Oregon's Health Care Workforce

February 2021

Oregon Health Authority

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Executive Summary

Workforce assessment informs efforts to achieve equity and ensure access to care.

Oregon's goals for health system transformation include achieving health equity, expanding access to care, ensuring financial sustainability, and improving population health outcomes. In order to achieve these goals, Oregon must have a health care workforce that can effectively deliver high-value care across the state.

House Bill 3261, passed in 2017, requires a biennial assessment of the health care workforce needs of the state, and this is the third report of that series. Much of the data available on the health care workforce through our ongoing data collection efforts are available only for the time period before the COVID-19 pandemic. However, additional data are included in this report to illustrate the impacts of COVID-19. This report looks at current trends and the future needs for Oregon's health care workforce.

Oregon's health care workforce needs more diversity and better geographic distribution.

The racial/ethnic diversity of the health care workforce does not match the diversity of the Oregon population, with Hispanic/Latinx, African American/Black, and American Indian/Alaska Native providers underrepresented in most licensed health care professions.

- Generally, there is more racial/ethnic diversity among lower-wage health care occupations (e.g., certified nursing assistants) compared with occupations that require more years of formal training (e.g., physicians, dentists).
- The racial/ethnic diversity of the health care workforce is increasing slowly, and there is generally more racial/ethnic diversity among younger providers compared with older providers.

The number of health care providers varies greatly across the state, with rural/frontier areas more likely to be underserved compared to urban areas.

- Behavioral health provider full-time equivalent (FTE) per capita is 65% less in rural/frontier areas compared with urban areas.
- Dentist FTE per capita is 40% less in rural/frontier areas compared with urban areas.
- Primary care capacity ratio (ability of current primary care providers to meet demand) is 23% lower in rural/frontier areas compared with urban areas.

The ability of current primary care providers to meet demand is 23% lower in rural and frontier areas compared with urban areas.

Throughout health care systems, and organizations influencing those health care systems (e.g., payers, government, non-profits), more diversity among both front-line workers and management is needed to support equitable programs and policies. This will require eliminating inequities throughout the educational system and workplace, including barriers to the advancement of people of color, from K-12 through graduate school, certification and licensure, and hiring and retention practices.

COVID-19 has dramatically affected the health care workforce and significant changes continue.

The COVID-19 pandemic has caused significant changes that impact the health care workforce. In the first months of the pandemic, the number of health care visits fell, which resulted in financial losses for many providers, causing layoffs and furloughs within the health care workforce.

Health care employers continue to grapple with challenges, including: keeping employees and patients safe from COVID-19; losing staff permanently and having difficulty hiring; securing full schedules from workers who are providing care for family members; and increasing stress and burnout among staff.

Telehealth expanded by 40-fold or more in April 2020, after the COVID-19 pandemic began, requiring some clinics to upgrade equipment and train staff. Telehealth can have both benefits and drawbacks:

- Telehealth expansion can increase inequities in health care because not everyone has the necessary technology and high-speed Internet access.
- In certain situations, telehealth can be more effective than in-person care, may reduce health care costs, and can increase satisfaction among both providers and patients. However, in other situations telehealth may not be an effective or appropriate method of delivering services.
- Telehealth can particularly benefit patients who have difficulty finding a provider close to home, such as patients in some rural and frontier areas.

Telehealth use expanded dramatically when the COVID-19 pandemic hit.

Telehealth can have both benefits and drawbacks.

Oregon's future health care workforce must focus on equity and population health.

Oregonians have unmet health care needs, including untreated conditions for behavioral and oral health. Oregon's movement toward achieving equity and effectively integrating physical, behavioral, and oral health will create more demand for trained Traditional Health Workers, Health Care Interpreters, behavioral health providers and oral health providers.

Traditional Health Workers

Traditional Health Workers (THWs) are trusted individuals from their local communities who provide person- and community-centered care by bridging communities and the health systems that serve them. The Oregon Health Authority (OHA) requires Coordinated Care Organizations (CCOs) to integrate THWs into the delivery of services. OHA's THW program is also working to expand the use of THWs by other payers and in other settings to facilitate full integration of the THW workforce across health systems. The Governor's Recommended Budget for the 2021-2023 biennium includes an initiative to create a new Tribal Traditional Health Worker Program for Indian health care providers that supports tribal-based practices.

Health Care Interpreters

Health Care Interpreters can assist persons with limited English proficiency (LEP) and persons who communicate in sign language to interact more effectively with health care providers. Research has shown that effective interpreting can reduce rates of unnecessary exams and hospitalizations, improve health outcomes, and increase patient and provider satisfaction. OHA has set training standards for becoming a Certified or Qualified Health Care Interpreter. Across the state, Health Care Interpreters are not being used for all patient visits

that require interpreting. In some parts of the state, current Qualified and Certified Interpreters are not working enough hours for full-time employment and are available to work more hours.

Behavioral Health Workforce

Oregon reports higher rates of identified mental health conditions when compared with national rates, and many people do not get the treatment they need. The distribution of licensed behavioral health providers varies widely across the state with fewer providers per capita in rural/frontier areas. People of color are underrepresented among nearly all segments of the behavioral health workforce. Use of telehealth could potentially expand behavioral health treatment options, and research shows that telehealth can reduce costs and be just as effective as in-person care for treating certain behavioral health conditions and patients.

Oral Health Workforce

Oral health is critical to overall health, and poor oral health can lead to missed school and work, and can have a negative impact on overall well-being. Access to dental care is limited in a number of communities, and many Oregonians are not receiving the dental care they need. Medicaid programs are required to cover dental care for children, and Oregon is one of only 13 states that offer comprehensive dental benefits to adults with Medicaid coverage. However, only about 40% of Oregon dentists accept Medicaid patients, making it difficult for some Oregon Health Plan (Oregon's Medicaid program) members to access care.

To improve our ability to meet the health care needs of Oregonians, additional data are needed on the health care workforce, especially for unlicensed professions, including numbers of providers, demographics, and training needs. Some of the greatest needs are for unlicensed professions. For example, an Oregon Employment Department analysis showed that the occupations with the greatest needs for training additional workers, among all health and non-health occupations, were medical assistants and nursing assistants. These are among the health care professions with lower wages, overrepresentation of people of color, immigrants, and women, and lacking an effective career ladder for advancement.

Oregon's movement toward achieving equity and effectively integrating physical, behavioral, and oral health will continue to create more demand for trained Traditional Health Workers, Health Care Interpreters, behavioral health providers and oral health providers.

Health Care Provider Incentive Program works to increase diversity and help underserved areas.

The goals of Oregon's Health Care Provider Incentive Program are to increase the racial/ethnic diversity of the health care workforce and to increase capacity in rural and medically underserved regions of Oregon. With funding of $17.6 million for the 2019–2021 biennium, the Program achieves these goals by providing financial incentives to health care providers and students studying to become health professionals who will serve patients in underserved areas of the state. For example, about half of the loan repayment awardees worked in rural areas. Among awardees working in urban areas, most work at federally-qualified health centers (FQHCs), and 44% are people of color. There is more demand for these awards than the funding allows: just 45% of clinicians who apply for loan repayment are granted awards.

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. Oregonians know that the heart of health care delivery is a provider interacting with a patient. Thus, it is critical that Oregon have the workforce needed to effectively deliver high-value care to patients across the state.

House Bill 3261, passed in 2017, requires the Oregon Health Policy Board to assess the health care workforce needs of the state. 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 proposals for using the Health Care Provider Incentive Fund to improve the diversity and capacity of Oregon's health care workforce.

This is the third report 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 the previous reports, it is not feasible to develop definitive recommendations or declarations as to the necessary numbers or ratios of health care providers required in each Oregon community to serve the population's health care needs (see Figure 1). 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.

Figure 1. Barriers to determining specific numbers of providers needed in a community

- There are no consensus recommendations for how many health care providers of different types a community needs based on its population size, demographics, and health status.
- Development of such recommendations is complicated by the evolution of team-based health care delivery, the increasing use of telehealth services, and the ability of different types of practitioners to serve a patient's needs.
- Population health care needs can vary considerably, even within a county or within a community. This makes it challenging to create quantifiable target provider-to-population ratios that account for unique community characteristics and ensure equitable access to health care.

Current Context: Health Equity

In 2019, the Oregon Health Authority (OHA) set an ambitious 10-year strategic goal of eliminating health inequities in the state. That same year, the Oregon Health Policy Board adopted a definition of health equity (shown in Figure 2).

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 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.*

This focus on equity must include the training, recruitment, and retention of a diverse workforce that can deliver culturally-appropriate health care. 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.

Figure 2. Definition of Health Equity Approved by the Oregon Health Policy Board

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, 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.

Current Context: COVID-19

The COVID-19 pandemic has resulted in significant changes to the health care system and workforce needs, and additional changes may lie ahead. As in past years, the main data source for this report is the Health Care Workforce Reporting Program. However, since the most recent available data from the program are from before the COVID-19 pandemic began in Oregon, this report includes additional data and information to provide insights into the impacts of COVID-19 on the needs of the health care workforce.

Changes brought on by the COVID-19 pandemic include the increased use of telehealth, which shows promise for delivering needed care in some situations. The disruption from the COVID-19 pandemic, and the response and recovery, provide an opportunity for further health care transformation going forward. Future changes will focus on expanding programs to improve the culturally-appropriate provision of services and improving equity throughout the health care system.

This report analyzes trends from data collected prior to the COVID-19 pandemic and then describes impacts of the COVID-19 pandemic response and recovery. This report also outlines the needs for Traditional Health Workers, Health Care Interpreters, behavioral health providers, and oral health providers. These four workforces are critical for meeting Oregon's goals of achieving health equity; integrating physical, behavioral and oral health; and ensuring access to high-value care. It also summarizes the recent evaluation of the Health Care Provider Incentive Program.

Health Care Workforce Trends

Health Care Workforce Reporting Program Data

Methodology

OHA's Health Care Workforce Reporting Program was created in 2009 with the passage of House Bill 2009, which required OHA to collaborate with seven health profession licensing boards to collect health care workforce data during their license renewal processes (typically every one or two years). Oregon was one of the first states in the country to legislatively mandate reporting by health care professionals and these data are an increasingly useful source of reliable information about Oregon's licensed health care workforce. 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 1, with the 40 occupations that they license.

Table 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)
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)

The data collected on these providers include information submitted to the licensing boards and data from the Health Care Workforce Survey. Survey data include information on provider demographics, education and certification, languages spoken other than English, practice locations, number of hours worked, future practice plans, and specialty information. The Health Care Workforce Reporting Program analyzes and reports these data, with the most recent reports representing providers licensed in January 2020 (survey data from license renewals completed 2018 to 2019).

In total, there were 180,483 licensed health care providers in this reporting program dataset as of January 2020. In addition to the number of licensed professionals, the survey data allow analysis of the number of practitioners that are actively practicing in Oregon, and of the provider full-time equivalent (FTE) for direct patient care. Data for this report focus on the FTE for direct patient care, but the number of licensed providers, number of providers actively practicing in Oregon, and FTE are all available in the most recent report on Oregon's Licensed Health Care Workforce Supply.

Findings

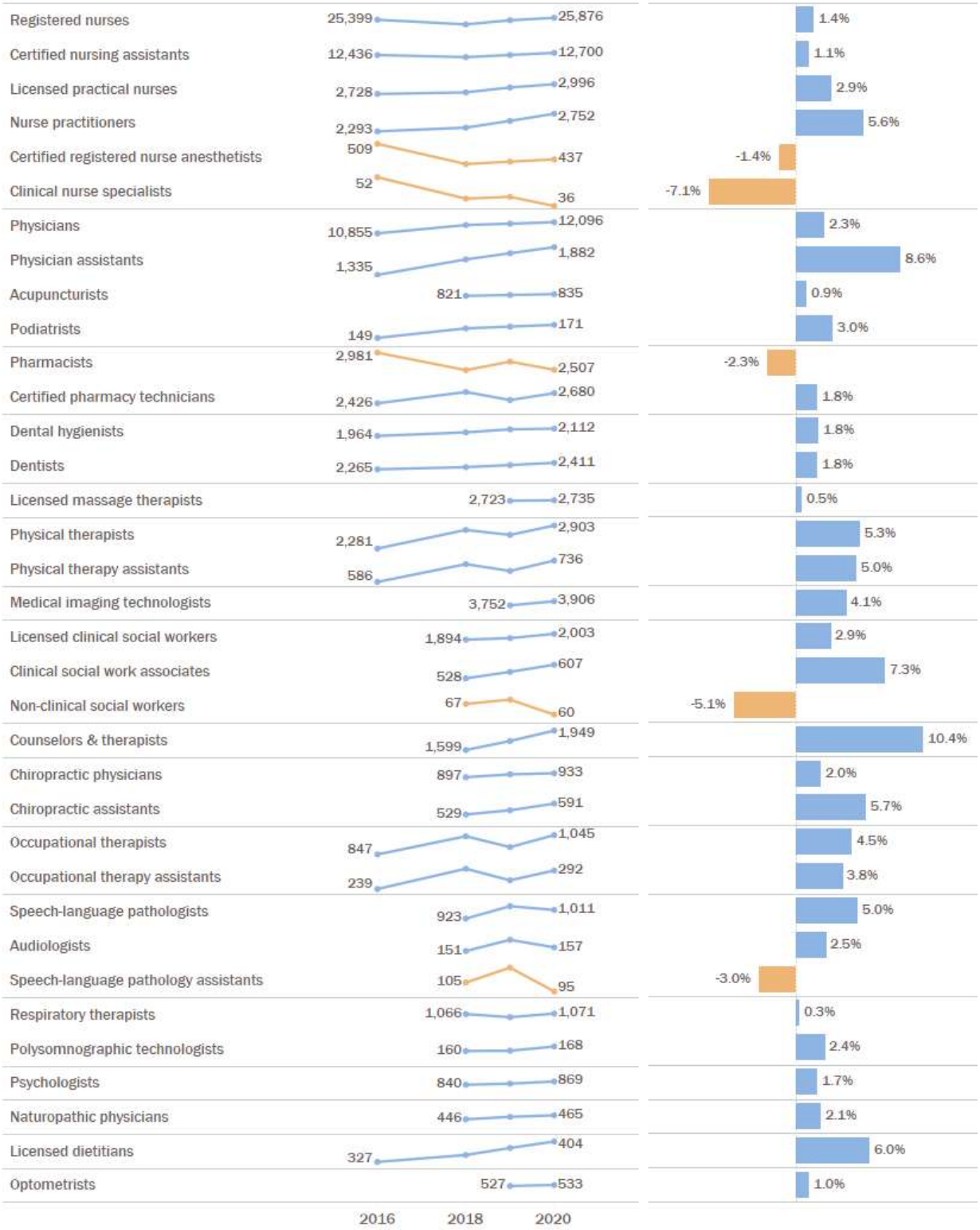
The direct patient care FTE by occupation and year from 2016-2020 is shown in Figure 3 on the next page, along with the annual average percent change in that time period. Among the occupations with the largest increases are nurse practitioners (average annual increase of 5.6%), physician assistants (8.6%), counselors and therapists (10.4%), physical therapists (5.3%), and occupational therapists (4.5%).

