

OREGON HEALTH POLICY BOARD  
HEALTHCARE WORKFORCE COMMITTEE

# HealthCare Industry Trends:

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Emerging Workforce Categories

11/1/2014

## Table of Contents

|   |    |
|---|----|
| <b>I. Executive Summary</b> .....       | 3  |
| <b>II. Oregon Trends</b> .....          | 4  |
| <b>III. Background</b> .....            | 6  |
| <b>IV. Educational Capacity</b> .....   | 7  |
| <b>V. Industry Trends</b> .....         | 10 |
| A. Care by Non-Clinician Providers..... | 10 |
| B. Earlier Intervention.....            | 13 |
| C. Coordinated Care.....                | 14 |
| <b>VI. Recommendations</b> .....        | 20 |
| <b>VII. Conclusion</b> .....            | 22 |

## Appendices:

- A. 2013-2014 Approved CTE Programs – Health-related Programs by High School
- B. List of OHA Office of Equity and Inclusion Approved Traditional Health Worker Training Programs
- C. List of OHA Addictions and Mental Health Services Approved Peer Support Specialists Training Programs
- D. Inventory of Health Care Industry-related Degrees at the Associate Level or Higher
- E. Oregon Employment Department Health Occupations Projections 2012-2022

## **I. Executive Summary**

Oregon's health care workforce is influenced by many factors including Oregon's changing demographics, implementation of the Patient Protection and Affordable Care Act and national trends in provider education and accreditation. Oregon is becoming older and chronic diseases more prevalent. The ACA has brought insurance coverage to many Oregonians as well as greater integration of health technology such as electronic health records. Providers as a group are also becoming older and the looming retirement of many providers in the boomer generation is affecting the workforce. These changes, among others, made Oregon's health care workforce recession-proof. According to the Oregon Employment Department, the health care industry continued to grow throughout the recession.

It is a time of dynamic change and adjustment for the healthcare workforce. Many traditional roles are being retooled to add competencies in, for example, care coordination, team-based care and health information technology. Some roles new to clinical practice are being added to the provider mix such as "coach", "health navigator" and "scribe". Many of these roles are just now being tested in the clinical setting and are undergoing refinement as providers and patients adjust to the new demands of a reforming health system. This makes the task of defining industry trends and workforce categories challenging.

Oregon's educational system is responding to the new requirements of the healthcare workforce as well as to the need for additional professionals. For example, in 2012, the latest year for which data is available, Oregon graduated 256 medical assistants from Associates degree programs compared to 175 in 2010. This increase over the last two years holds true for many health professions, but not all. In 2012, Oregon graduated 352 social workers compared to 322 in 2010, however, only graduated 409 doctors (naturopathic, allopathic, osteopathic and physician assistants) compared to 443 in 2010.

Anecdotally, it appears that many existing programs are incorporating new competencies into their traditional training, although this is difficult to quantify. More quantifiable are efforts being made by government and community organizations to standardize training and certification requirements for many categories of workers including community health workers and peer support specialists, who fall under the definition of traditional health workers.

The Committee has developed a list of recommendations and suggestions for the Health Policy Board and partners in education and industry to consider. The Committee believes these recommendations and suggestions will help to improve Oregon's ability to develop

the healthcare workforce Oregon needs to meet the triple aim of better health and better care at lower cost.

Recommendations to the Oregon Health Policy Board from the Committee include:

- Investigating models for tracking and connecting supply and demand for healthcare professionals, and,
- Continued advocacy for payment reform.

Suggestions for education and industry partners include:

- Supporting healthcare workforce faculty development,
- Supporting the establishment of a Healthcare Industry Council, and,
- Encouraging the Healthcare Industry Council, when operational, with developing job descriptions, duties and hiring criteria to assist both industry and education in preparing the healthcare workforce.

## **II. Oregon Trends**

Oregon's health care industry will continue to grow due to the ageing of the population as well as to the drive to expand health insurance coverage to those who previously could not afford it. As of June 2014, the Oregon Health Plan was insuring almost one million people – up from 614,000 in December 2013.<sup>i</sup> This, along with an increase in those seeking private insurance has led to a dramatic decrease in Oregon's uninsured population to five percent.<sup>ii</sup> Additionally, more focus on patient engagement and empowerment, health promotion, disease prevention, population health, team-based care among providers, and coordinated care across health care organizations is changing how care is delivered, resulting in workforce fluctuation, but also in great opportunity.

One in twelve Oregon jobs is in the health care industry. These jobs include occupations in professional, management and technical services as well as traditional clinical services. Health care industry occupations are among the fastest growing in the state.<sup>iii</sup>

These are just a few of the influences on Oregon's health care landscape. The passage of HB 2009 in 2009 put Oregon on the forefront of health reform and the state has been on a fast track to achieve the triple aim of better health and better care at lower cost.

Oregon's health care workforce is responding to these influences. More than 500 clinics have been recognized as Patient-Centered Primary Care Homes, bringing coordinated care to thousands. Community organizations and colleges have taken on the challenge of training community health workers and are over halfway to the goal of training 300 CHWs

by the end of 2015.<sup>iv</sup> Many of Oregon's health systems are implementing pilot programs to learn how to best reconfigure their workforce to respond to the changing healthcare environment.

The health care workforce is a large part of Oregon's economy and is growing due to increased demand for care. At the same time, change in how care is delivered is causing a major shift in health care and health care delivery. Developing accurate predictions of demand is difficult as change in the field is rapid, new occupations and competencies are being developed and the data sources available for predicting demand are limited.

Another major change to care delivery is the advent of telehealth. Marketing firm BCC Research predicts that the market for remote monitoring and telemedicine applications will double from \$11.6 billion in 2011 to about \$27.3 billion in 2016.<sup>v</sup>

Advances in technology make telehealth an exciting option for those people with reduced access to care due to location or income. For example, in Oregon, Yamhill CCO is developing a pilot project utilizing advanced mobile and cloud-based medical technologies to provide dermatology services to members. Yamhill CCO members could have images of dermatologic issues taken, uploaded to a secure server, then sent to a participating dermatology practice or research institution for diagnosis and advice. This would provide service to a rural area with only one dermatologist in regular practice.

A large, statewide Federally Qualified Health Center in Connecticut used advanced imaging technology and a partnership with the Yale School of Ophthalmology to screen low-income residents for Diabetic Retinopathy. Members would come to a primary care visit at the FQHC site, with no on-site ophthalmologist, and would have a high-resolution picture taken of their retina which was then sent to Yale for screening. This was in place of a standard referral to a specialist for diabetic patients (requiring another appointment, transportation and added cost) that may or may not have been necessary. Results included:

- More screenings among low-income and minority populations
- More appropriate referrals to specialists
- Perceived (but not yet analyzed) cost savings for the FQHC and for the patients<sup>vi</sup>

On April 26<sup>th</sup>, 2014, the Federation of State Medical Boards passed a model policy on telemedicine that is available for states to use when establishing a telemedicine platform. The policy provides guidance on the definition of telemedicine, licensure, security of patient information, prescribing and appropriate disclosures before treatment. <sup>vii</sup>

### III. Background

To better understand the emerging workforce needs of Oregon's health care industry, the Oregon Health Policy Board requested the Health Care Workforce Committee deliver:

*An analysis of health care industry trends in emerging employment categories and new workforce roles, accompanied by an audit of Oregon's training capacity for those jobs and roles.*

In response to this request, the Healthcare Workforce Committee will present an analysis of industry trends in the healthcare workforce through the lens of three major shifts in care:

- 1) To care by non-clinician providers
- 2) To earlier intervention
- 3) To coordinated care

Each major shift has brought with it a restructuring of existing roles and competencies as well as potential new roles. The analysis will highlight some of these roles and will discuss the capability currently in place for providing training. There is significant overlap among the shifts and their corresponding roles, however, for the purpose of this analysis, each new or restructured role will be highlighted in one category only.

In 2011, the Healthcare Workforce Committee produced a report on the changing competencies needed in the health care workforce. Key competencies associated with the change to coordinated care included individual skills with collaborative practice, health information technology (HIT), and communication, as well as organization- or system-level capacities such as flexible reimbursement, operational and managerial supports, and community engagement.<sup>viii</sup> This report will attempt to take the next step, associating these competencies with developing roles in the workforce.

This report on industry trends and emerging workforce categories was a collaborative effort among Healthcare Workforce Committee members with experience and expertise in different aspects of the health care industry and education. Committee members reviewed current literature and developed a list of key informants. Key informant interviews were held in July 2014 and represented a cross-section of industry experts in both urban and rural Oregon. Key informants included people working at various levels in health systems, clinics, government agencies and health professional training programs. Italicized, de-identified quotes are from key informants.

Research conducted in the development of this report reveals a rapidly evolving workforce. Roles are fluid, with job descriptions, titles and duties changing in real time as needs in this new landscape of health care become clear. Many of the categories listed below overlap; for example, the duties of a peer wellness specialist can be very similar to a health coach, a medical assistant can function as a patient navigator, panel coordinator or scribe.

One limitation of this analysis is the lack of comprehensive and connected data on supply and demand. The report takes into account projections data from the Oregon Employment Department, the U.S. Bureau of Labor Statistics and the Oregon Health Authority and also relies on anecdotal evidence of demand from key informants; however, none of these sources is definitive.

For example, the Employment Department develops ten year projections every two years by industry and occupation. The latest projection report covers the 2012 to 2022 time period.<sup>iii</sup> The report predicts growth in the healthcare industry overall and in most occupations. However, projections are not completely indicative of demand, or need. Some of the occupations in development are not yet reflected in the projections, such as care coordinators and team managers, and self-employed individuals (which include many health care providers) are under-represented in Employment Department data. Additionally, uptake of electronic health records, shifts in payment reform and use of non-clinical staff will affect demand over the next ten years.

With respect to supply, Oregon's educational institutions can provide information on their current program size (Appendix D) but not on future enrollment and it is extremely difficult to predict the supply that may be available outside Oregon's borders (this would include both new graduates and existing professionals). Oregon is heavily reliant on professionals educated in other states and countries.

Roles highlighted within each section are representative of the emerging categories and trends. These roles appeared to be common to many of the clinics and health systems interviewed and were often mentioned in the literature. Although representative, this list of highlighted roles is not exhaustive and there are certainly roles not mentioned here.

## **IV. Educational Capacity**

Also included in this report is an audit of Oregon's training capacity to fill these changing roles. To highlight the commitment the state and school districts in Oregon are making to encourage students to consider health-related careers, a list of health-related Career and

Technical Education high school classes offered during the 2013-2014 school year is attached. (Appendix A) Approved lists of training for traditional health workers and peer-delivered services (Appendices B and C) as well as the degree programs offered for the more common health-related workers (Appendix D) such as medical assistants, nurses, emergency medical technicians and dental hygienists, for example, are also included.

Due to the growth in the health care industry, there has been growth in training and education in health-related fields. For example, in 1987, there were 72 pharmacy schools in the United States. In 2012, there were 129 pharmacy schools with some level of accreditation. Between 2005 and 2012, there was a 48 percent increase in the number of pharmacy schools in the United States, with most of the growth occurring at private institutions.<sup>ix</sup>

There has also been growth in health professions education programs in Oregon. This includes the expansion of admissions capacity of current programs and the development of new programs. For example, in 2009 Portland State University expanded its capacity for students in the Masters in Social Work (MSW) program through distance education campuses in Ashland and Salem. The number of graduates from this program grew from 158 in 2008 to 183 in 2012. Further, Pacific University opened a new MSW program at its Eugene campus beginning fall term 2014, admitting 11 students in the first class. Fifteen additional students will begin in spring 2015.

According to a recent report from the Oregon Center for Nursing, 1,509 students graduated from nursing programs with an Associates (ADN) or Bachelors (BSN) degree in 2013 compared to 694 in 2001. Twenty-three schools offered nursing education programs in 2013 with 893 seats belonging to BSN programs and 819 to ADN programs. Six universities<sup>x</sup> in Oregon offer baccalaureate nursing degrees. Since 2008, all six baccalaureate nursing programs have expanded student admissions capacity and the number graduates increased from 664 in 2008 to 874 in 2012.<sup>xi</sup>

Physician education in Oregon has expanded through increased admissions capacity and the opening of a new osteopathic medical school. The number of medical students (MD) graduating from OHSU increased from 103 in 2008 to 122 in 2012. In 2014, there are 139 first-year medical students. Western University's College of Osteopathic Medicine of the Pacific Northwest (COMPNW) in Lebanon, Oregon admitted its first class of medical students in 2011 and will graduate this first class of 107 Doctors of Osteopathy (DO) in June 2015. In 2014, COMPNW admitted 105 medical students. The number of naturopathic physicians graduating from the National College of Natural Medicine in Portland increased from 71 in 2008 to 83 in 2012.

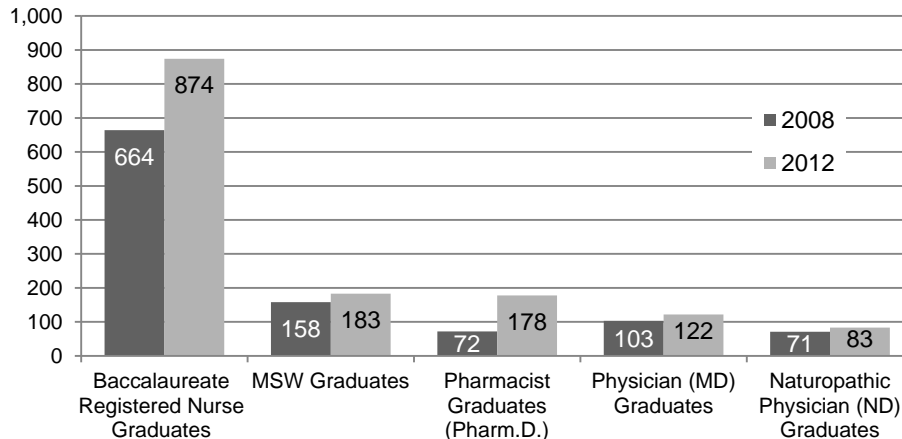
The number of students graduating from Oregon State University with Doctor of Pharmacy degrees increased from 72 in 2008 to 86 in 2012. Pacific University's pharmacy program



began in 2006. Its first graduating class in 2009 included 65 students and in 2012, Pacific’s pharmacy program graduated 92 students.

