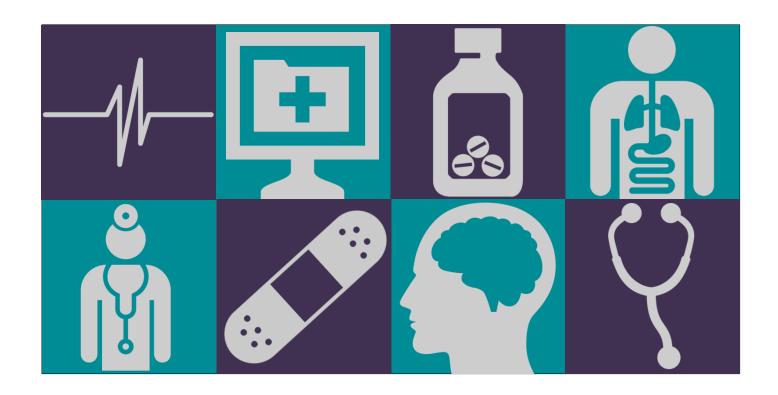
Health Workforce Council



2016 Annual Report



December 2016

Workforce Training and Education Coordinating Board 128 10th Avenue SW | PO Box 43105, Olympia, WA 98504 360-709-4600, www.wtb.wa.gov

Table of Contents

Hea	alth Workforce Council Membership	<u> 4</u>
		_
	nmary of Health Workforce Council Efforts in 2016	
L	egislative Efforts	
	Telemedicine Expansion	
	Health Workforce Data	
	Request for Staff Support of the Council	5
С	Council Presentations and Discussions	6
	Statewide Long-Term Care Workforce Plan	6
	Behavioral Health Workforce Analysis	7
	Health Workforce Sentinel Network	7
	Oral Health Workforce Study	7
	Health Provider Demographic Survey	7
	Health Professional Loan Repayment and Scholarship Program	8
<u>Up</u>	date on Council Projects	<u>9</u>
В	Behavioral Health Workforce Analysis	9
Н	lealth Workforce Sentinel Network Update	11
<u>Hea</u>	alth Workforce Council 2016 Recommendations	14
1	Provide dedicated staff support for the Council	14
2	Support continued funding for state's Health Professional Loan Repayment Program	15
3	Increase the availability and diversity of faculty in healthcare education programs	15
4	Support increased opportunities for healthcare apprenticeship and pre-apprenticeship programs	16
5 st	Support healthcare career pathways, exploration, Programs of Study, and other opportunities that retudents along their pathways and into healthcare careers more efficiently and effectively	
6 S	c. Create incentives for the formation of integrated care teams to expand access to integrated care.	17
7	7. To improve health workforce provider data, require provider surveys as a condition of continued	
li	censure	18
8 m	Continue to expand post-graduate educational program enrollment and residencies, particularly in nedically underserved communities.	18

Healthcare Personnel Data	<u>20</u>
Healthcare Education/Training Program Completions	20
Health Program Completions by Workforce Development Area	22
Healthcare Personnel Shortages and the Health Workforce Council's Role	23
Case Studies: Data Discrepancies and Questions	24
Case Study: Medical Assistant Data Discrepancies	24
Case Study: Nursing Assistant Oversupply?	25
Case Study: Registered Nursing Data	25
Case Study: Behavioral Health Workforce Data	26
Health Workforce Council History	29
Promising Practices in Health Workforce Development	30

Health Workforce Council Membership

The Health Workforce Council (Council) is comprised of leaders from a range of healthcare stakeholders, including: education and training institutions; healthcare organizations; migrant and community health services; labor and professional associations; and employer representatives. The Council is exploring adding other members to enhance its focus on integrated healthcare delivery.

The Council is chaired by Dr. Suzanne Allen, Vice Dean of Academic, Rural and Regional Affairs at the University of Washington School of Medicine. The Vice-Chair is Kevin McCarthy, President of Renton Technical College. The Council is staffed by the Workforce Training and Education Coordinating Board (Workforce Board).

2016 Health Workforce Council Members

Council Member	Organization		
Suzanne Allen, Chair	Vice Dean for Regional Affairs, University of Washington School of Medicine		
Kevin McCarthy, Vice-Chair	President, Renton Technical College		
Dan Ferguson	Allied Health Center of Excellence (Yakima Valley College)		
Dana Duzan	Allied Health Professionals		
Marianna Goheen	Office of Superintendent of Public Instruction		
Diane Sosne	Service Employees International Union (SEIU) 1199NW		
Amy Persell	SEIU Healthcare NW Training Partnership		
Marty Brown	State Board for Community and Technical Colleges		
Abbie Chandler-Doran	Washington Association of Community and Migrant Health Centers		
Deb Murphy	LeadingAge Washington		
Sofia Aragon	Washington Center for Nursing		
Joe Roszak	Washington Council for Behavioral Health		
Alexis Wilson	Washington Health Care Association		
Nancy Alleman	Washington Rural Health Association		
Bracken Killpack	Washington State Dental Association		
John Wiesman	Washington State Department of Health		
Ian Corbridge	Washington State Hospital Association		
Russell Maier	Washington State Medical Association		
Heather Stephen-Selby	Washington State Nurses Association		
Daryl Monear	Washington Student Achievement Council		
Eleni Papadakis	Workforce Training and Education Coordinating Board		

Summary of Health Workforce Council Efforts in 2016

Legislative Efforts

The Council was active in legislative work in 2016 – testifying on relevant legislation with Council recommendations, and presenting to a number of groups, including the House Health Care and Wellness Committee and the Select Committee on Quality in State Hospitals.

Telemedicine Expansion

The Council has long advocated for increased access to telemedicine as a tool to address health workforce shortages and distribution challenges. Last year, the legislature passed key legislation that classified telemedicine as a reimbursable expense, allowing healthcare providers to charge for remote diagnosis and treatment of patients. This year the legislature passed **Substitute Senate Bill 6519** (introduced by **Senator Randi Becker**), which will expand patient access to health services through telemedicine by including "home" in the list of areas where services can be accessed, starting in 2018. The bill also establishes a Collaborative for the Advancement of Telemedicine, which will develop recommendations on improving access to telemedicine and also address questions of reimbursement. The Collaborative, which will conclude its work by December 31, 2018, will develop telemedicine-specific recommendations (with required reports) on items such as the potential creation of a technical assistance center, expansion (or restriction) of services, and best practices, to name a few of the items.

Health Workforce Data

The Council has for many years brought attention to the need for increased detail on providers through surveys offered at initial licensing and licensing renewal. In 2016, **Senator Andy Hill** introduced **Senate Bill 6036**, which would have required a wide range of health professionals to provide information on primary place of practice at the time of license renewal. Currently, healthcare provider records include the provider's home address, not their primary place of practice. But for most areas, that's not enough detail to truly understand where the state faces shortages. Providers could be working within a few blocks of their home, or an hour or more away. As a result, policymakers and analysts do not have easy access to an accurate picture of the state's healthcare workforce. The Council testified in support of Senate Bill 6036 in the 2016 Legislative Session. This bill complemented 2015 legislation that required additional information from certain healthcare providers – physicians, osteopaths, and physician assistants – but not all healthcare occupations. However, Senator Hill's bill was not passed into law this year. The Council has chosen to prioritize this issue as one of its recommendations to policymakers for the 2017 Legislative Session. For more information on this topic, see recommendation #7, on page 18.

Request for Staff Support of the Council

Last year's annual Health Workforce Council report mentioned the Workforce Board, on behalf of the Council, would be requesting additional resources to provide dedicated staff support to the Council. The Workforce Board is required by state statute to staff the Council. However, there is no appropriation to provide for that staffing responsibility. When the Health Workforce Council was first created in 2002 (known then as the Healthcare Personnel Shortage Task Force), it was funded by

federal grant dollars. That federal funding is no longer available, and over the past few years the Workforce Board has supported the Council out of its base budget. But agency support is limited due to increased workload, declining base budget revenue, competing priorities, and a lack of flexible funding. In particular, Workforce Board staffing has been stretched to lead the state's implementation of the Workforce Innovation and Opportunity Act, the first federal reform of the workforce system in 15 years.

In September, the Workforce Board submitted a funding request for a dedicated 1.5 FTE (a full-time policy analyst and a part-time administrative assistant), which would cost \$183,000 per year. The Council spent a large portion of its May meeting discussing potential priorities, should the Council have access to this dedicated staff. With staff support, the Council could provide a much broader range of services to policymakers and stakeholders to address health workforce challenges through an expanded portfolio of health workforce data collection and analysis. This is the Council's top recommendation for the 2016 Annual Report.

Leveraging dedicated staff, the Council could increase and improve the quality of its research and analysis, convene additional meetings as needed, and harness the expertise of its members to:

- Provide needed policy analysis on key health workforce issues.
- Explore specific data concerns among healthcare providers (see case studies on page 24 of this report for specific examples).
- Look closely at legislative reports and workgroup recommendations and assist with further research or implementation work.
- Conduct other needed healthcare work as assigned.

Council Presentations and Discussions

In 2016, the Council received briefings and discussed a range of topics impacting the health workforce. Additional detail on each of the topics is below. Presentation materials can be accessed at http://wtb.wa.gov/2016HWCmeetings.asp.

Statewide Long-Term Care Workforce Plan

The Council received a briefing from the Department of Social and Health Services, Long-Term Care Division on their progress in developing a workforce plan for the long-term care workforce. The Council discussed many issues impacting the long-term care workforce, including population trends — particularly the aging workforce and the projected increase in demand for long-term care workers to address the needs of an aging population as a whole, forging potential solutions for building the home care aide workforce, addressing concerns with certification and training requirements, and developing a pipeline of new workers that ensures young people have access and exposure to information and career opportunities in long-term care.

The Council expressed substantial interest in this topic, and will partner with long-term care organizations to schedule additional briefings to gain expertise on issues impacting the long-term care workforce in 2017.

Behavioral Health Workforce Analysis

The Council was actively involved in the development of a Behavioral Health Workforce Analysis, led by the Workforce Board, which used an extensive stakeholder process to develop recommendations to address issues impacting the behavioral health workforce. Because physical health and behavioral health issues frequently go together, there is an increased focus on finding ways to treat both issues, particularly in a primary care setting. The Council received several presentations and briefings on this project in 2016. See page 9 for more details on this work.

Health Workforce Sentinel Network

The Council brought forward a recommendation in 2013 that led to the creation of a Health Workforce Sentinel Network (Sentinel Network) to better track and respond to rapid changes in healthcare. The University of Washington Center for Health Workforce Studies partnered with the Workforce Board to implement the Sentinel Network and provided a series of updates to the Council on the progress of this work. See page 11 for more details, including details from the Sentinel Network's first data collection.

Oral Health Workforce Study

The November Council meeting included a presentation from the University of Washington Center for Health Workforce Studies on an ongoing report, that when finished, will provide new information about the supply, distribution, and characteristics of Washington's oral health providers, as well as additional detail on the demand for those providers, with the intention of better informing workforce planning efforts. The presentation highlighted some of the barriers to oral healthcare, including access to community care. Some early recommendations include additional funding support for adult services, expanding case management and patient educator work, and improving the integration of oral health services with primary care.

Health Provider Demographic Survey

The state's Department of Health and Nursing Care Quality Assurance Commission staff presented to the Council on their progress in developing a survey for healthcare providers about demographic details, including information on place of practice, race/ethnicity, number of hours worked per week, and other information to better understand the state's health workforce. This survey is currently optional. The Council has recommended that these surveys be a mandatory part of the license application and renewal process (see pages 5 and 18 for more information). For several years, the Council has advocated for additional information from health providers upon licensing and license renewal. The Legislature recently directed the Department of Health to prioritize this survey. The Council received an update of the project plan at their November meeting, including information on how and when the survey was to be transmitted to providers. The surveys will be available on the Department of Health website, as well as at time of license renewal for each provider. Due to the

rolling nature of the survey, the first full datasets are expected 15-18 months after the survey goes live (approximately March 2018), although interim data will be made available.