Most of the six occupations that showed decreases in this time period have relatively small workforces, except for pharmacists. Some health care services can be delivered by more than one type of provider, so a reduction in the number of one type of provider may be offset by increases in another provider type. For example, the pharmacist FTE decreased by an average of 2.3% annually, while the certified pharmacy technician FTE increased by almost 1.8% annually.

Figure 3. Changes in provider FTE over time vary by occupation

Average Annual Percent Change in Direct Patient Care FTE by Occupation: 2016 to 2020

For reference, the Oregon population has increased an average 1.3% each year since 2016. Axes are not the same among occupations and should not be compared.



Primary care providers can be any of four licensed occupations, as shown in Table 2. Most (71%) primary care providers are physicians (MD/DO), and the remainder of primary care is provided by nurse practitioners, physician assistants, and naturopathic physicians. Since 2016, the primary care provider FTE has increased an average of 5% annually among physicians, nurse practitioners, and physician assistants (naturopathic physicians are not included in the analysis because data were not collected from naturopathic physicians before 2018).

Table 2. Primary care providers can be among four licensed professions

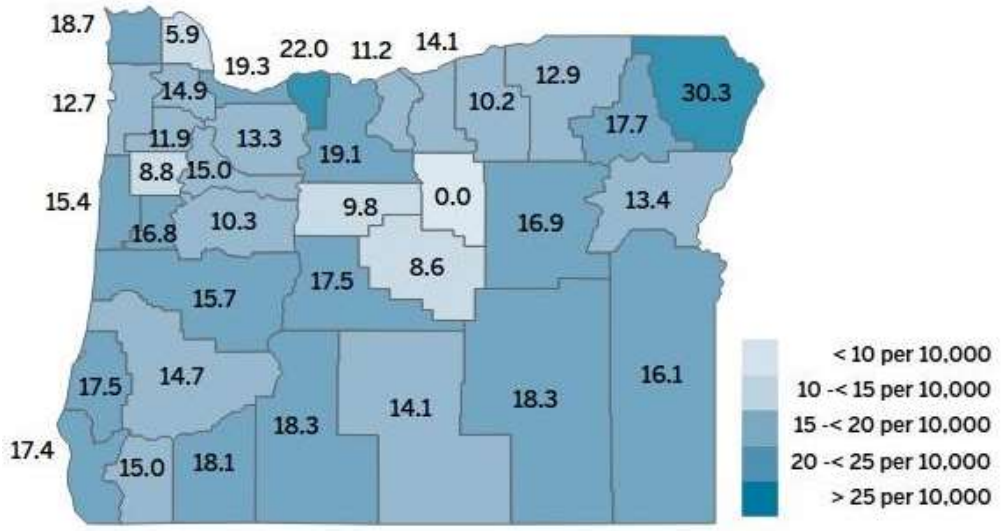
Primary Care Provider FTE by Occupation: Oregon, 2020

Occupation	Statewide FTE	Percent of primary care workforce
Physician – MD/DO	4,716	71%
Nurse Practitioner	1,020	15%
Physician Assistant	685	10%
Naturopathic Physician	220	3%
TOTAL	6,641	100%

Figure 4 shows the primary care professional FTE to population ratios for each of Oregon's 36 counties. The statewide ratio is 15.7 FTE per 10,000 residents, and the county ratios vary widely, ranging from 0 per 10,000 (Wheeler) to 30.3 per 10,000 (Wallowa).

Figure 4. Access to primary care varies around the state

Primary Care Professional FTE per 10,000 Population, 2020



The Health Care Workforce Reporting Program data include information on race/ethnicity, gender and languages spoken by the providers. Starting in 2021, the Health Care Workforce Reporting Program's survey of providers will begin using the REALD tool to collect expanded data on race/ethnicity and disability status. House Bill 2134 in 2013 which is codified in OAR 333-018-0011, requires OHA and the Oregon Department of Human Services to develop these data collection standards (see Figure 5).

Figure 5. Improving data collection through REALD

REALD is a standardized tool developed by OHA and the Oregon Department of Human Services to improve Race, Ethnicity, Language, and Disability data collection. 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 each type of licensed health care provider compared with Oregon's general population is shown in Table 3. 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 licensed health care workforce is less racially and ethnically diverse than the general population with Hispanic/Latinx, African American/Black, and American Indian/Alaska Native providers being underrepresented in most licensed health care professions. Non-Hispanic whites and Asians are generally overrepresented, but the current data do not allow analysis of more specific subpopulations. More detailed data on race and ethnicity will be collected going forward using the REALD tool (see Figure 5). The licensed occupations that are more racially and ethnically diverse tend to be occupations that require fewer years of formal training and receive lower wages, such as certified nursing assistants, and clinical social work associates.

Trends for 2016 to 2020 in the percentages of providers who are people of color are shown in Figure 6. Over this time period, the percentage of the state population that are people of color increased an average of 1.7% annually. As shown in Figure 6, the proportion of licensed providers who are people of color increased faster than the increase in the general population for most occupations. In general, there is a larger percentage of people of color among health care providers in younger age groups compared with older age groups. For example, people of color comprise 18% of licensed behavioral health providers under 40 years old and 12% of licensed behavioral health providers 50 years and older. More detail on these trends can be found in the 2020 report on the Diversity of Oregon's Licensed Health Care Workforce.

Among Oregon's licensed health care workforce, 20% speak another language in addition to English, though only 11.3% of providers said that they are native speakers or had advanced proficiency in another language. The percentage of providers who self-reported that they are native speakers or had advanced proficiency in another language varies by profession, e.g., primary care providers (18.1%), oral health providers (17.3), behavioral health providers (8.2%). Spanish is the most common language spoken other than English in both the general population (9.1%) and among licensed providers (10%). The next most common languages spoken in Oregon households are Chinese (including Mandarin, Cantonese; 0.8% of households), Vietnamese (0.7%), and Russian (0.5%). Less than 1% of the licensed health care provider workforce 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 Section 4 of this report for a discussion of the Health Care Interpreter workforce.

Table 3. Race, Ethnicity, and Gender Distribution: Health Care Workforce vs. Oregon Population

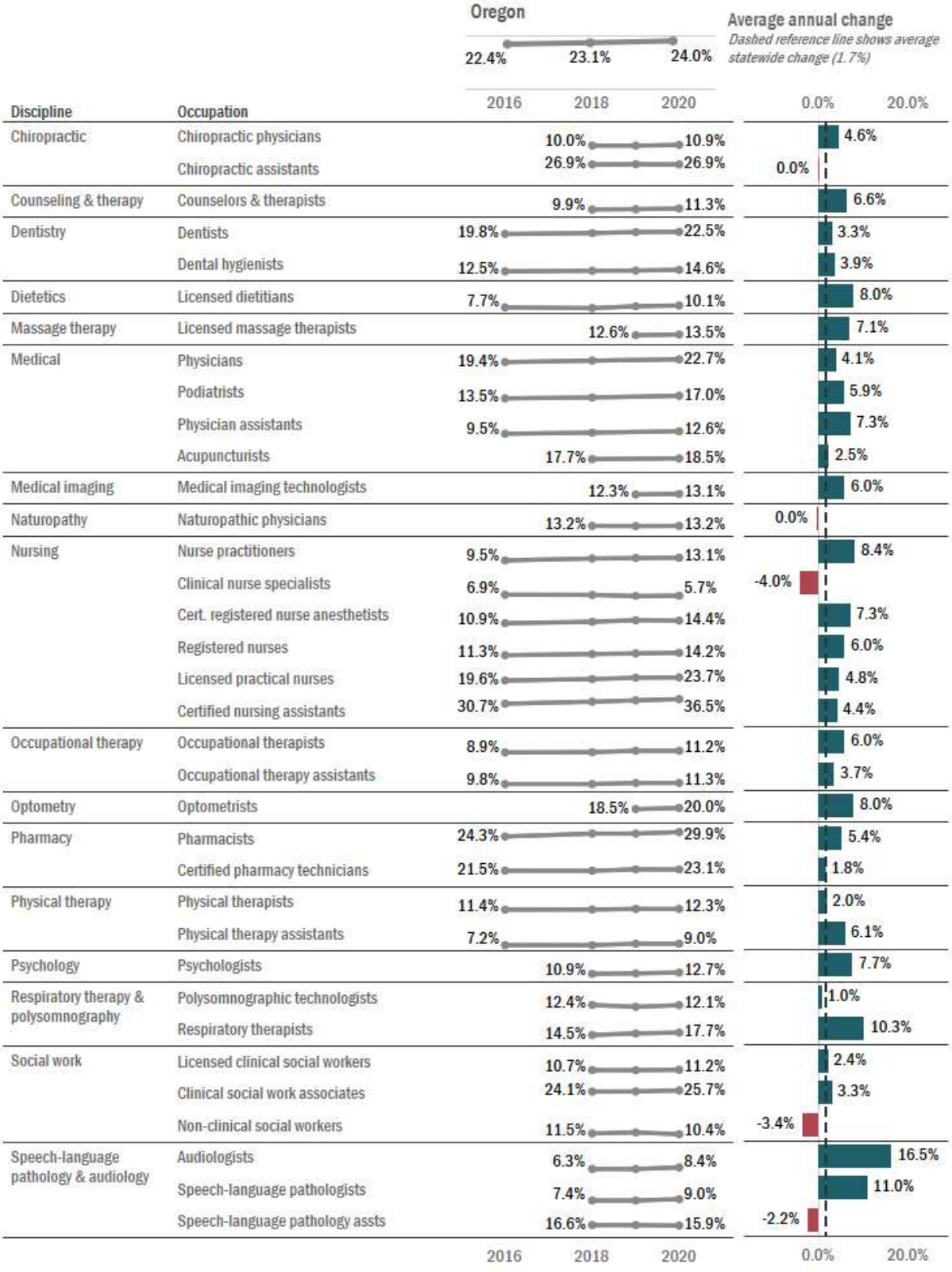
Comparison to state distribution
☐ Similar to state ☐ Below state ☐ Above state

