

**Oregon
Public Health
Accountability
Metrics:
2024 Preliminary
Report on Health
Outcome Indicators**

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Introduction

Oregon’s public health system is improving health and eliminating inequities through public health modernization.

A strong public health system is critical for all 4.2 million people in Oregon to achieve optimal health and well-being. Since 2013, Oregon has been modernizing its governmental public health system to ensure public health works for everyone and is equitable, community-centered and prepared to address current and emerging threats to health.

The Role of PHAB

Oregon’s Public Health Advisory Board (PHAB) provides leadership to Oregon’s governmental public health system. PHAB is responsible for establishing accountability metrics and tracking the governmental public health system’s progress in achieving metrics.¹

In 2021, PHAB undertook a multi-year process to redesign an equity-centered framework for accountability metrics and establish new metrics.

The Role of Metrics

PHAB’s updated framework for accountability metrics emphasizes that all sectors and partners have a role in improving health. Oregon Health Authority (OHA) and local public health authorities (LPHAs):

- Bring sectors and partners together to work toward solutions that create opportunities for health
- Work daily with community partners who provide culturally and linguistically relevant services that are essential for eliminating health inequities
- Provide core governmental services and actions that are necessary for community responsive programs and services

State and Local Partners All Have a Role in Improving Health.

<i>Collective responsibility across sectors and partners</i>	<i>OHA and LPHA responsibility</i>
Health Priorities	Public Health Data, Partnerships and Policy
<p>Indicators of health outcomes:</p> <p>What are priority health issues throughout Oregon? Which groups experience disproportionate harm? How are policies contributing to or eliminating root causes of health inequities?</p>	<p>Measures of foundational capabilities:</p> <p>Are public health authorities increasing capacity and expertise needed to address priority health issues? Are public health authorities better able to provide core public health functions within their community?</p>

1. Oregon Revised Statutes 431.123: https://oregon.public.law/statutes/ors_431.123

Public Health Accountability Metrics Bring Attention to Urgent Public Health Issues.

In 2023, PHAB adopted a new set of accountability metrics for Oregon's public health system. These metrics bring attention to three priorities representing urgent health issues that the public health system is addressing through state investments in public health modernization.

The three priority areas are:

- Reduce the spread of syphilis and prevent congenital syphilis
- Protect people from preventable diseases through vaccination
- Build community resilience for climate impacts on health: extreme heat and wildfire smoke

PHAB adopted a set of health outcome indicators for each priority area. PHAB selected indicators that:

- Address an area where health inequities exist
- Receive community support
- Can be improved through public health authority and partner actions
- Use data that can be reported at the county level or similar geographic breakdowns
- Use data that can be reported by race and ethnicity, gender, sexual orientation, age, disability, income level or insurance status, or other relevant risk factor information
- Are currently funded, or likely to be funded

Public health accountability metrics are one way that Oregon's public health system demonstrates and ensures that it is improving health, eliminating inequities and effectively using public dollars through a modern public health system.



Oregon's Public Health Priorities and Health Outcome Indicators At-a-Glance

Priority area	Indicator	Indicator data source
Reduce the spread of syphilis and prevent congenital syphilis	Rate of congenital syphilis	Orpheus
	Rate of syphilis (all stages) among people who can become pregnant ²	Orpheus
	Rate of primary and secondary syphilis	Orpheus
Protect people from preventable diseases by increasing vaccination rates	Two-year old vaccination rate (4:3:1:3:3:1:4 series ³)	ALERT IIS
	Adult influenza vaccination rate, ages 65+	ALERT IIS
Build community resilience for climate impacts on health: extreme heat and wildfire smoke	Emergency department and urgent care visits due to heat	ESSENCE
	Hospitalizations due to heat	HCUP
	Heat deaths	Oregon Vital Records, OHA Oregon death certificates
	Respiratory (non-infectious) emergency department and urgent care visits	ESSENCE
	Drinking water security (metric in development)	Not yet identified
	Effects of climate change on mental health (metric in development)	Not yet identified

This report includes data collected through multiple public health data systems. Race and ethnicity categories are not uniform across all public health data systems. In this report, race and ethnicity data are presented using the race and ethnicity categories used for each data system which may not be comparable across systems. In some cases data are collected and reported using categories that do not adhere to current best practices, including best practices for collecting and reporting data using Race, Ethnicity, Language and Disability (REALD). Over time, data systems are being updated to comply with REALD standards.

● Additional information about Oregon's REALD implementation is available at: <https://www.oregon.gov/oha/ei/pages/reald.aspx>

What's Next

In December 2023, PHAB established state and local public health process measures for each of the health outcome indicators.

OHA will use the 2024 baseline report and annual reports thereafter to demonstrate where Oregon is making progress through public health actions, and where new approaches and investments may be needed.

At the beginning of the 2025-27 biennium, LPHAs will be eligible to receive incentive payments through the public health modernization funding formula based on performance of these metrics, as required in Oregon Revised Statute, ORS 431.380.

Indicator Data Sources: Key

Orpheus
Oregon Public Health Epidemiologists' User System

ALERT IIS
ALERT Immunization Information System

ESSENCE
Electronic Surveillance System for the Early Notification of Community-Based Epidemics

HCUP
Healthcare Cost and Utilization Project

2. For this metric, "people who can become pregnant" refers to people assigned female at birth who are 15-44 years of age.

3. The 4:3:1:3:3:1:4 series refers to the following vaccines: four doses of diphtheria-tetanus-pertussis (DTap), three doses of polio (IPV), one dose of measles-mumps-rubella (MMR), three doses of Haemophilus influenzae type B (Hib), three doses of hepatitis B (HepB), one dose of varicella (VAR) and four doses of pneumococcal conjugate vaccine (PCV).

Communicable Disease Control

Communicable Disease Control

Sexually Transmitted Infections

Priority: Reduce the spread of syphilis and prevent congenital syphilis

Indicators

- Rate of congenital syphilis
- Rate of any stage of syphilis among people who can become pregnant
- Rate of primary and secondary stages of syphilis among the general population

Together, these indicators provide a comprehensive view of the dramatic increase in syphilis cases in Oregon, which groups are most affected, and where areas for intervention exist.

Over the last several years, Oregon and the nation have experienced a steep increase in syphilis among people who can become pregnant and in congenital syphilis.

Reducing syphilis is an urgent health issue.

Syphilis diagnoses in Oregon are higher than ever, including among people who can become pregnant, people who are pregnant and infants. Syphilis is treatable with antibiotics, but can damage eyes, nerves, brain and heart if left untreated. Cases of congenital syphilis can lead to stillbirth, infant death and serious birth defects.

