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# APPRENTICESHIPS IN THE HEALTHCARE INDUSTRY

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## EXECUTIVE SUMMARY

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In the U.S. today, registered apprenticeship programs prepare people to work in some 1,000 different occupations, from chefs and child development specialists to carpenters and electricians to home health aides and dental assistants. Each year, the federal government invests some \$21 million in the apprenticeship system. For workers, apprenticeship is an “earn while you learn” training system that allows them to enter the workforce and earn wages while still learning new skills. For employers, apprenticeship is a tool to help create predictability in a volatile labor market.

Apprenticeship programs are sponsored by employers, who direct creation of the apprenticeship program, developing formal agreements that identify the length of the program, skills to be learned, wages to be paid as apprentices acquire new skills, and the required classroom instruction. Registered apprenticeships are regulated by the U.S. Department of Labor in cooperation with state apprenticeship agencies. In Washington State, the Apprenticeship Program is overseen by the Department of Labor and Industries.

The apprenticeship model mirrors traditional healthcare occupation training in many ways, with its emphasis on on-the-job learning, classroom training, demonstration of competencies and licensing requirements. However, these training tools are not used for all healthcare occupations in the U.S. However, in other countries with advanced economies, including Great Britain, Germany and Australia, apprenticeship is more commonly used to train healthcare workers.

Demand for healthcare workers in the U.S. and internationally has remained high for many years, growing at a rate faster than the overall employment rate for the past fifty years. Of the twenty occupations expecting to see the largest number of new jobs in the U.S. between 2008 and 2018, four are in healthcare, and they account for nearly 30 percent of all new jobs in that ten year period: registered nurses, home health aides, personal and home care aides, or nursing aides, orderlies and attendants.

Currently, healthcare providers face a range of employment and workforce issues. There are significant shortages of healthcare workers in certain occupations and geographic areas, while there is oversupply in other areas. Diversity of the healthcare workforce does not match diversity of the patient population, and the medical needs of patients are changing as people live longer with more chronic illnesses. Training and licensure for some healthcare occupations – doctors and nurses, for example – is extremely rigorous, while it may be far less so for people in occupations who spend some of the most time providing services to patients. Lack of clear career pathways for healthcare workers means that people with the greatest longevity and experience in the industry may find themselves “stuck” in low-skill, low-wage jobs with little opportunity for advancement, and employers may be less able to take advantage of the skills they have gained over the years. Because the cost to train healthcare workers is high, turnover can be a significant expense for healthcare industry employers.

The U.S. Department of Labor has identified 53 occupations in healthcare and health information technology as being apprenticeable, a first step toward creating registered apprenticeships. Currently, apprenticeship programs have been approved for 40 healthcare occupations. In Washington state, apprenticeship programs have been approved for 28 different healthcare occupations. Seven of those are active, at ten different healthcare companies.

Three of Washington’s active healthcare apprenticeship programs are sponsored by Tacoma-based MultiCare, which runs four hospitals and more than ninety medical clinics in a four-county area, and is the largest employer in Pierce County. MultiCare invests some \$900,000 in employee training each year, including apprenticeship programs, and leverages significant public funds to provide additional support. The return on investment – primarily measured by cost avoidance – in their first three registered apprenticeship programs and a successful apprenticeship-like LPN-RN bridge program has convinced MultiCare to continue developing more of them in additional high-demand occupations.

Apprenticeship can be used to address a number of workplace and employment challenges in the healthcare industry. Nonetheless, barriers to introducing apprenticeship more widely in the healthcare field are significant. These include the structures by which healthcare providers are reimbursed for their services, existing licensing systems, a trend toward closure of public sector hospitals, and the perception that apprenticeship is only for blue collar workers in construction and manufacturing. The potential for reduced wages while in training may make workers, especially low-wage workers, hesitant to participate.

Despite those barriers, there are several areas of opportunity where healthcare employers may find the apprenticeship model is a strong fit. These include occupations where regulation and licensure is weak or extremely limited, health information technology occupations, and occupations where the costs of recruitment or turnover are high.

If apprenticeship is to become more widely used in the healthcare industry, public sector agencies and unions will need to work with both employers and employees to address their concerns about costs and risks. This will include leveraging public funds and other resources that are available, until the cost savings can be fully realized by the employer and the career benefits realized by the employee.

