# 2022 The Diversity of Oregon's Licensed Health Care Workforce

Based on data collected from 2014 through January 2022

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### About the data in this report:

Oregon's Health Care Workforce Reporting Program (HWRP) was created in 2009. As directed by Oregon Revised Statute 676.410, the HWRP collects and tabulates information from licensees of 17 health licensing boards upon renewal. This report presents data collected from 125,584 licensed workers between January 2020—January 2022.

Some of the data in this report was collected during the COVID-19 pandemic of 2020-2022. At this time, it is unclear how the pandemic impacted the composition of the licensed health care workforce supply in Oregon.

This report begins the reporting of HWRP data using the REALD data collection and reporting standards for Race, Ethnicity and Disability. Caution should be used when interpreting this new data, especially in relation to previous versions of this report.

# **Executive Summary**

# **Report Objectives**

This report explores the race, ethnicity, gender, language and disability makeup of Oregon's nearly 126,000 licensed health care professionals compared with that of the state. This report aims to answer the following questions:

- What is the racial and ethnic composition of Oregon's licensed health care workforce?
- How is the workforce composition changing over time?
- How culturally and linguistically representative is the workforce of the population that it serves?
- What portion of the workforce report living with some form of disability?

# Why is Workforce Diversity Important?

Across the country, health access and outcomes remain inequitable by race, ethnicity, gender, disability, language and other characteristics.¹ For instance, life expectancy, infant mortality and preterm birth rates, as well as prevalence of obesity and hypertension all differ by race and ethnicity. Additionally, there are differences in access to care between racial and ethnic groups. People of color are less likely to have insurance coverage and receive needed dental care. Individuals with physical disabilities or cognitive limitations have higher prevalence of chronic conditions compared with individuals with no disabilities,² and patients with limited English proficiency are more likely to experience adverse events in US hospitals (including higher levels of physical harm) compared with patients who speak English.³ The COVID-19 pandemic had a disproportionate impact on communities of color, tribal communities and other historically underrepresented communities, with many historical inequities widening during that time.

There is a long, well-documented history of explicit practices meant to exclude people of color from the health care workforce, especially professions that require higher levels of education and offer higher salaries.<sup>4</sup> Additionally, lack of support and experiences of racism with patients and other providers present challenges to retaining providers of color who do enter the health care workforce.<sup>5, 6, 7</sup> Although many Oregon initiatives are working to counteract the historical and continued structural racism effecting the health care workforce, racial and ethnic disparities are still observed.

Evidence suggests that greater diversity in the health care workforce advances cultural competency and increases access to high-quality health care.<sup>8, 9</sup> Accordingly, increasing the proportion of underrepresented US racial and ethnic groups among health care professionals in the workforce may improve quality of care.

Given these health inequities, it is important to foster a workforce that is culturally and linguistically representative of the communities it serves. This report aims to examine the current makeup of the workforce in Oregon and the extent to which it is representative of Oregon's population.

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

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

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

This definition recognizes that people are often differentially impacted by the health system depending on their race and ethnicity, languages spoken and/or disability status.

# **Key Insights**

- Overall, Oregon's licensed health care workforce is less racially and ethnically diverse than the population being served (Figure 2). White and Asian persons are overrepresented in the workforce, though this is not true for all subgroups. Latino/a/x, American Indian/Alaska Native, Black/African American and Native Hawaiian/Pacific Islander persons are underrepresented. However, Latino/a/x licensees are sometimes overrepresented in fields with fewer barriers to entry (e.g. certified nursing assistants, chiropractic assistants) (Table 1).
- While women are overrepresented in most health care professions, men are overrepresented in the higher-paying medical professions that require more advanced training (e.g. dentistry and medicine) (Table 1).
- Previous iterations of this report showed that the racial and ethnic makeup of many occupations was changing, and most occupations appeared to be growing more diverse over time. Between 2016 and 2020, the percentage of White providers decreased from 83.4 to 80.3 percent (a change of 3.1 percent), while the percentage of providers from most other racial and ethnic groups increased. Over the same time period the White population of Oregon decreased by 2.1 percent (from by 77.6 to 76.0 percent), suggesting that the differences between the workforce and the state's demographics are decreasing. We examine the current state of diversity across occupations in the licensed health care workforce, but because of the change in collection and reporting using REALD standards, drawing conclusions on time trends in the workforce is not possible.
- 19.2 percent of Oregon's health care professionals reported speaking languages other than English; of that group, 58.0 percent self-report either advanced proficiency or being a native speaker of another language and 46.4 percent report using a language other than English with patients (Figure 6). Spanish is the most reported language spoken other than English among the health care workforce as well as among the Oregon population. While 9.6 percent of the workforce reports speaking Spanish, only 4.7 percent report advanced proficiency or being a native speaker of Spanish. Of the Spanish-speaking workforce, 69.5 percent report using Spanish with patients while providing care.
- Similar patterns were seen in the composition of specialty providers (Figure 2b). People of color, except for providers of Asian descent, tend to be underrepresented relative to Oregon's population among primary care providers and oral health care professionals. Among behavioral health professionals, health care providers of color are underrepresented. White health care providers are overrepresented in all of these groups, but this is especially pronounced among behavioral health providers, where people of color comprise 14.5 percent of licensed behavioral health providers, compared with 25.0 percent of the population (Figure 2b).

# **Findings**

# Race, Ethnicity and Gender

This report compares race, ethnicity and gender data from the overall Oregon population to Oregon's licensed health care workforce in order to understand how representative the health care workforce is of the population it serves. The REALD system of collecting and reporting race and ethnicity data poses novel challenges for presenting trend data for both the overall Oregon population and Oregon's licensed health care workforce. Implementing REALD procedures allows for the collection and reporting of both race and ethnicity "parent" groups and subgroups. For a more detailed description of REALD procedures and a table displaying how race and ethnicity "parent" and subgroups relate, please see page 20 in the methods section of this report.