Congenital syphilis should never occur in a modern health care system.

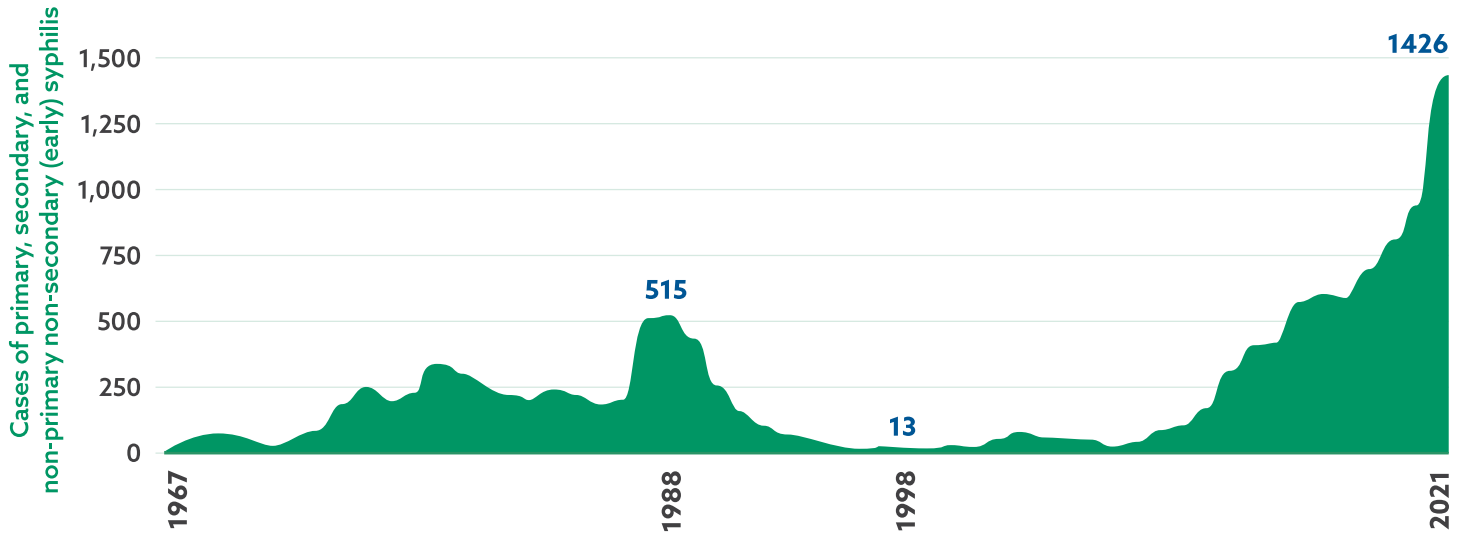
Persistent and systemic causes of inequities that impact the syphilis epidemic include poverty, housing instability, racism, stigma, the criminal justice system, substance use, and mental and behavioral health challenges. At the same time, the public health and medical systems have experienced flat or decreasing funding that is insufficient for achieving a robust infrastructure and workforce for sexual health services. Other contributing factors include a yearlong benzathine penicillin G shortage and a health care workforce inexperienced in the diagnosis, testing and management of syphilis.

These social and economic factors, of which congenital syphilis is a symptom, affect whether people might access or persist in prenatal care in order to be screened and treated for syphilis. In the US, there is a legacy of curtailing reproductive and bodily autonomy through the medical system, particularly for pregnant people who are Black, Indigenous, Latino/a/x/e, and Pacific Islander, are immigrants, are experiencing poverty, use substances, have mental health challenges or other disabilities, or are or have been involved in the criminal justice system. Many pregnant people face punitive consequences should they seek healthcare while pregnant. The consequences could range from poor care, to mistreatment, to being reported to law enforcement or the department of human services, to having their children removed from their care to outright incarceration. Thus, the risk of accessing prenatal care may just be too high for some pregnant people. While some programs exist to support pregnant people's engagement in care there are not enough resources to provide low barrier, culturally tailored, trauma informed care and services for pregnant people who need extra support.

The following graphs show increases in syphilis and congenital syphilis rates, and related inequities.

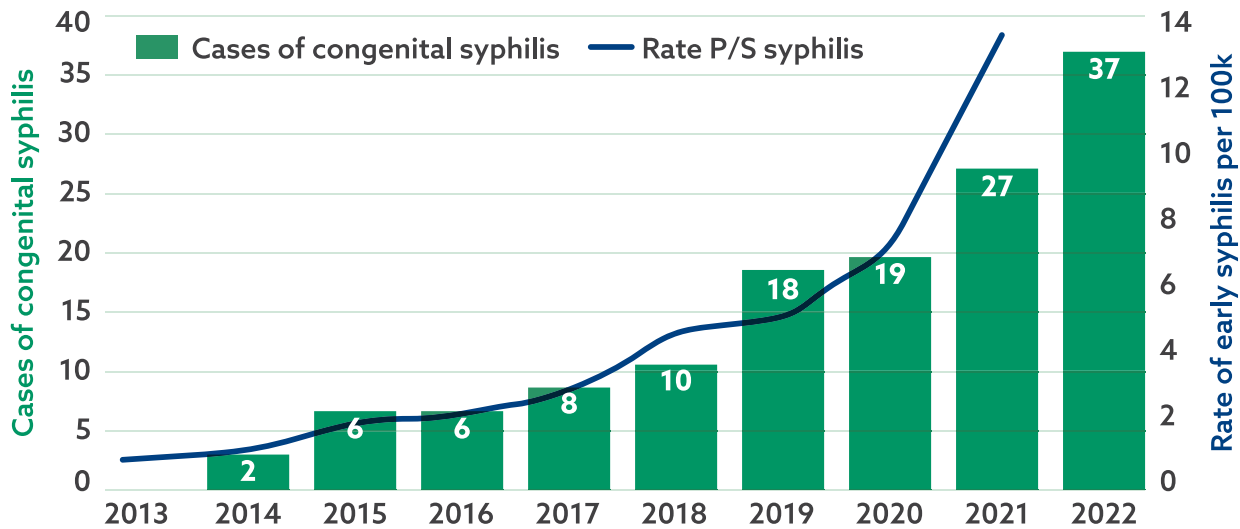
Early (infectious) syphilis diagnoses are higher than ever.

Cases of primary, secondary, and non-primary non-secondary (early) syphilis, 1967-2021



No congenital syphilis cases were reported in 2013—compared to 37 cases reported in 2022.