		Hisp/ Latino	White	Black/ AA	AI/AN	Asian	NH/PI	Multi-racial	Other	Fem.	Male
Oregon		12.8%	76.0%	1.8%	0.9%	4.2%	0.4%	3.7%	0.2%	50.4%	49.6%
Chiropractic	Chiropractic physicians	2.5%	89.1%	0.4%	0.3%	4.9%	0.2%	1.9%	0.6%	33.1%	66.7%
	Chiropractic assistants	18.1%	73.1%	0.9%	0.4%	2.8%	0.1%	4.0%	0.5%	87.5%	12.5%
Counseling & therapy	Counselors & therapists	4.4%	88.7%	1.0%	0.5%	2.0%	0.2%	2.4%	0.8%	78.5%	21.1%
Dentistry	Dentists	3.7%	77.5%	0.5%	0.2%	14.4%	0.3%	1.9%	1.6%	28.8%	71.2%
	Dental hygienists	4.9%	85.4%	0.3%	0.6%	4.7%	0.2%	3.0%	0.9%	97.4%	2.6%
Dietetics	Licensed dietitians	3.4%	89.9%	0.2%	0.2%	4.1%	0.0%	2.3%	0.0%	96.3%	3.7%
Massage therapy	Licensed massage therapists	4.4%	86.5%	0.6%	0.5%	3.2%	0.3%	3.5%	0.9%	83.0%	16.8%
Medical	Physicians	3.6%	77.3%	1.4%	0.1%	14.4%	0.2%	1.6%	1.4%	40.6%	59.4%
	Podiatrists	1.2%	83.0%	1.2%	0.0%	11.7%	0.6%	1.8%	0.6%	27.5%	72.5%
	Physician assistants	4.2%	87.4%	1.0%	0.3%	4.4%	0.2%	2.2%	0.4%	65.7%	34.3%
	Acupuncturists	3.2%	81.5%	0.3%	0.0%	10.5%	0.2%	3.2%	1.2%	70.3%	29.7%
Medical imaging	Medical imaging technologists	5.3%	86.9%	0.6%	0.7%	2.8%	0.4%	2.6%	0.5%	67.3%	32.6%
Naturopathy	Naturopathic physicians	4.2%	86.8%	0.3%	0.1%	3.5%	0.0%	3.8%	1.3%	77.5%	22.0%
Nursing	Nurse practitioners	3.8%	86.9%	1.5%	0.4%	3.9%	0.4%	2.4%	0.6%	87.9%	12.0%
	Clinical nurse specialists	0.8%	94.3%	0.0%	0.0%	2.4%	0.0%	2.4%	0.0%	95.9%	4.1%
	Cert. registered nurse anesthetists	3.9%	85.6%	0.8%	0.3%	6.4%	0.6%	2.2%	0.3%	53.9%	46.1%
	Registered nurses	4.3%	85.8%	1.0%	0.5%	4.7%	0.4%	2.9%	0.4%	87.2%	12.7%
	Licensed practical nurses	9.0%	76.3%	4.4%	0.7%	4.6%	0.6%	3.8%	0.5%	87.9%	12.1%
	Certified nursing assistants	16.6%	63.5%	6.6%	1.1%	6.6%	1.2%	3.7%	0.6%	85.3%	14.6%
Occupational therapy	Occupational therapists	2.4%	88.8%	0.6%	0.2%	4.2%	0.2%	3.3%	0.4%	89.2%	10.8%
	Occupational therapy assistants	4.7%	88.7%	0.7%	0.3%	2.0%	0.3%	3.0%	0.3%	88.0%	12.0%
Optometry	Optometrists	2.5%	80.0%	0.3%	0.2%	15.1%	0.3%	1.0%	0.5%	49.0%	51.0%
Pharmacy	Pharmacists	2.8%	70.1%	1.6%	0.4%	21.1%	0.4%	2.8%	0.8%	59.6%	40.4%
	Certified pharmacy technicians	8.6%	76.9%	1.2%	0.8%	7.9%	1.0%	3.0%	0.5%	80.8%	19.2%
Physical therapy	Physical therapists	2.4%	87.7%	0.5%	0.1%	6.9%	0.3%	1.9%	0.2%	66.2%	33.8%
	Physical therapy assistants	2.8%	91.0%	0.5%	0.3%	2.3%	0.3%	2.8%	0.1%	74.7%	25.3%
Psychology	Psychologists	4.1%	87.3%	0.6%	0.1%	4.2%	0.3%	2.5%	0.9%	63.9%	35.9%
Respiratory therapy & polysomnography	Polysomnographic technologists	2.6%	87.9%	2.1%	0.5%	3.2%	0.0%	3.2%	0.5%	56.8%	43.2%
	Respiratory therapists	7.4%	82.3%	1.6%	1.3%	2.8%	0.8%	3.0%	0.7%	63.0%	37.0%
Social work	Licensed clinical social workers	4.0%	88.8%	1.4%	0.5%	2.0%	0.1%	2.4%	0.8%	80.8%	19.0%
	Clinical social work associates	11.8%	74.3%	3.9%	0.4%	3.2%	0.4%	5.3%	0.7%	82.3%	16.3%
	Non-clinical social workers	5.2%	89.6%	0.7%	0.0%	2.2%	0.7%	1.5%	0.0%	88.1%	11.9%
Speech-language pathology & audiology	Audiologists	1.6%	91.6%	0.0%	0.0%	5.2%	0.0%	1.6%	0.0%	75.9%	24.1%
	Speech-language pathologists	3.7%	91.0%	0.3%	0.3%	1.7%	0.1%	2.4%	0.4%	91.8%	7.8%
	Speech-language pathology assts	11.6%	84.1%	0.0%	0.6%	1.8%	0.0%	1.8%	0.0%	96.9%	1.2%
Total	Total	5.8%	81.6%	1.7%	0.5%	6.6%	0.5%	2.7%	0.7%	75.6%	24.3%

Notes: Providers with missing data were excluded from the analysis. Racial categories exclude Hispanic/Latinx providers. AA=African American/Black, AI/AN=American Indian or Alaska Native, NH/PI=Native Hawaiian or Pacific Islander

Figure 6. People of color are generally increasing faster among providers than in Oregon's population

Average Annual Percent Change in the Proportion of Providers who are People of Color: 2016 to 2020



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 (PCPCH)
- 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 (FPL)
- 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 2020, the unmet health care need scores by service area ranged from 25 (worst) to 79 (best), with a statewide average of 49.

It is important to note that the Areas of Unmet Health Care Needs report does not include analysis by race/ethnicity of providers or populations. This makes it difficult to 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.

Findings

The unmet health care need scores by service area from the 2020 report are shown in Figure 7. All but two of the 64 service areas that score lower than the statewide mean (49) are rural or frontier. However, among the rural/frontier communities, 40% score above the state average, showing less unmet need.

The communities with the greatest unmet need (scores of 34 or less) include Cascade Locks and Warm Springs in North/Central Oregon, East Klamath and Chiloquin in Klamath County, Shady Cove in Jackson County, and communities near the coast and the Oregon Coast Range: Blodgett-Eddyville, Drain/Yoncalla, Glendale, Port Orford, Powers, Swisshome/Triangle Lake, and Yachats. Since data were collected for this analysis of unmet needs scores, various providers have had discussions with the Health Care Provider Incentive Program and are now providing health care services at least part time in Cascade Locks, Drain/Yoncalla, and Port Orford, and another provider is adding service to Glendale soon.

Figure 7. Unmet health care needs vary across the state

Unmet Health Care Needs Scores by Service Area, 2020

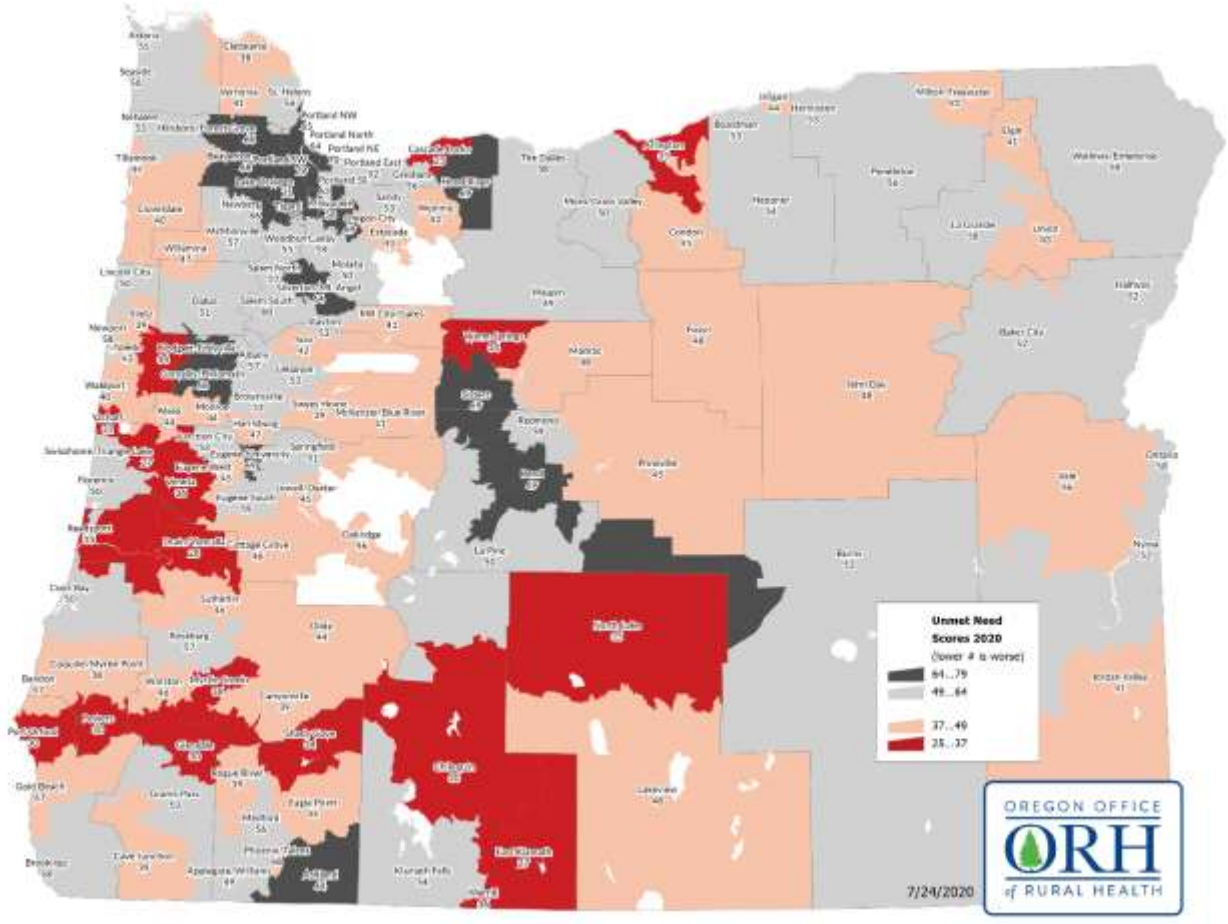


Table 4 shows scores for unmet need for 2020 by geographic area: urban, rural, and frontier. Rural areas are defined as geographic areas that are ten or more miles from the centroid of a population center of 40,000 people or more. Counties with six or fewer people per square mile are defined as frontier. On average, rural and frontier areas have more unmet health care need than urban areas in Oregon.

Table 4. Greater unmet need in rural/frontier areas vs. urban areas

Average Unmet Health Care Need Score by Geographic Area, 2020

	Unmet Health Care Need Score *Lower numbers indicate more unmet need*
Statewide-Oregon	49.3
Urban	62.1
Rural (not frontier)	45.9
Frontier	47.2

Note: In 2019, changes were made to the scoring of unmet health care need, so data cannot be compared with unmet health care needs scores in prior years.

Figure 8. There is less access to primary care in many rural areas

Primary Care Capacity by Service Area, 2020

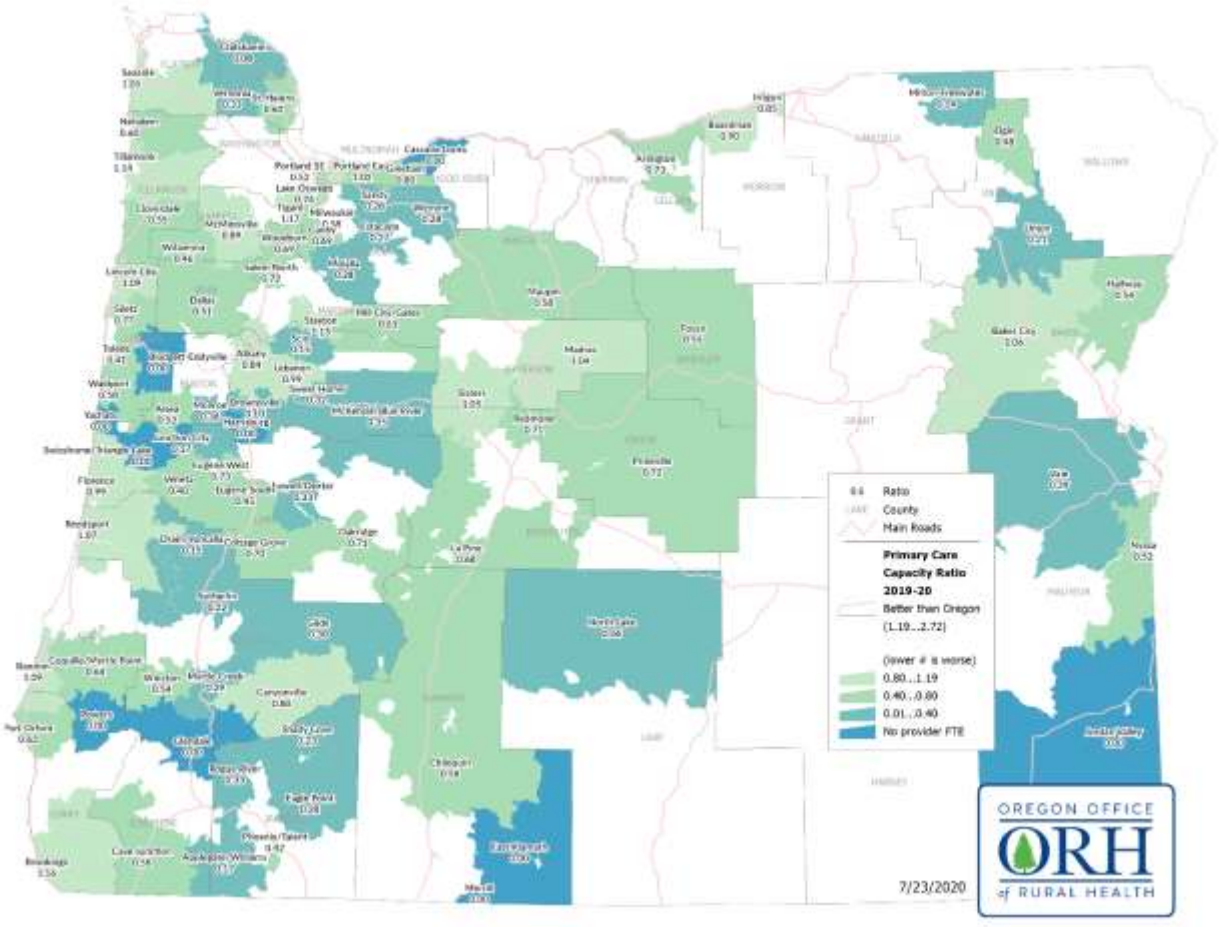
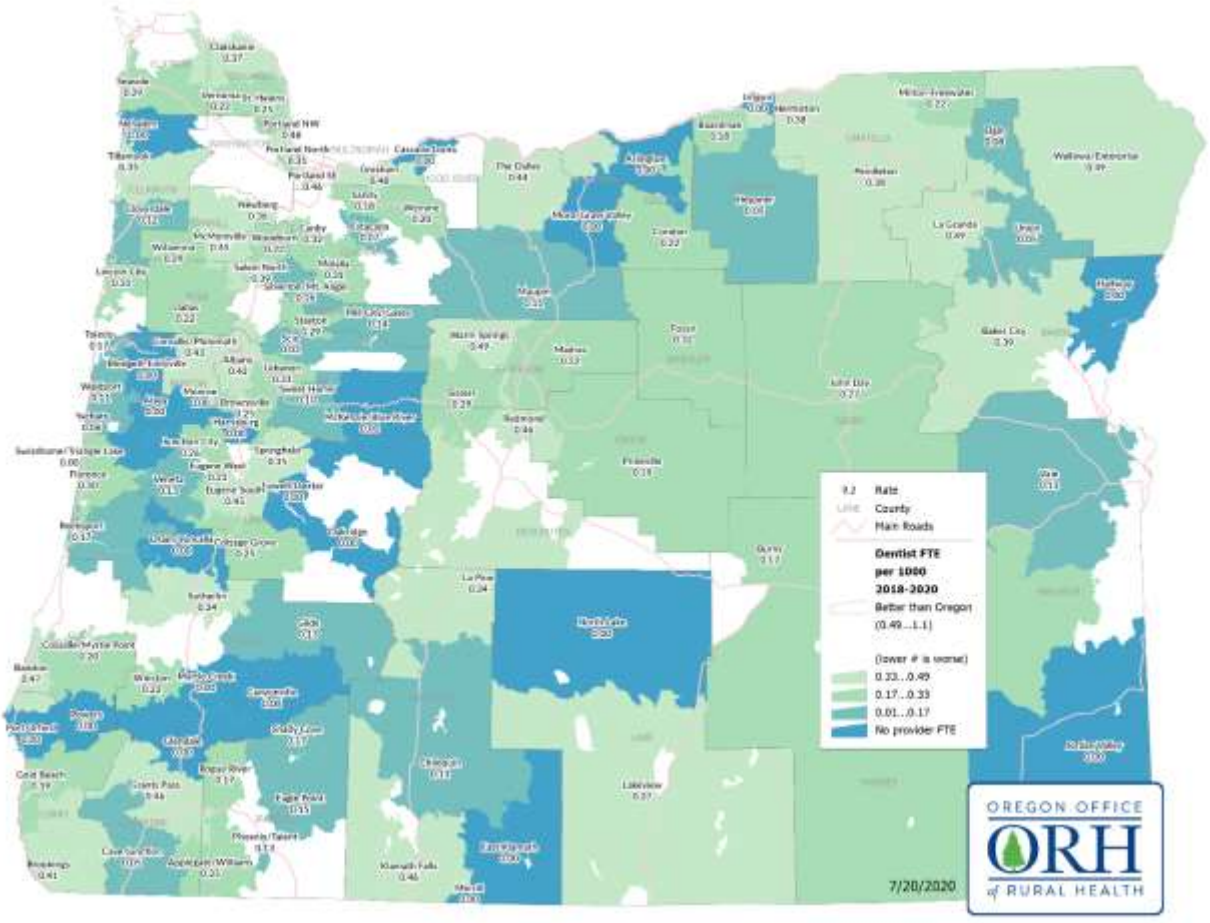