**Growth in Number of Graduates from Oregon Universities  
for Selected Health Professions: 2008 to 2012**

Source: Integrated Postsecondary Education Data System, 2014



Rapid growth brings with it a need for excellent educators who are well-versed in the needs of the changing health care environment. Professional development, however, according to experts on the Committee, has lagged, leaving some educators stranded without the necessary tools to teach in this era of reform. In some cases, there simply aren’t enough educators to teach the number of students now enrolled.<sup>xii</sup> Students are left stranded as well, as they have difficulty acquiring needed skill sets or graduating on time.

In this time of faculty and classroom shortages, private institutions hold out the promise of increased access to education, especially for low-income and minority students. However, their graduation rate is often low, in some cases training is inadequate and students’ debt burden is high. In *Subprime Opportunity; the Unfulfilled Promise of For-Profit Colleges and Universities*, the authors found that of first-time students receiving a Bachelors degree, only 22 percent graduated within six years, compared to 55 percent in public, non-profit institutions.<sup>xiii</sup> On the other hand, the Conference of State Legislatures found that, when looking at two-year for-profit colleges, 60 percent of students earn a certificate or Associates degree within three years compared to only 22 percent of students in public community colleges. This rate, however, comes with a higher debt burden and risk of default. Although the for-profit college sector represents only 24 percent of all federal student loan dollars, they account for 43 percent of defaults.<sup>xiv</sup>

It is important to note that the inventory in Appendix D from the US Department of Education Integrated Post-Secondary Degree Education Data System shows programs offering degrees at the Associates level or higher only. Many programs offer training in the careers represented on the list without offering a degree at the end of the training. For

example, the website “MedicalAssistantSchools.com” shows 17 schools in Oregon offering classes for medical assistant students.<sup>xv</sup> However, according to 2012 data, only six schools are offering an Associates degree for MA students. The national MA accreditation board, the American Association of Medical Assistants, offers certification for MA students and many jobs now require that certification. Unfortunately, it is not known how many of the schools that do not offer an Associates degree actually prepare students for certification.

## **V. Industry Trends**

### **A. Care by non-clinician providers**

There is general consensus that health care expenditures in the United States are too high. A 2012 report from the Bipartisan Policy Center found that in 2010, the United States spent \$2.6 trillion on health care, or 18 percent of the gross national product. This far outpaces other similar countries such as the United Kingdom (9.6 percent of GDP), Germany (11.6) and Japan (9.5). The report identified twelve general cost drivers that included the advance of expensive medical technology, the high cost of medical services, fragmentation of care, difficulties in access to care and rising rates of chronic diseases.<sup>xvi</sup>

Plans for health system transformation in Oregon take into account the need to encourage use of preventive care that reduces the need for intense and costly interventions. Metrics for the new Coordinated Care Organizations include measures such as emergency department utilization, outpatient utilization and all cause readmission to the hospital. Without a shift from hospital to ambulatory care, from expensive procedures to inexpensive screenings and behavior change, from the doctor’s office to self-management of chronic diseases at home, the triple aim of better health and better care at lower cost will remain elusive.

#### **Category: Coach**

Many of the diseases driving costs and contributing to multiple morbidities are preventable or manageable conditions. Preventing or appropriately managing diabetes, for example, keeps patients out of the doctor’s office and out of the hospital. Health coaches assist people with behavior change such as quitting tobacco use, eating better, moving more, checking blood sugar and adhering to a medicine regimen.

Health coaches may also be called health educators, community health workers or behaviorists, depending on the setting in which they work. According to the Bureau of

Labor Statistics, nationally, the field is projected to grow 21 percent between 2012 and 2022.<sup>xvii</sup>

Clinics and health systems are using training dollars to develop health coaches. In addition, key informants verified that health coaches were in demand and being hired for a range of tasks. Coaches are becoming important members of patient-centered teams.

*“We also added a dedicated health coach position & care coordinator (MA) to do population management as members of a care management team that includes an existing nurse case manager...”*

The National Society of Health Coaches offers a certification program for health coaches that includes motivational interviewing and evidence-based practice interventions. Private, on-line trainings abound with little evidence as to efficacy. One program, the ACE Health Coach Program, claims to be the only health coaching certification approved by the National Commission for Certifying Agencies. However, in a search of the NCCA website, no health coaching programs surfaced.

Health coaching appears to be a largely unregulated training environment, although elements of health and wellness coaching are a part of other training protocols, such as motivational interviewing for medical assistants.

- **License in Oregon required:** No
- **Certification required:** No
- **Certification available:** Yes, through National Society of Health Coaches
- **Training opportunities:** Online, in person, unregulated
- **Degrees offered:** None
- **New role or expanded existing role:** New role for health care

#### **Category: Primary Care Technician**

One potential developing role is that of the primary care technician. The PCT acts as a community extender of a practice. The PCT may go into patient’s homes and do safety assessments, conduct health promotion and chronic disease management and handle minor complaints. The PCT would work in association with a primary care physician practice and would be in contact electronically with physicians, nurses and other professionals in the clinic. Protocols would be developed for determining when a patient’s issues warranted a virtual visit by the physician or needed a trip to the clinic.<sup>xviii</sup> PCTs can help to provide access to care to people in remote or rural areas.

- **License in Oregon required:** No
- **Certification required:** No
- **Certification available:** No, unless certified as a THW
- **Training opportunities:** None specific to PCTs, however, THW or MA training could be appropriate
- **Degrees offered:** None
- **New role or expanded existing role:** New role for health care

**Category: Peer delivered services**

Behavioral health has been moving toward incorporating peer-based models of care for several years. Occupations within the peer delivered services category can include peer support specialists, recovery mentors, family navigators and peer youth supporters among others. There is some overlap with community health workers and health coaches depending on whether a peer is working primarily in the physical health or the behavioral health arena.

Peer delivered service occupations require workers who have “lived experience”. People in recovery from addictions blazed the trail as addictions counselors, bringing with their training credibility as someone who understands what the client is experiencing. This model is expanding into the behavioral health field (peer support specialists) and youth behavioral support.

There are currently 17 OHA -approved peer delivered services trainings in Oregon that include 40 hours of training. Certificates are required for peer support specialists in addictions recovery, mental health recovery, and family resiliency. To be a peer wellness specialist, the requirement is an OHA approved course of 80 hours. There is currently only one OHA approved course. (Appendix C)

- **License in Oregon required:** No
- **Certification required:** Yes
- **Certification available:** Yes
- **Training opportunities:** In person, approved by OHA
- **Degrees offered:** None
- **New role or expanded existing role:** Expanded existing role

## B. Earlier intervention

Early intervention has traditionally meant bringing clients into the office for preventive screenings. A new focus on community connections and the community conditions that contribute to ill health is changing the thrust of early intervention. Today's front-line troops of health reform may include public health, traditional or community health workers partnering with community members to restrict places where people can smoke or increase places where kids can access healthy foods and safely play outside. A better understanding of the social determinants of health make it imperative that health care move from the office or hospital into the community where issues like poverty, lack of affordable housing or the siting of tobacco, alcohol or fast food establishments can be addressed.

### **Category: Traditional Health Workers**

Traditional health workers have a long history in Oregon, from promotoras delivering health coaching in migrant worker communities to doulas assisting mothers with pregnancy and after birth care. In Oregon, the importance of these workers, with their connections to their communities and their diverse backgrounds has been acknowledged with training and certification. The Traditional Health Workers Commission include as THWs community health workers, personal health navigators, peer wellness specialists, peer support specialists, doulas and other health care workers not previously regulated or certified by the state of Oregon.

The need for THWs is expanding as health reform in Oregon requires outreach to previously underserved groups of people. THWs, with their connections within a community, are often a trusted resource for people previously disengaged from the health care system.

*“The community health worker role is also being transformed and moving from a more traditional lay social work type to a more health focused role where the CHW is expanding to include health promotion as well as connection to resources in the community.”*

According to a report from Mosaic Medical Group to the 2012 OCHIN Learning Forum, Mosaic community health workers are also community outreach representatives, staffing health fairs and delivering health promotion education.<sup>xix</sup>

*“Health navigators, also THWs, are being relied upon more and more – they tend to be in the community, reaching out to potential clients, educating them about the services available to them. They may also be in the clinic.”*

With the passage of House Bill 3407 which established the Traditional Health Worker Commission and the subsequent development of Oregon Administrative Rules 410-180-0300 through 0380, THWs have a pathway to certification and a list of approved training programs available to them. To date, nine programs located throughout the state have been approved. Programs can be found in central, southern and eastern Oregon as well as in the metro area.<sup>xx</sup> (Appendix B)

- **License in Oregon required:** No
- **Certification required:** Yes, to be eligible for Medicaid reimbursement
- **Certification available:** Yes
- **Training opportunities:** Statewide; in-person, many approved by OHA
- **Degrees offered:** None
- **New role or expanded existing role:** Expanded existing role

## C. Coordinated care

Team-based care, especially the shift to Patient-Centered Primary Care Homes is driving extensive change in the health care workforce. In a presentation to the Oregon Health Policy Board in July, the Patient-Centered Primary Care Home Director reported that more than 500 clinics have been recognized by OHA as primary care homes, with PCPCHs in 33 of 36 counties.<sup>xxi</sup>

In 2011, in a report to the Health Policy Board from the Healthcare Workforce Committee, the Committee projected that team-based care would require competencies in communication, team coordination, leadership, conflict resolution and other collaborative skills.<sup>xxii</sup> Five years later, this has proven true. Coordinators, including roles such as care coordinators, patient coordinators, panel coordinators, dental coordinators and practice coordinators, are in great demand.

Leading staff through the changes brought about through a shift to team-based care has led to new competencies required of managers. Although the roles themselves may not be new, the expectations have changed.

*“The need for strong, confident, decisive leaders with excellent communication skills is also extremely important at this time. We’ve noticed that many of our traditional managers do not have the skills to LEAD their clinics and staff through change.”*

## Category: Coordinator

Teams require coordination. An emphasis on team-based care has given rise to the need for better coordination among care providers, specialists, coaches and patients. Poor coordination of care is one of the five areas of health care that account for \$690 billion in waste, not counting fraud, in the U.S. annually. In fact, 34 percent of the total cost of health care is waste.<sup>xxiii</sup>

Coordinators have various roles in the systems in which they work; however, creating a seamless patient experience is primary. A care coordinator might ensure that a patient is scheduled with a specialist in a timely manner and that the specialist has the full patient record and reason for the referral in hand. In Oregon, in Benton County, dental coordinators are assisting patients to find the services they need, when they need them.

In a 2012 health care workforce needs assessment by the Linn, Benton, Lincoln Workforce Investment Board, coordinators were cited as a new professional category that would be needed based on the transition to accountable care organizations, such as Oregon's CCOs.<sup>xxiv</sup>

*"We have created: Per Diem RN Care Coordinator, Float RN Care Coordinator, Float Team Care Assistant, Patient Populations Specialist, Telehealth RN Care Coordinator...."*

- **License in Oregon required:** No
- **Certification required:** No
- **Certification available:** No
- **Training opportunities:** Online, in person, unregulated
- **Degrees offered:** None
- **New role or expanded existing role:** New role for health care

## Category: Medical Assistant

Medical assistants have traditionally been responsible for clinical tasks such as taking vital signs, preparing patients for exams and collecting patient information as well as some chart maintenance, scheduling or other administrative duties. In the past decade, however, the duties of medical assistants have been expanding in order to capitalize on the limited time a provider has with a patient. Medical assistants are not licensed and work under the

license of a physician, however, MAs may be certified by the American Association of Medical Assistants.

*“MA roles are being expanded and changed – there is more reaching out to clients, scrubbing charts, quick screening and care planning.”*

In a study sponsored by the Hitachi Foundation, University of California San Francisco researchers found that the clinics studied increased patient satisfaction and outcomes and reduced cost by integrating medical assistants into providers’ care teams. The expanded duties differed among the clinics from motivational interviewing and health coaching to electronic health record maintenance and after hours telephone banking. Some small “teamlets” included a one to one medical assistant to provider ratio, some were a two to one. All clinics reported greater satisfaction and retention among medical assistants who saw some increases in pay and greater increases in responsibility and authority. Many reported feeling a part of a team for the first time.<sup>xxv</sup>

In qualitative, in-depth interviews with 140 providers, the American Academy of Family Physicians found that the seven primary strategies for transforming the roles of medical assistants were:

- Organizing MAs into provider teams
- Engaging MAs in population management
- Empowering MAs to own key quality measures
- Turning MAs into health coaches
- Developing MAs as outreach workers
- Using MAs to manage high-risk patients
- Cross-training MAs<sup>xxvi</sup>

In Oregon, medical assistants are taking on tasks as applying fluoride varnish, managing specific clinic populations and motivational interviewing. In addition, their clinical duties in some cases have expanded to include phlebotomy, EKG, vision and hearing testing.

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| <ul style="list-style-type: none"><li>• <b>License in Oregon required:</b> No</li><li>• <b>Certification required:</b> In most cases, yes</li><li>• <b>Certification available:</b> Yes, through the American Association of Medical Assistants</li><li>• <b>Training opportunities:</b> Community and private colleges</li><li>• <b>Degrees offered:</b> Associates</li><li>• <b>New role or expanded existing role:</b> Expanded existing role</li></ul> |
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### Category: Behaviorists

For care to be coordinated, behavioral health and physical health need to be integrated. Oregon's Patient Centered Primary Care Home program encourages complete integration including referrals, health records access and practice co-location.

Many clinics applying to become PCPCHs are bringing in a specialist to assist them in meeting these new standards. From the Technical Specifications and Reporting Guide of 2014:

"A behaviorist embedded in the primary care team is available for warm hand-offs, curbside consultation, and brief behavioral interventions. A behaviorist is a mental health professional who is competent in assessing and addressing psychosocial aspects of health conditions. This could be a licensed therapist or counselor, a social worker, a psychiatrist nurse practitioner, a psychologist, or a psychiatrist. <sup>xxvii</sup>

A behaviorist is attuned to the connection between physical health issues and behavioral health, or ill-health. As one county clinic manager put it:

*"One of the new roles we have added is 'behaviorist'..... someone with mental health background, i.e. licensed clinical social worker, but who works on the physical health side. Figuring out where behavior issues or mental health issues are having an impact on physical health. A part of the physical health care team."*

- **License in Oregon required:** Yes, for the underlying mental health professional category
- **Certification required:** NA
- **Certification available:** NA
- **Training opportunities:** Universities, public and private colleges
- **Degrees offered:** Bachelors through PhD
- **New role or expanded existing role:** Expanded existing role

### Category: Team managers

In the new team-based environment, old management practices are no longer useful. Autocratic, top-down management does not lend itself to team building and fostering an environment in which people need to self-start and offer suggestions for process

improvement. RN managers, physician managers and others are being retooled into team managers with an emphasis in LEAN management techniques including the Plan, Do, Study Act cycle, change management and conflict resolution. Communications skills are another priority for team managers.

