, prevention activities and community-based resources can be harder to obtain in more rural settings.

Data opportunities

There are a variety of data gaps that would improve the quality of data and the ability to improve prevention of falls. These include ensuring that all falls are reported by utilizing more EMS records (including licensed non-transport agencies that are often more rural), and ensuring that falls reported in primary care, specialty care, home health care, and assisted living centers are included in data collection. A fall mentioned in primary or specialty care is important to flag as individuals who have experienced a fall are at higher risk for subsequent falls. Having fall data in primary or specialty care is useful for prompting fall prevention services and educating providers on the need for fall prevention services.

Additional data that would improve prevention services are the circumstances of the fall, such as the activity that prompted the fall, and more detailed demographic information.

Public health interventions

Public health helps coordinate fall prevention efforts and collects data on falls. In this work, public health can improve by developing community guided interpretation of the data and education helpful for fall prevention efforts. Public health can also provide more timely and detailed incident information community can use for prevention and evaluation efforts. Stories about people and falls can be incorporated along with fall-related data as

often the data alone can be impersonal and reach only a portion of the audience.

There are several avenues to do this work more effectively:

- Financial support for fall prevention programs through insurance reimbursement and greater increased access to proven fall prevention programs along with reimbursement education.
- Partner with both health care, behavioral health, social services and community-based organizations to improve opportunities for fall prevention programs.

24. Drug-related overdose deaths

Drug overdose deaths continue to be a public health crisis in Oregon and are largely preventable. The loss of someone due to an overdose can have an enormous impact on families and communities. Nationally in 2023, the number of overdose deaths decreased for the first time since 2018. However, the number of people dying from an overdose in Oregon reached a new high in 2023, a loss of 1,833 people (Figure 8.24.1). This can be partially explained by the timing of the introduction of illicitly manufactured fentanyl across the country. Provisional 2024 data show a slight decrease in overdose deaths compared to 2023. This decrease may be influenced by the increased availability of naloxone, an opioid overdose reversal drug, strengthened treatment and harm reduction programs, and a decrease of fentanyl in the illicit drug supply.

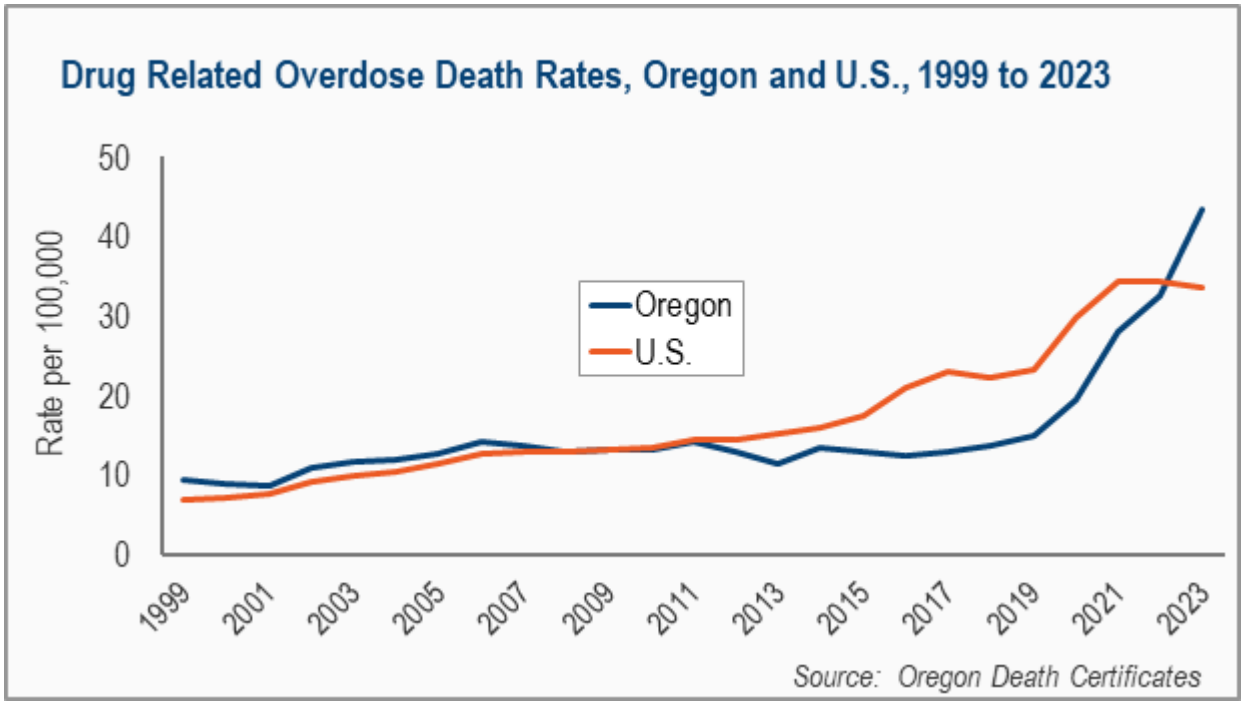

Figure 8.24.1

Opioids are identified as a cause of death in over 70% of overdose deaths. The most common substances identified as a cause of death are fentanyl, a synthetic opioid, and methamphetamine, a stimulant. In 2023, 92% of all overdose deaths involved at least fentanyl or methamphetamine.

Drug overdose death rates are the highest among individuals who identify as male compared to individuals who identify as female. In Oregon, people 45-64 years of age have the highest rate of an overdose death, followed by people 25-44 years of age (Figure 8.24.2). Less than 20 youth aged 0 to 9 and 355 youth aged 10-24 died from an overdose from 2020 to 2023.

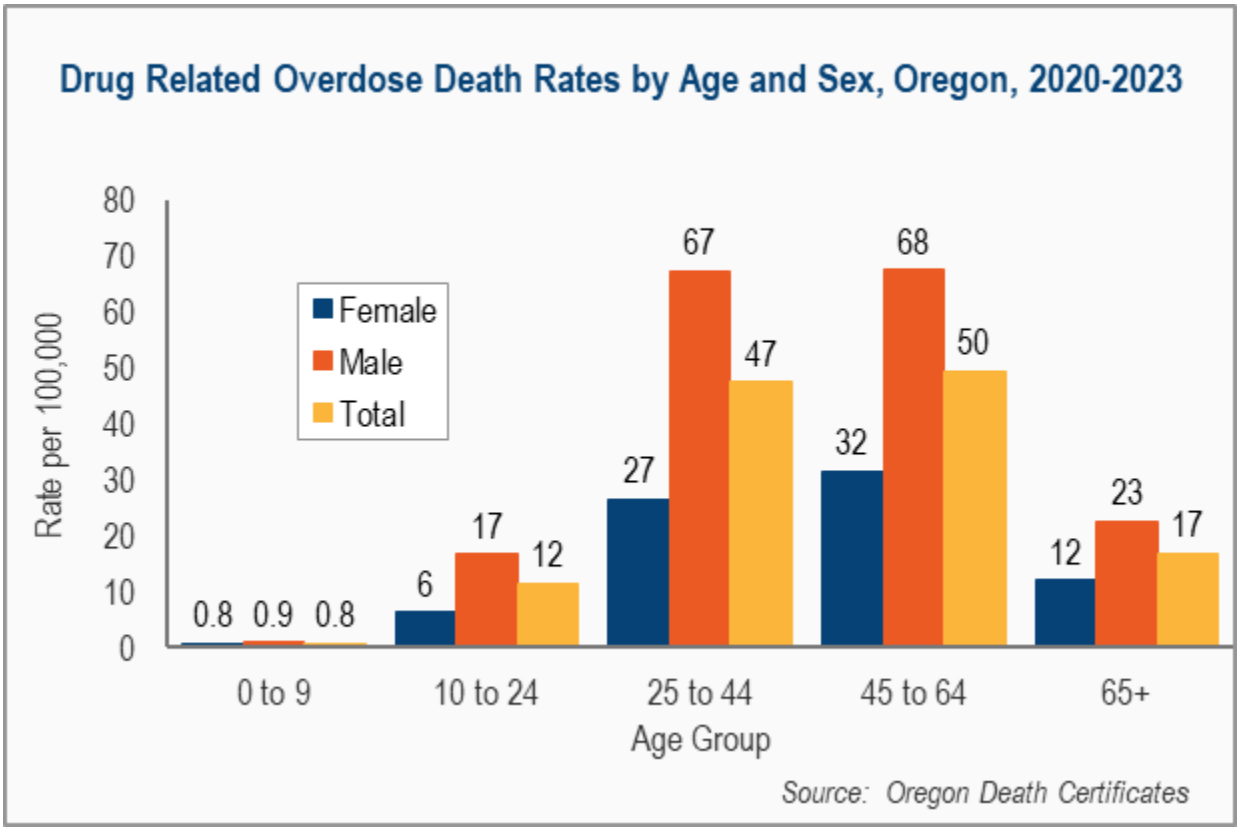

Figure 8.24.2

According to the State Unintentional Drug Overdose Reporting System (SUDORS), common circumstances in overdose deaths include a diagnosed mental health problem (including diagnosed mental condition, alcohol or substance use problems) and having previous nonfatal overdoses.

Individuals who have received any substance use disorder (SUD) treatment, currently or previously, have a lower risk of an overdose death.

Protective factors related to reducing overdose death risk include SUD treatment, not using substances when alone, having naloxone available for immediate use if needed, and the availability of physical and behavioral health care. Individuals who are experiencing houselessness or have been recently released from an institution (e.g., prison or jail) are some of the most impacted populations.