Cases of congenital syphilis and rates of primary and secondary (P/S) syphilis among people assigned female at birth, Oregon 2013-2022



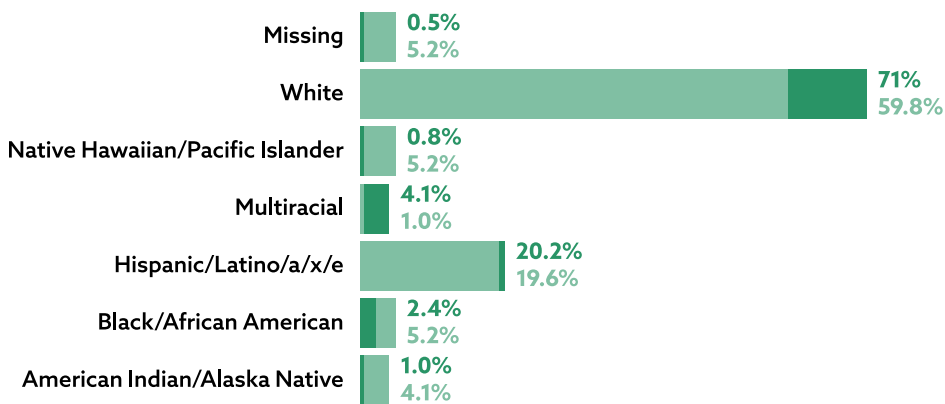
Cases of congenital syphilis represented in the green bars correspond with the rate of primary and secondary syphilis among people assigned female at birth shown on the blue line.

● These data are available through public-facing dashboards at: public.tableau.com/app/profile/oregon.health.authority.public.health.divison/viz/Syphilis_16536742437740/Story2021.

Racial and ethnic inequities lead to disproportionate rates of syphilis in pregnancy and congenital syphilis.

Race/ethnicity of pregnant people associated with a CS case, Oregon, 2014-2022

● Additional information about Oregon's REALD implementation is available at: <https://www.oregon.gov/oha/ei/pages/reald.aspx>



The graph above shows the proportion of pregnant people in Oregon (dark green) and the proportion of pregnant people associated with a case of congenital syphilis (light green).

Between 2014 and 2022, communities of color in Oregon experienced disproportionate rates of congenital syphilis. During this time, people who are **Native Hawaiian/Pacific Islander** made up **0.8% of pregnant people**, and accounted for **5.2% of congenital syphilis cases**. People who are **Black and African American** made up **2.4% of pregnant people** in Oregon, and accounted for **5.2% of congenital syphilis cases**. And, people who are **American Indian/Alaska Native** made up **1% of pregnant people**, and accounted for **4.1% of congenital syphilis cases**. In contrast, **white people** made up **71% of the state's pregnant people**, and accounted for **59.8% of the state's congenital syphilis cases**.

Innovation in partnerships and policy can prevent syphilis

The governmental public health system, medical providers, community partners and other sectors all play a role in preventing congenital syphilis. In addition to screening, diagnosis, treatment and interventions to limit the spread of syphilis, **Oregon needs policy changes to address social and structural causes of syphilis**. Recommended policy changes include addressing inequities in housing systems and the criminal justice system, as well as support for pregnant people.

Numerous community-based organizations (CBOs) around Oregon are working on syphilis and sexually transmitted infection (STI) awareness and prevention efforts, including CBOs who serve primarily communities of color, people living with HIV, and people experiencing homelessness or housing insecurity.

Additionally, reducing syphilis transmission aligns with the work of End HIV Oregon, a community-led initiative that "imagines an Oregon without new HIV transmissions; where everyone living with HIV lives a long, healthy life; we eliminate health inequities and stigma in HIV and STIs."

Immunizations

Priority: Protect people from preventable diseases by increasing vaccination rates

Indicators

- Two-year-old vaccination rate for the [4:3:1:3:3:1:4 series](#) (core vaccines children need before age two)
- Adult influenza vaccination rate in populations 65 and older

Oregon has 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.

Protecting people from preventable disease through vaccination is an urgent health issue.

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.

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.



Two year-old vaccination rates

Two-year-old immunization rates dropped in 2022 – when the first generation of children born into the COVID-19 pandemic turned two.

Oregon’s Two-Year-Old Immunization Rates, 2014-2022

Additional information about Oregon’s REALD implementation is available at: <https://www.oregon.gov/oha/ei/pages/reald.aspx>

Two-Year-Olds' Up-to-Date Rate	2014	2015	2016	2017	2018	2019	2020	2021	2022
4:3:1:3:3:1:4 ⁴	60%	64%	66%	68%	69%	71%	71%	71%	69%

Hispanic/Latino/a/x/e	63%	68%	70%	69%	72%	74%	72%	72%	72%
White	60%	64%	67%	69%	70%	72%	72%	72%	70%
Black and African American	55%	59%	60%	62%	61%	61%	63%	63%	60%
Asian	64%	68%	69%	73%	73%	76%	77%	77%	72%
American Indian and Alaskan Native	60%	63%	65%	66%	66%	69%	67%	66%	64%
Hawaiian/Pacific Islander	54%	59%	61%	62%	61%	65%	64%	64%	61%

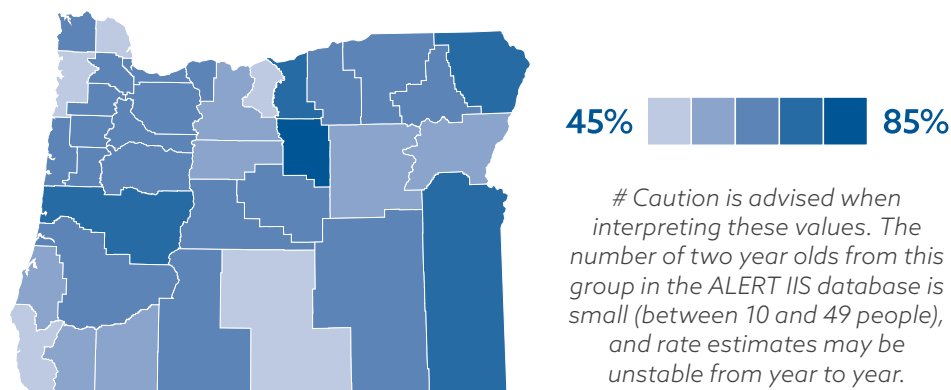
Oregon has had a significant and persistent undercount of the state’s Native Hawaiian/Pacific Islander (NHPI) populations. This undercount makes it very difficult to accurately estimate vaccination rates for Oregon’s NHPI populations, and the rates presented in the table are likely a significant overestimate of the true vaccination rate.