*“We all face a great deal of ambiguity currently and if the leaders are not able to effectively manage the change (including the emotional aspects) things can fall apart quickly. We had to create an internal leadership training program for managers to help address this deficit.”*

- **License in Oregon required:** No
- **Certification required:** No
- **Certification available:** Yes, in LEAN management, coaching
- **Training opportunities:** Online, in person, unregulated
- **Degrees offered:** None
- **New role or expanded existing role:** New role for health care

#### **Category: Health Informaticists, Health Information Technologists**

Absolutely essential to a coordinated health system is the technology that enables providers to virtually speak to each other, to review patient’s charts and visits with specialists. Electronic health records, required by the Affordable Care Act, are one of the important tools that make this health information exchange possible. EHRs not only improve communication and patient care, they generate a wealth of data about the health of the population being served.

Working with information technology, including setting up, coordinating and maintaining EHR systems, collecting, cleaning and de-identifying data and evaluating the information received, requires background in both technology and health care, a combined skill set much in demand.

*“Job roles in the clinics have shifted with the need to utilize the electronic medical record.... New expectations for roles of our coding team and work flow for the transcription team have also been developed. I believe that the need to develop skills for the use of electronic media has touched every area of our system. This includes HR systems, scheduling and timekeeping that impact every employee.”*

In 2012, Brenda Turner of the Oregon Employment Department wrote in a paper on Biomedical and Health Informaticians:

“Job titles are as varied as one could imagine. A sample of titles published on job announcements in 2011 include nursing informatics director, director of IT informatics, regional informatics manager, health information systems analyst, health information manager, clinical informatics, informatics outreach architect, and pharmacist informatics specialist.....Informaticians may be asked to analyze cancer research data, develop new software for checking for potential pharmaceutical drug interactions, set up an automatic prescription system to send prescriptions directly from the physician's laptop during a medical exam to the pharmacy, or assure that patient records are easy for physicians to access as they quickly move from one patient to the next throughout the day.”<sup>xxviii</sup>

- **License in Oregon required:** No
- **Certification required:** No
- **Certification available:** Yes
- **Training opportunities:** Universities, public and private colleges
- **Degrees offered:** Associates through Masters
- **New role or expanded existing role:** Expanded existing role

### **Category: Scribes**

With the advent of electronic health records comes a need for a new type of record keeping. Filling out the patient’s record with visit details, prescriptions and referrals takes a doctor’s time and attention away from the patient in a way old pen and paper record keeping did not. In fact, a major source of provider and patient dissatisfaction is due to the computer time involved in keeping patient records up to date.<sup>xxix</sup>

Medical scribes typically enter the room with a physician and enter detailed information into the patient’s EHR while the physician interacts with the patient. After the visit, the scribe may stay in the room finishing up visit details. Although some physicians and patients are initially skeptical about bringing a scribe into the sensitive and confidential environment of the office visit, studies show the majority are happy with the change.<sup>xxiii</sup>

In a pilot project with a Northern California clinic system, the Shasta Community Health Center, scribes were paired with physicians at six clinics. At the end of the four month pilot, 36% of patients reported being more satisfied with their office visit and nine out of ten were not concerned about having another person in the room. Physicians were overwhelmingly supportive of adding scribes. They reported having more time with patients, better eye contact and communication as well as more time; typical ten to twelve hour days were finished in eight. One physician reported:

“Having a scribe is the difference between feeling hopeless and overwhelmed and feeling like it’s a doable job and very satisfying.”<sup>xxx</sup>

Scribes can significantly improve the physician burn-out associated with an adult primary care practice. According to a report in the *Annals of Family Medicine*, incorporating scribes into clinic visits was third on a list of five practice innovations that 23 high performing primary care practices used to increase professional satisfaction and team performance.<sup>xxxi</sup>

- **License in Oregon required:** No
- **Certification required:** No
- **Certification available:** Yes, through American College of Medical Scribe Specialists
- **Training opportunities:** Online, in person, unregulated
- **Degrees offered:** None
- **New role or expanded existing role:** New role for health care

## VI. Recommendations and Suggestions

Although not specifically requested from the Oregon Health Policy Board, the Healthcare Workforce Committee developed recommendations that the Board may want to consider as well as suggestions for the education and industry sectors. Recommendations and suggestions focus on supporting faculty development so that the increasing numbers of health profession students will be trained by superior educators using best practices in health profession education, supporting the collaboration between the health care industry and health profession education and continuing efforts toward adequate payment reform. These recommendations and suggestions apply to the broad range of health professionals in the state including those in traditional health care roles, and those in newer or less traditional.

### **Recommendations for the Oregon Health Policy Board:**

- Investigate methods and data sources with partners such as the Oregon Health Authority's Office of Health Analytics, the Oregon Healthcare Workforce Institute, the Oregon Center for Nursing, the Oregon Department of Education, the Local Workforce Investment Boards and the Oregon Employment Department for meaningful tracking and comparison of supply and demand for priority health care professionals. The

analysis should consider data on the retention of Oregon graduates, recruitment of out of state graduates and projections of industry need.

- To allow the healthcare system to take full advantage of the emerging roles and occupations highlighted in this report, continue to advocate for comprehensive payment reform.

### **Suggestions for partners in higher education:**

- Support healthcare workforce faculty development:
  - In order to assist educators as they respond to the needs of health system reform, provide the resources needed to involve health professions educators in high level reform efforts such as OHA's Transformation Center Learning Collaboratives and Institutes.
  - (Recommendation from the 2011 Competencies report) Provide opportunities for faculty—not just trainees—to gain experience with interprofessional practice and new models of care via experience sabbaticals that allow faculty to return to the field, utilizing staff from health care organizations that have adopted new models as adjunct faculty, or other means.
  - Convene stakeholder group of educators, employers and recent graduates of the healthcare professions to identify strategies for implementing healthcare faculty development opportunities based on best practices in the field.
  - Implement the healthcare faculty development opportunities identified by the above stakeholder group.
  - Advocate for sufficient funding to support faculty development in emerging healthcare workforce categories such as team building and coordination, coaching and continuous quality improvement.
  - Convene a task force to research, then advocate for, incentives that would work to attract expert healthcare profession educators to Oregon.

### **Suggestions for partners in the healthcare industry:**

- Support the establishment of a Healthcare Industry Council similar to the Engineering and Technology Industry Council which will leverage and provide oversight for public and private funds to improve and expand educational capacity (faculty, programs, and facilities) to meet the needs of Oregon's healthcare industry.
- Encourage the Healthcare Industry Council (when established) to develop template job descriptions, job duties, hiring criteria and other tools for new and retooled healthcare workforce roles to assist employers in hiring and integrating newly trained healthcare workers.

## VII. Conclusion

Oregon is on the forefront of health reform in the United States and driving aggressively toward the triple aim of better care, better health and lower cost. Because of this, Oregon's health system and healthcare workforce is in the process of rapid change. Many traditional roles in the healthcare workforce are adapting to reflect this change while other new roles are being developed. Hospitals and clinics are embracing coordinated, team-based care requiring competencies not previously needed such as team managers, coaches and coordinators. Providers are also adopting new technologies such as electronic health records and telemedicine to expand their reach and scope and finding they need information technology experts and scribes to make the best use of these technologies.

Oregon's educational system is working hard to provide the workforce with the competencies needed in our changing system. Although programs and classes have been added to serve students and the industry, more faculty development opportunities are needed to support the faculty teaching in this new and dynamic environment. Oregon leaders also need to ensure that protections are in place for students so that they can be confident that their program will provide them with the education they need for certification, licensure and, eventually, a job in the field.

This report is only a snapshot in time of Oregon's dynamic healthcare workforce. It will be important to continue to monitor and evaluate efforts to accommodate the needs of health reform as Oregon moves into a future of improved health and welfare.

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<sup>i</sup> Oregon Health Authority; 2014 Opening the Oregon Health Plan to More People; <http://www.oregon.gov/oha/Pages/ohp2014.aspx>

<sup>ii</sup> Impacts of the Affordable Care Act on Health Insurance Coverage In Oregon; Oregon Health and Science University; September 2014; <http://www.ohsu.edu/xd/research/centers-institutes/center-for-health-systems-effectiveness/current-projects/upload/Impacts-of-the-Affordable-Care-Act-on-Health-Insurance-Coverage-in-Oregon.pdf>

<sup>iii</sup> Oregon Employment Department; Regional Employment Projections by Industry and Occupation 2012-2022; <http://www.qualityinfo.org/olmisj/PubReader?itemid=00003217>

<sup>iv</sup> Centers for Medicaid and Medicare Amended Waiver List and Expenditure Authority, 2012; pg. 74, Standard Terms and Conditions; <http://www.oregon.gov/oha/OHPB/Documents/cms-waiver.pdf>

<sup>v</sup> Health Affairs Blog; The Changing Health Care World: Trends to Watch; 2014 February; DeVore, Susan; <http://healthaffairs.org/blog/2014/02/10/the-changing-health-care-world-trends-to-watch-in-2014/>

<sup>vi</sup> Project MUSE; Journal of Healthcare for the Poor and Underserved, Volume 22, Number 3 ;2011 August

<sup>vii</sup> Federation of State Medical Boards; Model Policy for the Appropriate use of Telemedicine Technologies in the Practice of Medicine; [http://library.fsmb.org/pdf/FSMB\\_Telemedicine\\_Policy.pdf](http://library.fsmb.org/pdf/FSMB_Telemedicine_Policy.pdf)

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- <sup>viii</sup> Improving Oregon's Health: Recommendations for Building a Healthcare Workforce for New Systems of Care, Brief Report from the Oregon Healthcare Workforce Committee to the Oregon Health Policy Board, 2011 December; <http://www.oregon.gov/oha/OHPR/HCW/Pages/Resources.aspx>
- <sup>ix</sup> American Pharmacists Association and American Society of Health-System Pharmacists Discussion Paper; concerns About the Accelerating Expansion of Pharmacy Education, Time for Reconsideration; Nov. 23<sup>th</sup>, 2010
- <sup>x</sup> Includes Walla Walla University's nursing program in Portland.
- <sup>xi</sup> Oregon Center for Nursing; 2013 Infographic Nursing Education in Oregon; 2014 September; [http://www.oregoncenterfornursing.org/images/2013\\_Education\\_Infographic.jpg](http://www.oregoncenterfornursing.org/images/2013_Education_Infographic.jpg)
- <sup>xii</sup> American Association of Colleges of Nursing; Nursing Faculty Shortages; 2014 August; <http://www.aacn.nche.edu/media-relations/fact-sheets/nursing-faculty-shortage>
- <sup>xiii</sup> The Education Trust; 2010; Subprime Opportunity; The Unfulfilled Promise of For-Profit Colleges and Universities; [http://www.accessandequity.org/PDFs/subprime\\_report.pdf](http://www.accessandequity.org/PDFs/subprime_report.pdf)
- <sup>xiv</sup> National Conference of State Legislatures; For Profit Colleges and Universities; 2013 July; <http://www.ncsl.org/research/education/for-profit-colleges-and-universities.aspx>
- <sup>xv</sup> <http://www.medicalassistantschools.com/states/oregon/>
- <sup>xvi</sup> Bipartisan Policy Center; What is Driving US Health Care Spending: America's Unsustainable Health Care Cost Growth; 2012 September; Adler, Loren; Ralph, Leah; Hoagland, G. William; <http://bipartisanpolicy.org/library/report/what-driving-us-health-care-spending-america%E2%80%99s-unsustainable-health-care-cost-growth>
- <sup>xvii</sup> Bureau of Labor Statistics; Occupational Outlook Handbook, 2012-2022; <http://www.bls.gov/ooh/community-and-social-service/health-educators.htm>
- <sup>xviii</sup> Health Affairs; Primary Care Technicians: A Solution to the Primary Care Workforce Gap Health Affairs: At the Intersection of Health, Healthcare, and Policy; 2013 November; <http://content.healthaffairs.org/content/32/11/1893.full.html>
- <sup>xix</sup> Cultivating a Robust Primary Care Home Team; A report to the 2012 OCHIN Learning Forum; 2012; Mosaic Medical Group
- <sup>xx</sup> <http://www.oregon.gov/oha/oei/Pages/approved-thw-training.aspx>
- <sup>xxi</sup> Patient-Centered Primary Care Home Update; Oregon Health Policy Board; Meeting materials July 1, 2014; <http://www.oregon.gov/oha/OHPB/Pages/2014-OHPB-Meetings.aspx>
- <sup>xxii</sup> Improving Oregon's Health: Recommendations for Building a Healthcare Workforce for New Systems of Care, Brief Report from the Oregon Healthcare Workforce Committee to the Oregon Health Policy Board, 2011 December; <http://www.oregon.gov/oha/OHPR/HCW/Pages/Resources.aspx>
- <sup>xxiii</sup> Health Affairs; "Health Policy Brief: Reducing Waste in Health Care,"; 2012 December; Berwick, Donald M; Hackbarth, Andrew D. <http://www.healthaffairs.org/healthpolicybriefs/>
- <sup>xxiv</sup> Healthcare Workforce Needs Assessment in Linn, Benton, and Lincoln Counties in Oregon, A Study by the Linn Benton Lincoln Workforce Investment Board; 2013 August; Eseonu, Chinweike I; Doolin, Toni
- <sup>xxv</sup> Innovative Workforce Models in Health Care: Utilizing Medical Assistants in Expanded Roles in Primary Care; UCSF Centers for the Health Professions; 2012 June; Dower, Catherine; Blash, Lisel; <http://www.futurehealth.ucsf.edu>
- <sup>xxvi</sup> Envisioning New Roles for Medical Assistants: Strategies from Patient-Centered Medical Homes; Fam Pract Manag. 2013 Mar-Apr;20(2):7-12; Naughton, Dana; Adelman, Alan; Bricker, Patricia; Miller-Day, Michelle; Gabbay, Robert <http://www.aafp.org/fpm/2013/0300/p7.html>
- <sup>xxvii</sup> OHA Patient Centered Primary Care Home Program 2014 Recognition Criteria; Technical Specifications and Reporting Guide; [www.PrimaryCareHome.oregon.gov](http://www.PrimaryCareHome.oregon.gov)
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**Appendix A: 2013-2014 Approved CTE Programs - Health related Programs by High School**

