Oregon's Health Care Workforce Needs Assessment 2023

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Tao Li, MD, PhD
Jeff Luck, MBA, PhD
Veronica Irvin, PhD, MPH
Collin Peterson, MAT, ATC
Alexandra Kaiser, BS

Prepared for:
Oregon Health Authority
Oregon Health Policy Board

Oregon State University
College of Public Health and Human Sciences

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Executive Summary

2023 Oregon Health Care Workforce Needs Assessment

Note—The full report may be found at: https://www.oregon.gov/oha/HPA/HP-HCW/Documents/2023-Oregon-Health-Care-Workforce-Needs-Assessment.pdf

This biennial Health Care Workforce Needs Assessment informs Oregon's efforts to ensure culturally and linguistically responsive care for all.

House Bill 3261 (2017) directs the Oregon Health Policy Board (OHPB) and Oregon Health Authority (OHA) to produce a biennial assessment of the health care workforce needed to meet the needs of patients and communities throughout Oregon by February 1 of each odd-numbered year. Oregon's goal of eliminating health inequities requires the preparation, recruitment, and retention of a diverse workforce that can deliver culturally and linguistically responsive health care. This is the fourth such report, which provides insights into workforce needs in communities across Oregon as well as general guidance on how to expand and diversify the health care workforce, including distributing health care provider incentives.

Findings and Recommendations

The report synthesizes policy recommendations across all segments of Oregon's health care workforce, based on its review of health care workforce development investments, workforce resiliency, trends and COVID-19 impacts, and specific workforces requiring attention. The findings point to some priority recommendations that are provided below.

Improve the diversity of health care providers

Oregon must have a more diverse workforce to achieve the strategic goal of eliminating health inequities. Key recommendations include:

- Increase investments in training, recruiting, and retaining health care workers who can provide culturally and linguistically responsive care
- Reduce barriers to entry and advancement for people of color in the workforce

Improve the supply and distribution of the health care workforce

The COVID-19 pandemic exacerbated Oregon's shortage of many types of health care providers, especially in rural and frontier areas. Key recommendations include:

- Continue to fund financial incentives to increase opportunities for training and education, such as those in the Health Care Provider Incentive Program

- Invest in workforce training through the public workforce system and allied health educational partners
- Address other factors that influence workforce recruitment and retention—especially in rural and frontier areas—such as housing cost and supply, economic opportunities for partners/spouses, and quality of K-12 education

Enhance the resiliency and well-being of the health care workforce

Health care worker burnout exacerbates workforce shortages, quality of care, health inequities, and health disparities. Addressing workforce wellness and resiliency is essential and will require collective action to be effective. Key recommendations include:

- Coordinate collective actions from public and private stakeholders, as well as community partners, to cultivate a health system that supports health care workers, including action to create trauma-informed, anti-racist workplaces
- Invest in assessment and research to inform evidence-based and practice-based strategies to optimize health care workforce well-being

Expand training/education and career pathways for many segments of the health care workforce

Expanding training is especially urgent for segments of Oregon's workforce where shortages are most acute, such as behavioral health and long-term care. Education and clinical training opportunities should be expanded for all types of health care providers. Key recommendations include:

- Ensure adequate numbers of faculty and clinical training placements for nurses and other licensed professionals
- Establish and fund clear pathways for positions that do not have defined career ladders based on licensure, including parallel training and work, with a progression to increased pay and responsibility based on training and experience

Expand use of care delivery models that improve patient access and promote workforce retention

Although Oregon has been a leader in transforming its health care delivery system, innovative care models can be expanded to improve patients' access to care, promote culturally and linguistically appropriate care, and increase workforce satisfaction. Key recommendations include:

- Expand telehealth, coupled with health care interpreters, to improve access to culturally specific or linguistically appropriate services
- Continue to invest in the integration of physical, behavioral, and oral health care delivery

Increase health care systems' use of community-based health care providers

Traditional health workers—including peer wellness specialists—and health care interpreters come from and/or share common lived experiences with their local communities. OHA should continue to reduce barriers to recruit and retain this workforce. A key recommendation is:

- Find ways to increase compensation for many health professionals, in particular traditional health workers—including peer wellness specialists—and health care interpreters who are underpaid and are underrepresented in certain regions of the state and among persons of color relative to Oregon's population

Improve data collection to promote evidence-informed strategies and diversify the health care workforce

Data collection must be improved to help improve the understanding of challenges to the workforce. Key recommendations include:

- Ensure that standardized REALD (race, ethnicity, language, and disability) and SOGI (sexual orientation and gender identity) data are collected for all Oregon providers and patients
- Expand data collection to include more provider types that incorporate community-defined evidence practices and improve consistency of data collection over time

Conclusions

Workforce shortages and lack of diversity in many areas of the health care workforce are a national problem experienced in Oregon, stemming from historic underinvestment, current economic and social forces, and systemic racism. There are barriers to entry and advancement for people of color in the health care workforce, and to receiving culturally and linguistically responsive care for people experiencing health inequities. In order to stabilize, expand, and diversify Oregon's health care workforce so that it can deliver culturally responsive, effective health care services to all:

- **Some** professions need increased compensation to attract new individuals and increase retention
- **Many** professions with unclear career pathways need better, focused paths for increasing skills, pay, and impact
- **All** professions need more support around resiliency and well-being

All the report's recommendations warrant action by government and non-governmental entities to ensure Oregon has the workforce it needs to deliver on the commitments of optimal health for everyone and the elimination of health inequities

Background

Why a Health Care Workforce Needs Assessment?

Oregon has long been working to transform its health care system to achieve health equity, expand access to care, improve population health outcomes, and ensure a financially sustainable and high-quality health care system. Thus, it is critical that Oregon has the workforce needed to effectively deliver high-value care to patients across the state.

House Bill 3261, passed in 2017, directs the Oregon Health Policy Board (OHPB) to assess the health care workforce needed to meet the needs of patients and communities throughout Oregon. The assessment must consider:

1. The workforce needed to address health disparities among medically underserved populations in Oregon
2. The workforce needs that result from continued expansion of health insurance coverage in Oregon
3. The need for health care providers in rural communities

The needs assessment informs the disposition of the Health Care Provider Incentive Fund to improve the diversity and capacity of Oregon's health care workforce.

This is the fourth report Oregon Health Authority (OHA) has published in accordance with House Bill 3261. (The legislation required an initial needs assessment report in 2018 and then biennial reports starting in 2019.) As stated in previous reports, it is not feasible to determine the exact numbers of additional health care workers needed, or the ideal ratios of health care providers required in each Oregon community to serve the population's health care needs. However, these reports can provide insights into the workforce needs in communities across Oregon, identify needed provider types, and provide general guidance for distributing health care provider incentives.

Current Context: Health Equity

OHA set an ambitious 10-year strategic goal of eliminating health inequities in the state. Going forward, an increased focus on equity is needed to ensure that all people in Oregon can reach their full health potential and well-being. The Health Care Workforce Committee of the OHPB developed the Health Equity Framework to guide its efforts to center equity in discussions and decision-making. It is grounded in the Health Equity Definition adopted by OHPB (Figure 1.1), and OHA's commitment to anti-racism.

Figure 1.1. OHA/OHPB Health Equity definition, updated October 2020

Oregon will have established a health system that creates health equity when all people can reach their full health potential and well-being and are not disadvantaged by their race, ethnicity, language, disability, age, gender, gender identity, sexual orientation, social class, intersections among these communities or identities, or other socially determined circumstances.

Achieving health equity requires the ongoing collaboration of all regions and sectors of the state, including tribal governments to address:

- The equitable distribution or redistributing of resources and power; and
- Recognizing, reconciling, and rectifying historical and contemporary injustices.

The Healthier Together Oregon: 2020–2024 State Health Improvement Plan, launched in September 2020, focuses on the following vision:

> *Oregon will be a place where health and well-being are achieved across the lifespan for people of all races, ethnicities, disabilities, genders, sexual orientations, socioeconomic status, nationalities, and geographic locations.*

The goals of the State Health Improvement Plan include:

- Implement standards for workforce development that address bias and improve delivery of equitable, trauma-informed, and culturally and linguistically responsive services
- Create a behavioral health workforce that is culturally and linguistically reflective of the communities served
- Ensure cultural responsiveness among health care providers through increased training and collaboration with Traditional Health Workers
- Require sexual orientation and gender identity training for all health and social service providers
- Support alternative health care delivery models in rural areas

This focus on equity must include the training, recruitment, and retention of a diverse workforce that can deliver culturally and linguistically appropriate care. The Oregon Primary Care Office (PCO) "*administers health care workforce recruitment and retention programs that target federal and state resources to improve care delivery in communities experiencing inequities, and coordinates with other organizations to maximize collective impact statewide.*"

Development of the Framework was informed by community input, which included recommendations to increase the diversity of the health care workforce, and to make the workplace more welcoming for diverse providers in the areas of:

- Pipeline and career pathways development
- Education, training, and credentialing
- Recruitment, hiring, and retention
- Compensation
- Culturally responsive services and practices environments
- Structure of health care provider incentives

Input from the community engagement was used to develop a set of questions to help guide discussion and decisions to ensure that Oregon's health care workforce development efforts advance opportunities for communities experiencing inequities (Figure 1.2). The Committee will use these questions in its work moving forward to reimagine the necessary changes to infuse equity into workforce development policies and programs that meet OHA's 10-year goal to eliminate health inequities.

Figure 1.2. Health Care Workforce Committee guiding questions for Equity Framework

How do Oregon's health care workforce development efforts advance opportunities for communities experiencing health inequities?
1. Who are the racial/ethnic communities and communities that are experiencing health inequities? What is the potential impact of the resource allocation to these communities?
2. Do the PCO programs ignore or worsen existing health inequities or produce unintended consequences? What is the impact of intentionally recognizing the health inequity and making investments to improve it?
3. How have we intentionally involved community representatives affected by the resource allocation? How do we validate our assessment in questions 1 and 2? How do we align and leverage public and private resources to maximize impact?
4. How should we modify or enhance strategies to ensure recipient and community needs are met?
5. How are we collecting REALD and SOGI data (race/ethnicity, language, and disability and sexual orientation and gender identity data) in PCO awards and matching recipient demographics with communities served?
6. How are we resourcing and/or influencing system partners to ensure programs optimize equity?

Current Context: COVID-19

The COVID-19 pandemic has resulted in significant changes to the health care system and workforce needs. The disruption from the COVID-19 pandemic, and the response and recovery, provide an opportunity for further health care transformation going forward. This report analyzes trends from data collected before and during the COVID-19 pandemic and then describes impacts of the COVID-19 pandemic on Oregon's health care workforce.

Investments in Workforce Development

Oregon Workforce Investments

In addition to national efforts, Oregon has made concerted efforts to invest in the expansion, retention, and diversity of the health care workforce using multiple strategies. Several programs have been introduced to achieve these goals across a variety of health care professions.

Health Care Provider Incentive Program

In 2017, the passage of House Bill 3261 established the Health Care Provider Incentive program (HCPIP) and the Health Care Provider Incentive Fund with the intent of building health care workforce capacity in rural and medically underserved parts of Oregon and pooling existing incentive programs into one flexible program. Table 2.1 details the allocation for each incentive for the current biennium. Implementation is directed by the Oregon Health Policy Board (OHPB) and administered by Oregon Health Authority (OHA) in collaboration with the Oregon Office of Rural Health. Since the last report, Race, Ethnicity, Language, and Disability (REALD) data collection for race/ethnicity categories has begun for incentives, additional flexibility for awardees to practice via telehealth has been approved, significant funding has been made available to the behavioral health workforce, and there has been an increased focus on how incentives can better address inequities.

Additionally, two other incentive programs separate from HCPIP are reviewed: Healthy Oregon Workforce Training Opportunity Grant Program and Rural Medical Practitioner Tax Credit Program

Table 2.1. Incentive Allocation for the 2021-2023 Biennium.

Incentive	2019-2021 expenditure	2021-2023 allocation
Loan repayment to primary care, oral health, and behavioral health clinicians	$6.5 million	$8.7 million*
Loan forgiveness for primary care clinicians in training	$1.0 million	$1.5 million
Rural medical malpractice insurance subsidies	$2.9 million	$4.0 million
Scholars for a Healthy Oregon Initiative (SHOI) at OHSU	$5.0 million	$5.0 million
"SHOI-like" scholarships at non-OHSU education institutions	$0.7 million	$2.0 million
Administrative costs	$1.1 million	$1.3 million
Totals	**$17.3 million**	**$22.5 million**

Source: Health Care Provider Incentive Program: Allocation Request, 2022, Oregon Health Authority
*$3 million carried over from the previous biennium

Primary Care Loan Forgiveness

Loan Forgiveness is an incentive for students to receive funding during their education in exchange for a future service obligation in an underserved rural community that qualifies as a Health Professional Shortage Area and serves the same percentage of Medicaid and Medicare patients that exist in the county in which the clinic is located. Students may receive a loan equal to the cost of their post-graduate training for each year they choose to practice in a qualified Health Professional Shortage Area for up to three years. Eligible providers include certain specialties of Physicians, Physician Assistants, Dentists, Pharmacists, and Nurse Practitioners.

Over the past 5 annual award cycles, 51 students have been awarded $2.6 million through the Loan Forgiveness incentive. Table 2.2 details the programs and the amount of funding received from 2018 to 2022. The number of students who have applied for the Loan Forgiveness incentive has exceeded the awards that can be made with available funds.

Table 2.2. Primary Care Loan Forgiveness awards, 2018-2022

School and Discipline	Number of awards	Total award amount	Award amount Per student
OHSU			
School of Medicine / MD	6	$458,300	$76,383
Physician Assistant / PA	6	$256,200	$42,700
School of Nursing / DNP	4	$130,400	$32,600
School of Dentistry / DMD	3	$156,600	$52,200
School of Pharmacy / PharmD	2	$70,400	$35,200
Subtotal	21	$1,071,900	$51,043
Pacific University			
Physician Assistant / PA	19	$826,700	$43,511
School of Pharmacy / PharmD	4	$140,800	$35,200
Subtotal	23	$967,500	$42,065
Western University COMP-NW			
Osteopathic Medicine / DO	7	$625,600	$89,371
Total	**51**	**$2,665,000**	**$52,255**

Source: Evaluation of the Effectiveness of Health Care Provider Incentive Programs in Oregon, 2023, Oregon Health Authority

Loan Repayment Program

The Loan Repayment Program was designed to help support underserved communities in the recruitment and retention of health care providers. Providers receive funds to repay student loan debt based on the balance owed upon joining the Loan Repayment Program and must be practicing at a qualifying site. Qualifying sites must be in a Health Professional Shortage Area, serve at a minimum the same percentage of Medicaid and Medicare patients that exist in the county in which the clinic is located, and been approved by the Oregon Office of Rural Health. Eligible providers include a range of health care professionals across primary care, dental, and behavioral health.

From 2018 to 2022, the Loan Repayment Program has allocated more than $16.7 million in loan repayment to 295 clinicians in Oregon including dentists (DDS/DMD), dental hygienists, physicians (MD/DO), physician assistants, naturopathic doctors, nurse practitioners, pharmacists, licensed social workers, and several different behavioral health providers. HCPIP transitioned behavioral health loan repayment in

April 2022 to the new incentives available for behavioral health workforce incentives. (See Behavioral Health Providers section).

Figure 2.3 shows the distribution of loan repayment recipients across Oregon. A third of loan repayment recipients have language skills in addition to English, about the same as the previous report. Over 34% of incentive recipients identified as a person of color and from Tribal communities, a notable increase from the 27% in the previous evaluation. In a survey of awardees, over 90% reported satisfaction with the loan repayment program, highlighting the mental and financial relief it brings as well as the opportunity to work with underserved populations:

"It has freed me up to do what I love - helping underserved populations with my dental skills and not drown in student loan debt." – DDS, Beaverton

"It has made it easier for me to focus on serving the underserved rural populations without having to worry about my loan repayments." – MD, Newport

Figure 2.3. Loan Repayment Program recipients across Oregon, 2018-2022

To be inserted

Source: Evaluation of the Effectiveness of Health Care Provider Incentive Programs in Oregon, 2023, Oregon Health Authority

Rural Medical Insurance Subsidy

OHA provides subsidies for provider malpractice insurance premiums for physicians and nurse practitioners serving in rural and frontier areas of Oregon that they would otherwise pay in full. Reimbursement varies by specialty with providers in obstetric care receiving the highest reimbursement at 80% of the cost. Family or general practice providers that offer obstetrical services can receive 60% reimbursement. Providers in anesthesiology, family practice, general practice, general surgery, geriatrics, internal medicine, pediatrics, and pulmonary medicine can receive 40% reimbursement. Providers of other practices not previously listed can receive up to 15% reimbursement. In 2021, 516 recipients received an insurance subsidy. Table 2.4 shows the number of participants the previous 4 years.

Table 2.4. Rural Medical Insurance Subsidy Program Participants

Year	Number of Participants
2018	628
2019	546
2020	491
2021	516

Source: Evaluation of the Effectiveness of Health Care Provider Incentive Programs in Oregon, 2023, Oregon Health Authority

Scholarships and Scholars for a Healthy Oregon Initiative (SHOI)

SHOI provides full tuition for Oregon Health & Science University (OSHU) students that agree to practice as a health care provider in a rural or underserved community in Oregon upon graduation using the Health Care Provider Incentive Fund. “SHOI-like” programs were later established in the 2019-2021 biennium as a part of the Health Care Provider Incentive Program at other Oregon universities. Table 2.5 shows the number of awards and average amount awarded for “SHOI-like” scholarships. Eligible providers include doctors, dentists, physician assistants, and nurse practitioners. SHOI awardees must agree to practice in an underserved Oregon community for a minimum of one year longer than the total years SHOI funding was received. SHOI awardees can practice at a Federally Qualified Health Center, a correctional facility, a community mental health clinic, urban non-profit facility seeing at least 50% Medicaid patients in a health professional shortage area, rural hospitals or clinics, rural Veterans Affairs facilities, and rural tribal clinics.

Table 2.5. SHOI-like programs and average awards, 2019-2022

Program	Profession	Number of Awards	Average Award
National University of Natural Medicine	Naturopathic Doctor	6	$63,785
Pacific University School of Physician Assistant Studies	Physician Assistant	5	$75,000
Western University – College of Osteopathic Medicine of the Pacific Northwest	Doctor of Osteopathic Medicine	5	$117,600
Overall		**16**	**$84,107**

Source: Evaluation of the Effectiveness of Health Care Provider Incentive Programs in Oregon, 2023, Oregon Health Authority

Funding for SHOI is $5 million for the 2021-2023 biennium. Figure 2.6 shows the distribution of active SHOI providers as of February 2021. Since its inception, over $19 million has been distributed to 156 OHSU students in SHOI scholarships. A third of recipients are nurse practitioner students, 24% are medical doctor students, 23% are physician assistant students, and 19% are dental students.

Figure 2.6. Practice locations of SHOI award recipients

To be inserted

Source: SHOI Map, 2021, OHSU

Healthy Oregon Workforce Training Opportunity Grant Program (HOWTO)

The Healthy Oregon Workforce Training Opportunity (HOWTO) Grant Program seeks to expand health professional training within the state to address shortages and expand the diversity of the health care workforce. Under the direction of the OHPB, the HOWTO Grant Program supports locally developed health care workforce programs using innovative, community-based initiatives. Examples of recent HOWTO grantees include a Peer Wellness Specialist training program in Portland and workplace learning programs aimed at providing medical, dental, and behavioral workers to the Latino/a/x Community in Medford; 345 new workers have been trained across a variety of health

care disciplines. Funding for the HOWTO Grant Program has increased over the years from $8.4 million in the 2017-2019 biennium to $10.6 million in the 2021-2023 biennium.

Rural Medical Practitioner Tax Credit Program

Rural practitioner tax credits are also available to providers for practicing in areas that meet the requirements of a designated rural area and whose individual adjusted gross income does not exceed $300,000. Certified registered nurse anesthetists, dentists, doctors of medicine (MD), doctors of osteopathic medicine (DO), nurse practitioners, optometrists, physician assistants, and podiatrists are eligible for participation. Tax credit amounts are tiered based on distance from city centers with a population of more than 40,000 people. Providers at practices 10-20 miles away from an urban center receive $3,000, 20-50 miles away receive $4,000, and 50+ miles away receive $5,000. A separate rural tax credit is also offered to emergency medical services providers who serve in rural areas. Table 2.7 shows the number of recipients of the rural medical tax credit over the previous 4 years.

Table 2.7. Participants in the Rural Medical Tax Credit Program

Year	Number of Participants
2018	2,347 participants
2019	2,265 participants
2020	2,215 participants
2021	1,892 participants

Source: Evaluation of the Effectiveness of Health Care Provider Incentive Programs in Oregon, 2023, Oregon Health Authority

Other Oregon Workforce Investment Programs

Behavioral Health Investment

There are several investments to address behavioral health workforce shortages and improve diversity in Oregon. House Bill 2949 (2021) and subsequently House Bill 4071 (2022) created the Behavioral Health Workforce Initiative (BHWi) and allocated $80 million to provide incentives to increase the recruitment and retention of providers in the behavioral health care workforce with a focus on equity and priority populations. House Bill 4004 (2022) further requires OHA to distribute $132 million in grants to agencies to be used to increase wages and other compensation for behavioral health practitioners. There are additional investments at the national and state level to increase compensation and provide incentives for behavioral health workers. Refer to the Behavioral Health Providers section for more details.

Public Health Investments

Funding for Public Health Modernization from the Oregon Legislature has increased from $5 million in 2017 to $30 million in 2021. OHA has requested $286 million for the 2023-2025 biennium for Public Health Modernization which will include workforce development and retention strategies. OHA Public Health Division has also applied for a $32 million CDC public health infrastructure grant, with some funding focused on workforce development. OHA has also contracted out for work such as with universities to train students to perform activities like case investigation, contact training, data entry and quality assurance, and vaccine outreach. Refer to the Public Health Workforce section for more details.

Future Ready Oregon

Future Ready Oregon is a $200 million investment package established under Senate Bill 1545 (2022) aimed at supporting the education and training of Oregonians in need of family-wage careers. The Higher Education Coordinating Commission primarily oversees administering funds and has established different grants to support recruitment, retention, and career advancement opportunities especially in manufacturing, technology, and health care industry sectors for historically underserved communities. As of September 19, 2022, the Higher Education Coordinating Commission had received 146 applications and is in the process of evaluation for the Future Ready Oregon Workforce Ready Grants. Seventy-six percent of the applications were from the health care sector. $9.8 million is to be distributed through the first round of grant applications.

Oregon Health & Science University (OHSU) 30-30-30 Plan

Oregon Health & Science University's 30-30-30 plan was developed to address health care workforce shortages and health care inequities that have worsened during the COVID-19 pandemic and have disproportionately affected underserved communities. OHSU 30-30-30 goal is to increase graduates from OHSU health care programs by 30% and increase student diversity within these programs by 30% by 2030. Under House Bill 5202, the Oregon Legislature invested $45 million in OHSU 30-30-30. $20 million will be allocated to OHSU to expand current class sizes for health care professional programs and increase diversity through existing learner programs like Oregon Consortium of Nursing Education, Area Health Education Centers, HealthESteps, Wy'east, and OnTrack OHSU!. Another $25 million will go towards the OHSU Opportunity Fund to provide tuition assistance, loan repayment, and other student resources to help with recruitment and retainment of more diverse student bodies at OHSU. Through philanthropy, the OHSU Foundation will seek to match this investment in its OHSU Opportunity Fund.

National Workforce Investments

National Health Services Corps Program

The National Health Services Corps program is a federal program administered by the Health Resources and Services Administration. Students and health care providers can receive scholarships and loan repayments for providing services in federally designated Health Professional Shortage Areas. Student recipients of National Health Services Corps scholarships must serve a minimum of 2 years at an approved site within an Health Professional Shortage Area and be enrolled in an accredited program for physicians, dentists, nurse practitioners, nurse midwives, or physician assistants. The National Health Services Corps Loan Repayment Program offers several different loan repayment opportunities for a variety of health care providers. Recipients can receive anywhere between $25,000 to $100,000 in loan repayment funds depending on the health care discipline and amount of service commitment years. Primary care providers, dental providers, and behavioral health providers working at an approved site in a Health Professional Shortage Area are eligible for loan repayment. The Health Resources and Services Administration also provides grant funding to states to conduct their own loan repayment programs based on state needs. Oregon has received over $1.4 million in State Loan Repayment Program funds over the last 3 years.

Physician Visa Waiver Program

The Physician Visa Waiver Program (also called the J-1 Visa Waiver Program) is a federal program that allows international medical students that completed residencies or fellowships in the United States to stay in the country to practice medicine in an Health Professional Shortage Area or other medically underserved area. OHA's Primary Care Office coordinates the program in Oregon and has state-specific requirements that a minimum of 40% of all patient visits must be Medicaid, Medicare, and low-income uninsured patients. The Primary Care Office gives preference to applicants who work as primary care providers, work in rural areas, work in federally qualified health centers, and work in a facility with a high Health Professional Shortage Area score. Ninety percent of the physicians participating in the Oregon Physician Waiver Program who started work three or more years ago completed their contractual obligations in Oregon. Eighty-eight percent remained with their employer upon completion of their service contract. All 30 positions were filled for 2022; typically, the program uses all available slots each program year.

Workforce Resiliency

The Importance of Workforce Resiliency

Work stress refers to "*the harmful physical and emotional effects when job requirements do not match workers' resources or needs*". It can lead to poor mental and physical health and cause burnout. A range of socio-cultural and organizational factors can also contribute to health care workforce burnout. The health care workforce is faced with a high risk of work stress and burnout due to challenging working conditions such as excessive workloads, long hours and unpredictable schedules, intense emotions, and administrative burdens. The National Institute for Occupational Safety and Health (NIOSH) found that health care workers are faced with stigma when seeking care for mental health concerns or substance use disorders.

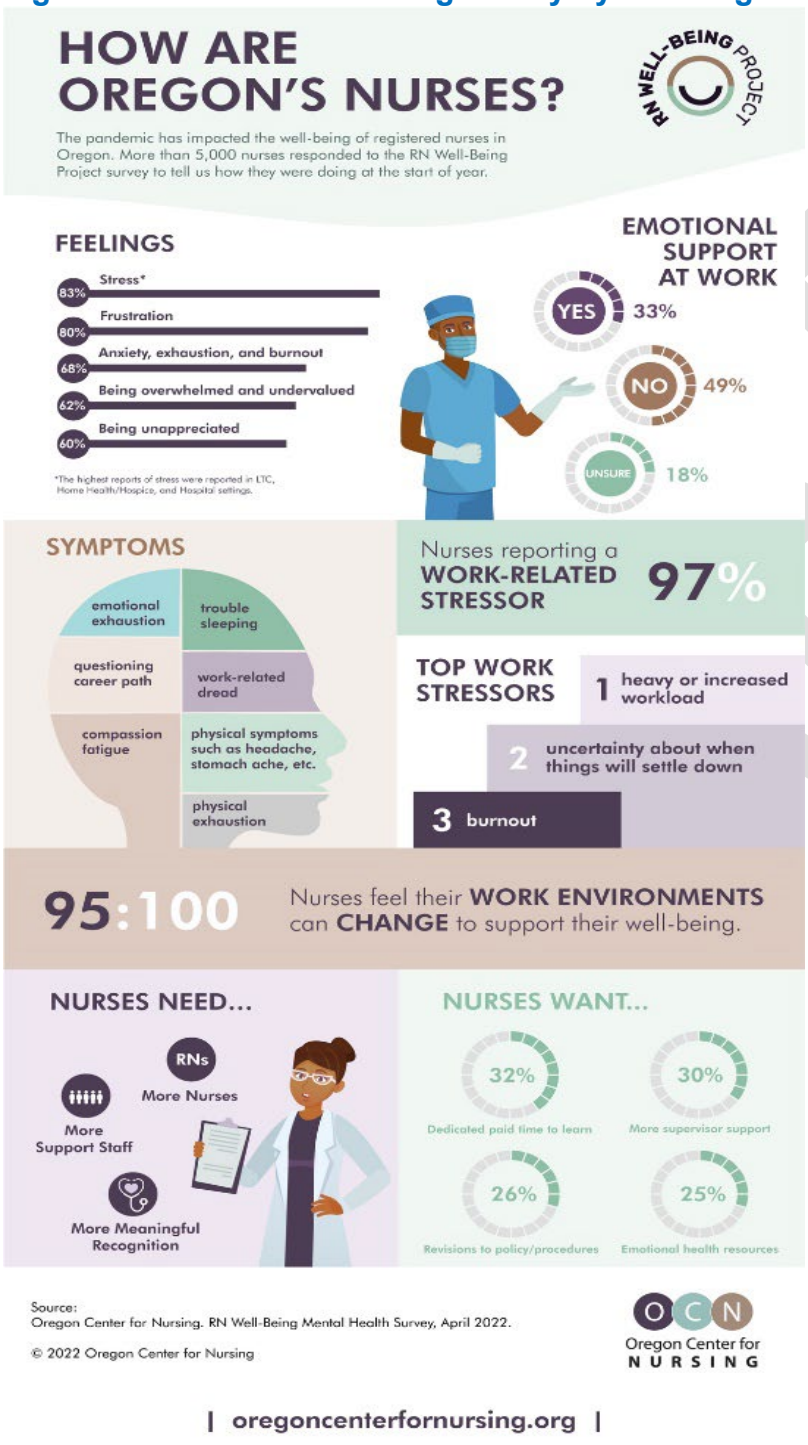
Burnout has been exacerbated by extreme mental and physical fatigue, isolation, and moral and traumatic distress and injury during the COVID-19 pandemic. The health care workforce experienced increased workload in the face of short staffing and shortages in personal protective equipment (PPE). They experienced anxiety and fear of working conditions with ongoing risk for hazardous exposures. The health care workforce also experienced intensely stressful and emotional situations in caring for patients, many of whom died. According to NIOSH, some health care workers reported symptoms consistent with post-traumatic stress disorder related to the pandemic, and some reported residual symptoms due to personal infection with COVID-19.