This chart shows two-year-old immunization rates from 2014-2022. After steadily increasing since 2013 due to concerted efforts to implement statewide quality improvement strategies, rates dropped in 2022. This reflects when the first cohort born during the COVID-19 pandemic turned two.

The data also show disparities by race and ethnicity. White Oregonians are vaccinated at a higher rate than the state’s average, while Oregonians who are Black and African American, American Indian and Alaska Native, and Hawaiian and Pacific Islander are vaccinated at lower rates than the state’s average.

2022 two-year-old vaccination rates vary across counties and regions.

Two-year-old primary series vaccination rates by Oregon county, 2022



4. The 4:3:1:3:3:1:4 series refers to the following vaccines: four doses of diphtheria-tetanus-pertussis (DTap), three doses of polio (IPV), one dose of measles-mumps-rubella (MMR), three doses of Haemophilus influenzae type B (Hib), three doses of hepatitis B (HepB), one dose of varicella (VAR) and four doses of pneumococcal conjugate vaccine (PCV).

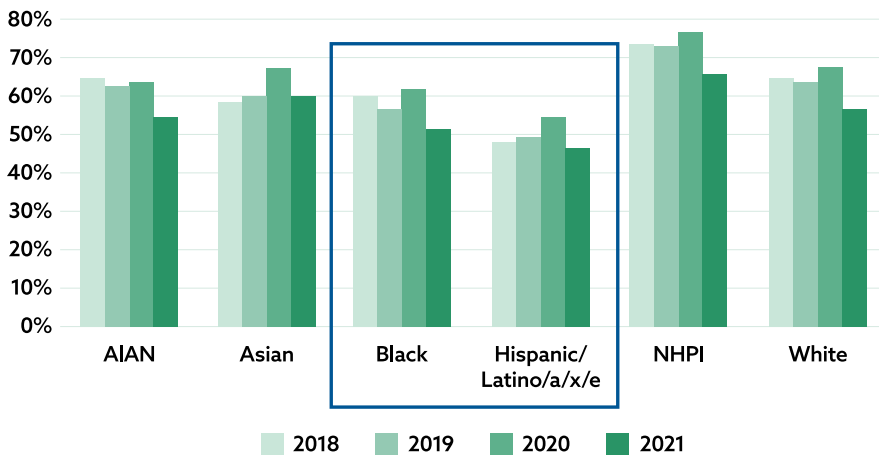
Adult influenza vaccination rates for people ages 65+

Among adults 65 and over, vaccination rates dropped nine percent between the 2019-2020 flu season and the 2022-2023 flu season.

Year	Age group
	65+
2017-2018	64.5%
2018-2019	67.6%
2019-2020	67.4%
2020-2021	65.7%
2021-2022	57.6%
2022-2023	58.7%

Preliminary data from 2018-2021 showed that among adults 65 and over, people who are Black and/or Hispanic or Latino/a/x/e are vaccinated at lower rates than the statewide average (shown in the table above).

Additional information about Oregon's REALD implementation is available at: <https://www.oregon.gov/oha/ei/pages/reald.aspx>



Oregon has had a significant and persistent undercount of the state's Native Hawaiian/ Pacific Islander (NHPI) populations. This undercount makes it very difficult to accurately estimate vaccination rates for Oregon's NHPI populations, and the rates presented in the table are likely a significant overestimate of the true vaccination rate.

Systemic barriers to immunization access contribute to immunization rate disparities in Oregon. These barriers are prevalent in Hispanic/Latino/a/x/e and Black and African American communities. Barriers include the impact of historical and ongoing trauma related to the healthcare system and a lack of access to culturally and linguistically appropriate health care and educational materials. Additionally, patients may have unmet health-related social needs, including the ability to take time off of work, access to a primary care provider or consistent health insurance coverage.



OHA and LPHAs have the opportunity to implement – and accelerate – effective public health interventions in the following areas:

Community outreach:

Oregon’s public health system can apply lessons learned from COVID-19 vaccination efforts to improve rates of immunization against other diseases. Importantly, Oregon’s public health system demonstrated the ability to close equity gaps in vaccination rates among racial groups through culturally specific interventions and partnerships. The public health system can apply these approaches to routine vaccinations.

Mobile vaccine outreach also proved effective in increasing COVID-19 vaccination rates, indicating that similar strategies of reducing barriers to access could raise rates of immunization against other diseases.

Public health/health care provider partnerships:

The immunization indicators align with other efforts around the state. OHA and LPHAs can promote participation in the CDC’s Immunization Quality Improvement for Providers program (IQIP).⁵

The two-year-old vaccination rate is a Coordinated Care Organization (CCO) incentive metric. This creates opportunities for public health and health care providers to improve vaccination rates within their shared communities.

- Immunization data are available through the OHA Immunization Program: <https://www.oregon.gov/oha/PH/PREVENTIONWELLNESS/VACCINESIMMUNIZATION/Pages/research.aspx>

5. IQIP is a 12-month process during which public health representatives and VFC providers collaborate to implement provider-level QI strategies to increase vaccine uptake by improving and enhancing vaccination workflow. (<https://www.cdc.gov/vaccines/programs/iqip/index.html>).

Environmental Health

Environmental Health

PHAB selected two areas — extreme heat and wildfire smoke — to assess Oregon’s progress toward building community resilience for climate impacts on health.

These priority areas illustrate intersections and differences in climate-related threats and challenges experienced around the state and also center the overarching need to address climate impacts on health through preparedness, planning and adaptation. Please see the following sections for discussion of what the data show specific to extreme heat and wildfire smoke.

Additionally, PHAB identified drinking water security and mental health effects of climate change as developmental metrics.



Extreme heat and wildfire smoke are urgent health issues.

In 2021 and 2022, Oregon experienced severe climate events.

- Oregon experienced extreme statewide smoke impacts after the 2020 Labor Day fires, with certain communities continuing to experience localized extreme smoke impacts and poor air quality each subsequent year.
- Heat was the sole cause of more than 100 deaths in Summer 2021; most people who died were elderly, isolated and living with low incomes.
- Nearly every county in Oregon experienced severe to exceptional drought, with long-term implications for access to safe and reliable drinking water.



Oregon's public health system works across sectors and with partners on policies to mitigate climate impacts on health.

Community-based organizations and interested community members identified extreme heat, air quality, and water insecurity as their top concerns in a survey conducted as part of [OHA's 2021 annual Climate and Health report](#).

OHA and LPHAs have opportunities to use effective public health interventions related to climate impacts on health, including improved collection and use of data, community partnerships, communications, prevention initiatives and interventions that address social determinants of health.