There are racial disparities in overdose deaths. In 2023, American Indian/Alaska Native Oregonians had the highest rate of an overdose death (118 per 100,000), followed by Black and African American Oregonians (117 per 100,000). Asian and Native Hawaiian/Pacific Islander and Hispanic/Latina/o/x individuals have the lowest rates, 10 and 26 per 100,000 respectively. While white individuals continue to have the highest number of overdose deaths in Oregon, all race and ethnicity categories increased in the number of overdose deaths from 2022 to 2023.[122]

Structural and social determinants of health

Institutional discrimination and racism have resulted in Oregon's communities of color and Tribal communities experiencing poorer health outcomes, including poorer mental health, substance use, and socioeconomic outcomes. Historical disenfranchisement through genocide, cultural disconnection and pressure to assimilate has resulted in American Indian/Alaska Native and Black and African American people having higher rates of overdose.[123, 124] These social determinants of health intersect to create a situation that is detrimental to the physical and mental health of these communities.

Policies that improve economic security (income and housing) and policies that prohibit discrimination on the basis of sexual and gender identity, race and ethnicity can support individuals from becoming at risk of a drug overdose death.

Medicaid expansion policies focused on improved coverage for mental health, substance use treatment and support, along with state mental health parity laws, can help reduce overdoses in Oregon.

Improving access and delivery of health care, including mental health and substance use specific care, can help reduce overdose deaths in Oregon by identifying and supporting those at risk. Ensuring that culturally specific care is available, including supporting a workforce of individuals with lived experiences, is critical.

Data opportunities

The data systems used here do not identify individual's sexual orientation or gender identity. This, and other gaps in data collection, likely has resulted in an undercount of LGBTQIA2S+ youth and adults who died from an overdose. This is a limitation in the dataset and does not allow for identification of people who identify as non-binary or another identity. While the database on deaths includes information on gender identity, it has a likely undercount on gender identity data due to data collection issues as well as relying on family and friends to provide an individual's gender identity.

Public health interventions

Reducing the stigma of people who use drugs should be a high priority, especially among first responders and health care providers. Both first responders and health care providers can increase their offerings of substance use treatment and additional avenues of support, such as housing assistance and accessing behavioral health care. Substance use treatment facilities need to have increased capacity and quality of services improved across the state to meet the need of the population of people who use drugs. Policies that support the strengthening of behavioral health and SUD treatment can be helpful.

OHA is educating communities across the state on the dangers of fentanyl and other emerging substances through online resources and have used radio and other advertising to reach a larger proportion of the population. OHA has held culturally specific listening sessions to inform communication, which has helped design culturally specific educational materials.

Prevention efforts, such as providing naloxone and safe-use and wound care supplies is critical. These harm reduction efforts not only provide supplies to help reduce the risk of overdose or other infections but are a touch point for access to other services. These organizations can serve as a community that accepts and supports the population of people who use drugs. The Save Lives Oregon/Salvando Vidas Oregon clearinghouse provides supplies and naloxone to organizations across the state.

Many of the risk and protective factors that are related to overdose also impact other public health issues including suicide, mental and behavioral health, and community and interpersonal violence. Opportunities to blend funding across these topic areas, as well as look upstream to prevent risk factors before they present in individuals and communities, are an important role for public health to serve. For example, addressing adverse childhood experiences and creating safe, stable and nurturing environments for youth and families can reduce risk for an individual ever experiencing the above challenges.

Community-based organizations that support communities at high risk of an overdose including youth and communities of color are necessary partners to identify and understand the unique risk and protective factors diverse communities experience and can support upstream work such as creating social connection through shared culture and reducing stigma related to substance use.

Resources

Oregon:

- OHA Reducing Opioid Overdose and Misuse
- Save Lives Oregon / Salvando Vidas Oregon
- OHA Overdose Prevention Dashboard - Includes fatal and nonfatal overdose data and trends, updated quarterly
- OHA Opioid Overdose Updates Dashboard – Monthly updates on overdose-related urgent care center and emergency department visits.

National:

- CDC Overdose Prevention resources
- CDC SUDORS Dashboard: fatal drug overdose data
- CDC DOSE Dashboard: nonfatal overdose syndromic surveillance data

25. Firearm deaths

Firearm-related suicide, homicide and accident injuries remain a serious issue in Oregon. A slight decrease in firearm deaths occurred between 2021 and 2023 in Oregon and nationally after an increasing trend over the last decade (Figure 8.25.1). In 2023, more Oregonians died from firearm injury than injuries from motor-vehicle related incidents. In total, 641 Oregonians died by firearm, at a rate of 14.2 per 100,000. Between 2021 and 2023, firearm suicides account for 75% of firearm deaths in the state followed by 22% due to homicide and just over 2% due to legal intervention. Firearms were used in over 50% of suicides and 65% of homicides. In any violent incident involving multiple victims, firearm injuries are common. Approximately 90 percent of people who died in an incident of homicide or suicide were from firearm injury.

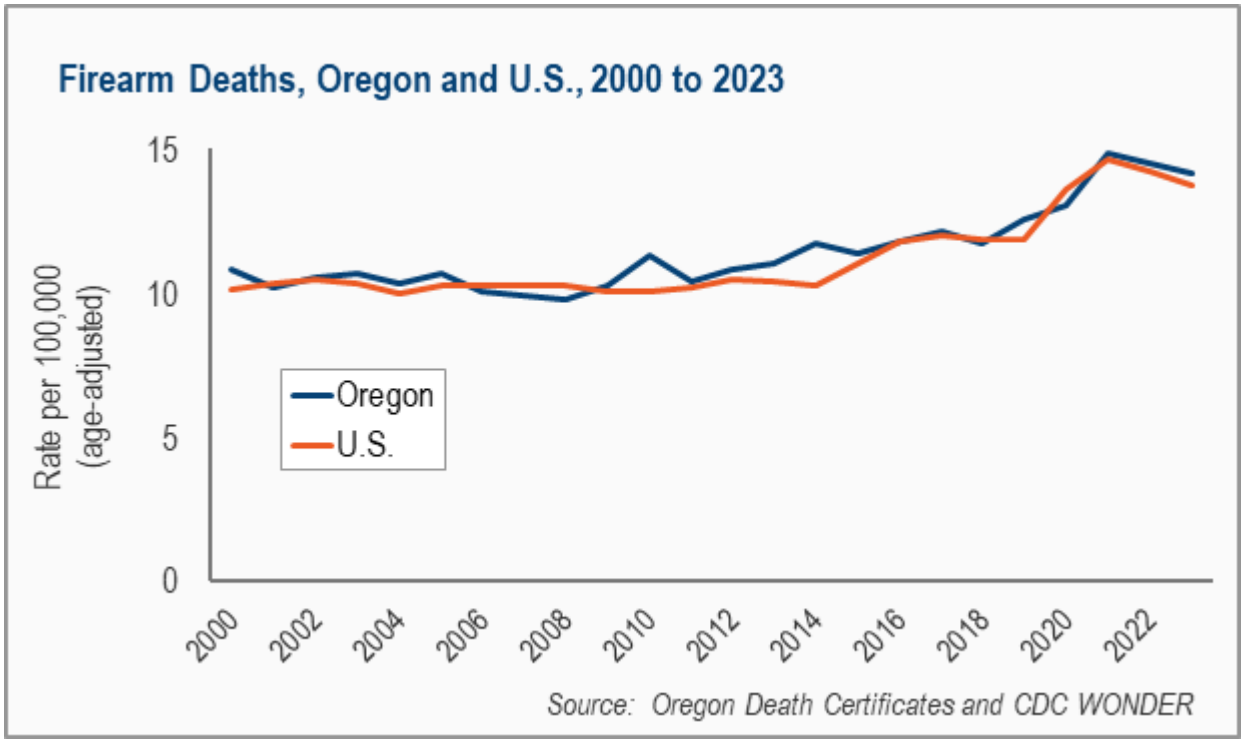

Figure 8.25.1

Some groups experience higher rates of firearm death and injuries than others. Suicides by firearm are highest among the population age 65 and older while firearm homicides are highest among age 18 to 24 (Figure 8.25.2). White men over the age of 65+ have the highest rates of firearm suicide. The suicide rate for veterans, largely due to firearm suicides, is significantly higher than the Oregon suicide rate.