It is important to note that because REALD data only exists for the most recent data collection cycle, it is not possible to compare the data directly to that of previous cycles. Additionally, data for this report is collected in different ways for each licensing board and license type. See page 18 in the Supplemental Materials and Methodology section for a comprehensive explanation of data collection.

The data representing Oregon's overall population presents additional challenges. Figure 1 demonstrates how moving to the REALD system impacted how the racial and ethnic composition of Oregon's overall population is reported. This is not directly indicative of a change in the underlying population. Rather, some individuals who would have been categorized in one racial and ethnic category using the previous method are now categorized differently. In the 2016-2021 period, we used American Community Survey (ACS) Public Use Microdata Sample (PUMS) 5-year data for estimating the Oregon population. This report uses ACS PUMS data for race, ethnicity and gender.

For the 2022 cycle, we use data provided by Oregon Health Authority's Equity and Inclusion Division that imputes REALD race and ethnicity category values from the data contained in the ACS PUMS statistical file. Additional data points in the ACS PUMS data set such as language, ancestry and place of birth are used to impute values that compare to the REALD category values for both "parent" and granular level data.<sup>13</sup>

### Read more about REALD implementation in their guide.

One notable change is that it is possible to reallocate individuals who were previously reported in the multiracial

### What is REALD?

REALD is an effort to increase and standardize Race, Ethnicity, Language and Disability (REALD) data collection across the Oregon Department of Human Services (ODHS) and the Oregon Health Authority (OHA). REALD was advanced through the passage of House Bill 2134 passed by the Oregon legislature in 2013.

Data collection for HWRP before 2021 included only the five racial groups in accordance with guidelines set by the US Office of Management and Budget. However, data at this level may not capture racial and ethnic identity adequately to determine whether the workforce is representative of the communities that it serves.

HWRP updated demographic survey questions in January of 2021 to reflect the REALD standards. This allows health care professionals licensed in Oregon to report their demographic identities with more granularity, if they so choose, while also supporting state planning efforts to equitably promote a diverse and culturally responsive workforce for communities across the State.

The statutory authority for these rules is codified in the Oregon Revised Statutes (ORS <u>413.042</u> and <u>413.161</u>). In 2014 the administrative rules detailing the data collection standards were completed (<u>OARs 943-070-0000 thru 943-070-0070</u>). Additional information, including an implementation guide, is available on the <u>REALD website</u>.

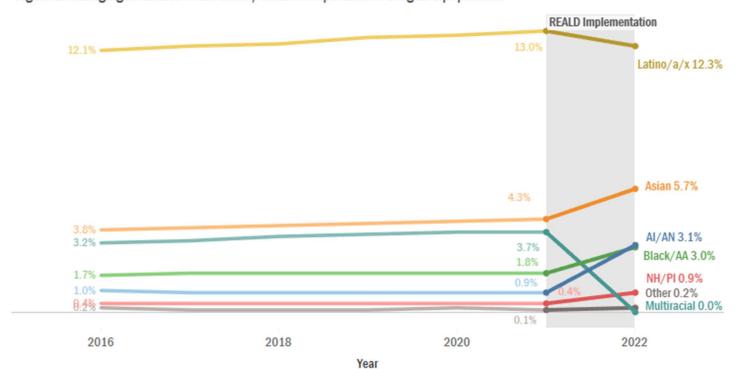


Figure 1: Changing measures of the racial/ethnic composition of Oregon's population

Note: AA = African American, AI/AN = American Indian or Alaska Native, NH/PI = Native Hawaiian or Pacific Islander

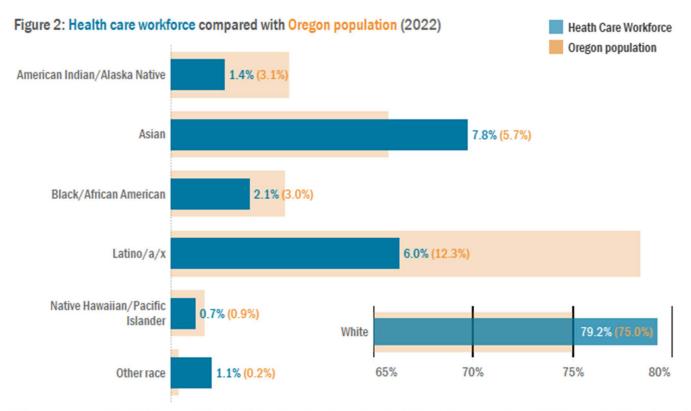
category into component parts of their racial identity, and to then assign them to a primary race category. REALD implementation recommends that "you could use a 'most identify and rarest group first' method where you apply an algorithm to assign those with multiple identities to one primary race" and this is performed here to report the imputed data with the highest level of representation for the rarest race categories. Examples given include coding someone who would identify as both Western European and African American as African American because African American is the more rare segment in the overall Oregon population.

One of the core functions of this report is to compare the composition of the licensed health care workforce to the overall population in Oregon. Figure 2 uses the REALD data collected by the Workforce survey and the imputed REALD values from the ACS PUMS data to create this comparison.

Overall, Oregon's licensed health care workforce in 2022 is less racially and ethnically diverse than the population being served. White and Asian persons are overrepresented in the workforce. Other people of color are underrepresented, with the largest difference seen in the Latino/a/x population, which make up only 6.0 percent of the licensed health care workforce compared with 12.3 percent of the Oregon population. It is important to note that this general characterization across the whole workforce varies between specific occupations, which we examine in the next table.

The Workforce survey gives respondents the option of affirmatively selecting "multiracial," or to select a specific primary race they identify with. Of our survey respondents, 4.2 percent selected that they do not identify with a primary race or that they consider themselves multi– or biracial. We have reported them using the rarest race methodology here to reassign them into the single category that will show the greatest degree of representation and be directly comparable to the imputed ACS PUMS data.

Figure 2a: We now have the capacity to conduct some comparisons between subcategories within the larger race



Note: Providers with missing data were excluded from the analysis. Some Workforce records are missing race and ethnicity data because licensees declined to report race or ethnicity. Middle-Eastern and White combined for this presentation. Participants choosing multi-race recategorized using rarest race methodology.