In recent years Oregon's Legislature has invested in household cooling and air filtration interventions. Beginning in 2024, OHA will implement a program to distribute climate-related devices like air conditioners, air filtration devices and portable power supplies to eligible Oregon Health Plan members.

Oregon Occupational Safety and Health Administration (OR-OSHA) implemented enduring heat illness prevention rules that take effect when the heat index (apparent temperature) equals or exceeds 80 degrees Fahrenheit. Worker protection rules for wildfire smoke went into effect on July 1, 2022. Public health authorities and community partners work with employers and workers to ensure implementation of these protections.

The Oregon Water Futures Project facilitated conversations with communities impacted by water issues. They identified culturally-specific ways of interacting with drinking water and bodies of water; concerns around water quality and cost; resiliency in the face of challenges to access water resources essential for physical, emotional and spiritual health; and a desire for water resource education and to be better equipped to advocate for water resources as priorities.

- Read a summary of the Oregon Water Futures report here: <https://www.oregonwaterfutures.org/report-summaries>

Extreme Heat

Indicators

- Emergency department and urgent care visits due to heat
- Hospitalizations due to heat
- Heat deaths

Summer heat-related morbidity and mortality is rising in Oregon. Exposure to higher temperatures and extreme heat is on the rise because of the frequency, length and intensity of heat events. Increased heat corresponds with greater illness and deaths.

In Oregon, a total of 157 heat-related deaths occurred in 2021 and 2022 combined, compared with one to four heat-related deaths per year in the previous decade.

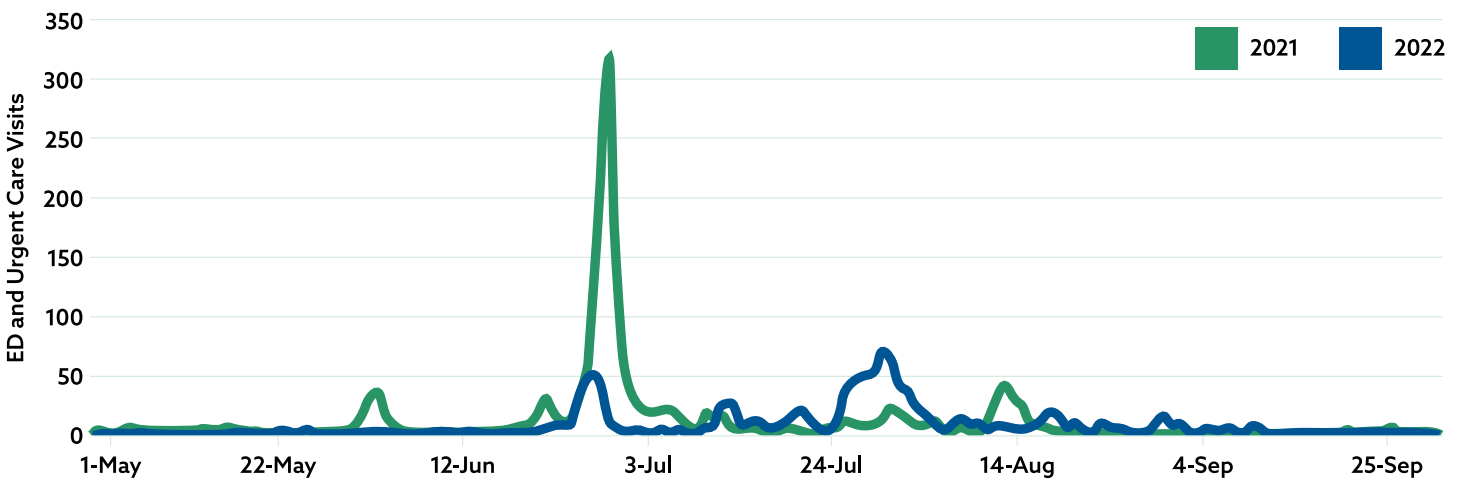
Environmental threats like extreme heat disproportionately impact communities of color, people experiencing homelessness, Tribal communities and people who have low incomes.

Systemic racism through housing policies relegated these communities to areas with increased heat exposure and less access to heat mitigation resources. Systemic educational disinvestment has resulted in overrepresentation in jobs with greater exposure to environmental hazards.

Health effects of extreme heat

During the last week of June 2021 – when the heat dome event occurred – there was a significant increase in the number of statewide heat-related illness (HRI) visits, with 318 HRI visits on June 28. In 2022, Oregon experienced the most HRI visits during the last week of July, with the highest number at 66 visits on July 30.

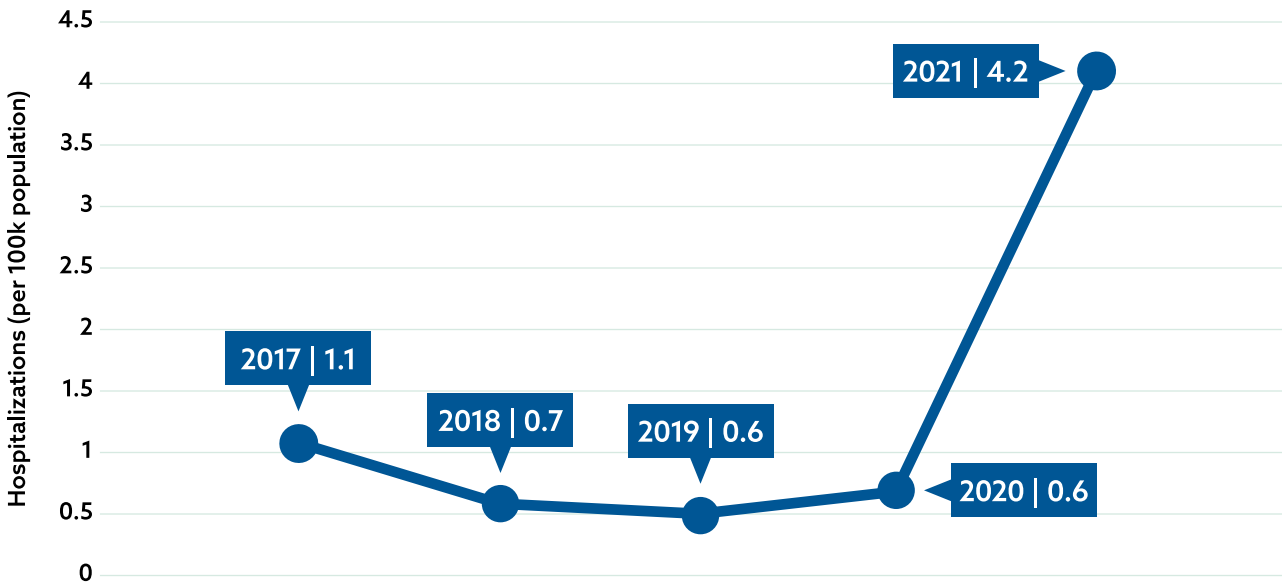
Oregon Statewide Heat-Related Illness Daily ED & Urgent Care Visits May-September, 2021/2022



Summer heat-related illness hospitalizations in Oregon rose dramatically from 2020 to 2021.