A recent survey of about 2,500 physicians found a dramatic increase in physician burnout during the pandemic. Over 60% of physicians reported manifestations of burnout in 2021 compared with 38% in 2020. Physician satisfaction with work-life integration declined from 46% in 2020 to 30% in 2021.

In Oregon, data from the Larry Green Center survey of primary care showed that as of November 2021, 39.3% of respondents reported their mental stress/exhaustion at an all-time high. Over 70% of Oregon respondents reported that mental stress/exhaustion in their practices at an all-time high, compared to around 60% at national level.
The Oregon Center for Nursing (OCN) recently conducted a statewide survey of well-being and resiliency among nurses (Figure 3.1). Among more than 5,000 respondents, 83% of nurses reported stress, with the highest reports in long-term care, home health/hospice, and hospital settings. Eighty percent of respondents felt frustration, and over 60% reported anxiety, exhaustion, burnout, and being overwhelmed and undervalued. Top work stressors included "heavy or increased workload," "uncertainty about when things will settle down," and "burnout." A national study surveyed more than 50,000 registered nurses and found that more than 30% of nurses who left their job

reported burnout as a reason. Nurses who worked more than 40 hours per week were more likely to report burnout as a reason they left their job.

Figure 3.1. Nurses' well-being survey by the Oregon Center for Nursing



Source: Oregon Center for Nursing. *RN Well-Being Mental Health Survey*, April, 2020.

Governmental public health has also assessed state and local health worker burnout since COVID-19. The public health workforce has operated under strained resources even before the COVID-19 pandemic. The pandemic brought long work hours, increased scrutiny from local elected officials and the public, and in some cases, threats of violence against public health professionals and their families. Misinformation and opposition to local public health guidance has led many to discredit public health officials. These working conditions have led to job-related mental health impacts and an exodus from the field for public health professionals. In Oregon, almost half of local health administration roles experienced turnover. Turnover in administration and those in supervisory roles may mean that remaining staff may have not been well-supported.

Health worker burnout can have many negative consequences. A study estimated the national cost for burnout-related turnover at $17 billion for physicians and $14 billion for nurses annually. In 2022, the U.S. Surgeon General's Advisory on Building a Thriving Health Workforce suggested that "*health worker burnout harms all of us,*" as "*the health worker burnout crisis will make it harder for patients to get care when they need it, cause health costs to rise, hinder our ability to prepare for the next public health emergency, and worsen health disparities*." It also highlighted groups of health workers whose health and well-being have been disproportionately impacted before and during the pandemic, including health workers of color, immigrant health workers, female health workers, low wage health workers, health workers in rural communities, and health workers in tribal communities.

Programs to Improve Workforce Resiliency

In 2017, the National Academy of Medicine launched the Action Collaborative on Clinician Well-Being and Resilience, a network of more than 200 organizations committed to reversing trends in clinician burnout. The goals of this collaborative include raising the visibility of clinician anxiety, burnout, depression, stress, and suicide; improving baseline understanding of challenges to clinician well-being, and advancing evidence-based, multidisciplinary solutions to improve patient care by caring for the caregiver.

In October 2022, the National Academy of Medicine Clinician Well-Being Collaborative published a National Plan for Health Workforce Well-Being. The National Plan calls on multiple actors – including health care and public health leaders, government, payers, industry, educators, and leaders in other sectors - to "*cultivate a health system to support care providers and optimize their well-being.*" To better support the health workforce and the health of all communities, the National Plan highlighted seven priorities, including:

- Create and sustain positive work and learning environments and culture.

- Invest in measurement, assessment, strategies, and research.
- Support mental health and reduce stigma.
- Address compliance, regulatory, and policy barriers for daily work.
- Engage effective technology tools.
- Institutionalize well-being as a long-term value.
- Recruit and retain a diverse and inclusive health workforce.

As the National Plan pointed out, these priorities are urgent and complex, as "*no single actor or sector can move the needle on its own.*" It needs collective action by everyone —from health workers to the public to multi-sectoral leaders— to strengthen health workforce well-being.

The U.S. Surgeon General's Advisory on Building a Thriving Health Workforce in 2022 called for collaboration from a variety of public and private stakeholders, including federal, state, and local government and health care organizations, health insurers, technology companies, training programs, and accrediting bodies, to tackle health care worker burnout (Figure 3.2). Actions called for include:

- Protecting the health, safety, and well-being of all health workers
- Eliminating punitive policies for seeking mental health and substance use care
- Reducing administrative and other workplace burdens to help health workers make time for what matters
- Transforming organizational cultures to prioritize health worker well-being and show all health workers that they are valued
- Recognizing social connection and community as a core value of the health care system
- Investing in public health and public health workforce.

Figure 3.2. Solutions to health worker burnout, from the U.S. Surgeon General's Advisory on Building a Thriving Health Workforce

Source: The U.S. Surgeon General's Advisory on Building a Thriving Health Workforce.

In 2021, the U.S. Department of Health and Human Services (HHS), through the Health Resources and Services Administration (HRSA), allocated $103 million from the American Rescue Plan to be spent over a three-year period to reduce burnout and to promote mental health among the health workforce. Funding will be provided to health care organizations to promote resilience and mental health among health professional workforce, and for educational institutions and other appropriate entities training those

early in their health careers to promote resiliency within the workforce. Awards will also be made to provide tailored training and technical assistance to HRSA's workforce resiliency programs. In Oregon, Northeast Oregon Network and Legacy Emanuel Hospital & Health Center both received over $2 million HRSA awards to support health workforce resiliency.

The passage of the Dr. Lorna Breen Health Care Provider Protection Act (HR 1667) in 2022 established grants and requires activities to support the mental and behavioral health of health workers. For example, it establishes grants for training health professions students, residents, or health care professionals in evidence-informed strategies to reduce and prevent suicide, burnout, mental health conditions, and substance use disorders. The legislation also establishes a national evidence-based education and awareness campaign targeting health care professionals to encourage them to seek support and treatment for mental and behavioral health concerns.

The Oregon Wellness Program provides wellness support for physicians, nurses, and other health care professionals in Oregon. The program promotes health care professionals' well-being through free counseling, education, and research. In 2021, the OCN launched the RN Well-Being Project to aid workplaces in developing interventions that nurses feel are necessary to improve their mental and emotional well-being. OCN compiles resources to help nurses access care and build resilience. It is also working on innovative solutions for employers to make systematic culture change to best support their nurses.

The Oregon Health Authority (OHA) is taking the following steps to support behavioral health providers (see Behavioral Health Providers section):

- **Childcare for workers**: OHA provided $8 million to hundreds of licensed behavioral health providers for childcare stipends. The stipends went directly to staff, improved supervision, and working environment improvements.
- **Retention and hiring bonuses:** OHA provided $15 million to provide retention and hiring bonuses of up to $2,000. The bonuses went to more than 7,000 workers serving clients directly in residential settings.
- **Residential emergency staffing needs:** OHA provided staff support to both children's and adults' licensed behavioral health facilities to offset the impact of COVID-19 on the workforce.
- **Vacancy payments and rate increases:** Vacancy payments are Medicaid-reimbursed and are allowed for empty beds when the reason for the bed vacancy is due to the pandemic. OHA has provided more than $30 million vacancy payments to residential providers impacted by the pandemic and helped provide stable income. OHA also implemented a temporary 10% rate

increase for residential behavioral health providers during COVID-19. Almost $13 million has been paid directly to providers and to CCOs for providers.

- **Reducing administrative burdens:** OHA reduced administrative burdens on behavioral health programs, pausing more than 40 reporting requirements.

Health Care Workforce Trends

Health Care Workforce Reporting Program Data

Methodology

Oregon was one of the first states in the country to legislatively mandate reporting by health care professionals. Oregon Health Authority's Health Care Workforce Reporting Program was created in 2009 with the passage of House Bill 2009, which required Oregon Health Authority (OHA) to collaborate with seven health profession licensing boards to collect health care workforce data during their license renewal processes. During the 2015 Oregon Legislative session, Senate Bill 230 added ten more health licensing boards to this data collection program. Oregon's 17 licensing boards participating in this data collection are outlined in Table 4.1, with the 40 occupations that they license. The data collected on these providers include information submitted to the licensing boards and data from the Health Care Workforce Survey. This data is used to understand Oregon's health care workforce, inform public and private educational and workforce investments, and provide data to inform policy recommendations for state agencies and the Legislative Assembly regarding Oregon's health care workforce.

Table 4.1. Oregon Health Care Licensing Boards

Licensing Board	Licenses
Oregon Medical Board	Doctor of Medicine (MD), Doctor of Osteopathy (DO), Doctor of Podiatry (DPM), Licensed Acupuncturist, Physician Assistant (PA)
Oregon Board of Dentistry	Dentist (DMD/DDS), Registered Dental Hygienist (RDH)
Oregon Board of Optometry	Optometrists (OD)
Oregon Board of Naturopathic Medicine	Naturopathic Physician (ND)
Oregon State Board of Nursing	Registered Nurse (RN), Nurse Practitioner (NP), Certified Registered Nurse Anesthetist (CRNA), Clinical Nurse Specialist (CNS), Licensed Practical Nurse (LPN), Certified Nursing Assistant (CNA)
Oregon Board of Chiropractic Examiners	Chiropractic Examiners (DC), Chiropractic Assistants (CA)
Oregon Occupational Therapy Licensing Board	Occupational Therapist (OT), Occupational Therapy Assistant (OTA)
Oregon Board of Physical Therapy	Physical Therapist (PT), Physical Therapist Assistant (PTA)
Oregon Board of Massage Therapists	Licensed Massage Therapist (LMT)

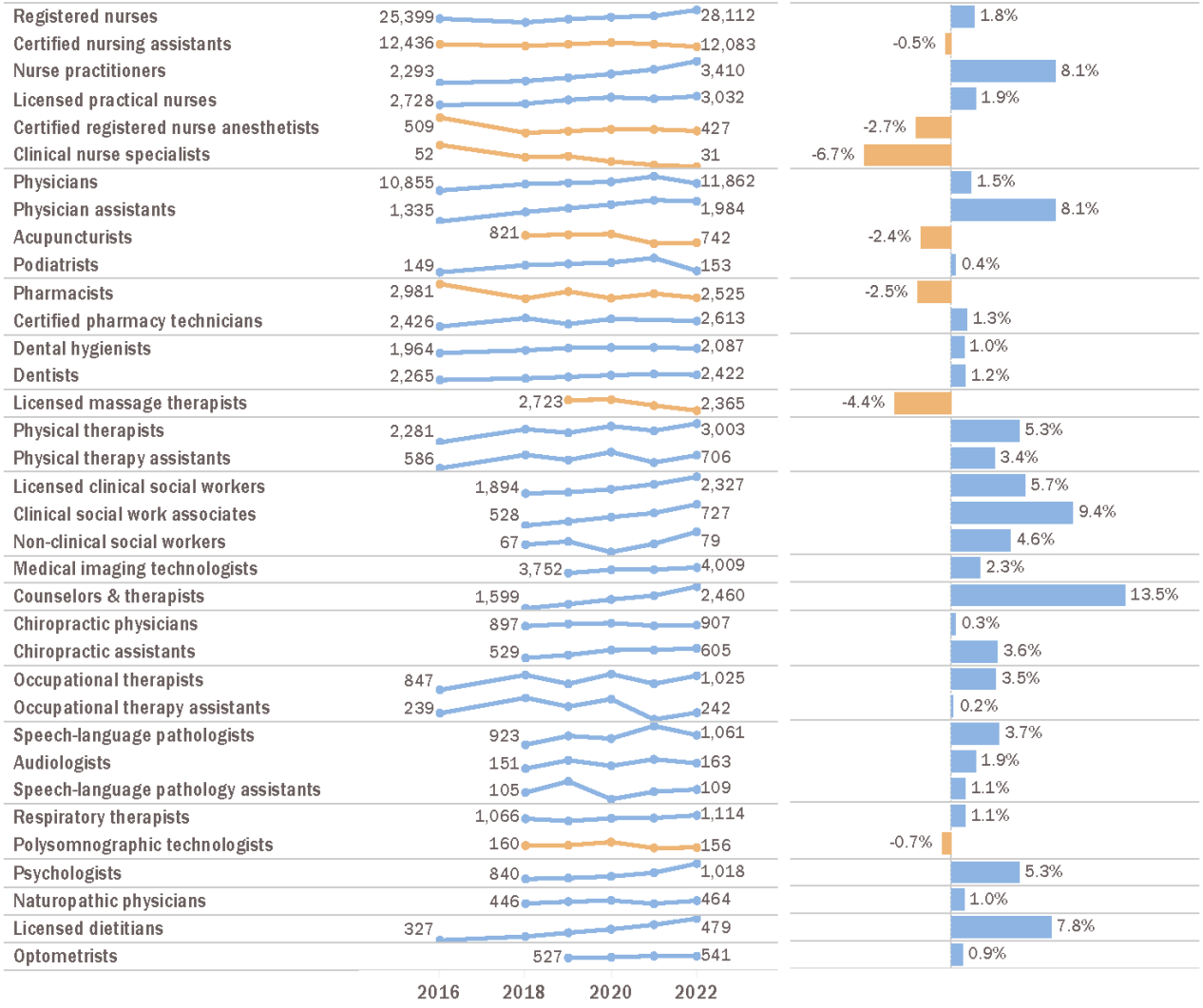
Licensing Board	Licenses
Respiratory Therapist and Polysomnographic Technologist Licensing Board	Polysomnographic Technologists (LPSGT), Respiratory Therapists (LRCP)
Oregon Board of Licensed Dieticians	Licensed Dietitian (LD)
Oregon Board of Psychology	Psychologist (PSY)
Oregon Board of Licensed Clinical Social Workers	Licensed Clinical Social Worker (LCSW), Clinical Social Worker Associate (CSWA)
Oregon Board of Licensed Professional Counselors and Therapists	Licensed Marriage and Family Therapist (LMFT), Licensed Professional Counselor (LPC)
Oregon Board of Pharmacy	Pharmacists (RPH), Certified Pharmacy Technician (CPhT)
Oregon Board of Medical Imaging	Nuclear Medicine Technologist (NMT), MRI Technologist (MRI), Radiation Therapist (RDT), Radiographer (RDG), Sonographer (SNG), Limited Permit X-ray Machine Operator (LXMO)
Oregon Board of Examiners for Speech-Language Pathology and Audiology	Audiologist (AUD), Speech-Language Pathologists (SLP), Speech-Language Pathologists Assistants (SLPA)

Source: OHA Office of Health Analytics, Oregon's Health Care Workforce Reporting Program

Findings

In total, there were nearly 192,000 licensed health care professionals in this reporting program dataset as of January 2022. The direct patient care FTE by occupation and year from 2016-2022 is shown in Figure 4.2, along with the annual average percent change in that time period. Noteworthy average annual increases were observed for counselors and therapists (13.5%), clinical social work associates (9.4%), nurse practitioners (8.1%), physician assistants (8.1%), and licensed dietitians (7.8%).

Figure 4.2. Average annual percent change in direct patient care FTE varies by occupation.



Source: OHA Office of Health Analytics, 2022 Oregon's Licensed Health Care Workforce Supply.

Table 4.3 shows primary care provider FTE changes by occupation over years. Primary care physician FTE decreased in 2022 compared to 2020, as did naturopathic physicians. At the same time, nurse practitioners and physician assistants FTE increased. Overall, there is a 2% increase in primary care provider FTE from 2020 to 2022.

Table 4.3 Primary care provider FTE changes by occupation

Occupation	2020	2022	Change
Physicians	4,716	4,638	- 1.7 %
Nurse practitioners	1,020	1,241	21.7%
Physician assistants	685	694	1.3%
Naturopathic Physicians	220	206	- 6.4%
TOTAL	6,641	6,779	2.1%

Source: OHA Office of Health Analytics, 2022 Oregon's Licensed Health Care Workforce Supply.

Figure 4.4 shows health care professionals' plans to increase hours, reduce hours, or leave the workforce in 2021 and 2022. Clinical nurse specialists (7.8 %) and certified pharmacy technicians (6.5%) had the highest rates of plan to leave the Oregon workforce. Those who intended to increase practice hours at the highest rates were licensed massage therapists (14.7%) and occupational therapy assistants (12.5 %). See The Health Care Workforce Going Forward section for more detail on provider specialty groups.

Figure 4.4. Health care professionals' plans for practices in 2021 and 2022

Source: OHA Office of Health Analytics, 2022 Oregon's Licensed Health Care Workforce Supply.

Starting in 2021, the Health Care Workforce Reporting Program's survey of providers began using the REALD tool. REALD outlines how to collect data on race, ethnicity, language, and disability with more granularity. The tool can be used to more accurately identify inequities and subpopulations that may benefit from focused interventions, and help address unique inequities that occur at the intersections of race, ethnicity, language, and disability.

The gender and race/ethnicity breakdown for health care provider compared with Oregon's general population is shown in Table 4.5. Female providers are overrepresented in most professions, though men tend to be overrepresented in fields requiring more years of formal training, such as physicians and dentists. Overall, Oregon's health care workforce is less racially and ethnically diverse than the general population with Latino/a/x, African American/Black, and American Indian/Alaska Native providers being underrepresented in most health care professions. See The Health Care Workforce Going Forward section for more detail on provider specialty groups.

Table 4.5. Race, Ethnicity, and Gender Distribution: 2022 Workforce compared with Population

Table 4.5: Race, Ethnicity, and Gender Distribution: 2022 Workforce compared with Population

Comparison to state distribution

Similar to state | Below state | Above state | No representation

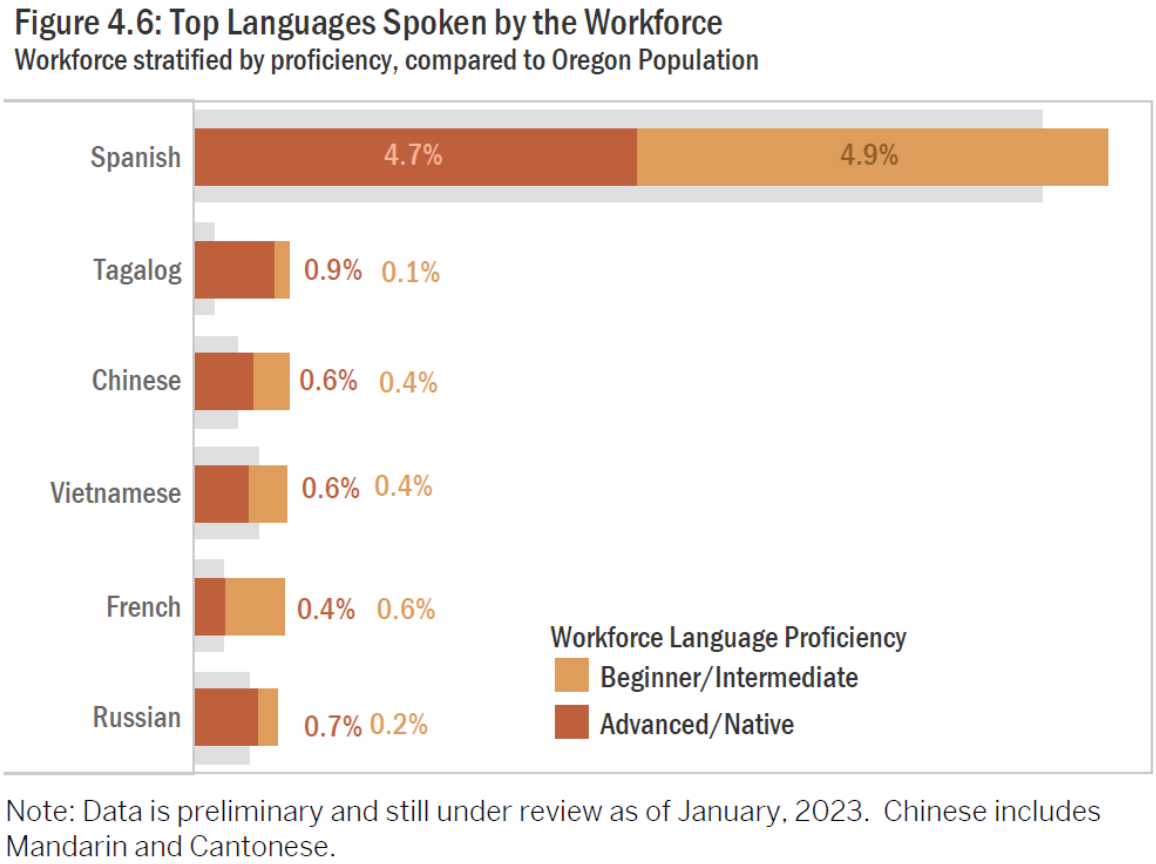
		AI/AN	Asian	Black /AA	Latino /a/x	NH/PI	Other race	White	Female	Male
Oregon		3.1%	5.7%	3.0%	12.3%	0.9%	0.2%	75.0%	50.4%	49.6%
Chiropractic	Chiropractic assistants	3.1%	6.1%	1.1%	17.7%	0.9%	0.8%	70.4%	83.4%	13.2%
	Chiropractic physicians	2.1%	7.2%	0.5%	3.1%	0.6%	0.8%	85.7%	30.3%	64.5%
Counselors/Therapists	Counselors & therapists	2.9%	2.8%	1.6%	4.8%	0.7%	0.9%	86.3%	75.2%	20.2%
Dentistry	Dental hygienists	1.9%	7.0%	0.4%	5.9%	0.5%	0.9%	83.4%	93.9%	3.0%
	Dentists	0.6%	18.2%	1.0%	3.7%	0.8%	1.0%	74.7%	29.8%	66.5%
Dietetics	Licensed dietitians	1.9%	6.6%	0.2%	2.8%	0.2%	0.0%	88.3%	92.2%	4.6%
Massage therapy	Licensed massage therapists	2.1%	4.6%	1.0%	5.0%	0.6%	1.2%	85.6%	78.6%	15.4%
Medical	Acupuncturists	0.1%	11.2%	0.2%	3.4%	0.2%	0.0%	84.9%	71.6%	28.2%
Medical imaging	Medical imaging technologists	1.2%	3.9%	0.8%	5.7%	0.7%	1.0%	86.7%	65.2%	34.7%
Naturopathy	Naturopathic physicians	2.9%	6.3%	0.9%	4.6%	0.8%	0.8%	83.8%	41.1%	58.9%
Nursing	Certified nursing assistants	2.0%	6.9%	7.5%	18.1%	1.4%	1.3%	62.6%	22.5%	77.5%
	Certified registered nurse anesthetists	0.6%	7.0%	0.6%	3.8%	0.0%	1.5%	86.6%	62.4%	32.7%
	Clinical nurse specialists	0.0%	4.2%	0.0%	1.1%	0.0%	1.1%	93.7%	73.8%	20.8%
	Licensed practical nurses	1.9%	5.5%	5.7%	9.3%	0.8%	0.9%	75.9%	83.7%	14.3%
	Nurse practitioners	1.3%	4.7%	2.2%	4.2%	0.3%	0.7%	86.6%	47.2%	46.3%
	Registered nurses	1.4%	5.9%	1.5%	4.8%	0.6%	0.7%	85.0%	91.7%	4.6%
Occupational therapy	Occupational therapists	0.2%	5.3%	0.5%	3.1%	0.3%	0.7%	89.9%	84.9%	12.8%
	Occupational therapy assistants	0.0%	2.9%	1.1%	4.3%	0.4%	0.7%	90.6%	84.8%	12.6%
Optometry	Optometrists	1.1%	17.8%	0.2%	2.0%	0.6%	0.6%	77.7%	83.7%	13.5%
Pharmacy	Certified pharmacy technicians	1.0%	8.6%	1.4%	10.4%	1.0%	0.5%	77.1%	85.9%	12.6%
	Pharmacists	1.4%	26.5%	2.0%	2.7%	1.1%	1.0%	65.3%	88.1%	10.0%
Physical therapy	Physical therapists	1.2%	9.2%	0.7%	3.2%	0.7%	0.4%	84.7%	45.5%	49.6%
	Physical therapy assistants	1.3%	3.2%	1.1%	4.6%	0.3%	0.4%	89.1%	77.4%	19.3%
Psychology	Psychologists	1.3%	5.4%	1.3%	4.9%	0.3%	0.9%	85.8%	56.7%	39.0%
Respiratory therapy and polysomnography	Polysomnographic technologists	3.4%	4.5%	3.4%	5.6%	0.0%	1.1%	82.0%	62.5%	34.9%
	Respiratory therapists	3.3%	4.7%	2.6%	7.1%	1.5%	1.8%	79.0%	66.5%	29.1%
Social work	Clinical social work associates	3.4%	6.0%	7.5%	11.1%	0.8%	1.5%	69.7%	62.7%	34.2%
	Licensed clinical social workers	1.7%	2.6%	1.8%	4.1%	0.4%	0.8%	88.5%	48.0%	46.7%
	Non-clinical social workers	0.8%	4.1%	0.8%	7.4%	1.6%	0.8%	84.4%	59.6%	35.8%
Speech-language pathology and audiology	Audiologists	0.0%	8.0%	0.5%	2.1%	0.0%	0.0%	89.3%	78.1%	16.6%
	Speech-language pathologists	1.7%	3.7%	0.9%	4.4%	0.6%	0.8%	87.8%	78.6%	18.3%
	Speech-language pathology assistants	2.7%	3.4%	0.7%	11.0%	0.0%	0.0%	82.2%	83.0%	14.1%
Grand Total		1.6%	7.0%	2.2%	6.6%	0.7%	0.9%	81.0%	72.5%	22.7%
									88.9%	7.5%
									94.4%	3.3%
									73.1%	24.2%

Note: Data is preliminary and still under review as of January, 2023. Providers with missing data were excluded from the analysis. Some Workforce records are missing race and ethnicity data because licensees declined to report race or ethnicity. Individuals reporting multiple races are recategorized using rarest race methodology. AA = African American, AI/AN = American Indian or Alaska Native, NH/PI = Native Hawaiian or Pacific Islander

Source: OHA Office of Health Analytics, Oregon's Health Care Workforce Reporting Program

As shown in Figure 4.6, Spanish is the most common language spoken other than English among licensed providers (about 10%). The next most common languages spoken are Tagalog, Chinese (including Mandarin and Cantonese), Vietnamese, French, and Russian. Less than 1% of the licensed health care providers are native speakers or have advanced proficiency in each of those languages. Thus, many patients who speak a language other than English need the assistance of a Health Care Interpreter (See Health Care Interpreters section).

Figure 4.6. Top Languages Spoken by the Workforce: Workforce Stratified by Proficiency, Compared to Oregon Population



Source: OHA Office of Health Analytics, Oregon's Health Care Workforce Reporting Program

Areas of Unmet Health Care Need

Methodology

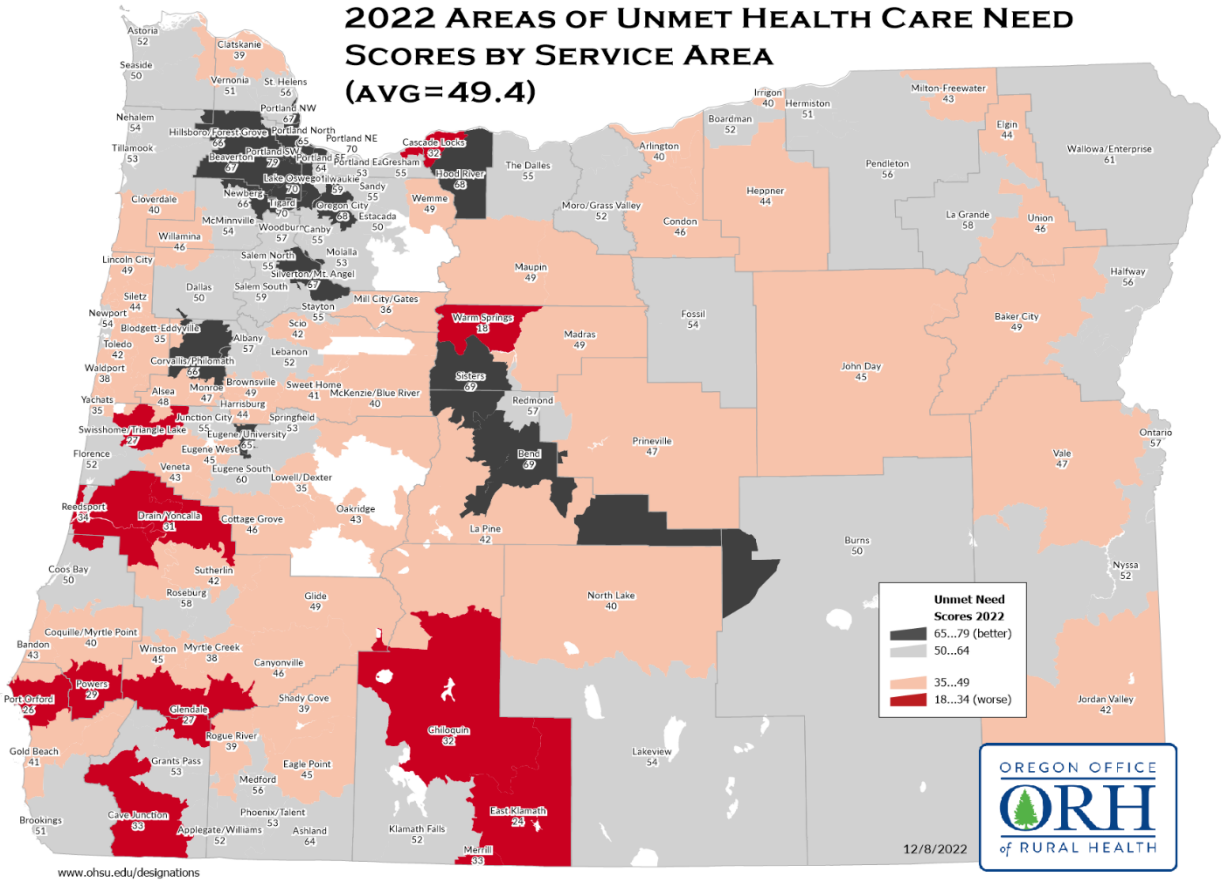
The Oregon Office of Rural Health at Oregon Health & Science University (OHSU) produces a report annually on Oregon Areas of Unmet Health Care Need, presenting

community-level data on access to care and health care workforce capacity. Nine measures of access to primary physical, behavioral, and oral health care are included in the report:

- Travel time to nearest Patient-Centered Primary Care Home
- Primary care capacity (percent of primary care visits able to be met)
- Dentist FTE per 1,000 population
- Licensed behavioral health provider FTE per 1,000 population
- Percent of population between 138% and 200% of the federal poverty level
- Inadequate prenatal care rate per 1,000 births
- Preventable hospitalizations per 1,000 population
- Emergency department non-traumatic dental visits per 1,000 population
- Emergency department mental health/substance abuse visits per 1,000 population

A composite score of unmet need is calculated from these measures, ranging from 0 to 90, with lower numbers indicating greater unmet need. Scores are calculated for each of the 128 primary care service areas in the state. The Office of Rural Health defines primary care service areas using zip code data, with at least 800 people in each service area. Generally, service areas are defined considering topography, social and political boundaries, and travel patterns, and health resources are located within 30 minutes travel time in any given service area. For 2022, the unmet health care need scores by service area ranged from 18 (worst) to 79 (best), with a statewide average of 49. (Figure 5.1). It is important to note that the Areas of Unmet Health Care Needs report does not fully assess unmet health care needs by race/ethnicity in different parts of the state. Equitable health care access is dependent on the diversity and language abilities of providers, and the intersectionality of urban/rural geography and race/ethnicity is an important consideration.