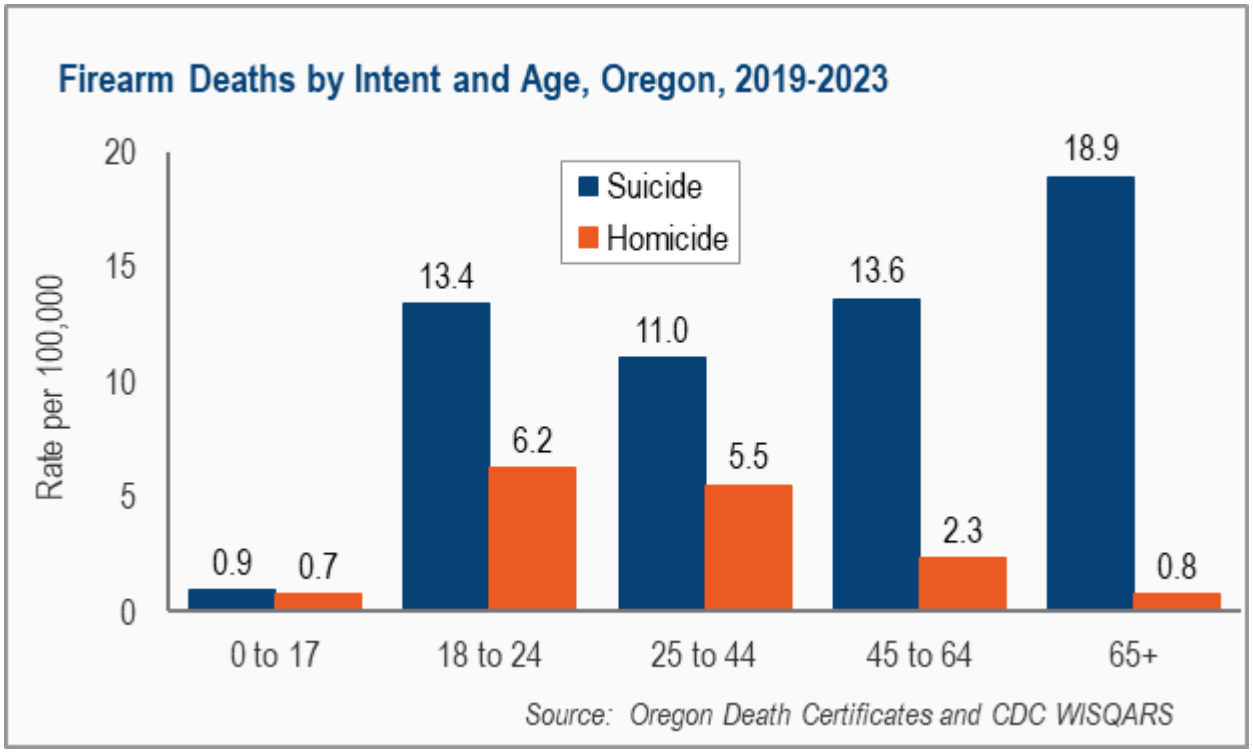

Figure 8.25.2

As a result of systemic racism, discrimination, and oppressive social structures, a disproportionate number of Oregon firearm homicides occur in urban areas and young men of color are at higher risk of becoming victims of homicide by firearm. Black and African American men are at higher risk of becoming victims of homicide by firearm. American Indian/Alaska Native communities are also disproportionately affected by both firearm homicides and suicides.[125]

Firearm deaths may result from systemic racism, forced removal from Tribal lands and genocide (Figure 8.25.3).[126]

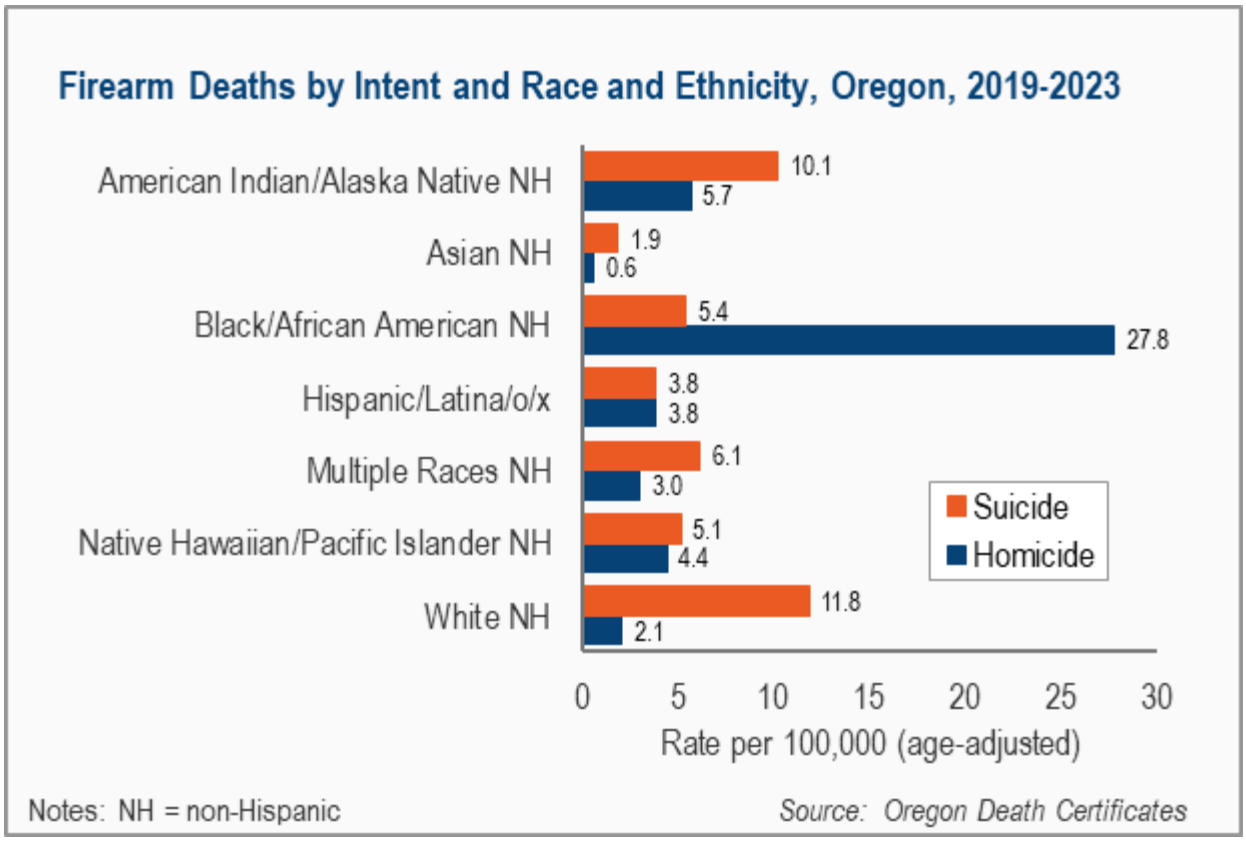

Figure 8.25.3

Males are nearly six times more likely than females to die from a firearm injury. Between 2020 and 2023, firearm deaths, due to the high percentages of firearm suicide deaths, impacted Oregon rural and frontier counties at a higher rate than in urban counties (Figure 8.25.4).

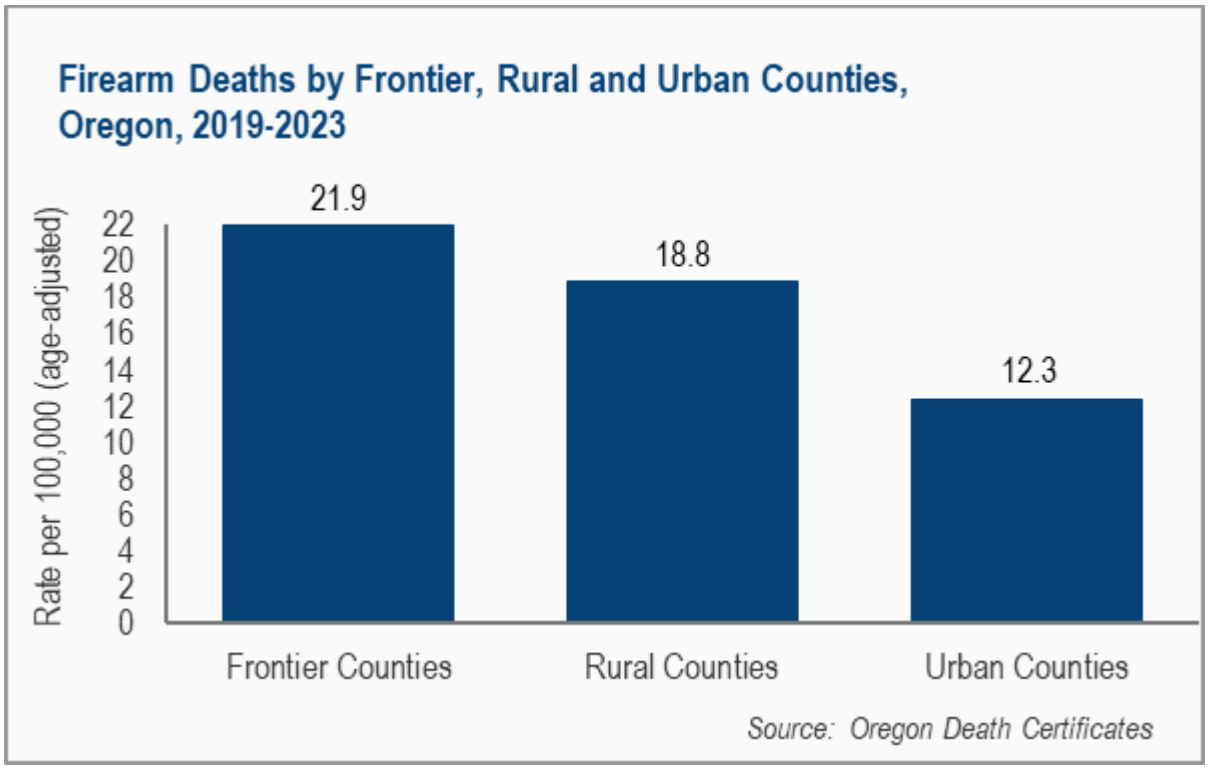

Figure 8.25.4

According to the Oregon Violent Death Reporting System, common circumstances in suicide firearm deaths include interpersonal relationship problems or poor family relationships, recent criminal legal problems or school problems, substance abuse or mental health condition, and previous suicide attempt(s). More than 60% of intimate partner violence-related homicide victims were injured by a firearm. More than 90% of homicides related to gang violence died of gunshot wounds. Risk factors for homicide firearm deaths include poverty and economic inequity, unemployment and housing instability, alcohol and substance availability and exposure to violence.

Protective factors that need to be bolstered to reduce firearm deaths include economic and housing stability, healthy family relationships and feeling connected to others, increasing youth skills in problem solving, availability of consistent and high quality physical and behavioral health care, access to education, and addressing structural inequities such as racial discrimination and discriminatory policies.