Annual Rate of Summer Heat-Related Illness Hospitalizations in Oregon (per 100k population), 2017-2021

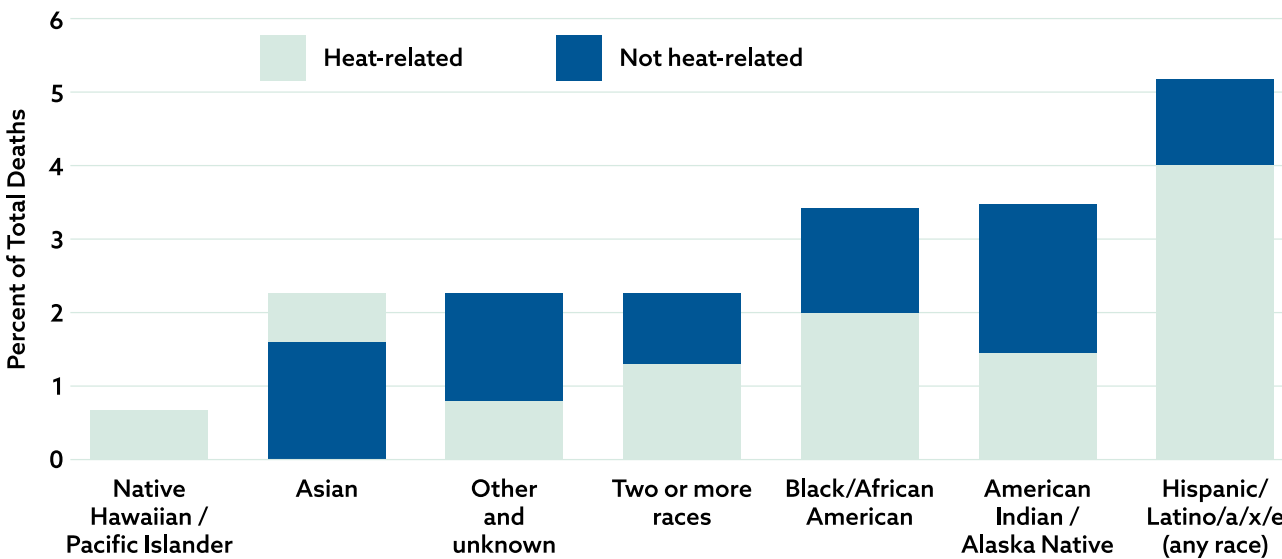
Additional information about Oregon's REALD implementation is available at: <https://www.oregon.gov/oha/ei/pages/reald.aspx>



Data source: Centers for Disease Control and Prevention. National Environmental Public Health Tracking Network. Web. Accessed 3/27/23. www.cdc.gov/ephtracking

Heat-related deaths impact communities of color and Hispanic communities disproportionately.

Comparison of Oregon Heat-Related and Non-Heat Related Deaths by Race and Ethnicity 2021-2022



*Data from 2022 are preliminary and subject to change. Source: OHA - Public Health Division - Center for Health Statistics

Between 2021 and 2022, certain communities of color* experienced a higher proportion of heat-related deaths than non-heat related deaths when compared to people who are non-Hispanic White. For comparison, people who are non-Hispanic White accounted for 90 percent of non-heat-related deaths and 83 percent of heat-related deaths.

*Those of other or unknown race, two or more races, and non-Hispanic Black or African American, non-Hispanic American Indian/Alaska Native, and Hispanic or Latino/a/x/e of any race. Data from 2022 are preliminary and subject to change.

Wildfire Smoke

Indicator

- Respiratory (non-infectious) emergency department and urgent care visits

Wildfires are the primary contributor to summer air pollution across Oregon, and the frequency and intensity of wildfires in Oregon and many other western U.S. states is on the rise.

Many areas in Oregon experience cumulative wildfire smoke impacts and community members are exposed to hazardous air pollution year after year.

Communities of color and Tribal communities, including people who are Hispanic or Latino/a/x/e—in Oregon have experienced disproportionate health impacts of wildfire smoke, as measured by respiratory emergency department (ED) and Urgent Care visits in Oregon. These inequities, rooted in systemic racism, exist due to unequal access to community resources, higher community exposures, and individual conditions that increase vulnerabilities, such as those tied to employment.

Sensitive and vulnerable groups experience disproportionate effects of wildfire smoke exposure.

Sensitive groups include people who may have a physiological predisposition to negative effects of wildfire smoke exposure.

Sensitive groups include:

- Persons with chronic respiratory, cardiovascular and other chronic conditions
- Persons >64 years of age
- Infants and children
- People who are pregnant (and their fetus)
- People who smoke tobacco

Vulnerable groups include people who are more likely to experience negative health effects of smoke exposure due to social determinants.

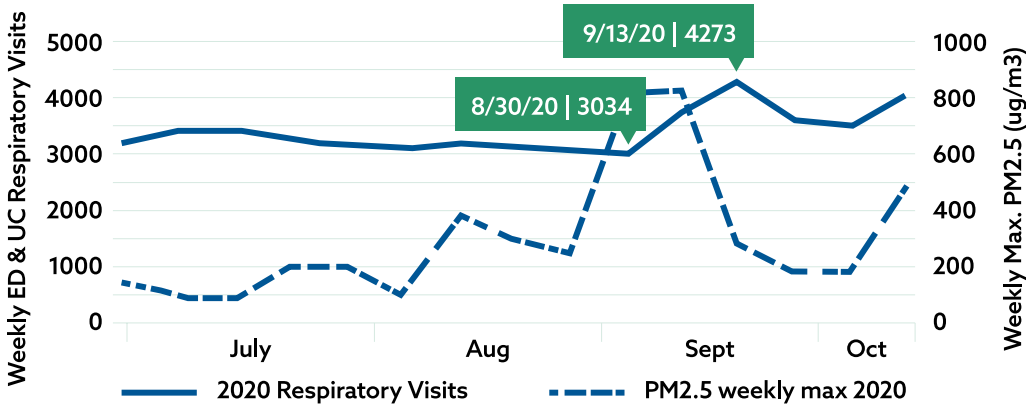
Vulnerable groups include:

- People working outdoors, e.g., migrant and seasonal agricultural workers
- Persons exercising or working at a level that increases breathing rate
- Persons experiencing homelessness
- Persons living in poverty or with low incomes

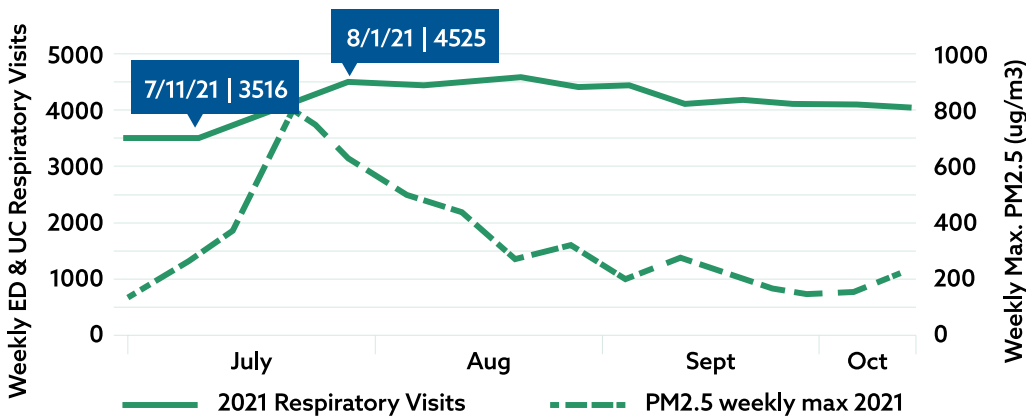
Health effects of wildfire smoke

Increases in particulate air pollution from wildfires are associated with increases in respiratory-related emergency department visits.

Statewide Weekly Emergency Department and Urgent Care Respiratory Visits with Weekly Maximum Fine Particulate Matter June 28-Oct 15, 2020



Statewide Weekly Emergency Department and Urgent Care Respiratory Visits with Weekly Maximum Fine Particulate Matter July 4-Oct 15, 2021



The chart on the top is from 2020, and the bottom from 2021.

In the 2020 and 2021 wildfire seasons, maximum levels of fine particulate matter reached well into the hazardous range (greater than 500 micrograms per cubic meter) for prolonged periods. These periods of elevated fine particulate matter were associated with increases in respiratory-related visits to emergency department and urgent care centers. Respiratory visits remained above pre-wildfire levels for weeks after the high fine particulate matter occurred.

Recurring chronic smoke impacts are expected to become the new normal for some areas of the state, with wildfire smoke occurring more frequently in areas that are currently less affected.

Drinking Water Security

Metric in development

Equitable access to adequate supplies of clean, safe and affordable water for drinking, food preparation, sanitation and hygiene, and cultural and spiritual uses is essential to human health and wellness.

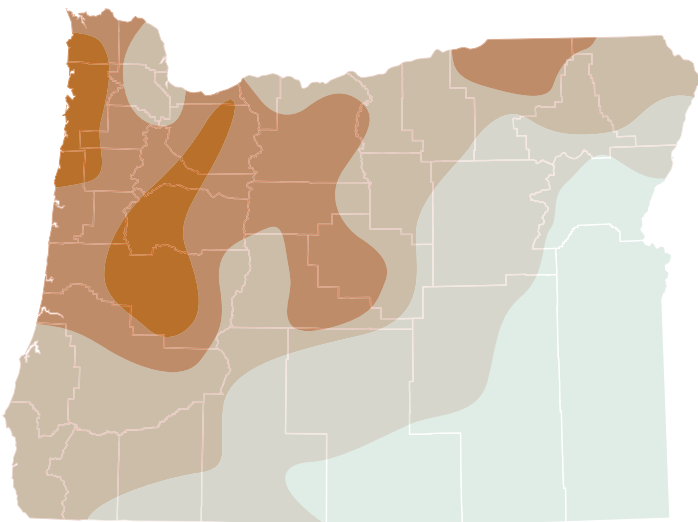
Oregon's changing climate, aging water infrastructure, socioeconomic conditions and community design negatively impact access to safe and affordable water. **Water quality and security issues are likely to increase as temperatures increase and drought worsens.**

Populations experiencing homelessness, communities with lower income, rural communities, communities of color, Tribal communities, migrant communities, and communities served by private wells, private surface water intakes or very small water systems are more likely to experience threats to water access and quality.

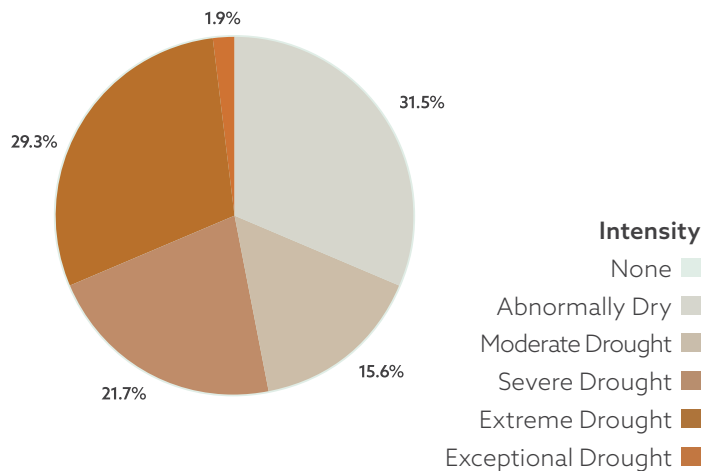
What does the data show?

Counties around Oregon experience drought to varying degrees.

U.S. Drought Monitor - Oregon



Percent Area in Drought Start of Water Year (September 27, 2022)



● More information on drought in Oregon is available at:
<https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?OR>

Summer hazard data are available through OHA at:
https://public.tableau.com/app/profile/oregon.public.health.division.acute.and.communicable.disease.pre/viz/ESSENCESummerHazardReport/Intro?utm_medium=email&utm_source=govdelivery

Mental Health Effects of Climate Change

Metric in development

The mental health effects of climate change include mental health challenges directly related to the physical and traumatic consequences of severe weather events (such as the stress of losing a home or having to temporarily move due to wildfires), as well as anxiety, fear and distress associated with gradual, ongoing impacts (such as drought).

In 2020 Governor Kate Brown issued Executive Order 20-04, which directed OHA to prepare a study of climate change and youth mental health and depression. OHA worked with mental health professionals, educators and youth organizations to highlight these impacts and issued the Climate Change and Youth Mental Health in Oregon study in June 2022.