Figure 5.1. Unmet Health Care Needs Scores by Service Area



Source: The Oregon Office of Rural Health. The Oregon Area of Unmet Health Care Need report.

Table 5.2 shows scores for unmet need for 2022 by geographic area: urban, rural, and frontier. Rural areas are defined as geographic areas that are ten or more miles from the centroid of a population center of 40,000 people or more. Counties with six or fewer people per square mile are defined as frontier. On average, rural and frontier areas have more unmet health care need than urban areas in Oregon. See The Health Care Workforce Going Forward section for more detail on provider specialty groups.

Table 5.2. Average Unmet Health Care Need Score by Geographic Area

	Unmet Health Care Need Score *Lower numbers indicate more unmet need*
Statewide-Oregon	49.4
Urban	62.1
Rural (not frontier)	45.9
Frontier	48.9

Source: The Oregon Office of Rural Health. The Oregon Area of Unmet Health Care Need report.

Impacts of COVID-19

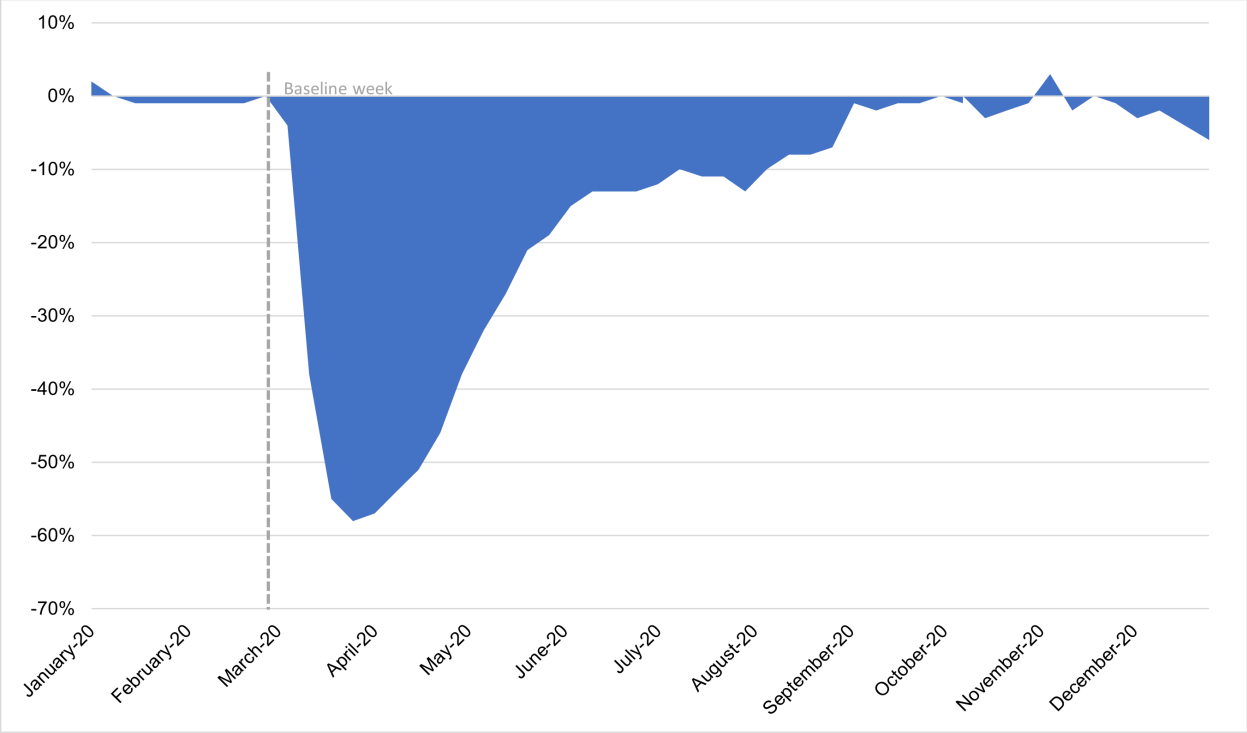
Impacts of COVID-19 on Health Care Visits

Early in the pandemic, planning and preparing for the care of an unknown number of anticipated COVID-19 patients consumed health care resources. Other initial impacts on the health care system included a statewide ban on elective surgeries, people choosing not to go to clinics in person because of concerns about being exposed to the Coronavirus, and health care facilities changing operating practices (including temporary closures). The impacts of COVID-19 on reduced health care visits were greatest during the first months of the pandemic. The Larry Green Center, in partnership with the Primary Care Collaborative, began conducting a weekly nationwide survey in mid-March 2020 about the impacts of COVID-19 on primary care, and Oregon-specific responses are available through the Oregon Rural Practice-based Research Network. Data from the Larry Green Center showed that in April 2020, about 90% of respondents in Oregon reported high or severe impacts of COVID-19 on their practice, and almost all respondents indicated that their practice experienced a decline in patient volume.

As shown in Figure 6.1, by early April 2020, the number of outpatient visits nationally decreased by more than half, according to an analysis of national data published by the Commonwealth Fund. By October 2020 outpatient visits had returned to baseline levels. Due to a COVID-19 surge during the last two months of 2020, outpatient visit volume remained lower than the levels during winter months in prior years.

Figure 6.1. Outpatient visit trends in 2020

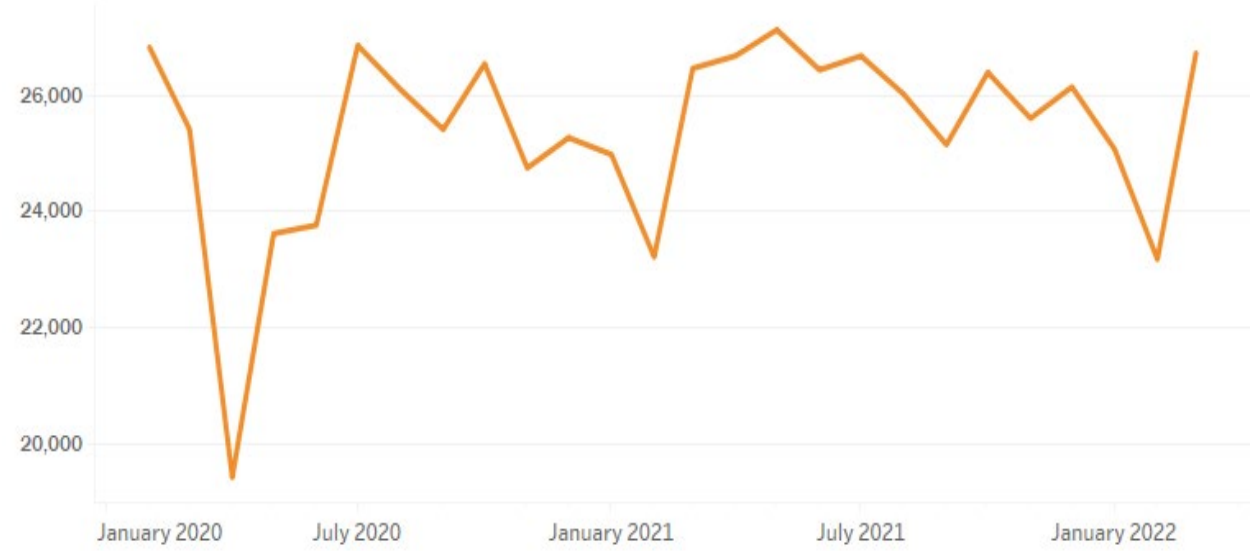
Change in U.S. Outpatient Visits Compared with Baseline Week of March 1, 2020



Source: Ateev Mehrotra et al., *The Impact of COVID-19 on Outpatient Visits in 2020: Visits Remained Stable, Despite a Late Surge in Cases* (Commonwealth Fund, Feb. 2021).

Data on hospitalizations in Oregon also showed sharp reductions in April 2020 (as shown in Figure 6.2). Hospital inpatient discharges were down 34% in April 2020 compared with January 2020. In March 2022, there were about 26,700 inpatient discharges statewide, which was close to the number in March 2021 and about 5% higher compared with March 2020.

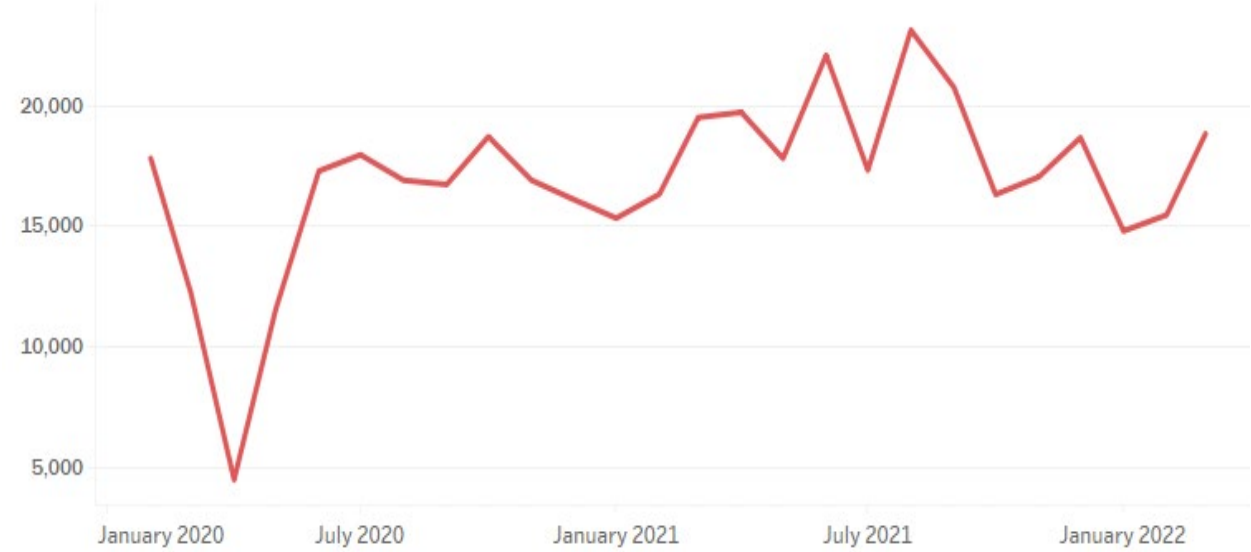
Figure 6.2. Inpatient discharges trend in Oregon, January 2020 - March 2022



Source: Oregon Health Authority Hospital Reporting Program (2022). Hospital Financial & Utilization Dashboard.

As shown in Figure 6.3, the reduction in hospital outpatient surgery visits was even greater, with April 2020 being 76% lower than January 2020. With the third upsurge of COVID-19 cases in the fall of 2020, hospitals were operating at closer to full capacity. In March 2022, there were about 18,800 outpatient surgeries statewide, which was slightly lower than March 2021 but was 54% higher compared with March 2020.

Figure 6.3. Outpatient surgeries trend in Oregon, January 2020 - March 2022



Source: Oregon Health Authority Hospital Reporting Program (2022). Hospital Financial & Utilization Dashboard.
Note: Outpatient surgeries include surgeries performed at the hospital that do not require an inpatient admission.

The 2021 Survey of Dental Practice by the American Dental Association showed that due to the pandemic in early 2020, hours worked declined by about 17% and net

incomes declined by about 18% for general practitioners compared to 2019. Dental specialists' hours worked declined by about 12% and net incomes declined by about 7%. The COVID-19 Economic Impact on Dental Practices survey showed that as of December 2021, about 47% of practices in Oregon were open but had lower patient volume than usual.

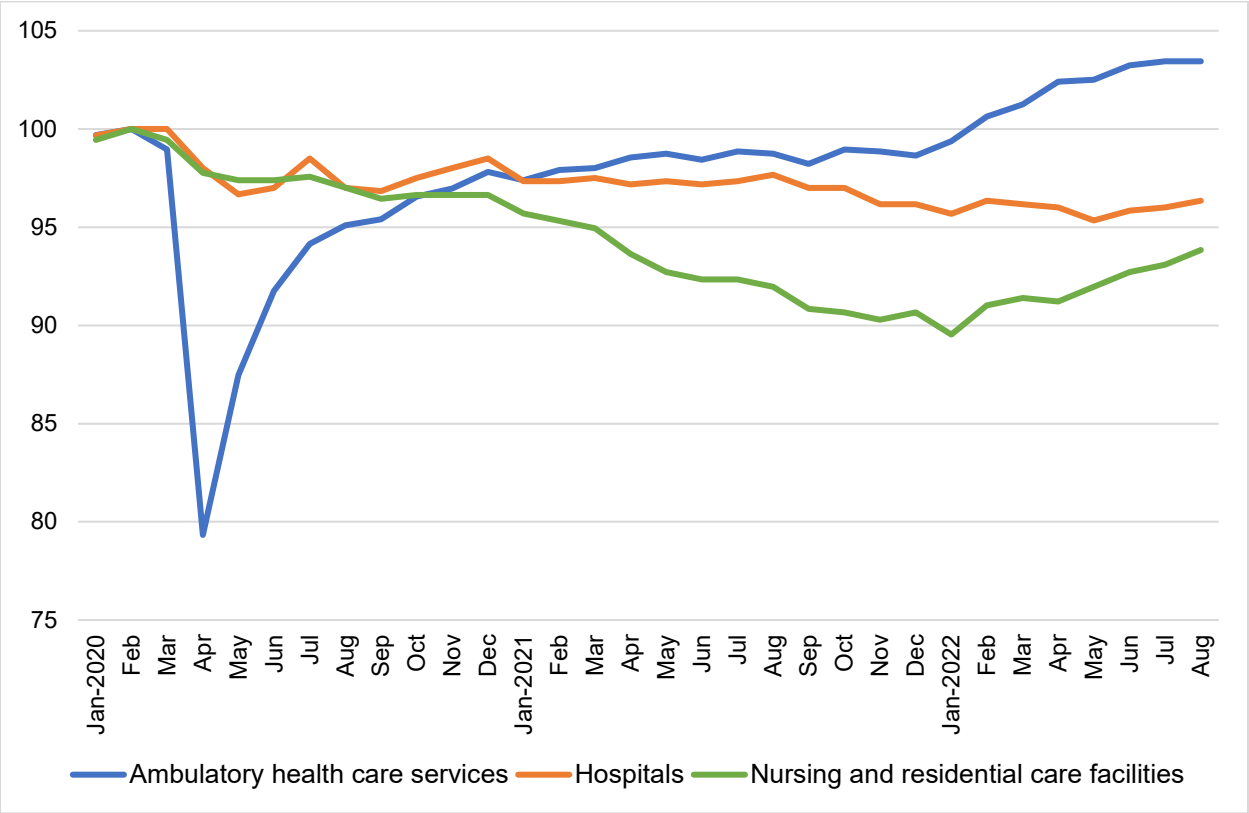
Impacts of COVID-19 on the Health Care Workforce

The COVID-19 pandemic has had direct impacts on the health care workforce. According to the Oregon Health Authority's (OHA) COVID-19 Report, there had been about 9,500 reported cases of COVID-19 among health care workers in 2020 and 9,900 cases in 2021. The pandemic exacerbated health care workforce burnout to an alarming level (see Workforce Resiliency section). The reductions in health care visits and revenues also led to layoffs. The impacts of COVID-19 on reduced health care employment were greatest during the first months of the pandemic.

States took a variety of actions to address health care workforce needs, including recruiting additional health workers from within and out-of-state, modifying licensing requirements to quickly build workforce capacity, and shifting existing staff to areas of greater need. The state of Oregon paid for temporary staff when there were workforce shortages in hospitals and long-term care facilities. Health care facilities greatly increased their use of temporary staffing agencies, and the costs for temporary staff increased dramatically. Rural communities that had long-standing problems of health care workforce shortages were faced with exacerbating challenges during the pandemic.

Current employment estimates from the Oregon Employment Department show a rapid reversal of pandemic recession job losses. Within the health care sector, employment trends varied (see Figure 7.1). Employment in ambulatory health care had bigger declines in spring 2020, but also has had a stronger growth since then. The number of people employed in ambulatory health care declined 17% from February to April 2020 but had rebounded to pre-pandemic levels by August 2020. Employment in ambulatory health care in August 2022 increased by 5% compared to August 2021 and is 3% higher than February 2020. There were slower but steadier declines in employment by hospitals and nursing and residential care facilities. As of August 2022, the number of people employed in hospitals and in nursing and residential care facilities were still about 4% and 6% lower, respectively, compared to February 2020.

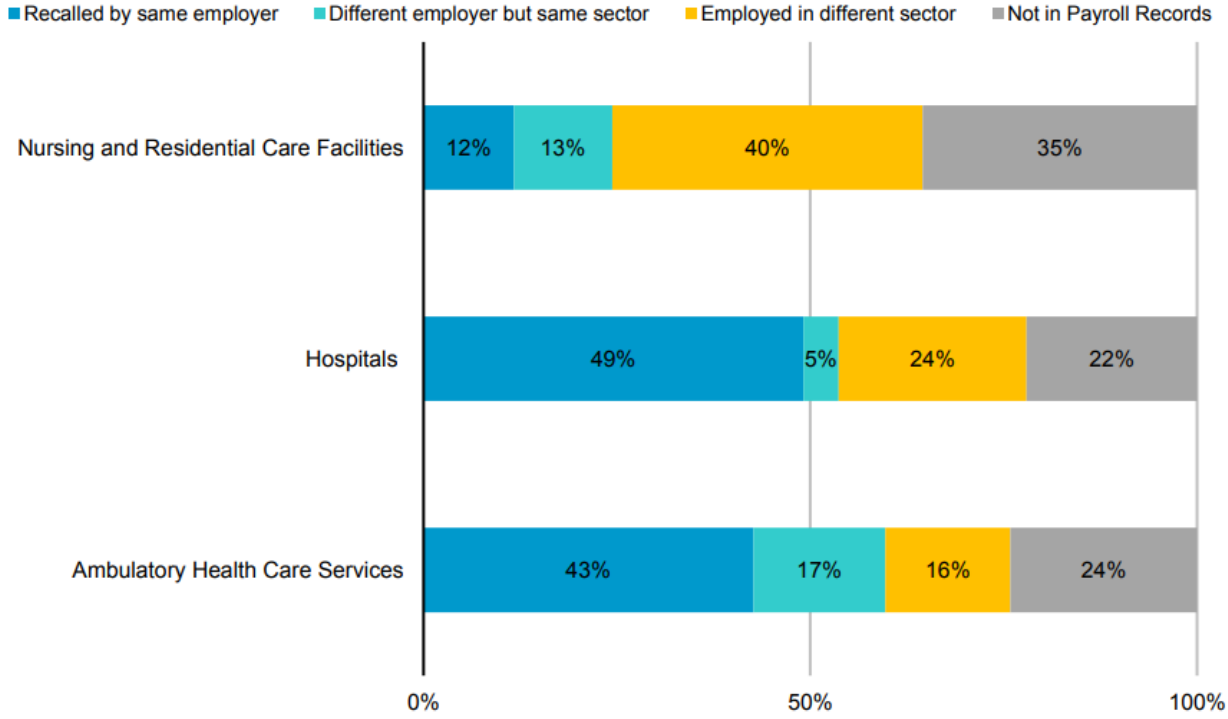
Figure 7.1. Employment trends varied within health care, January 2020 - August 2022



Source: Oregon Employment Department, Current Employment Statistics. (February 2020=100)

The lower employment in nursing and residential care facilities can be partly explained by the re-employment trends reported by the Oregon Employment Department. It shows that workers laid off from nursing and residential care facilities were far more likely to switch sectors compared to other health care workers (Figure 7.2). Only about 25% of former nursing and residential care workers still worked in the same sector as of winter 2022, as opposed to 54% of workers laid off from hospitals and more than 60% of workers laid off from ambulatory care services.

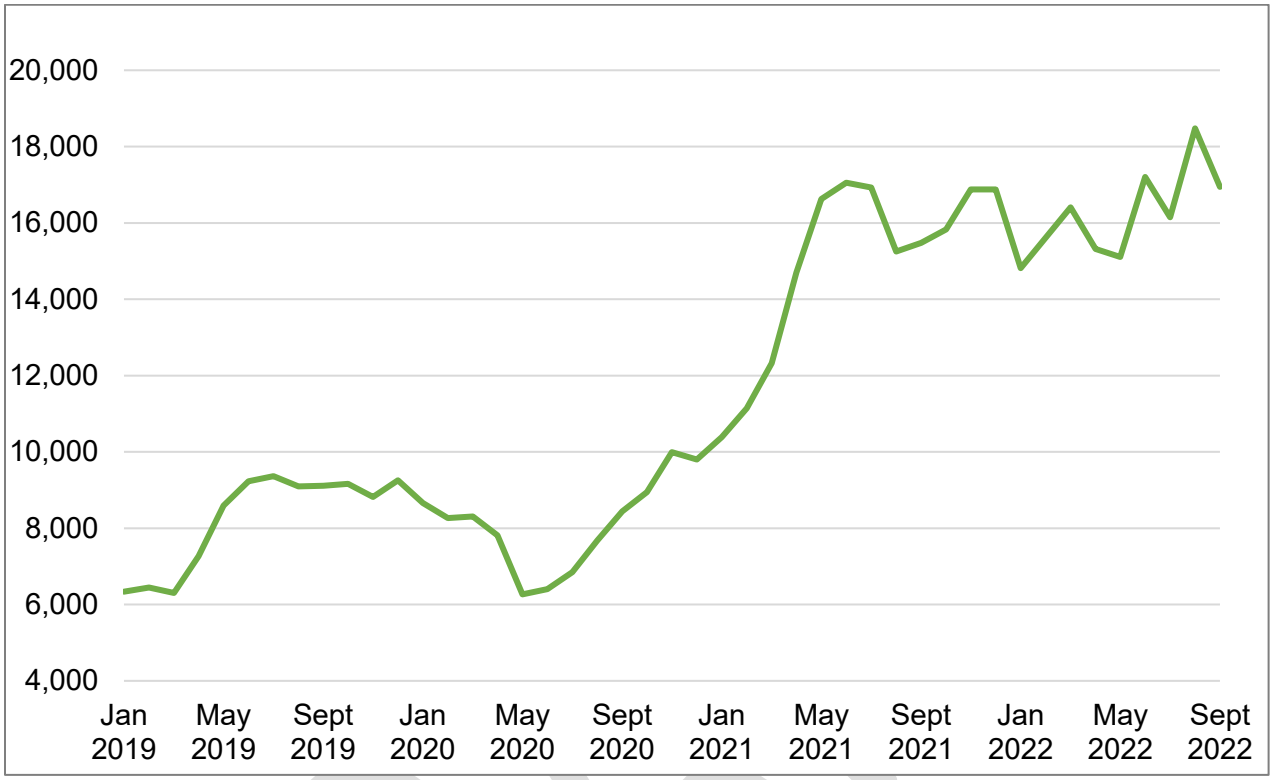
Figure 7.2. Re-employment patterns of health care workers with pandemic unemployment claims in Oregon



Source: Oregon Employment Department, *Health Care Workforce Trends in Oregon.*

Figure 7.3 shows the number of monthly online health care job postings from January 2019 to September 2022 analyzed by the Oregon Employment Department. In May 2020, the number of monthly postings was about one-third lower than pre-pandemic levels, and the number of job postings began to rebound by July 2020. There were 16,947 online health care job postings in September 2022, compared to 15,480 (a 9% increase) in September 2021, 8,440 (a 100% increase) in September 2020, and 9,115 (an 86% increase) in September 2019. The changes in Help Wanted online postings varied by region. Comparing September 2022 to September 2019, Clackamas and East Cascades had more than a 110% increase in job postings, and Southwestern had only a 21% increase.

Figure 7.3. Monthly online health care job postings in Oregon, January 2019 - September 2022



Source: The Conference Board Help Wanted OnLine™ (HWOL), analysis by the Oregon Employment Department.

A September 2022 report on health care workforce trends in Oregon showed difficulty filling health care vacancies, as health care occupations represented nearly 10% of job vacancies in Oregon. About 70% of "difficult-to-fill" positions are full-time positions, compared to 92% of "not-difficult-to-fill" positions. Education beyond high school is required for 53% of "difficult-to-fill" positions and for 92% of "not-difficult-to-fill" positions. A few employers in health care also reported that vaccination mandates made it harder to fill positions, particularly in rural areas.

As many health care workers left the sector during the pandemic, hospitals competed for contract workers to fill vacancies. A recent hospital workforce report showed that contract labor as a percentage of total hours increased from 1% before the pandemic to 5% as of March 2022, while the contract labor as a percentage of total labor expenses increased from 2% to 11%. Hospital labor expenses increased by more than 30% from pre-pandemic levels. Compared to other regions, the West had the largest percentage of using contract labor (6% of total paid hours) and the highest labor expenses (a median of about $7,500 per adjusted discharge) as of March 2022.

The demand for travel nurses substantially increased as hospitalizations surged during COVID-19 outbreaks. As COVID-19 hospitalization rates stabilized and hospitals' financial challenges increased, demand for travel nurses dropped substantially in early 2022. There have also been state and federal moves toward regulations for staffing agencies and limiting their pay rates. In Oregon, Senate Bill 1549 (2022) directs the Oregon Health Authority to submit "*A policy proposal and recommendations to establish a process to determine annual rates that a temporary staffing agency may charge to or receive from an entity that engages the temporary staffing agency.*" This report will be released by December 31, 2022.

The public health workforce was increased during the COVID-19 pandemic and many of their current employees were redirected to focus on the pandemic. Nationally, nearly three in four public health employees (72%) participated in the response to the COVID-19 pandemic in some way. As of August 2021, Oregon's local public health authority workforce was made up of 1,143.9 FTEs for non-COVID roles. Between March 2020 and August 2021, FTE of local public health authority workforce increased 67% by adding 761 FTE for the COVID-19 response for a total workforce of 1,905 FTE.

In summary, the COVID-19 pandemic continues to impact the health care system and health care workforce. The workforce shortages, in addition to the omicron surge and rising inflation, exacerbated hospitals' financial challenges in early 2022. The financial strains led to layoffs in the health care workforce and reduction of services in some hospitals. Meanwhile, a study by the American Medical Association found that 2020 was the first year in which less than 50% of patient care physicians worked in a private practice. A report from the Physicians Advocacy Institute/Avalere Health found that 4,800 physician practices were acquired by hospitals and 31,300 were acquired by corporate entities between January 2019 and January 2022. These findings suggest the COVID-19 pandemic may lead to long-term changes in physician practice arrangements, as physician group consolidations and shifts toward larger practices have accelerated.

Telehealth during the COVID-19 pandemic

Telehealth is a collection of means or methods for enhancing health care, public health, and health education delivery and support using telecommunications technologies. Telehealth includes:

- Live audio and/or video conference between patient and clinician (e.g., by telephone or Internet)
- Store and forward (e.g., specialist reviewing x-rays at a remote location)
- Telementoring or teleconsultation between clinicians. (e.g., clinician getting advice from an offsite specialist to support care of a patient, using technology such as video conference)
- Remote patient monitoring (e.g., devices that monitor blood glucose levels at home and transmit to a physician)
- Mobile health (e.g., use of mobile applications to track health information)

Telehealth played a crucial role in maintaining access to health care at the beginning of the COVID-19 pandemic due to limitations on in-person visits; telehealth utilization remains much higher now compared to the period before the pandemic. In the longer term, telehealth can potentially magnify the impact of Oregon's limited and unevenly distributed health care workforce by allowing patients to access clinicians and other resources outside their home city or region.

Benefits and Potential Shortcomings of Telehealth

Telehealth can be very beneficial in health care shortage areas where patients have difficulty finding providers close to their location, as in many rural and frontier areas of Oregon. Patients who need services in a language other than spoken English can also benefit from telehealth if a local in-person interpreter is not available for their visit. Telehealth can also enhance access for patients who have transportation barriers, limited access to childcare, or difficulty getting time off work. From a provider perspective, the California Telehealth Resource Center notes that telehealth may improve workforce retention by allowing more clinicians to work from home or on flexible schedules.

Patients appear to be mostly satisfied with using telehealth. McKinsey found that more than half of surveyed patients were more satisfied with telehealth than in-person, and that four in ten expected to keep using telehealth after the COVID-19 pandemic. However, physicians generally found telehealth less convenient for themselves and expected telehealth utilization to decline in the future; physicians also fear that future telehealth reimbursement will be lower than for in-person care. This suggests a

fundamental disconnect between patient preferences and physician perceptions and preferences, which could lead to future underuse of telehealth.

Telehealth holds the potential either to mitigate or to worsen health inequities. The National Association of Insurance Commissioners explain that on one hand, telehealth may improve access for patients from disadvantaged populations, who disproportionately face transportation challenges and live in neighborhoods with fewer specialty clinicians. On the other hand, racial/ethnic minority, low-income, rural, or uninsured patients are also more likely to face technological or privacy barriers to telehealth. Patients with limited English proficiency may also not benefit from telehealth if interpreters are unavailable or patients have difficulty hearing them.