|   | <b>HIGH SCHOOL</b>                | <b>COUNTY</b> | <b>Health related programs</b>  |
|---|-----------------------------------|---------------|---|
| 1 | Astoria Senior High School        | Clatsop       | Health Occupations I<br>Health Occupations I<br>Health Occupations IIA<br>Health Occupations IIB  |
| 2 | Beaverton High School             | Washington    | Adv Health Careers<br>Adv Health Careers<br>Health Care Clinical<br>Health Care Clinical<br>Health Careers 1<br>Health Careers 1<br>Intro to Health Careers<br>Intro to Health Careers  |
| 3 | Benson Polytechnic High School    | Multnomah     | Communications and Personal Growth<br>Communications and Personal Growth<br>First Aid/CPR<br>Health Sciences 3: Medical Professions<br>Health Sciences 3: Pre-Dental<br>Health Sciences 3: Pre-Nursing<br>Health Sciences 4: Dental Assisting<br>Health Sciences 4: Medical Professions<br>Health Sciences 4: Nursing Assistant<br>HOC2 Comm/personal growth 1<br>Introduction to Health Sciences |
| 4 | Bonanza Junior/Senior High School | Klamath       | Intro to Health Occup<br>Intro to Health Occup<br>Health Occupation S1-S1<br>Health Occupation S1-S1<br>Health Occupation SII-SI<br>Health Occupation SII-SI<br>Intro to Health Occup   |
| 5 | Century High School               | Washington    | Anatomy & Physiology<br>Anatomy & Physiology<br>Health Services I<br>Health Services I<br>Health Services II<br>Health Services II  |
| 6 | Chiloquin High School             | Klamath       | Intro to Health Occupations<br>Intro to Health Occupations<br>Health Occupation S1-S1   |

|    |                                     |            |  |
|----|-------------------------------------|------------|--|
| 7  | Churchill High School               | Lane       | Health Occupation S1-S2<br>Health Occupation SII-S1<br>Health Occupation SII-S2<br>Intro to Health Occupations<br>Adv Health Occupations<br>Anatomy & Physiology<br>Anatomy & Physiology<br>Health Services-Senior Seminar<br>Medical Terminology A<br>Medical Terminology B |
| 8  | Clatskanie Middle School            | Columbia   | Health Services I<br>Health Services I<br>Health Services II<br>Health Services II   |
| 9  | Condon High School                  | Gilliam    | First Responder<br>Health Services I<br>Health Services II<br>Medical Terminology  |
| 10 | Cottage Grove High School           | Lane       | Anatomy & Medical Terminology<br>Anatomy & Medical Terminology<br>Anatomy & Medical Terminology<br>Wellness Occupation<br>Wellness Occupation<br>Wellness Occupation   |
| 11 | David Douglas High School           | Multnomah  | Anatomy & Physiology<br>Anatomy & Physiology<br>Chemistry<br>Ethics<br>First Aid/CPR<br>Health Occupation<br>Physics<br>Psychology<br>Sociology  |
| 12 | Forest Grove High School            | Washington | Anatomy & Physiology<br>Anatomy & Physiology<br>Health Occupations<br>Medical Terminology<br>Medical Terminology   |
| 13 | Fossil Charter School               | Wheeler    | First Responder<br>Health Services I<br>Health Services II<br>Medical Terminology  |
| 14 | Gilchrist Junior/Senior High School | Klamath    | Intro Health Occupation  |

|    |                                   |                        |  |
|----|-----------------------------------|------------------------|--|
| 15 | Glencoe High School               | Washington             | Intro Health Occupation<br>Health Occupation SI-SI<br>Health Occupation Si-S2<br>Health Occupation SII<br>Health Occupation SII<br>Intro to Health Occupations<br>Health Occupations<br>Health Services I<br>Health Services I<br>Health Services 2<br>Health Services 2<br>Advanced Medical Skills          |
| 16 | Grants Pass High School           | Three Rivers/Josephine | Emergency Care<br>Health Occ 1-Body Works<br>Health Occ 2-Body Works<br>Health Occ 3B Adv Rescue Technique<br>Health Occ 4B Adv Cert Disaster Response Training<br>Health Occupation SI-SI<br>Health Occupation SI-S2<br>Health Occupation SII-SI<br>Health Occupation SII-S2<br>Intro to Health Occupations |
| 17 | Henley High School                | Klamath                | Intro to Health Services<br>Medical Terminology<br>Medical Terminology<br>Personal Health<br>Athletic Training 1<br>Athletic Training 2<br>Essential Concepts for Health Living<br>Health Services I<br>Health Services 2<br>Medical Terminology I<br>Medical Terminology II                                 |
| 18 | Heppner Junior/Senior High School | Morrow                 | Intro to Health Services<br>Medical Terminology<br>Medical Terminology<br>Personal Health<br>Athletic Training 1<br>Athletic Training 2<br>Essential Concepts for Health Living<br>Health Services I<br>Health Services 2<br>Medical Terminology I<br>Medical Terminology II                                 |
| 19 | Hermiston High School             | Umatilla               | Intro to Health Services<br>Medical Terminology<br>Medical Terminology<br>Personal Health<br>Athletic Training 1<br>Athletic Training 2<br>Essential Concepts for Health Living<br>Health Services I<br>Health Services 2<br>Medical Terminology I<br>Medical Terminology II                                 |
| 20 | Ione Community Charter School     | Morrow                 | Intro to Health Services<br>Medical Terminology<br>Medical Terminology<br>Personal Health<br>Athletic Training 1<br>Athletic Training 2<br>Essential Concepts for Health Living<br>Health Services I<br>Health Services 2<br>Medical Terminology I<br>Medical Terminology II                                 |
| 21 | John F Kennedy High School        | Marion                 | Cooperative Work Experience<br>Fire Service Rescue Practices<br>Hazardous Materials Operations<br>Intro to Emergency Services  |

|    |                         |            |  |
|----|-------------------------|------------|--|
| 22 | Knappa High School      | Clatsop    | <p>Medical Terminology I</p> <p>Wildland Urban Interface</p> <p>Health Occupation I</p> <p>Health Occupation II</p> <p>Health Occupation II</p>  |
| 23 | Lebanon High School     | Malheur    | <p>Anatomy &amp; Physiology</p> <p>Biology of Disease: Health</p> <p>Health Occupations</p>  |
| 24 | Liberty High School     | Washington | <p>Health Services I</p> <p>Health Services I</p> <p>Health Services II</p> <p>Health Services II</p>  |
| 25 | Lost River High School  | Klamath    | <p>Health Occupation SI-SI</p> <p>Health Occupation SI-S2</p> <p>Health Occupation SII-SI</p> <p>Health Occupation SII-S2</p> <p>Intro to Health Occupations</p> <p>Intro to Health Occupations</p>  |
| 26 | Madison High School     | Multnomah  | <p>Anatomy &amp; Physiology 1</p> <p>Anatomy &amp; Physiology 2</p> <p>Health Services I</p> <p>Health Services 2</p> <p>Health Services 5</p> <p>Health Services 6</p> <p>Health Services 7</p> <p>Health Services 8</p>                    |
| 27 | Mazama High School      | Klamath    | <p>Health Occupation S1 S1</p> <p>Health Occupation S1 S2</p> <p>Health Occupation SII S1</p> <p>Health Occupation SII S2</p> <p>Intro to Health Occupations</p>   |
| 28 | McKay High School       | Marion     | <p>Advanced Sports Medicine</p> <p>Health Sciences I</p> <p>Intro to Health Services</p> <p>Medical Terminology I</p> <p>Medical Terminology II</p> <p>Nursing Fundamentals</p> <p>Science in Medical Terminology</p> <p>Sports Medicine</p> |
| 29 | McMinnville High School | Yamhill    | <p>Health Occupations I</p> <p>Health Occupations II</p> <p>Human Anatomy</p> <p>Intro to Emergency Services</p>   |

|    |   |           |  |
|----|---|-----------|--|
| 30 | Mitchell High School                            | Wheeler   | Medical Terminology<br>Sport Medicine<br>First Responder<br>Health Services I<br>Health Services II  |
| 31 | Neah-kah-Nie High School                        | Tillamook | Medical Terminology<br>Emergency Care Procedures<br>Health Occupations I<br>Health Occupations II  |
| 32 | Nestucca High School                            | Tillamook | Medical Terminology<br>Emergency Care Procedures<br>Health Occupations I<br>Health Occupations II  |
| 33 | North Salem High School                         | Marion    | Medical Terminology<br>Health Services 1<br>Health Services 2<br>Intro to Health Services<br>Medical Terminology 1<br>Medical Terminology II                           |
| 34 | Parkrose High School                            | Multnomah | Science in Medical Terminology<br>Health Services I<br>Health Services II<br>Health Services III   |
| 35 | Pendleton High School                           | Umatilla  | Intro to Health Services<br>Medical Terminology<br>Medical Terminology<br>Personal Health  |
| 36 | Philomath High School                           | Benton    | Anatomy and Physiology<br>Health in Relationships<br>Health Occupations I<br>Health Occupations 2  |
| 37 | Sabin-Schellenberg Professional Training Center | Clackamas | Health Care Trends<br>Health Sciences I<br>Health Sciences 2: Internships<br>Health Sciences 2: Internships<br>Health Sciences 2: Seminar<br>Survey of Health Sciences |
| 38 | Sherman Junior/Senior High School               | Sherman   | First Responder<br>Health Services I<br>Health Services II   |
| 39 | Silverton High School                           | Marion    | Medical Terminology<br>Anatomy & Physiology I&II   |

|    |                                      |           |  |
|----|--------------------------------------|-----------|--|
| 40 | Sisters High School                  | Deschutes | Health Occupations<br>Medical Terminology I<br>Emergency Care<br>EMS/Fire Internship<br>Health Occupations<br>Intern Health Work<br>Medical Terminology I<br>Medical Terminology II<br>Nutrition and Fitness<br>Sports Medicine<br>Straight Talk |
| 41 | Siuslaw High School                  | Lane      | Health Occupations I<br>Health Occupations I<br>Health Occupations II<br>Health Occupations II<br>Internship: Health Occupations III   |
| 42 | Sprague High School                  | Marion    | Advanced Sports Medicine<br>Health Services I<br>Health Services II<br>Intro to Health Services<br>Medical Terminology I<br>Medical Terminology II<br>Science Fundamentals in Sports Medicine<br>Sports Medicine<br>Sports Medicine Practicum    |
| 43 | Spray School                         | Wheeler   | First Responder<br>Health Services I<br>Health Services II<br>Medical Terminology  |
| 44 | Sweet Home High School               | Linn      | Anatomy & Physiology I<br>Anatomy & Physiology II<br>Health Occupations I<br>Health Occupations 2  |
| 45 | Tillamook High School                | Tillamook | Emergency care Procedures<br>Health Occupations I<br>Health Occupations II<br>Medical Terminology  |
| 46 | Warrenton High School                | Clatsop   | Healthcare I<br>Healthcare II  |
| 47 | Wellness, Business and Sports School | Marion    | Anatomy & Physiology<br>Health I for Health Care Careers<br>Healthcare Occupations<br>Medical Terminology I  |

Medical Terminology II  
Emergency Medical Technician  
Health Services Community Practicum  
Health Services I  
Health Services II  
Intro to Health Services  
Medical Terminology I  
Medical Terminology II  
Science in Medical Terminology

**Appendix B:**  
**List of OHA Office of Equity and Inclusion**  
**Approved Traditional Health Worker Training Programs**

(as of 7/21/2014)

| Program Name                             | Location   | Website   |
|--|--|---|
| Cascadia Peer Wellness Program           | Cascadia Behavioral Health<br>847 NE 19th St.<br>Portland, OR 97232<br>503-963-7772  | <a href="http://www.cascadiabhc.org">www.cascadiabhc.org</a>  |
| Community Health Worker Training         | Central Oregon Community College,<br>2600 NW College Way,<br>Bend, Oregon 97701<br>541-383-7273  | <a href="http://www.cocc.edu/continuingeducation/community-health-worker/">http://www.cocc.edu/continuingeducation/community-health-worker/</a> |
| Community Health Worker                  | Rogue Community College<br>7800 Pacific Ave.<br>White City, OR 97503<br>541-245-7934   | <a href="http://www.roguecc.edu">www.roguecc.edu</a>  |
| Community Health Worker Training Program | Institute for Professional Care Education<br>8740 SE Sunnybrook Blvd., Suite 300<br>Clackamas, OR 97105<br>503-650-1022  | <a href="http://www.ipced.com">www.ipced.com</a>  |
| Community Health Worker Training Program | Lane/Clackamas Community Colleges<br>4000 E. 30th Ave.<br>Eugene, OR 97404<br>541-463-5618 (Lane Community College) or<br>503-594-0699 (Clackamas Community College) | <a href="http://www.lanecc.edu">www.lanecc.edu</a> ;<br><a href="http://www.clackamas.edu">www.clackamas.edu</a>                                |



|  |  |  |
|--|--|--|
| ICTC Full Circle Doula   | International Center for Traditional Childbearing<br>5257 NE Martin Luther King Jr. Blvd. Suite 202D<br>Portland, OR 97211<br><br>503-460-9324 | <a href="http://www.ictcmidwives.org">www.ictcmidwives.org</a>   |
| Personal Health Navigator Training Program                                 | Institute for Professional Care Education, LLC<br><br>8740 SE Sunnyside Blvd., Suite 300<br><br>Clackamas, OR 97015<br><br>503-650-1022        | <a href="http://www.ipced.com">www.ipced.com</a>   |
| NEON Community Health Worker Training Program                              | Northeast Oregon Network<br><br>1802 4th St., Suite A<br><br>La Grande, OR 97850<br><br>541-398-1720   | <a href="http://www.neonoregon.org">www.neonoregon.org</a>   |
| We Are Health: A Capacity Building Curriculum for Community Health Workers | Community Capacitation Center<br><br>10317 E Burnside St.<br><br>Portland, OR 97216<br><br>503-988-6250 ext 26646                              | <a href="http://web.multco.us/health/community-capacitation-center">web.multco.us/health/community-capacitation-center</a> |

Source: Oregon Health Authority Office of Equity and Inclusion: <http://www.oregon.gov/oha/oei/Pages/approved-thw-training.aspx>