Youth with depression and anxiety are at particular risk of experiencing symptoms of climate anxiety.⁶

The effects of climate change on mental health and well-being interact with other social and environmental determinants of health, including race and income. Oregon's changing climate negatively affects livelihoods and cultural identities, and will disproportionately affect farmworkers, fishers, Tribes and Indigenous people.

Data are not currently systematically available to track the mental health effects of climate change. The statewide public health system will continue to explore opportunities to develop metrics for measuring the mental health effects of climate change.

Emerging research shows that even people who have not been directly affected by a climate disaster often experience anxiety and worry about climate change and its effects; this is called "climate anxiety."

6. Mirabelli M, Vaidyanathan A, Pennington A, Ye D, Trenga C. Wildfire Smoke and Symptoms Affecting Mental Health among Adults in the U.S. State of Oregon. Prev Med. 2022. - [PMC](#) - [PubMed](#)

Acknowledgments

Acknowledgments

This report fulfills statutory requirements under ORS 431.139 for reporting on public health accountability metrics. OHA acknowledges the following groups for their contributions to developing public health accountability metrics.

Primary OHA Staff for this body of work:

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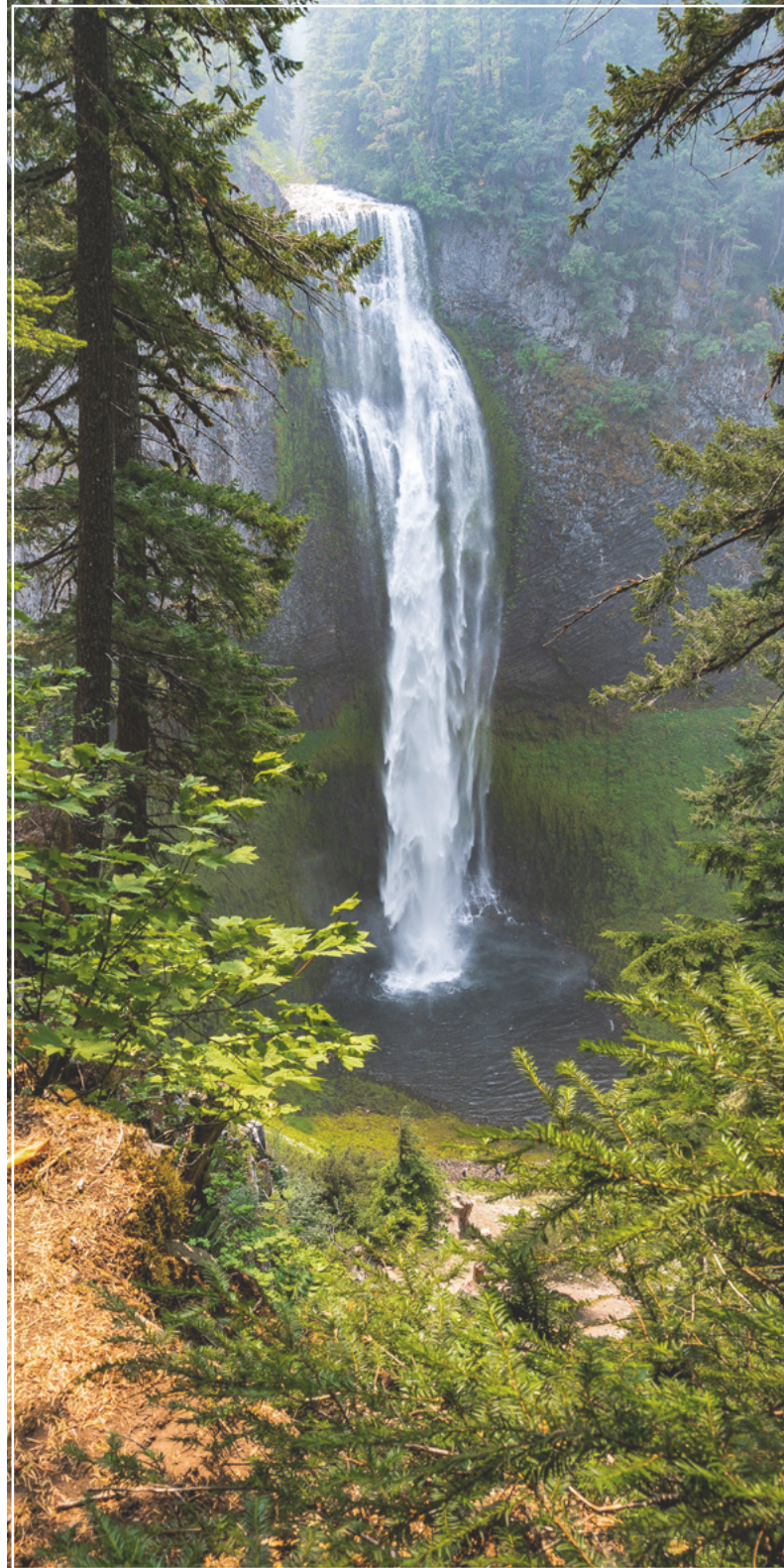
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OHA Environmental Health Section

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Appendix: Background and Additional Context

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Origins of Public Health Accountability Metrics

PHAB first adopted public health accountability metrics in 2017, as required through ORS 431.123. Accountability metrics provide an annual review of Oregon's progress in population health priorities and the elimination of health inequities. They do this by measuring how effectively OHA and LPHAs improve health outcomes by providing core public health functions. OHA published annual accountability metrics reports from 2018-2020. During this time improvements were seen in some areas, including in childhood immunization rates, which increased from 66% in 2016 to 71% in 2019.

In 2020, PHAB paused its use and reporting of accountability metrics that were established at the time. In 2021, PHAB reconvened its Accountability Metrics subcommittee to develop an updated framework for accountability metrics that centered elimination of health inequities as a primary goal, acknowledged the role of community-based and cross-sector partners, and elevated the essential role of governmental public health agencies to provide core public health services and programs.

PHAB approved a new framework for public health accountability metrics in 2022. This framework includes health outcome indicators and related process and policy measures. This framework acknowledges that improving health outcomes and eliminating disparities will only occur through collective action among governmental public health, cross sector and community partners, and policy makers to address policies and systems that create equal access to health-supportive environments.

Principles of Public Health Modernization

Efforts to modernize Oregon's public health system embrace the following principles:

- Every person deserves access to the same public health protections.
- Public health issues are increasingly complex and growing rapidly due to factors like climate change and emerging infectious diseases.
- A robust and skilled workforce that represents communities across Oregon is essential for performing core governmental functions upon which Oregonians rely.
- A modern public health system has the skills and tools to achieve health equity for rural communities, communities of color, tribal communities, disability communities, communities with lower income and others, so that every person has the best chance at health.