Figure 8 shows the primary care capacity by service area, with the shaded areas being below the statewide primary care capacity ratio. To determine the primary care capacity ratio, the available number of primary care visits that can be provided is calculated based on the number of primary care FTE in the service area. This is then divided by the number of primary care visits needed based on the gender and age breakdown of the population in the service area. The data for primary care providers (and later for dentists and behavioral health providers) come from OHA's Health Care Workforce Reporting Program, described in Section 2 above.

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 more demand for primary care visits than supply. The statewide primary care capacity ratio is 1.19, meaning that with adequate distribution of providers across the state, there should be enough primary care capacity to meet patient needs. Rural/frontier areas have a primary care capacity ratio of 0.92, indicating that the number of health care providers is insufficient to meet the demand for primary care health delivery as calculated.

Figure 9. Access to dental care varies across the state and is worse in some rural areas

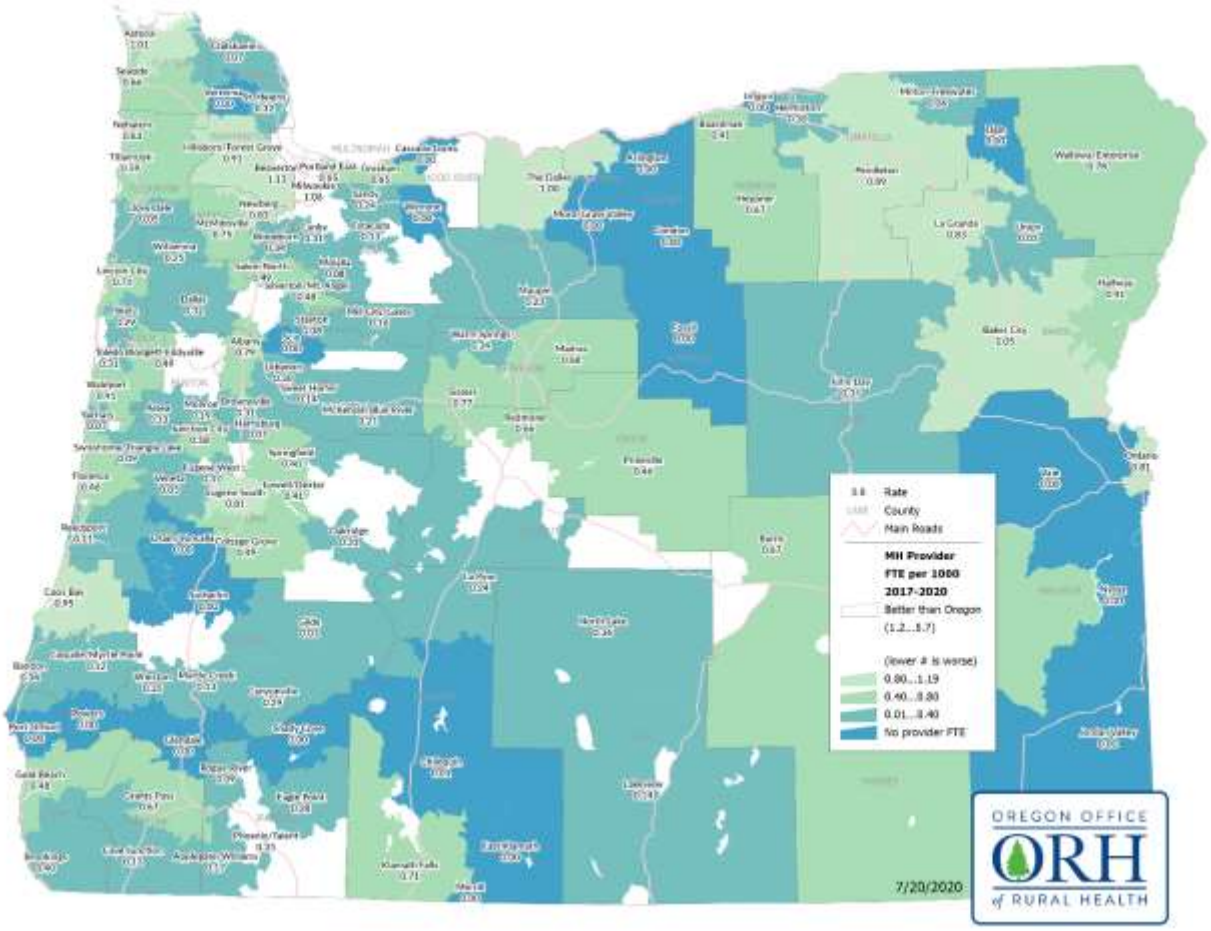
Dentist FTE per 1,000 Population by Service Area, 2020



The number of dentist FTE per 1,000 population is shown in Figure 9. Statewide, there are 0.49 dentist patient care FTE per 1,000 population, though this varies by geography. Urban areas average 0.57 dentist FTE per 1,000 population, and the average in both rural and frontier areas is 0.33. There are no dentists in 24 rural and frontier primary care service areas.

Figure 10. Behavioral health providers are concentrated in urban areas

Licensed Behavioral Health Provider FTE per 1,000 Population, 2020



The number of licensed behavioral health providers is calculated from the patient care FTE of psychiatrists, psychologists, licensed professional counselor/marriage and family therapists, clinical social workers, psychiatric nurse practitioners, and psychiatric physician assistants. Statewide, there are 1.19 licensed behavioral health care provider FTE per 1,000 people in Oregon. Figure 10 shows the licensed behavioral health provider FTE per 1,000 population by service area, with the shaded areas being less than the state average. Urban areas average 1.54 licensed behavioral health provider FTE per 1,000 population. The average in rural/frontier areas is 0.54 FTE, which is about 65% less than the urban ratio. There are no licensed behavioral health providers in 21 of 104 rural and frontier service areas.

The Impacts of COVID-19

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 clinics changing operating practices (including temporary closures). One of the largest practice changes was a sharp increase in the use of telehealth versus in-person care. Even with the increase in telehealth, the COVID-19 pandemic led to fewer patient visits; lost revenue for some providers, clinics, and hospitals; and reductions in staffing.

The COVID-19 pandemic has had more direct impacts on the health care workforce. There have been a number of COVID-19 outbreaks that included staff at hospitals and long-term care facilities across the state. According to OHA's COVID-19 Weekly Report, as of January 3, 2021, there had been over 9,000 reported cases of COVID-19 among staff who work in health care facilities, and about 6,000 of these cases were among staff that provide direct patient care. The monthly report from the Department of Consumer and Business Services indicated that as of January 4, 2021, there had been more than 1,100 accepted workers compensation claims related to COVID-19 in the health care sector, mostly among staff at hospitals and nursing care facilities. The first vaccines against Coronavirus were given to health care workers on December 16, 2020.

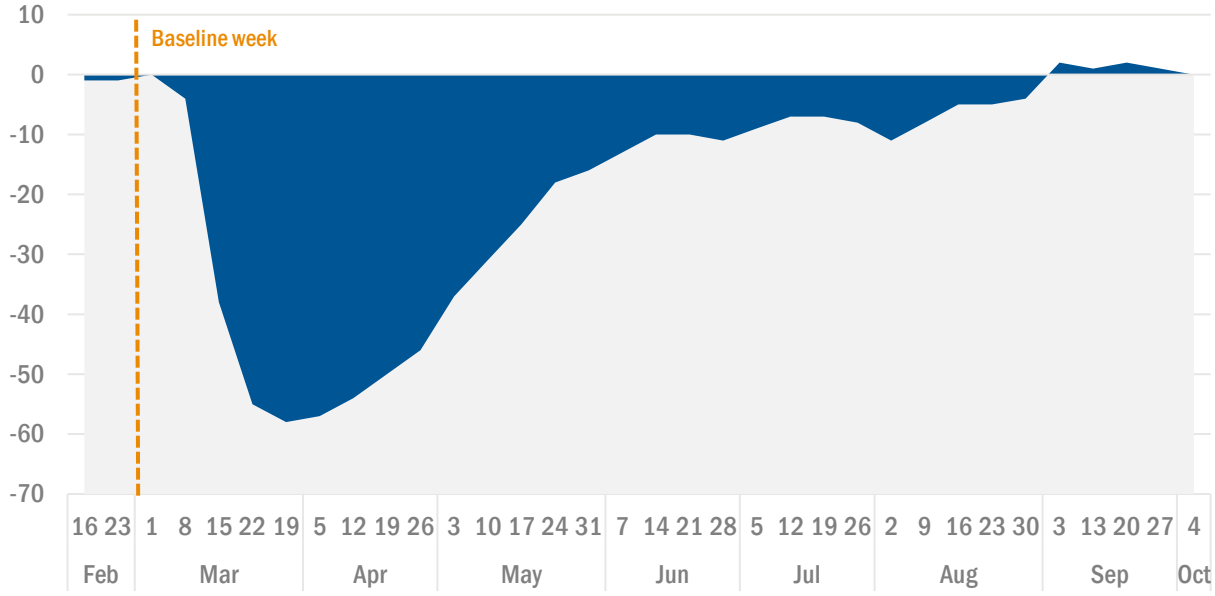
Most of the data on the impacts of COVID-19 in this section of the report were updated as of November 2020, as both Oregon and the U.S. were in the third upsurge of COVID-19 cases. Thus, the full impacts of COVID-19 are not included in this report. It will be important going forward to continue to monitor the impacts of the COVID-19 pandemic on Oregon's health care workforce.

Reductions in Health Care Visits

As shown in Figure 11, 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. In early June 2020, outpatient visits had rebounded to 10% below baseline and by September 2020 had returned to baseline levels. In October 2020, some specialties had a larger number of visits compared with baseline, including dermatology (+17%), adult primary care (+13%), ophthalmology (+4%), and urology (+4%).

Figure 11. Outpatient visits declined sharply in March, 2020 and then rebounded by September, 2020

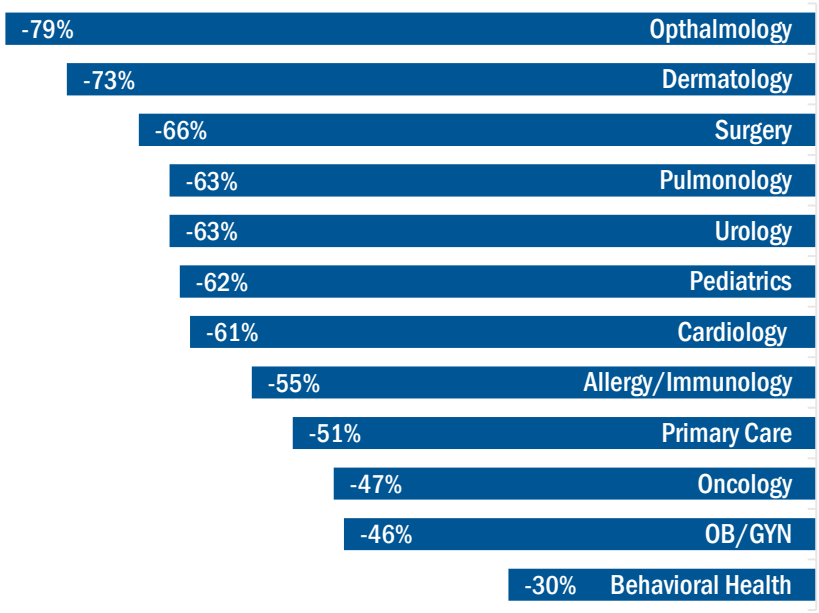
Change in U.S. Outpatient Visits Compared with Baseline Week of March 1, 2020: February-October 2020



The analysis by the Commonwealth Fund showed that the reduction in outpatient visits in April 2020 varied greatly by specialty, as shown in Figure 12. Some of these differences may reflect the ability of specific health care services to be delivered by telehealth medicine (see Expansion of Telehealth section below). The greatest reductions were seen for specialties where physical examinations are often necessary (e.g., dermatology, ophthalmology), while behavioral health had the smallest reduction in visits.