Technological and other barriers can limit access to telehealth services. Many patients in rural or frontier regions or low-income households lack the broadband internet access that enables video telehealth. The Oregon Statewide Broadband Assessment and Best Practices Study found that one in four Oregonians lived in areas that did not have high-speed broadband Internet access in 2020. Video telehealth also requires a camera, video display, and digital literacy, which many older or low-income patients may not have. Lack of privacy can also prevent patients form using telehealth for sensitive discussions. Finally, visits that require a physical examination or procedure cannot be conducted via telehealth.

Policy Context for Telehealth

Prior to the COVID-19 pandemic, telehealth utilization was growing rapidly, but accounted for only 0.1% of all medical claim lines according to FAIR Health. Payers often restricted coverage of telehealth, including lower reimbursement rates for telehealth versus in-person visits. Federal regulations limited the communication modalities that could be used for telehealth, and the Oregon Health Plan (OHP) required patients to be at a clinic or other remote site (not their own home) to participate in telehealth for physical health services.

Demand for telehealth visits increased dramatically at the beginning of the COVID-19 pandemic, driven by the risk of Coronavirus exposure and limited personal protective equipment (PPE). Several policy changes to increase access to telehealth were rapidly adopted in 2020, including:

- The Oregon Department of Consumer and Business Services and Oregon Health Authority published guidance for health insurance plans to enhance the availability and use of telehealth.
- An OHP temporary rule and a voluntary agreement between Governor Brown, the Department of Consumer and Business Services, and several major

commercial health insurers increased coverage and reimbursement rates for telehealth in Oregon.
- Modified regulations by some Oregon health care licensing boards made it easier for out-of-state providers to obtain licensure and provide telehealth services to Oregonians.
- At the Federal level, the Centers for Medicare & Medicaid Services (CMS) policy changes permitted use of non-HIPAA-compliant platforms such as Facetime and Skype, allowed patients and providers to access telehealth from homes and community settings, and increased the types of Medicare providers that could offer telehealth and the types of services that could be offered.

In June 2021, House Bill 2508 made many of these changes permanent in Oregon. It required that the OHP and commercial insurance plans regulated by the Department of Consumer and Business Services reimburse providers at the same rate for telehealth and in-person visits, and that telehealth and in-person visits meet the same requirements for prior authorization, medical necessity, or out-of-network reimbursement. Subsequent OHP regulations made most of the pandemic telehealth policies permanent, including allowing members to access telehealth services from home; allowing telehealth for new patients and interpreter services; and paying audio-only telehealth at parity with in-person services.

Flexibilities in Medicare telehealth policies were instituted under the COVID-19 Public Health Emergency, which has been extended to January 11, 2023. Federal legislation passed in March 2021 extended many of these flexibilities for approximately 5 months (151 days) after the expiration of the Public Health Emergency. However, after that time many Medicare flexibilities would be removed, once again limiting telehealth access from home, use of audio-only or many Internet-based communication modalities, and prescription of controlled substances by telehealth.

Telehealth Utilization

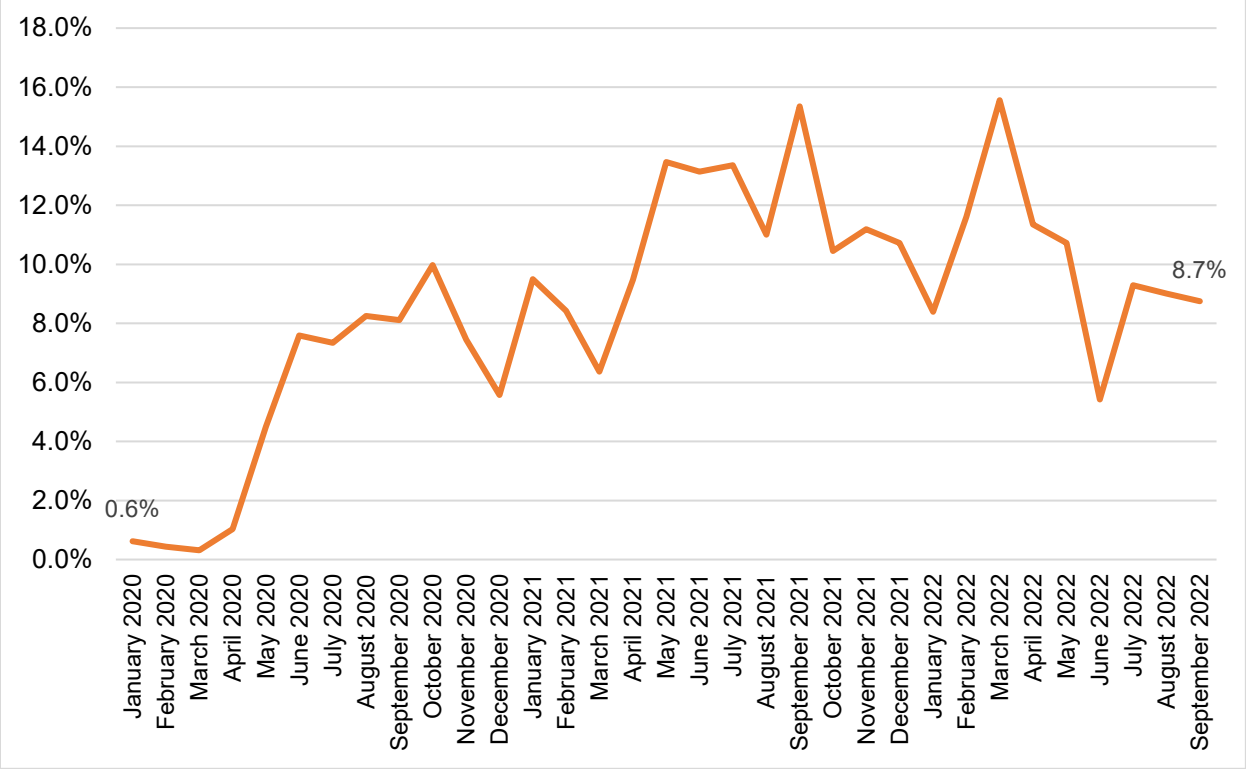
Telehealth use increased dramatically during the COVID-19 pandemic, to 13.0% of commercial health insurance claim lines in April 2020, according to FAIR Health. Telehealth use was approximately one-third lower for rural patients than urban patients. By July 2022, telehealth use had dropped to 5.3% of commercial health insurance claim lines nationally, but was 7.4% in the western states. Among Medicare beneficiaries, telehealth use also jumped dramatically during the first year of the COVID-19 pandemic, then gradually declined to a plateau higher than the pre-COVID-19 level.

A U.S. Department of Health and Human Services (HHS) study of US adults found that almost one in four had at least one telehealth visit in 2021. Black and Latino/a/x patients were more likely to use any telehealth services, but Whites were more likely to use

video telehealth. Another HHS study of fee-for-service Medicare beneficiaries found that one in three had a Part B (outpatient) telehealth service during 2021. This study also found that White beneficiaries were less likely to use telehealth than those from other racial/ethnic groups, and that rural beneficiaries had lower rates of telehealth use than urban beneficiaries. J.D. Power found that patients in poorer health were less satisfied with telehealth services than were patients with better self-reported health.

Figure 8.1 shows that telehealth use by OHP members rose very sharply from less than 1% before the COVID-19 pandemic to a peak of over 15% in September 2020. The proportion of telehealth claims varies by month but remains at more than 8%.

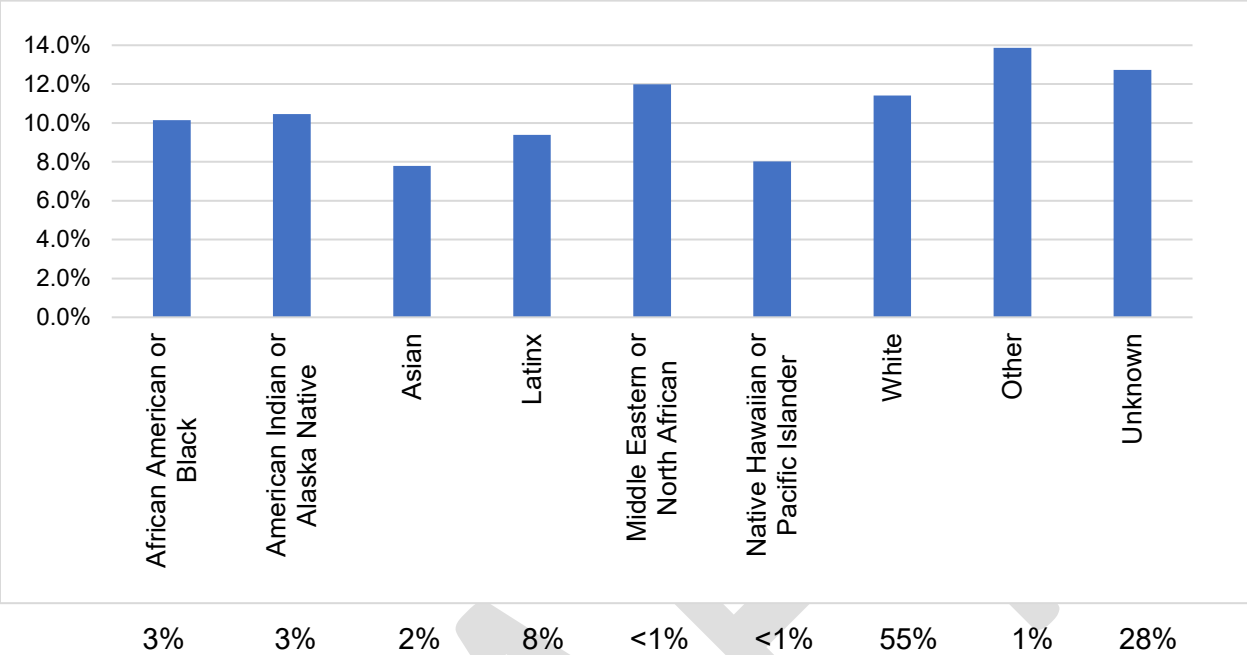
Figure 8.1 Percentage of OHP Claims that are telehealth



Source: Medicaid Management Information System (MMIS). Data from OHA telehealth dashboard as of 9/30/2022.

Figure 8.2 shows the proportion of OHP ambulatory care claims for each major racial ethnic/group that were provided via telehealth during Oregon fiscal year 2022. The proportion of telehealth visits is similar for African-American (10%), American Indian (10%), and Latino/a/x (9%) OHP members, higher for White members (11%), and lower for Asian members (8%). Other racial/ethnic groups in these data are quite small; because the data precede full REALD availability, race/ethnicity was Unknown for more than a quarter of OHP members.

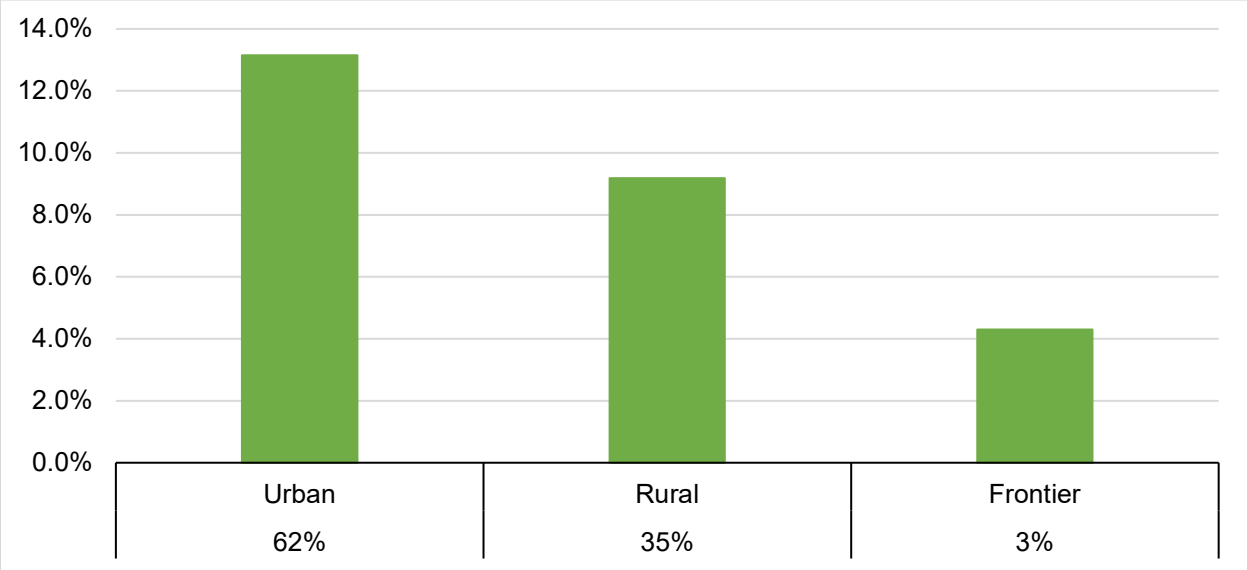
Figure 8.2. Percentage of OHP ambulatory claims that are telehealth, by race and ethnicity, Oregon fiscal year 2022



Source: Medicaid Management Information System (MMIS). Data from OHA telehealth dashboard as of 9/30/2022. Excludes inpatient, dental, and pharmacy claims.
Notes: Proportion of total claims by race/ethnicity is shown below each bar. State fiscal year 2022 is July 2021 – June 2022.

Figure 8.3 shows the proportion of Oregon fiscal year 2022 OHP ambulatory care claims that were provided via telehealth, by rurality of the member's residence. The proportion of telehealth visits is highest in urban areas (13%), lower in rural areas (9%), and much lower in frontier areas (4%).

Figure 8.3. Percentage of OHP ambulatory claims that are telehealth, by rurality of residence, Oregon fiscal year 2022



Notes: Proportion of total claims by rurality is shown below each bar. State fiscal year 2022 is July 2021 – June 2022.
Source: Medicaid Management Information System (MMIS). Data from OHA telehealth dashboard as of 9/30/2022.
Excludes inpatient, dental, and pharmacy claims.

Both nationally and in Oregon, the rate of telehealth use varies widely across clinical specialties. Multiple sources report that behavioral health accounts for more than half of all telehealth visits nationally. OHP claims show a similar pattern, with 62% of OHP telehealth claims in state fiscal year 2022 being for behavioral health and 25% for primary care. Oregon Health & Science University (OHSU) researchers found that adoption of telehealth in behavioral health helped mitigate the precipitous nationwide drop in in-person visits early in the COVID-19 pandemic, but that that effect was smaller for severe conditions such as schizophrenia.

Primary care providers adopted telehealth very rapidly in the early months of the COVID-19 pandemic, according to AthenaHealth. Another study found that more than one-third of primary care visits were via telehealth in the second quarter of 2020, with telehealth utilization higher in the Pacific sates (including Oregon) than any other region.

Future of Telehealth in Oregon

The COVID-19 pandemic dramatically accelerated telehealth utilization and policy changes. Future efforts should ensure that policy does not retrogress, the needs of vulnerable groups are understood and addressed, and both patients and providers are engaged in realizing the benefits of telehealth.

One of the most important policy steps will be to continue federal telehealth flexibilities beyond the current window of 150 days following the end of the COVID-19 Public

Health Emergency. Continuing payment parity for telehealth services by commercial insurers, Medicare, and Medicaid should also be a policy priority. The Western Governors' Association has developed a detailed list of federal telehealth policy regulations, some of which can be implemented by CMS but some of which require Congressional action. Oregon has also collaborated with Washington, Nevada, and Colorado to develop a set of guiding principles for telehealth and to coordinate their states' telehealth policies.

Ongoing policy refinement by OHA, CMS, and commercial insurers will also be required. For example, OHA has recently clarified that telehealth-only providers can be reimbursed during the Public Health Emergency. However, concerns about the quality of care from such providers, and their economic impact on Oregon health care providers with physical offices must be monitored in the future.

Telehealth policy should also focus on measuring and addressing several potential equity concerns:

- **Racial/ethnic and other disparities**. Data presented above, as well as other recent research, suggest that racial/ethnic and socioeconomic disparities in telehealth use were moderated during the COVID-19 pandemic, although age-related disparities remain. Some health systems, such as Kaiser and Texas's Harris Health System have developed successful models for promoting telehealth use in diverse populations. Nevertheless, ongoing efforts are necessary to monitor and address disparities in telehealth use. In Oregon, more comprehensive collection of REALD data should allow better measurement of health care disparities among OHP members. It will also be important for health systems, providers, and insurers to reach out and partner with diverse populations and communities as they implement and refine telehealth programs.
- **Specialty care**. Recent studies have documented that COVID 19-era rates of telehealth utilization vary dramatically across medical specialties outside behavioral health and primary care. Some of this variation is due to the frequency of medical or surgical procedures in some specialties, where the potential contribution of telehealth is limited. Nevertheless, patients from vulnerable populations, especially those with the most severe physical or behavioral health conditions, need access to a full range of specialty care to protect their health.
- **Rural residents**. Telehealth plays a crucial role in rural areas for specialty care and behavioral health, where the rural workforce is especially limited. Studies by Oregon State University and Canadian researchers showed that rural areas saw a slower increase than urban areas in telehealth use during the COVID-19 pandemic. Federal or state efforts to expand broadband Internet access would allow more rural patients to access needed care via telehealth. Other policy

efforts noted above would also directly benefit rural residents in Oregon and other states.

As described above, understanding and responding to patient preferences will be necessary to maintain and expand telehealth successfully. For example, learning for which services they prefer telehealth, or video vs. audio telehealth, can help to guide the most effective allocation of providers' telehealth resources. Coordinated Care Organizations (CCOs) could use their Community Advisory Councils to solicit their members' preferences for telehealth services, and regular consumer assessments of health plans and providers should explicitly evaluate telehealth encounters.

Finally, providers must be guided and supported to implement telehealth effectively and achieve the potential workforce benefits. Physicians broadly support the use of telehealth, but also harbor concerns about reimbursement and whether the proportion of telehealth visits is too high. The Oregon Health Leadership Council has developed detailed recommendations to guide telehealth implementation by adult and pediatric primary care providers. But expanding and tailoring telehealth services to meet patients' preferences will require significant investments by providers in digital infrastructure and organization redesign. Financial support from insurers, states, or CMS could help to encourage providers to make these important investments.

The Health Care Workforce Going Forward

According to the Oregon Employment Department's recent analysis of health care workforce trends in Oregon, the aging of Oregon's population and the continued development of medical treatments will drive strong growth in health care employment. It is estimated that health care employment will grow 19% between 2020 and 2030, which is higher than the statewide overall employment growth rate of 16%. It also showed that more than half of jobs in health care require postsecondary education. To support workforce education and training in health care as well as manufacturing and technology industry sectors, Future Ready Oregon includes a comprehensive $200 million investment package with focus on advancing opportunities for historically underserved communities. (See Investments in Workforce Development) Health care providers need to reflect the populations they serve in order to provide culturally and linguistically appropriate services. A recent report from the Urban Institute calls for collaboration from a variety of stakeholders, including higher education, philanthropy, and state and federal governments, to promote a diverse, equitable, and inclusive health care workforce.

An equitable health care system that integrates physical, behavioral, and oral health care and ensures access to culturally and linguistically appropriate health care requires a robust workforce of Traditional Health Workers, Health Care Interpreters, nurses, primary care providers, behavioral health providers, oral health providers, long-term care workers, and a public health workforce. Each of these provider types is examined below, with a focus on the importance of the providers and the services they deliver, the current status of the provider workforce in Oregon, and efforts to support these providers.

Traditional Health Workers

The Importance of Traditional Health Workers

Traditional Health Workers are trusted individuals from their local communities who provide person- and community-centered care by bridging communities and the health systems they serve. Traditional Health Workers can help increase the appropriate use of care by connecting people with health systems, advocating for their clients, supporting adherence to care and treatment, and empowering individuals to be agents in improving their own health. The effectiveness of Traditional Health Workers is enhanced when they have similar lived experience or are members of the same

community as the patients they serve. Traditional Health Workers also have knowledge of health issues and understand how to help patients navigate the health system. Traditional Health Workers help to assure the delivery of high-quality, culturally responsive care which is instrumental in achieving the Oregon Health Authority's (OHA) overarching strategic goal: eliminate health inequities in Oregon by 2030.

Traditional Health Worker roles were defined in the original bill that created Oregon's Coordinated Care Organizations (CCOs) in 2011, House Bill 3650. As now codified in ORS 414.665, there are five specialty types of Traditional Health Workers in Oregon:

- Community Health Workers share ethnicity, language, socioeconomic status, and life experiences of the community they serve. They assist individuals and their community to achieve positive health outcomes, including facilitating linkages between health/social services and the community; and improve the quality and cultural competence of service delivery.
- Peer Wellness Specialists are informed by their own experiences with recovery and assist with recovery from addiction, mental health, and physical conditions by helping to integrate behavioral health and primary care and help individuals achieve well-being.
- Peer Support Specialists provide services to individuals who share a similar life experience with the Peer Support Specialist (addiction to addiction, mental health condition to mental health condition, family member of an individual with a mental health condition to family member of an individual with a mental health condition). Types of Peer Support Specialists include recovery peers, mental health peers, family support specialists, and youth support specialists.
- Personal Health Navigators provide information, assistance, tools, and support to enable a patient to make the best health care decisions.
- Birth Doulas are birth companions who provide personal, nonmedical support to women and families throughout a person's pregnancy, childbirth, and postpartum experience.

In 2021, House Bill 2088 was passed that requires OHA to adopt by rule qualification criteria for Tribal Traditional Health Workers as additional category of Traditional Health Workers effective in 2022 for tribal health care providers that supports tribal-based practices.

OHA's Traditional Health Worker Program, housed in the Equity and Inclusion Division, assists Traditional Health Workers in becoming trained and certified to meet current standards and provide high-quality and culturally competent care. The Traditional Health Worker program works to promote the roles, engagements, and utilization of the

traditional health workforce, and, in partnership with stakeholders, community-based organizations, and health systems, strives to ensure that Traditional Health Workers are uniquely positioned to work with communities to identify and address the underlying causes of health problems and health inequities. The Traditional Health Worker Commission advises and makes recommendations to OHA, to ensure the program is responsive to consumer and community health needs. Traditional health workers can become certified in Oregon if they are at least 18 years old, submit required documentation, and successfully complete the training requirements for certification specific to the type of Traditional Health Worker.

Traditional Health Workers in Oregon

As of October 2022, there were more than 4,400 Traditional Health Workers certified in Oregon. Below is a breakdown of the traditional health workforce in Oregon and its composition by worker types.

Figure 10.1. Current number of Certified Traditional Health Workers in Oregon, October 2022

Traditional Health Worker Certification Dashboard Supporting Data

Certifications	Count
Birth Doula	177
Community Health Worker (CHW)	845
Peer Support Specialist (PSS) Adult Addictions	2150
Peer Support Specialist (PSS) Adult Mental Health	878
Peer Support Specialist (PSS) Family Support	229
Peer Support Specialist (PSS) Youth Support	136
Peer Wellness Specialist (PWS) Adult Addictions	290
Peer Wellness Specialist (PWS) Adult Mental Health	396
Peer Wellness Specialist (PWS) Family Support	6
Personal Health Navigator (NAV)	32
Total	**5139**

Certification	Count
Peer Support Specialist (PSS) - Adult Addictions	2150
Peer Support Specialist (PSS) - Adult Mental Health	878
Peer Support Specialist (PSS) - Family Support	229
Peer Support Specialist (PSS) - Youth Support	136
Total	**3393**

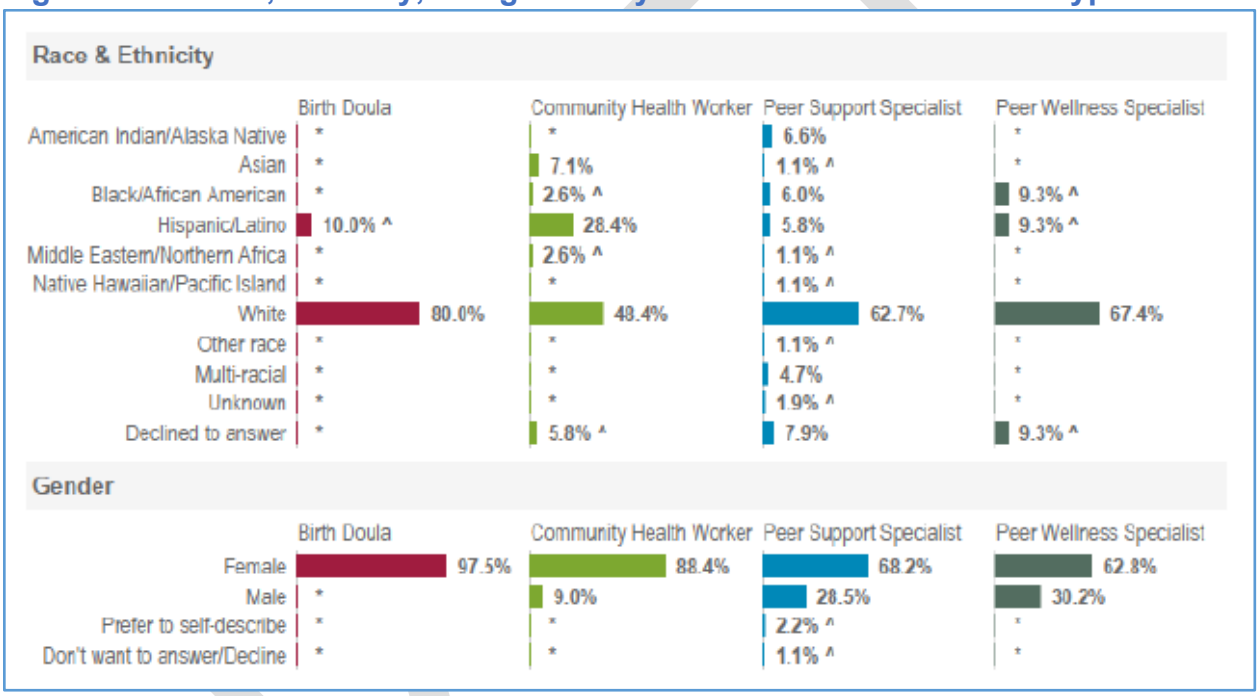
Certification	Count
Peer Wellness Specialist (PWS) - Adult Addictions	290
Peer Wellness Specialist (PWS) - Adult Mental Health	396
Peer Wellness Specialist (PWS) - Family Support	6
Total	**692**

Source: OHA Traditional Health Worker certification dashboard as of 11/21//2022

For a breakdown of demographics by Traditional Health Worker types, please refer to Figures 10.2 and 10.3. Traditional Health Workers identified as primarily female and White. Community Health Workers identified more as persons of color than the other Traditional Health Worker types. Females represented the overwhelming proportion of doulas and Community Health Workers; however, approximately one-third of peer

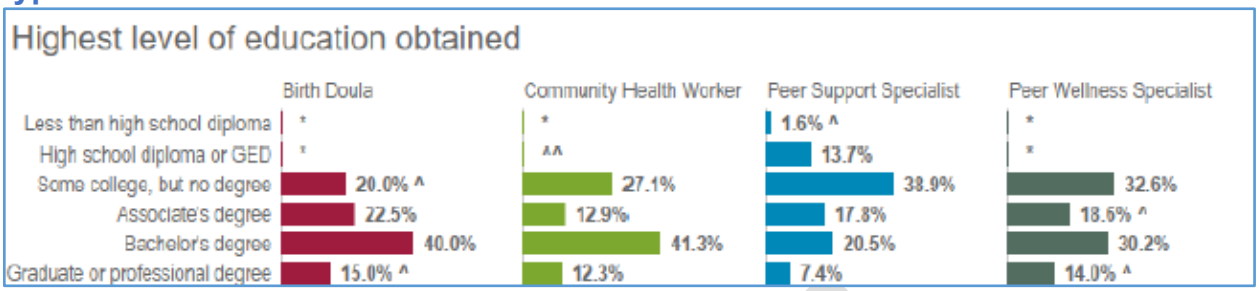
support specialists and peer wellness specialists identified as male. Language use varied greatly between groups, with Community Health Workers being most likely to use a language other than English at home (42.6%) compared to doulas (12.5%), peer support specialists (8.5%), and peer wellness specialists (14.0%). Doulas report the youngest age (average age 39 years) compared to all other Traditional Health Workers (Community Health Worker (average age 45 years), peer support specialists (average age 47 years), and peer wellness specialists (48 years)). The percent of Traditional Health Workers who reported having a disability was lowest among doulas and Community Health Workers (5%) and highest among peer wellness specialists (32.6%). Doulas and Community Health Workers are most likely to have completed a bachelor's degree or higher.

Figure 10.2. Race, ethnicity, and gender by Traditional Health Worker type



Source: Pilot Survey of OHA Registered Traditional Health Workers, Office of Health Analytics, Oregon Health Authority, 2021
Notes: ^ may be statistically unreliable, interpret with caution and * estimate suppressed; sample too small.

Figure 10.3. Highest level of education obtained by Traditional Health Worker types



Source: Pilot Survey of OHA Registered Traditional Health Workers, Office of Health Analytics, Oregon Health Authority, 2021
Notes: ^ may be statistically unreliable, interpret with caution and * estimate suppressed; sample too small.

Most respondents were actively working in the field with 80-90% reported working of doulas, Community Health Workers, and peer support specialists (but only 63% peer wellness specialists). Most Traditional Health Workers have been practicing for less than 5 years.

Among those that were unemployed or employed in another field, 37% were not seeking paid work as a Traditional Health Worker often because of the low pay or because they were employed in another field. Most Traditional Health Workers are employed primarily by organizations (doulas are the exception). The most common organization type to be employed by was a non-profit agency. Doulas are concentrated in Willamette Valley and peer wellness specialists in the Portland metro area (See Figure 10.4). Doulas and peer support specialists are more likely to see Oregon Health Plan (OHP) clients compared with Community Health Workers and peer wellness specialists. The average hours per week worked was 20 and average number of clients per month was 49. Doulas work the fewest hours per week and have fewer clients per month than the other types of Traditional Health Workers. Nearly 70% of doulas reported having to turn away clients.