**Appendix C:**

**List of OHA Addictions and Mental Health Services**

**Approved Peer Support Specialists Training Programs**

(as of 7/21/2014)

| <b>Approved training</b>   | <b>Agency</b>                               | <b>Program</b>  | <b>Address</b>  |
|--|---|---|---|
| Addiction Peer Support Specialists, Recovery Mentors   | Portland Community College                  | Addictions Peer Specialist                            | 24205 N.E. Alvas Road<br>Battleground, WA 98604<br><br>503-740-9478 |
| Addiction Peer Support Specialists, Recovery Mentors   | Relief Nursery                              | Accessing Success Peer Support Specialist             | 1720 West 25th Avenue<br>Eugene, OR 97405<br><br>541-343-9706       |
| Mental Health Peer Support Specialists   | National Alliance on Mental Health          | Lane County Peer Recovery Support Specialist          | 76 Centennial Loop, Suite A<br>Eugene, OR 97401<br><br>541-343-7688 |
| Addiction Peer Support Specialists, Mental Health Peer Support Specialists, Recovery Mentors | Willamette Family Treatment Services        | Peer Support Service Model                            | 149 West 12th Ave<br>Eugene, OR 97401<br><br>541-344-0031           |
| Mental Health Peer Support Specialists, Young Adults in Transition Peer Specialists          | Oregon Behavioral Consultation and Training | Peer Support Specialist Training                      | 4000 Cloverlawn Drive<br>Grants Pass, OR 97527<br><br>541-891-8892  |
| Mental Health Peer Support Specialists   | Kathleen McNeill                            | Peer Support Specialist Training: Recovery and Beyond | 3436 Blueblossom Dr<br>Medford, OR 97504<br><br>541-324-9208        |
| Mental Health Peer Support Specialists   | Recovery and Beyond                         | Peer Support Specialist and Peer Delivered Services   | 205 Central Avenue<br>Adams Room<br>Medford, OR                     |

| <b>Approved training</b>   | <b>Agency</b>                                     | <b>Program</b>  | <b>Address</b>  |
|--|---|---|---|
| Mental Health Peer Support Specialists   | Cultivating a New Life LLC                        | Cultivating a New Life through Community Connections        | 1521 N. Jantzen Ave. #203<br>Portland, OR 97214<br><br>503-310-8684 |
| Addiction Peer Support Specialists, Recovery Mentors   | The Miracles Club                                 | Each One Teach One Certified Recovery Mentor (CRM) Training | 4150 N.E. MLK Blvd.<br>Portland, OR 97211<br><br>503-249-8559       |
| Mental Health Peer Support Specialists   | Empowerment Initiatives                           | Peer Support Specialist Training                            | 3941 S.E. Hawthorne Blvd.<br>Portland, OR 97214<br><br>503-249-1413 |
| Addiction Peer Support Specialists, Recovery Mentors   | Central City Concern                              | Pathways to Empowerment                                     | 232 NW 6th Ave.<br>Portland, OR 97209<br><br>503-228-7134           |
| Mental Health Peer Support Specialists   | Mental Health America of Oregon                   | Peer Employment Specialist                                  | 10150 SE Ankeny Street<br>Portland, OR 97216<br><br>503-922-2377    |
| Addiction Peer Support Specialists, Recovery Mentors   | Addiction Counselor Certification Board of Oregon | Walking the Talk  | 2054 N. Vancouver Ave.<br>Portland, OR 97227<br><br>503-231-8164    |
| Mental Health Peer Support Specialists, Young Adults in Transition Peer Specialists          | Oregon Family Support Network                     | Oregon Family Support Network                               | 1300 Broadway Street NE<br>Salem, OR 97301<br><br>503-709-3327      |
| Mental Health Peer Support Specialists, Young Adults in Transition Peer Specialists          | Youth M.O.V.E. Oregon                             | Youth M.O.V.E. Oregon                                       | 1300 Broadway Street NE<br>Salem, OR 97301<br><br>541-606-1514      |
| Addiction Peer Support Specialists, Mental Health Peer Support Specialists, Recovery Mentors | Project A.B.L.E.                                  | Project A.B.L.E. Peer Support Specialist                    | 1599 State Street NE<br>Salem, OR 97301<br><br>503-363-3260         |

| Approved training   | Agency                | Program                        | Address  |
|---|-----------------------|--------------------------------|--|
| Addiction Peer Support Specialists, Mental Health Peer Support Specialists, Recovery Mentors, Young Adults in Transition Peer Specialists | Community Connections | Intentional Peer Support (IPS) | 23955 S.W. Ladd Hill Rd.<br>Sherwood, OR 97140<br><br>503-319-6671 |
| Addiction Peer Support Specialists, Recovery Mentors  | MindMap LLC           | Recovery Mentoring 101         | 19871 View Drive<br>West Linn, OR 97068<br><br>503-970-2522        |

Source: Oregon Health Authority Addictions and Mental Health Services:  
<http://www.oregon.gov/oha/amh/pd/Pages/approved-training.aspx>



## Appendix D:

### Inventory of Health Care Industry-Related Degrees at the Associate Level or Higher from All Oregon Public and Private Higher Education Institutions by Degree Program (2012)

Source: U.S. Department of Education, National Center for Education Statistics, Integrated Post-Secondary Education Data System, December 2013

(Institution and Program Detail follows )

| Health Care Field                        | Total Reported Graduates 2012 |
|--|-------------------------------|
| Alternative and Complementary Medicine   | 13                            |
| Biomedicine, Technology, and Engineering | 16                            |
| Clinical Laboratory Sciences             | 60                            |
| Dental Sciences                          | 291                           |
| Dietetics and Clinical Nutrition         | 24                            |
| Emergency Medicine Technology            | 157                           |
| Imaging and Radiation Technology/Therapy | 220                           |
| Health Information Management            | 93                            |
| Informatics                              | 110                           |
| Management and Administration            | 456                           |

|  |             |
|--|-------------|
| <b>Medical Assisting (Degree Programs)</b>                   | <b>256</b>  |
| <b>Medicine (Allopathic, Naturopathic, Chiropractic, PA)</b> | <b>409</b>  |
| <b>Mental and Behavioral Health</b>                          | <b>992</b>  |
| <b>Nursing</b>   | <b>1456</b> |
| <b>Optometric Science/Services</b>                           | <b>115</b>  |
| <b>Pharmacy</b>  | <b>221</b>  |
| <b>Preparatory Programs</b>                                  | <b>23</b>   |
| <b>Public/Population Health</b>                              | <b>538</b>  |
| <b>Therapy and Rehabilitation Sciences</b>                   | <b>325</b>  |
| <b>Respiratory Therapy</b>                                   | <b>107</b>  |
| <b>Other Clinical Technology</b>                             | <b>232</b>  |

| <b>Institution Name</b>                       | <b>Degree/Program Title</b>     | <b>2012 Award Level</b> | <b>Total Reported Graduates 2012</b> |
|---|---------------------------------|-------------------------|--------------------------------------|
| <b>Alternative and Complementary Medicine</b> |                                 |                         |                                      |
| Oregon College of Oriental Medicine           | Acupuncture & Oriental Medicine | Doctorate               | 9                                    |
| National College of Natural Medicine          | Acupuncture & Oriental Medicine | Master's                | 28                                   |



|   |  |                    |           |
|---|--|--------------------|-----------|
| Oregon College of Oriental Medicine     | Acupuncture & Oriental Medicine                        | Master's           | 61        |
| <b>Total Graduates</b>                  |  |                    | <b>98</b> |
| American College of Healthcare Sciences | Alternative & Complementary Medicine & Medical Systems | Associate          | 8         |
| American College of Healthcare Sciences | Alternative & Complementary Medicine & Medical Systems | Master's           | 1         |
| American College of Healthcare Sciences | Alternative & Complementary Medicine & Medical Systems | Post baccalaureate | 4         |
| <b>Total Graduates</b>                  |  |                    | <b>13</b> |

| <b>Biomedicine, Technology, and Engineering</b> |   |            |           |
|---|---|------------|-----------|
| Portland Community College                      | Bioengineering & Biomedical Engineering | Associate  | 23        |
| <b>Total Graduates</b>                          |   |            | <b>23</b> |
| Oregon State University                         | Bioengineering & Biomedical Engineering | Bachelor's | 20        |
| Oregon Health & Science University              | Bioengineering & Biomedical Engineering | Doctorate  | 1         |
| Oregon Health & Science University              | Bioengineering & Biomedical Engineering | Master's   | 1         |
| <b>Total Graduates</b>                          |   |            | <b>22</b> |
| Portland Community College                      | Biotechnology                           | Associate  | 3         |
| <b>Total Graduates</b>                          |   |            | <b>3</b>  |
| Oregon State University                         | Biotechnology                           | Bachelor's | 13        |
| Oregon State University                         | Biotechnology                           | Master's   | 3         |
| <b>Total Graduates</b>                          |   |            | <b>16</b> |

| <b>Clinical Laboratory Sciences</b> |   |            |           |
|-------------------------------------|---|------------|-----------|
| Oregon Institute of Technology      | Clinical Laboratory Science/Medical Technology/Technologist | Bachelor's | 35        |
| Portland Community College          | Clinical/Medical Laboratory Technician                      | Associate  | 25        |
| <b>Total Graduates</b>              |   |            | <b>60</b> |

| <b>Dental Sciences</b>            |   |                   |            |
|-----------------------------------|---|-------------------|------------|
| Lane Community College            | Dental Hygiene/Hygienist                    | Associate         | 30         |
| Mt Hood Community College         | Dental Hygiene/Hygienist                    | Associate         | 17         |
| Oregon Institute of Technology    | Dental Hygiene/Hygienist                    | Associate         | 27         |
| Portland Community College        | Dental Hygiene/Hygienist                    | Associate         | 28         |
| Treasure Valley Community College | Dental Hygiene/Hygienist                    | Associate         | 2          |
| Oregon Institute of Technology    | Dental Hygiene/Hygienist                    | Bachelor's        | 54         |
| Pacific University                | Dental Hygiene/Hygienist                    | Bachelor's        | 33         |
| <b>Total Graduates</b>            |   |                   | <b>191</b> |
| Portland Community College        | Dental Laboratory Technology/Technician     | Associate         | 11         |
| Portland Community College        | Dental Laboratory Technology/Technician     | 2 ≤ but < 4 years | 5          |
| <b>Total Graduates</b>            |   |                   | <b>16</b>  |
| Pacific University                | Dental Services & Allied Professions, Other | Bachelor's        | 0          |
| <b>Total Graduates</b>            |   |                   | <b>0</b>   |

|                                    |                             |               |           |
|------------------------------------|-----------------------------|---------------|-----------|
| Oregon Health & Science University | Dentistry                   | Doctorate     | 68        |
| <b>Total Graduates</b>             |                             |               | <b>68</b> |
| Oregon Health & Science University | Endodontics/Endodontology   | Post-master's | 3         |
| <b>Total Graduates</b>             |                             |               | <b>3</b>  |
| Oregon Health & Science University | Orthodontics/Orthodontology | Master's      | 4         |
| Oregon Health & Science University | Orthodontics/Orthodontology | Post-master's | 4         |
| <b>Total Graduates</b>             |                             |               | <b>8</b>  |
| Oregon Health & Science University | Periodontics/Periodontology | Master's      | 2         |
| Oregon Health & Science University | Periodontics/Periodontology | Post-master's | 3         |
| <b>Total Graduates</b>             |                             |               | <b>5</b>  |

|   |                                 |                   |           |
|---|---------------------------------|-------------------|-----------|
| <b>Dietetics and Clinical Nutrition</b> |                                 |                   |           |
| Oregon Health & Science University      | Clinical Nutrition/Nutritionist | Master's          | 3         |
| <b>Total Graduates</b>                  |                                 |                   | <b>3</b>  |
| Oregon Health & Science University      | Dietetics/Dietitian             | Postbaccalaureate | 21        |
| Oregon Health & Science University      | Dietetics/Dietitian             | Master's          | 0         |
| <b>Total Graduates</b>                  |                                 |                   | <b>21</b> |

|                                      |  |  |  |
|--------------------------------------|--|--|--|
| <b>Emergency Medicine Technology</b> |  |  |  |
|--------------------------------------|--|--|--|

|                                       |   |                   |            |
|---------------------------------------|---|-------------------|------------|
| Central Oregon Community College      | Emergency Medical Technology/Technician (EMT Paramedic) | Associate         | 28         |
| Chemeketa Community College           | Emergency Medical Technology/Technician (EMT Paramedic) | Associate         | 40         |
| Clackamas Community College           | Emergency Medical Technology/Technician (EMT Paramedic) | Associate         | 0          |
| Lane Community College                | Emergency Medical Technology/Technician (EMT Paramedic) | Associate         | 13         |
| Mt Hood Community College             | Emergency Medical Technology/Technician (EMT Paramedic) | Associate         | 0          |
| Oregon Institute of Technology        | Emergency Medical Technology/Technician (EMT Paramedic) | Associate         | 17         |
| Portland Community College            | Emergency Medical Technology/Technician (EMT Paramedic) | Associate         | 21         |
| Rogue Community College               | Emergency Medical Technology/Technician (EMT Paramedic) | Associate         | 13         |
| Southwestern Oregon Community College | Emergency Medical Technology/Technician (EMT Paramedic) | Associate         | 10         |
| Treasure Valley Community College     | Emergency Medical Technology/Technician (EMT Paramedic) | Associate         | 0          |
| Umpqua Community College              | Emergency Medical Technology/Technician (EMT Paramedic) | Associate         | 12         |
| Portland Community College            | Emergency Medical Technology/Technician (EMT Paramedic) | 2 ≤ but < 4 years | 3          |
| <b>Total Graduates</b>                |   |                   | <b>157</b> |

| <b>Imaging and Radiation Technology/Therapy</b> |   |            |           |
|---|---|------------|-----------|
| Oregon Institute of Technology                  | Diagnostic Medical Sonography/Sonographer & Ultrasound Technician | Bachelor's | 82        |
| <b>Total Graduates</b>                          |   |            | <b>82</b> |
| Oregon Institute of Technology                  | Echocardiography  | Bachelor's |           |