Health Professional Loan Repayment and Scholarship Program

Loan repayment is often cited as a way to address the challenges for rural, underserved communities to recruit and retain health providers. The program was cut dramatically in the recession, limiting this incentive to a small federal loan repayment program. Funding was restored in the 2015-17 biennium for this program. The Council received a briefing on the program at their August meeting from the Washington Student Achievement Council and the state's Department of Health.

The briefing noted that the program includes two funding components, the Federal State Loan Repayment Program and the Health Professional Loan Repayment Program. As an example of its impact, in the 2016-17 award cycle the program included:

- 20 new Federal State Loan Repayment Program awards for 2016-18.
- 4 Federal State Loan Repayment Program extension awards for 2016-17.
- **75** new Health Professional Loan Repayment Program awards for 2016-19.
- 1 Health Professional Loan Repayment Program extension award for 2015-17.

The program includes 19 continuing Federal State Loan Repayment Program providers from the 2015-17 award years. Currently, 119 healthcare providers in 26 Washington counties are benefitting from this loan repayment plan.

Six Health Conditional Scholarship (a component of the state program) recipients who completed their academic programs are currently serving their service obligation in five counties in the state. There have been no new scholarship awards since 2010-11. However, there will be a targeted scholarship opportunity for 2016-17 for Registered Nurses who wish to become Nurse Educator Faculty by pursuing their BSN, MSN or PhDs, and are committed to teaching in nursing programs. For more information on this program, see http://www.wsac.wa.gov/health-professionals.

The Council also discussed the feasibility of other direct incentive models to recruit and retain providers later in their careers.

Update on Council Projects

Behavioral Health Workforce Analysis

The Council has been very interested in efforts to integrate physical and behavioral healthcare and expand interprofessional education. Behavioral health is an evolving area in the healthcare field and incorporates a wide range of health needs, including mental health, behaviors that impact health, such as eating and exercising, as well as substance use disorders. Because physical health and behavioral health issues frequently go together, there is an increased focus on finding ways to treat both issues concurrently, especially in a primary care setting. True integration requires multiple team members to work together to create a shared treatment plan, to better serve the "whole person" and their particular health issues.

In 2016 the Workforce Board was charged by Governor Inslee to engage in a detailed analysis of the behavioral health workforce, and to develop recommendations to policymakers on ways to address challenges of Washingtonians in accessing behavioral health services, particularly in light of the state's goal of integrating behavioral and physical health services by 2020. Governor Inslee's Workforce Innovation and Opportunity Act (WIOA) discretionary funds provided the support needed for this analysis.

The Workforce Board, with the assistance of the Council and their constituents, developed a participant list of over 170 members from across the state, representing providers, hospitals, tribes, community health centers, educational institutions, and government agencies. The stakeholders met four times between July and October, in Olympia, Cheney and Renton, and participated in conference calls, email feedback on reports, and provided content expertise on complicated policy issues for the behavioral health workforce.

The Workforce Board partnered with Agnes Balassa Solutions to lead the stakeholder facilitation process, and with the University of Washington Center for Health Workforce Studies for the research aspects of this report, including an extensive key informant interview process.

For more information about the Behavioral Health Workforce Analysis, please see: http://wtb.wa.gov/behavioralhealthgroup.asp.

The recommendations from Phase I of the analysis are:

- 1. Adjust reimbursement rates to better support competitive recruitment and retention of a skilled behavioral health workforce.
- 2. Promote team-based and integrated (behavioral and physical health) care.
 - 2-a. Support the use of/expansion of the Healthier Washington Practice Transformation Hub
 efforts to promote adoption and training of team-based integrated behavioral health and
 primary care.
 - 2-b. Consider expanding the list of professions eligible to bill as mental health providers.

- 2-c. Train and deploy entry-level providers in both primary care and behavioral health to support health team efforts in community health settings.
- 3. Increase access to clinical training for students entering behavioral health occupations.
 - 3-a. Recognize and compensate the function that community-based settings play in training new behavioral health professionals and paraprofessionals in their first year of practice.
 - 3-b. Increase the ability of behavioral health clinical training sites to accept students/trainees by incentivizing and supporting clinical training sites.
 - 3-c. Encourage payers (Managed Care Organizations (MCOs)/health plans and Behavioral Health Organizations (BHOs)) to contract with licensed community behavioral health agencies, as well as individual licensed clinicians.
 - 3-d. Increase funding to expand behavioral health education programs and graduate more professionals.
- 4. Expand the workforce available to deliver medically-assisted behavioral health treatments.
 - 4-a. Increase primary care providers' (physicians, ARNPs, PAs, pharmacists) confidence to use their full prescriptive authority for psychiatric medications.
 - 4-b. Expand telehealth reimbursement to include any site of origination.
- 5. Increase diversity in the behavioral health workforce.
 - 5-a. Improve behavioral health literacy as a foundation for healthcare careers.
 - 5-b. Increase the use of peers and other community-based workers in behavioral health settings.
 - 5-c. Expand access to the I-BEST model, and encourage additional programs that include behavioral health occupations.
 - 5-d. Reduce care worker turnover, improve diversity by creating career pathways and opportunities for certification of behavioral health and other paraprofessional roles.
 - 5-e. Support continued funding for the state's health professionals loan repayment program, and consider strategies to expand the program and its applicability to behavioral health occupations.
 - 5-f. Expand the state Work Study program.

The analysis and recommendation process will continue in 2017. The project team will be working to refine some of the recommendation areas where further study was required. Phase II will also include a review of additional behavioral health workforce data, as well as an opportunity to conduct research on specific items of interest to policymakers and the stakeholder group.

Health Workforce Sentinel Network Update

The Washington Health Workforce Sentinel Network (Sentinel Network) is an information network linking the state's healthcare industry with partners in education and training, labor, policymakers and workforce planners to identify and respond to emerging demand changes in the health workforce. Part of the Healthier Washington initiative, the Sentinel Network is a collaboration of state's Workforce Board and the University of Washington Center for Health Workforce Studies, with funding from Washington's Health Care Authority.

In order to know more quickly – and with more certainty – where shortages and the unmet need for specific skills are affecting particular regions of the state, Sentinels in the Network regularly report on changes in workforce demand at their organizations, and contribute to the discovery of emerging trends.

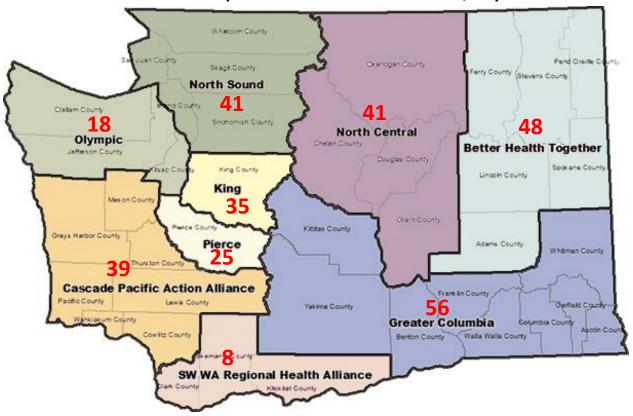
Washington State's Health Workforce Sentinels are representatives of diverse healthcare facilities throughout the state who have volunteered to provide regular information about their evolving workforce needs. Sentinels were recruited by Sentinel Network partners including the Health Workforce Council, Washington State Health Care Authority and Department of Health, health professions organizations, labor representatives, educators and other interested stakeholders via newsletter articles, email outreach and word of mouth. Sentinels provide information about the facility types they represent, Washington state counties from which their client and/or patient population is drawn, and health workforce concerns over the previous 3-4 months.

The first two rounds of Sentinel Network data collection took place in July and November of 2016. Regular updates will continue at four month intervals throughout 2017. Findings from Washington's Sentinel Network can be found at http://www.wtb.wa.gov/HealthSentinel/.

Key Findings To-Date:

- Sentinels providing data to the Network have included hospitals, free and federally qualified community clinics, behavioral health clinics, long-term care facilities, primary and specialty care clinics, dental offices, and more.
- Sentinels come from all nine Accountable Communities of Health across the state.

Sentinel Network Responses by Accountable Community of Health (ACH) Facilities Represented – Data Collection #1, July 2016



Initial Data From Sentinels:

When asked about <u>exceptionally long vacancies</u> for open positions, Sentinels' responses varied by type of facility:

- In large hospitals, there were vacancy issues across multiple occupations, including: medical/clinical laboratory technologists, registered nurses, and medical assistants, with half indicating they were due to not having enough qualified applicants
- Mental health counselors, clinical social workers, and substance abuse/behavioral health
 counselors were among the occupations most commonly mentioned as top vacancy issues in
 behavioral health-related clinics, with reasons for these vacancies split between not having
 enough qualified applicants and recruitment/retention issues.
- Home health care facilities reported long vacancies for nursing assistants, home health aides, home care aides, registered nurses, and physical therapists most often. Not having enough qualified applicants and salary/wage/benefits issues were the reasons cited.
- Across the state:
 - In all nine Accountable Communities of Health (ACH) across the state, respondents listed registered nurses, mental health counselors, and clinical social workers as being difficult to hire.
 - Medical assistants were mentioned in seven of the nine ACHs.
 - Nurse practitioners were mentioned in six of nine ACHs as being difficult to hire.
 - Licensed practical nurses were mentioned as difficult to hire in three of nine ACH regions.

When asked about <u>changes in the usual demand</u> for specific occupations:

- Occupations with increased demand were similar to those mentioned as having "exceptionally long vacancies". One commonly cited reason was due to facility expansion.
- Very few respondents indicated they had decreased demand for any occupations.

In response to questions about recent changes in facilities' training priorities:

- Changes in training needs were reported for a wide range of occupations. Leading reasons
 included needing more skills for effective use of electronic health records and health
 information technology, and the need to respond to structural/policy changes affecting
 practice.
- Home health and long-term care facilities, among others, reported that recent changes in training priorities reflected an increase in new workers with little prior experience.
- Sentinels provided a few examples of how they've used their existing workforce in new roles, and some new occupations being employed.
- More than a quarter of respondents from 10 different types of facilities mentioned using new occupations.

Health Workforce Council 2016 Recommendations

The Council has identified key priorities to address healthcare personnel shortages for consideration by the Governor, Legislature, and healthcare and education leaders. The Council and the Workforce Board focused on the Behavioral Health Workforce Analysis (outlined in more detail on page 9) as the primary drivers for the recommendation process in 2016. However, members identified other key items to highlight beyond the behavioral health-specific recommendations. To review the report and recommendations of the Behavioral Health Workforce Analysis, see: http://wtb.wa.gov/behavioralhealthgroup.asp.

Some of these items require additional work for the stakeholders in 2017; some require federal and legislative changes; others require funding from policymakers. The Council discussed these recommendations and ranked them in priority order at the Council meeting in November.

The recommendations to the Governor and Legislature, in rank order, are as follows:

- 1. Provide dedicated staff support for the Council.
- 2. Support continued funding for State Health Professional Loan Repayment Program.
- 3. Increase the availability and diversity of faculty in healthcare education programs.
- 4. Support increased opportunities for healthcare apprenticeship and pre-apprenticeship programs.
- 5. Support healthcare career pathways, exploration, Programs of Study, and other opportunities that move students along their pathways and into healthcare careers more efficiently and effectively.
- 6. Create incentives for the formation of integrated care teams to expand access to integrated care. Support interdisciplinary education to increase providers of integrated care.
- 7. To improve health workforce provider data, require provider surveys as a condition of continued licensure.
- 8. Continue to expand post-graduate educational program enrollment and residencies, particularly in medically underserved communities.