Most Traditional Health Workers report practicing telehealth (doulas 84%, peer support specialists 72%, Community Health Workers 68%, and peer wellness specialists 58%). Top reasons for registration with OHA were that the registration was a requirement by their employer, hope for an opportunity for improved communication about qualifications with employers and clients, and a mentor or training program encouraged them to register.

Figure 10.4. Current number of certified Traditional Health Workers by regions in Oregon, October 2022

THW Regional Report

Central Oregon - Birth Doula	9
Central Oregon - Peer Support Specialist (PSS)	215
Central Oregon - Peer Wellness Specialist (PWS)	10
Central Oregon - Personal Health Navigator (NAV)	7
Central Oregon - CHW	72
Total	**313**

Columbia Gorge - Personal Health Navigator (NAV)	0
Columbia Gorge - Peer Wellness Specialist (PWS)	2
Columbia Gorge - CHW	56
Columbia Gorge - Birth Doula	0
Columbia Gorge - Peer Support Specialist (PSS)	30
Total	**88**

Greater Porland Area - Birth Doula	65
Greater Portland Area - CHW	220
Greater Portland Area - Peer Support Specialist (PSS)	1257
Greater Portland Area - Peer Wellness Specialist (PWS)	299
Greater Portland Area - Personal Health Navigator (NAV)	13
Total	**1854**

Coastal Oregon - Birth Doula	8
Coastal Oregon - Peer Support Specialist (PSS)	248
Coastal Oregon - Peer Wellness Specialist (PWS)	19
Coastal Oregon - Personal Health Navigator (NAV)	1
Coastal Oregon - CHW	75
Total	**351**

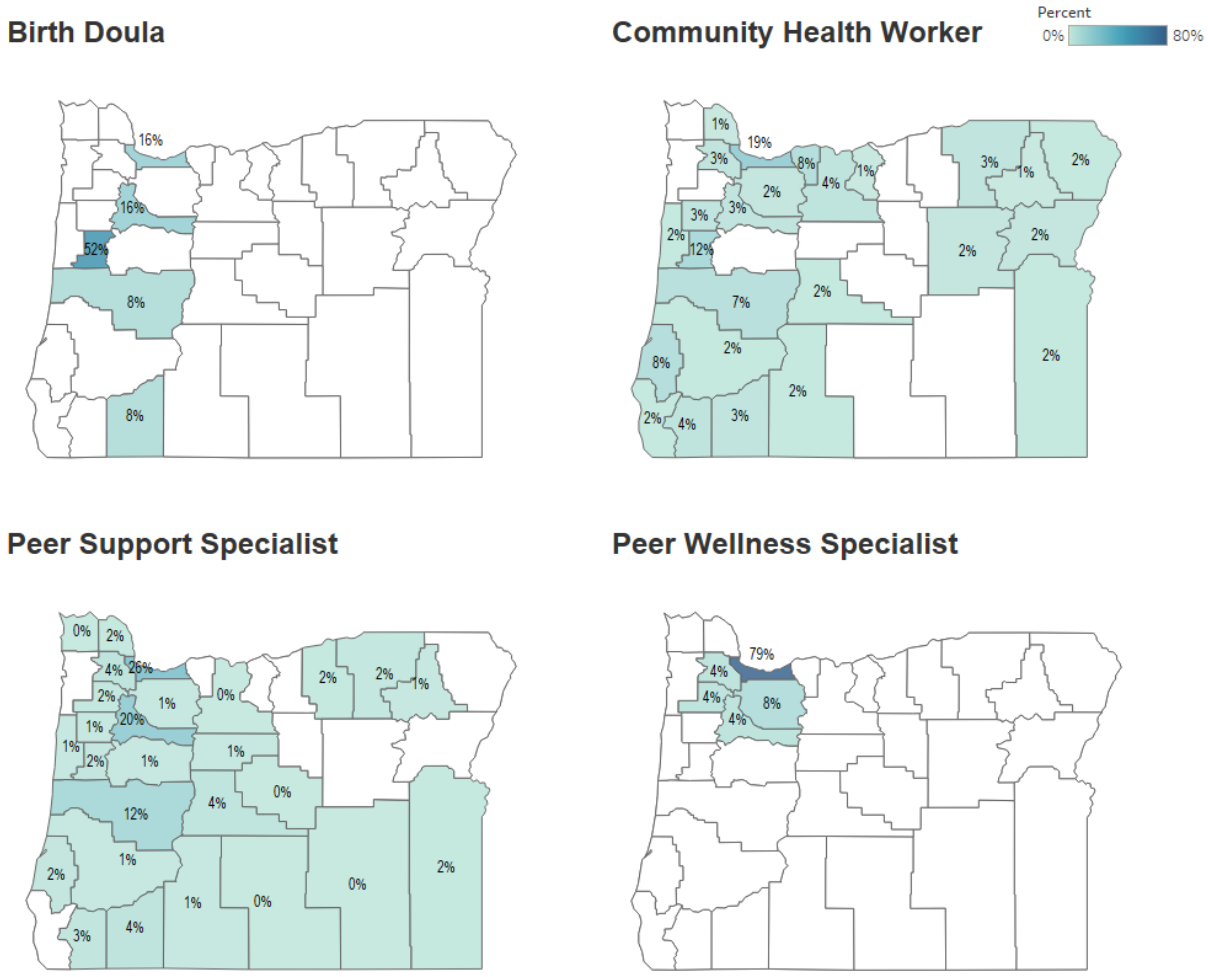
Eastern Oregon - Birth Doula	1
Eastern Oregon - Peer Support Specialist (PSS)	184
Eastern Oregon - Peer Wellness Specialist (PWS)	10
Eastern Oregon - Personal Health Navigator (NAV)	0
Eastern Oregon - CHW	85
Total	**280**

Southern Oregon - Birth Doula	16
Southern Oregon - Peer Support Specialist (PSS)	497
Southern Oregon - Peer Wellness Specialist (PWS)	10
Southern Oregon - Personal Health Navigator (NAV)	0
Southern Oregon - CHW	125
Total	**648**

Willamette Valley - Peer Support Specialist (PSS)	766
Willamette Valley - Birth Doula	68
Willamette Valley - CHW	181
Willamette Valley - Peer Wellness Specialist (PWS)	45
Willamette Valley - Personal Health Navigator (NAV)	8
Total	**1068**

Source: OHA Traditional Health Worker regional report as of 11/21//2022

Figure 10.5. County of primary employing organization for those that reported working for organizations by type of Traditional Health Worker



Source: Pilot Survey of OHA Registered Traditional Health Workers, Office of Health Analytics, Oregon Health Authority, 2021

OHA requires contracted Coordinated Care Organizations (CCOs) to develop an annual Traditional Health Worker Integration and Utilization Plan. These CCO plans must include strategies for integrating Traditional Health Workers into the delivery of services, communicating with members and providers about the benefits of Traditional Health Worker services, and evaluating the delivery and effectiveness of Traditional Health Worker services. OHA's Traditional Health Worker Program facilitates integration of the Traditional Health Worker workforce across health systems, and recently launched a toolkit with information for health systems, providers, and Traditional Health Workers.

Future Workforce of Traditional Health Workers

In recent years, OHA has worked with community-based organizations to conduct assessments of the Traditional Health Worker workforce, including a Community Health Worker Needs Assessment, a Doula Workforce Needs Assessment, and a Peer-Delivered Services Workforce Needs Assessment. These assessments used key informant interviews, focus groups, and surveys of the workforce and employers to understand the landscape for Traditional Health Workers. These assessments generally found that there needs to be greater understanding of the roles of Traditional Health Workers, better efforts to integrate Traditional Health Workers into the health care system, higher reimbursement rates for Traditional Health Workers, clarity around billing issues, and improved processes for training and certification.

A recent study interviewed 75 individual birth doulas and doula organizations who work with underserved and historically excluded populations across the country. Doulas engaged in specific activities to advance perinatal equity and felt called to do it. However, many birth doulas experienced several work-related stressors, including witnessing discrimination against clients, experiencing discrimination in medical environments, and struggling with financial instability. Barriers to further training included cost and accessibility. Recommendations included doula peer support to lessen these stressors; increased compensation; a focus on attracting, training, and employing providers of color and from other underrepresented communities.

Results from the pilot survey showed that Traditional Health Workers are still underpaid and are underrepresented in certain regions of the state and underrepresented in persons of color relative to Oregon's population and possibly among other communities such as LGBTQ+. These surveys will provide more accurate data on the providers in Oregon and can be used to inform future studies of the workforce, including their demographics, work environments, and training needs.

The Oregon Office of Rural Health has partnered with OHA to coordinate a CDC grant-funded program that will support the capacity of Oregon's rural public health agencies and Critical Access Hospitals by growing the community health worker workforce in rural Oregon. This is a pilot grant program to fund the training of community health workers for employment at Critical Access Hospitals and rural public health departments in Oregon. Community health workers training education can be taken through the Northeast Oregon Network or Oregon State University. The Oregon Office of Rural Health is currently recruiting for this program and plan to coordinate training of 25 community health workers by spring of 2023 (training will likely begin in Jan. 2023). The Oregon Office of Rural Health will support a peer-to-peer network for community health workers students.

The COVID-19 pandemic has exposed inequities in access to resources, both the pandemic and the collective response to the pandemic caused greater distress in certain communities. One of the tenets of the Traditional Health Worker approach is that people from the community are best at identifying and implementing solutions to health challenges, including those related to social determinants of health. Traditional Health Workers can be part of an effective workforce to implement interventions that address social determinants of health as well as equitable access to health care. Lessons learned from this community-based approach to COVID-19 can be carried forward to inform the use of Traditional Health Workers to address other community challenges in the future.

Recommendations for the future of the Traditional Health Worker workforce come from survey data asked of Traditional Health Workers, assessments by community-based organizations, and from OHA staff and study authors. Recommendations for Traditional Health Worker workforce include:

- increased compensation
- improved reach to all counties across the state
- strategies to recruit, train and employ providers of color and from other underrepresented communities.

Health Care Interpreters

The Importance of Health Care Interpreters

Health Care Interpreters are bilingual individuals who help people in their communities with limited English proficiency or persons who communicate in sign language, to interact effectively with health care providers. Health Care Interpreters provide high quality health care interpretation at in-person medical appointments or over the phone or video. Certified and qualified interpreters must have formal training and must pass national certification exams or language proficiency assessments in the case of qualified interpreters. Health care interpreting can improve the quality of patient-provider communications and health literacy. Research has shown that effective health care interpreting can reduce rates of adverse events and unnecessary exams, increase uptake of preventive care, and increase patient and provider satisfaction.

Health Care Interpreters in Oregon

The Health Care Interpreter program at the Oregon Health Authority (OHA) was established in 2010 to help develop a well-trained workforce of Health Care Interpreters

to address language and communication barriers to accessing health care services. The Oregon Council on Health Care Interpreter advises OHA on administrative rules and policy standards for the Health Care Interpreter Program. The program has developed training standards, curricula, and a Health Care Interpreter registry enrollment process; and there are now over As Oregon becomes more linguistically diverse, the need for well-trained Health Care Interpreters increases.

OHA's Health Care Interpreter training standards are among the highest in the country. The requirements for becoming a Qualified or Certified Health Care Interpreter in Oregon include 60 hours of formal Health Care Interpreter training from an OHA-approved training center, and completing an equivalent language proficiency assessment in English and a second language. Certified Health Care Interpreters in Oregon must additionally pass a national certification exam from an OHA recognized organization. The two national Health Care Interpreter certifying organizations are the National Board of Certification for Medical Interpreters and the Certification Commission for Healthcare Interpreters, which together offer exams for seven languages: Arabic, Cantonese, Korean, Mandarin, Russian, Spanish, and Vietnamese. To increase the supply of Certified spoken and sign language Health Care Interpreters in Oregon, Certified Interpreters from the following organizations can apply to be listed on Oregon's Health Care Interpreter registry, if they complete additional Health Care Interpreter training requirements: Oregon Certified Court Interpreters, Federal Court Interpreters, and American Sign Language (ASL) Interpreters from the Registry of Interpreters for the Deaf.

In addition to the requirements to provide interpretation services as part of the non-discrimination provisions of Title VI of the Civil Rights Act of 1964, the Oregon Legislature passed House Bill 2359 in 2021 mandating that health care providers who are reimbursed with public funds work with a qualified or certified Health Care Interpreter who is listed on the state registry. The law went into effect on July 1, 2022, and does allow some exceptions for working with a Health Care Interpreter not listed on the central registry.

OHA oversees policies and processes to improve and enforce trainings and certification standards and has collaborated with community partners to identify changes to increase the number of qualified and certified Health Care Interpreters on the central registry. OHA removed all application fees and streamlined the application requirements for both those inside and outside of Oregon; eliminated background checks for inclusion as a qualified or certified Health Care Interpreter on the central registry (but it may be required by employers); and arranged for free or low-cost Health Care Interpreter trainings. Prior to the changes made by House Bill 2359, there was reliance on Health

Care Interpreters from outside of Oregon and who were not yet on Oregon's central registry. OHA has given health care providers and interpreting service companies until July 1, 2023, to transition to the new policies around the central registry.

In 2021, the Health Care Interpreter program conducted a survey of Health Care Interpreters to gain a better understanding of Oregon's interpreter workforce. The survey was sent to all 719 Health Care Interpreters on the state registry at the time. A total of 149 Health Care Interpreters completed the survey results in a 21.8% response rate. Among the 30 languages spoken by the 2021 survey respondents, Spanish was spoken most frequently (60% of respondents). With many languages, including Spanish, it is important to match the particular dialects of the patient and interpreter, as there can be significant differences in dialects based on country of origin, and regions within a country. Most respondents identified as female (78%) and were an average age of 46 years and 3.4% reported having a disability. Over half (58%) of the respondents were college graduates, including those with bachelor's degrees (30%), and graduate professional degrees (28%). Over 90% had completed a certification program with at least 60 hours, over half (57%) had completed an OHA approved training program, and 11% had completed the Registry of Interpreters for the Deaf for fluency in American Sign Language.

The majority (94%) of respondents reported currently working in the field. Over half of responding Health Care Interpreters have been practicing for more than 5 years. Most Health Care Interpreters were employed by organizations, most frequently language service companies. Most Health Care Interpreters worked at a clinic (88%) or hospital (76%), and they mostly worked onsite (70%), with some working via phone (16%) or video (14%). More than 80% of respondents reported that their primary employer was based in Multnomah (67%), Washington (7%), Marion (7%), or Jackson counties (96%). Most Health Care Interpreters worked 20 hours per week and were paid within a range from $25-$28/hour, with those certified obtaining a higher median hourly rate.

The most common reason Health Care Interpreters registered with the state was to be able to communicate to employers and clients their qualifications as a Health Care Interpreter. Other reasons included expanded skills and certifications, increased pay, and serving their community. Barriers to the registration process were the cost and difficulty in reaching someone at the registry if the Health Care Interpreter had questions. The largest barriers to certification were the cost and the exam difficulty, completing continuing education hours, and availability of trainings. Individuals applying to become a certified Health Care Interpreter are notified of the determination of their application within 60 days after submitting a completed application.

Future Workforce of Health Care Interpreters

A report from OHA's Equity & Inclusion Division summarized recommendations for improving health care interpreting in Oregon. Additional recommendations for the future of the Health Care Interpreter workforce come from survey data asked of Health Care Interpreters, and from OHA staff and study authors. Recommendations for the Health Care Interpreter workforce include:

- policy options to improve compensation (e.g., paying for a two-hour minimum and for patient no-shows)
- additional programs for training Qualified and Certified Interpreters, especially in rural communities experiencing growth in language access needs
- technical assistance for providers and health care systems to improve their language access plans for forecasting language access needs and auditing the quality of language access services
- studies to determine the best model for an online Health Care Interpreter scheduling platform and national standards and best practices for sight translation.

Increasing the use of Qualified and Certified Interpreters would improve the quality of health care interpreting and thus the quality of health care for patients who need interpreting services.

OHA's work with Coordinated Care Organizations (CCOs) includes contract requirements to improve data collection that can provide insights into the demand for interpreter services by CCO members, and how health care systems are working with OHA Qualified and Certified Health Care Interpreters to provide effective interpreter services. In order to achieve meaningful language access to culturally responsive health care services, the utilization of qualified and certified Health Care Interpreters was adopted as a CCO incentive metric.

In 2021, CCOs were required to conduct a self-assessment of language access and attest to work to identify and assess communication needs, provide language assistance services, train staff and provide notice of language assistance services. All but one of the CCOs met this measure. In 2022, the measure will also require CCOs to report on how often interpreter services were provided when CCO members with identified interpreter needs had physical, behavioral, or dental health visits.

Nursing Workforce

The Importance of the Nursing Workforce

Nurses play a central role in all Oregon health care settings, including primary and specialty outpatient care, inpatient and post-acute care, home health, and behavioral health. Nurses practice at different levels of licensure, where increased clinical responsibilities and independence require higher levels of training:

- Certified nursing assistants (CNAs) work under the direction of licensed nurses to provide basic care such as assistance with activities of daily living (bathing, dressing, using the toilet, etc.)
- Licensed practical nurses (LPNs) provide basic nursing care such as medication administration or dressing changes. LPNs must complete a community college or vocational education program and pass a national licensing exam.
- Registered nurses (RNs) provide advanced nursing services such as patient assessment, care planning, patient education, and care coordination. RNs must obtain either an associate or bachelor's degree and pass a national licensing exam. RNs work in hospitals as well as almost every other health care and public health setting, often developing specialized expertise.
- Advanced practice registered nurses (APRNs) must complete a masters or doctoral degree. The most numerous APRNs are nurse practitioners (NPs), who can practice independently and are often primary care providers. Nurse midwives, nurse anesthetists, and clinical nurse specialists are also APRNs.

In 2022, researchers from the University of California, San Francisco (UCSF) and the Oregon Center for Nursing (OCN) submitted to the Oregon Health Authority (OHA) and the Health Care Workforce Committee a report entitled "*The Future of Oregon's Nursing Workforce: Analysis and Recommendations*." The following pages summarize key aspects of that report, but interested readers should refer to it for more detail on many topics. This section also draws on other research and journalistic sources, which are cited when their findings are described.

Oregon's Nursing Workforce

In the United States, nurses are licensed at the state level. The Oregon State Board of Nursing (OSBN) works within the requirements of the Oregon Nurse Practice Act and other state legislation.

Two in three of Oregon's approximately 90,000 licensed nurses are RNs. Table 12.1 shows the number of nurses at each level of licensure, and the estimated proportion who are currently practicing in Oregon.

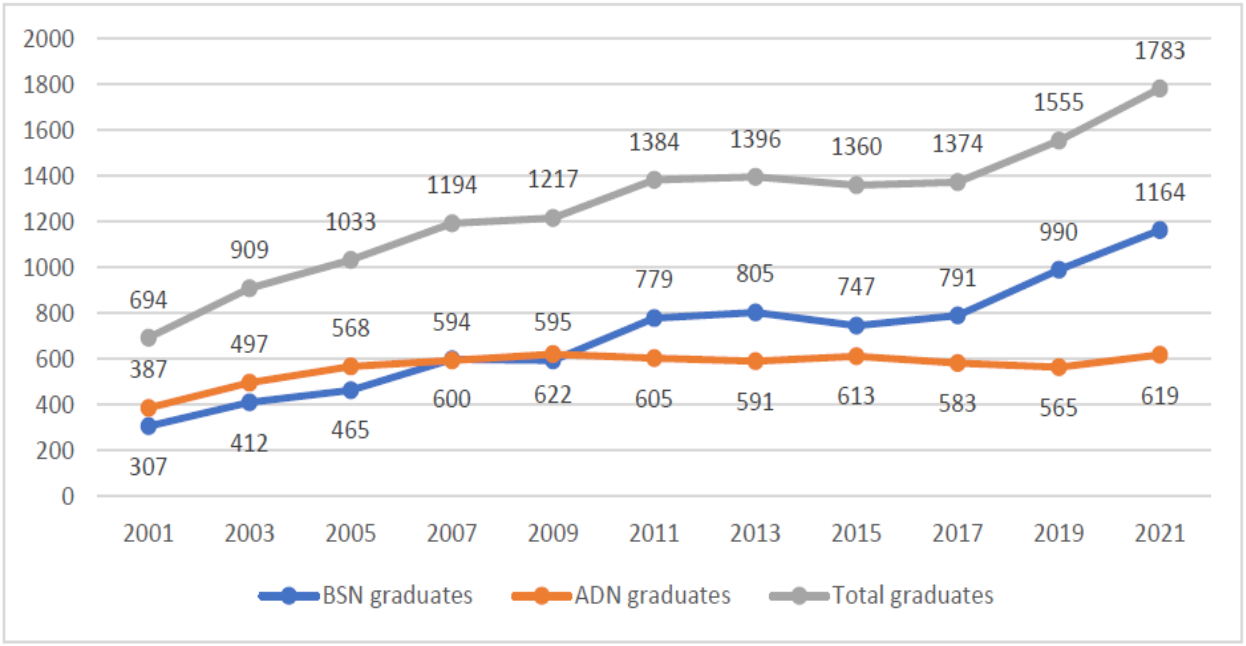
Table 12.1. Licensed and practicing nurses in Oregon

	Certified Nursing Assistants (CNA)	Licensed Practical Nurses (LPN)	Registered Nurses (RN)	Advanced Practice Registered Nurses (APRN)
Licensed	18,640	5,644	59,778	5,574
Practicing	16,200	4,680	44,900	4,330
Percent practicing	86.9%	82.9%	75.1%	77.7%

Source: OCN analysis of OHA 2020 Public Use Nursing Workforce Data File

Oregon community colleges offer eight LPN programs and 17 associate degree of nursing (ADN) programs. There are also 10 bachelor of science in nursing (BSN) programs, including five Oregon Health & Science University (OHSU) campuses. In recent years, Oregon BSN programs have produced an increasing number of graduates, while the number of ADN graduates has remained relatively flat (Figure 12.2). In contrast, the number of Oregon LPN graduates in 2020 was 38% smaller than in 2012.

Figure 12.2. RN graduates in Oregon

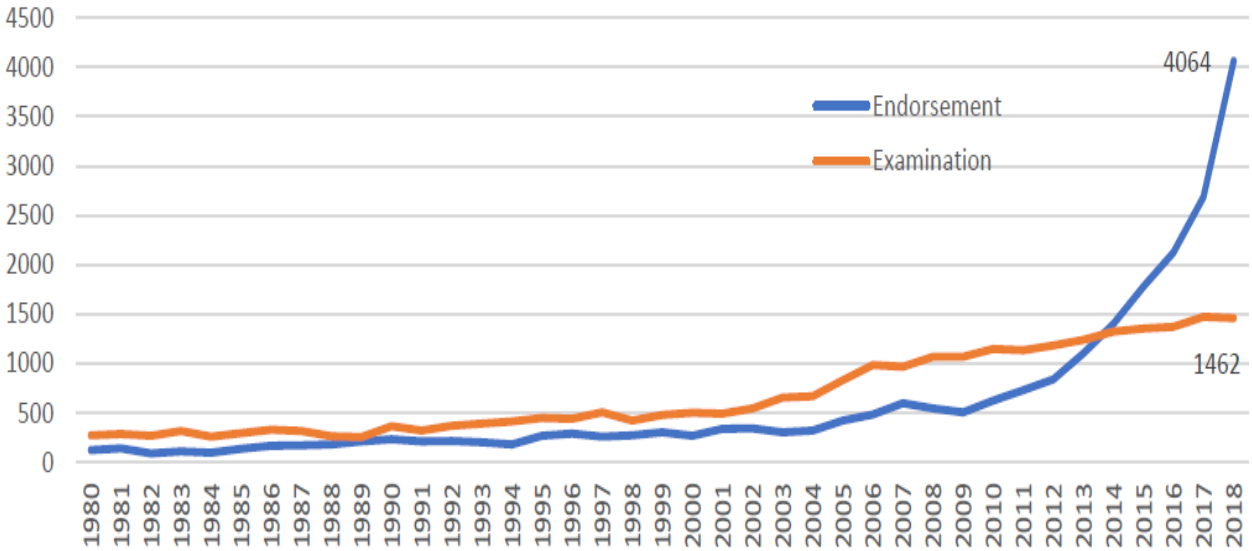


Source: OSBN Annual Surveys of Nursing Education Programs, 2022

RN program graduates who successfully complete the national licensing exam in Oregon are licensed via “examination.” RNs who are licensed in other states can also apply to the OSBN to be licensed in Oregon via “endorsement.” The number of RNs licensed by endorsement began to increase very rapidly in about 2010 (Figure 12.3) and has greatly exceeded licenses via examination in recent years. OCN research

estimates that only about one in three RNs licensed via endorsement since 2010 actually practice in Oregon. Importantly, RNs licensed via endorsement are more likely to practice in Oregon's small, rural communities.

Figure 12.3 Oregon RN licenses by year



Source: OCN analysis of OHA 2020 Public Use Nursing Workforce Data File

During the COVID-19 pandemic, Oregon created a new category of Emergency Authorization License. This allowed employers to hire travel nurses (who work on a short-term basis) more quickly. The emergency authorization license expired in Summer 2022, but some of these nurses applied for and were granted licensure via endorsement from OSBN.

In 35 states, the Nursing Licensure Compact allows a nurse licensed in one Compact state to practice in any other Compact state. This does not increase the overall size of the national nursing workforce, but does allow greater flexibility for in-person nursing care (such as during disaster response) or telehealth. Oregon is not currently a member of the Compact.

Across all license types, 84.6% of Oregon nurses are female. Among RNs licensed in Oregon, 86% are female, compared to 91.6% nationally. The median age of Oregon RNs is 51, compared to 52 nationally. The distribution of Oregon nurses has shifted toward younger ages: the largest age cohort of RNs was 55-60 years in 2012, but was 30-35 in 2020.

Table 12.4 shows that Oregon CNAs and LPNs are more racially and ethnically diverse than RNs and APRNs. Overall, the proportion of nurses who are Hispanic or Latino/a/x is significantly lower than among the overall Oregon population. Recent graduates of

Oregon nursing programs are more diverse than practicing nurses, with 52%, 63%, and 67% of LPN, associate degree RN, and bachelors degree RN graduates, respectively, being White.

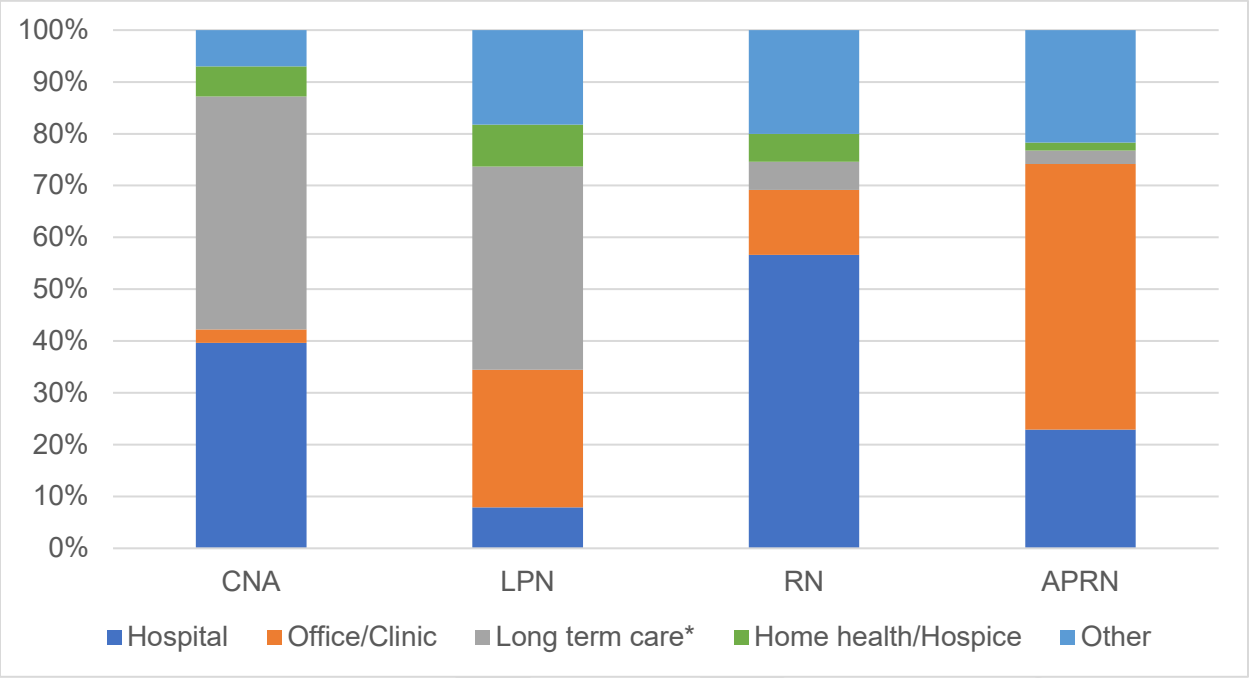
Table 12.4. Race and ethnicity of Oregon's nursing workforce and population

Race/Ethnicity	CNA	LPN	RN	APRN	All Nurses	Oregon Population
American Indian/Alaska Native	0.9%	0.7%	0.5%	0.3%	0.6%	1.9%
Asian	5.9%	4.1%	4.1%	3.7%	4.4%	5.0%
Black or African American	5.9%	4.1%	1.4%	1.7%	2.4%	2.3%
Hispanic or Latino/a/x	14.7%	7.8%	3.9%	3.5%	6.1%	14.0%
Native Hawaiian/Pacific Islander	1.0%	0.6%	0.4%	0.3%	0.5%	0.5%
White	57.0%	68.3%	76.8%	78.6%	72.6%	74.1%
Multiple race	3.5%	3.6%	2.5%	2.1%	2.7%	4.2%
Other race	0.5%	0.4%	0.4%	0.5%	0.4%	N/A
Declined to answer	10.6%	10.4%	10.2%	9.1%	10.2%	N/A

Source: OCN analysis of OHA 2020 Public Use Nursing Workforce Data File

The setting in which Oregon nurses are most likely to practice varies widely by type of license (Figure 12.5). The large majority of CNAs practice in long-term care facilities (45%) or hospitals (40%). Most LPNs practice in long-term (39%) or outpatient (26%) care. Just over half (55%) of RNs practice in hospitals, while half (51%) of APRNs practice in outpatient care.