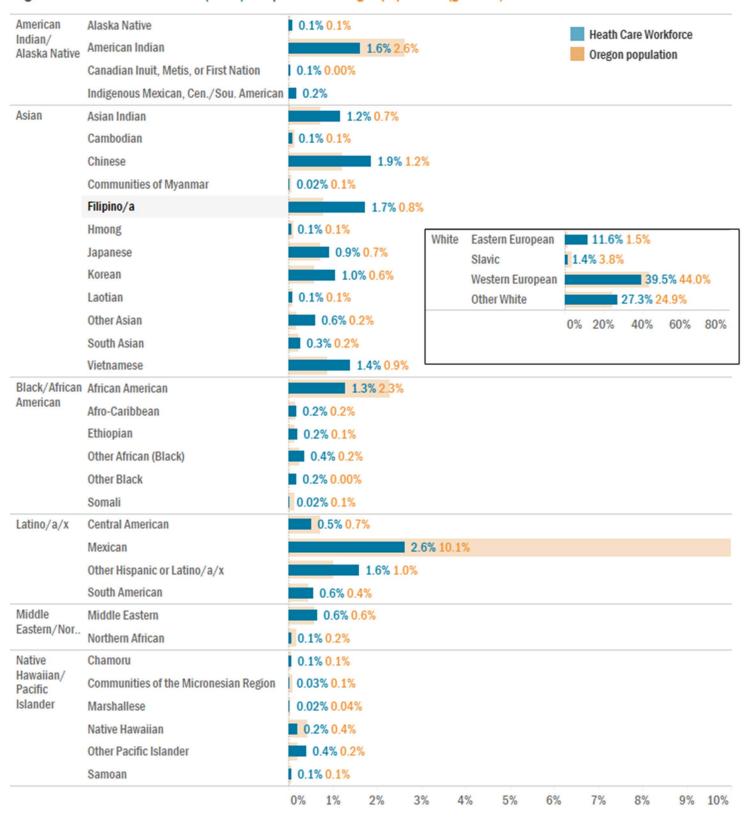
"parent" categories, and we show that here. These comparisons reveal differences within larger race "parent" groups. For example, while Latino/a/x licensees (6.0 percent) overall are underrepresented compared to the Oregon population (12.3 percent), this is especially stark for those who identify as Mexican in origin (2.6 percent of workforce compared to 10.1 percent of Oregon population), while other subgroups such as South American have nearly one to one representation and "other Latino/a/x" have slight overrepresentation (1.6 percent of workforce vs. 1.0 percent of Oregon population).

**Table 1** shows the breakdowns of "parent" race categories within each occupation. While we only have subgroup data for a portion of licensed workers, we have parent-level data for all occupations. The overall distribution of health care workers shows overrepresentation of White and Asian workers compared to the Oregon population, while most non-White races are underrepresented.

This pattern is not universal across occupations. Asian workers are especially overrepresented in some occupations, with dentists, physicians, pharmacists and optometrists all exceeding a 3:1 ratio compared to the baseline population. In contrast, Asians are underrepresented in other areas like social work, counseling, medical imaging, and speech and language pathology.

We see different patterns for some underrepresented groups. Latino/a/x workers are overrepresented in areas like chiropractic assistants and certified nursing assistants, while rates for physicians, podiatrists, dentists and pharmacists are lower than the average for all occupations. American Indian or Alaska Native, Black or African American, Latino/a/x, and Native Hawaiian/Pacific Islander workers are underrepresented in fields with the highest educational barriers to entry.

Figure 2a: Health care workforce (2022) compared with Oregon population (granular)



Note: This table represents the 61.9 percent of licensed health care workers who responded to REALD-compliant surveys. Of the 38.1 percent missing, 84.0 percent can be considered missing at random based on licensing board data collection practices. Interpret these data with caution and consult the Supplemental Material and Methodology Section for more information about data collection and missing data. Providers with missing data were excluded from the analysis. Some Workforce records are missing race and ethnicity data because licensees declined to report race or ethnicity.

Table 1: Race, Ethnicity and Gender Distribution: 2022 Workforce compared with Population