Recommendation Detail

1. Provide dedicated staff support for the Council.

For several years, the Council has advocated for dedicated staff support to most effectively carry out its role to advise policymakers. This work includes analyzing health workforce supply and demand, delving into policies impacting education, training or practices issues, and developing recommendations on strategies to best address long-standing challenges. The Workforce Board is charged in statute with the convening and staffing role. However, as previously noted, the Council has no dedicated funding. Grant funding previously supported the Council's work, but that lapsed in 2012.

Since then, the Workforce Board has absorbed the cost of staffing the Council. In the meantime, shifting federal requirements, such as the passage of the Workforce Innovation and Opportunity Act, have placed more responsibilities on the Workforce Board with no additional funding. This has strained the agency's ability to fulfill its Council staffing role.

In September, the Workforce Board, on behalf of the Council presented a funding request for dedicated staff support of the Council – a request for 1.5 FTE at a cost of \$183,000 annually – to meet this need for staff resources. **The Council strongly recommends that policymakers support this funding request.**

If this request is unsuccessful, the agency will have to scale back the Council's current staffing allocation in the 2018 fiscal year. This will substantially limit the Council's ability to provide policymakers with essential data, policy recommendations, and health workforce expertise on a range of issues.

2. Support continued funding for state's Health Professional Loan Repayment Program.

The Health Professional Loan Repayment Program provides an incentive for primary care and behavioral health professionals to serve in critical shortage areas in Washington. The program provides financial assistance through conditional scholarships and loan repayment. Funding for this program was dramatically reduced for several years due to budget cuts. Funding was restored in 2015-17. The Council recommends continued and expanded funding for the program to support integrated care delivery across all health professions, such as family medicine, dental care, and behavioral health. Loan repayment puts new workforce capacity in the field immediately.

The Council does **not** recommend limiting the range of health professions eligible for this program. The statute governing the program is already drafted to allow for maximum flexibility as needed by the state and local communities.

For more information on this program, including current data on the results of the funding restoration in the 2015-17 state budget, see page 8.

3. Increase the availability and diversity of faculty in healthcare education programs.

The healthcare field faces a shortage of qualified faculty members – both in the classroom and in supervising clinical placements. Additionally, workforce diversity has long been recognized as a key strategy to eliminate health disparities by the Institute of Medicine, a nonprofit organization that provides evidence-based research and recommendations for public health and science policy.

Healthcare educators are paid far less than what can be earned working in a clinical practice. This makes it difficult to recruit healthcare professionals to serve as college faculty. The Council recommends policymakers charge a workgroup of industry and education stakeholders to explore incentives and other recruitment tools to boost the number of healthcare faculty, especially among

those from underrepresented populations in Washington. The workgroup would bring together stakeholders representing education providers, labor, and healthcare facilities. Bringing together industry and education leaders to address flagging faculty recruitment, and examine potential approaches to recruit healthcare faculty, such as incentive models or shared personnel options, will offer solutions to address this long-standing problem.

4. Support increased opportunities for healthcare apprenticeship and preapprenticeship programs.

Apprenticeship programs can help fill skill shortages much more rapidly than traditional programs, because participants are placed directly into jobs that provide earn-and-learn experiences. The programs can often be enticing to a broader range of individuals, including those who may prefer a more hands-on, less academic-focused setting. Participants of apprenticeship programs consistently earn relatively high wages and experience lower unemployment rates — even long after they exit. While the cost of apprenticeship is similar to traditional programs, the cost burden is shared, usually by a mix of public and employer funds. In many instances, journey-level workers, once permanently employed, pay a share of their wages toward a fund pool to support new apprentices. However, developing healthcare apprenticeships has been challenging due to rigorous licensing and education/training program accreditation requirements, and due to misconceptions about the quality of training received through an apprenticeship versus traditional classroom training.

The apprenticeship model is based on a rigorous program of development and preparation, coupled with real-world work experience. Apprentices work to the level of their preparation—they begin contributing in the workplace as soon as they have achieved a suitable level of mastery, which is assessed by a skilled mentor. Because apprentices are paid for their time on the job and while in training, the earn-and-learn approach ensures higher levels of program completion. Apprentices can "hit the ground running" once hired into permanent positions, and are well aware of performance expectations. Employers report much lower turnover rates for their employees hired through apprenticeship programs, and a reduced need for on-boarding support for new hires.

There has been some recent advancement in the development of healthcare apprenticeships – namely the efforts of the Washington Association of Community and Migrant Health Centers, which is in its third year of a Medical Assistant Registered Apprenticeship Program, the first year of a Dental Assistant Apprenticeship Program, and is planning a Behavioral Health Coordinator Apprenticeship Program in 2017. Montana has been actively developing healthcare apprenticeships in six different occupations over the last year by leveraging a U.S. Department of Labor ApprenticeshipUSA State Accelerator grant.

A lack of technical assistance is the biggest challenge in developing apprenticeship programs – both in the creation of new programs and bringing in new employers to existing programs. It can be difficult to navigate the challenges of curriculum development, supervisor training, and administrative requirements. Policymakers could make apprenticeship and pre-apprenticeship opportunities more readily available by funding dedicated staff at the Department of Labor and Industries in the Apprenticeship Division who would be charged to increase the number of health professions with an available apprenticeship, as well as increasing the number of employers participating in this work.

5. Support healthcare career pathways, exploration, Programs of Study, and other opportunities that move students along their pathways and into healthcare careers more efficiently and effectively.

Healthcare career pathways enable middle and high school students, and those at the postsecondary level, to identify healthcare as an area of career interest, and explore a wide range of occupations within the healthcare field. Students are able to choose a Program of Study within the pathway that integrates academics and career and technical education, and also provides greater opportunities for work-integrated learning experiences. Optimally, students can attain short-term certificates, dual credits, or other credentials that shorten the time to job entry, or that stack toward higher level degrees, credentials, and professional employment. Programs of Study within healthcare career pathways allow students to move through education and training programs at the high school and college-level into healthcare careers more efficiently and quickly.

However, the connection between high school courses and college-level education isn't always aligned. In many cases, students leaving high school and entering college must repeat classes, coursework, and re-demonstrate competencies. This disconnect that students can experience between high school and college-level courses increases the time and money spent on obtaining a degree or credential, and can derail some students from completing the education they need to begin a career in the healthcare field. Policymakers should support a more seamless alignment between high school and college-level coursework, expanding Programs of Study, and increasing opportunities for dual credits and articulations specific to high-demand healthcare occupations.

To complement any increase in opportunities for students to seamlessly transition between high school and postsecondary courses, **adequate support services will be necessary** to ensure these opportunities are available to everyone. In recent years, budget cuts have reduced many of the services that enabled students to better understand the path to complete their education and training, and to navigate a path to employment. Comprehensive career guidance and structured career-connected learning opportunities assist students with identifying their pathway and accessing the necessary education and training programs, work experience, and meaningful employment.

6. Create incentives for the formation of integrated care teams to expand access to integrated care. Support interdisciplinary education to increase providers of integrated care.

Healthcare delivery is transforming at a rapid pace, shifting in focus from treating the disease to treating the whole person, and from facility-based to community-based care. Specialty areas of healthcare are now working together on behalf of each patient. Cross-discipline patient care coordination, interdisciplinary care teams, and multi-specialty practices are quickly becoming desirable to both practitioners and patients. Third-party payers are also investing in and incenting these new models that result in better patient outcomes while reducing costs. However, changing this paradigm is not an easy task. Support is needed for the education community to reengineer its programs where needed to prepare highly qualified practitioners, and industry and education together must help develop the existing workforce to respond to these changes.

Policymakers should support the creation of interdisciplinary education programs that prepare the new types of health practitioners needed. Industry should be incented to work together with the education sector to develop programs for current practitioners as well as new entrants to the field. Interdisciplinary education should focus on the whole person, particularly recognizing the interplay of physical and behavioral health, and the social determinants of health such as employment, housing, nutrition, and education.

7. To improve health workforce provider data, require provider surveys as a condition of continued licensure.

The Council has consistently supported the collection of key data on healthcare providers, including basic demographic data, the location where they practice, specialty area, and other information through online renewals. In the current landscape, the state can identify how many health professionals hold licenses, but not how they are deployed, what area of the state they are practicing in, and in which fields they are working. The Department of Health received direction from the Legislature in 2014 to move forward with implementing the survey, and in the Fall of 2016, began including the survey as part of the license renewal process. This survey captures many key data elements, including the specialties providers are working in, where they work, how many hours they work, and their retirement plans, among other information. However, healthcare providers are not required to complete the survey to be licensed. This raises the question of how well the survey will reflect the state's actual healthcare landscape, as the survey's sample size and geographic distribution of respondents may be insufficient.

The Council recommends that policymakers require mandatory participation in this survey for licensure, particularly for allied health and primary care providers. Mandatory participation will help ensure an accurate picture of the distribution of the state's health workforce. This information will also allow policymakers and industry to better understand where to focus limited resources for provider recruitment and retention activities. Another important point: Any data that is collected, and any analysis and conclusions based on this data, must be accessible to a wide range of organizations able to analyze and validate it. This includes the Workforce Board, Washington Center for Nursing, University of Washington Center for Health Workforce Studies, and others.

8. Continue to expand post-graduate educational program enrollment and residencies, particularly in medically underserved communities.

Washington ranks below the national median in the per capita number of in-state primary care physician residency positions. For physicians, research shows that residency location heavily influences their choice of practice location. Policymakers made a substantial investment in residencies in the 2015-17 biennium. This investment was greatly appreciated; however, more support is needed to meet the increased need for primary care providers. **The Council recommends the state commit additional funding to increase the number of primary care residency opportunities in underserved communities.** Addressing this shortage will require both funding assistance and an analysis of any administrative barriers which may limit the expansion of residency opportunities.

Additionally, expanding post-graduate clinical training opportunities for other primary care and behavioral health clinicians (such as dentists, psychiatrists, nurse practitioners, and physician assistants) is also important to meet local health workforce demand and expertise, and will similarly require funding and reviewing barriers to expansion of these opportunities. Investments that increase primary care residency and other post-graduate clinical training opportunities, especially in rural and underserved regions, are likely to lead to more providers choosing to work in Washington communities that need integrative healthcare professionals the most.

The Council supports funding for increased residency slots, but also recognizes that a variety of administrative barriers may also reduce residency opportunities for primary care providers. The Council recommends the state convene a workgroup of experts on graduate medical education to explore administrative barriers to increased residency programs. Potential solutions may include further stakeholder work with federal partners. Policymakers could charge a workgroup to explore this issue in detail in 2017 and report back to the Legislature with recommendations in time for the 2018 legislative session.

Post-graduate "transition to practice" opportunities for other health occupations have been gaining in popularity, and also have helped influence where an individual chooses to practice. Supported transition-to-practice opportunities are enticing to new graduates and to employers. Similar to the Loan Repayment program, support for transition-to-practice slots should be provided for medically underserved areas.

Healthcare Personnel Data

Since forming in 2002, the Council has brought attention to current and projected shortages in healthcare occupations, and has proposed strategies to fill these gaps. The Council's advocacy on shortages is showing results, most notably in expanded capacity in a wide range of healthcare programs at Washington's education and training institutions. Although progress has been made to close certain workforce gaps, continued shortages in key occupations are anticipated in the healthcare industry, such as dental hygienists, occupational therapists, physical therapists, and providers to practice in medically underserved areas of the state.

As more people are covered by health insurance under the Affordable Care Act (ACA), demand is increasing for healthcare and healthcare workers, especially in rural areas of the state and low-income urban areas.

For this report, Workforce Board staff collected and analyzed the supply of completers of healthcare education programs, and reviewed data on job vacancies for key healthcare occupations. The data in the following pages provide greater insight on the state's projected healthcare personnel shortages in the aggregate (statewide and across an occupational spectrum), based on historical trends. To help policymakers and others understand some of the contextual issues and conditions of this data, several case studies are provided. The report also provides potential follow-up questions for policymakers and stakeholders.