|                                    |   |            |                        |
|------------------------------------|---|------------|------------------------|
|                                    |   |            | <b>Total Graduates</b> |
| Portland Community College         | Medical Radiologic Technology/Science - Radiation Therapist | Associate  | 31                     |
| Treasure Valley Community College  | Medical Radiologic Technology/Science - Radiation Therapist | Associate  | 0                      |
| Oregon Health & Science University | Medical Radiologic Technology/Science - Radiation Therapist | Bachelor's | 9                      |
|                                    |   |            | <b>Total Graduates</b> |
|                                    |   |            | <b>40</b>              |
| Oregon Institute of Technology     | Nuclear Medical Technology/Technologist                     | Bachelor's | 16                     |
|                                    |   |            | <b>Total Graduates</b> |
|                                    |   |            | <b>26</b>              |
| Linn-Benton Community College      | Radiologic Technology/Science - Radiographer                | Associate  | 22                     |
| Oregon Institute of Technology     | Radiologic Technology/Science - Radiographer                | Bachelor's | 50                     |
|                                    |   |            | <b>Total Graduates</b> |
|                                    |   |            | <b>72</b>              |

| Health Information Management      |   |                   |                        |
|------------------------------------|---|-------------------|------------------------|
| Oregon Health & Science University | Health Information Management                                   | Postbaccalaureate |                        |
| Oregon Health & Science University | Health Information Management                                   | Master's          |                        |
| Oregon Health & Science University | Health Information Management                                   | Doctorate         |                        |
|                                    |   |                   | <b>Total Graduates</b> |
|                                    |   |                   | <b>0</b>               |
| Klamath Community College          | Health Information/Medical Records Administration/Administrator | Associate         | 6                      |
| Mt Hood Community College          | Health Information/Medical Records Administration/Administrator | Associate         | 0                      |
|                                    |   |                   | <b>Total Graduates</b> |
|                                    |   |                   | <b>6</b>               |
| Central Oregon Community College   | Health Information/Medical Records Technology/Technician        | Associate         | 27                     |

| <b>Health Information Management</b> |  |           |           |
|--------------------------------------|--|-----------|-----------|
| Portland Community College           | Health Information/Medical Records Technology/Technician | Associate | 32        |
| <b>Total Graduates</b>               |  |           | <b>59</b> |
| Heald College-Portland               | Medical Insurance Specialist/Medical Biller              | Associate | 22        |
| <b>Total Graduates</b>               |  |           | <b>22</b> |
| Rogue Community College              | Medical Office Computer Specialist/Assistant             | Associate | 5         |
| <b>Total Graduates</b>               |  |           | <b>5</b>  |
| Chemeketa Community College          | Medical Transcription/Transcriptionist                   | Associate | 0         |
| Mt Hood Community College            | Medical Transcription/Transcriptionist                   | Associate | 1         |
| Treasure Valley Community College    | Medical Transcription/Transcriptionist                   | Associate | 0         |
| <b>Total Graduates</b>               |  |           | <b>1</b>  |

| <b>Informatics</b>                 |   |            |          |
|------------------------------------|---|------------|----------|
| Oregon Health & Science University | Bioinformatics & Computational Biology                  | Doctorate  |          |
| Oregon Health & Science University | Bioinformatics & Computational Biology                  | Master's   |          |
| <b>Total Graduates</b>             |   |            | <b>0</b> |
| Pacific University                 | Biomathematics, Bioinformatics, & Computational Biology | Bachelor's | 0        |
| Oregon Health & Science University | Biomathematics, Bioinformatics, & Computational Biology | Doctorate  | 0        |
| Oregon Health & Science University | Biomathematics, Bioinformatics, & Computational Biology | Master's   | 27       |

|                                       |   |                   |            |
|---------------------------------------|---|-------------------|------------|
| Oregon Health & Science University    | Biomathematics, Bioinformatics, & Computational Biology | Postbaccalaureate | 73         |
| <b>Total Graduates</b>                |   |                   | <b>100</b> |
| Oregon Health & Science University    | Clinical Informatics                                    | Postbaccalaureate |            |
| Oregon Health & Science University    | Clinical Informatics                                    | Master's          |            |
| Oregon Health & Science University    | Clinical Informatics                                    | Doctorate         |            |
| <b>Total Graduates</b>                |   |                   | <b>0</b>   |
| Oregon Institute of Technology        | Health Informatics                                      | Bachelor's        | 4          |
| <b>Total Graduates</b>                |   |                   | <b>4</b>   |
| Clackamas Community College           | Medical Informatics                                     | Associate         | 0          |
| Mt Hood Community College             | Medical Informatics                                     | Associate         | 3          |
| Portland Community College            | Medical Informatics                                     | Associate         | 3          |
| Southwestern Oregon Community College | Medical Informatics                                     | Associate         | 0          |
| <b>Total Graduates</b>                |   |                   | <b>6</b>   |

| <b>Management and Administration</b> |  |                   |          |
|--------------------------------------|--|-------------------|----------|
| University of Oregon                 | Arts Management /Arts in Healthcare Management     | Master's          |          |
| <b>Total Graduates</b>               |  |                   | <b>0</b> |
| Oregon Health & Science University   | Business Administration & Management - Health care | Postbaccalaureate | 0        |
| Oregon Health & Science University   | Business Administration & Management - Health care | Master's          | 3        |

| <b>Management and Administration</b> |   |                   |          |
|--------------------------------------|---|-------------------|----------|
| <b>Total Graduates</b>               |   |                   | <b>3</b> |
| Northwest Christian University       | Health & Medical Administrative Services, Other             | Postbaccalaureate | 1        |
| Northwest Christian University       | Health & Medical Administrative Services, Other             | Master's          | 2        |
| <b>Total Graduates</b>               |   |                   | <b>3</b> |
| Northwest Christian University       | Health Services Administration                              | Bachelor's        | 2        |
| Pioneer Pacific College              | Health/Health Care Administration/Management                | Associate         | 77       |
| Linfield College                     | Health/Health Care Administration/Management (online)       | Certificate       |          |
| Concordia University-Portland        | Health/Health Care Administration/Management                | Bachelor's        | 26       |
| Oregon Institute of Technology       | Health/Health Care Administration/Management                | Bachelor's        | 4        |
| Oregon State University              | Health/Health Care Administration/Management                | Bachelor's        | 28       |
| Pioneer Pacific College              | Health/Health Care Administration/Management                | Bachelor's        | 5        |
| Portland State University            | Health/Health Care Administration/Management                | Bachelor's        | 3        |
| Concordia University-Portland        | Health/Health Care Administration/Management                | Postbaccalaureate | 0        |
| Oregon Health & Science University   | Health/Health Care Administration/Management                | Postbaccalaureate | 14       |
| Oregon Health & Science University   | Health/Health Care Administration/Management                | Master's          | 55       |
| Pacific University                   | Health/Health Care Administration/Management                | Master's          | 13       |
| Portland State University            | Health/Health Care Administration/Management                | Master's          | 28       |
| University of Portland               | Health/Health Care Administration/Management                | Master's          | 0        |
| University of Phoenix-Oregon Campus  | Hospital & Health Care Facilities Administration/Management | Bachelor's        | 2        |



| <b>Management and Administration</b> |  |                   |                        |            |
|--------------------------------------|--|-------------------|------------------------|------------|
|                                      |  |                   | <b>Total Graduates</b> | <b>257</b> |
| Chemeketa Community College          | Medical Office Management/Administration | Associate         |                        | 31         |
|                                      |  |                   | <b>Total Graduates</b> | <b>31</b>  |
| Portland Community College           | Public Administration                    | Associate         |                        | 3          |
| Eastern Oregon University            | Public Administration                    | Bachelor's        |                        | 1          |
| University of Oregon                 | Public Administration                    | Bachelor's        |                        | 47         |
| Portland State University            | Public Administration                    | Postbaccalaureate |                        | 4          |
| Willamette University                | Public Administration                    | Postbaccalaureate |                        | 0          |
| Portland State University            | Public Administration                    | Master's          |                        | 92         |
| University of Oregon                 | Public Administration                    | Master's          |                        | 15         |
|                                      |  |                   | <b>Total Graduates</b> | <b>162</b> |

| <b>Medical Assisting (Degree Programs)</b> |                            |           |  |    |
|--|----------------------------|-----------|--|----|
| Everest College-Portland                   | Medical/Clinical Assistant | Associate |  | 46 |
| Heald College-Portland                     | Medical/Clinical Assistant | Associate |  | 75 |
| Linn-Benton Community College              | Medical/Clinical Assistant | Associate |  | 21 |
| Mt Hood Community College                  | Medical/Clinical Assistant | Associate |  | 15 |
| Pioneer Pacific College                    | Medical/Clinical Assistant | Associate |  | 94 |

|   |                            |           |            |
|---|----------------------------|-----------|------------|
| Southwestern Oregon Community College   | Medical/Clinical Assistant | Associate | 5          |
| <b>Total Graduates (count excludes completers of non-degreed Medical Assistant training programs)</b> |                            |           | <b>256</b> |

| <b>Medicine</b>  |                                   |            |            |
|--|-----------------------------------|------------|------------|
| University of Western States   | Chiropractic                      | Doctorate  | 125        |
| <b>Total Graduates</b>   |                                   |            | <b>125</b> |
| Oregon Health & Science University   | Medicine (Allopathic)             | Doctorate  | 122        |
| <b>Total Graduates</b>   |                                   |            | <b>122</b> |
| College of Osteopathic Medicine of the Pacific Northwest (Western University of Health Sciences) | Medicine (Osteopathic)            |            |            |
| <b>Total Graduates</b>   |                                   |            | <b>0</b>   |
| National College of Natural Medicine   | Naturopathic Medicine/Naturopathy | Doctorate  | 83         |
| <b>Total Graduates</b>   |                                   |            | <b>83</b>  |
| Pacific University   | Physician Assistant               | Bachelor's | 2          |
| Oregon Health & Science University   | Physician Assistant               | Master's   | 35         |
| Pacific University   | Physician Assistant               | Master's   | 42         |
| <b>Total Graduates</b>   |                                   |            | <b>79</b>  |

| <b>Mental and Behavioral Health</b> |                       |          |    |
|-------------------------------------|-----------------------|----------|----|
| Marylhurst University               | Art Therapy/Therapist | Master's | 14 |

| <b>Mental and Behavioral Health</b> |   |                   |           |
|-------------------------------------|---|-------------------|-----------|
| Marylhurst University               | Art Therapy/Therapist                     | Post-master's     | 0         |
| <b>Total Graduates</b>              |   |                   | <b>14</b> |
| George Fox University               | Behavioral Sciences                       | Bachelor's        | 31        |
| <b>Total Graduates</b>              |   |                   | <b>31</b> |
| Oregon Institute of Technology      | Clinical, Counseling & Applied Psychology | Bachelor's        | 38        |
| <b>Total Graduates</b>              |   |                   | <b>38</b> |
| University of Oregon                | Clinical, Counseling & Applied Psychology | Postbaccalaureate | 4         |
| Corban University                   | Clinical, Counseling & Applied Psychology | Master's          | 3         |
| George Fox University               | Clinical, Counseling & Applied Psychology | Master's          | 58        |
| Lewis & Clark College               | Clinical, Counseling & Applied Psychology | Master's          | 39        |
| Multnomah University                | Clinical, Counseling & Applied Psychology | Master's          | 16        |
| Northwest Christian University      | Clinical, Counseling & Applied Psychology | Master's          | 14        |
| Pacific University                  | Clinical, Counseling & Applied Psychology | Master's          | 78        |
| University of Oregon                | Clinical, Counseling & Applied Psychology | Master's          | 3         |
| George Fox University               | Clinical, Counseling & Applied Psychology | Post-master's     | 0         |
| Lewis & Clark College               | Clinical, Counseling & Applied Psychology | Post-master's     | 1         |
| George Fox University               | Clinical, Counseling & Applied Psychology | Doctorate         | 21        |
| Pacific University                  | Clinical, Counseling & Applied Psychology | Doctorate         | 46        |
| Portland State University           | Clinical, Counseling & Applied Psychology | Doctorate         | 8         |

| <b>Mental and Behavioral Health</b> |   |                   |            |
|-------------------------------------|---|-------------------|------------|
| University of Oregon                | Clinical, Counseling & Applied Psychology | Doctorate         | 10         |
| <b>Total Graduates</b>              |   |                   | <b>301</b> |
| Portland State University           | Marriage & Family Therapy/Counseling      | Postbaccalaureate | 4          |
| George Fox University               | Marriage & Family Therapy/Counseling      | Master's          | 22         |
| Lewis & Clark College               | Marriage & Family Therapy/Counseling      | Master's          | 14         |
| University of Oregon                | Marriage & Family Therapy/Counseling      | Master's          | 30         |
| Western Seminary                    | Marriage & Family Therapy/Counseling      | Master's          | 37         |
| George Fox University               | Marriage & Family Therapy/Counseling      | Post-master's     | 0          |
| <b>Total Graduates</b>              |   |                   | <b>107</b> |
| Mt Hood Community College           | Mental Health Counseling/Counselor        | Associate         | 22         |
| <b>Total Graduates</b>              |   |                   | <b>22</b>  |
| Lewis & Clark College               | Mental Health Counseling/Counselor        | Master's          | 42         |
| Southern Oregon University          | Mental Health Counseling/Counselor        | Master's          | 25         |
| George Fox University               | Mental Health Counseling/Counselor        | Post-master's     | 0          |
| <b>Total Graduates</b>              |   |                   | <b>67</b>  |
| Marylhurst University               | Music Therapy/Therapist                   | Bachelor's        | 6          |
| Willamette University               | Music Therapy/Therapist                   | Bachelor's        | 0          |
| <b>Total Graduates</b>              |   |                   | <b>6</b>   |
| Chemeketa Community College         | Social Work                               | Associate         | 5          |

| <b>Mental and Behavioral Health</b>   |                                      |            |            |
|---------------------------------------|--------------------------------------|------------|------------|
| Clackamas Community College           | Social Work                          | Associate  | 18         |
| Rogue Community College               | Social Work                          | Associate  | 15         |
| Southwestern Oregon Community College | Social Work                          | Associate  | 2          |
| Treasure Valley Community College     | Social Work                          | Associate  | 9          |
| <b>Total Graduates</b>                |                                      |            | <b>49</b>  |
| Concordia University-Portland         | Social Work                          | Bachelor's | 14         |
| George Fox University                 | Social Work                          | Bachelor's | 17         |
| Pacific University                    | Social Work                          | Bachelor's | 8          |
| Portland State University             | Social Work                          | Bachelor's | 48         |
| University of Portland                | Social Work                          | Bachelor's | 17         |
| Warner Pacific College                | Social Work                          | Bachelor's | 11         |
| <b>Total Graduates</b>                |                                      |            | <b>115</b> |
| Portland State University             | Social Work                          | Master's   | 183        |
| Pacific University                    | Social Work                          | Master's   |            |
| Portland State University             | Social Work                          | Doctorate  | 5          |
| <b>Total Graduates</b>                |                                      |            | <b>188</b> |
| Central Oregon Community College      | Substance Abuse/Addiction Counseling | Associate  | 5          |
| Chemeketa Community College           | Substance Abuse/Addiction Counseling | Associate  | 10         |
| Portland Community College            | Substance Abuse/Addiction Counseling | Associate  | 25         |