Figure 12. Decrease in outpatient visits early in the pandemic varied by specialty

Decrease in Outpatient Visits by Specialty: Week of April 4, 2020, Compared with Baseline Week of March 1, 2020, U.S.



The Larry Green Center, in partnership with OHA's 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 Oregon Rural Practice-based Research Network (ORPRN). Data from the Larry Green Center showed that for Oregon, the greatest declines in patient volume at primary care clinics was in April 2020, with almost all respondents indicating that their practice experienced a decline in patient volume.

Data on hospitalizations in Oregon followed a similar trend in the numbers of patient visits, starting with sharp reductions in hospitalizations in March 2020. A statewide ban on elective surgeries was implemented by Executive Order on March 23, 2020 and then lifted on May 1, 2020. In April 2020, hospital inpatient discharges were down 32% compared with April 2019. The reduction in hospital outpatient surgery visits was even greater, with April 2020 being 76% lower the April 2019. For June 2020, hospital discharges were down 15% compared with the previous June. With the third upsurge of COVID-19 cases in the fall of 2020, hospitals were operating at closer to full capacity.

It is not clear how much of this reduction in health care visits was a result of reductions in unnecessary care, or reductions in necessary and appropriate care. OHA's Sustainable Health Care Cost Growth Target Program, authorized by Senate Bill 889 in 2019, is working to slow the growth of health care costs in part by decreasing the use of low-value care and increasing the use of high-value care. The COVID-19 pandemic provides an opportunity to "right-size" the health care system based on these goals, and this has implications for the health care workforce that Oregon needs.

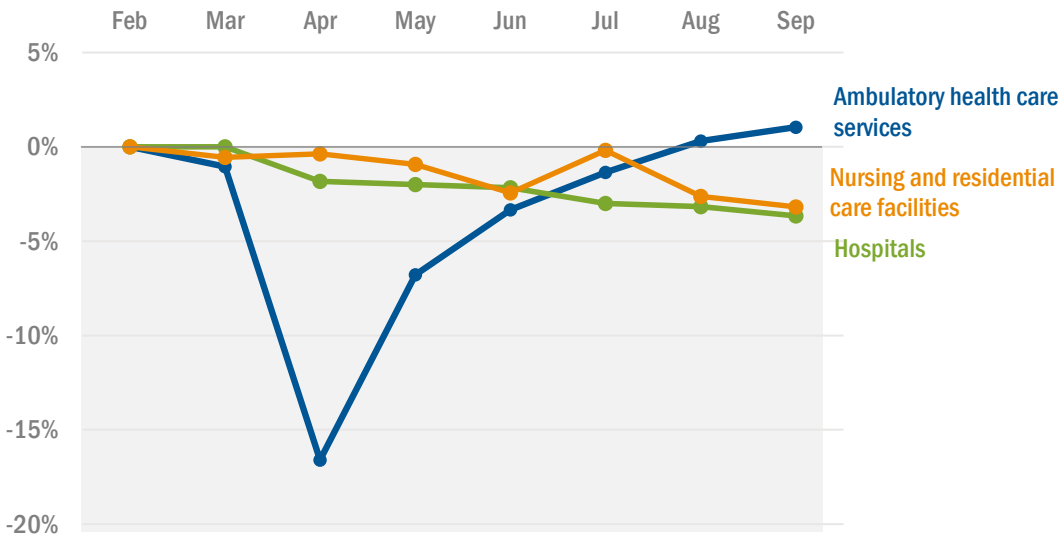
As fee-for-service is still the predominant payment mechanism for many providers, a reduction in health care visits translates to a reduction in provider revenue. The sharp reductions in revenues put financial strain on providers and led to layoffs and furloughs (see Figure 13). Additional information on the financial impacts of COVID-19 on the health care system can be found in An Initial Analysis of COVID-19's Effect on Oregon's Hospitals, CCOs, Health Care Providers and Health Insurance Carriers: January-June 2020.

Figure 13. Early Impacts of COVID-19 Pandemic on Health Care System

The Oregon Employment Department analyzed initial claims for unemployment benefits near the beginning of the pandemic response (claims processed March 15 to May 16, 2020) by broad occupational categories. In this time period, 11.4% of the health care practitioner workforce had filed for unemployment benefits. Among the health care support workforce, which generally receives lower wages than health care practitioners, 27.9% of the workforce had filed for unemployment benefits.

Current Employment Estimates from the Oregon Employment Department show bigger declines in health care employment in ambulatory health care, as opposed to hospital-based care (see Figure 14). 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. There have been slower but steadier declines in employment by hospitals and nursing and residential care facilities.

Figure 14. Ambulatory services had the steepest drop in employment from COVID-19 pandemic
Changes in Oregon Employment Relative to February 2020 by Subsector: February to September 2020



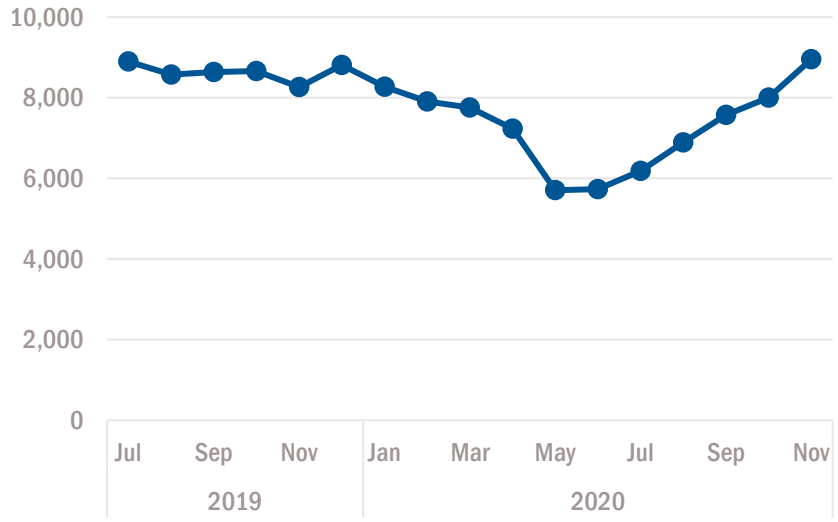
Dental clinics experienced the greatest loss of employment from the initial impact of the COVID-19 pandemic, compared with other medical settings. National data from the Peterson-KFF Health System Tracker showed that from February to April 2020, employment in dentist offices declined 56%, compared with an 11% decline in physician offices and 2% in hospitals. The American Dental Association conducted a periodic survey of dental practices, and findings for Oregon showed that 95% or more of practices were closed to all but emergency patients the week of March 23 through the week of April 20, 2020. Most dental practices opened up over the following few weeks, but November 2020 data showed that about one-third of clinics had patient volumes at least 25% less than pre-pandemic levels. An October 2020 report on COVID-19 Economic Impact on Dental

Practices includes more findings from Oregon respondents to the American Dental Association surveys.

Data from Help Wanted Online, analyzed by the Oregon Employment Department, showed the impact of COVID-19 on the demand for health care workers. Figure 15 shows the number of Help Wanted Online postings for health care workers from July 2019 to November 2020. In May 2020, the number of monthly postings was about one-third lower than pre-pandemic levels. The number of job postings began to rebound by July 2020, and in November 2020 postings were 8% higher than the November 2019 postings.

Figure 15. Steep decline in health care job postings from COVID-19 pandemic and then a rebound

Number of Help Wanted Online Postings for Health Care Workers in Oregon by Month: July 2019 to November 2020



The changes in Help Wanted Online postings varied by region, with greater percentage reductions during the COVID-19 pandemic in rural areas. For example, comparing May 2020 to May 2019, the tri-county Portland area had a 27% decrease in job postings, with greater reductions in the rest of Western Oregon (34% decrease) and Eastern Oregon (46% decrease).

Most health care occupations showed reductions in the number of Help Wanted Online postings, comparing September 2019 to September 2020. Some of the largest reductions were for physical therapy professions: physical therapists (56% decrease), physical therapy assistants (51% decrease), occupational therapists (37% decrease), occupational therapy aides (21% decrease), and massage therapists (34% decrease). There were also decreases in the postings for professions predominantly dedicated to primary care: nurse practitioners (42% decrease), physician assistants (39% decrease), general internists (23% decrease), and family and general practitioners (15% decrease). Job postings for dentists declined 19% from September 2019 to September 2020, while job postings increased 40% for dental assistants and increased 22% for dental hygienists. The behavioral health professions that are tracked showed increases of about 20% in job postings over this time period.

In summary, the impacts of COVID-19 on reduced health care visits and health care employment were greatest during the first months of the pandemic. These trends varied by care setting (ambulatory services versus hospital services) and by specialty. The COVID-19 pandemic continued to impact the health care system through the year 2020. The Larry Green Center survey of primary

care providers showed that about one-third of primary care clinics had permanently lost practice members because of COVID-19. In October 2020, ECONorthwest conducted a survey of providers and administrators for clinics, hospitals, and other health care organizations. Most respondents indicated that operating capacity was lower than pre-pandemic levels because of the need to prevent Coronavirus exposure (physical distancing, lacking personal protective equipment), the ability to recruit new employees, and the availability of employees to work enough hours. The third upsurge in COVID-19 cases beginning in the fall of 2020 has moved hospitals closer to their operating capacity.

Expansion of Telehealth

Another large impact on health care practice from the COVID-19 pandemic was the dramatic increase in the use of telehealth. 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 connection (e.g., by telephone or Internet connection)
- Store and forward methods (e.g., a specialist reviewing x-rays at a remote location)
- 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)

Amidst the COVID-19 pandemic, telehealth use was greatly expanded, and is likely to remain a more common modality for health care delivery even after the COVID-19 pandemic. Telehealth can potentially be useful in rural and other health care shortage areas where patients have difficulty finding a provider close to their location. Patients who need services in a language other than English or using American Sign Language could potentially find an appropriate provider accessible through telehealth, when a local in-person visit in their language is not possible. Telehealth can also be more convenient for those who have transportation barriers, limited access to childcare, or difficulty getting time off work.

However, expansion of telehealth can increase the inequities in health care delivery. Patients in rural and frontier areas or others with limited access to health care may experience more barriers to telehealth, such as limited or no access to high-speed Internet. Other limitations include the need for communication devices, inability to use technology (e.g., many video platforms only include instructions in English), and lack of access to a private space for a telehealth visit. Without proactive initiatives to ensure equity in telehealth services, disparities in health care access may increase for populations such as communities of color and tribal communities, those with limited English proficiency, rural and frontier residents, the elderly, low-income individuals, and others with limited digital literacy or access to technology and Internet services.

Prior to the COVID-19 pandemic, telehealth was a very small, yet growing sector of health care delivery. A 2019 analysis by FAIR Health showed that telehealth visits had increased six-fold from 2014 to 2018, though telehealth accounted for only 0.1% of all medical claim lines in 2018. The small proportion of visits by telehealth resulted from questions about patient safety, program integrity (fraud, waste and abuse), quality care, privacy concerns, and technology costs. Most payers restricted coverage of telehealth, including lower reimbursement rates for telehealth visits versus in-person visits. Many of the issues around program integrity are not as relevant in a global payment environment, as opposed to fee-for-service payments. Additionally, federal regulations required telehealth services to be provided via HIPAA-compliant platforms, and telephonic visits were usually not allowed. In the Oregon Health Plan, to participate in telehealth for physical health services, patients had to be at a remote site such as a local clinic (and thus not in their own home).

During the COVID-19 pandemic, the number of telehealth visits increased dramatically, driven by the need to reduce exposure to Coronavirus and to preserve personal protective equipment (PPE) and other health care resources. The increase in telehealth visits was facilitated by numerous policy changes, including:

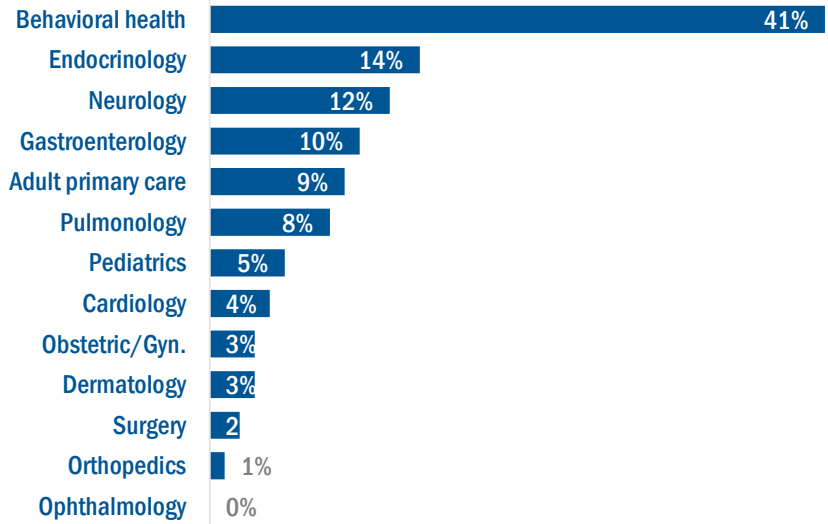
- On March 24, 2020, the Oregon Department of Consumer and Business Services and the Oregon Health Authority published guidance for health insurance plans of all types to encourage plan members to limit in-person health care services and to increase the availability and use of telehealth because of the COVID-19 outbreak.
- Federal policy changes allowed 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.
- A temporary rule in the Oregon Health Plan 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.