Structural determinants of health

Institutional discrimination and racism have contributed to Oregon's communities of color and Tribal communities experiencing poorer health outcomes, including related to firearm suicide and homicide deaths. Historical disenfranchisement through genocide, cultural disconnection and pressure to assimilate has resulted in American Indian/Alaska Native peoples having high rates of firearm deaths.[125,126]

Policies that improve economic security (income and housing) and policies that prohibit discrimination on the basis of sexual and gender identify, race and ethnicity can support individuals from becoming at risk of firearm suicide and homicide.

Medicaid expansion policies focused on increasing access to mental health care, substance use support through policy changes such as state mental health parity laws, can help reduce suicides by providing more support to those at risk.

Social determinants of health

Improving access and delivery of health care, including mental health and substance use, can help reduce firearm suicide deaths in Oregon by identifying those at risk early and putting supports in place. Ensuring that culturally infused care is available, including ensuring a workforce representing diverse Oregon communities, is needed. Culturally infused care describes an approach, system or practice that proactively embeds preferred language and cultural understandings, beliefs, values, practices, needs and preferences in ways that enhance fit, understanding, trust and effectiveness.

Promoting healthy relationships and social connection, including a sense of belonging and acceptance, can decrease firearm deaths. In addition, teaching coping and problem-solving skills from an early age can reduce risk.

Data opportunities

Additional data on race, ethnicity, language and disability and sexual orientation and gender identity of individuals affected is needed to further understand the impacts of firearm injuries and deaths on diverse Oregon communities.

Information on decedent sexual orientation or gender identity appears under-reported in the Oregon Violent Death Reporting System data. There is likely an undercount of LGBTQIA2S+ youth and adults who died by suicide due to existing gaps in data collection methods and relying on family and friends to provide an individual's sexual orientation or gender identity. In addition, the dataset does not allow for identification of people who identify as non-binary, gender non-conforming or other related identity.

Public health interventions

Public health can provide different levels of intervention to effectively and sustainably address firearm deaths. At the policy level, regulation such as firearm child-access prevention laws, minimum age requirements for firearm acquisition, waiting periods, universal background checks, domestic violence restraining orders and extreme risk protection laws can reduce firearm deaths.[127] Investing in activities to create safer communities and economic investment to address social determinants of health are impactful in reducing firearm-related death. Public health can also support youth mentorship, anti-gang programs and problem-solving skills training. Trauma interventions such as Hospital-Based Violence Intervention Programs and Healing Hurt People can reduce firearm homicide violence. Expansion of mental health and suicide crisis services, including lethal means counseling, can help reduce firearm suicides.

Safe storage of firearms can reduce the chance that interpersonal violence will occur. Safe storage can also increase the time needed to access a firearm. Putting time and distance between someone thinking about suicide and accessing a firearm can save lives. Research indicates the interval

between deciding to act and attempting suicide can be as short as 5 to 10 minutes.[128] Safe storage of firearms includes storing firearms locked in a secure place (e.g., in a gun safe or lockbox), unloaded and separated from ammunition.

Many of the risk and protective factors that are related to firearm deaths also impact other public health issues including substance use. Public health interventions have opportunities to collaborate and blend funding across topic areas and intervene upstream to prevent risk factors before they present in individuals and communities.

For example, addressing adverse childhood experiences by creating safe, stable and nurturing environments for youth and families can reduce risk for an individual to experience risk factors for firearm-related death.

Community-based organizations that support communities at high risk of firearm deaths including older adults, rural and remote communities, and communities of color are necessary partners to identify the unique risk and protective factors diverse communities experience and can support upstream work such as creating social connection through culture, reducing stigma related to suicide and asking for support.

Resources

Oregon:

- OHA Hospital-Based Violence Intervention Programs
- Portland Opportunities Industrialization Center- Healing Hurt People Program
- OHA Violent Death Data Dashboard - Includes firearm, suicide, and homicide data

National:

- RAND Gun Policy in America
- CDC Suicide Prevention Resource for Action Guide
- CDC Community Violence Prevention Resource for Action Guide
- CDC Intimate Partner Violence Prevention Resource for Action Guide

- 2024 National Strategy for Suicide Prevention 2024

26. Suicide deaths

Suicide remains a persistent, pervasive and yet largely preventable cause of death. Every death by suicide in Oregon carries a substantial and long-lasting ripple effect in Oregon communities. Oregon's adult and youth (ages 24 and under) suicide rates are above the national rate and have been for several decades (Figure 8.26.1).

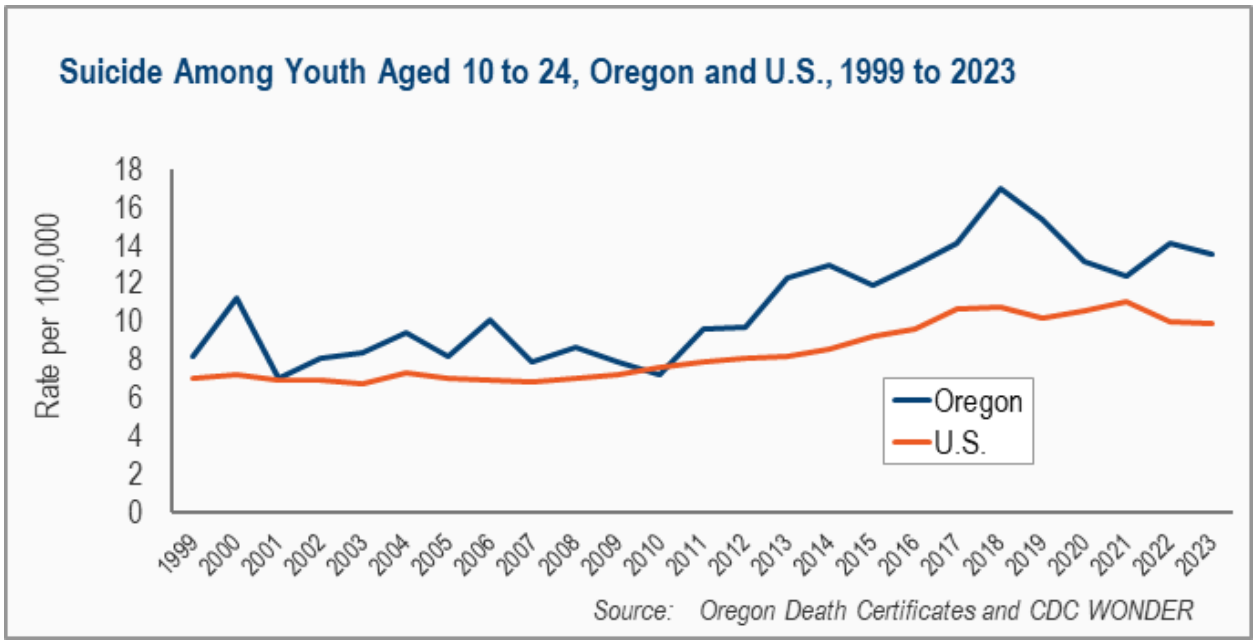

Figure 8.26.1

Since 2000, Oregon has seen an overall increase in suicide rates, like the national average (Figure 8.26.2). In 2023, Oregon lost 890 persons to suicide including 102 Oregon youth. Suicide was the eighth leading cause of death among all Oregonians and the second leading cause of death among youth aged under 25. That year, the age-adjusted rate in Oregon was 38% greater than the national rate.

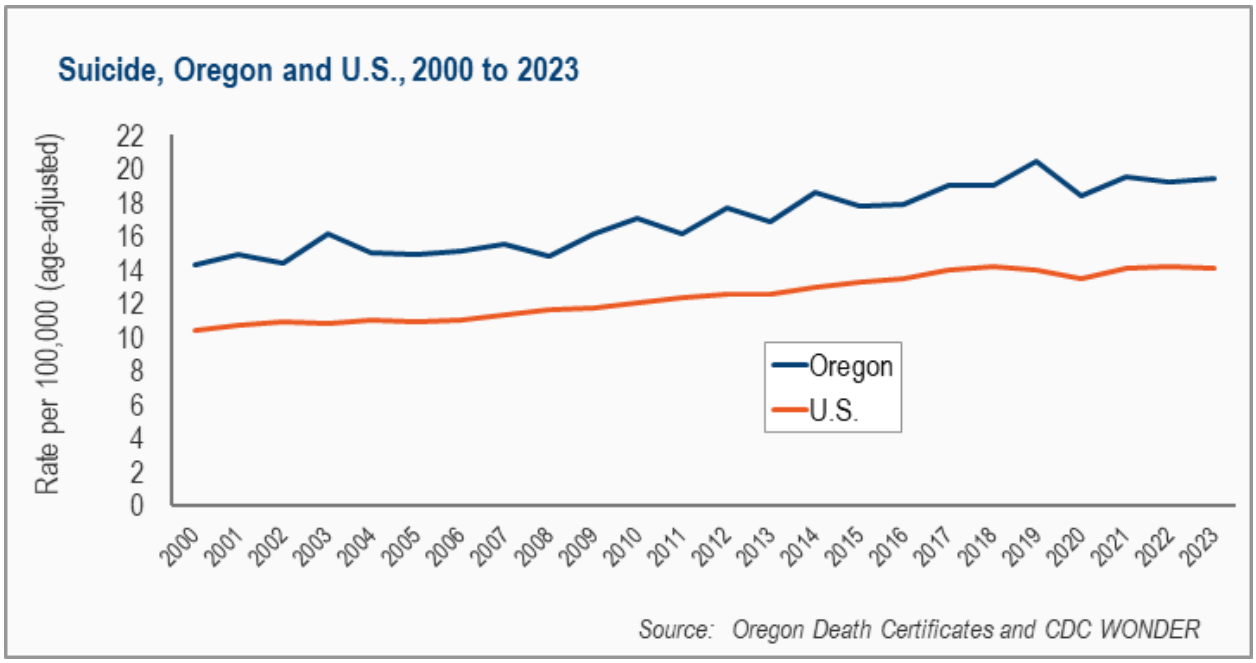

Figure 8.26.2

Suicide deaths are highest among males throughout the lifespan with the highest rate among older men. The suicide rate for females is highest between ages 45-64 and declines with age after (Figure 8.26.3).