Figure 12.5. Oregon nurse practice settings



Source: OCN analysis of OHA 2020 Public Use Nursing Workforce Data File
* Long-term care includes Skilled nursing facilities, Assisted living, Residential care, Adult foster homes

Demand for nurses is driven by the number and acuity of patients who need inpatient, outpatient, and long-term care. The need for such care is increasing as Oregon's population ages, but the level of demand also depends on nurse workload in each care setting. For example, home care workload is driven by Medicare and Medicaid reimbursement requirements. Skilled nursing facilities are required to provide 24-hour nursing care, but individual facilities decide how to meet that requirement. In August 2022, the Centers for Medicare & Medicaid Services (CMS) began a major study that aims to define minimum staffing needs in skilled nursing facilities, which will inform new regulations in Spring 2023.

Many states, including Oregon, have regulations regarding maximum nursing workload in hospitals. Determining the appropriate nursing workload on any inpatient unit is complex, based on the ever-changing balance of patient volume, acuity, and nurse experience. Oregon law therefore does not mandate minimum nurse-to-patient ratios, but rather requires each hospital to develop and implement a nurse staffing plan, approved by the hospital nurse staffing committee, which sets the minimum number of RNs, LPNs, and CNAs per shift. The law's requirements and audit processes were strengthened in 2015, and hospitals have faced challenges with compliance. On average, RN staffing ratios (full-time equivalent employment per 1000 adjusted patient days) were higher in Oregon (5.21) than in other states (4.74), but that may reflect

higher acuity of Oregon's hospital patients. Oregon also has lower staffing ratios for LPNs and CNAs than other states.

Nursing maldistribution and shortages. Research by OCN suggested that, prior to the COVID-19 pandemic, Oregon was not facing an overall nursing shortage. However, a "maldistribution" of the nursing workforce was apparent, with some practice settings in Oregon having much greater difficulty recruiting or retaining nurses than others. Vacancy rates were lowest in hospitals (5.3%), higher in-home health/hospice (12.2%) and public health (10.5%), and highest of all in long-term care (28.3%). Other OCN research found that some of the variation across practice setting was caused by nurses moving to different practice settings across their careers. Specifically, recently graduated nurses are more likely to work in hospital or long-term care settings, while more experienced nurses are more likely to work in outpatient care, home health/hospice, public health, or education.

OCN also found that nurses are not evenly distributed across all 36 Oregon counties, with many rural counties having fewer nurses than would be expected based on their population. Although the reasons for this geographic maldistribution are not clear, it is likely that the factors causing it to differ across communities, and may include limited educational opportunities, housing, and spouse/partner employment opportunities in smaller communities.

highlighted reasons for concern about potential future shortages. Only about 72% of Oregon's annual demand for new RNs is met by graduates of the state's nursing education programs, with the balance made up by an increasing number of RNs from other states gaining Oregon licenses by endorsement. If in-migration from other states slows, or if the proportion of endorsed nurses who actually practice in Oregon continues to fall, nursing shortages may become more acute, particularly in non-hospital settings in smaller cities and rural areas.

The COVID-19 pandemic exacerbated the existing maldistribution and created shortages. Nationwide, nursing employment in all practice settings dropped early in the pandemic, but then recovered in all settings except long-term care. In Oregon, this has created a bottleneck in post-acute care and contributed to severe capacity shortages at hospitals: patients who are too ill to go home cannot be discharged, and so hospitals cannot admit new patients who need care. Higher turnover among LPNs than RNs, driven by LPNs leaving the health care workforce, also disproportionately affected the long-term care where LPNs often work.

Although comprehensive data are not yet available, journalistic reports and UCSF study interviews indicate that Oregon hospitals are facing severe nurse staffing challenges in Fall 2022 as a result of the COVID-19 pandemic. Staffing shortages affect RNs, LPNs, and CNAs, leading to emergency room delays and excessive inpatient workload. Burnout among nurses spiked early in the pandemic and continued through multiple waves of COVID-19 admissions, even after vaccines became available. Many nurses left full-time hospital positions to work as travel nurses for higher pay and fewer hours. This increases the workload for the remaining nurses, and travel nurses take time to learn work processes in new hospitals. Travel nurse costs also overload hospitals' budgets and limit their ability to hire support staff. Support staff shortages further increase nurse workload and stress because RNs then must perform both higher level tasks (such as basic respiratory therapy) or lower-level tasks (such as phlebotomy) more frequently than they usually would.

Before the COVID-19 pandemic, retention of Oregon nurses was higher than the national average. However, anecdotal reports indicate that retention has declined recently.

Burnout among nurses. OCN researchers recently found high levels of burnout (see Workforce Resiliency) in Oregon, based on almost 5,000 responses to an April 2022 survey of nurses at all licensure levels. Four in five nurses reported experiencing increased levels of work stress and frustration in the previous three months, and two in three reported increased anxiety. Seven in ten nurses reported "heavy or increased workload" and "uncertainty about return to normal" as major work stressors, and over six in ten reported burnout. More than half of nurses were questioning their career path. Key informant interviews point to the extended COVID-19 pandemic as the main source of these stressors.

Fewer than half of nurses believed they received adequate emotional support at work, but more than nine in ten believed their employers could make changes to improve their mental and emotional well-being. The most important changes nurses said they needed from employers were more nurses (66%), more support staff (59%) and meaningful recognition (50%).

Nursing education capacity & transition to practice. Oregon's community college and university programs do not have adequate capacity to meet the state's demand for newly trained nurses. One major cause of this shortfall is faculty shortages. The number of Oregon faculty to train RNs has increased since 2017, especially in BSN programs, but still remains inadequate. Nurse educators earn salaries 10% to 40% less than they

could earn in clinical practice and must perform numerous other academic duties in addition to teaching.

Another barrier to expanding nurse training in Oregon is securing enough clinical placements for students during their education. Identifying placements for hundreds of students annually, mostly in hospital settings, was an ongoing challenge before the COVID-19 pandemic, and then worsened dramatically. The staff shortages and stresses described above have severely limited the capacity of experienced nurses to supervise students in their practice settings.

In the first two or three years after graduation, new nurses must first master basic skills and then learn to manage increasingly complex clinical situations. Increasing administrative and organizational complexity also challenges new nurses. Robust transition-to-practice programs offer new nurses structured training and simulations, as well as mentoring from experienced nurses. However, not all Oregon workplaces offer these programs, and the COVID-19 pandemic has reduced employers' ability to offer them.

Oregon also has some unique barriers to CNA education and certification. It requires more than twice as many training hours as the federal standard, even though CNAs from other states with less stringent requirements can be certified to practice in Oregon. There are also two levels of CNA in Oregon, with somewhat overlapping requirements. This appears to cause confusion among persons considering becoming a CNA.

Future of the Nursing Workforce

Oregon has implemented some short-term measures to mitigate the problems outlined above:

- The Oregon Wellness Program provides free counseling and education to health care professionals. It was originally established to support physicians, physician assistants, dentists, and APRNs, but an additional $500,000 has been allocated to expand this program to RNs, LPNs, and CNAs.
- In September 2022 the Oregon Legislature approved $39.5 million (including federal matching funds) to help alleviate capacity shortages at Oregon hospitals over the subsequent six months. These funds will support contract nurses at long-term care facilities and hospitals, provide incentives for adult foster homes, residential care facilities and home care agencies to accept patients from hospitals and skilled nursing facilities, fund respite shelter beds for skilled nursing facility patients, and support behavioral health facilities.

In their report, UCSF and OCN researchers outlined a wide range of longer term policy recommendations to strengthen Oregon's nursing workforce. Their recommendations were to:

- Create healthier work environments to retain nurses:
    - In addition to providing adequate nursing and support staff, employers should implement interventions such as increased professional recognition and autonomy, shared governance, and team-based care models.
    - The state can support these efforts by continuing and expanding the Oregon Wellness Program, and providing employers with best practice guidance, financial incentives, and seed funding.
- Strengthen Oregon's nurse training system at all stages:
    - Support middle and high schools to prepare their graduates for nursing education
    - Support LPN and RN education programs to expand enrollment by increasing faculty pay, expanding to rural areas, and strengthening the LPN-to-RN pathway.
    - Develop centralized clinical placement systems and expand simulation facilities
    - Establish more apprenticeships, internships, and/or residencies that support new nurses' transition to practice
- Consider other actions including:
    - Streamlining CNA education and scope of practice
    - Joining the Nurse Licensure Compact
    - Evaluating and revising Oregon's nurse staffing law
    - Encouraging local solutions to nursing shortages
    - Systematically collecting data from employers, projecting future nurse supply and demand, and understanding the causes of racial and ethnic disparities in nursing

Primary Care Providers

The Importance of Primary Care Providers

Primary care providers can be any of four licensed occupations, including physicians (MD/DO), nurse practitioners, physician assistants, and naturopathic physicians. According to the American Academy of Family Physicians, "*A primary care practice serves as the patient's entry point into the health care system and as the continuing focal point for all needed health care services.*" Primary care providers not only care for patients with differentiated and undifferentiated problems, but also perform health

promotion, disease prevention, health maintenance, counseling, and patient education. Primary care practices are located in a variety of health care settings, such as office, inpatient, critical care, long-term care, home care, schools, and telehealth, and are important to facilitate access to health care and provide comprehensive and continuing care.

Primary care providers play a critical role in patient care and education, especially during national health emergencies like the COVID-19. Based on the 2021 evidence-based report by the Primary Care Collaborative, residents in communities with greater primary care access had better COVID-19-related outcomes such as less likely to get infected or die from COVID-19. Primary care also faced significant financial losses during the COVID-19 pandemic (See Impacts of COVID-19 section). Researchers estimated primary care lost $67,774 in gross revenue per FTE physician and lost $15.1 billion nationally in 2020. The COVID-19 pandemic has highlighted the long-standing problems like underinvestment and workforce shortage in primary care. According to the Larry Green Center reports, primary care is responsible for 50% of all medical visits each year, but only receives less than 7% of national health expenditures.

Primary Care Providers in Oregon

The National Center for Health Workforce Analysis estimates that from 2018 to 2030, the number of primary care providers needed will increase by 13%, while the number of active primary care providers will increase by only 6%. The 2022 Licensed Health Care Workforce Supply report by the Oregon Health Authority (OHA) estimated there were 8,905 primary care providers actively practicing in Oregon, the majority of which were physicians (Table 13.1) .

Table 13.1. Primary care providers FTE by occupation in Oregon, 2022

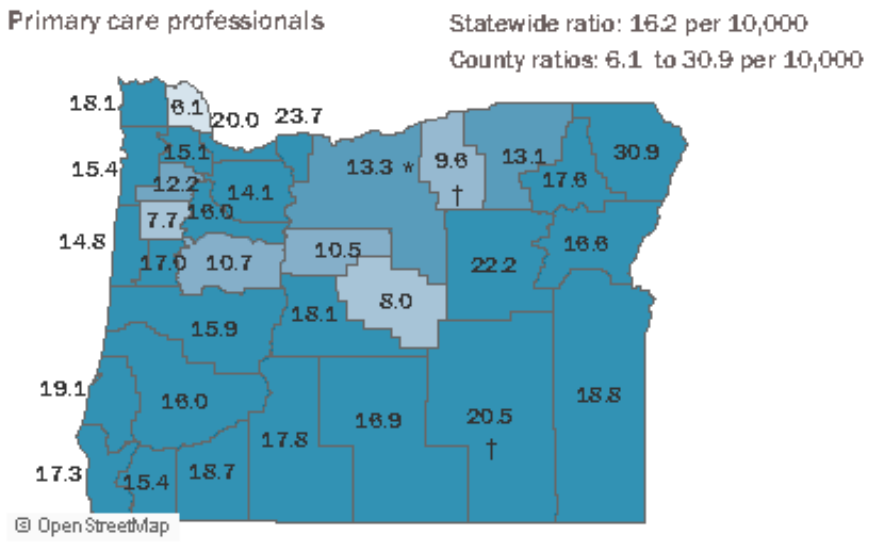
Occupation	Direct patient care FTE	Actively practicing professionals
Physicians	4,638	6,041
Nurse practitioners	1,241	1,642
Physician assistants	694	889
Naturopathic Physicians	206	333
TOTAL	**6,779**	**8,905**

Source: OHA Office of Health Analytics. 2022 Oregon's Licensed Health Care Workforce Supply.

Figure 13.2 shows the direct patient care FTE for primary care professional to population ratios at state and county levels. The statewide ratio was 16.2 FTE per

10,000 Oregonians. The county ratios varied widely, ranging from 6.1 per 10,000 (Columbia) to 30.9 per 10,000 (Wallowa).

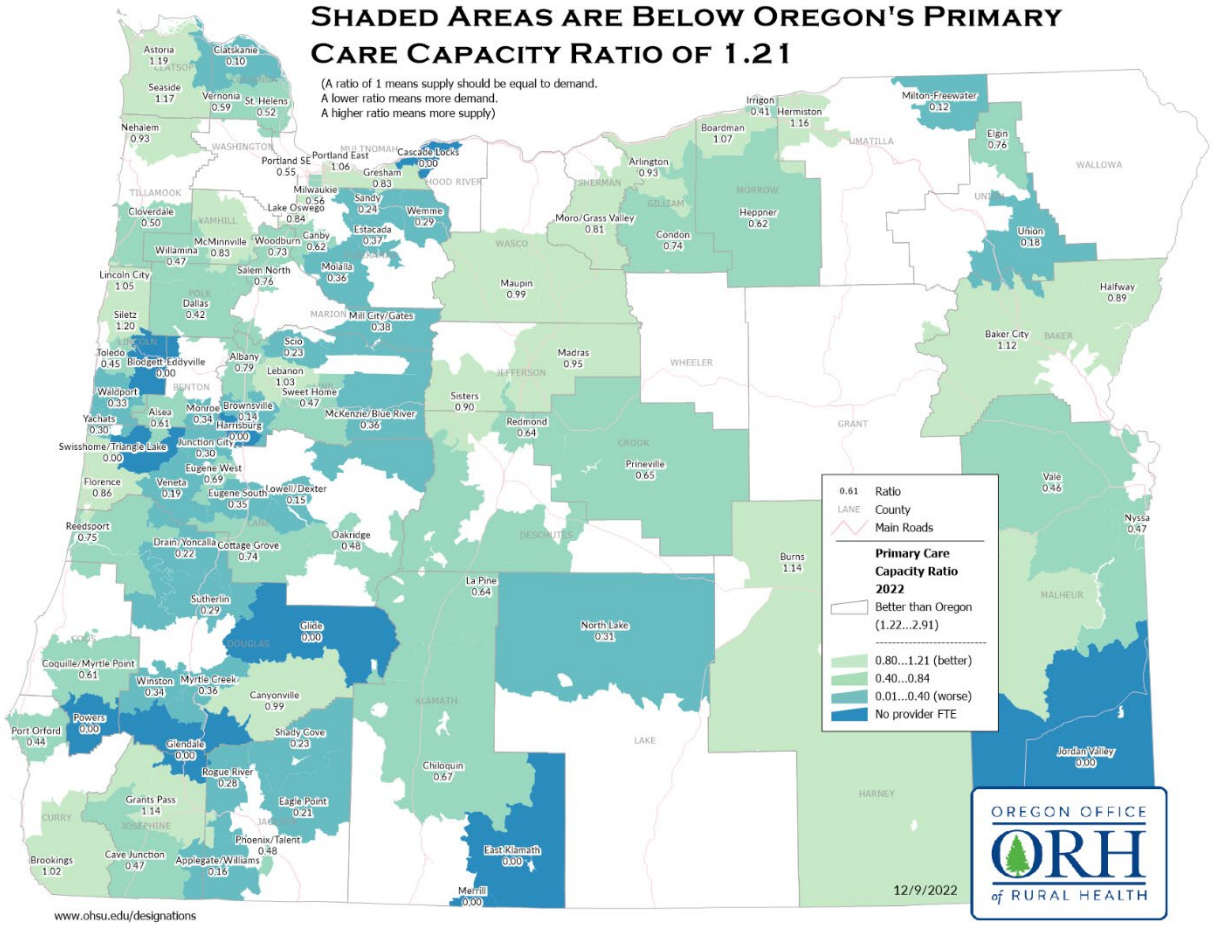
Figure 13.2. Primary Care Professional FTE per 10,000 Population, 2022



Source: OHA Office of Health Analytics. 2022 Oregon's Licensed Health Care Workforce Supply.

Figure 13.3 shows the primary care capacity by service area, with the shaded areas being below the statewide primary care capacity ratio. A primary care capacity ratio of 1.00 means that primary care supply should be equal to demand if access and affordability were equal for everyone. A ratio less than 1.00 means that there is more demand for primary care visits than supply. The statewide primary care capacity ratio is 1.21, meaning that with adequate distribution of providers across the state, there should be enough primary care capacity to meet patient needs. Urban areas have a primary care capacity ratio of 1.38. Rural/frontier areas have a primary care capacity ratio of 0.91, indicating that the number of health care providers is insufficient to meet the demand for primary care health delivery as calculated.

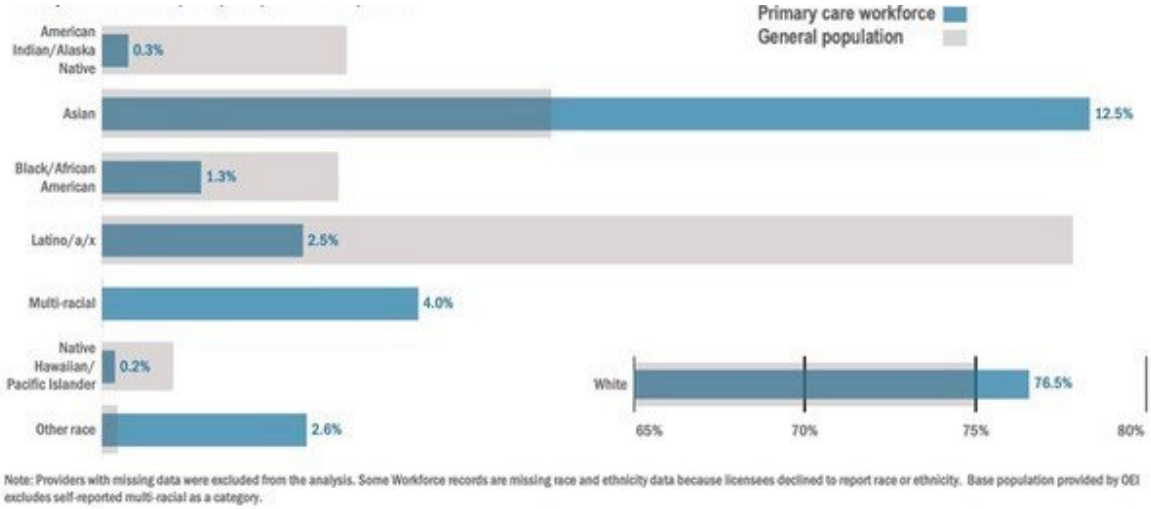
Figure 13.3. Primary Care Capacity by Service Area



Source: The Oregon Office of Rural Health. The Oregon Area of Unmet Health Care Need report.

As illustrated in Figure 13.4, Oregon's primary care workforce is less racially and ethnically diverse than the general population with Latino/a/x, African American/Black, American Indian/Alaska Native, and Native Hawaiian/Pacific Islander providers being underrepresented. (See Health Care Workforce Reporting Program Data section for detail by occupation).

Figure 13.4. Race and ethnicity of primary care providers in Oregon



Source: OHA Office of Health Analytics, Oregon's Health Care Workforce Reporting Program

Future Workforce of Primary Care Providers

High-quality primary care is the foundation of a high-functioning health care system. The National Academies of Sciences, Engineering, and Medicine defines high-quality primary care as *"the provision of whole-person, integrated, accessible, and equitable health care by interprofessional teams who are accountable for addressing the majority of an individual's health and wellness needs across settings and through sustained relationships with patients, families, and communities."* To achieve high-quality primary care and rebuild a strong foundation for the U.S. health care system, the 2021 report by the National Academies of Sciences, Engineering, and Medicine recommended five implementation objectives, including:

- **Pay for primary care teams to care for people, not doctors to deliver services.** This includes payers shifting primary care payments from fee-for-service (FFS) toward a hybrid of part-FFS-part-capitated models, CMS increasing spending to primary care, and states facilitating multi-payer collaboration and increasing primary care spending.
- **Ensure that high-quality primary care is available to every individual and family in every community**. For example, the U.S. Department of Health and Human Services should invest in the creation of new health centers, particularly in areas that are underserved or have a physician shortage. Payers should also ask all covered individuals to declare a usual source of primary care.
- **Train primary care teams where people live and work**. To promote a community-oriented model and better align the workforce with the communities

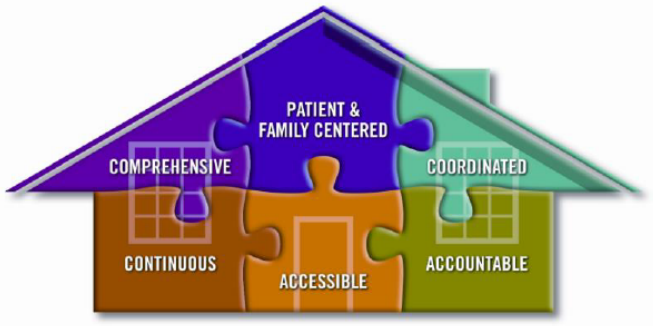
they serve, state and federal governments should expand and diversify the primary care workforce, particularly in areas that are underserved or have a physician shortage.

- **Design information technology that serves the patient, family, and the interprofessional care team**. The Office of the National Coordinator for Health Information Technology (ONC) and CMS should develop the next phase of electronic health record certification standards to improve user experience of clinicians and patients
- **Ensure that high-quality primary care is implemented in the United States.** Primary care research is currently less than 0.4% of research funding by the National Institutes of Health. To support evidence for primary care practices, research funding for primary care should be prioritized. Stakeholders at state and federal levels should also track the progress of these implementation plans.

The Primary Care Collaborative described the medical home "*as a model or philosophy of primary care that is patient-centered, comprehensive, team-based, coordinated, accessible, and focused on quality and safety.*" In 2009, the Oregon Legislature created the Patient-Centered Primary Care Home (PCPCH) Program through passage of House Bill 2009 as part of a comprehensive statewide strategy for health system transformation. The PCPCH is Oregon's version of the patient-centered medical home which is a model of primary care organization and delivery. At its heart, this model of care fosters strong relationships with patients and their families to better care for the whole person. Primary care homes reduce costs and improve care by identifying problems early, focusing on prevention and wellness, and managing chronic conditions.

The PCPCH Program works with partners across Oregon to set the standards for high-quality, patient-centered primary care. There are 35 standards which fall under six core attributes of high-quality care (Figure 13.5). Practices attest to performing at varying degrees—or "measures"—within each of these standards. The Program administers the application, recognition, and verification process for practices applying to become PCPCHs. There are over 600 primary care practices in Oregon that participate in the PCPCH program, and more than three million people living in Oregon receive care at a PCPCH.

Figure 13.5. Core attributes of patient-centered primary care homes



- **Accessible:** Care is available when patients need it.
- **Accountable:** Practices take responsibility for the population and community they serve and provide quality, evidence-based care.
- **Comprehensive:** Patients get the care, information, and services they need to stay healthy.
- **Continuous:** Providers know their patients and work with them to improve their health over time.
- **Coordinated:** Care is integrated, and practices help patients navigate the health care system to get the care they need in a safe and timely way.
- **Patient & Family Centered:** Individuals and families are the most important part of a patient's health care. Care should draw on a patient's strengths to set goals and communication should be culturally competent and understandable for all.

Source: *Patient-Centered Primary Care Home Program: Recognition Criteria Technical Specifications and Reporting Guide*, Oregon Health Authority.

The 2020 PCPCH program standards include revisions emphasizing health equity, such as a new standard for health-related social needs/social determinants of health screening and intervention, a new standard for alternative visit type (e.g., in-home visits, mobile vans, telehealth visits) to an in-person office visit, the addition of the adjective "diverse" when describing patients, families, and caregivers in the technical specifications, and including a Traditional Health Worker as a care team member when describing the technical specifications.

In December 2020, OHA initiated a process to ensure that the PCPCH Program supports a primary care system that addresses community-identified needs, especially the needs of those who experience systemic racism, barriers in accessing care, and health inequities. The PCPCH Program convened the Standards Advisory Committee starting in August 2023 to advise OHA on the program standards and implementation to further guide primary care transformation.

With the passage of House Bill 3261 the Oregon Legislature created the Health Care Provider Incentive Fund to build health care workforce capacity in rural and medically underserved parts of Oregon. The OHA's Health Care Provider Incentive Program helps

support underserved communities in their recruitment and retention of high-quality providers who serve patients regardless of their source of coverage or ability to pay. (See Investments in Workforce Development section).

Behavioral Health Providers

The Importance of Behavioral Health Providers

Behavioral health services, including mental health treatments, substance use disorder services and gambling addiction treatments, are an important component of whole-person care. Behavioral health services are provided by a variety of licensed, certified, as well as practitioners with lived experience. Licensed providers include psychologists, counselors and therapists, clinical social workers, clinical social worker associates, and other licensed professions when the provider has a specialty in behavioral health (e.g., MDs with a specialty in psychiatry). Certified providers include Qualified Mental Health Associates (QMHAs), Qualified Mental Health Professionals (QMHPs), Certified Alcohol and Drug Counselors (CADCs) and Certified Recovery Mentors. There are other health care professionals who may not have a specialty in behavioral health that are licensed to provide prescription-based treatment for behavioral health conditions. This group generally includes physicians (MD/DO), nurse practitioners (NP), and physician assistants (PA). Unlicensed providers include trained or certified addiction specialists, Traditional Health Workers, crisis counselors, case managers, and community support personnel.

The behavioral health system has been faced with a workforce crisis. The 2019-20 Kaiser Family Foundation analysis found that 10.4% of adults in Oregon reported an unmet need for mental health treatment in the past year, which was the 5th highest in the country. According to the ECONorthwest survey of Oregon health care providers, over 60% of respondents reported their organizations needed more behavioral health providers, and 76% of respondents stated that it is very important to expand Oregon's capacity to educate, train, and develop more behavioral health professionals. A 2021 national survey conducted by the National Council for Mental Wellbeing found 78% of its members had seen an increase in demand for behavioral health services and 97% reported difficulties recruiting and retaining employees.

Behavioral Health Providers in Oregon

The 2022 Licensed Health Care Workforce Supply report by the Oregon Health Authority (OHA) showed behavioral health professionals were the largest specialty

group with 13,919 licensees actively practicing (Table 14.1). Around 65% of behavioral health professionals were counselors and therapists and licensed clinical social workers. From 2018-2022, direct patient care FTE of counselors and therapists is increasing more than 13% annually, licensed clinical social workers FTE is increasing about 6% annually, and clinical social work associates FTE is increasing over 9% annually (see Health Care Workforce Reporting Program Data section).

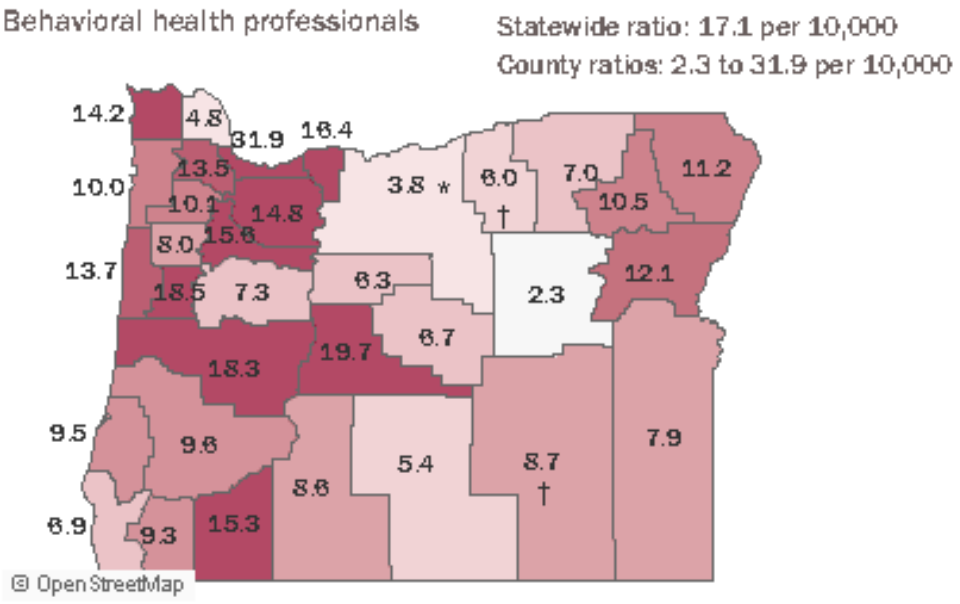
Table 14.1. Behavioral health providers FTE by occupation in Oregon, 2022

Occupation	Direct patient care FTE	Actively practicing professionals
Counselors and therapists	2,460	4,669
Licensed clinical social workers	2,327	4,418
Psychologists	1,018	1,928
Clinical social work associates	727	1,137
Physicians	511	829
Nurse practitioners	564	809
Naturopathic physicians	54	104
Physician assistants	17	25
TOTAL	**7,677**	**13,919**

Source: OHA Office of Health Analytics. 2022 Oregon's Licensed Health Care Workforce Supply.

Figure 14.2 shows the direct patient care FTE for behavioral health professional to population ratios at state and county levels. The statewide ratio was 17.1 FTE per 10,000 Oregonians. The county ratios varied widely, ranging from 2.3 per 10,000 (Grant) to 31.9 per 10,000 (Multnomah).