National data analyzed by the Commonwealth Fund showed a sharp increase in the use of telehealth for outpatient visits starting in March 2020, peaking at 14% of visits in April 2020, and then declining to about 6% of visits by October 2020, the latest available data.

The percentage of outpatient visits that were conducted via telehealth in October 2020 varied by specialty. Behavioral health had the highest percentage of visits being conducted by telehealth at 41%, as shown in Figure 16. The next highest percentages of telehealth visits were in endocrinology (14%), rheumatology (14%), neurology (12%), gastroenterology (10%) and adult primary care (9%).

Figure 16. Percentage of visits by telehealth varies by specialty

October, 2020, U.S.



Note: Percentages are the number of telehealth visits for the week of October 4, 2020, divided by number of visits in the baseline week of March 1, 2020.

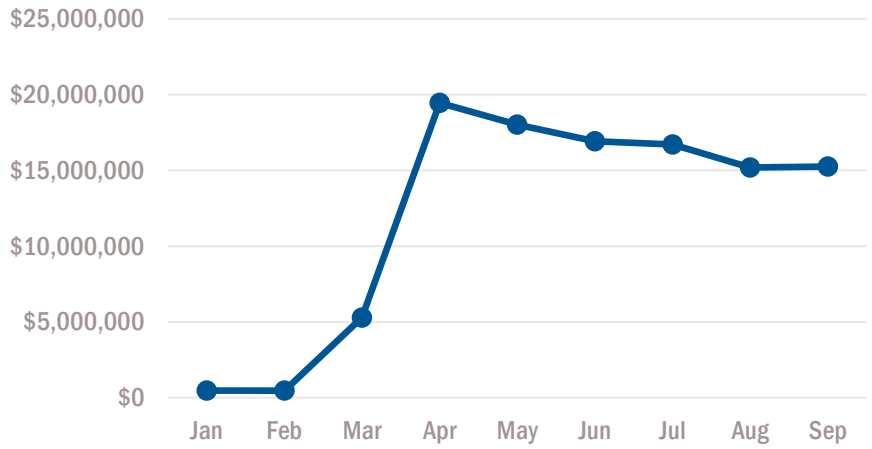
Data from the Larry Green Center survey of primary care providers showed that a majority of primary care visits in Oregon took place by telehealth at the beginning of the COVID-19 pandemic, from mid-

March through May 2020. A majority of clinics trained staff on telehealth because of the impact of COVID-19, and about one-third upgraded equipment to better implement telehealth.

Preliminary analysis of Oregon Health Plan data showed that telehealth visits increased more than 40-fold after the COVID-19 pandemic began, while the number of in-person visits declined. The month with the greatest use of telehealth was April 2020, when 16% of all detail lines were billed indicating telehealth mode of delivery, compared with 0.2% indicating telehealth in April 2019. While telehealth utilization decreased after the initial spike in April 2020, utilization remained significantly higher than pre-pandemic levels through September 2020, as shown in Figure 17.

Figure 17. Use of telehealth in the Oregon Health Plan peaked in April 2020 but remains high

Oregon Health Plan Allowed Charges for Telehealth by Month: January to September 2020



Note: Delayed reporting of claims may affect data for the most recent months

A survey on telehealth during the COVID-19 pandemic, fielded in June-July 2020 by the consumer research company J.D. Power, showed very high patient satisfaction for telehealth services. Satisfaction with telehealth was lower among patients with the lowest self-reported health status, and no analysis was reported by race/ethnicity or disability status. More than half (52%) of telehealth users said that they encountered at least one barrier that made it difficult to use telehealth, such as limited services, confusing technology requirements, or lack of awareness of costs.

About one-third (35%) of telehealth users experienced a problem during a visit, with technical audio issues being the most common problem. These challenges could be magnified for Oregonians, where one in four people live in areas that do not have access to high-speed broadband Internet services, according to the recent Oregon Statewide Broadband Assessment and Best Practices Study. The Larry Green Center survey of primary care providers showed that about 90% of primary care providers in Oregon said that patient challenges with using telehealth were causing strain on their clinic during the COVID-19 pandemic. Nevertheless, in the October 2020 ECONorthwest survey of health care organizations, 83% of respondents agreed that telehealth plays an important role in maintaining access to primary care and that strong demand for the service will continue after the pandemic ends.

While much attention has focused on telehealth between providers and patients, another use of technology to increase access to specialty care is provider-to-provider telehealth, sometimes referred to as telementoring or teleconsultation. Telementoring involves one physician getting advice from an

offsite clinician to support care of a patient, often using technology such as video conference. One example of this is the Oregon Psychiatric Access Line (OPAL), which allows primary care providers to obtain psychiatric consultation, medical practitioner education, and connections with mental health professionals around the state. OPAL is a collaboration of OHSU, Oregon Council of Child and Adolescent Psychiatry, and the Oregon Pediatric Society, and is supported by OHA's Office of Behavioral Health.

As implementation of telehealth continues, it will be important to focus on patient preference between in-person and telehealth visits, and the appropriateness of specific telehealth modalities (e.g., telephone, video). Additional evaluation will be needed about who accesses telehealth and the effectiveness of telehealth for the delivery of different types of services. The evaluation of telehealth needs to include collection of patient characteristics, such as race/ethnicity and disability status, through REALD (see Figure 5 on page 12) to fully assess the impacts on health inequities.

Multistate Collaboration on Telehealth

Oregon, California, Nevada, Washington, and Colorado are participating in the West Coast Compact, which has adopted a set of seven telehealth principles to guide state-driven policy changes. The states continue to meet to share lessons learned, problem-solve equitable access to telehealth, and develop an aligned approach to evaluating telehealth implementation.

Future policy changes will likely influence how frequently providers and patients continue to use telehealth after the pandemic, and various national and local organizations are weighing in. For example, the National Committee for Quality Assurance (NCQA), Alliance for Connected Care, and the American Telehealth Association published Findings and Recommendations from the Taskforce on Telehealth Policy in September 2020. The Taskforce recommended policymakers take additional steps to support safe, effective and equitable integration of telehealth into the health care system, such as aligning care standards, quality measurement, payment principles, and program integrity guidelines.

The Health Care Workforce Going Forward

Oregon has been a leader in health care transformation for decades, including the implementation of the Oregon Health Plan in 1994 and the establishment of Coordinated Care Organizations (CCOs) in 2012. Other changes to the health care system in Oregon have been driven by both innovation and responses to other forces, such as economic challenges, federal policy developments, and emerging technologies. The COVID-19 pandemic has caused significant disruption in the health care system, as described in the previous section. As the response and recovery to COVID-19 continue, there are opportunities to gain further insights into the health care system and develop additional transformation to ensure that health care is equitable, patient-centered, and helping to improve the lives of all residents in Oregon. A diverse, effective, right-sized and well-trained health care workforce is needed to implement transformation and attain these goals.

The December 2020 Oregon Economic and Revenue Forecast projects that health care/social assistance will be one of the first economic sectors to return to pre-pandemic levels, sometime in 2021. The growth in health care employment over recent decades has been in part a response to an aging population with higher health care needs, and the expansion of the population with health insurance. These trends are not likely to change in the near future. The Oregon Employment Department's recent projections of employment growth, which take into account the impacts of COVID-19, showed that private health care will be one of the fastest-growing industries between 2019 and 2029. Private health care is projected to grow 15%, which is significantly higher than the statewide overall growth rate of 9%. Employment for substance abuse, behavioral disorder, and mental health counselors is projected to increase 28%.

Health care providers need to reflect the populations they serve in order to provide culturally and linguistically appropriate services. An equitable health care system that integrates physical, behavioral, and oral health care and ensures access to culturally appropriate health care requires a robust workforce of Traditional Health Workers, Health Care Interpreters, behavioral health providers, and oral health providers. 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
- Efforts to support these providers

Traditional Health Workers

The importance of Traditional Health Workers

Traditional Health Workers (THWs) are trusted individuals from their local communities who provide person- and community-centered care by bridging communities and the health systems that serve them. THWs 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 THWs is enhanced when they have similar lived experience or are members of the same community as the patients they serve. THWs also have knowledge of health issues and understand how to help patients navigate the health system. THWs work to reduce health inequities through the engagement of culturally-specific community-based approaches to health, and create linkages between the social and clinical approaches to health and health care.

Traditional Health Workers in Oregon

THWs were defined in the original bill that created Oregon's coordinated care organizations (CCOs) in 2011, House Bill 3650. As now listed in ORS 414.665, there are five specialty types of THWs 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.

The Governor's Recommended Budget for the 2021-2023 biennium includes an initiative to create a new Tribal Traditional Health Worker Program for Indian health care providers that supports tribal-based practices.

OHA's Traditional Health Worker Program, housed in the Office of Equity and Inclusion, assists THWs to be trained and certified to meet current standards and provide high-quality and culturally competent care. The Traditional Health Worker Commission advises and makes recommendations to OHA, to ensure the program is responsive to consumer and community health needs.

THWs can become certified in Oregon if they are at least 18 years old, submit required documentation, pass a criminal background check, and successfully complete the training requirements for certification specific to the type of THW. As of November 2020, there were 3,438 certified THWs in OHA's Traditional Health Worker Registry, as shown in Table 5.

Table 5. Number of Traditional Health Workers by Type: Oregon, November 2020

Type of THW	Number
Community Health Workers	516
Peer-Support Specialists	2,560 (1,604 adult addiction, 699 adult mental health, 165 family peers, 92 youth peers)
Peer Wellness Specialists	265 (76 adult addiction, 183 adult mental health, 4 family support, 2 youth support)
Personal Health Navigators	9
Doulas	88

OHA requires contracted CCOs to develop an annual THW Integration and Utilization Plan. These CCO plans must include strategies for integrating THWs into the delivery of services, communicating with members and providers about the benefits of THW services, and evaluating the delivery and effectiveness of THW services.

Future Workforce of Traditional Health Workers

OHA's Traditional Health Worker Program is facilitating integration of the THW workforce across health systems, such as developing a toolkit with information for health systems, providers and THWs. The Program is collaborating with philanthropic organizations and grant makers to support efforts to increase the use of THWs, especially beyond the Oregon Health Plan. Efforts to expand the use of THWs are currently hindered by the lack of consistent data on the THW workforce.

OHA is in the initial stages of planning for a new survey of THWs and Health Care Interpreters in early 2021, with the possibility of these surveys becoming an ongoing component of the Health Care Workforce Reporting program. These surveys will provide more accurate data on the providers in these workforces, including their demographics, work environments, and training needs.

In the past couple years, OHA has worked with community-based organizations to conduct assessments of the THW 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 THWs. These assessments generally found that there needs to be greater understanding of the roles of THWs, better efforts to integrate THWs into the health care system, higher reimbursement rates for THWs, clarity around billing issues, and improved processes for training and certification.

The COVID-19 pandemic has exposed inequities in access to resources; both the pandemic and our collective response to the pandemic are causing greater distress in certain communities. One of the tenets of the THW 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. In September 2020, OHA provided COVID-19 Health Equity Grants to 205 community-based organizations and tribal governments, totaling $45 million. These grants are being used to help communities address violence prevention, housing, food insecurity, and other health and economic disruptions. THWs 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 THWs to address other community challenges in the future.

Health Care Interpreters

The Importance of Health Care Interpreters

Health Care Interpreters (HCI) are necessary to help persons with limited English proficiency (LEP) and persons who communicate in sign language to interact effectively with health care providers. The HCI program at OHA was established in 2010 to help develop a well-trained workforce of HCIs to address language and communication barriers to accessing health care services. The program has developed training standards, curricula and an HCI registry enrollment process, and there are now over 730 Qualified and Certified Interpreters in the Oregon registry.

As Oregon becomes more linguistically diverse, the need for well-trained HCIs increases. Health care interpreting can improve 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 interpreting can be done most effectively in-person in the clinic with both the patient and provider present, but interpreting can also be done remotely by phone or video and other telehealth modalities.

Health Care Interpreters in Oregon

OHA's HCI training standards are the highest in the country. The requirements for becoming a Qualified or Certified HCI in Oregon include 60 hours of formal health care interpreter training from an OHA-approved training center, and completing an equivalent language proficiency in English and a target language. Certified HCIs in Oregon must also have passed a national certification exam from a recognized organization. The two national HCI 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 HCIs in Oregon, the following Certified Interpreters can apply to be listed on Oregon's HCI registry, if they complete additional HCI training requirements: Oregon Certified Court Interpreters, Federal Court Interpreters, and American Sign Language Interpreters from the Registry of Interpreters for the Deaf.

In 2018, the HCI program conducted a survey of HCIs to gain a better understanding of Oregon's interpreter workforce. The survey was sent to all 555 HCIs on the state registry at the time, and the response rate was 62%. About three-quarters (78%) of the respondents were state-recognized Qualified or Certified Interpreters, and the remaining 22% were not.

Among the 49 languages spoken by the 2018 survey respondents, Spanish was spoken most frequently (60% of respondents), and the average respondent had nine years of interpreting experience. The majority (62%) of respondents were born outside the United States. 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. Almost three-quarters of respondents lived in Multnomah, Washington, Marion, or Jackson counties. Over half (53%) of the respondents were college graduates, including those with bachelor's degrees (35%), master's degrees (15%), and doctoral degrees (4%).