Healthcare Education/Training Program Completions

An increasing number of Washington residents are enrolling in, and completing, healthcare programs to prepare for a variety of healthcare occupations. The state has successfully pushed to expand capacity in healthcare training programs, and in some cases provided financial incentives, such as the Health Professional Loan Repayment and Scholarship program.

The following table shows completions over a three-year period for approximately 50 healthcare education and training programs. Supply numbers include all public and private degree-granting schools in Washington as well as 300+ private career schools offering short-term training and certificates.

Over the past several years (2013-2015), the state has seen the biggest decline in those completing medical programs training to be licensed practical nurses (down 280), registered nurse training (down 273), and medical assistants (down 264). The biggest gains occurred among those training to be nursing assistants (up 488), medical secretaries (up 104), and phlebotomists (up 95).

NOTE: **Completion numbers do not necessarily translate to workers filling positions.** Some programs require additional training, clinical work, licensing/certification requirements, or residency post-completion, so program completers may not be able to immediately enter the workforce.

Ambulance Drivers and Attendants, Except EMTs 751 832 10.8% Athletic Trainers 32 40 25.0% Audiologists 14 12 -14.3% Cardiovascular Technologists and Technicians 5 24 380.0% Child, Family, and School Social Workers 272 314 15.4% Dental Assistants 896 918 2.5% Dental Hygienists 140 147 5.0% Dental Laboratory Technicians 5 2 -60.0% Dentists, General 32 36 12.5% Diagnostic Medical Sonographers 21 30 42.9% Dietetic Technicians 40 74 85.0% Dietitians and Nutritionists 132 173 31.1% Emergency Medical Technicians and Paramedics 58 140 141.4% Family and General Practitioners* 85 83 -2.4% Health Diagnosing and Treating Practitioners, All Other 171 178 4.1% Hearing Aid Specialists 26 19	Education Training Program Title	2013 Program Completions	2015 Program Completions	Percentage Change in Completions Between 2013-15
Audiologists 14 12 -14.3% Cardiovascular Technologists and Technicians 5 24 380.0% Child, Family, and School Social Workers 272 314 15.4% Dental Assistants 896 918 2.5% Dental Hygienists 140 147 5.0% Dental Laboratory Technicians 5 2 -60.0% Dentists, General 32 36 12.5% Diagnostic Medical Sonographers 21 30 42.9% Dietetic Technicians 40 74 85.0% Dietitians and Nutritionists 132 173 31.1% Emergency Medical Technicians and Paramedics 58 140 141.4% Family and General Practitioners* 85 83 -2.4% Health Diagnosing and Treating Practitioners, All Other 171 178 4.1% Hearing Aid Specialists 26 19 -26.9% Licensed Practical and Licensed Vocational Nurses 1131 851 -24.8% Massage Therapists 834	Ambulance Drivers and Attendants, Except EMTs	751	832	10.8%
Cardiovascular Technologists and Technicians524380.0%Child, Family, and School Social Workers27231415.4%Dental Assistants8969182.5%Dental Hygienists1401475.0%Dental Laboratory Technicians52-60.0%Dentists, General323612.5%Diagnostic Medical Sonographers213042.9%Dietetic Technicians407485.0%Dietitians and Nutritionists13217331.1%Emergency Medical Technicians and Paramedics58140141.4%Family and General Practitioners*8583-2.4%Health Diagnosing and Treating Practitioners, All Other1711784.1%Hearing Aid Specialists2619-26.9%Licensed Practical and Licensed Vocational Nurses1131851-24.8%Massage Therapists83491710.0%Medical and Clinical Laboratory Technicians435425.6%Medical and Clinical Laboratory Technologists1513-13.3%Medical Appliance Technicians110.0%Medical Assistants37983534-7.0%	Athletic Trainers	32	40	25.0%
Child, Family, and School Social Workers 272 314 15.4% Dental Assistants 896 918 2.5% Dental Hygienists 140 147 5.0% Dental Laboratory Technicians 5 2 -60.0% Dentists, General 32 36 12.5% Diagnostic Medical Sonographers 21 30 42.9% Dietetic Technicians 40 74 85.0% Dietitians and Nutritionists 132 173 31.1% Emergency Medical Technicians and Paramedics 58 140 141.4% Family and General Practitioners* 85 83 -2.4% Health Diagnosing and Treating Practitioners, All Other 171 178 4.1% Hearing Aid Specialists 26 19 -26.9% Licensed Practical and Licensed Vocational Nurses 1131 851 -24.8% Massage Therapists 834 917 10.0% Medical and Clinical Laboratory Technicians 43 54 25.6% Medical Appliance Technicians <	Audiologists	14	12	-14.3%
Dental Assistants 896 918 2.5% Dental Hygienists 140 147 5.0% Dental Laboratory Technicians 5 2 -60.0% Dentists, General 32 36 12.5% Diagnostic Medical Sonographers 21 30 42.9% Dietetic Technicians 40 74 85.0% Diettitians and Nutritionists 132 173 31.1% Emergency Medical Technicians and Paramedics 58 140 141.4% Family and General Practitioners* 85 83 -2.4% Health Diagnosing and Treating Practitioners, All Other 171 178 4.1% Hearing Aid Specialists 26 19 -26.9% Licensed Practical and Licensed Vocational Nurses 1131 851 -24.8% Massage Therapists 834 917 10.0% Medical and Clinical Laboratory Technicians 43 54 25.6% Medical Appliance Technicians 1 1 0.0% Medical Assistants 3798 3	Cardiovascular Technologists and Technicians	5	24	380.0%
Dental Hygienists 140 147 5.0% Dental Laboratory Technicians 5 2 -60.0% Dentists, General 32 36 12.5% Diagnostic Medical Sonographers 21 30 42.9% Dietetic Technicians 40 74 85.0% Dietitians and Nutritionists 132 173 31.1% Emergency Medical Technicians and Paramedics 58 140 141.4% Family and General Practitioners* 85 83 -2.4% Health Diagnosing and Treating Practitioners, All Other 171 178 4.1% Hearing Aid Specialists 26 19 -26.9% Licensed Practical and Licensed Vocational Nurses 1131 851 -24.8% Massage Therapists 834 917 10.0% Medical and Clinical Laboratory Technologists 15 13 -13.3% Medical Appliance Technicians 1 1 0.0% Medical Assistants 3798 3534 -7.0%	Child, Family, and School Social Workers	272	314	15.4%
Dental Laboratory Technicians52-60.0%Dentists, General323612.5%Diagnostic Medical Sonographers213042.9%Dietetic Technicians407485.0%Dietitians and Nutritionists13217331.1%Emergency Medical Technicians and Paramedics58140141.4%Family and General Practitioners*8583-2.4%Health Diagnosing and Treating Practitioners, All Other1711784.1%Hearing Aid Specialists2619-26.9%Licensed Practical and Licensed Vocational Nurses1131851-24.8%Massage Therapists83491710.0%Medical and Clinical Laboratory Technicians435425.6%Medical and Clinical Laboratory Technologists1513-13.3%Medical Appliance Technicians110.0%Medical Assistants37983534-7.0%	Dental Assistants	896	918	2.5%
Dentists, General323612.5%Diagnostic Medical Sonographers213042.9%Dietetic Technicians407485.0%Dietitians and Nutritionists13217331.1%Emergency Medical Technicians and Paramedics58140141.4%Family and General Practitioners*8583-2.4%Health Diagnosing and Treating Practitioners, All Other1711784.1%Hearing Aid Specialists2619-26.9%Licensed Practical and Licensed Vocational Nurses1131851-24.8%Massage Therapists83491710.0%Medical and Clinical Laboratory Technicians435425.6%Medical and Clinical Laboratory Technologists1513-13.3%Medical Appliance Technicians110.0%Medical Assistants37983534-7.0%	Dental Hygienists	140	147	5.0%
Diagnostic Medical Sonographers213042.9%Dietetic Technicians407485.0%Dietitians and Nutritionists13217331.1%Emergency Medical Technicians and Paramedics58140141.4%Family and General Practitioners*8583-2.4%Health Diagnosing and Treating Practitioners, All Other1711784.1%Hearing Aid Specialists2619-26.9%Licensed Practical and Licensed Vocational Nurses1131851-24.8%Massage Therapists83491710.0%Medical and Clinical Laboratory Technicians435425.6%Medical Appliance Technicians110.0%Medical Assistants37983534-7.0%	Dental Laboratory Technicians	5	2	-60.0%
Diagnostic Medical Sonographers213042.9%Dietetic Technicians407485.0%Dietitians and Nutritionists13217331.1%Emergency Medical Technicians and Paramedics58140141.4%Family and General Practitioners*8583-2.4%Health Diagnosing and Treating Practitioners, All Other1711784.1%Hearing Aid Specialists2619-26.9%Licensed Practical and Licensed Vocational Nurses1131851-24.8%Massage Therapists83491710.0%Medical and Clinical Laboratory Technicians435425.6%Medical Appliance Technicians110.0%Medical Assistants37983534-7.0%	-		36	
Dietetic Technicians407485.0%Dietitians and Nutritionists13217331.1%Emergency Medical Technicians and Paramedics58140141.4%Family and General Practitioners*8583-2.4%Health Diagnosing and Treating Practitioners, All Other1711784.1%Hearing Aid Specialists2619-26.9%Licensed Practical and Licensed Vocational Nurses1131851-24.8%Massage Therapists83491710.0%Medical and Clinical Laboratory Technicians435425.6%Medical Appliance Technicians110.0%Medical Assistants37983534-7.0%	Diagnostic Medical Sonographers			
Dietitians and Nutritionists13217331.1%Emergency Medical Technicians and Paramedics58140141.4%Family and General Practitioners*8583-2.4%Health Diagnosing and Treating Practitioners, All Other1711784.1%Hearing Aid Specialists2619-26.9%Licensed Practical and Licensed Vocational Nurses1131851-24.8%Massage Therapists83491710.0%Medical and Clinical Laboratory Technicians435425.6%Medical and Clinical Laboratory Technologists1513-13.3%Medical Appliance Technicians110.0%Medical Assistants37983534-7.0%			74	
Emergency Medical Technicians and Paramedics58140141.4%Family and General Practitioners*8583-2.4%Health Diagnosing and Treating Practitioners, All Other1711784.1%Hearing Aid Specialists2619-26.9%Licensed Practical and Licensed Vocational Nurses1131851-24.8%Massage Therapists83491710.0%Medical and Clinical Laboratory Technicians435425.6%Medical and Clinical Laboratory Technologists1513-13.3%Medical Appliance Technicians110.0%Medical Assistants37983534-7.0%	Dietitians and Nutritionists		173	31.1%
Family and General Practitioners*8583-2.4%Health Diagnosing and Treating Practitioners, All Other1711784.1%Hearing Aid Specialists2619-26.9%Licensed Practical and Licensed Vocational Nurses1131851-24.8%Massage Therapists83491710.0%Medical and Clinical Laboratory Technicians435425.6%Medical and Clinical Laboratory Technologists1513-13.3%Medical Appliance Technicians110.0%Medical Assistants37983534-7.0%	Emergency Medical Technicians and Paramedics		140	141.4%
Health Diagnosing and Treating Practitioners, All Other1711784.1%Hearing Aid Specialists2619-26.9%Licensed Practical and Licensed Vocational Nurses1131851-24.8%Massage Therapists83491710.0%Medical and Clinical Laboratory Technicians435425.6%Medical and Clinical Laboratory Technologists1513-13.3%Medical Appliance Technicians110.0%Medical Assistants37983534-7.0%	Family and General Practitioners*		83	-2.4%
Hearing Aid Specialists2619-26.9%Licensed Practical and Licensed Vocational Nurses1131851-24.8%Massage Therapists83491710.0%Medical and Clinical Laboratory Technicians435425.6%Medical and Clinical Laboratory Technologists1513-13.3%Medical Appliance Technicians110.0%Medical Assistants37983534-7.0%	Health Diagnosing and Treating Practitioners, All Other	171	178	4.1%
Massage Therapists83491710.0%Medical and Clinical Laboratory Technicians435425.6%Medical and Clinical Laboratory Technologists1513-13.3%Medical Appliance Technicians110.0%Medical Assistants37983534-7.0%	Hearing Aid Specialists		19	-26.9%
Medical and Clinical Laboratory Technicians435425.6%Medical and Clinical Laboratory Technologists1513-13.3%Medical Appliance Technicians110.0%Medical Assistants37983534-7.0%	Licensed Practical and Licensed Vocational Nurses	1131	851	-24.8%
Medical and Clinical Laboratory Technicians435425.6%Medical and Clinical Laboratory Technologists1513-13.3%Medical Appliance Technicians110.0%Medical Assistants37983534-7.0%	Massage Therapists	834	917	10.0%
Medical Appliance Technicians110.0%Medical Assistants37983534-7.0%	Medical and Clinical Laboratory Technicians		54	25.6%
Medical Assistants 3798 3534 -7.0%	Medical and Clinical Laboratory Technologists	15	13	-13.3%
3,30	Medical Appliance Technicians	1	1	0.0%
	Medical Assistants	3798	3534	-7.0%
	Medical Records and Health Information Technicians	282	314	11.3%
Medical Secretaries 384 488 27.1%	Medical Secretaries	384	488	27.1%
Medical Transcriptionists 110 58 -47.3%	Medical Transcriptionists		58	-47.3%
Mental Health and Substance Abuse Social Workers 79 91 15.2%	Mental Health and Substance Abuse Social Workers		91	15.2%
Mental Health Counselors 219 205 -6.4%	Mental Health Counselors		205	-6.4%
Nuclear Medicine Technologists 1 1 0.0%	Nuclear Medicine Technologists		1	0.0%
Nursing Assistants 6035 6523 8.1%	Nursing Assistants		6523	8.1%
Occupational Health and Safety Specialists 49 57 16.3%	Occupational Health and Safety Specialists		57	16.3%
Occupational Health and Safety Technicians 3 0.0%	Occupational Health and Safety Technicians	3	3	0.0%
Occupational Therapists 36 38 5.6%	Occupational Therapists		38	5.6%
Occupational Therapy Assistants 11 11 0.0%	Occupational Therapy Assistants		11	0.0%
Ophthalmic Medical Technicians 19 24 26.3%				
Opticians, Dispensing 24 5 -79.2%	Opticians, Dispensing		5	-79.2%
Pharmacists 165 142 -13.9%	Pharmacists		142	
Pharmacy Technicians 401 346 -13.7%	Pharmacy Technicians		346	