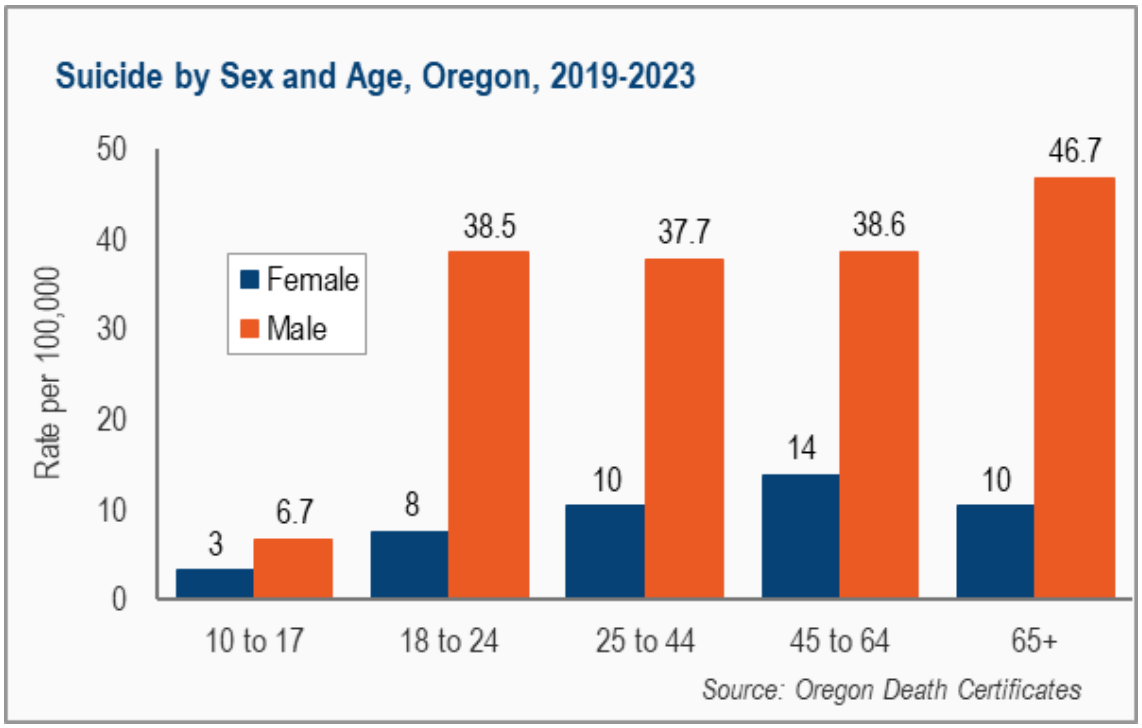

Figure 8.26.3

Suicide is a complex, multidimensional, public health problem. The risk factors associated with suicide have biological, psychological, and social factors. According to the Oregon Violent Death Reporting System, common circumstances in suicide deaths include a diagnosed mental health problem (including diagnosed mental condition, alcohol and substance use problems), history of expressed suicidal thought or plan, current depressed mood, physical health problems, interpersonal relationship problems and life stressors. Firearms are used in over 50% of suicides. Alcohol is a contributing factor in approximately 20% of suicide deaths.

Protective factors related to reducing suicide risk include economic and housing stability, healthy relationships and feeling connected to others, availability of consistent and high quality physical and behavioral health care and connecting to and acceptance of an individual's cultural identity. There are racial disparities in suicide deaths. Between 2019 and 2023, American Indian/Alaska Native Oregonians had the highest rate of suicide followed by white (Figure 8.26.4). While white adults and youth continue to have the highest number of deaths in Oregon, these deaths have taken up a smaller proportion of deaths over the past several years with other races and Hispanic/Latina/o/x ethnicity deaths having increased.

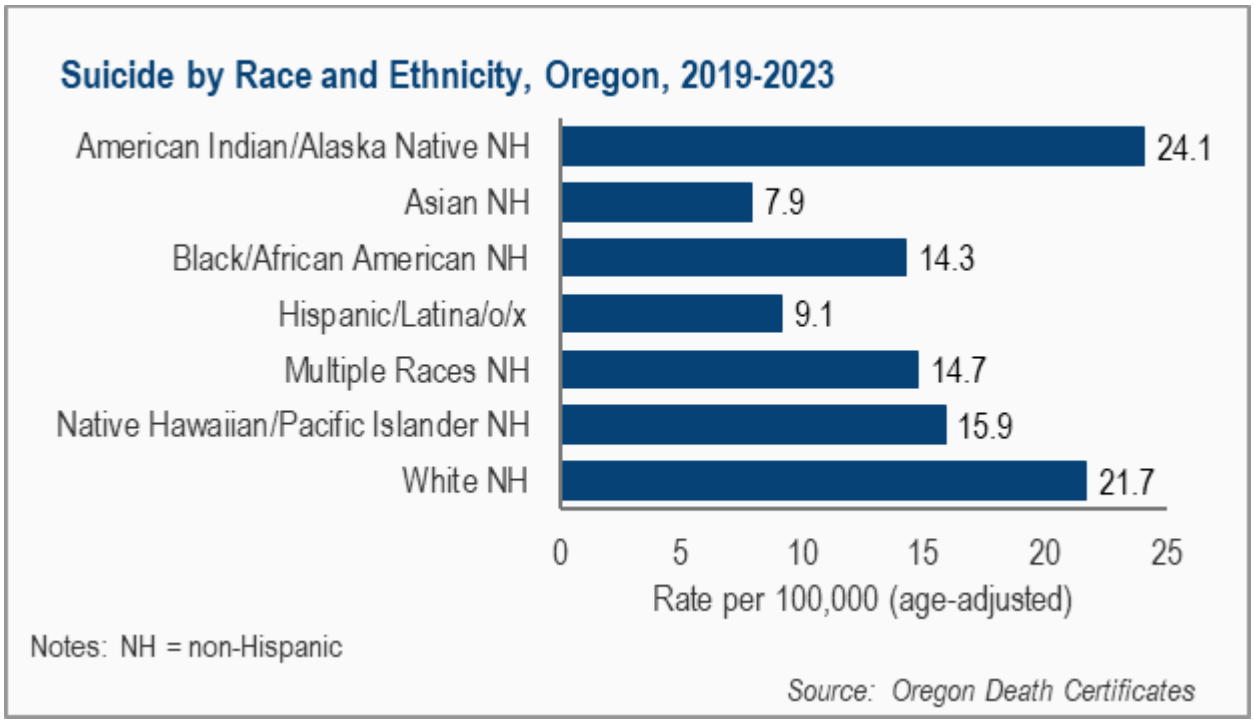

Figure 8.26.4

The suicide rate for Veterans is significantly higher than for other Oregon populations. Oregon rural and remote (frontier) counties have higher suicide rates than urban counties. Males are more than three times as likely than females to die by suicide.

Structural determinants of health

Institutional discrimination and racism have contributed to Oregon's communities of color and Tribal communities to experience poorer health outcomes, including related to mental health and suicide. Historical disenfranchisement through genocide, cultural disconnection and pressure to assimilate has resulted in American Indian/Alaska Native peoples having high rates of suicide.[129,130]

Policies that improve economic security (income and housing) and policies that prohibit discrimination on the basis of sexual and gender identity, race and ethnicity can support individuals from becoming at risk of suicide.

Medicaid expansion policies focused on increasing access to mental health care, suicide specific care and substance use support through policy changes such as state mental health parity laws, can help reduce suicides by providing more support to those at risk and providing billing support for health systems expanding these efforts.

Social determinants of health

Improving access and delivery of health care, including mental health and suicide-specific care, can help reduce suicide deaths in Oregon by identifying risk early and putting supports in place. Ensuring that culturally infused care is available, including ensuring a workforce representing diverse Oregon communities, is needed. Culturally infused care describes an approach, system or practice that proactively embeds preferred language and cultural understandings, beliefs, values, practices, needs and preferences in ways that enhance fit, understanding, trust and effectiveness.

Promoting healthy relationships and social connection, including a sense of belonging and acceptance, can decrease risk of suicide. In addition, teaching coping and problem-solving skills from an early age can reduce risk.

Data opportunities

Additional data on race, ethnicity, language, disability and sexual orientation and gender identity data are needed to further understand the impacts of suicide on diverse Oregon communities.

Suicide deaths by transgender and lesbian, gay, bisexual or having a sexual orientation other than straight or heterosexual accounted for 2% of Oregon adults suicides between 2017-2021. This is likely an undercount of LGBTQIA2S+ youth and adults who died by suicide due to existing gaps in data collection and relying on family and friends to provide an individual's sexual orientation or gender identity. In addition, the dataset does not allow

for identification of people who identify as non-binary, gender non-conforming or other related identity.

Public health interventions

Approximately 20% of suicide deaths involved alcohol. Interventions that address alcohol and suicide include policies such as alcohol taxes, zoning and restrictions on alcohol availability that serve to decrease alcohol use and alcohol use disorder and can reduce the risk of suicide.