Comparison to state distribution

Similar to state	Below state Above sta	tate No representation								
		AI/AN	Asian	Black /AA	Latino /a/x	NH/PI	Other race	White	Female	Male
Oregon		3.1%	5.7%	3.0%	12.3%	0.9%	0.2%	75.0%	50.4%	49.6%
Chiropractic	Chiropractic assistants	3.1%	6.1%	1.1%	17.7%	0.9%	0.8%	70.4%	83.4%	13.2%
	Chiropractic physicians	2.1%	7.2%	0.5%	3.1%	0.6%	0.8%	85.7%	30.3%	64.5%
Counselors/Therapists	Counselors & therapists	2.9%	2.8%	1.6%	4.8%	0.7%	0.9%	86.3%	75.6%	20.0%
Dentistry	Dental hygienists	1.9%	7.0%	0.4%	5.9%	0.5%	0.9%	83.4%	93.9%	3.0%
	Dentists	0.6%	18.2%	1.0%	3.7%	0.8%	1.0%	74.7%	29.8%	66.5%
Dietetics	Licensed dietitians	1.9%	6.6%	0.2%	2.8%	0.2%	0.0%	88.3%	92.2%	4.6%
Massage therapy	Licensed massage therapists	2.1%	4.6%	1.0%	5.0%	0.6%	1.2%	85.6%	78.6%	15.4%
Medical	Acupuncturists	0.1%	11.0%	0.2%	3.4%	0.2%	1.8%	83.5%	71.6%	28.2%
	Physician assistants	0.4%	5.6%	1.3%	2.6%	0.1%	2.2%	87.9%	65.2%	34.7%
	Physicians	0.2%	17.4%	1.1%	2.1%	0.1%	3.2%	75.9%	41.1%	58.9%
	Podiatrists	0.0%	12.3%	0.9%	0.0%	0.0%	1.8%	85.1%	22.5%	77.5%
Medical imaging	Medical imaging technologists	1.2%	3.9%	0.8%	5.7%	0.7%	1.0%	86.7%	62.4%	32.7%
Naturopathy	Naturopathic physicians	2.9%	6.3%	0.9%	4.6%	0.8%	0.8%	83.8%	73.8%	20.8%
Nursing	Certified nursing assistants	2.0%	6.9%	7.5%	18.1%	1.4%	1.3%	62.6%	83.7%	14.3%
	Certified registered nurse anesthetists	0.6%	7.0%	0.6%	3.8%	0.0%	1.5%	86.6%	47.2%	46.3%
	Clinical nurse specialists	0.0%	4.2%	0.0%	1.1%	0.0%	1.1%	93.7%	91.7%	4.6%
	Licensed practical nurses	1.9%	5.5%	5.7%	9.3%	0.8%	0.9%	75.9%	84.9%	12.8%
	Nurse practitioners	1.3%	4.7%	2.2%	4.2%	0.3%	0.7%	86.6%	84.8%	12.6%
	Registered nurses	1.4%	5.9%	1.5%	4.8%	0.6%	0.7%	85.0%	83.7%	13.5%
Occupational therapy	Occupational therapists	0.2%	5.3%	0.5%	3.1%	0.3%	0.7%	89.9%	85.9%	12.6%
	Occupational therapy assistants	0.0%	2.9%	1.1%	4.3%	0.4%	0.7%	90.6%	88.1%	10.0%
Optometry	Optometrists	1.1%	17.8%	0.2%	2.0%	0.6%	0.6%	77.7%	45.5%	49.6%
Pharmacy	Certified pharmacy technicians	1.0%	8.6%	1.4%	10.4%	1.0%	0.5%	77.1%	77.4%	19.3%
	Pharmacists	1.4%	26.5%	2.0%	2.7%	1.1%	1.0%	65.3%	56.7%	39.0%
Physical therapy	Physical therapists	1.2%	9.2%	0.7%	3.2%	0.7%	0.4%	84.7%	62.5%	34.9%
	Physical therapy assistants	1.3%	3.2%	1.1%	4.6%	0.3%	0.4%	89.1%	66.5%	29.1%
Psychology	Psychologists	1.3%	5.4%	1.3%	4.9%	0.3%	0.9%	85.8%	62.7%	34.2%
Respiratory therapy	Polysomnographic technologists	3.4%	4.5%	3.4%	5.6%	0.0%	1.1%	82.0%	48.0%	46.7%
and polysomnography	Respiratory therapists	3.3%	4.7%	2.6%	7.1%	1.5%	1.8%	79.0%	59.6%	35.8%
Social work	Clinical social work associates	3.4%	6.0%	7.5%	11.1%	0.8%	1.5%	69.7%	78.1%	16.6%
	Licensed clinical social workers	1.7%	2.6%	1.8%	4.1%	0.4%	0.8%	88.5%	78.6%	18.3%
	Non-clinical social workers	0.8%	4.1%	0.8%	7.4%	1.6%	0.8%	84.4%	83.0%	14.1%
Speech-language	Audiologists	0.0%	8.0%	0.5%	2.1%	0.0%	0.0%	89.3%	72.5%	22.7%
pathology and	Speech-language pathologists	1.7%	3.7%	0.9%	4.4%	0.6%	0.8%	87.8%	88.9%	7.5%
audiology	Speech-language pathology assistants	2.7%	3.4%	0.7%	11.0%	0.0%	0.0%	82.2%	94.4%	3.3%
Grand Total		1.4%	7.9%	2.1%	6.1%	0.7%	1.1%	80.7%	73.1%	24.1%

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

### **Gender Distribution**

Table 1 also shows the breakdown of gender by occupation as compared with the population. (Note: The percentages omit those who declined to answer [2.4 percent] and do not show the percent that preferred to self-describe [0.4 percent]). Women are overrepresented in most professions, while men tend to be overrepresented in higher-paying fields requiring more advanced training (e.g. dentistry and medicine).

Of those choosing to self-describe (0.4 percent, n=471), the frequently reported self-descriptions included: non-binary (45.7 percent), transgender (7.2 percent), genderqueer (5.3 percent) and genderfluid (4.3 percent).

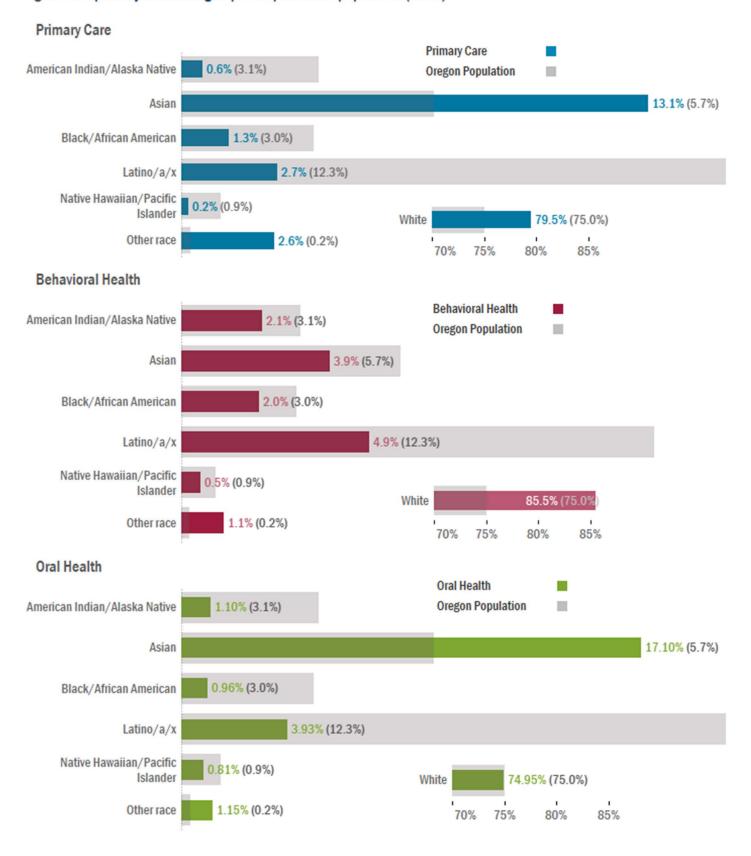
# Race and Ethnicity Distribution within Specialty Groups

**Figure 2b** shows the racial and ethnic distribution of Oregon's primary care, behavioral health and oral health workforce in 2022 compared with Oregon's population. White health care providers are overrepresented in all of these groups.