Open-ended comments from the survey highlighted the lack of interpreting hours for full-time employment, low compensation, and poor working conditions. Most of the HCIs responding to the survey said they are not working enough hours to earn sufficient income. Another financial issue was that most HCIs are not reimbursed for travel time or expenses, and many are not paid when appointments are cancelled due to patient no-shows. Looking at the health insurance of the

respondents, 19% of HCIs said they are on the Oregon Health Plan, and 5% do not have health insurance.

As part of the 2018 project that surveyed HCIs, a survey was also conducted of health care providers about working with HCIs. This provider survey was sent out through the Patient-Centered Primary Care Home (PCPCH) email listserv and also shared with community partners who distributed the survey to their provider networks. The survey was completed by 250 providers. Among these provider respondents, 38% were not aware of Oregon's certification process for interpreters. Only 7% of these providers worked with HCIs for all of their LEP patients. About half of the respondents said that they used HCIs for 25% of appointments with LEP patients. It should be noted that some clinics used bilingual staff, who may not be certified or qualified, to interpret for some patients.

Table 6 shows the formats of health care interpreting as reported in the provider survey. Onsite, in-person interpreting was most common, followed by telephonic interpreting and then video interpreting.

Table 6. Health care interpreting can be done in-person, by telephone, or by video

Providers Report of Formats Used for Health Care Interpreting - Multiple Responses Allowed

Format	Percentage
Onsite in-person interpreters	84%
On-demand remote telephonic interpreting	63%
Prescheduled remote telephonic interpreting	22%
On-demand remote video interpreting	16%
Prescheduled remote video interpreting	7%

Future Workforce of Health Care Interpreters

The report from OHA's Office of Equity & Inclusion summarizing the findings from these surveys included recommendations for improving health care interpreting in Oregon. 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. Additional programs for training Qualified and Certified Interpreters are needed, especially in rural communities experiencing growth in language access needs. Policy options to improve compensation for HCIs can be considered, such as paying for a two-hour minimum and compensation when there is a patient no-show. Technical assistance for providers and health care systems can improve their language access plans for forecasting language access needs and auditing the quality of language access services.

Additional data on HCIs in Oregon would be helpful for developing the workforce and ensuring language access across the state. As described above, OHA is planning a survey of HCIs and THWs in early 2021, which will provide more reliable data on provider demographics, work environments, and training needs.

OHA's work with 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 HCIs to provide effective interpreter services. The utilization of OHA Qualified and Certified HCIs was recently adopted as OHA's health equity measure to be included in the CCO incentive metrics program beginning in 2021.

Behavioral Health Providers

The Importance of Behavioral Health Providers

Behavioral health services, including mental health treatments and substance use disorder services, are an important component of whole-person care. Oregon's health system transformation places a large emphasis on the integration of behavioral, oral, and physical health. Oregon has higher rates of diagnosed mental health conditions among both adults and children, including serious mental illness and suicide ideation, when compared with national rates. Recent data also show an increase in reported issues related to mental health and substance use disorders during the COVID-19 pandemic, and the added stress and trauma of the wildfires around the state. In Oregon and in the U.S., a large percentage of people with mental illness or substance use disorders do not receive the treatment they need.

Behavioral health services are provided by a variety of both licensed and unlicensed practitioners (see Table 7). 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). 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 medical doctors (MD), doctors of osteopathy (DO), nurse practitioners (NP), and physician assistants (PA).

Table 7. A wider variety of licensed and unlicensed professionals deliver behavioral health services (partial list)

Licensed Providers	Unlicensed Providers
Psychiatrist	Qualified Mental Health Associate
Psychiatric Nurse Practitioner	Qualified Mental Health Professional
Other MD/DO/NP/PA (e.g., primary care)	Certified Alcohol and Drug Counselor – I, II, III
Psychologist	Certified Gambling Addiction Counselor – I, II
Licensed Clinical Social Worker	Certified Prevention Specialist
Clinical Social Worker Associate	Certified Recovery Mentor – I, II
Licensed Professional Counselor	Certified Gambling Recovery Mentor
Licensed Marriage and Family Therapist	Traditional Health Workers: Community Health Workers, Peer-Support Specialists, Peer Wellness Specialists, Personal Health Navigators, Doulas

Behavioral Health Providers in Oregon

A September 2018 report on Supply and Demand for Behavioral Health Occupations from the U.S. Health Resources and Services Agency (HRSA) indicated that to meet the current demand for behavioral health services, Oregon would need an additional workforce of 170 more psychiatrists (26% increase), 90 more psychologists (6% increase), 500 school counselors (48% increase), and 700 social workers (23% increase). For the other behavioral health professionals assessed in the HRSA report, including addiction counselors, mental health counselors, and marriage and family therapists, the supply of providers more closely matched current demand.

The distribution of licensed behavioral health providers across the state varies widely (see Figure 10 on page 19). For example, urban areas average 1.54 licensed behavioral health provider FTE per 1,000 population compared with 0.54 FTE in rural/frontier areas, which is about 65% less than the urban ratio. There are no licensed behavioral health providers in 21 rural and frontier service areas. Statewide, the licensed counselors and therapists practicing FTE is increasing about 10% annually in

Oregon, licensed psychologists FTE is increasing about 1% annually, and licensed clinical social workers FTE is increasing 3% annually.

Unlicensed providers include trainees, baccalaureate and master's level counselors, trained addiction specialists, traditional health workers, and community support personnel. An Analysis of Oregon's Behavioral Health Workforce, published in 2019, included a survey of unlicensed behavioral health providers by Mental Health and Addiction Counseling Board of Oregon (MHACBO). Preliminary findings indicate that three-quarters of the respondents deliver addiction-based services, and one-quarter deliver psychotherapy-based care for mental health conditions. The number of unlicensed providers per capita is much greater in the northeastern part of the state where there are fewer licensed behavioral health providers per capita. The top workforce training needs identified in the MHACBO survey were trauma-informed care, co-occurring disorders (i.e., mental health and substance use disorder), motivational interviewing, and medication-assisted treatment.

People of color are underrepresented in all segments of Oregon's behavioral health workforce, and there is a need for providers who speak languages other than English. Unlicensed providers are the most racially and ethnically diverse segment of the behavioral health workforce. In the MHACBO survey, 28% of unlicensed behavioral health providers were people of color.

Data from the Health Care Workforce Reporting Program show that people of color comprise 13% of the licensed behavioral health provider workforce, and clinical social work associates are the most racially/ethnically diverse with 26% being people of color (see Table 8). Among licensed behavioral health providers, 8.2% have advanced proficiency in or are native speakers of a language other than English, which is a lower percentage than many other types of providers.

Table 8. People of color are underrepresented in almost all licensed behavioral health occupations

Race, Ethnicity, and Gender Distribution: Licensed Behavioral Health Workforce vs. Oregon Population

Comparison to state distribution

☐ Similar to state ☐ Below state ☐ Above state

	Hisp/Latino	White	Black/AA	AI/AN	Asian	NH/PI	Multi-racial	Other
Oregon	12.8%	76.0%	1.8%	0.9%	4.2%	0.4%	3.7%	0.2%
Counselors & therapists	4.4%	88.7%	1.0%	0.5%	2.0%	0.2%	2.4%	0.8%
Psychiatrists	5.3%	78.2%	1.7%	0.3%	11.4%	0.4%	1.8%	1.0%
Psychiatric physician assistants	4.2%	91.7%	0.0%	0.0%	0.0%	0.0%	4.2%	0.0%
Psychiatric naturopathic physicians	8.1%	83.8%	0.0%	0.0%	1.4%	0.0%	5.4%	1.4%
Psychiatric nurse practitioners	3.5%	87.9%	1.3%	0.6%	2.1%	0.2%	3.1%	1.3%
Psychologists	4.1%	87.3%	0.6%	0.1%	4.2%	0.3%	2.5%	0.9%
Clinical social work associates	11.8%	74.3%	3.9%	0.4%	3.2%	0.4%	5.3%	0.7%
Licensed clinical social workers	4.0%	88.8%	1.4%	0.5%	2.0%	0.1%	2.4%	0.8%
Grand Total	4.7%	86.9%	1.3%	0.4%	3.1%	0.2%	2.6%	0.9%

Notes: Providers with missing data were excluded from the analysis. Racial categories exclude Hispanic/Latinx providers. AA=African American/Black, AI/AN=American Indian or Alaska Native, NH/PI=Native Hawaiian or Pacific Islander

Future Workforce of Behavioral Health Providers

Data mentioned earlier indicate that there is a shortage of behavioral health providers, including findings from HRSA report on Supply and Demand for Behavioral Health Occupations and larger increases in help wanted online postings for behavioral health positions. In addition, respondents to the October 2020, ECONorthwest survey of health care organizations highlighted both supply and demand issues related to behavioral health. Some respondents said that insurance reimbursement rates, and ultimately compensation, were too low for behavioral health providers relative to the nature of work and cost of obtaining licensure. On the demand side, respondents noted that the COVID-19 pandemic and associated layoffs were driving an increase in demand for behavioral health services. Respondents gave a high priority to increasing the numbers of behavioral health providers, with 76% saying it is very important to expand Oregon's capacity to educate, train, and develop more behavioral health professionals.

Use of telehealth could potentially expand behavioral health treatment options, especially for people living in underserved areas or who may have difficulties with making an in-person visit. However, equitable access issues will need to be addressed, including familiarity with and access to technology and adequate Internet access. Additionally, some patients may have challenges with a lack of privacy during in-home telehealth visits for behavioral health.

In October 2020, 41% of behavioral health visits were by telehealth, according to a Commonwealth Fund report. During the COVID-19 pandemic, telehealth has expanded faster in behavioral health compared with other specialties. More people may want to access behavioral health services because of the stress and anxiety from the COVID-19 pandemic and other events. Accessing services through telehealth may reduce feelings of stigma, perceiving that others see you in a negative way because of needing behavioral health services. A 2018 journal article on Recent Advances in Delivering Mental Health Treatment via Video to Home concluded that this form of telehealth can be an effective option for patients who face stigma-related barriers to receiving in-person treatment.

A recent evidence review published by the Millbank Foundation 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, including anxiety, depression, substance use disorder, and post-traumatic stress disorder. OHA's Public Health Recommendations for Community Behavioral Health Services recommend using telehealth for most community behavioral health during the COVID-19 pandemic, though in-person visits are recommended when there is high risk of acute adverse outcomes.

The Healthier Together Oregon: 2020–2024 State Health Improvement Plan, launched in September 2020, included behavioral health as one of its five priority areas. Community listening sessions identified many barriers to accessing behavioral health services related to provider shortages, including long wait times, transportation challenges, and difficulty finding a culturally and linguistically responsive provider. Stigma can also be a barrier to accessing appropriate care, and the State Health Improvement Plan includes a goal of reducing stigma and increasing community awareness that behavioral health issues are common and widely experienced.

State goals in the addiction area are outlined in the 2020-2025 Oregon Statewide Strategic Plan from the Alcohol and Drug Policy Commission. 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.

The Governor's Behavioral Health Advisory Council, established by executive order in October 2019, included representatives of behavioral health systems, consumers with lived experience, and clinicians. In October 2020, the Council released its recommendations for improving access to effective behavioral health services for adults and transition-aged youth with serious mental illness or co-occurring mental illness and substance use disorders. The recommendations related to workforce included:

- Increasing funding for incentive programs for the recruitment and retention of behavioral health providers to increase the number of people of color, people from tribal communities, and rurally-based people in the behavioral health workforce
- Support for culturally-based practices, including equitable reimbursement for promising practices and practices outside of the conventional medical model
- Training for the behavioral health workforce in trauma-informed care and workplaces, culturally and linguistically specific/responsive care, anti-racism, equity, interdisciplinary care (including working with peers), leadership and management development, and co-occurring disorders.

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. Oregon's rates of tooth decay are some of the worst in the nation, in part because only about 21% of the population 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. Thus, oral health should be an essential component of comprehensive primary care. In spite of this connection, historically oral health care is insured separately from physical and

behavioral health. Oral health services have generally been delivered separately from medical care, and most often the two systems do not communicate well.

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 13 states that offer comprehensive 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. According to a 2017 report on Oral Health in Oregon's CCOs, only 41.5% of Oregon dentists accept Medicaid patients. Half of children on Medicaid have a preventive dental visit in a given year, and one in five adult beneficiaries have a preventive dental visit in any given year.

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 teeth and jaws, and perform surgical procedures on the teeth
- **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
- **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 Assistant** – Unlicensed professional that helps with infection control by sterilizing and disinfecting instruments, setting up instrument trays, and assisting with dental procedures.

The numbers of dentists and dental hygienists in Oregon are increasing slightly faster than the general population in recent years. Urban areas average 0.57 dentist FTE per 1,000 population, and rural/frontier areas average 40% less than urban areas, with 0.33 dentist FTE per 1,000 population. Twenty-four primary care service areas (all rural or frontier) have no dentist FTE (see Section 2 for more detail). According to the Health Resources Services Administration (HRSA), 32 of Oregon's 36 counties are designated as Health Professional Shortage Areas without a sufficient number of dental clinicians to meet the needs of the community.

Future of the Oral Health Workforce

Oregon's Health Care Provider Incentive Program provides loan repayment incentives to encourage oral health providers to work in underserved areas. From 2018 to June 2020, the Health Care Provider Incentive Program has made loan repayment awards to 28 Dentists (DMD) and 3 Expanded Practice Dental Hygienists (EPDH). These awardees are required to accept a percentage of Medicaid patients proportionate to the surrounding community. Almost half of the dental professionals receiving loan repayment awards self-reported speaking another language in addition to English. Of the 31 awardees, 13 dental professionals work in rural/frontier areas and 18 work in urban areas of the state that have been determined to be underserved. About half of the dental professional awardees working in urban areas work at a Federally-Qualified Health Center (FQHC).

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 project worked with tribal communities to train Dental Health Aide Therapists who would provide oral health services to these communities. Another project

expanded dental health community outreach programs in Polk County and trained Expanded Practice Dental Hygienists to place interim therapeutic restorations.