In 2023, firearms were used in 55% of Oregon suicides. Policies that encourage safe storage, both in and outside of the home, and reducing access to firearms and medications can support suicide prevention efforts. Putting time and distance between someone thinking about suicide and accessing a firearm can save lives. Research indicates the interval between deciding to act and attempting suicide can be as short as 5 to 10 minutes.[128] Safe storage of firearms includes storing firearms locked in a secure place (e.g., in a gun safe or lockbox), unloaded and separated from ammunition.

This work needs to be done in partnership with organizations and those individuals who own firearms to understand cultural considerations and ways to support individuals at risk of suicide voluntarily removing access to their firearms in times of crisis. Interventions to limit access to firearms for those at risk of crisis, such as Extreme Risk Protection Orders, can be tools to support individuals who may be at risk of suicide.

Many of the risk and protective factors that are related to suicide also impact other public health issues including substance use, problem gambling, and community and interpersonal violence. Opportunities to combine funding across these topic areas, and prevent risk factors early in individuals and communities, is an important role for public health to serve. For example, addressing ACEs and creating safe, stable and nurturing environments for youth and families can reduce the individual risks.

Community-based organizations that support communities at a high risk of suicide including older adults, rural and remote communities, and

communities of color are necessary partners to identify the unique risk and protective factors diverse communities experience and can support upstream work such as creating social connection through culture, and reducing stigma related to suicide and encouraging asking for support.

Resources

Oregon:

- OHA Youth Suicide Intervention and Prevention Plan
- OHA Adult Suicide Intervention and Prevention Plan
- OHA Violent Death Data Dashboard - Includes firearm, suicide, and homicide data
- OHA Suicide-Related Public Health Data Dashboard – Monthly updates on suicide-related fatalities and emergency department visits.

National:

- CDC Suicide Prevention Resource for Action Guide
- 2024 National Strategy for Suicide Prevention 2024
- Association of State and Territorial Health Officials: Public Health's Role in Mental Health Promotion and Suicide Prevention Framework
- Suicide Prevention Resource Center's Comprehensive Approach to Suicide Prevention

Appendix A: CHIP analysis

Community health assessments (CHAs) identify key health needs and issues by conducting systematic, comprehensive data collection and analysis.[131] Community health improvement plans (CHIPs) are long-term, systematic efforts to address community health issues, needs and priorities based on the results of community health assessment activities and the community health improvement plan process.

Through a thematic review of Community Health Improvement Plans (CHIPs) for Coordinated Care Organizations (CCOs) and their partners throughout Oregon, overall, the areas of strongest alignment with Healthier Together Oregon (HTO) priority areas are the following: 1) behavioral health, 2) economic drivers of health, and 3) access to equitable preventive health care. The areas with the least HTO priority area alignment in CHIPs are: 1) institutional bias, and 2) adversity, trauma, and toxic stress.

CCOs are expected to complete a CHIP at least every five years, per Oregon Revised Statute and CCO contract.[132]

Methods

The 13 plans reviewed in this analysis were collected by the Oregon Health Authority Transformation Center,[132] which supports innovation and quality improvement in Oregon's health care system. The OHA Transformation Center does this through working at the system, community and practice levels; collaborating across OHA to develop and implement health system policies; managing multiple CCO programs and contract deliverables; building capacity of health system partners to improve and innovate by providing learning opportunities like webinars, learning collaboratives and convenings.[133]

For this analysis, the CCO community health improvement plan priorities and strategies were reviewed for alignment with HTO priority areas. A

Smartsheet spreadsheet was used as an organizational tool for noting alignment of priority areas among plans and HTO.

Plans were reviewed for areas of alignment between CHIPs and HTO priorities. Additionally, CCO plan priorities were reviewed for alignment with each other. Plans were reviewed for health priorities with similar focus areas to HTO, and descriptions of similar needs for intervention.

Areas of alignment with HTO

From the review, the priority areas of alignment with HTO that were present among the CHIPs were: 1) behavioral health, 2) economic drivers of health, and 3) access to equitable preventive health care.

Alignment with the above three HTO areas were represented by rural, urban, and remote regions in Oregon.

Among the plans' health priorities, some general common areas include access to preventive health services, access to providers, insurance coverage, behavioral health, education, jobs, housing, and youth health preventive services.

The HTO categories are broad; not all CHIPs framed their priorities in an overarching framework like HTO. It is important to note that CHIPs align with HTO priority areas but may not use the same language.

Areas with little to no alignment with HTO

From the CHIP reviews, the priority areas with little to no alignment with HTO are: 1) institutional bias, and 2) adversity, trauma, and toxic stress. There was little to no alignment with the two above HTO areas in CHIPs from rural, urban, and frontier regions in Oregon.

Opportunities for emerging alignment

There are emerging areas of alignment between CHIPs that present an opportunity to explore as future priorities. These are areas where different plans aligned with each other in areas not covered in HTO, such as: sense of connection and belonging, cross-sector collaboration (i.e. collaboration between hospitals, community organizations, primary care; increasing housing supports, and built environment to increase physical activity), and environmental health (i.e. heat related illness and death, flood risk, and wildfire).

Limitations

Limitations to the CHIP analysis were the following factors: Not all CCO plans were available in time for OHA staff to analyze for this SHA, some plans were written before HTO was published, and therefore OHA staff did not have the opportunity to look for alignment with priorities. Two of the CCO plans were written before HTO so did not have to align with HTO. This review was completed by December 2024.

Appendix B: Starting Point Assessment

The Starting Point Assessment is a component of NACCHO's MAPP 2.0 framework. The purpose of this assessment is to collect reflections from the previous State Health Improvement Plan (SHIP) cycle using a variety of vantage points of the work. Oregon Health Authority's Public Health Division (OHA PHD) did not have the capacity to complete every component of the assessment framework. However, after asking a core team of public health professional from across the Division to prioritize framework domains, OHA PHD focused efforts on two: the PartnerSHIP and OHA PHD executive leadership.

The PartnerSHIP was a community advisory group comprised of diverse community partners from across the state. They were asked to advise OHA PHD on the implementation of the SHIP, Healthier Together Oregon (HTO). Over the five years the group met, 19 members participated in the PartnerSHIP, including representatives from culturally and geographically diverse communities, the disability community, LGBTQ2SIA+ community, and others. Their perspective was valuable for uplifting community voices and providing a space for partners to share their insights about the opportunities and challenges around community and state agency collaboration.

OHA PHD executive leadership comprise the Public Health Director, the Deputy Public Health Director the State Health Officer, Center administrators and other director level PHD staff. They are primarily responsible for advancing PHD's overall vision for eliminating health inequities by 2030. The SHIP is a critical policy piece to work towards that vision. Their perspective was valuable for understanding how well the agency resourced and aligned HTO with the larger body of work and what opportunities they saw that could be leveraged for greater improvement in the next cycle.

The Starting Point Assessment (SPA) workgroup facilitated semi-structured conversations with these two groups to capture the successes and challenges they faced and reflections they had on what lessons and ideas for improvement they had to offer those working on the next SHIP cycle. The following summaries capture the primary themes identified during conversations with these two groups. These lists are not exhaustive, as a formal analysis of these conversations were not feasible.

PartnerSHIP focus group summary

Conducted on December 4, 2023 and January 23, 2024

As a part of the SHA, the SPA workgroup convened members of the PartnerSHIP which was OHA's community advisory group for the SHIP, Healthier Together Oregon (HTO). During two sessions between December 2023 and January 2024, the SPA workgroup facilitated semi-structured focus groups to hear the PartnerSHIP's reflections on the successes and challenges of the work they have been doing together, what lessons they learned along the way, and what ideas for improvement they had to offer for future groups doing similar work alongside the agency.

The PartnerSHIP was comprised of representatives from across Oregon, including diverse community-based organizations, health care, public health and the public. The committee met monthly between October 2018 and December 2023 and received support from OHA PHD staff. An external facilitator, contracted by PHD, was also provided to support the group's meeting preparation and discussion.

While this document is organized loosely by domain, many of the key themes may be applicable more broadly.

I: Committee structure and membership

Purposeful diverse committee membership

Members generally agreed the committee comprised diverse voices from across the state. They noted their breadth of geographic, cultural and disciplinary backgrounds as well as the diversity of the communities they work with. One person added the group has members from other historically marginalized and systematically excluded communities like the disability community, LGBTQ2SIA+ community, and immigrant and refugee communities. Some also noted the group varied quite a bit in terms of lived experiences, both personally and professionally, but did not elaborate further.

A few members noted that despite the group's diversity, the committee may still benefit from expansion as it is heavy on traditional health system and public health perspectives. That would mean offering more participation opportunities to both communities not represented on the current committee and those already represented but in need of more diverse perspectives. One member was insistent that they only spoke to a subset of issues that impacted their community and more voices were needed to elevate other issues they weren't as familiar with.

Another member recalled an early PartnerSHIP meeting where a youth attended and suggested OHA may want to include a youth member of the committee in the future, possibly as a professional development opportunity for a young person pursuing a career in public health. They believed a youth perspective was missing from many of their discussions and it would be important to include them in future work.

Members built trusting relationships with each other

Some members reported they built strong relationships within the group, though there seemed to be distinct differences among the representatives who had been members of the committee since near the beginning and

those who had only been attending for a few months to a year. Members who had been with the group since the beginning seemed to have had more opportunities to participate in small workgroups and get to know one another both personally and professionally. Some of the longer standing members mentioned that at some point during their work together, they brainstormed ways to collaborate on other issues separate to the PartnerSHIP domain of work. Newer members did not report comparable concrete activities around connecting with other PartnerSHIP members.