Primary care providers (PCPs), including nurse practitioners, physicians, physician assistants and naturopathic physicians, make up approximately 6.0 percent of the health care workforce. Most people of color tend to be underrepresented among PCPs, except for providers of Asian descent.

There is a similar pattern among oral health care professionals where Asian dentists are overrepresented relative to Oregon's population, while other minority races are underrepresented. Behavioral health care providers, including psychiatric nurse practitioners, physicians, physician assistants, psychologist examiners, licensed professional counselors and therapists, and licensed clinical social workers, make up approximately 8.4 percent of the health care workforce. Among all behavioral health professionals, people of color are underrepresented.

Figure 2b: Specialty workforce groups compared with population (2022)



Note: Providers with missing data were excluded from the analysis. Some Workforce records are missing race and ethnicity data because licensees declined to report race or ethnicity. Middle-Eastern and White combined for this presentation. Participants choosing multi-race recategorized using rarest race methodology.

# **Workforce Changes Over Time**

Previous versions of this report have shown year-over-year changes in the racial and ethnic composition of Oregon's health care workforce. Due to the discontinuity resulting from introducing REALD data collection and reporting standards in this data cycle, accurately comparing data year-over-year with previous reporting periods is not possible.

As a replacement, HWRP chose to examine the age cohorts across the health care workforce. This allows us to make predictions about the future of the workforce and to have some measure of the success of initiatives aiming at bringing more people of color into the pipeline for health care professions.

Figure 3 shows the age and race and ethnicity structure of the health care workforce in 2022. It is presented in two segments. The contents on the left side of the figure show the proportion of age cohorts in the workforce within the "parent" race and ethnicity groups. The right side shows the current proportion of each race and ethnicity group in the composition of the total workforce.

This figure shows the extent to which a race and ethnicity group is growing demographically or aging out of the workforce based on whether the larger share of the race and ethnicity group is weighted toward the younger or older ends of the spectrum.

Aging cohorts: American Indian/Alaskan Native, White and Other Race persons show a similar pattern. They each have a larger share of workers in the 60-69 and 70+ age brackets compared to other racial and ethnic groups. They also have lower than average shares in the under 30 and 30-39 brackets compared to other groups. If the current workforce is retained in equal measure across race and ethnicity groups, we would expect that over time the proportion of American Indian/Alaskan Native, White and Other Race workers would decline as these cohorts exit the workforce.

Growing cohorts: On the other end of the spectrum, some cohorts show potential for growth over time. Asian, Black/African American, Latino/a/x and Native Hawaiian/Pacific Islander workers all show the opposite pattern of the aging cohorts. In these cases, the under 30 and 30-39 cohorts are higher proportions than the average in the workforce, and their 60-69 and 70+ cohorts are much lower. If it is maintained, their proportional representation in the workforce is likely to grow over time.

The total share of each race and ethnicity category compared to the population is shown in the far right column. This is included to give a sense of how changes in each category relate to the size of the full population of each race and ethnicity group. For example, while workers in the White category are showing the potential for decline as a proportion of the workforce based on their age cohort balance, they currently make up 80.3 percent of the workforce in this figure. The Oregon average for White persons as a share of the population is 75.0 percent, so that category can decline considerably before being underrepresented in proportion to the population.



Note: Providers with missing data were excluded from the analysis. Some Workforce records are missing race and ethnicity data because licensees declined to report race or ethnicity. Middle Eastern and White combined for this analysis. Participants choosing multiple races recategorized using rarest race methodology.

# **Language Proficiency**

Of Oregon's health care professionals, 19.2 percent report speaking languages other than English. Of that group, 58.0 percent self-report either advanced proficiency or being a native speaker of another language and 46.4 percent report using a language other than English with patients (Figure 4). Spanish is the most frequently reported language spoken other than English among the health care workforce as well as among the Oregon population. While 9.6 percent of the workforce reports speaking Spanish, only 4.7 percent report advanced proficiency or being a native speaker of Spanish. Of the Spanish-speaking workforce, 69.5 percent report using Spanish with patients while providing care.

Figure 4: Top Languages Spoken by the Workforce Workforce stratified by proficiency, compared to Oregon Population % using this Beginner/Intermediate Oregon language with Advanced/Native clients Spanish 4.9% 69.5% Chinese 0.6% 0.4% 39.6% Tagalog 0.8% 0.1% 21.996 0.6% 0.4% Vietnamese 47.996 11.296 French 0.4% 0.6% 49.3% Russian 0.7% 0.2%

Note: Chinese includes Mandarin and Cantonese.

# The Role of Health Care Interpreters

There is no guarantee that a provider who speaks a particular language will be available when a non-English-speaking client needs one. Health care interpreters (HCI) help to fill the gaps. The use of language services, such as interpretation by qualified and certified HCIs, has been shown to improve cross-cultural communication, leading to increased compliance with recommended treatment plans, improved health care outcomes and ultimately, reduction in health disparities. Additionally, increased patient engagement as a result of this improved communication may lead to a reduction in health care cost. Oregon's Health Care Interpreter program is based on Title VI of the federal Civil Rights Act and Oregon law (ORS 413.550). To comply with these laws, OAR 333-002 was implemented to develop an HCI workforce and ensure the availability of quality health care interpretation for patients who are considered Limited English Proficient (LEP) and deaf and hard of hearing.

Certified and qualified interpreters must have formal training and experience and certified interpreters must pass national certification exams. As of December 2022, Oregon had 972 qualified and 284 certified health care interpreters. These numbers have increased from 257 and 91, respectively, since January 2017.