Education Training Program Title	2013 Program Completions	2015 Program Completions	Percentage Change in Completions Between 2013-15
Phlebotomists	668	763	14.2%
Physical Therapist Assistants	173	171	-1.2%
Physical Therapists	68	68	0.0%
Physician Assistants	35	39	11.4%
Physicians and Surgeons, All Other*	211	205	-2.8%
Psychiatric Aides	24	19	-20.8%
Radiation Therapists	6	5	-16.7%
Radiologic Technologists	153	171	11.8%
Registered Nurses	3820	3547	-7.1%
Respiratory Therapists	10	7	-30.0%
Respiratory Therapy Technicians	70	69	-1.4%
Speech-Language Pathologists	121	117	-3.3%
Substance Abuse and Behavioral Disorder Counselors	193	161	-16.6%
Surgical Technologists	52	68	30.8%

<u>Sources</u>: The Integrated Postsecondary Education Data System (IPEDS) 2015; Workforce Board Data Reporting System 2015 for private career school completions.

Health Program Completions by Workforce Development Area

Washington features 12 different Workforce Development Areas that reflect different populations, labor markets, and education opportunities. Workforce Development Areas can be a single county (such as the highly populated King, Pierce, or Snohomish counties), or made up of multiple counties that share similar labor markets. Workforce Development Areas are overseen by local Workforce Development Councils (WDCs).

The state's 12 WDCs provide on-the-ground workforce development planning and oversight, and promote coordination between education, training, and employment efforts in their communities.

Healthcare program completers are sorted into Workforce Development Areas based on the location of their education and training institution, not their home address, so many may choose to work outside the geographic area in which they trained. Nursing assistant (NA) and medical assistant (MA) training programs were almost universally the top two training programs in each of the state's workforce areas, so the **following map omits those programs** to better highlight regional education specialties. Below you can see the most common healthcare program completions for 2015 in each of the state's Workforce Development Areas.

^{*}Completion of medical school. These completers still must undergo 3+ years of residency training before they can begin to practice.

2015 Completions by Workforce Development Area

(Omits Nursing Assistant & Medical Assistant Completions)



Healthcare Personnel Shortages and the Health Workforce Council's Role

On behalf of the Council, the Workforce Board analyzes job vacancies and develops a five-year projection for selected healthcare occupations. The analysis provides a side-by-side look at Washington healthcare education completers and projected job openings for selected healthcare occupations. This analysis helps anticipate the gap between supply and projected job vacancies, should the annual supply of trained healthcare professionals stay the same. This analysis is based on an assumption that the annual supply (or output of educated professionals) will continue at the same rate over the next five years.

A chart of projected gaps by occupation is provided on page 27, but **the data in this chart should be used with caution**. The case studies in this section on medical assistants, nursing assistants, registered nurses, and behavioral health illustrate that at times there is more behind the data than simple numbers would suggest. A gap analysis cannot provide the complete picture. The data does not currently include information on individuals who retire or no longer practice, or providers who relocate to Washington and begin practicing through an endorsement of their license from another state. Most significant is the lack of data by geography or community. There may be a distribution issue in some

communities, where the number of educated healthcare professionals is higher than the number of available job openings, while other areas of the state face shortages.

Health workforce data can be complex and come from many sources. Often, key data are spread across multiple agencies and organizations. Individual data elements may be held by a number of sources, such as state agencies and professional associations, or contained within licensing surveys. What might seem like a simple question about a specific occupation in a geographic area could involve any number of agencies and organizations, and arriving at a firm answer to this question could be even more challenging.

As mentioned previously in this report (see pages 5 and 14), the Council's request for dedicated staff support would provide the state and its many healthcare stakeholders the resources to address access to health workforce data, and a deeper analysis of data to better determine specific strategies to address gaps or uneven distribution of healthcare workers across the state.

State-level data on health occupations is generally available and accessible. Even so, this data is often far from complete. Meanwhile, obtaining local-level information can be challenging, and costly. Also, accessing health workforce data without putting it into context or framing it does not always provide the level of detail necessary to make sound decisions on where to invest in training programs and other areas of the health workforce pipeline. The Health Workforce Industry Sentinel Network (described on page 11), may be able to help with some of these challenges – particularly for real-time, emerging data that will come through more data collections in 2017.

Case Studies: Data Discrepancies and Questions

For the coming year, the Council has selected a few key areas for further analysis in the form of case studies (below). These are areas where the data alone did not provide a clear picture of what was happening on the ground for these occupations. The analysis helps explain the data, and also asks policymakers questions to consider in their review of this information.

Case Study: Medical Assistant Data Discrepancies

For several years the Council's data has shown a greater number of medical assistants being trained than job vacancies. However, Council members are also hearing from facilities about great challenges in hiring medical assistants due to a lack of applicants. The Sentinel Network data collection also found that seven out of nine ACH regions are home to facilities reporting exceptionally long vacancies for medical assistant job openings. These two situations highlight where health workforce educational outputs and job vacancies may not be telling the entire story.

What could explain this discrepancy between the data for supply and the reported demand from facilities? One potential contributor to the data's reported "surplus" could be issues with becoming credentialed as a Medical Assistant-Certified (MA-C). How many complete the education program but not the test required for certification? Is there any duplication impacting the number to account for those who are Medical Assistant-Registered but who received their MA-C credential later in the year?

More research is necessary to accurately identify potential answers to the difference between the number of certified medical assistants and the projected demand.

Case Study: Nursing Assistant Oversupply?

Similar to medical assistants, Council data has also shown a potentially concerning difference between the number of trained nursing assistants and the projected job vacancies for the past few years. In this case, approximately 5,300 more nursing assistants were trained in 2015 than projected openings. While the training for this position is relatively short, it still requires an investment of tuition and fees, as well the time required to complete the training, so it's important to understand whether there truly is an oversupply of trained nursing assistants when compared with the available jobs. Again, similar to medical assistants, despite the data showing a surplus of potential workers, Council members are hearing about challenges in hiring nursing assistants, particularly in long-term care and home health care facilities.

Similar to the situation with medical assistants, there are no easy answers; just more factors to consider. Some nursing programs require their students to have a nursing assistant credential to begin the program. This ensures students have basic care competencies, but could impact the numbers, as many of these students aren't actually working as nursing assistants. How many of those who complete the program are passing the certification test, or even taking the test? Are transportation challenges limiting the accessibility of the testing site? Does Washington's rising minimum wage impact retention in these positions? Are potential nursing assistants taking jobs in other fields due to perceived low pay for oftentimes difficult work? The data also does not account for the needs of an aging population; as life expectancies increase, more people will need care from these front-line workers. Finally, since the majority of nursing assistants are hired before their training, and receive a Nursing Assistant-Registered (NA-R) credential while they pursue their Nursing Assistant-Certified (NA-C) credential, there is likely some duplication in the supply of workers due to double-counting the NA-C and NA-R credentials for those who received both in 2015.

Case Study: Registered Nursing Data

For this particular item, the Council looked at the number of newly registered nurses by licensing data, instead of completers of educational programs, which provides a more accurate picture of work-ready, available supply.

The gap analysis on page 28 shows that based off of 2015 completion numbers, there are potentially more newly licensed registered nurses than job openings. Members of the Council are aware that many facilities are having a real problem finding nurses. There are a few reasons why the data may not show the full picture. This data does not tally how many nurses do not renew their licenses due to retirement or other reasons. This data also does not provide information on the geographic distribution of newly trained registered nurses. So while some areas of the state may have limited demand, other areas may be desperately seeking qualified applicants. This is just one reason why mandatory demographic data, as part of a licensing requirement, including specific details on where providers are practicing, is so critical. The Center for Nursing produced a brief on the nursing workforce (http://www.wcnursing.org/about-us/news-detail.php?entity=386&entity_type=9), including reviewing the question of whether the state's education institutions are producing a surplus of nurses.

An area where further analysis could uncover a more detailed picture of the job market for Washington' nurses would be to look more closely at employment opportunities for nurses by education level. The map of the top completions by Workforce Development Area shows that in some areas, the top training programs are those preparing bachelor's degree nurses. The Institute of Medicine's report, *The Future of Nursing: Leading Change, Advancing Health* called for 80 percent of nurses to have a bachelor's degree by 2020. Some facilities may prefer hiring bachelor's degree nurses to achieve Magnet status, in which a facility achieves a higher-level status by having a greater number of nurses with bachelor's degrees or more advanced degrees. Based on this goal, are nurses with associate's degrees having difficulties securing employment? Frontline data from facilities on their hiring preferences is not readily available, though the Sentinel Network could, in time, address that issue (see more details on this project on page 11). Are facilities routinely hiring nurses with less than a bachelor's degree? Are recently licensed nurses with an associate's degree still pursuing further education and choosing not to work, or working part-time, while pursuing a bachelor's degree? The data does not account for whether the newly licensed nurses are available for work.