Despite these differences, most members seemed to agree they felt comfortable speaking freely, even when they disagreed. They also agreed their conversations stayed respectful, even when there were differing opinions to sort through. One person noted they felt their conversations were productive, even when it took longer to come to consensus. They came from diverse communities and organizations with different needs and priorities. However, those differences were viewed as a strength of their discussions, not a weakness. This person felt the solutions they arrived at were better because they were able to consider more diverse perspectives along the way.

A member who had not been on the committee as long as most of the others mentioned it might have been beneficial for OHA to offer more relationship-building and trust-building opportunities for the members. They would have appreciated the chance to have a meet-and-greet outside the working meetings, maybe even in-person. Another member countered: in-person would be a barrier for them because they live too far away from Portland to participate.

OHA staffing, SMEs and power sharing met committee needs

The members seemed to universally agree the staffing and subject matter experts (SMEs) available to support committee work met their needs and helped keep the work moving. One member specifically called out how great the facilitator was at coordinating and supporting the work of the committee.

Another member noted that having leadership available to support the work felt vital for credibility and demonstrated OHA's commitment to their work. They suggested more sustained and perhaps even increased participation from PHD leaders would be helpful to future iterations of the committee.

Most members felt the level of power sharing from OHA was good but acknowledged there were opportunities to increase it with more transparency about how state funding worked so the committee could be more involved in identifying and allocating more money for SHIP activities. One member said they believed that OHA's power balance was at just the right level and that more power sharing would come with increased responsibilities for communities and that didn't feel appropriate or feasible for their role.

II: Committee administration and process

PartnerSHIP's purpose not clear across members

Some of the original members of the PartnerSHIP reported the group's role was primarily advisory – to provide guidance for the state's health improvement plan and track priority progress over the next 5+ years. This included sharing insight from their specific communities and individual lenses, allocating resources, connecting local CHIPs to the SHIP, and collaborating to solve problems as they arise.

Other members were not as clear on what they thought the PartnerSHIP's purpose was. Some also seemed unclear on the SHIP's purpose. One person quipped that they didn't know why they were invited to be a part of this group in the first place, but they kept showing up anyway. Another wondered if committee members were supposed to be advisors or implementers and no other members chimed in to offer clarity. One longstanding member offered insight that some committee members may have struggled to fill their committee role because it was too different from their regular role in their organization, especially since members were selected for the committee based on that role.

A robust onboarding process was needed to prevent staff turnover from stalling the work

Several longstanding members noted that when the primary OHA support staff left their position, the group lost momentum. The committee pivoted to spending time looking back at foundational documents like the charter and goals and stopped advancing the work. One person said they felt they delved too deep into reviewing those documents and it created confusion about their purpose and what they were supposed to do together. This was exacerbated by committee member turnover as well. Some original members of the committee felt they had invested a lot of effort into developing the vision at the beginning, had historical knowledge about what this group was doing and why, but were not appropriately consulted to share context by OHA support staff to get new folks up to speed.

In addition to committee member turnover, some members also stopped attending regular meetings because the work had slowed. As a result, the decision-making process changed. The group adopted an asynchronous online decision-making process as opposed to the in-meeting process they had been using prior because there were not enough attendees month to month to come to consensus and make decisions.

Some members had a hard time adopting the new technological approach. One member said Basecamp was not a good platform for those with accessibility needs and that having to learn a new technology outside the Microsoft ecosystem was a barrier to their full participation.

Members agreed the general quality of group discussions also suffered due to poor attendance. One member said each committee member agreed to only miss two meetings per year but many missed more, which led to the group regularly needing to revisit old conversations.

Compensation was a challenge

Several members reported challenges in getting paid by OHA in a timely fashion. One newer member even said they hadn't received a single

payment yet. The group agreed the compensation process should be easier to understand and quicker to navigate so they can focus on the actual work.

III. Successes and challenges

Participating in the POP process was a highlight of their work together

Longstanding members reported taking part in the policy option package (POP) process was the highlight of their participation on the PartnerSHIP. They appreciated the opportunity to learn about how POPs work and felt like they were doing something meaningful and important when they were able to offer supporting testimony during the legislative session. They also felt this was valuable knowledge they could take back to their organizations. Members who participated in the process noted that project also gave them the opportunity to organically build relationships and pick each other's brains on other policy areas and possible points of future collaboration.

In contrast, some of those members struggled to see the benefits of the later work they did together. One member reported that it was harder and harder to see the benefit of participation and for that reason, they decided to step off the committee in favor of another opportunity elsewhere. They said they used to get valuable information that informed their work but that hasn't been the case for some time.

Work was not equitably distributed across the committee

Several members agreed that most of the committee's work was accomplished by just a few members due to lack of clarity among committee members. People who understood what the work was and how to do it burned out because they carried the load for the entire group. The same members agreed that could primarily be attributed to lack of proper onboarding for new members, poor uptake of collaborative technology tools like Basecamp, and confusion about what the committee's role was.

Some members also reported lacking a way to measure the PartnerSHIP's successes. They were not sure how they should be tracking progress, measuring whether goals were met, and if there was more support available for doing this. They seemed to know the group had the power to choose measures but nobody identified that as one of the committee's core duties or roles. One member felt the group didn't have the capacity to do this on top of their other work. They felt the committee needed OHA staff to make an initial proposal that the group could then adapt based on group discussion and feedback. On the same topic of member capacity, some also felt the meeting schedule was too onerous and they would have liked quarterly or bi-monthly meetings instead.

There were not enough resources to support the committee's work

Members seemed keenly aware that there were not enough fiscal resources available to support the work they were tasked with doing. Most agreed the work remained on a good path but goals had not been met and better resourcing was needed in order to accomplish them.

One member was frank in their assessment that OHA and the committee needed to co-create a plan to improve the funding model if they wanted to see better outcomes. They said some committee members seemed surprised that CBOs accomplished so little with the funding allocated to them but this person's perspective was that organizations were funded at too low of a rate to do meaningful work and that if funding didn't increase, they might have to consider funding fewer organizations at a higher rate to see meaningful improvement. Another added that some aspects of the SHIP don't make sense for every community across the state to invest in. They believed the SHIP needed to be a menu of choices and not a one size fits all plan for the entire state.

Several members expressed their desire to be used more as policy and resource advocates and thought policy and resource subcommittees could have utilized their skills better to support the committee's vision. They

seemed to know their work had unfilled needs with no solutions readily available and the group had untapped skills that could have been leveraged to help fill some of these needs.

Aligning community level work with SHIP priorities is still an ongoing progress

Several members stated one of their goals of participating in the committee was to bring knowledge back to their community that would help align local CHIPs with the SHIP. They agreed that was an ongoing process but they saw progress being made.

One member said one challenge during the current SHIP cycle was that they didn't see the alignment of CHIPs and the SHIP like they'd hoped to. Some members feared there still wasn't adequate awareness of HTO across the state, though that perspective wasn't shared by everyone: one member said they'd heard more and more organizations talking about the SHIP that weren't before. They'd also heard more government bodies and organizations across the state talking about livable wages, food security, as well as generational trauma and trauma-informed and responsive care as interconnected with public health.

Leadership engagement summary

Conducted on June 28, July 8, and July 23, 2024

The Starting Point Assessment (SPA) workgroup convened members of the OHA PHD executive leadership to collect their reflections on the successes, challenges and lessons learned during the last SHIP. Three sessions were conducted between June and July 2024: a one-on-one session with the Interim State Health Director and two group sessions with OHA PHD executive leadership. The purpose of these reflection sessions was to identify leadership perspectives on historical internal SHIP activities that may be considered during the preparation and development of the next SHIP.

OHA PHD executive leadership includes the Public Health Director, the Deputy Public Health Director, the State Health Officer, Center administrators and other director level OHA PHD staff. Two engagement activities were scheduled to take place during their regular meeting time: one meeting was virtual while the second meeting was hybrid with the majority of participants attending in-person at the Portland State Office Building in Portland, OR. In addition, the meeting with OHA PHD's Interim Public Health Director was scheduled in a 2:1 format so their reflections could be captured prior to their departure from the agency. Engagement activities were not recorded. Extensive notes were taken to capture conversations and while a formal analysis was not pursued, key themes were identified during the review and synthesis of available notes. All staff members who provided support during the semi-structured engagement activities were given the opportunity to review, edit and add to this summary.

I: Executive leadership's role in SHA/SHIP-related initiatives

Leadership saw their major role as resourcing the SHA and SHIP by providing staff capacity

Members of OHA PHD leadership generally saw their role in SHA and SHIP work as providing staffing capacity with appropriate subject matter expertise to project teams when requested. When asked about other ways leadership saw their roles contribute to SHIP work, responses varied. Some saw themselves as communicators and advocates for aligning SHA and SHIP work to other agency goals and initiatives within the Division. Others saw their role as identifying funding opportunities to provide more financial resources to the workstream.

Director of Policy and Partnerships Team also focused on support and sustainability

The Policy and Partnerships Director, whose team held the primary leadership role for the SHIP, worked to develop infrastructure and communication for sustaining SHA and SHIP work during the cycle covered in this assessment. This included more project management and cross-agency and sector engagement. This engagement involved both internal and intra-agency partners such as the OHA Director's Office, Equity & Inclusion Division, Health Policy & Analytics Division, Oregon Department of Human Services, and other partners OHA saw as vital for advancing social determinants of health-based SHIP priority areas.

II: Communication

Community engagement was expanded to create a more community-led SHIP

One of the biggest changes to the development of HTO was how much community input was sought to set the vision, priorities, and strategies of the SHIP. Leaders agreed that they were proud of this change, noting this was a change that needed to happen so that community could see themselves, their communities and their needs reflected in the long-term public health vision of the state. One person said this change was, in their eyes, overdue and was necessary to demonstrate OHA's commitment to do more community-led work at the state level.