| <b>Mental and Behavioral Health</b>   |                                      |           |           |
|---------------------------------------|--------------------------------------|-----------|-----------|
| Rogue Community College               | Substance Abuse/Addiction Counseling | Associate | 0         |
| Southwestern Oregon Community College | Substance Abuse/Addiction Counseling | Associate | 1         |
| Tillamook Bay Community College       | Substance Abuse/Addiction Counseling | Associate | 0         |
| <b>Total Graduates</b>                |                                      |           | <b>41</b> |
| Lewis & Clark College                 | Substance Abuse/Addiction Counseling | Master's  | 13        |
| <b>Total Graduates</b>                |                                      |           | <b>13</b> |

| <b>Nursing</b>                     |                               |               |           |
|------------------------------------|-------------------------------|---------------|-----------|
| University of Portland             | Clinical Nurse Leader         | Master's      | 13        |
| <b>Total Graduates</b>             |                               |               | <b>13</b> |
| University of Portland             | Clinical Nurse Specialist     | Master's      | 0         |
| <b>Total Graduates</b>             |                               |               | <b>0</b>  |
| Oregon Health & Science University | Family Practice Nurse/Nursing | Master's      | 17        |
| University of Portland             | Family Practice Nurse/Nursing | Master's      | 0         |
| Oregon Health & Science University | Family Practice Nurse/Nursing | Post-master's | 0         |
| Oregon Health & Science University | Family Practice Nurse/Nursing | Doctorate     | 4         |
| <b>Total Graduates</b>             |                               |               | <b>21</b> |
| Oregon Health & Science University | Geriatric Nurse/Nursing       | Post-master's | 0         |

| <b>Nursing</b>                     |   |               |           |
|------------------------------------|---|---------------|-----------|
| <b>Total Graduates</b>             |   |               | <b>0</b>  |
| Oregon Health & Science University | Nurse Anesthetist                             | Master's      | 12        |
| <b>Total Graduates</b>             |   |               | <b>12</b> |
| Oregon Health & Science University | Nurse Midwife/Nursing Midwifery               | Master's      | 9         |
| Oregon Health & Science University | Nurse Midwife/Nursing Midwifery               | Post-master's | 0         |
| <b>Total Graduates</b>             |   |               | <b>9</b>  |
| University of Portland             | Nursing Administration                        | Master's      | 0         |
| <b>Total Graduates</b>             |   |               | <b>0</b>  |
| Mt Hood Community College          | Nursing Education                             | Associate     | 0         |
| Oregon Health & Science University | Nursing Education                             | Master's      | 3         |
| <b>Total Graduates</b>             |   |               | <b>3</b>  |
| Oregon Health & Science University | Nursing Practice                              | Doctorate     | 6         |
| University of Portland             | Nursing Practice                              | Doctorate     | 3         |
| <b>Total Graduates</b>             |   |               | <b>9</b>  |
| Treasure Valley Community College  | Practical Nursing & Nursing Assistants, Other | Associate     | 14        |
| <b>Total Graduates</b>             |   |               | <b>14</b> |
| Oregon Health & Science University | Psychiatric/Mental Health Nurse/Nursing       | Master's      | 12        |
| Oregon Health & Science University | Psychiatric/Mental Health Nurse/Nursing       | Post-master's | 1         |
| Oregon Health & Science University | Psychiatric/Mental Health Nurse/Nursing       | Doctorate     | 1         |

| <b>Nursing</b>                        |                                     |            |            |
|---------------------------------------|-------------------------------------|------------|------------|
| <b>Total Graduates</b>                |                                     |            | <b>14</b>  |
| Blue Mountain Community College       | Registered Nursing/Registered Nurse | Associate  | 18         |
| Central Oregon Community College      | Registered Nursing/Registered Nurse | Associate  | 47         |
| Chemeketa Community College           | Registered Nursing/Registered Nurse | Associate  | 35         |
| Clackamas Community College           | Registered Nursing/Registered Nurse | Associate  | 35         |
| Clatsop Community College             | Registered Nursing/Registered Nurse | Associate  | 13         |
| Columbia Gorge Community College      | Registered Nursing/Registered Nurse | Associate  | 19         |
| ITT Technical Institute-Portland      | Registered Nursing/Registered Nurse | Associate  | 0          |
| Lane Community College                | Registered Nursing/Registered Nurse | Associate  | 80         |
| Linn-Benton Community College         | Registered Nursing/Registered Nurse | Associate  | 47         |
| Mt Hood Community College             | Registered Nursing/Registered Nurse | Associate  | 64         |
| Oregon Coast Community College        | Registered Nursing/Registered Nurse | Associate  | 18         |
| Portland Community College            | Registered Nursing/Registered Nurse | Associate  | 34         |
| Rogue Community College               | Registered Nursing/Registered Nurse | Associate  | 31         |
| Southwestern Oregon Community College | Registered Nursing/Registered Nurse | Associate  | 26         |
| Treasure Valley Community College     | Registered Nursing/Registered Nurse | Associate  | 19         |
| Umpqua Community College              | Registered Nursing/Registered Nurse | Associate  | 60         |
| <b>Total Graduates</b>                |                                     |            | <b>546</b> |
| Concordia University-Portland         | Registered Nursing/Registered Nurse | Bachelor's | 29         |



| <b>Nursing</b>                             |                                     |            |            |
|--|-------------------------------------|------------|------------|
| George Fox University                      | Registered Nursing/Registered Nurse | Bachelor's | 40         |
| Linfield College-Adult Degree Program      | Registered Nursing/Registered Nurse | Bachelor's | 89         |
| Linfield College-Nursing & Health Sciences | Registered Nursing/Registered Nurse | Bachelor's | 172        |
| Oregon Health & Science University         | Registered Nursing/Registered Nurse | Bachelor's | 296        |
| University of Portland                     | Registered Nursing/Registered Nurse | Bachelor's | 185        |
| <b>Total Graduates</b>                     |                                     |            | <b>811</b> |
| Oregon Health & Science University         | Registered Nursing/Registered Nurse | Doctorate  | 4          |
| <b>Total Graduates</b>                     |                                     |            | <b>4</b>   |

| <b>Optometric Science/Services</b> |   |            |           |
|------------------------------------|---|------------|-----------|
| Pacific University                 | Ophthalmic & Optometric Support Services & Allied Professions | Bachelor's | 5         |
| Pacific University                 | Ophthalmic & Optometric Support Services & Allied Professions | Master's   | 4         |
| <b>Total Graduates</b>             |   |            | <b>9</b>  |
| Portland Community College         | Ophthalmic Technician/Technologist                            | Associate  | 17        |
| <b>Total Graduates</b>             |   |            | <b>17</b> |
| Pacific University                 | Optometry   | Doctorate  | 89        |
| <b>Total Graduates</b>             |   |            | <b>89</b> |

| <b>Pharmacy</b>                    |  |           |            |
|------------------------------------|--|-----------|------------|
| Oregon State University            | Pharmacology & Toxicology                                  | Master's  | 1          |
| Oregon Health & Science University | Pharmacology & Toxicology                                  | Doctorate | 3          |
| Oregon State University            | Pharmacology & Toxicology                                  | Doctorate | 2          |
| <b>Total Graduates</b>             |  |           | <b>6</b>   |
| Oregon State University            | Pharmacy   | Doctorate | 86         |
| Pacific University                 | Pharmacy   | Doctorate | 92         |
| <b>Total Graduates</b>             |  |           | <b>178</b> |
| Chemeketa Community College        | Pharmacy Technician/Assistant                              | Associate | 4          |
| Everest College-Portland           | Pharmacy Technician/Assistant                              | Associate | 13         |
| Heald College-Portland             | Pharmacy Technician/Assistant                              | Associate | 17         |
| <b>Total Graduates</b>             |  |           | <b>34</b>  |
| Oregon State University            | Pharmacy, Pharmaceutical Sciences, & Administration, Other | Master's  | 1          |
| Oregon State University            | Pharmacy, Pharmaceutical Sciences, & Administration, Other | Doctorate | 2          |
| <b>Total Graduates</b>             |  |           | <b>3</b>   |

| <b>Preparatory Programs</b>       |  |           |   |
|-----------------------------------|--|-----------|---|
| Northwest Christian University    | Health/Medical Preparatory Programs, Other | Associate | 1 |
| Treasure Valley Community College | Health/Medical Preparatory Programs, Other | Associate | 2 |

|                                   |  |            |          |
|-----------------------------------|--|------------|----------|
| Oregon Institute of Technology    | Health/Medical Preparatory Programs, Other | Bachelor's | 6        |
| <b>Total Graduates</b>            |  |            | <b>9</b> |
| Treasure Valley Community College | Pre-Dentistry Studies                      | Associate  | 1        |
| <b>Total Graduates</b>            |  |            | <b>9</b> |
| Treasure Valley Community College | Pre-Medicine/Pre-Medical Studies           | Associate  | 1        |
| Southern Oregon University        | Pre-Medicine/Pre-Medical Studies           | Bachelor's | 2        |
| <b>Total Graduates</b>            |  |            | <b>3</b> |
| Treasure Valley Community College | Pre-Pharmacy Studies                       | Associate  | 2        |
| <b>Total Graduates</b>            |  |            | <b>2</b> |
| Treasure Valley Community College | Pre-Physical Therapy Studies               | Associate  | 0        |
| <b>Total Graduates</b>            |  |            | <b>0</b> |

| <b>Public/Population Health</b> |  |             |            |
|---------------------------------|--|-------------|------------|
| Portland State University       | Community Health & Preventive Medicine | Bachelor's  | 145        |
| <b>Total Graduates</b>          |  |             | <b>145</b> |
| Linfield College                | Global Health (online)                 | Certificate |            |
| <b>Total Graduates</b>          |  |             | <b>0</b>   |
| Oregon Institute of Technology  | Population Health Management           | Bachelor's  |            |
| <b>Total Graduates</b>          |  |             | <b>0</b>   |
| Oregon State University         | Public Health                          | Bachelor's  | 93         |

|                                    |                                     |                   |            |
|------------------------------------|-------------------------------------|-------------------|------------|
| Oregon Health & Science University | Public Health                       | Postbaccalaureate | 7          |
| Oregon Health & Science University | Public Health                       | Master's          | 40         |
| Oregon State University            | Public Health                       | Master's          | 51         |
| Oregon State University            | Public Health                       | Doctorate         | 7          |
| <b>Total Graduates</b>             |                                     |                   | <b>198</b> |
| Oregon State University            | Public Health Education & Promotion | Bachelor's        | 3          |
| Western Oregon University          | Public Health Education & Promotion | Bachelor's        | 68         |
| Portland State University          | Public Health Education & Promotion | Master's          | 26         |
| <b>Total Graduates</b>             |                                     |                   | <b>97</b>  |
| Portland State University          | Public Health, Other                | Bachelor's        | 98         |
| <b>Total Graduates</b>             |                                     |                   | <b>98</b>  |

| <b>Therapy and Rehabilitation Sciences</b> |                                    |            |           |
|--|------------------------------------|------------|-----------|
| Portland State University                  | Audiology/Audiologist              | Bachelor's | 65        |
| Portland State University                  | Audiology/Audiologist              | Master's   | 31        |
| <b>Total Graduates</b>                     |                                    |            | <b>96</b> |
| Pacific University                         | Audiology                          | Doctorate  |           |
| <b>Total Graduates</b>                     |                                    |            | <b>0</b>  |
| Pacific University                         | Communication Sciences & Disorders | Bachelor's |           |

| <b>Therapy and Rehabilitation Sciences</b> |                                       |                   |           |
|--|---------------------------------------|-------------------|-----------|
| University of Oregon                       | Communication Sciences & Disorders    | Bachelor's        | 40        |
| Pacific University                         | Communication Sciences & Disorders    | Postbaccalaureate |           |
| University of Oregon                       | Communication Sciences & Disorders    | Postbaccalaureate | 23        |
| <b>Total Graduates</b>                     |                                       |                   | <b>63</b> |
| Pacific University                         | Communication Sciences & Disorders    | Master's          |           |
| University of Oregon                       | Communication Sciences & Disorders    | Master's          | 24        |
| <b>Total Graduates</b>                     |                                       |                   | <b>24</b> |
| Linn-Benton Community College              | Occupational Therapist Assistant      | Associate         | 22        |
| <b>Total Graduates</b>                     |                                       |                   | <b>22</b> |
| Pacific University                         | Occupational Therapy/Therapist        | Master's          | 30        |
| Pacific University                         | Occupational Therapy/Therapist        | Doctorate         |           |
| <b>Total Graduates</b>                     |                                       |                   | <b>30</b> |
| Lane Community College                     | Physical Therapy Assistant            | Associate         | 25        |
| Mt Hood Community College                  | Physical Therapy Assistant            | Associate         | 23        |
| Treasure Valley Community College          | Physical Therapy Technician/Assistant | Associate         | 3         |
| <b>Total Graduates</b>                     |                                       |                   | <b>51</b> |
| George Fox University                      | Physical Therapy/Therapist            | Doctorate         |           |
| Pacific University                         | Physical Therapy/Therapist            | Doctorate         | 39        |

| <b>Therapy and Rehabilitation Sciences</b> |                           |                   |                        |           |
|--|---------------------------|-------------------|------------------------|-----------|
|  |                           |                   | <b>Total Graduates</b> | <b>39</b> |
| Portland State University                  | Speech & Hearing Sciences | Bachelor's        |                        |           |
| Portland State University                  | Speech & Hearing Sciences | Postbaccalaureate |                        |           |
| Portland State University                  | Speech & Hearing Sciences | Master's          |                        |           |
|  |                           |                   | <b>Total Graduates</b> | <b>0</b>  |
| Pacific University                         | Speech Language Pathology | Doctorate         |                        |           |
|  |                           |                   | <b>Total Graduates</b> | <b>0</b>  |