In 2021, the Health Care Workforce Reporting program (HWRP) carried out a pilot study of certified and/or

qualified HCIs in Oregon. Of the 719 HCIs in Oregon at that time, 149 completed the survey (response rate: 21.8 percent), with 94.0 percent of the respondents reporting that they were actively working in the field. Of the 149 respondents, 90 (60.4 percent) were qualified or certified as Spanish HCIs. The next most commonly reported language was American Sign Language (ASL), with 15 HCIs (10.0 percent of the sample) reporting being qualified or certified.

The clients served by the HCIs were concentrated in the Tri-County Metro Area, with 57.0 percent of survey respondents reporting serving clients in Multnomah County. No HCIs in the survey sample reported serving clients in Clatsop, Wheeler, Grant, Lake, Harney, Union, Baker or Malheur Counties.

You can find the HWRP Health Care Interpreter Pilot Study here.

# **Disability**

Starting in January of 2021, HWRP began administering a series of six disability-related questions with one optional follow-up each. All licensing boards participated in this addition with the exception of Oregon Medical Board (OMB). The following questions were added:

- Are you deaf or do you have serious difficulty hearing?
- Are you blind or do you have serious difficulty seeing, even when wearing glasses?
- Does a physical, mental or emotional condition limit your activities in any way?
- Do you have serious difficulty walking or climbing stairs?
- Do you have difficulty dressing or bathing?
- Because of a physical, mental or emotional condition, do you have serious difficulty doing errands alone such as visiting a doctor's office or shopping?

In the case of an affirmative answer to any of these questions, the licensee would be given a follow-up question "At what age did this condition begin?"

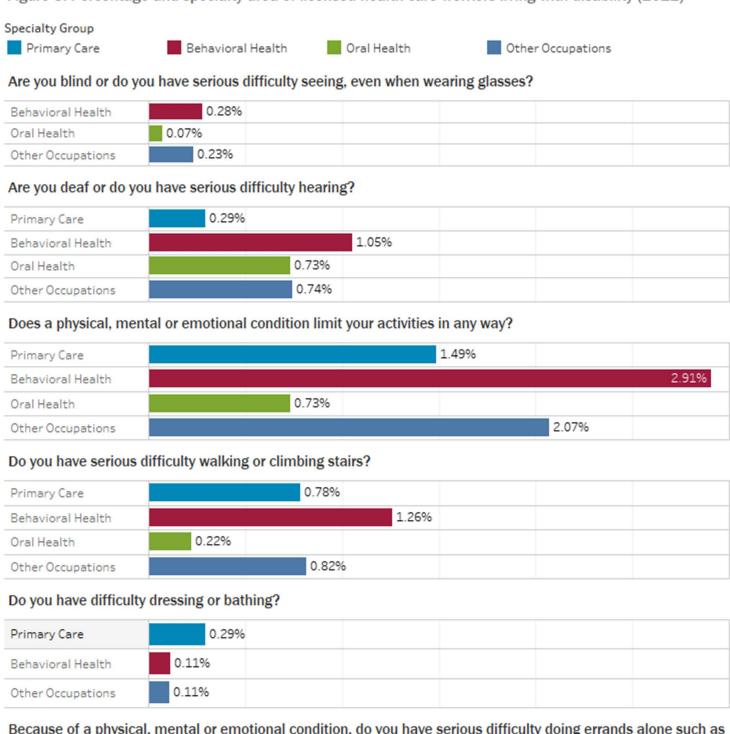
Figure 5 shows the findings from the first administration of these questions. As with the race and ethnicity question update, there is a significant portion of licensees who have not been asked these questions yet because of the renewal cycles particular to their board. These questions have been answered by 61.9 percent of the currently licensed health care workers in Oregon, and HWRP should approach 100 percent data collection for this measure by the next reporting cycle (excluding the Oregon Medical Board).

The current overall rate of Oregon residents with disabilities is 14.8 percent, with 1.7 percent of residents having two or more disabilities.<sup>13</sup> The rate of disability within the licensed health care workforce is much lower, at 2.6 percent for a single disability, and 0.5 percent reporting more than one disability.

Rates of specific disability by specialty group are shown in Figure 5. Because of the exclusion of Oregon Medical Board, the Primary Care data should be interpreted cautiously. This group currently includes nurse practitioners who specialize in family practice, geriatrics, pediatrics, internal medicine, or obstetrics/gynecology/women's health; and naturopathic physicians who specialize in family medicine, pediatrics, geriatrics or obstetrics.

Overall, disability rates are highest within Behavioral Health occupations. The highest reported frequencies of disability are in conditions that limit activities, deafness or difficulty in hearing, and difficulty walking or climbing stairs.

Figure 5: Percentage and specialty area of licensed health care workers living with disability (2022)



Because of a physical, mental or emotional condition, do you have serious difficulty doing errands alone such as visiting a doctor's office or shopping?



Note: This table represents the 61.9 percent of licensed health care workers who responded to REALD-compliant surveys. Of the 38.1 percent missing, 84.0 percent can be considered missing at random based on licensing board data collection practices. Interpret these data with caution and consult the Supplemental Material and Methodology Section for more information about data collection and missing data. Providers with missing data were excluded from the analysis. Some Workforce records are missing race and ethnicity data because licensees declined to report race or ethnicity. Categories with no affirmative answers excluded from figure.

# **Supplemental Material and Methodology**

# The Health Care Workforce Reporting Program (HWRP)

The HWRP collaborates with 17 health regulatory licensing boards, shown in Table 2, to collect, process and analyze data for over 35 occupations to understand Oregon's health care workforce; inform public and private educational and workforce investments; and inform policy recommendations for the Governor's Office, legislative leadership and state agencies regarding Oregon's health care workforce (Oregon Revised Statute [ORS] 676.410; Oregon Administrative Rule [OAR] 409-026).

For more information about methodology and results, visit: https://www.oregon.gov/oha/hpa/analytics/Pages/Health-Care-Workforce-Reporting.aspx

### **Limitations**

The HWRP collects data on occupations that are licensed in Oregon and covered by Oregon Revised Statute 676.410, so this dataset does not represent the entire health care workforce. The program does not currently collect data for many unlicensed health care professionals including traditional health workers, health care interpreters, qualified mental health professionals, addiction counselors, licensed professional counselor interns, lab scientists/technicians, medical assistants, ophthalmologist technicians and more.