In alignment with themes collected during PartnerSHIP engagement, one of PHD's leaders acknowledged that the more OHA PHD plans to engage with the community, the more important it is to be clear with community on what PHD's power and authority is within the broader public health system. Transparency is necessary for long-term success and when OHA PHD was not up front about power dynamics in community spaces held in the past, it hurt the agency's credibility.

Leaders embedded in programs felt left out of the development process for HTO

Some of OHA PHD's current leadership were in more program-centric roles during the development of HTO. They reported that their roles significantly changed between the prior SHIP and HTO. From their perspective, the OHA PHD Director's Office shifted the SHIP's focus almost entirely to communities, leaving programs and their respective subject matter experts out of important conversations. As a result, they felt it was harder for programs to buy into the resulting plan.

Staff resourcing needs not well understood, affecting buy-in

Leaders shared their experience, some of which they described as frustrating, with being asked to staff work they did not fully understand. They said communication around needed resources centered on the ask and was not always accompanied by the appropriate context to provide the most relevant subject matter expertise. This made their task difficult; they often resorted to prioritizing which staff capacity was easiest to free up over which had the role and professional experience that aligned best with the project needs.

More clear communication and updates were desired regarding the explicit goal of keeping OHA PHD apprised of the SHIP vision and implementation. They were also clear these updates can't just be at the director level, it needed to include managers and program-embedded staff as well. Buy-in could not be created from the top down alone.

III: Opportunities for the next SHIP cycle

Deputy Director for Policy and Programs should be engaged early

OHA's Deputy Director for Policy and Programs is PHD's first point of contact to OHA leadership and should be engaged early to identify funding opportunities and help identify ways to align the SHIP with OHA's other

bodies of body of work. According to some leadership, they also have the bandwidth and background to connect the SHIP to other vital programs such as Medicaid, Behavioral Health, and other relevant areas of work within Health Policy and Analytics Division. They can also be helpful in identifying staff to help sustain long-term SHIP work and should be consulted before OHA PHD makes broader asks of agency resources.

OHA PHD Executive Leadership should have sustained engagement

One of the challenges OHA PHD leaders seemed to agree on was that engagement around the SHIP was not sustained. There were structural barriers to sustained internal and external engagement, in large part due to the COVID-19 pandemic. To better respond to Oregon's emergent public health needs, the COVID Response and Recovery Unit (CRRU) was formed by staff who worked across relevant OHA and ODHS programs. This upended some of OHA PHD's typical structural leadership and created more direct lines of communication with community partners. However, by prioritizing the pandemic response, it also meant that some of the usual public health projects were under or inconsistently staffed.

Now that OHA PHD has returned to a non-emergency operational structure with expanded community engagement staff, leaders said it's important to use the new SHIP cycle to engage them early to build sustained support and alignment. Cross-Center support is necessary to move the work forward and that buy-in begins with leadership. They need to be an integral part of the conversation that answers these three questions: Who is this plan for, what do we have to support it, and what do we still need to meet the vision?

OHA PHD must engage program SMEs and local public health partners

Leadership saw the value of shifting focus of engagement to community, however, they also felt strongly that OHA PHD must also keep program subject matter experts (SMEs) and local public health partners similarly

engaged in SHIP development and implementation. Their perspectives must be valued to advance the larger body of SHIP work each cycle. According to leadership, community can set a broad vision for the state, but it can't be operationalized without these key experts. Leaving them out hurts OHA PHD's ability to make a meaningful collective impact. This was especially true with the HTO priority areas aligned with the social determinants of health, with goals situated in further upstream causes of health disparities than past SHIPs.

From the leadership's perspective, OHA PHD programs are their own communities and need to see how their work connects to the larger vision so they can advance priority work at the program level. Similarly, leadership said that local public health partners felt cut out of the SHIP development and implementation process during the Healthier Together Oregon cycle, limiting their ability to uplift regional and population-specific needs not identified by community partners. There may be some healing that needs to happen before we can expect deep re-engagement for the next cycle.

Appendix C: Community engagement

Community engagement during the SHA process was to familiarize community members with the SHA and the SHIP, describe their importance to community health and gather feedback. This engagement took place from October through December 2024 and included twelve unique community spaces that were held virtually and in-person.

Engagement included presentations to community groups representing the following groups, which included OHA's regularly convened groups or committees.

Community Meeting	**Date**
Community Connections	10/3/2024
FYI Friday	10/18/2024 and 11/1/2024
P.R.I.S.M. (LGBTQIA2S+ Community Space)	10/30/2024
Gorge Native American Collaborative (GNAC)	11/5/2024
Public Health Modernization Chats	11/7/2024
Latino/a/x Collaborative	11/14/2024
Pacific Islander / Native Hawaiian Collaborative	11/18/2024
Black Public Health Workgroup Meeting	11/20/2024
Immigrant and Refugee Community Space (with De Rose Community Bridge & Holistic Wellness)	11/27/2024
Youth Data Council	12/2/2024

System of Care Advisory Council (Youth Space)	12/13/2024
Youth Advisory Committee	12/18/2024

Appendix D: Figure data sources

Data Source	Primary or Secondary Data Source‡	Figures
Annual Estimates of the Resident Population by Age, Sex, Race, and Hispanic Origin for Counties: U. S. Census Bureau, Population Division	Secondary	7.1, 7.2, 7.3, 7.4
Oregon Behavioral Risk Factor Surveillance System: Program Design & Evaluation Services, Oregon Health Authority	Primary	7.5, 8.2.1, 8.2.2, 8.2.3, 8.2.4, 8.5.1, 8.5.2, 8.6.1, 8.6.3, 8.6.4, 8.6.5, 8.10.1, 8.10.2, 8.10.3, 8.10.4, 8.11.1, 8.11.2, 8.11.3, 8.11.4, 8.12.1, 8.12.3, 8.13.1, 8.13.3, 8.14.1, 8.14.2, 8.14.3, 8.14.4, 8.17.1, 8.17.2
Oregon Student Health Survey: Program Design & Evaluation Services, Oregon Health Authority	Primary	7.6, 7.7, 8.3.1, 8.3.2, 8.9.1, 8.9.3, 8.12.2, 8.13.2
American Community Survey: U.S. Census Bureau	Secondary	7.8, 7.9, 7.10, 7.11, 7.12, 7.13, 7.14

Local Area Unemployment Statistics: U.S. Bureau of Labor Statistics	Secondary	7.15
Oregon Health Insurance Survey: Office of Health Analytics, Oregon Health Authority	Primary	7.16
Oregon Death Certificates: Center for Health Statistics, Oregon Health Authority	Primary	8.0.3, 8.11.4, 8.22.1, 8.22.2, 8.22.3, 8.23.2, 8.23.3, 8.24.1, 8.24.2, 8.25.1, 8.25.2, 8.25.3, 8.25.4, 8.26.1, 8.26.2, 8.26.3, 8.26.4
CDC WONDER: Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, NNDSS Annual Summary Data	Secondary	8.0.3, 8.18.1, 8.21.1, 8.22.1, 8.22.2, 8.23.2, 8.25.1, 8.26.1, 8.26.2
Regular Attenders Report: Oregon Department of Education	Secondary	8.1.1, 8.1.2, 8.1.3
ALERT Immunization Information System: Oregon Immunization Program, Oregon Health Authority	Primary	8.4.1, 8.4.2, 8.4.3, 8.4.4, 8.4.5

National Survey of Children's Health: Child and Adolescent Health Measurement Initiative. Data Resource Center for Child and Adolescent Health supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB)	Secondary	8.5.3
Oregon State Cancer Registry: Health Promotion and Chronic Disease Prevention, Oregon Health Authority	Primary	8.6.2
Oregon State & Federal Safe Drinking Water Information Systems	Primary	8.7.1
Childhood Lead Poisoning Prevention Program, Oregon Health Authority	Primary	8.8.1
Oregon Healthy Teens Survey: Oregon Health Authority	Primary	8.9.1, 8.12.2
Oregon Birth Certificates and Induced Abortion Records: Center for Health Statistics, Oregon Health Authority	Primary	8.9.2
Student Wellness Survey: Oregon Health Authority	Primary	8.12.2
National Weather Service Maximum Daily Heat Index	Secondary	8.15.1

Oregon ESSENCE (Electronic Surveillance System for the Early Notification of Community-Based Epidemics): Acute & Communicable Disease Prevention Program, Oregon Health Authority	Primary	8.15.2
Healthcare Cost and Utilization Project 2010-2022 (HCUPnet): Agency for Healthcare Research and Quality, Rockville, MD	Secondary	8.16.1
Oregon Hospital Discharge Data: Hospital Reporting Program, Oregon Health Authority	Primary	8.16.1, 8.16.2, 8.16.3, 8.23.1
Orpheus (Oregon Public Health Epidemiologists' User System): Acute & Communicable Disease Prevention Program and HIV/STD/TB Prevention Program, Oregon Health Authority	Primary	8.18.1, 8.19.1, 8.19.2, 8.19.3, 8.19.4, 8.20.1, 8.20.2, 8.20.3
CDC eHARS (Enhanced HIV/AIDS Reporting System): Centers for Disease Control and Prevention, National HIV Surveillance System	Secondary	8.20.1
Oregon Linked Infant Birth & Death Certificates: Center for Health Statistics, Oregon Health Authority	Primary	8.21.1, 8.21.2, 8.21.3, 8.21.4
CDC WISQARS (Web-based Injury Statistics Query and Reporting System): Centers for Disease Control and Prevention, National Center for Injury Prevention and Control	Secondary	8.25.2

‡ Primary sources are collected and maintained by the Oregon Health Authority. Secondary sources come from other agencies or organizations.

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