| <b>Respiratory Therapy</b>       |                                    |                   |                        |            |
|----------------------------------|------------------------------------|-------------------|------------------------|------------|
| Lane Community College           | Respiratory Care Therapy/Therapist | Associate         | 32                     |            |
| Mt Hood Community College        | Respiratory Care Therapy/Therapist | Associate         | 28                     |            |
| Concorde Career College-Portland | Respiratory Care Therapy/Therapist | 2 ≤ but < 4 years | 26                     |            |
| Oregon Institute of Technology   | Respiratory Care Therapy/Therapist | Bachelor's        | 21                     |            |
|                                  |                                    |                   | <b>Total Graduates</b> | <b>107</b> |

| <b>Other Clinical Technology</b> |                                  |            |           |
|----------------------------------|----------------------------------|------------|-----------|
| Oregon Institute of Technology   | Polysomnography                  | Associate  | 4         |
| <b>Total Graduates</b>           |                                  |            | <b>4</b>  |
| Mt Hood Community College        | Surgical Technology/Technologist | Associate  | 20        |
| <b>Total Graduates</b>           |                                  |            | <b>20</b> |
| Oregon Institute of Technology   | Vascular Technology              | Bachelor's |           |
| <b>Total Graduates</b>           |                                  |            | <b>0</b>  |

| <b>Other</b>                          |   |                   |           |
|---------------------------------------|---|-------------------|-----------|
| Southwestern Oregon Community College | Athletic Training/Trainer               | Associate         | 0         |
| Treasure Valley Community College     | Athletic Training/Trainer               | Associate         | 1         |
| George Fox University                 | Athletic Training/Trainer               | Bachelor's        | 8         |
| Linfield College-McMinnville Campus   | Athletic Training/Trainer               | Bachelor's        | 6         |
| Oregon State University               | Athletic Training/Trainer               | Bachelor's        | 14        |
| <b>Total Graduates</b>                |   |                   | <b>29</b> |
| University of Portland                | Biological & Biomedical Sciences, Other | Bachelor's        | 11        |
| University of Western States          | Biological & Biomedical Sciences, Other | Bachelor's        | 2         |
| <b>Total Graduates</b>                |   |                   | <b>13</b> |
| Birthingway College of Midwifery      | Direct Entry Midwifery                  | 2 ≤ but < 4 years | 3         |

| <b>Other</b>                               |   |                   |           |
|--|---|-------------------|-----------|
| Birthingway College of Midwifery           | Direct Entry Midwifery                                | Bachelor's        | 1         |
| <b>Total Graduates</b>                     |   |                   | <b>4</b>  |
| Portland Community College                 | Gerontology   | Associate         | 17        |
| Marylhurst University                      | Gerontology   | Postbaccalaureate | 1         |
| Oregon State University                    | Gerontology   | Postbaccalaureate | 2         |
| Pacific University                         | Gerontology   | Postbaccalaureate | 7         |
| Portland State University                  | Gerontology   | Postbaccalaureate | 10        |
| <b>Total Graduates</b>                     |   |                   | <b>37</b> |
| Klamath Community College                  | Health Professions & Related Clinical Sciences, Other | Associate         | 0         |
| Oregon Health & Science University         | Health Professions & Related Clinical Sciences, Other | Postbaccalaureate | 13        |
| Oregon Health & Science University         | Health Professions & Related Clinical Sciences, Other | Master's          | 20        |
| Portland State University                  | Health Professions & Related Clinical Sciences, Other | Master's          | 1         |
| Corban University                          | Health Services/Allied Health/Health Sciences         | Bachelor's        | 16        |
| Linfield College-Nursing & Health Sciences | Health Services/Allied Health/Health Sciences         | Bachelor's        | 6         |
| <b>Total Graduates</b>                     |   |                   | <b>56</b> |
| Oregon State University                    | Health/Medical Physics                                | Bachelor's        | 7         |
| Oregon State University                    | Health/Medical Physics                                | Master's          | 21        |
| Oregon State University                    | Health/Medical Physics                                | Doctorate         | 3         |
| <b>Total Graduates</b>                     |   |                   | <b>31</b> |



| <b>Other</b>                       |  |             |           |
|------------------------------------|--|-------------|-----------|
| Birthingway College of Midwifery   | Lactation Consultant                           | Associate   | 0         |
| Portland Community College         | Lactation Consultant                           | Certificate |           |
| <b>Total Graduates</b>             |  |             | <b>0</b>  |
| Central Oregon Community College   | Massage Therapy/Therapeutic Massage            | Associate   | 6         |
| <b>Total Graduates</b>             |  |             | <b>6</b>  |
| Willamette University              | Neurobiology & Neurosciences                   | Bachelor's  | 0         |
| Oregon Health & Science University | Neurobiology & Neurosciences                   | Master's    | 0         |
| Oregon Health & Science University | Neurobiology & Neurosciences                   | Doctorate   | 18        |
| <b>Total Graduates</b>             |  |             | <b>18</b> |
| Western Oregon University          | Vocational Rehabilitation Counseling/Counselor | Master's    | 14        |
| <b>Total Graduates</b>             |  |             | <b>14</b> |

Notes: Program with no reported graduates may be new programs or may not have graduated students in 2012

## Appendix E: Oregon Healthcare Occupations

### 2012 Employment, 2012-2022 %Growth, 2012-2022 Total Job Openings

Source: Oregon Employment Department, Brenda.P.Turner@state.or.us, 503-947-1233

|   |   | Oregon             |                   |                   |
|---|---|--------------------|-------------------|-------------------|
|   |   | 2012<br>Employment | Percent<br>Growth | Total<br>Openings |
| <b>Management</b>   |   |                    |                   |                   |
| 11-9111   | Medical and Health Services Managers                    | 3,434              | 19%               | 1,470             |
| <b>Social Scientists and Related Workers</b>  |   |                    |                   |                   |
| 19-3031   | Clinical, Counseling, and School Psychologists          | 1,147              | 20%               | 540               |
| <b>Counselors, Social Workers, and Other Community and Social Service Specialists</b> |   |                    |                   |                   |
| 21-1011   | Substance Abuse and Behavioral Disorder Counselors      | 1,527              | 22%               | 660               |
| 21-1013   | Marriage and Family Therapists                          | 458                | 29%               | 230               |
| 21-1014   | Mental Health Counselors                                | 1,916              | 19%               | 773               |
| 21-1015   | Rehabilitation Counselors                               | 1,397              | 14%               | 498               |
| 21-1019   | Counselors, All Other                                   | 224                | 16%               | 83                |
| 21-1021   | Child, Family, and School Social Workers                | 3,448              | 13%               | 1,170             |
| 21-1022   | Healthcare Social Workers                               | 1,328              | 17%               | 512               |
| 21-1023   | Mental Health and Substance Abuse Social Workers        | 2,172              | 18%               | 843               |
| 21-1029   | Social Workers, All Other                               | 1,573              | 12%               | 527               |
| 21-1091   | Health Educators  | 760                | 16%               | 318               |
| 21-1094   | Community Health Workers                                | 287                | 14%               | 116               |
| <b>Healthcare Practitioners and Technical Occupations</b>                             |   |                    |                   |                   |
| 29-1011   | Chiropractors   | 459                | 23%               | 197               |
| 29-1021   | Dentists, General                                       | 1,167              | 11%               | 414               |
| 29-1029   | Dentists, All Other Specialists                         | 296                | 10%               | 101               |
| 29-1031   | Dietitians and Nutritionists                            | 586                | 17%               | 168               |
| 29-1041   | Optometrists  | 404                | 36%               | 263               |
| 29-1051   | Pharmacists   | 3,506              | 18%               | 1,475             |
| 29-1060   | Physicians and Surgeons                                 | 8,185              | 20%               | 3,726             |
| 29-1071   | Physician Assistants                                    | 931                | 39%               | 527               |
| 29-1081   | Podiatrists   | 64                 | 39%               | 38                |
| 29-1122   | Occupational Therapists                                 | 1,084              | 23%               | 399               |
| 29-1123   | Physical Therapists                                     | 2,362              | 28%               | 1,244             |
| 29-1124   | Radiation Therapists                                    | 166                | 16%               | 61                |
| 29-1125   | Recreational Therapists                                 | 131                | 22%               | 56                |
| 29-1126   | Respiratory Therapists                                  | 1,175              | 13%               | 328               |
| 29-1127   | Speech-Language Pathologists                            | 952                | 19%               | 325               |
| 29-1128   | Exercise Physiologists                                  | 37                 | 3%                | 5                 |
| 29-1129   | Therapists, All Other                                   | 99                 | 22%               | 34                |
| 29-1131   | Veterinarians   | 1,069              | 20%               | 562               |
| 29-1141   | Registered Nurses                                       | 30,677             | 16%               | 10,907            |
| 29-1151   | Nurse Anesthetists                                      | 178                | 26%               | 82                |
| 29-1161   | Nurse Midwives  | 171                | 37%               | 97                |
| 29-1171   | Nurse Practitioners                                     | 958                | 27%               | 443               |
| 29-1181   | Audiologists  | 220                | 33%               | 118               |
| 29-1199   | Health Diagnosing and Treating Practitioners, All Other | 383                | 30%               | 195               |
| <b>Health Technologists and Technicians</b>   |   |                    |                   |                   |
| 29-2011   | Medical and Clinical Laboratory Technologists           | 1,683              | 13%               | 657               |
| 29-2012   | Medical and Clinical Laboratory Technicians             | 1,098              | 25%               | 566               |
| 29-2021   | Dental Hygienists                                       | 3,356              | 18%               | 1,478             |
| 29-2031   | Cardiovascular Technologists and Technicians            | 630                | 26%               | 255               |
| 29-2032   | Diagnostic Medical Sonographers                         | 469                | 38%               | 245               |
| 29-2033   | Nuclear Medicine Technologists                          | 170                | 19%               | 57                |
| 29-2034   | Radiologic Technologists                                | 1,979              | 17%               | 623               |
| 29-2035   | Magnetic Resonance Imaging Technologists                | 222                | 18%               | 71                |
| 29-2041   | Emergency Medical Technicians and Paramedics            | 1,841              | 17%               | 817               |
| 29-2051   | Dietetic Technicians                                    | 175                | 21%               | 53                |

|   |   |  | Oregon             |                   |                   |
|---|---|--|--------------------|-------------------|-------------------|
|   |   |  | 2012<br>Employment | Percent<br>Growth | Total<br>Openings |
| 29-2052   | Pharmacy Technicians                                      |  | 4,699              | 18%               | 1,316             |
| 29-2053   | Psychiatric Technicians                                   |  | 478                | 23%               | 155               |
| 29-2055   | Surgical Technologists                                    |  | 990                | 22%               | 312               |
| 29-2056   | Veterinary Technologists and Technicians                  |  | 1,429              | 21%               | 435               |
| 29-2057   | Ophthalmic Medical Technicians                            |  | 243                | 25%               | 85                |
| 29-2061   | Licensed Practical and Licensed Vocational Nurses         |  | 2,705              | 20%               | 1,197             |
| 29-2071   | Medical Records and Health Information Technicians        |  | 3,014              | 20%               | 1,413             |
| 29-2081   | Opticians, Dispensing                                     |  | 1,030              | 28%               | 582               |
| 29-2091   | Orthotists and Prosthetists                               |  | 106                | 29%               | 41                |
| 29-2092   | Hearing Aid Specialists                                   |  | 116                | 17%               | 31                |
| 29-2099   | Health Technologists and Technicians, All Other           |  | 1,546              | 21%               | 480               |
| <b>Other Healthcare Practitioners and Technical Occupations</b>         |   |  |                    |                   |                   |
| 29-9011   | Occupational Health and Safety Specialists                |  | 946                | 12%               | 368               |
| 29-9012   | Occupational Health and Safety Technicians                |  | 65                 | 8%                | 23                |
| 29-9091   | Athletic Trainers   |  | 207                | 21%               | 99                |
| 29-9099   | Healthcare Practitioners and Technical Workers, All Other |  | 811                | 19%               | 374               |
| <b>Nursing, Psychiatric, and Home Health Aides</b>                      |   |  |                    |                   |                   |
| 31-1011   | Home Health Aides   |  | 7,101              | 34%               | 3,752             |
| 31-1013   | Psychiatric Aides   |  | 1,099              | 19%               | 418               |
| 31-1014   | Nursing Assistants  |  | 13,546             | 20%               | 5,338             |
| <b>Occupational Therapy and Physical Therapist Assistants and Aides</b> |   |  |                    |                   |                   |
| 31-2011   | Occupational Therapy Assistants                           |  | 180                | 29%               | 98                |
| 31-2012   | Occupational Therapy Aides                                |  | 18                 | 17%               | 8                 |
| 31-2021   | Physical Therapist Assistants                             |  | 582                | 32%               | 315               |
| 31-2022   | Physical Therapist Aides                                  |  | 605                | 37%               | 355               |
| <b>Other Healthcare Support Occupations</b>                             |   |  |                    |                   |                   |
| 31-9011   | Massage Therapists  |  | 1,689              | 26%               | 616               |
| 31-9091   | Dental Assistants   |  | 4,476              | 11%               | 1,414             |
| 31-9092   | Medical Assistants  |  | 7,691              | 27%               | 3,520             |
| 31-9093   | Medical Equipment Preparers                               |  | 1,207              | 14%               | 404               |
| 31-9094   | Medical Transcriptionists                                 |  | 1,237              | 10%               | 364               |
| 31-9096   | Veterinary Assistants and Laboratory Animal Caretakers    |  | 1,222              | 21%               | 484               |
| 31-9097   | Phlebotomists   |  | 1,096              | 18%               | 401               |
| 31-9099   | Healthcare Support Workers, All Other                     |  | 2,108              | 18%               | 781               |
| <b>Office and Administrative Support</b>                                |   |  |                    |                   |                   |
| 43-4111   | Interviewers, Except Eligibility and Loan                 |  | 3,069              | 17%               | 1,090             |
| 43-6013   | Medical Secretaries                                       |  | 12,382             | 31%               | 5,275             |
| <b>Installation, Maintenance, and Repair</b>                            |   |  |                    |                   |                   |
| 49-9062   | Medical Equipment Repairers                               |  | 592                | 36%               | 380               |
| <b>Production</b>   |   |  |                    |                   |                   |
| 51-9081   | Dental Laboratory Technicians                             |  | 806                | 14%               | 386               |
| 51-9082   | Medical Appliance Technicians                             |  | 95                 | 15%               | 46                |
| 51-9083   | Ophthalmic Laboratory Technicians                         |  | 373                | 14%               | 178               |