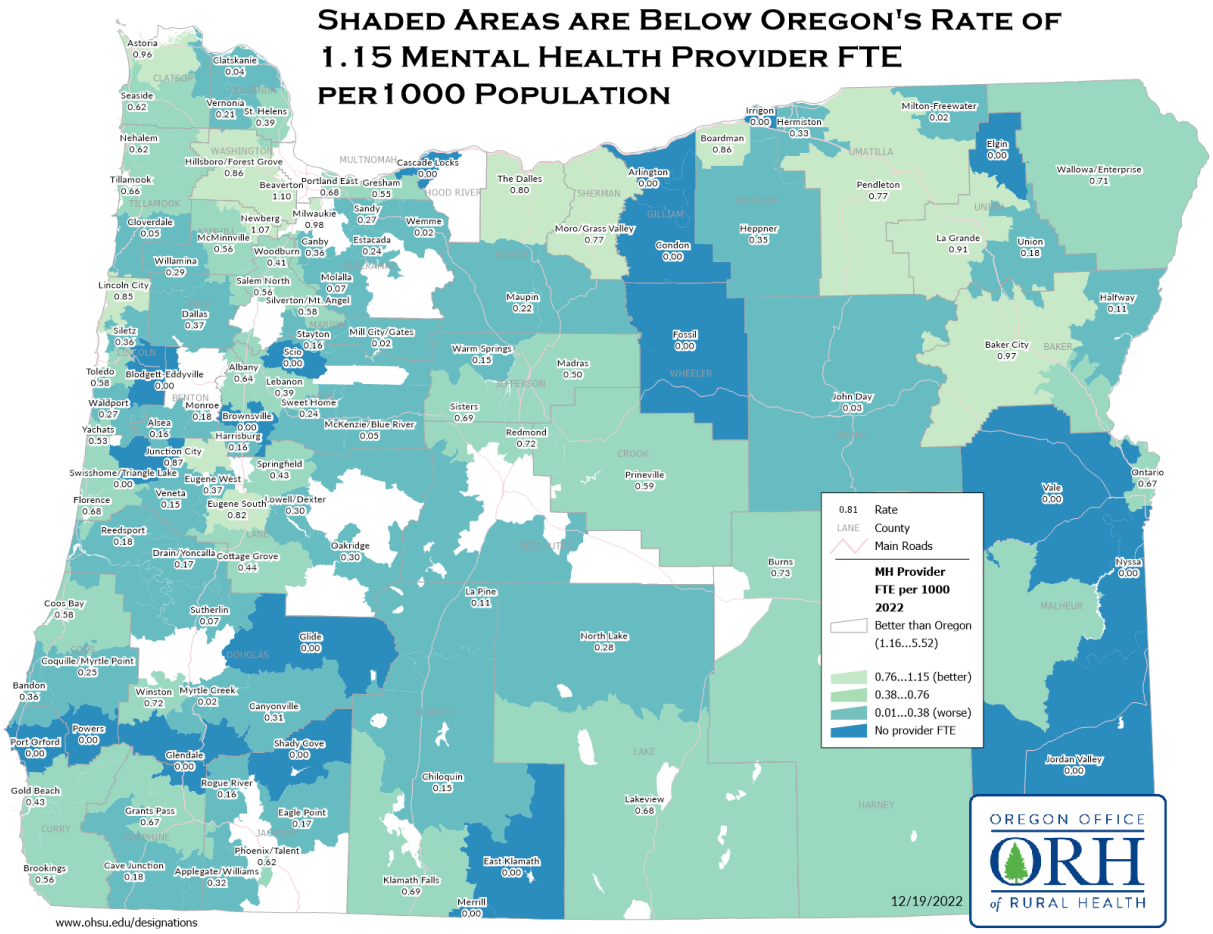
Figure 14.2. Behavioral health professional FTE per 10,000 Population, 2022



Source: OHA Office of Health Analytics. 2022 Oregon's Licensed Health Care Workforce Supply.

Figure 14.3 shows the licensed behavioral health provider FTE per 1,000 population by service area, with an average of 1.48 FTE per 1,000 population in urban areas, and an average of 0.54 FTE per 1,000 population in rural/frontier areas.

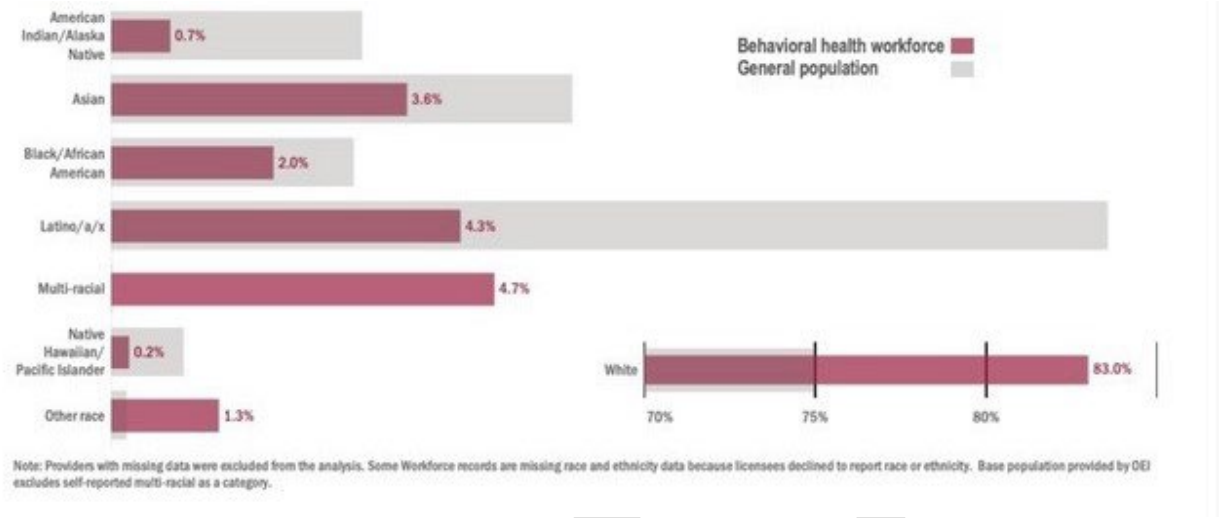
Figure 14.3. Behavioral health provider FTE per 1,000 population by service area



Source: The Oregon Office of Rural Health. The Oregon Area of Unmet Health Care Need report.

As illustrated in Figure 14.4, people of color are underrepresented in Oregon's licensed behavioral health provider workforce. (see Health Care Workforce Reporting Program Data section for detail by occupation) Data from the Mental Health and Addiction Counseling Board of Oregon show that about 28% of unlicensed behavioral health providers were people of color.

Figure 14.4. Race and ethnicity of behavioral health providers in Oregon



Source: OHA Office of Health Analytics, Oregon's Health Care Workforce Reporting Program

The Oregon Health & Science University (OHSU)-Portland State University (PSU) School of Public Health recently produced a report on substance use disorder services in Oregon. Researchers estimated the number of services missing (refer to as "gaps in services") by comparing the recommended number of services to the estimated number of existing services. Results showed an overall gap of 66% statewide between positions filled and workers needed, with the largest gaps among Certified Prevention Specialists (94% gap, an estimated 906 more positions needed) and Qualified Mental Health Professionals (93% gap, an estimated 11,740 more people needed). The report also found disparities in substance use disorder workforce compared to the demographics of the state. The largest disparities were among people who are Hispanic or Latino/a/x, with only 6.3% of non-prescribers and 0.4% of prescribers in the workforce compared to 13.2% of population in Oregon. The Mental Health and Addiction Counseling Board of Oregon found in a survey that 21% of respondents were no longer working in the behavioral health field or were performing limited duties.

Future Workforce of Behavioral Health Providers

A variety of factors contribute to shortages in the behavioral health workforce. The recent Behavioral Health Workforce Report suggests that low reimbursement rates and low wages are the major issues that make recruiting and retaining behavioral health providers difficult. The report included recommendations for how to increase wages for behavioral health providers. For example, the state can increase Medicaid fees for organizations who pay a pre-specified minimum wage to health care providers. The state can also fund retention and recruitment bonuses to directly increase wages. The report also recommended making direct adjustment to reimbursement, such as

increasing fee-for-service (FFS) rates for behavioral health services, incentivizing a fixed portion of the global budget to be allocated to behavioral health services, expanding billable services to remedy disparities, and adjusting reimbursement rates for client characteristics and social complexity. Other adjustments, such as reducing paperwork burden and improving work environment, are also important to address workforce shortages in behavioral health. Diversity in leadership could help to support the recruitment and retention of a diverse workforce more broadly.

A recent report by the Coalition of Communities of Color found that people of color were more likely to utilize culturally specific and community-based behavioral health services. Their recommendations to improve behavioral health access included partnering with culturally appropriate community-based partners, investing in culturally responsive training for health care providers, and investing in diversifying the behavioral health workforce.

There are several national and state efforts to address behavioral health workforce shortages and improve diversity. The federal American Rescue Plan Act of 2021 includes a number of provisions to address the behavioral health workforce shortages. It provides $800 million in funding increases for the National Health Service Corps, and an additional $100 million for the Behavioral Health Workforce Education Training Program. It allocates $80 million to the Health Resources and Services Administration (HRSA) for behavioral health training to reduce and address suicide, burnout, mental health conditions, and substance use disorder among health care professionals, and it provides $122.8 billion in grants to state education agencies to support school-based mental health systems.

A recent evidence review published by the Milbank Memorial Fund found that conducting behavioral health visits by telehealth can reduce costs, and can be just as effective as in-person care for certain behavioral health conditions. This review suggested use of telehealth could potentially expand behavioral health treatment options, especially for people living in underserved areas or who may have difficulties with accessing an in-person visit. The 2022 report by the Medicaid and CHIP Payment and Access Commission made recommendations to encourage health information technology adoption in behavioral health. It recommended that the Secretary of the U.S. Department of Health and Human Services direct the Centers for Medicare & Medicaid Services (CMS), the Substance Abuse and Mental Health Services Administration (SAMHSA), and the Office of the National Coordinator for Health Information Technology (ONC) to develop joint guidance on how states can use Medicaid authorities and other federal resources to promote behavioral health information

technology adoption and interoperability. It also recommended the ONC and SAMHSA jointly develop a voluntary certification for behavioral health information technology.

In the 2021-2023 biennium, the Oregon Legislature allocated more than $1.35 billion in funding to transform Oregon's behavioral health system. Major categories of investment include the behavioral health workforce, aid and assist population, behavioral health crisis system, ballot measure 110, and behavioral health housing/social determinants of health. Specifically, investment and legislation on the behavioral health workforce include the Behavioral Health Workforce Initiative (House Bill 2949) and the Behavioral Health Workforce Stability Grants (House Bill 4004).

Created through House Bill 2949 (2021) and subsequently House Bill 4071 (2022), the Behavioral Health Workforce Initiative (BHWi) seeks to provide incentives to increase the recruitment and retention of providers in the behavioral health care workforce with a focus on equity and priority populations. The goal of the BHWi is to increase the behavioral health system's capacity to provide culturally responsive care that is deeply embedded in equity-centered cultural responsiveness. The BHWi, when possible, engages community (e.g., behavioral health providers, individuals with lived experience) feedback with the intention of having those responses shape the direction of the work done related to BHWi. House Bill 2949 (updated to House Bill 4071) allocates $60 million to develop a behavioral health workforce to licensed, certified and non-licensed occupations though scholarships, loan repayment, and retention activities (e.g. retention bonuses), and $20 million for a grant program to licensed and certified (e.g. Certified Alcohol and Drug Counselors) behavioral health providers to provide supervised clinical experience to associates or other individuals so they may obtain a license or certification to practice.

House Bill 4004 aims to promote staff compensation and workforce recruitment and retention. The legislation provides two specific investments:

1. $132.3 million General Fund investment for OHA to distribute grants to behavioral health care providers to increase compensation to staff and pay hiring and retention bonuses, if necessary, to recruit new staff or retain the providers' staff. Grants to agencies were awarded in May of 2022.
2. Contract funds focused on nurses and behavioral health professionals to provide care in adult and child residential behavioral health treatment facilities, opioid treatment programs, withdrawal management programs and sobering centers.

State goals in the addiction area are outlined in the 2020-2025 Oregon Statewide Strategic Plan from the Alcohol and Drug Policy Commission (ADPC). The strategic goals include increasing system ability to recruit, develop, and retain a highly effective

workforce; and strengthening the workforce's ability to implement culturally tailored and linguistically responsive services/strategies across the lifespan for historically underserved communities, such as seniors, people with disabilities, LGBTQ+, persons of color, tribal nations, and rural and frontier Oregonians.

To support the ADPC's strategic plan and address gaps in substance use disorder workforce, the recent report produced by the OHSU-PSU School of Public Health calls on the state to incentivize equitable distribution of linguistically and culturally relevant services, and increase support for service organizations to employ and bill for certified peer support specialists. The report also recommended provider training, telemedicine, and mobile services to expand access to care for opioid use disorder.

House Bill 5202 (2022) included a recommendation for $42.5 million in state general funds with intent to increase behavioral health reimbursement rates by an average of 30%, contingent on federal CMS approval. The $42.5 million in state general funds are anticipated to have approximately $154.5 million total fund impact after the federal Medicaid match. The Oregon Behavioral Health Loan Repayment Program supports rural and urban underserved communities in the recruitment and retention of behavioral health care providers. Oregon also has other investments and strategies to support workforce development (See Investments in Workforce Development and Workforce Resiliency sections).

Oral Health Providers

The Importance of Oral Health Providers

Oral health is critical to overall health. Oral health conditions such as gum disease are associated with diabetes, heart disease, low birth weight babies, and certain types of cancers. Only about 21% of Oregonians live in areas with fluoridated water, which is critical for the prevention of tooth decay and caries. Poor oral health can lead to missed school and work and can have a negative impact on overall well-being. People of color and individuals with low incomes are disproportionately likely to experience poor oral health. Oral health should be an essential component of comprehensive primary care. However, oral health services have historically been delivered separately from medical care, and most often the two systems do not communicate well. Approximately 44% of children on Medicaid and over one-third of adult Medicaid beneficiaries have a preventive dental visit in any given year. According to the CCO Performance Metrics Dashboard, which reports on all Oregonians covered by Medicaid via CCOs, the

percentage of OHP members who received any dental service improved in 2021 to 28% of adults, 54% of children ages 6-14, and 41% for children ages 1-5.

Oral Health Providers in Oregon

One of the key goals of Oregon's coordinated care model is to integrate physical, oral, and behavioral health care to treat the whole person. Recognizing the importance of oral health across the lifespan, Oregon is one of only 23 states that offer extensive dental benefits to all adults with Medicaid, as well as children. Dental benefits for Medicaid adults are not required by federal law but can be offered as a state option, and most states provide limited coverage, such as only extractions or emergency services. Extensive coverage includes a comprehensive mix of services, including more than 100 diagnostic, preventive, and minor and major restorative procedures approved by the ADA; and a per-person annual expenditure cap of at least $1,000. In the U.S., approximately 33% of dentists treat at least one Medicaid patient and those dentists were more likely to practice in high-poverty or rural areas, and work in large practices. Approximately 40% of Oregon dentists accept Medicaid patients with a quarter of those comprising the majority of the Medicaid claims.

There are four main types of dental health providers in Oregon:

- **Dentist (DMD/DDS)** – Doctor of Medicine in Dentistry (DMD) or Doctor of Dental Surgery (DDS) who can diagnose oral health disease, interpret x-rays, monitor the growth and development of the teeth and jaws, and perform surgical procedures on the teeth.
- **Dental Therapist** – Dental therapist with training and licensure can provide preventative dental care, restorative dental treatment, and other educational, clinical, and therapeutic patient services as part of a dental care team, including the services described under ORS 679.621.
- **Expanded Practice Dental Hygienist (EPDH**) – Hygienist with the training and experience to qualify for an expanded practice permit who can operate independently without the direct supervision of a dentist; authorized to work in specific settings such as community health clinics, nursing homes, and other locations described in ORS 680.200.
- **Dental Hygienist** – Paraprofessional that works under the supervision of a licensed dentist to provide preventive and therapeutic oral prophylaxis and educate patients in dental hygiene.
- **Dental Assistant** – Unlicensed professional that helps with infection control by sterilizing and disinfecting instruments, setting up instrument trays, and assisting with dental procedures.

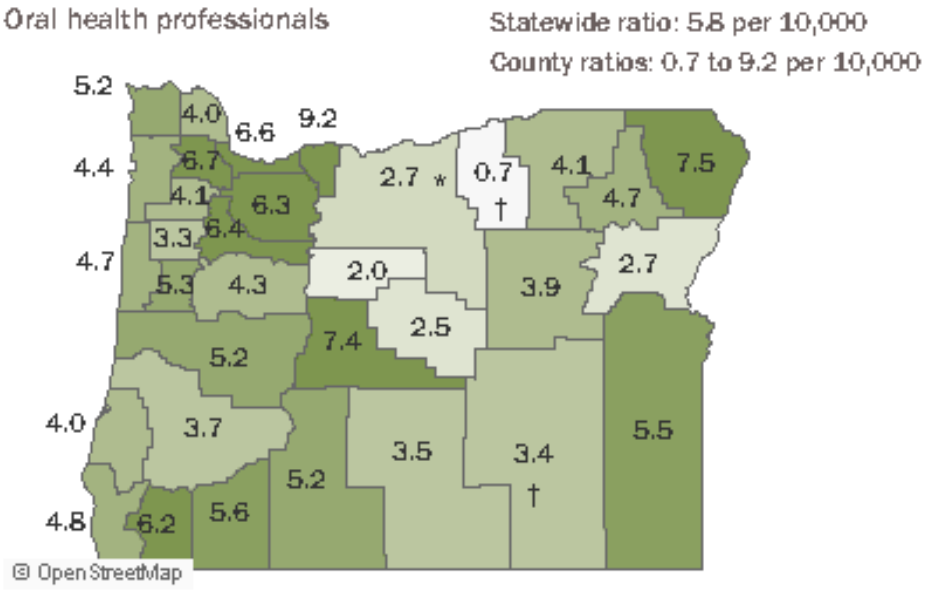
The 2022 Licensed Health Care Workforce Supply report by OHA estimated there were 2,424 dentists and 260 expanded practice dental hygienist actively practicing in Oregon.

The workforce FTE in Oregon increased slightly by 1.2% for dentists and 1.0% for hygienists between 2016 and 2022 (see Figure 4.2 in the Health Care Workforce Reporting Program Data section).

There is significant variation across the U.S. in the scope of activities of dental hygienists. As of 2019, Oregon allows one of the broadest scopes of practice for dental hygienists compared with other states. In Oregon, dental hygienists can formulate treatment plans within the dental hygiene scope; prescribe, administer, and dispense fluoride, topical medications, and chlorohexidine; and administer local anesthesia with authorization from a dentist. Dental hygienists working in a public health setting can provide sealants and prophylaxis without prior examination by a dentist.

Figure 15.1 shows the direct patient care FTE for oral health professional to population ratios at state and county levels. The statewide ratio was 5.8 FTE per 10,000 Oregonians. The county ratios ranged from 0.7 per 10,000 (Morrow) to 9.2 per 10,000 (Hood River).

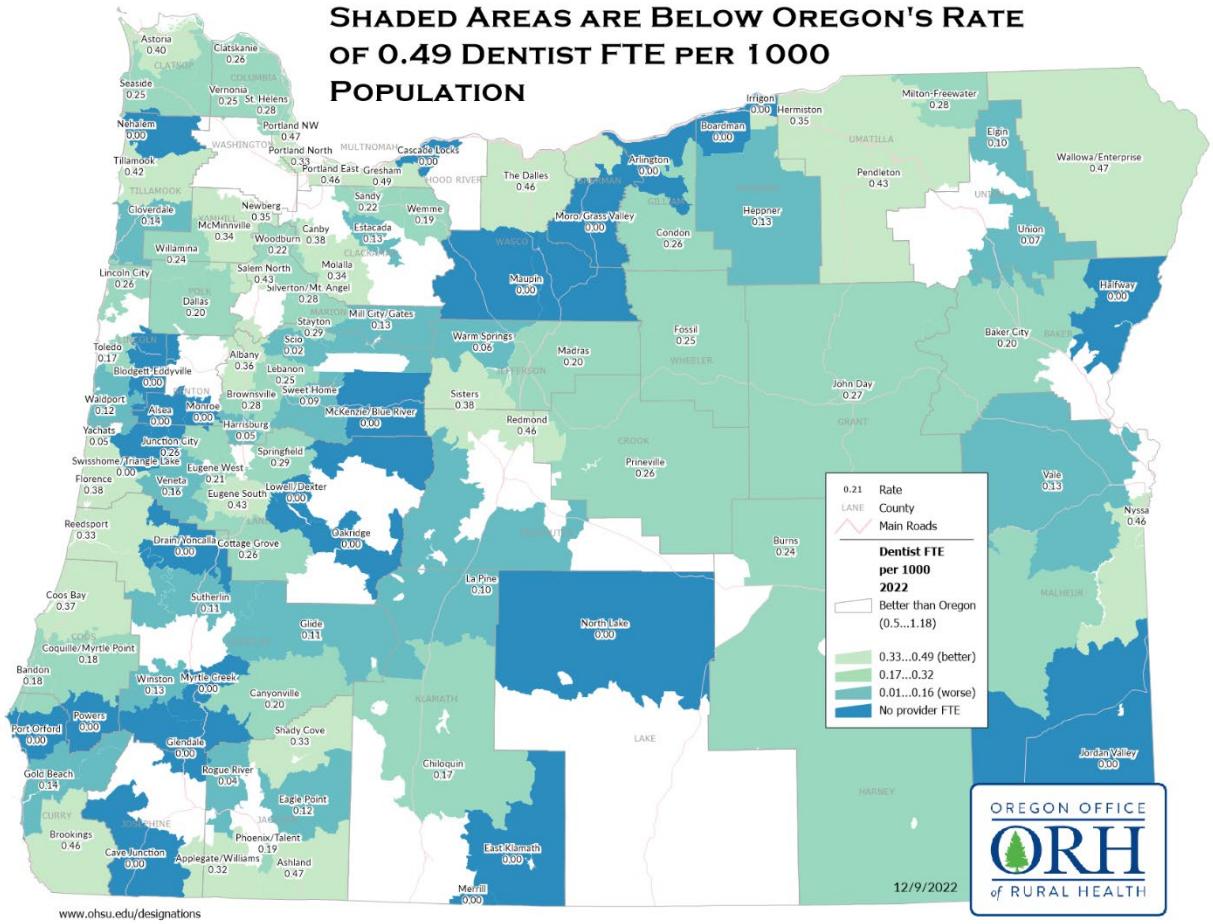
Figure 15.1. Oral health professional FTE per 10,000 Population, 2022



Source: OHA Office of Health Analytics. 2022 Oregon's Licensed Health Care Workforce Supply.

The number of dentist FTE per 1,000 population by service area is shown in Figure 15.2. The average in urban areas is 0.58 dentist FTE per 1,000 population, and the average in both rural and frontier areas is 0.32.

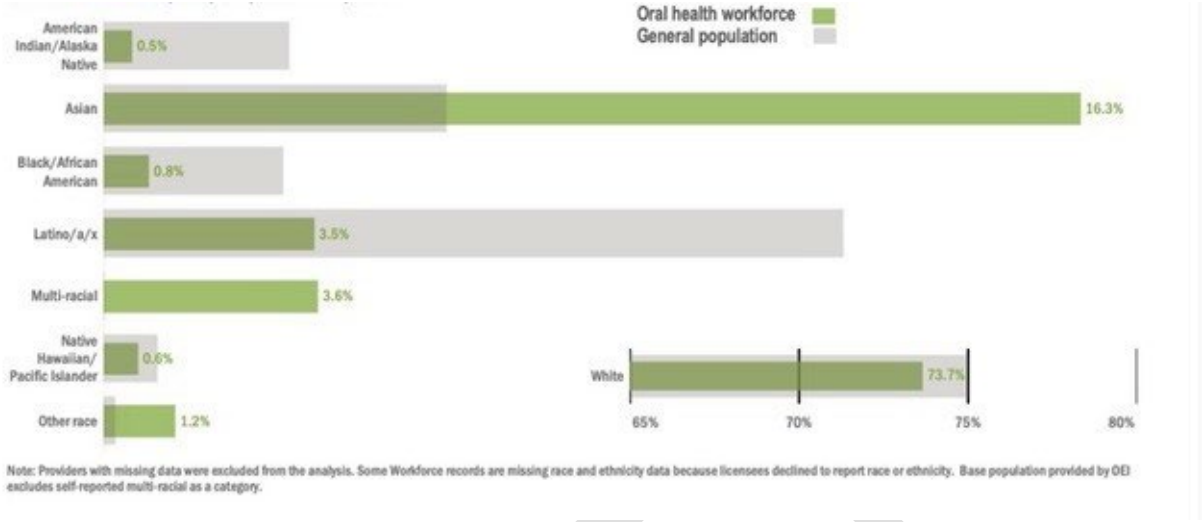
Figure 15.2. Dentist FTE per 1,000 population by service area



Source: The Oregon Office of Rural Health. [The Oregon Area of Unmet Health Care Need report.]

As illustrated in Figure 15.3, Oregon's oral health providers are less racially and ethnically diverse than the general population with Latino/a/x, African American/Black, American Indian/Alaska Native, and Native Hawaiian/Pacific Islander providers being underrepresented. (See [Health Care Workforce Reporting Program Data section] for detail by occupation)

Figure 15.3. Race and ethnicity of oral health providers in Oregon



Source: OHA Office of Health Analytics, Oregon's Health Care Workforce Reporting Program

Future of the Oral Health Workforce

Recommendations for the future of the oral health workforce come from Oregon workforce development and needs reports, recommendations from external reports of national organizations, and from OHA staff and study authors. Recommendations for the oral health workforce include:

- Increase student engagement into oral health education programs.
- Identify pathways for dental hygienists to grow into dental therapists.
- Recruit oral health care professionals who identify as Hispanic/Latino/a/x, American Indian/Alaska Native, and Black/African American.
- Allow flexibility in state licensing for travelling providers or those out of state.
- Reach underserved populations through provider incentives, tiny mobile dentistry, and teledentistry.

In Oregon, there is only one post-baccalaureate program for pre-dentistry, located at the University of Oregon, Health Professions Program. This public program serves students who have already received degrees in the sciences but intend to extend their education by taking additional advanced coursework. Oregon does not have any post-baccalaureate programs that serve students who have received non-science degrees or who have not completed sufficient coursework, or programs that have an explicit focus on helping students from underrepresented populations matriculate into health professions education programs. Research has shown that these programs can help address oral health disparities by improving the diversity of the dentist workforce.

OHA's Dental Pilot Project Program encourages the development of innovative practices in oral health care delivery systems to improve care to populations with the least access to dental care and the highest disease rates. One recent program trained dental hygienists to become dental therapists through a unique one-year education program that allowed the dental hygienists to complete the dental therapy education program while they maintained their current employment as a dental hygienist. Currently dental therapists are only being licensed through training in the dental pilot project program, as there are currently no CODA-accredited dental therapy schools in Oregon.

Oregon's oral health providers are eligible for several workforce development programs including loan forgiveness, loan repayment programs, tax credits which provide the benefit to providers in underserved areas of the state or who work with underserved Patients such as those on Medicaid and Medicare. For example, the Loan Repayment program was designed to help support underserved communities in the recruitment and retention of health care providers. To date, 53 dentists and 11 expanded practice dental hygienists in Oregon have participated. Please see figure 15.4 which maps oral provider loan repayment recipients in Oregon. Please refer to Investments in Workforce Development section in this report for more details about the programs listed above.

Figure 15.4. Oral Health Provider loan repayment recipients, 2018-2022

Source: Evaluation of the Effectiveness of Health Care Provider Incentive Programs in Oregon, 2023, Oregon Health Authority

In 2022, OHA received an Oral Health Workforce Grant from the Health Resources & Services Administration (HRSA) for $1.6 million over the next four years. These grants help states develop and implement innovative programs to address dental workforce needs appropriate to the state's individual needs. This grant aligns with OHA's 10- year goal of eliminating health inequities. OHA's grant focuses on Josephine, Jackson, Lane, and Douglas Counties which aligns with some of the most underserved areas and has three objectives:

1) Expansion of teledentistry by funding community-based organizations to integrate teledentistry services into their facilities, specifically by allocating funds towards the procurement of teledentistry equipment and recruitment incentives for providers.

2) Partner with dental care organization(s) to maintain and place mobile dental vans to offer new patient exams, x-rays, intraoral photos, charting, and preventive service (dental cleanings for patients of all ages, sealants, fluoride, periodontal maintenance, scaling and root planning, fillings, and extractions)
3) Partner with OHSU School of Dental Public Health to incorporate the ECHO program into Dental Preceptor sites to expand preceptor capacity and incentivize more dentists to become preceptors.

Some oral health services may be delivered by telehealth, sometimes referred to as teledentistry. For some oral health ailments, teledentistry can allow dental professionals such as expanded practice dental hygienists to conduct examinations and send the data to a dentist to remotely review records and diagnose patients over video or using store and forward technology. If a procedure or further examination is necessary, patients are referred for an in-person visit with the dentist. A dental hygienist must have an Expanded Practice Permit in order to render services via teledentistry. Expanded Practice Dental Hygienists need training to use the technology to submit oral health assessments to a dentist and conduct x-rays remotely.

Long-Term Care Workforce

Long-term Care Settings in Oregon

Many older adults and people with disabilities need long-term services and supports, which include: assistance with incidental activities of daily living such as housekeeping, shopping, and meal preparation; assistance with activities of daily living such as bathing, dressing, or transferring from bed to chair; medication management or assistance with other medical needs; and rehabilitative services.

Oregon offers long-term services and supports in a continuum of long-term care settings:

- In-home care, primarily for assistance with incidental activities of daily living and activities of daily living. This assistance is often provided by family members or other informal caregivers, but many Oregonians also receive assistance from paid caregivers.
- Independent living facilities, which have separate apartments but offer housekeeping and dining services. Residents may also receive in-home care services.

- Community-based care facilities that include assisted living, residential care, and adult foster homes. Community-based care residents may require more assistance with activities of daily living than in-home consumers, and often with medication management.
    - Some residential care or assisted living facilities with specialized facilities and an additional endorsement provide memory care to residents with advanced dementia.
- Intermediate Care Nursing Facilities serve people, including those with developmental disabilities, who need access to 24-hour nursing care.
- Skilled nursing facilities serve residents needing more intensive nursing services in addition to activities of daily living assistance. In Oregon, skilled nursing facilities emphasize post-acute care, often including physical, occupational, or speech therapy, for residents recently discharged from hospitals.