In addition, registered nurse completions and demand information also includes Advanced Registered Nurse Practitioners (ARNPs). ARNPs do not function in registered nurse roles. With advanced education and certification, the ability to prescribe medications, and independent practice authority from physicians, many ARNPs are primary care providers, and cannot easily be classified in demand data.

For the reasons highlighted above, and others not yet identified, it cannot be concluded that the supply of registered nurses is sufficient, based off of the limited data on job vacancies.

Case Study: Behavioral Health Workforce Data

Behavioral health provides a ready example of data challenges facing policymakers. This evolving healthcare area has received a lot of attention in recent years. For example, the state's Health Care Authority and Healthier Washington project team are working to integrate the financing and delivery of physical health services, mental health services, and chemical dependency services in the Medicaid program through managed healthcare by 2020.

However, it can be challenging to nail down specific data points within behavioral health. Many healthcare providers, such as nurses and physician assistants, may deliver behavioral healthcare — occasionally or as their primary role — but it can be difficult to discretely evaluate this from the rest of their work. Additionally, as stated previously, information on shortages can be difficult to obtain at the regional level. State data on the number of graduates in behavioral health doesn't provide enough information to know whether education institutions are training enough providers to meet behavioral healthcare demand in specific areas of the state, how these providers are putting their skills to use, and whether the training they're receiving has prepared them for integrated behavioral healthcare delivery. Additionally, because there is a lag in educational data, the data on the behavioral health workforce does not fully capture the goal of integration of physical and behavioral health by 2020.

The Behavioral Health Workforce Analysis has been focused on developing a better understanding of behavioral health workforce needs as it continues its work in 2017. See page 9 for more details.

Washington 2015 Education Completions & Projected Job Vacancies

Health Occupations Ambulance Drivers and Attendants, Except EMTs	Projected Vacancies 2019-2024	2015 Washington	Educational
	2010 2024		Output Minus
Ambulance Drivers and Attendants Eveent EMTs	2019-2024	Education	Job Vacancies
Ambulance Drivers and Attendants Event EMTs		Completions	
Annoulance Drivers and Attendants, Except Eivits	64	832	768
Athletic Trainers	23	40	17
Audiologists	33	12	-21
Cardiovascular Technologists and Technicians	52	24	-28
Child, Family, and School Social Workers	321	314	-7
Dental Assistants	506	918	412
Dental Hygienists	271	147	-124
Dental Laboratory Technicians	48	2	-46
Dentists, General	134	36	-98
Diagnostic Medical Sonographers	86	30	-56
Dietetic Technicians	19	74	55
Dietitians and Nutritionists	35	173	138
Emergency Medical Technicians and Paramedics	110	140	30
Family and General Practitioners	81	83	2
Health Diagnosing and Treating Practitioners, All Other	109	178	69
Hearing Aid Specialists	25	19	-6
Licensed Practical and Licensed Vocational Nurses	307	851	544
Massage Therapists	560	917	357
Medical and Clinical Laboratory Technicians	143	54	-89
Medical and Clinical Laboratory Technologists	160	13	-147
Medical Appliance Technicians	6	1	-5
Medical Assistants*	592	2821	2,942
Medical Records and Health Information Technicians	200	314	114
Medical Secretaries	336	488	152
Medical Transcriptionists	83	58	-25
Mental Health and Substance Abuse Social Workers*	105	91	-14
Mental Health Counselors*	136	205	69
Nuclear Medicine Technologists	17	1	-16
Nursing Assistants*	1224	6523	5,299
Occupational Health and Safety Specialists	104	57	-47
Occupational Health and Safety Technicians	20	3	-17
Occupational Therapists	140	38	-102
Occupational Therapy Assistants	24	11	-13
Ophthalmic Medical Technicians	41	24	-17
Opticians, Dispensing	96	5	-91
Pharmacists	261	142	-119
Pharmacy Technicians	220	346	126

Health Occupations	Projected Vacancies 2019-2024	2015 Washington Education Completions	Educational Output Minus Job Vacancies
Phlebotomists	116	763	647
Physical Therapist Assistants	99	171	72
Physical Therapists	344	68	-276
Physician Assistants	113	39	-74
Physicians and Surgeons, All Other	244	205	-39
Psychiatric Aides	28	19	-9
Radiation Therapists	21	5	-16
Radiologic Technologists	168	171	3
Respiratory Therapists	96	7	-89
Respiratory Therapy Technicians	4	69	65
Registered Nurses (by licensure)**	2,572	2,806	234
Speech-Language Pathologists	165	117	-48
Substance Abuse and Behavioral Disorder Counselors	177	161	-16
Surgical Technologists	65	68	3

Sources: The Integrated Postsecondary Education Data System (IPEDS) 2015; Workforce Board Student Data Reporting System 2015 for private career school completions.

Data Details and Limitations: Accurately predicting future changes in the demand for healthcare workers as a result of national healthcare reform is challenging. It will be important to carefully monitor changes in the healthcare system for labor market effects not predicted in the official projection. In general, this methodology tends to be conservative in predicting changes to recent trends. Demand estimates are from occupational projections for Washington developed by the state's Employment Security Department under a contract from the U.S. Department of Labor. This national methodology relies heavily on recent trends and national averages. Therefore, it may underestimate emerging overall changes or effects specific to Washington.

^{*}Data does not show the full picture of what's happening in these roles. See case studies on these occupations, starting on page 24.

^{**}Includes nurses newly licensed in 2015 by examination. U.S. Department of Labor data provides aggregate data on demand for registered nurses. Nursing demand numbers are not broken down by degree attainment. The registered nurses category for this table includes nurses of all education levels as well as nurse practitioners.

Health Workforce Council History

In 2001, amid growing concerns about personnel shortages in Washington's healthcare industry, the state's Workforce Board convened a workgroup of healthcare stakeholders. Soon after, in 2002, the Workforce Board created the Healthcare Personnel Shortage Task Force (Task Force) at the request of then-Governor Gary Locke. The Task Force developed a statewide strategic plan to address severe personnel shortages in the healthcare industry, and in January 2003, the Task Force released a strategic plan to tackle the growing gap between the number of trained healthcare professionals and the needs of Washington residents. The report was presented to the Governor and Legislature, and was titled *Healthcare Personnel Shortages: Crisis or Opportunity?*.

In 2003, the Legislature passed **Engrossed Substitute House Bill 1852**, directing the Workforce Board to continue convening stakeholders to establish and maintain a state strategic plan to address healthcare workforce shortages. The plan was intended to be a blueprint that helped ensure a sufficient supply of trained personnel providing quality, affordable healthcare to the residents of the state. The bill also required an annual report to the Governor and Legislature on this work, including recommendations on how best to address healthcare personnel shortages.

In 2014, Task Force members voted to change their name to the Health Workforce Council to better reflect a new focus on the overall health of a person – looking at overall health instead of just healthcare delivery.

The state workforce system's overarching goals for healthcare are to provide hospitals, clinics, and other healthcare employers with a sufficient supply of skilled workers and professionals across a wide range of occupations, and to ensure that quality healthcare services are accessible to all Washingtonians across the state, including in rural and medically underserved areas. To accomplish this, the workforce system focuses on preparing workers for healthcare jobs that are in-demand, and encouraging job retention among healthcare workers by offering opportunities to advance their careers through additional education and training.

The Council's main roles include providing updates to policymakers on health workforce supply and demand, tracking progress on implementation of new programs, and bringing together key stakeholders to develop and advocate for sustainable solutions. The Council identifies policy and funding priorities to bring to the Governor, Legislature, and other policymakers and stakeholders. As Washington grapples with a shortage of healthcare workers, along with a growing aging population needing more services, the Council and its partners continue to focus attention on how to best invest in the state's healthcare workforce pipeline.

Promising Practices in Health Workforce Development

Accelerated Chemical Dependency Certification for Advanced Professionals

Department of Social and Health Services, Division of Behavioral Health and Recovery; Spokane Falls Community College

The Washington State Department of Social and Health Services, Division of Behavioral Health and Recovery (DBHR) in partnership with Spokane Falls Community College, is offering a free 15-credit accelerated online program for advanced professionals to earn the Educational Requirements for Chemical Dependency Certification with Alternative Training (WAC 246-811). This free, accelerated program is funded through the Washington State Youth Treatment-Improvement grant awarded to DBHR from the Substance Abuse and Mental Health Services Administration.

The proposed rules for the Alternative Training (WAC 246-811) require the successful completion of 15 quarter college credits in courses from an approved school. This program includes only the educational portions required for Chemical Dependency Professionals (CDPs). The Department of Health has additional requirements for full certification at:

http://www.doh.wa.gov/LicensesPermitsandCertificates/ProfessionsNewReneworUpdate/ChemicalDe pendencyProfessional. The following professionals are eligible for Alternative Training: advanced registered nurse practitioners, marriage and family therapists, licensed mental health counselors, advanced social workers, independent clinical social workers, psychologists, osteopathic physicians, osteopathic physician assistants, physicians, and physician assistants.

Allied Health Center of Excellence

Yakima Valley College; State Board for Community & Technical Colleges

In 2004-05, the Washington State Board for Community & Technical Colleges selected 10 Centers of Excellence to serve as economic development drivers for the state's leading industries. The Centers, which were placed on college campuses through a competitive application process, were codified into state statute in 2008 (HB 1323), making Washington the only state in the country to have centers designated through legislation. Guided by industry, the Centers have become a national model for their impact on workforce education, ties to industry, and regional outreach. The Centers' core expectations include a focus on economic development, industry sector strategies, education, innovation and efficiency, and workforce supply/demand.

The Allied Health Center of Excellence (Center) facilitates quarterly networking meetings for the Deans and Directors of Allied Health training programs. The meetings focus on identifying skill gaps, understanding health workforce demand and healthcare reform, and the impact these topics have on program development. The Center assists the Deans and Directors with developing strategies to address common issues of patient safety, clinical placements, interprofessional education and service learning, integrating behavioral health and primary care, admission policies, faculty recruitment, and program development.

The Center facilitated the Allied Health and Human Services Faculty Innovation for Student Success Conference in Seattle, June 3, 2016. The focus of the conference was on informing health education administrators and faculty about healthcare reform, and the importance of leveraging partnerships in the community for health workforce benefit. Additional topics included sharing innovative educational

models for the oral health workforce, as well as a model for integration of behavioral health and allied health curriculum and programming.

Bachelor of Arts in Health Services Administration—Long-Term Care Option

Eastern Washington University; Department of Public Health and Health Administration
The Department of Public Health and Health Administration in the College of Health Science and Public Health recently announced that Eastern Washington University will now offer a Bachelor of Arts in Health Services Administration—Long-Term Care Option. The first courses specific to the program will be offered in the winter quarter, 2017.

The establishment of this program, initially requested by the Department of Health's Board of Nursing Home Administrators, will create a larger pool of applicants qualified for nursing home administration. There is not a National Association of Long Term Care Administrator Board (NAB) approved program west of Minnesota, so the accreditation of this program by that organization is particularly noteworthy.

Behavioral Health Workforce Collaborative

Washington State University

The Washington State University Behavioral Health Workforce Collaborative is a unique, dynamic organization within Washington State University College of Nursing that was created with behavioral health service providers and service recipients in mind. The Workforce Collaborative focuses on diversity, technical assistance, and strengthening the behavioral health workforce. The Workforce Collaborative enlists Washington State's most promising leaders in the behavioral health field. These leaders are diverse in ethnicity, race, and economic background. Through research, evaluation, and programmatic initiatives, the Workforce Collaborative meets the challenges of the emerging behavioral health workforce through recruitment, retention, and advancement of individuals dedicated to recovery, resiliency, and improving quality of life across the lifespan. The mission of the Workforce Collaborative is to advance children's behavioral health practices in Washington and to strengthen relationships among youth, families, and their community's resources and supports by:

- Implementing training and technical assistance to behavioral health providers.
- Ensuring diverse youth and family engagement.
- Promoting best practices for workforce development.
- Disseminating promising practices and evaluation results.