### **Table 2: Participating Licensing Boards**

**Oregon Board of Chiropractic Examiners** 

**Oregon Board of Dentistry** 

Oregon Board of Examiners for Speech-Language Pathology and Audiology

Oregon Board of Licensed Clinical Social Workers

**Oregon Board of Licensed Dieticians** 

Oregon Board of Licensed Professional Counselors and Therapists

Oregon Board of Massage Therapists

Oregon Board of Medical Imaging

Oregon Board of Naturopathic Medicine

**Oregon Board of Optometry** 

**Oregon Board of Pharmacy** 

Oregon Board of Physical Therapy

Oregon Board of Psychology

Oregon Medical Board

Oregon Occupational Therapy Licensing Board

Oregon State Board of Nursing

Respiratory Therapist and Polysomnographic Technologist Licensing Board

As survey data is collected only from renewing licensees, data from new licensees is not included in this HWRP dataset. There is a time lag in reporting, so estimates reflect a historical point in time. Length of participation in the HWRP varies by board and reliability of estimates varies over time by occupation.

For this report, 12.1 percent of the licensed workforce declined to provide race and ethnicity data. 2.4 percent declined to provide data on gender. Individuals with missing data are excluded from the relevant charts in this report.

This report's collection period spans 2020 to 2022, and HWRP fully implemented REALD standards in January 2021. Since data collection is based on renewal cycles of licensed health care providers, and because the renewal cycles for licensing boards and license types vary, not all licensee types have full REALD data in this report. Fortunately, many licensing boards collect data annually, so they have complete REALD data based on collection from January 2021 to January 2022. However, some licensed occupations only renew every other year. If their collection falls on even numbered years, we will not have any REALD data until the 2022-2024 report. This is the case for acupuncturists, occupational therapists and pharmacy technicians. Another set of occupations renew over a two year period, with approximately half of their licensees renewing every year. This is true for dentists, dental hygienists, social workers, psychologists, massage therapists, radiographers and nurses. Table 3 presents shows how many licensees have complete, missing at random, and missing not at random REALD data.

**Table 3: REALD Data Collection Groupings** 

Data Characterization	N	Percent
Complete Data	77,741	61.9%
Data considered missing at random	40,195	32.0%
Data considered not missing at random	7,648	6.1%
Total	125,584	100.0%

The first group in **Table 3**, in green, has complete REALD data collection represented in this report (61.9 percent of the sample).

The second group in yellow, labeled "Data considered missing at random" is a group that has incomplete REALD data, but where the data collection has been done on a random basis. Licensed occupations within this group have renewal cycles based on either the birthdate of the licensee, or on an aspect of the license number, such as odd-numbered licenses renewing in odd-numbered years. We expect these subsamples to be sufficiently random to create a representative sample for their occupation group, and that there will be no correlation between birthdates or license numbers and demographic data. This portion of the sample represents 32.0 percent of our total licensed health care workforce population.

The final group in orange, labeled "Data considered not missing at random" is characterized by data collection that cannot be considered random and thus is more likely to introduce bias into the sample estimates. This includes a few smaller boards that have not yet collected appreciable REALD data on their licensees. These occupations have very small representation in the data set, and because they represent only the very beginning of license renewal periods the samples are very small and represent a self-selected group that may bias the sample. This portion of the sample represents 6.1 percent of our total licensed health care workforce population.

Missing data can be a serious issue when they are likely to change the results of an analysis, such as changing the proportions of various racial and ethnic groups compared to the full population. Certain types of missing data are more likely to change analysis results than others. Specifically, when data is missing not at random, some systematic characteristic about the survey respondents may be connected (correlated) to the reason their data are missing. 14 6.1 percent of the responses fall within this category. The other 32.0 percent of missing data is unlikely to change the results of these analyses because they are missing at random, so it is reasonable to assume that the characteristics of licensees in this category without REALD data are similar to those with REALD data. Based on the REALD missing data described here, we encourage some caution in interpreting results of tables that include REALD data.

Table 3a presents REALD data completeness by board and occupation. The occupations with data missing not at random include acupuncturists (n=1,314), occupational therapists and occupational therapy assistants (n=1,743) and certified pharmacy technicians (n=4,729).

Table 3a: REALD Response Rate by Board and Occupation

Board	Occupation (s)	Total N	n with REALD	% REALD	
	Complete REALD Collection				
Board of Chiropractic Examiners	Doctors of Chiropractic, Chiropractic Assistants	2,179	2,179	100%	
Medical Board	Physicians, Physician Assistants, Podiatrists	15,934	15,934	100%	
Board of Naturopathic Medicine	Naturopathic Physicians	903	903	100%	
Board of Pharmacy	Pharmacists	4,154	4,154	100%	
Physical Therapy Licensing Board	Physical Therapists, Physical Therapists Assistants	4,480	4,480	100%	
Board of Examiners for Speech-	Audiologists, Speech-language Pathologists,				
Language Pathology and Audiology	Speech-language Pathologist Assistants	2,200	2,200	100%	
	Subtotal:	29,850	29,850	100%	

Partial REALD Collection, expectation of representative random sample				
Respiratory Therapist and Poly- somnographic Technologist Licensing Board	Respiratory Therapists, Polysomnographic Technologists	1,610	1,608	99.9%
Board of Licensed Dieticians	Licensed Dieticians	743	739	99.5%
Board of Optometry	Optometrists	631	624	98.9%
Board of Licensed Professional Counselors and Therapists	Licensed Professional Counselors and Therapists	4,152	4,040	97.3%
Board of Psychology	Psychologists	1,752	1,267	72.3%
Board of Licensed Social Workers  State Board of Nursing	Licensed Clinical Social Workers, Clinical Social Worker Associates, Non-clinical Social Workers  Nurse Practitioners, Certified Registered Nurse Anesthetists, Registered Nurses, Licensed Practical Nurses, Certified Nursing Assistants	4,136 60,384	2,429	58.7% 50.1%
Board of Dentistry	Registered Dental Hygienists	2,855	1,421	49.8%
Board of Dentistry	Dentists	2,675	1,292	48.3%
State Board of Massage Therapists	Licensed Massage Therapists  Radiographers, Radiation Therapists, Sonog-	5,185	2,492	48.1%
Board of Medical Imaging	raphers Subtotal:	3,825 87,948	1,575 47,753	41.2% 53.7%