Each of these long-term care settings is progressively more expensive. Medicare only pays for short-term home care or post-acute care in skilled nursing facilities, while Medicaid funds long-term services and supports for low-income Oregonians. Most long-term services and supports recipients also prefer to be in least intensive setting that meets their needs. Oregon leads the nation in accomplishing this, allocating a higher proportion (88%) of its Medicaid long-term services and supports spending to home and community based services than any other state. These proactive long-term services and supports policies are administered by the Oregon Department of Human Services (ODHS).

Oregon's Long-Term Care Workforce

Workers who provide long-term services and supports in Oregon must meet different levels of certification, depending on the setting in which they work:

- Home care workers, including personal support workers and personal care attendants, must have 12 hours or orientation and training (with four additional hours if they administer medications) and complete six hours of continuing education annually.
- Community-based care facility staff must complete a training program at their facility and demonstrate proficiency in topics such as resident care services, safety, and dementia needs. Twelve hours of annual continuing education are required.
- Certified Nursing Assistants (CNA) in skilled nursing facilities must complete 155 hours of training, pass an examination, and complete 12 hours of continuing education annually.

Recent analysis by PHI showed that there were 47,850 members of Oregon's direct care workforce in 2021, including 35,390 personal care or home health aides and 12,460 CNAs[1]. Among this workforce:

- Eight in 10 are female
- One in three is a person of color
- One in six is an immigrant
- Two in five live in households with incomes less than 138% of the Federal Poverty Level
- One in three receives some sort of public food and nutrition assistance
- One in four is insured by Medicaid, and one in eight (almost three times the statewide average) is uninsured

The Oregon Health Care Association (OHCA) estimates that the direct care workforce provided care to approximately 75,000 Oregonians in 2021. This population is increasing rapidly: the number of Oregonians aged 65-84 is expected to grow by 17% by 2030, and the number age 85 and older (who are most likely to receive long-term services and supports) by 26%. As a result, the need for home care aides and personal care workers is expected to grow 29% by 2030.

Recruiting and retention challenges in Long-Term Care. The direct care workforce in long-term care faced numerous severe challenges nationwide even before the COVID-19 pandemic. As described above, direct care workers in long-term care are disproportionately women of color and likely to live in or near poverty and are often immigrants. The Economic Policy Institute recently documented that direct care workers in community-based care facilities and skilled nursing facilities are paid wages one-third lower than the national average, and are less likely than the average worker to receive employer-sponsored benefits or be represented by a union, but more likely to work multiple jobs. The Economic Policy Institute also found that home care workers have similarly low pay levels. A 2021 Washington state report showed that direct care workers in long-term care are paid less than for similar positions in hospitals, and that some categories of direct care workers had begun to shrink even before the COVIS-19 pandemic. PHI further explains that direct care work in long-term care has a high risk of physical injury and requires significant relational skills and emotional labor, yet offers limited opportunity for career advancement. Finally, low pay and challenging work conditions contribute to high turnover among direct care workers.

Despite these challenges, long-term care facilities' and home care agencies' ability to raise direct care workers' pay is limited by low Medicaid reimbursement levels as well

[1] Not all Oregon CNAs work in LTC, but the available analyses do not provide the breakdown across workforce segments.

tight family budgets for home care. Some analysts further note that "care work" in long-term care, child care, and teaching is systematically undervalued, in large part because it is most often performed by women of color and immigrants.

Long-Term Care during the COVID-19 pandemic. The COVID-19 pandemic exacerbated an ongoing workforce crisis in long-term care, nationwide and in Oregon. In the early months of the pandemic, half of all COVID-19 deaths nationally were among long-term care facility residents and staff. Home care workers were also at very high risk of COVID-19 exposure because they could not obtain adequate personal protective equipment. Mortality in long-term care facilities dropped sharply in early 2021 as most residents and staff were vaccinated, but by January 2022, long-term care facilities still accounted for one-fourth of cumulative COVID-19 deaths.

Long-term care employment dropped dramatically at the beginning of the COVID-19 pandemic, but unlike other segments of health care, the size of the long-term care workforce never recovered. As of March 2022, employment in skilled nursing facilities remained 15% lower than in February 2020, and assisted living employment was 6% lower, with a total of 400,000 long-term care jobs lost nationwide. Analyses by UCSF and PHI showed that direct care workers who lost jobs during the early stage of the pandemic did not return, and were not replaced by workers who had lost jobs in other occupations. One reason appears to be that employers in other occupations (such as food preparation or retail sales) were able to raise wages to attract workers, while long-term care employers could not.

By mid-2022, 9 in 10 skilled nursing facilities nationwide were experiencing staffing shortages, and 6 in 10 were limiting new admissions. Skilled nursing facilities report operating costs increase of 40% in the past year and nearly all have increased workers' pay, but 7 in 10 still report being unable to find interested or qualified candidates. Although home health employment had recovered to the pre-pandemic level, employers still report major challenges in hiring enough home care workers.

Long-term care facilities in Oregon face these same COVID-19 impacts, struggling with staff shortages and rising costs. As described in the Nursing section of this report, Oregon skilled nursing facility's' inability to admit new patients has created capacity shortages at many hospitals. Pursuant to Senate Bill 703, Portland State University studied direct care worker compensation in assisted living and residential care facilities in Fall 2022; findings will be available in early 2023.

Several federal and Oregon initiatives were implemented in response to COVID-19's impact on long-term care. The American Rescue Plan increased Medicaid funding for

home & community based services by 10% from April 2021 through March 2022. The federal Build Back Better legislation proposed in 2021 would have provided substantial additional funding to support the long-term care workforce, but was never passed by the Congress. In 2021 Oregon established a Nurse Crisis Team to provide nurse and medication technician staffing to skilled nursing facilities that were unable to accept new patients. In July 2021, the Oregon Legislature passed a Long-Term Care Investment Package that included funds to increase wages for community-based care facility and skilled nursing facility workers, as well as a $12.2M budget note to enhance workforce development and training. Those workforce efforts are being led by a new Strategic Initiatives Unit within ODHS. This unit is building collaborations among ODHS, OHA, and external stakeholders to grow the direct care workforce and enhance its well-being. The largest effort is financial support for the RISE Partnership to expand its apprenticeship training program for CNAs. Support will also be provided for the NurseLearn program to train community health nurses, the Oregon Care Partners training clearinghouse for family caregivers and direct care workers, and other training and well-being programs.

Future of the Long-Term Care Workforce

A range of long-term strategies for states to strengthen the direct care workforce have been proposed, perhaps most comprehensively by PHI. Two crucial strategies have been endorsed in reports by organizations that include the National Governors Association, National Conference of State Legislatures, National Academy of State Health Policy, UCSF, Leading Age:

- Increase compensation for direct care workers, many of whom do not currently earn a living wage and can often find better-paid work outside long-term care. The biggest constraint on direct care worker compensation is low reimbursement by Medicaid, which funds more than half of long-term services and supports spending nationwide. Increasing Medicaid reimbursement will be difficult, but Leading Age has outlined the benefits of doing so, and example approaches in other states are described by the Center for American Progress and the National Governors Association.
- Streamline and strengthen training programs and career growth pathways for direct care workers. For example, the Oregon Home Care Commission is currently redesigning its website to make it much simpler for prospective home care workers to apply for positions, and offers increased pay for higher levels of certification. Apprenticeship programs that combine training and paid work (of which the RISE Partnership CNA apprenticeship is an example) can support individuals newly entering the direct care workforce. Washington state has proposed other innovative approaches, such as online simulation training and an explicit CNA-to-LPN career ladder.

In addition to better pay and benefits, providing higher quality work environments can help employers to motivate and retain direct care workers. These work environment improvements include team-based care, providing high-quality supervision, and delegating tasks from nurses to direct care workers. Concrete approaches to making direct workers more valued have been outlined by Leading Age, the Commonwealth Fund, and PHI. The Oregon Legislature, ODHS, and other state agencies can facilitate long-term care employers' implementation of such approaches.

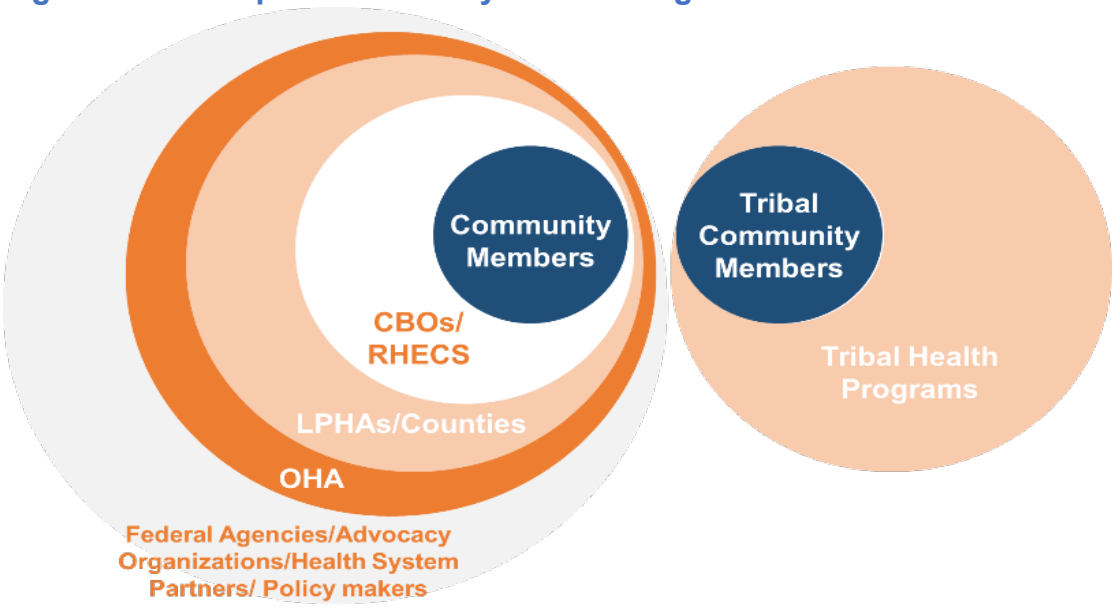
As described above, Oregon is currently implementing short- and medium-term strategies to mitigate long-term care workforce shortages, but a higher and sustained level of investment—ideally in selected strategies that are shown to be effective—will be needed to grow and maintain a direct care workforce to meet the state's future demand for long-term services and supports in coming decades. This will require coordinated action by Oregon's Legislature, ODHS and other state agencies, labor organizations, and long-term care employers.

Public Health Workforce

Importance of the Public Health Workforce

Public health promotes and protects the health of people and the communities where they live, learn, work and play. The Oregon public health system includes federal, state, and local agencies, private organizations and other diverse partners working together to prevent disease, protect people from harm, and promote actions that make us healthier.

Figure 17.1. The public health system in Oregon



Source: Oregon Health Authority, Public Health Division
Note: abbreviations in figures include CBO – community-based organizations, RHEC – regional health equity coalitions, LPHA – local public health authority, OHA – Oregon Health Authority

Public Health Workforce in Oregon

Governmental public health is a network of federal, state, and local health authorities, and government-to-government relationships with federally recognized Tribes. Oregon has a decentralized public health system, which means that local and tribal governments have authority over most public health functions in their jurisdictions. The public health system works with community-based organizations to ensure that communities are at the forefront of efforts to improve health and that public health interventions are reaching those who experience a disproportionate burden of death and disease.

Both local public health authorities and the state directly fund community-based organizations and regional health equity coalitions. Oregon's Public Health Advisory Board (PHAB) serves as an advisory body to the Oregon Health Authority (OHA). OHA's Public Health Division achieves its mission through work organized in three centers. The Center for Prevention and Health Promotion houses programs to implement policies, systems and environmental changes designed to prevent chronic diseases and injury and support improved health across the lifespan. The Center for Health Protection includes public health regulatory functions, such as licensing health care facilities, inspecting restaurants and public water systems, as well as environmental health protections. The Center for Public Health Practice houses programs that protect the public from communicable diseases and prepare and respond

to public health emergencies. Finally, the Office of the State Public Health Director provides leadership, fiscal and operations support, as well as coordination of policy and partnership activities across the public health system. The OHA Public Health Division's Policy and Partnerships unit provides technical assistance and consultation to local public health authorities and Tribes, and coordinates local public health authority reviews.

There are approximately 1,000 current staff within the OHA Public Health Division. The Public Health Workforce Interests and Needs Survey (PH WINS) is a nationally representative survey about the governmental public health workforce. The survey was conducted during OHA Public Health Division's response to COVID-19 which included the addition of hundreds of temporary and limited duration positions; with more of those positions working in emergency response and communicable disease investigation and control. Approximately 39% of OHA Public Health Division's staff completed the PH WINS survey in 2021. Approximately 78% of OHA Public Health Division's staff identify as female which is comparable to the national workforce. However, more OHA Public Health Division's staff identify as White (78%) and have a higher percentage between the age of 31-50 (64%) compared to the national workforce. Among OHA Public Health Division staff, 28% have a public health degree compared with 14% of the national public health workforce. More OHA Public Health Division employees hold a master's degree (48%) or doctoral degree (7%) compared to nationally (31% and 6% respectively).

The majority of OHA Public Health Division staff are full-time (97%) and 63% work in public health sciences such as program staff, epidemiologists, and contact tracers compared with 43% of national workforce. At OHA Public Health Division, 49% had served their agency for 5 years or less like the national level. At OHA Public Health Division, 28% are considering leaving their organization within the next year and 13% are planning to retire within the next 5 years. Top reasons for leaving work include overload/burnout, lack of support, lack of advancement opportunities, organizational culture, job satisfaction, stress, supervisor satisfaction. The majority of OHA Public Health Division staff are satisfied with their job (79%), their organization (73%), and their pay (67%.). Top reasons for staying include benefits, job stability, and flexibility. OHA Public Health Division staff are well trained in their programmatic area, but want more training in justice, equity, diversity, & inclusion and cross-sectoral partnerships. Nationally, 25% of the public health workforce rate their mental health as either "poor" or "fair," but this percentage is higher in Oregon with 33% of OHA Public Health Division staff rating their mental health as either "poor" or "fair." More details about burnout and post-traumatic stress are discussed in Workforce Resiliency in this report. For intentions

to leave the workforce following COVID-19, refer to the section Impacts of COVID-19 in this report.

Tribal Public Health

There are nine federally recognized tribes in Oregon. Tribal governments are separate sovereign nations with powers to protect the health, safety, and welfare of their members and to govern their lands. OHA Public Health Division provides technical assistance to tribal partners and supports tribes with Public Health Modernization funding. Tribes can apply for funding opportunities from OHA. In 2020, the Northwest Portland Area Indian Health Board (NPAIHB) received funding from the Centers for Disease Control and Prevention's (CDC's) National Public Health Improvement Initiative program to increase performance management capacity and improving the ability to meet national public health standards.

Oregon's Local Public Health Authorities

At the local level, there are 33 local public health authorities: 27 are part of county governments; one serves a three-county district; and five are public-private partnerships. Two of Oregon's counties, Wallowa and Curry, ceded local authority back to OHA in 2018 and 2021 respectively. Local public health authorities are funded through a combination of county dollars, investments approved by the Oregon Legislature, and grants through state and federal governments. Over half of the funding to local public health authorities is to support Women, Infants, and Children (WIC), family planning, and school-based health centers. The Coalition of Local Health Officials (CHLO) is an association among local public health authorities in Oregon and recently completed a workforce development report. As of August 2021, Oregon's local public health authorities workforce was made up of 1,144 FTEs for non-COVID roles. Between March 2020 and August 2021, local public health authorities FTE increased 67% by adding 761 FTE for the COVID-19 response for a total workforce of 1,905 FTE. Approximately 22% of this total FTE serve in rural areas. Small health departments (defined as those serving less than 50,000 people) make up 61% of all health departments, but only serve 9% of the population. The local workforce was divided between nurses (13.4%), epidemiologists (3.4%), and environmental health specialists (5.4%), and 77.8% other. The average starting wage across all counties is $29.36 per hour for public health nurses, $45.28 per hour for health administrators, $30.39 per hour for epidemiologists, and $26.33 per hour for environmental health specialists. There is a wide range of pay across counties especially for public health nurses.

Community-Based Organizations

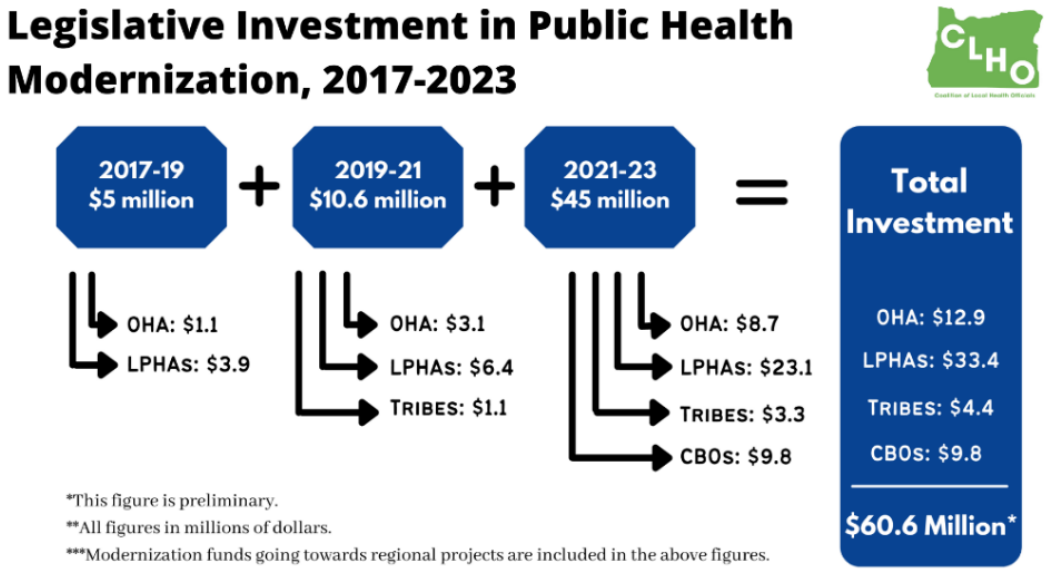
OHA recognizes the essential role of community-based organizations in community-driven, culturally, and linguistically responsive public health service.

OHA has funded more than 170 community based organizations to support culturally and linguistically responsive services as a part of the state's COVID-19 response. Community based organizations have been funded to work in: community engagement, education, and outreach; contact tracing; and social services and wraparound supports. OHA funded 153 community-based organizations to help eliminate health inequities by 2030 which reflects a coordination of eight different OHA programs coming together to center health equity and community priorities in one centralized funding opportunity.

Future of the Public Health Workforce

The Public Health infrastructure has been underfunded for years before the COVID-19 pandemic. In 2017, the Oregon Legislature began to invest in public health through the Public Health Modernization funding. This funding was for Public Health Modernization to expand each accomplishment in public health into long-term systems change. Since this initial investment, the Oregon Legislature has increased the funding amounts with increased investments given to local public health authorities, Tribes, and community-based organizations. Figure 17.2 below for details of Public Health Modernization funding from 2017-2023. The request for the 2023-2025 biennium Public Health Modernization funding request is for $286 million with about $100 for local public health authorities, $103 million for community-based organizations, $30 million for tribes, and $42 million for OHA. Specific activities are identified for investing in the development and retention of the public health workforce that is representative of and from the community served.

Figure 17.2. Legislative Investment in Public Health Modernization, 2017-2023



Source: Oregon Coalition of Local Health Officials. (2022)

In addition, the OHA Public Health Division has also applied for a $32 million CDC public health infrastructure grant, with some funding focused on workforce development. This funding will enable OHA, tribes, local public health authorities, and community-based organizations to hire and retain public health workforce to strengthen foundational capabilities. This funding would support 8 new positions and extend support for 1.5 positions at OHA, and provide $23 million to tribes, local public health authorities, and community-based organizations. These investments would be used to cultivate and retain a diverse public health workforce reflective of the communities that public health serves, as well as workforce development needed to respond to health inequities with community-led approaches.

Lack of epidemiologists is a problem statewide. Of the 28 local public health authorities that provided data in the CHLO report, only 12 reported having epidemiologists on staff. Local public health authorities serving counties with less than 50,000 people have even more limited epidemiological capacity. Several strategies to address this shortage includes targeting or incentivizing recruitment of epidemiologists, sharing epidemiologists across regions, or contracting out for services. OHA Public Health Division contracted with the Oregon Health Sciences University (OHSU), University of Oregon, and Oregon State University's (OSU) Surge Bench to embed highly trained students within OHA's COVID Response and Recovery Unit to perform key epidemiological activities like case investigation, contact training, data entry and quality assurance, and vaccine outreach. Since July 2020, the OSU Surge Bench, for example, has provided over 15,000 hours of COVID-19 response work in 24 different local public health authorities, helping to address key workforce gaps during COVID surges. Evaluation results indicate that Surge Bench students are more realistically prepared for their future careers and improve the diversity of the public health workforce. Clinical student affiliate agreements were in place with several schools of nursing across the state to support clinical functions in the field COVID testing and vaccine response. Additional funding of the program would continue this workforce pipeline and support public health activities across the state.

Post COVID-19, the federal, state, and local governmental public work force needs at least 80,000 additional FTE to deliver core foundational public health services. Challenges to recruiting public health professionals include having a limited pool of diverse and qualified applicants, offering competitive pay, and having limited affordable housing options in their counties. Interviews with local health departments in Oregon stated that the lack of affordable housing a major barrier to recruiting new, non-local workers to work in health departments. Recruiting staff who identify as a person of color or who are bicultural or bilingual is especially difficult in smaller counties.

Recommendations for the public health workforce come from reports form national organizations, reports from Oregon organizations such as the Coalition of Local Health Officials, recent survey data gathered from Oregon's public health workforce, and from OHA experts and study authors. Recommendations include:

- Increasing the workforce of "home-grown" professionals from within communities. Strategies may include working with academic institutions at all levels (K-12, community colleges, undergraduate programs, and graduate programs) to increase awareness around public health careers, to recruit for internships and jobs.
- Identifying online public health education, including certificates without needing a bachelor's or master's degree.
- Providing more training in local public health practice, cross-sectional partnerships, and justice, equity, inclusion, and diversity.
- Recruiting and retaining staff using strategies such as salary adjustments, promotion opportunities, weighing lived experience over education to increase diversity, allowing work experience to be substituted for advanced degrees, reducing barriers for out-of-state professionals, flexible/remote work policies, job rotations, and facilitating time off and backup support for time off.
- Supporting existing staff by creating local caucuses and support groups for local and regional public health staff especially those who have few local counterparts and/or those who wish to advance their careers. Oregon's public health workforce needs support from their elected officials and their community.

Conclusions/Recommendations

Improve the diversity of health care providers

Oregon must have a more diverse workforce to achieve the strategic goal of eliminating health inequities. Recommendations include:

- Increase investments in training, recruiting, and retaining health care workers who can provide culturally and linguistically responsive care.
- Reduce barriers to entry and advancement for people of color in the workforce.
- Engage communities in shared decision-making around the future of their health care workforce.
- Use the Health Equity Framework to infuse equity into workforce development policies and programs to meet OHA's 10-year goal to eliminate health inequities.

Improve the supply and distribution of the health care workforce

The COVID-19 pandemic exacerbated Oregon's shortage of many types of health care providers, especially in rural and frontier areas. Recommendations include:

- Continue to fund financial incentives to increase opportunities for training and education, such as those in the Health Care Provider Incentive Program.
- Invest in workforce training through the public workforce system and allied health educational partners.
- Address other factors that influence workforce recruitment and retention—especially in rural and frontier areas—such as housing cost and supply, economic opportunities for partners/spouses, and quality of K-12 education.
- Ensure accountability of incentive programs by evaluating items such as cost-per-placement year, multiplier effects of incentives, and retention effectiveness over time for communities experiencing inequities.
- Support telehealth with clear, flexible policies and adequate reimbursement, which can increase access in underserved areas.

Enhance the resiliency and well-being of the health care workforce

Health care worker burnout exacerbates workforce shortages, quality of care, health inequities, and health disparities. Addressing workforce wellness and resiliency is essential and will require collective action to be effective. Recommendations include:

- Coordinate collective actions from public and private stakeholders, as well as community partners, to cultivate a health system that supports health care workers, including action to create trauma-informed, anti-racist workplaces.
- Invest in assessment and research to inform evidence-based and practice-based strategies to optimize health care workforce well-being.

- Increase health care workforce diversity, and make workplaces more welcoming for diverse providers.
- Invest in efforts to reduce stigma and support health care workers' seeking mental health care.
- Invest in interventions to address burn out with focus on societal, cultural, structural, and organizational factors, and sustain a positive work environment and culture.

Expand training/education and career pathways for many segments of the health care workforce

Expanding training is especially urgent for segments of Oregon's workforce where shortages are most acute, such as behavioral health and long-term care. Education and clinical training opportunities should be expanded for all types of health care providers. Recommendations include:

- Invest in Oregon's education pipeline for health care professionals, including K-12 outreach, community colleges, bachelors, online certificate and education programs.
- Ensure adequate numbers of faculty and clinical training placements for nurses and other licensed professionals.
- Establish and fund clear pathways for positions that do not have defined career ladders based on licensure, including parallel training and work, with a progression to increased pay and responsibility based on training and experience.
- Invest in a mix of reliable and new strategies to enhance training opportunities for other segments of the workforce, including traditional health workers, primary care providers (physician and non-physician), and dentists and dental therapists.

Expand use of care delivery models that improve patient access and promote workforce retention

Although Oregon has been a leader in transforming its health care delivery system, innovative care models can be expanded to improve patients' access to care, promote culturally and linguistically appropriate care, and increase workforce satisfaction. Recommendations include:

- Expand telehealth, coupled with health care interpreters, to improve access to culturally specific or linguistically appropriate services.
- Continue to invest in the integration of physical, behavioral, and oral health care delivery.
- Encourage team-based models and delegation of tasks to allow for more effective and efficient service delivery.

- Work with payment models and policy revisions to further expand primary care teams to provide care during evenings and weekends.

Increase health care systems' use of community-based health care providers

Traditional health workers—including peer wellness specialists—and health care interpreters come from and/or share common lived experiences with their local communities. OHA should continue to reduce barriers to recruit and retain this workforce. Recommendations include:

- Find ways to increase compensation for many health professionals, in particular traditional health workers—including peer wellness specialists—and health care interpreters who are underpaid and are underrepresented in certain regions of the state and among persons of color relative to Oregon's population.
- Improve outreach to all counties across the state, and deploy strategies to recruit, train and employ providers of color and from other underrepresented communities in these fields.

Improve data collection to promote evidence-informed strategies and diversify the health care workforce

Data collection must be improved to help improve the understanding of challenges to the workforce. Recommendations include:

- Ensure that standardized REALD (race, ethnicity, language, and disability) and SOGI (sexual orientation and gender identity) data are collected for all Oregon providers and patients.
- Invest in collecting data that improve the understanding of a range of social and economic factors that influence workforce recruitment and retention.
- Invest in collecting data that improve the understanding of challenges to clinician well-being and inform strategies to support workforce resiliency.
- Expand data collection to include more provider types that incorporate community-defined evidence practices and improve consistency of data collection over time.

Conclusion

Workforce shortages and lack of diversity in many areas of the health care workforce are a national problem experienced in Oregon, stemming from historic underinvestment, current economic and social forces, and systemic racism. There are barriers to entry and advancement for people of color in the health care workforce, and to receiving culturally and linguistically responsive care for people experiencing health inequities. In

order to stabilize, expand, and diversify Oregon's health care workforce so that it can deliver culturally responsive, effective health care services to all:

- **Some** professions need increased compensation to attract new individuals and increase retention
- **Many** professions with unclear career pathways need better, focused paths for increasing skills, pay, and impact
- **All** professions need more support around resiliency and well-being

All the report's recommendations warrant action by government and non-governmental entities to ensure Oregon has the workforce it needs to deliver on the commitments of optimal health for everyone and the elimination of health inequities.

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List of Abbreviations

- ASL, American Sign Language
- ADN, Associate Degree of Nursing
- ADPC, Alcohol and Drug Policy Commission
- ASL, American Sign Language
- BHWi, the Behavioral Health Workforce Initiative
- BSN, Bachelor of Science in Nursing
- CCOs, Coordinated Care Organizations
- CMS, Centers for Medicare & Medicaid Services
- CNA, Certified Nursing Assistant
- DDS/DMD, Doctor of Dental Surgery/Doctor of Dental Medicine
- DO, Doctor of Osteopathy
- FFS, Fee-for-service
- FTE, Full-time equivalent
- HCPIP, Health Care Provider Incentive Program
- HHS, U.S. Department of Health and Human Services
- HIPPA, Health Insurance Portability and Accountability Act
- HOWTO, Healthy Oregon Workforce Training Opportunity Grant Program
- HRSA, Health Resources and Services Administration
- LPN, Licensed Practical Nurse
- MD, Doctor of Medicine
- NIOSH, National Institute for Occupational Safety and Health
- NP, Nurse Practitioner
- OCN, Oregon Center for Nursing
- ODHS, Oregon Department of Human Services
- OHA, Oregon Health Authority
- OHCA, Oregon Health Care Association
- OHP, Oregon Health Plan
- OHPB, Oregon Health Policy Board
- OHSU, Oregon Health & Science University
- ONC, Office of the National Coordinator for Health Information Technology
- OSBN, Oregon State Board of Nursing
- OSU, Oregon State University
- PA, Physician Assistant
- PCO, Oregon Primary Care Office
- PCPH, Patient-Centered Primary Care Home
- PH WINS, Public Health Workforce Interests and Needs Survey
- PHAB, Oregon Public Health Advisory Board
- PPE, Personal Protective Equipment
- RN, Registered Nurse
- SAMHSA, Substance Abuse and Mental Health Services Administration
- SHOI, Scholars for a Healthy Oregon Initiative
- UCSF, University of California San Francisco