Cascade Region: A Predoctoral Psychology Internship in Primary Care Behavioral Health

Community Health of Central Washington; HealthPoint Community Health Center
Community Health of Central Washington (CHCW) operates five clinics throughout Central
Washington, with a focus on providing comprehensive medical care for all ages. Within three of the
five clinics (i.e., Central Washington Family Medicine, Yakima Pediatric Clinic, and CHCW Ellensburg),
primary care behavioral health services are integrated to provide patients additional support in
meeting their primary care needs. The behavioral health services are rendered through the Primary
Care Behavioral Health model, which strives to integrate behavioral health services at the highest level
possible. Working alongside medical providers, behavioral health consultants, who are licensed
psychologists, social workers or counselors, provide brief (less than 30 minutes), episodic (2-4 visits per
episode of care), evidence informed interventions for the gamut of conditions seen in primary care
(e.g., depression, diabetes management, anxiety, substance abuse, hypertension, obesity, etc.).

At the Central Washington Family Medicine clinic, the BHCs provide direct services to, on average, 10 patients a day, with half of these visits co-occurring with the patient's primary care medical visits. Due to CWFM being a family medicine residency, BHCs also complete co-visits with residents, as well as shadow residents in their clinics to improve patient centered communication and psychosocial intervention skills. Group classes and pathways are also implemented to help address chronic pain and other medical conditions routinely seen in primary care.

Beginning in June of 2017, CHCW will welcome its first class of predoctoral psychology interns. During this year-long residency, future psychologists will receive exposure in working in the Primary Care Behavioral Health model, as well as receive interprofessional education alongside medical residents. Being a Teaching Health Center (THC), CHCW's psychology interns will also receive their training in a community medical setting that provides services to an underserved population. Rotating through CHCW's two rural clinics (i.e., Highland and Naches), CHCW hopes to build on the success that THCs have had in keeping family medicine physicians in rural, underserved settings, and train and retain psychology interns in rural, community health centers.

Child Welfare Training and Advancement Program

UW Seattle, Tacoma; Eastern Washington University; Department of Social and Health Services Children's Administration

The purpose of the Child Welfare Training and Advancement Program (CWTAP) is to recruit and develop highly skilled, culturally competent public child-welfare social workers through a partnership between the state's Children's Administration (CA) and participating Washington state universities. The University of Washington, University of Washington Tacoma, and Eastern Washington University Schools of Social Work are participants. Children's Administration employees and those preparing for employment in CA and interested in attaining a masters in social work are encouraged to participate. Participants earn graduate-level professional knowledge and skills through an integration of instruction, practice, and research.

CWTAP students complete their practicum experiences in selected CA offices in Washington, where they receive specialized practicum training and hands-on casework experience. Students admitted to CWTAP receive financial assistance. After graduation, they seek employment with CA and agree to work for the same period of time for which they received assistance.

The goals of the program include:

- Develop student competency in evidence-based practice strategies.
- Retain highly skilled social workers committed to public child welfare service.
- Train public child welfare social workers to practice in a culturally competent manner.
- Provide services that produce positive outcomes for children and families while ensuring child safety, permanency, and well-being.

For more information, see https://socialwork.uw.edu/programs/cwtap and https://www.ewu.edu/css/programs/social-work/child-welfare---cwtap

Columbia-Willamette Workforce Collaborative Long-Term Care Plan

Workforce Southwest Washington; Clackamas Workforce Partnership; WorkSystems The Columbia-Willamette Workforce Collaborative, a partnership of three local Workforce Development Boards in Southwest Washington and the Portland, Oregon area, have created a Long-Term Care (LTC) plan. Less a program and more a strategy, the LTC plan is a systemic approach to creating a resilient and robust pipeline of workers for the Long-Term Care industry. The three part plan works to encourage young people to consider LTC as a career, support and engage new workers by creating training programs that are aligned to business needs, and to develop strategies and provide support for current workers' skill development to help them achieve promotions in their companies. The Columbia Willamette Workforce Collaborative created this plan (and a current Manufacturing plan and will have Technology and Construction in early 2017) with the help of employers to guarantee the upskilling of their current employees and a healthy pipeline of future employees. As one part of the recruitment section, the employers and the local workforce boards have co-invested in an outreach plan that includes a website and collateral materials designed to attract employees. The WorkSource staff throughout the region has participated in professional development activities and supported a regional job fair that resulted in several hundred attendees reviewing and applying for about 100 jobs. Employers and workers alike have been thrilled with the results. For more information, see: http://www.longtermcarenw.org/.

Community Health Center Clinical Training

A.T. Still University – School of Osteopathic Medicine in Arizona; community campus partners; Northwest Regional Primary Care Association; HealthPoint Community Health Center
As the regional primary care association serving community and migrant health centers (C/MHCs) in Alaska, Idaho, Oregon, and Washington (federal Region X), Northwest Regional Primary Care
Association (NWRPCA) offers a range of programs and services to support and strengthen C/MHCs in the Northwest. NWRPCA's Workforce Development program pursues innovative training, recruitment, and retention strategies to address primary care workforce challenges in the Northwest. In this regard, NWRPCA partnered with A.T. Still University (ATSU), a national health professions academic institution, to manage and administer one of ATSU's 11 osteopathic medical school community campuses. HealthPoint, a community health center (CHC) network in the greater King County area, also hosts a community campus.

In essence, the program brings clinical training to urban, rural, and frontier areas where the need is substantially great, and where patient populations are notably diverse (i.e., immigrant, newly-insured, uninsured, migrant/seasonal farmworkers, the homeless, veterans, public housing, and more). Students spend Year 1 (of 4) at the ATSU-School of Osteopathic Medicine in Arizona (ATSU-SOMA) institutional hub in Mesa, AZ, primarily for classroom and lab-based learning. During Years 2-4, groups of 10 students attend one of 11 community campuses across the country. Here, students receive three years of hands-on clinical experience in C/MHC, hospital, and other clinic settings. Campuses are embedded directly inside of the C/MHC, allowing for greater integration of students into primary care health delivery systems, in addition to opportunities for interprofessional training with other health care professions, where possible. As of May 2016, the ATSU-SOMA network graduated its sixth class of osteopathic physicians. Both the HealthPoint and NWRPCA campuses have consistently had 80 percent or higher of their graduates entering into residency programs in primary care and

needed specialties. Moreover, both sites have seen alumni join the C/MHC workforce of the hosting campus post-residency.

It is important to note that medical residencies must continue to be developed in primary care settings in order to meet the demand for primary care physicians in the Northwest. With this in mind, NWRPCA has partnered with Community Health Association of Mountain/Plains States (CHAMPS), the regional primary care association for federal Region VIII, to create the Education Health Center Initiative (EHCI), which works with C/MHCs in the state, region, and across the nation to develop and expand C/MHC-based primary care residency programs.

Healthcare Apprenticeship Programs

Washington Association of Community and Migrant Health Centers

In 2014, the Washington Association of Community and Migrant Health Centers (WACMHC) launched an apprenticeship program for Medical Assistants (MA), followed by the launch of a similar apprenticeship for Dental Assistants in 2016. Both programs are registered apprenticeship through the WA State Department of Labor and Industries, and are some of the first successful healthcare apprenticeship programs in the U.S.

Participants in the MA apprenticeship work for 12 months as paid, full-time employees in a healthcare setting with the one-on-one guidance and coaching of an experienced MA, progressively gaining skills and responsibilities. The program also requires 364 hours of supplemental, unpaid coursework, both online and through a series of in-person weekend lab days with an expert instructor. The curriculum is unique in that it not only provides instruction on the technical skills necessary to become an MA, but also provides instruction and on-the-job training for the MA role as part of a care team based on the patient-centered medical home (PCMH) model. Upon completion of the program, the apprentice is eligible to take the Certified Clinical Medical Assistant (CCMA) exam through the National Healthcareer Association, and to obtain their Washington State MA-Certified (MA-C) credential.

To date, the MA apprenticeship program has started 5 cohorts, enrolling a total of 97 students and 16 employers across Washington. The retention rate for apprentices in the program is 97 percent. Of the 48 students who have completed the program and tested to date, the overall pass/certification rate is 94 percent. The first-time pass rate on the CCMA exam is 85 percent, compared to the national average of 73 percent in 2016. 98 percent of apprentices who completed the program have remained with the employer where they completed their apprenticeship.

The Dental Assistant apprenticeship just launched its first pilot cohort of 7 apprentices and 4 employers in November 2016. The structure is similar to the MA program—12 months of full-time work with an experienced DA coach, plus 464 hours of supplemental online coursework and lab days with an expert instructor. Program graduates will have the option to continue on to receive their Dental Assisting National Boards (DANB) Certified Dental Assistant (CDA) credential.

Although the program was initially intended to meet the staffing needs of WACMHC's member organizations—the federally qualified health centers (FQHCs) of Washington—the program is also open to other employers that share WACMHC's mission of providing healthcare to underserved populations. The development of the apprenticeship model in the healthcare field is a promising method to recruit

and train a diverse workforce, both overcoming barriers to traditional education and meeting the growing demand for a well-trained frontline healthcare staff.

Health Workforce for the Future

Workforce Development Council of Seattle-King County

The Workforce Development Council of Seattle-King County (WDC) was awarded funding under the second round of the U.S. Department of Health and Human Services' Health Professions Opportunity Grant (HPOG) initiative in October 2015. The WDC's "HPOG2" Health Workforce for the Future (HWF) project is focused on building the healthcare workforce that is anticipated will be needed in King County as the population continues to age and becomes increasingly more diverse. HWF is a pipeline approach, designed to ensure needed talent does not go untapped in the local labor market. To this end, HWF is using lessons learned from previous initiatives, and findings from local and national research to leverage, redesign, and enhance existing training and program strategies to reach (1) individuals who remain unemployed, or have tenuous connections to the workforce, despite the improving economy. In order to ensure true momentum on a career path is possible, this project will also focus on (2) incumbent workers in need of support for wage and career progression. Finally, the project will target (3) low-income youth who are critical to the future workforce but remain even more disconnected from the labor force.

HWF began serving customers in 2016, with nearly 150 enrolled by the end of the first year, and will serve more than 600 individuals in King County over the five years of the project. The HWF project design builds from lessons learned from previous efforts in King County, particularly the WDC's work with project partners under the first round of HPOG. The WDC's HPOG-1 project, Health Careers for All, served approximately 900 individuals, 98 percent of whom enrolled in training (including foundational and prerequisite coursework). Most (82 percent) of these customers successfully enrolled in healthcare occupational training, with a 78 percent healthcare training completion rate, and a 74 percent healthcare employment rate, exceeding project targets in all areas.

Partners believe strategies such as those tested under HCA that have demonstrated success with a broader low-income population have promise for the population targeted under HWF. In addition, recent research has shed considerable light on brain development and function and the impact of adverse circumstances on both. In an effort to better harness talent needed to meet healthcare labor market demand, HWF will use grant funds to work with industry, education, social service, and community partners to: (1) develop new approaches to serving diverse learners informed by previous initiatives and brain development/function research; (2) enhance/scale strategies that have demonstrated promise but need further refinement or are currently limited in scope; and (3) sustain and scale models that are proven to be successful.

Hospital Employee Education and Training (HEET) Project 2016-17, Building a Dually-Credentialed Chemical Dependency Professional Workforce

Spokane Falls Community College; Whatcom Community College; SEIU Healthcare 1199NW; Compass Health; SEIU 1199NW Multi-Employer Education and Training Fund; North Sound Behavioral Health Organization

In 2014, Washington's Legislature paved the way for behavioral health and primary care integration, and subsequent reform efforts led to Behavioral Health Organizations (BHO) being responsible for

providing substance use disorder treatment and mental health services to patients. As these and other healthcare reform efforts rolled out, significant behavioral healthcare workforce development gaps, including Chemical Dependency Professionals (CDPs), became clear. To address the CDP gap, Spokane Falls Community College (SFCC), HEET lead, and Whatcom Community College (WCC) partnered in a 2016-17 HEET-funded project to develop and offer an alternative 15 credit, fast-track Chemical Dependency Professional program to Licensed Mental Health professionals.