Partial REALD Collection, small sample rate, unpredictable bias in population				
Medical Board	Acupuncturists	1,314	124	9.4%
	Occupational Therapists, Occupational Therapy			
Occupational Therapy Licensing Board	Assistants	1,743	7	0.4%
Board of Pharmacy	Certified Pharmacy Technicians	4,729	7	0.1%
	Subtotal:	7,786	138	1.8%

Total Sample: 125,584 77,741 61.9%

# **Methodology and Definitions**

Data sources for this report include workforce data from the Health Care Workforce Reporting Program (HWRP) from 2014 through the first quarter of 2022. HWRP collects workforce-related information directly from health care professionals via a survey embedded in the license renewal process. Health care professionals with an active license in each reporting year (January 2018, 2019, 2020, 2021, 2022; month of verification varied by occupation in 2016), were included in this report. Estimates are dependent on licensees who completed the survey. Please refer to the HWRP's General Methods documentation on the website for further details.

Population data come from five-year ACS estimates (data collected over 60-month period, 2016–2020), imputed to represent REALD "parent" categories by the Equity and Inclusion Division. These estimates are not as current as the one-year estimates, but the primary advantage of using multiyear estimates is the data's availability and increased statistical reliability for less populated areas and small population subgroups. Population data reflect the total population (rather than the adult population), as the total population is served by the workforce.

Data were analyzed and tabulated with SAS 9.4; graphics were produced in Excel and Tableau 2022.

# Race, Ethnicity, Language and Disability (REALD) demographic information:

Race & ethnicity: Both "parent" category and subgroup race and ethnicity categories in the workforce data were collected and analyzed using REALD procedures and methodology, as outlined in the **REALD Implementation Guide**. In brief, survey respondents were first asked an open-response question about how they identify their race, ethnicity, tribal affiliation, country of origin or ancestry (this open text identification was collected but not processed for use in this report). Respondents then selected all categories that apply from a list of 41 racial or ethnic identities (Table 4, see full form <a href="here">here</a>). If a single category was selected, the respondent was assigned to that race or ethnicity category for data analysis. If more than one category was selected, respondents could indicate if they thought of one category as their primary racial or ethnic identity and they were assigned to the indicated primary race or ethnicity category for analysis. If no primary racial or ethnic identity was indicated but multiple race or ethnicity categories were selected, race or ethnicity category was assigned using the "rarest race first" methodology as described on page 94 of the REALD

Table 4: REALD Race/Ethnicit	ty Reporting Categories
"Parent" Group	Subgroup
American Indian or	American Indian
Alaska Native	Alaska Native
	Canadian Inuit, Métis or
	First Nation Indigenous Mexican, Central
	or South American
Asian	Asian Indian
	Cambodian
	Communities of Myanmar
	Chinese
	Filipino/a
	Hmong
	Japanese
	Korean
	Laotian
	South Asian
	Vietnamese
	Other Asian
Black or African American	African
American	African American
	Afro-Caribbean
	Ethiopian
	Other African (Black)
	Other Black
Native Hawaiian or Pacific Islander	Guamanian or Chamorro
racilic islander	Communities of the Micronesian Region
	Native Hawaiian
	Samoan
	Marshallese
	Other Pacific Islander
Middle Eastern/	Middle Eastern
North African	North African
White	Slavic
	Eastern European
	Western European
	Other White
Hispanic or	Mexican
Latino/a/x	Central American
	South American
	Other Hispanic or Latinx
	Talor mopulies of Lauria

### Implementation Guide.

In order to compare health care workforce data to the Oregon population, statewide population estimates were created from American Community Survey (ACS) Public Use Microdata Sample (PUMS) by the OHA Equity and Inclusion Division using the protocol described beginning on page 94 of the <u>REALD Implementation Guide</u>.

**Language:** Survey respondents were asked if they speak languages other than English. If the response was "yes", the individual could then select up to two languages that they speak other than English. Respondents also provided their proficiency level, if they had received training in medical terminology in the selected language(s), if they use the language(s) while providing patient care, and if they are certified as a bilingual provider or medical interpreter. All respondents were also asked about their English proficiency.

**Disability:** Survey respondents were asked if they experience functional difficulties, including difficulty hearing; seeing; walking or climbing stairs; concentrating, remembering or making decisions; dressing or bathing; learning how to do things; communicating; doing errands alone; or with mood, intense feelings, controlling their behavior, or experiencing delusions or hallucinations. Respondents who indicated "yes" to any of these were then asked at what age the condition began.

### **Specialty groups definitions**

- Primary care providers include physicians and physician assistants who specialize in family practice, general
  practice, geriatric medicine, pediatrics, adolescent medicine, internal medicine, or obstetrics and gynecology;
  nurse practitioners who specialize in family practice, geriatrics, pediatrics, internal medicine, or obstetrics/
  gynecology/women's health; and naturopathic physicians who specialize in family medicine, pediatrics,
  geriatrics or obstetrics.
- Behavioral health providers include all psychologists, counselors and therapists, licensed clinical social
  workers, and clinical social work associates; physicians and physician assistants who specialize in psychiatry
  (addiction, neurology, child, adolescent, geriatric, or forensic) or psychoanalysis; nurse practitioners who
  specialize in psychiatry/mental health; and naturopathic physicians who specialize in mental health.
- **Oral health providers** include dentists who specialize in general dentistry, pediatric dentistry or public health; and expanded practice dental hygienists who specialize in general dentistry, pediatric dentistry or public health and who report holding an expanded practice permit.

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