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.

Teledentistry for certain services, such as exams, could complement other strategies to improve oral health access for patients where travel is difficult (e.g., patients who live in nursing homes or who would need to travel long distances), for those who reside in communities without a dental clinic, and for other populations experiencing barriers to care. Teledentistry has grown slowly because of concerns over quality of care, fraud, reimbursement issues, logistical issues with health information technology, and the Internet access needed for video communication. National data from the American Dental Association's survey of providers showed that 25% of practices used virtual technology or telecommunications to conduct remote problem-focused evaluations during the week of April 20, 2020, and this decreased to 12% during the week of July 13, 2020.

The American Dental Association survey showed that almost all Oregon dental practices were only seeing emergency patients in late March to April 2020. Patient visits rebounded, but in October 2020 more than half of Oregon dental providers had patient volumes less than 85% of pre-COVID-19 levels. The American Dental Association's projections released June 2020 estimate that dental care spending in 2021 will be 20% below pre-COVID-19 levels. It is not clear what impact these reductions in revenue will have on the long-term viability of dental practices across Oregon.

Health Care Provider Incentive Program

The goal of the Health Care Provider Incentive Program is to increase health care workforce capacity in rural and medically underserved parts of Oregon, in part, to serve Medicaid and Medicare patients. The Oregon legislature passed House Bill 3261 in 2017, which consolidated multiple funding streams for various health care provider incentive programs supporting recruitment and retention of providers. Under the policy direction of the Oregon Health Policy Board, OHA administers the Health Care Provider Incentive Program in partnership with the Oregon Office of Rural Health at OHSU. An evaluation of the Health Care Provider Incentive Program was completed in 2020, and the findings are summarized below.

Funding for the Health Care Provider Incentive Fund for the 2019–2021 biennium was $17.6 million, with an additional approximately $2 million carryover from the previous biennium. The approximate allocations from the Health Care Provider Incentive Fund are outlined in Table 9.

Table 9. Approximate Allocations from the Health Care Provider Incentive Fund: 2019–2021 biennium

Incentive	Allocation
Loan repayment to primary care, oral health and behavioral health clinicians to work in areas of high need – includes additional allocation specifically for behavioral health providers	$7 million
Loan forgiveness for future primary care clinicians currently in medical training	$1.5 million
Rural medical malpractice insurance subsidies on behalf of clinicians (MD/DO/NP) working in rural and frontier portions of the state	$4 million
Scholars for a Healthy Oregon Initiative (SHOI) at OHSU	$5 million
Scholarships to health professional students attending programs at Pacific University, National University of Natural Medicine, and College of Osteopathic Medicine-Pacific North West which have set up "SHOI-like" programs at their institutions	$1 million
Administrative costs	up to $1 million
TOTAL	**$19.4 million**

From January 2018 through June 2020, the Health Care Provider Incentive Program made the following awards:

- Loan repayment to 128 clinicians to work in areas of high need
- Loan forgiveness for 25 future primary care clinicians currently in medical training
- Rural medical malpractice insurance subsidies, with insurance subsidy payments to 9 carriers on behalf of 701 clinicians (MD/DO/NP) working in rural and frontier portions of the state
- Scholars for a Healthy Oregon Initiative (SHOI) has awarded 31 scholarships to OHSU students
- Scholarships to 9 students through the "SHOI-like" programs at Pacific University, National University of Natural Medicine, and College of Osteopathic Medicine-Pacific North West

The loan repayment incentive was first focused on increasing the primary care provider workforce in rural and underserved areas, and awards could only be given to licensed providers. The program uses the HRSA definition of underserved, which includes areas that have too few primary care providers, high infant mortality, high poverty rates, or a large elderly population. Some areas have higher needs for behavioral health care, and behavioral health providers that do not require

licensure often provide much of the care in these underserved areas. To address this issue, the Health Care Provider Incentive Program expanded the program eligibility in January 2018 to include Qualified Mental Health Providers (QMHPs) such as social workers and counselors working toward licensure. Rural and other underserved areas also can have difficulty retaining pharmacists. Thus, the loan repayment opportunity also was expanded to include PharmD clinicians in early 2018.

About half of the loan repayment awardees work in rural/frontier areas, serving 38 different communities around the state, while the other half of the awardees work in urban areas in 16 cities, mostly in the Willamette Valley. People of color are a higher percentage of the awardees working in urban areas (44% are people of color) than working in rural areas (17%). More than half (52%) of the urban awardees work at Federally-Qualified Health Centers (FQHCs) and 25% work in mental health clinics.

Through June 2020, the loan repayment incentives have supported a variety of provider types:

- 56 Primary care practitioners
    - 17 Medical Doctors (MD)
    - 14 Physician Assistants (PA)
    - 12 Nurse Practitioners (NP)
    - 8 Naturopathic Doctors (ND)
    - 5 Doctors of Osteopathic Medicine (DO)
- 30 Dental Professionals
    - 27 Dentists (DMD)
    - 3 Expanded Practice Dental Hygienists (EPDH)
- 36 Behavioral health providers
    - 19 Behavioral Health Clinicians working toward Licensure
    - 5 Licensed Clinical Social Workers (LCSW)
    - 5 Licensed Professional Counselors (LPC)
    - 4 Psychiatric Mental Health Nurse Practitioners (PMHNP)
    - 2 Clinical Psychologists (CPSY)
    - 1 Licensed Marriage and Family Therapist (LMFT)
- 6 Pharmacists (PharmD)

There is more demand for these awards than the funding allows, as only 45% of clinicians applying for loan repayment have been granted awards. Loan repayment awards have been focused towards clinicians who have lived experience in poverty or medically underserved areas and clinicians who serve special populations. About one-quarter (27%) of loan repayment awards went to people of color: Hispanic/Latinx (14), Asian (12), African American/Black (4), American Indian (2), Indian (1), Pacific Islander (1), and Native Hawaiian/Pacific Islander (1) clinicians. Among clinicians receiving loan repayment, 37% self-report that they speak another language in addition to English. The most common of these languages was Spanish, and the other languages were American Sign Language, Arabic, Chinese, French, Hindi, Korean, Russian, Tagalog, and Vietnamese. Program staff have revised the scoring framework to prioritize providers working at clinics that serve BIPOC, HIV-positive, or LGBTQA+ populations, and additional program efforts will focus on supporting providers that work in these underserved communities.

Primary Care Loan Forgiveness has provided awards to 25 future primary care clinicians currently in training, who receive loans from OHA equal to the cost of their training programs. Loan payments are forgiven each year that the awardee works in an underserved community, for up to three years. After the three years, clinicians can become eligible for loan repayment if they still have outstanding qualifying debt. About one-third of loan forgiveness awards went to people of color: Asian (4),

Hispanic/Latinx (2), Filipino (2), and American Indian (1) clinicians. The loan forgiveness awardees include people training to become:

- 13 Physician Assistants (PA)
- 5 Doctors of Osteopathic Medicine (DO)
- 4 Doctors of Nurse Practitioners (NP)
- 2 Doctors of Pharmacy (PharmD)
- 1 Medical Doctor (MD)

Profile of a Health Care Provider Incentive Program Awardee

Tia Cloke, receiving loan repayment from the Health Care Provider Incentive Program, is a Family Nurse Practitioner at Orchid Health-McKenzie River Clinic in the unincorporated community of Blue River, about 50 miles east of Eugene. Here is part of her story:

> *I had a large amount of student debt from graduate school and having a portion of that covered by loan repayment has helped immensely, allowing me to enjoy my work more and spend more time with my family. I love immersing myself in the community and truly getting to know my patients and learning how to serve them better. I really get excited for people when they've been working hard and their diabetes control improves or they finally quit smoking, lose 10 pounds, whatever their goal was.*
>
> *Our clinic and community were devastated by the Holiday Farm fire. I am currently working from my RV and a temporary clinic location. Without help from the Health Care Provider Incentive Program, the additional financial stress at this time would have been unimaginable. It would have been much easier to move and start over after losing my home and clinic, but I love this community and can't wait to be a part of helping rebuild.*

Under the Health Care Provider Incentive Program, rural medical malpractice insurance subsidies have been provided to 701 physicians and nurse practitioners in rural areas of the state. The percentage of insurance premiums that are subsidized varies by physician specialty, with higher subsidies (up to 80% of malpractice insurance costs) for those specializing in obstetrics. Currently, malpractice insurance is being subsidized for 491 providers, including 421 physicians (MD/DO) and 70 nurse practitioners. The number of providers taking advantage of the subsidy has declined 22% since 2018, likely due to an increase in the number of clinics in rural areas that pay for the malpractice premiums for their clinicians. Data are not available on the race/ethnicity of providers receiving these subsidies.

House Bill 3261 also authorizes the Health Care Provider Incentive Fund, in addition to paying for the incentives listed above, to be used for funding of the Scholars for a Healthy Oregon Initiative (SHOI) at OHSU. Starting in 2018, OHA has given the SHOI Program $2.5 million per year from the Fund, although the amount received is subject to review each year. Awardees must be studying to be a Doctor of Medicine (MD), Doctor of Dental Medicine (DMD), Master of Physician Assistant Studies (MPAS), or Doctor of Nursing Practice (DNP) in certain specialties.

In the 2018-2019 and 2019-2020 school years, the SHOI program provided 41 full-ride scholarships to future clinicians planning to serve in rural or underserved areas of Oregon after completion of their training. Priority consideration is given to students from a diverse or underrepresented community, first generation college students, and applicants who are from underserved communities or rural areas of the state. Of the 41 award recipients, 8 identified as Hispanic/Latinx and the racial

breakdown was white (25), African American/Black (2), Vietnamese (2), Eastern European (1), Middle European (1), American Indian/Alaska Native (1), more than one race (4), and no response (5).

The Health Care Provider Incentive Program also supports "SHOI-Like" programs, with $300,000 per biennium allocated each for Pacific University, National University of Natural Medicine, and College of Osteopathic Medicine-Pacific North West. Priority consideration is given to students who are from diverse or underrepresented cultures, are from underserved communities or rural areas, and have lived experience in the communities they plan to serve. Nine SHOI-like scholarships have been provided to students at these institutions equal to the cost of a year of education, in exchange for a one-year service obligation for each year funded. The Health Care Provider Incentive Program does not receive data on the race/ethnicity of students awarded scholarships, but these data will be reported starting in 2021 using the REALD tool (see Figure 5 on page 12).

During the COVID-19 pandemic, participants in the scholarship and loan forgiveness programs have had more difficulty finding permanent positions once their education programs are complete. Staff from the Health Care Provider Incentive Program are continuing to provide individual support for clinicians looking to find qualifying employment, and the program has extended the deadlines for finding qualified employment on a case-by-case basis. Another impact of COVID-19 was the health care system's increased use of telehealth. Previously telehealth was not allowed to be an awardee's sole service modality, but the Health Care Provider Incentive Program has adjusted program rules on telemedicine in light of these changes.

Conclusion

2020 was a momentous year, and much of the data in this report were collected before the COVID-19 pandemic hit Oregon. The impacts of COVID-19, both short-term and long-term, are not all yet known. The next report on the needs for the health care workforce will be produced in 2023, when we will have a fuller understanding of these impacts.

The findings from this report identify a number of needs related to Oregon's Health Care workforce. Addressing these needs will help Oregon reach its goals of achieving equity and realizing effective health care transformation.

Need to improve DIVERSITY of health care providers

There is a need to increase the diversity of health care providers across disciplines. The lower-wage professions tend to have more racial/ethnic diversity than occupations requiring more years of formal training. So, diversity in the higher-paying health care professions could be increased by training and certification policies that create a pipeline for health care providers to obtain the qualifications to advance into higher-paying professions.

Throughout health care systems and organizations influencing those health care systems (e.g., payers, government, non-profits), diversity of both front-line workers and management is needed to support equitable programs and policies. This will require eliminating inequities throughout the educational system and workplace, including barriers to the advancement of people of color, from K-12 through graduate school, certification and licensure, and hiring and retention practices.

Need to improve DISTRIBUTION of workforce around the state

Many areas of the state, most often rural and frontier areas, have shortages of certain types of providers. These shortages are more pronounced for behavioral health providers. Education policies and incentive programs can be used to encourage providers to locate in underserved areas of the state.

Need to address use of CARE DELIVERY MODELS that improve patient access

Care delivery models should focus on patient needs and patient choice, and the needs of the most vulnerable populations. Staff throughout the health care system need to be trained in trauma informed care, cultural humility, and the provision of care to specific populations, especially those with the greatest health care needs.

The impact of the COVID-19 pandemic on the expansion of telehealth has been dramatic. Telehealth can potentially play a role in ensuring that the right care is delivered at the right time in the right place, if barriers to equitable access are addressed.

Need to increase health care systems' USE of certain types of health care providers

Expanding the use of Traditional Health Workers and Health Care Interpreters is essential to making the health care system more equitable and improving the delivery of culturally appropriate care, thus improving health outcomes. How the health care system uses provider types is also important. For example, the integration of behavioral health providers and primary care providers can improve care delivery and patient outcomes.

Need to increase SUPPLY of some health care providers

As stated above, it is essential to increase the use of Traditional Health Workers and Health Care Interpreters, and this will create more demand for these workforces. Addressing the currently untreated conditions for behavioral health and oral health will also create demand for these workforces. There is also high current demand for unlicensed health professionals, such as medical assistants and nursing assistants. The Occupational Prioritizations for Training from the Oregon Employment Department shows that the occupations with the greatest need for training additional workers, among both health and non-health occupations, are medical assistants and nursing assistants.

Need to improve DATA COLLECTION on the workforce, especially on unlicensed professions

Expanded data collection, especially about unlicensed providers, can increase our ability to determine the appropriate demand and supply for health care occupations. The unlicensed professions often have lower wages and an overrepresentation of people of color and women, and there is not an effective career ladder for advancement.

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