In support of developing their CDP workforce, Compass Health and SEIU Healthcare 1199NW, partners in the HEET project, worked together to provide wage increases to dually-credentialed professionals. The partners also committed to hiring CDP supervisors to provide supervised hours to graduates of the SFCC and WCC CDP fast-track programs. Project partner, North Sound Behavioral Health Organization (NS BHO), committed tuition funding for up 60 CDP fast-track students, attending SFCC and WCC, who work with NS BHO contracted organizations.

MultiCare Health System and Workforce Central Career Coaching Program Partnership WorkForce Central; MultiCare Health Systems

The Career Coaching Program began in 2001, when WorkForce Central embarked on a public and private partnership to provide career coaching and planning, aptitude assessment, financial assistance, and training information to healthcare employees with a desire for advancement into high-demand healthcare careers. WorkForce Central partnered with MultiCare Health Systems to assist their employees with furthering their education in career retention, advancement, and skills enhancement. In 2015, primary funding for the program and partnership came from the Workforce Investment Act/ Workforce Innovation and Opportunity Act (WIA/WIOA). Additionally, MultiCare Health Systems (MHS) provided its own funding for tuition reimbursement to their staff for participating in the program. WorkForce Central reports that the graduation rate for MHS employees served in 2015 was 53 percent. MHS employees, who did not graduate before the end of 2015, are on track to complete their training programs in 2016.

Since inception of the Career Coaching Program, and their partnership with MHS employees, there have been 479 employees enrolled; 293 who have already completed their respective programs. Upon completion of training, graduates have gone on to become Registered Nurses, or Licensed Practical Nurses, as well as various other patient care advocates and administrators or techs. Employees who secured positions saw an increase in their salaries from \$14.07 to \$53.84.

New Study on the Status of the Oral Health Workforce in Washington State

University of Washington Center for Health Workforce Studies; Washington Dental Service Foundation The Washington Dental Service Foundation has funded the University of Washington Center for Health Workforce Studies to conduct a study about the current and future status of Washington's oral health workforce, using stakeholder interviews, surveys, and analyses of workforce data. Look for a report of findings in early 2017 on topics including the supply, distribution, demographics, and practice characteristics of Washington's dentists; provision of care to patients insured by Medicaid and the uninsured; and oral health services provided by pediatricians and family physicians. For more information, contact Davis Patterson at davisp@uw.edu.

Nurse Practitioner Residencies

Advanced Registered Practitioners United of Washington; Washington State Nurses Association New nurse practitioner (NP) graduates eager to begin a first job as an independent provider and motivated to serve the neediest patients may be drawn to work with Federally Qualified Health Centers (FQHCs). The Veteran's Administration (VA) offers challenging patient work and excellent benefit packages. Both are ideal sites for new graduates to begin work, but often the challenge of managing a patient panel with the added complexity of many patients' profound psychosocial needs can challenge a new graduate. An ideal solution to bridge the transition from graduate student to independent provider is a Nurse Practitioner Residency. Washington is leading the country in the number of residencies available in the state.

American Association of Nurse Practitioners (AANP) and the American Nurses Credentialing Center (ANCC) use the term "fellowship," but Washington programs are currently entitled as residencies. Washington's programs all provide the ability for a NP to gradually work up to a full patient caseload by offering mentorship by experienced ARNPs, an instruction environment that includes learning with coworkers, practice with other health professionals, and experience providing care in different specialty areas. Most of the programs include a component of leadership training or a special populations project, with the goal of NPs assuming leadership roles in their organizations and 31 communities. These are paid positions for NPs within their first year of graduation. Newly graduated NPs are skilled in interview techniques, history taking, physical examination, assessment, and management. However, new NPs may find that implementing these skills while learning organizational techniques, time management skills, and establishing relationships with coworkers of multiple disciplines is challenging. This is reflected in the high attrition rate of new grads in the FQHC and VA settings, with many leaving within 1-3 years of hire. A goal of nurse practitioner residency programs is to establish the support network necessary to assure job satisfaction for the new employee and improve retention. WACMHC conducted a survey of the 2015-2016 graduates of this residency program that shows 64 percent of them plan on working in a Washington community health center.

Rural community clinics are hoping to tap into these programs using remote telecommunications, allowing NPs in diverse and isolated locations to participate. Patients, clinics, and newly graduated nurse practitioners all benefit from these transition-to-practice programs. New employees are supported as they gain confidence and efficiency, patients enjoy a technically proficient provider, the employing organization has a team of providers who understand how to best utilize one another's skills, and the community gains a competent leader to innovate new programs. The coalition is currently working to increase the number of preceptors for the pool of NP students and future NP residents.

Project AWARE

Office of Superintendent of Public Instruction; Battle Ground, Marysville & Shelton School Districts
The Career and College Readiness Division of the Office of Superintendent of Public Instruction (OSPI)
and the Office of Secondary Education, specifically Project AWARE (Advancing Wellness and Resilience
in Education), are collaborating within OSPI on Behavioral Mental Health. Project Aware is a five year
Federal Substance Abuse and Mental Health grant awarded to OSPI through the Substance Abuse and
Mental Health Services Administration (SAMHSA).

In Washington, OPSI works with three school districts to implement the grant: Battle Ground, Shelton, and Marysville. Project AWARE offers free Youth Mental Health First Aid Trainings. These trainings are available in communities statewide. Project Aware also collaborates to bring mental health literacy curriculum into high school health classes. The curriculum resource is open to all schools, especially Health and CTE teachers. Throughout the year, one-day trainings have been offered. Mental Health Literacy programs are growing in Washington through the work of this group and other efforts. The goal is to expand the limited training through collaboration and support. Currently, there are 40 teachers trained and 12 districts implementing mental health literacy. This work is under the guidance of Mandy Paradise, Program Manager, Project AWARE.

Project Health Occupations Preparatory Experience (HOPE)

Eastern Washington Area Health Education Center

Project Health Occupations Preparatory Experience (HOPE) was created by Washington's Legislature in 2001 in response to a survey that found racial and ethnic disparities in healthcare. Project HOPE is a four-week internship for high school students to experience healthcare careers firsthand. Application is competitive, and students who are selected are placed in a hospital, clinic, or long-term care facility for twenty hours per week for four weeks. During the summer of 2016, 19 medical facilities hosted 27 students.

This unique opportunity builds a pipeline of rural youth into healthcare careers. Students gain valuable experience, and receive a stipend for their participation. This program fosters interest in health careers while providing a comprehensive understanding of what rural medicine means.

Rural/Underserved Opportunities Program

Eastern Washington Area Health Education Centers; University of Washington School of Medicine
The Rural/Underserved Opportunities Program (R/UOP) is a four-week elective in community medicine
for students between their first and second years of medical school. Since the beginning of the
program in 1989, Western and Eastern Washington Area Health Education Centers (AHEC) and the
University of Washington School of Medicine (UWSOM) have partnered to provide a clinical and
community learning experience in rural and urban underserved areas across Washington. The program
aims to encourage primary care careers in rural or underserved locations. Accordingly, in the most
recent residency match, 59 percent of R/UOP students chose a residency in primary care compared to
41 percent who did not participate in the program.

Eastern Washington AHEC and the R/UOP Office recruit volunteer preceptors, reimburse student travel, and arrange community housing. Each year, approximately 55 primary care physicians volunteer to precept R/UOP students. All students who participate in R/UOP receive a stipend. In Washington, the majority of the student stipends are funded by the Washington Academy of Family Physicians. Students work in clinics and hospitals with preceptors, often experiencing their first extended clinical involvement. Along with expanding history-taking and physical exam skills, students participate in a full range of clinical activities. Students also participate in home visits, work with other health professionals, and attend town meetings and community cultural events. Students appreciate these experiences and consistently rate R/UOP extremely high.

Many R/UOP students combine their clinical work with a public health practicum. In addition to their clinical responsibilities, these students also complete a web-based community medicine course with support from UWSOM mentors. They learn about health disparities and assess their community's health strengths and challenges, and with the help of community partners, students develop an intervention plan for a specific public health issue. For more information, see: https://depts.washington.edu/fammed/education/programs/ruop/.

University of Washington Department of Psychiatry Workforce Development

University of Washington, Department of Psychiatry

The University of Washington Department of Psychiatry has two programs, the AIMS Center and the Integrated Care Training Program, which support behavioral health workforce development in the principles of Collaborative Care, an evidence-based integrated care model. The AIMS Center (https://aims.uw.edu/) offers implementation support including training, coaching, and evaluation assistance to organizations planning and implementing patient-centered, evidence-based integrated care. The AIMS Center has worked with over 1,000 organizations, and trained more than 6,000 clinicians around the world to implement Collaborative Care. The UW Integrated Care Training Program (http://ictp.uw.edu/) is a leader in training psychiatrists to leverage their expertise by working with an integrated mental health care team to allow more patients to receive effective behavioral health care in primary care settings, schools, community health centers, rural hospitals, and correctional facilities. Additionally, psychiatrists are trained to use tele-psychiatry and other technology will help the counties with no current psychiatrists access this specialty care. Educational strategies for both programs include online resources, online training, distance learning, and in-person training.

Washington Center for Nursing Diversity Toolkit

Washington Center for Nursing; Participating Institutions

A diverse, culturally competent nursing workforce is an integral component to eliminating health disparities, improving access to care, and promoting the cultural congruence of nursing care delivery. The Center for Nursing has developed a Nursing Diversity Toolkit that includes best practices from across the state and country. For this write-up, they included the example of the University of Washington's approaches to improve the diversity of its applicants and completers. Sheila Edwards-Lange, who previously served as vice president for Minority Affairs and vice provost for Diversity at the University of Washington, shared some of UW's approaches campus-wide, as well as those specific to its School of Nursing (SoN), for creating an environment that supports diversity and inclusion. (According to 2014-2015 data, SoN students who identify as minorities make up 38 percent of the undergraduate program, and 29 percent of the graduate program.) Successful strategies at the UW SoN that other higher education institutions might consider include:

- Make sure diversity is in the organization's mission statement. This signals that the entire
 institution sees diversity and inclusion as a priority. The SoN has a race and equity initiative.
- Change up the admissions process. Instead of looking at only test scores, consider implementing a holistic review, or whole-file review. It factors in not only the student's academic information, but also the experiences and opportunities the student has had, the challenges and obstacles they have faced, and the talents and cultures they can share.
- Use the "Train the Trainer" method. This ensures that those looking at student applications, as well as human resources professionals who screen faculty candidates, and those who serve on faculty

- hiring committees, know how to screen for diverse talent. Edwards-Lange recommends recruiting resources for search committees from the University of Wisconsin.
- Make the business case for diversity to ensure everyone in the organization is on board. The consulting service Catalyst is a good resource.
- Seek out diverse candidates. Approach community organizations to look for potential nursing school students or faculty. For instance, look at minority-serving institutions, high school pre-health clubs, or organizations like Girls in STEM or the NW Girls Collaborative.
- The UW SoN hosts a free two-week-long day UW Nurse Camp, geared toward increasing access and
 opportunities in nursing to minority and low-income high school sophomores and juniors. Campers
 participate in a wide variety of activities throughout the week, including shadowing nurses at
 University of Washington Medical Center in various hospital units. Feedback has been
 overwhelmingly positive, and the UW SoN is seeing a return on investment, as the camp alumni
 often come back as nursing students, and later on, as nurses.
- The UW SoN has formed a Diversity Awareness Group to offer academic and peer support for underrepresented students.