This report begins with an overview of the registered apprenticeship system, including a brief discussion of its use the healthcare industry in the U.S. The next section looks at current trends and practices in healthcare employment and training. A discussion of workforce-related challenges in healthcare follows. Next is a case study of MultiCare, a large Washington state healthcare employer, and its experience with registered apprenticeship. Healthcare apprenticeship in Great Britain, Germany and Australia is discussed next. An analysis of how apprenticeship can be used to address healthcare workforce issues follows, along with a discussion of barriers to its use. Some of the ways apprenticeship could be used include the following (the full table is on pages 25-27):

<b>Healthcare workforce challenge/need</b>	<b>How apprenticeship can help</b>
Increasing the supply of skilled healthcare workers	Apprentices can enter the workforce sooner than workers who must complete all their training before beginning a job. Although they have fewer skills in the beginning, employers will know the skills apprentices will learn in the apprenticeship and make labor planning decisions accordingly.

Reducing maldistribution by expertise and geography	The “earn while you learn” model is extremely attractive to potential workers. By introducing apprenticeship in areas of expertise or geography where there are shortages, employers can increase the numbers of people entering those areas and offer them career ladders.
Reducing turnover and related costs	Apprenticeship programs lay out clear wage progressions and opportunities for advancement, which encourages workers to remain with the employer. Employer investment in worker skills and opportunities pays off in worker loyalty.
Improving career pathways within healthcare	In designing their apprenticeship programs, employers can design pathways that will ensure they have a pipeline of workers who move into positions requiring advanced skills as they gain experience and knowledge.
Improving leadership and supervisory skills in the healthcare workforce	An employer can design the apprenticeship training to include specific leadership or supervisory skills appropriate to the occupation and company.

The report concludes by identifying specific areas of opportunity for apprenticeship in healthcare:

- Occupations where there are no licensure/certification systems, or where those systems are weak
- Occupations where training requirements are less than what employers need to ensure quality patient services
- Information technology occupations in healthcare, on the rise due to HIPAA requirements
- Occupations where employees commonly get “stuck” and do not advance into higher-skill jobs
- Growth in the “medical home” concept, which is expected to increase demand for entry-level healthcare workers to help patients navigate the medical system
- Occupations where on-the-job training is not used to train workers, but could improve the quality of training, services or skills
- Companies seeking to reduce the costs of recruitment and turnover
- Other high demand occupations

## WHAT IS REGISTERED APPRENTICESHIP?

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While the public perception of apprenticeship in the U.S. commonly invokes images of construction workers and factory laborers, the reality is quite different. Registered apprenticeship programs today offer access to some 1,000 different career areas, from chefs and child development specialists to home health aides and dental assistants. Each year, the federal government invests some \$21 million in the apprenticeship system.

For **workers**, apprenticeship is an “earn while you learn” training system that allows them to enter the workforce and earn wages while still learning new skills. Apprenticeship programs set out clear career pathways that allow a worker to see opportunities for the future and make informed decisions about how they can progress and be successful on the job.

For **employers**, apprenticeship is a tool to help create predictability in a volatile labor market. Employers participate in developing the training program, so they can be sure that the skills apprentices learn are the ones they will need on the job. Wage progression and skills gained at each step are clearly articulated, so employers can plan for and meet labor needs and costs because they can manage the timing and number of employees with specified sets of skills.

### The registered apprenticeship system

Most apprenticeship programs in the U.S. are governed by the “registered apprenticeship” system. A registered apprenticeship combines all of the following elements:

- On-the-job learning with a journey-level mentor
- Related supplemental classroom instruction
- Incremental wage increases
- A certificate of completion that is portable and recognized nationally

The apprenticeship system is more decentralized in the U.S. compared to apprenticeship in many other countries with advanced economies (Lerman, 2010). In the U.S., registered apprenticeship programs operate under the supervision of the U.S. Labor Department’s Office of Apprenticeship (OA)<sup>1</sup> and State Apprenticeship Agencies (SAAs). In Washington state, the SAA is the Department of Labor and Industries.<sup>2</sup> Washington also has a State Apprenticeship Council that has regulatory authority.

Individual employers or groups of employers sponsor registered apprenticeship programs, sometimes in collaboration with unions. Sponsors direct creation of the apprenticeship program, developing formal agreements that identify the length of the program, skills (often referred to as competencies) to be learned, wages to be paid as those skills are acquired, and the required classroom instruction (Lerman, Eyster and Chambers, 2009). Once the program is formally registered, the sponsors recruit, screen and hire apprentices. Staff from the SAAs provide support

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<sup>1</sup> U.S. Department of Labor’s Office of Apprenticeship: <http://www.doleta.gov/oa>

<sup>2</sup> Apprenticeship Program at the Washington Department of Labor and Industries: <http://www.lni.wa.gov/TradesLicensing/Apprenticeship/default.asp>

to ensure that in addition to meeting employer needs, the program meets national and state standards.

Apprenticeship programs usually last three to four years and require students to complete course work equivalent to one year of community college in basic math and verbal skills alongside skills specific to the job. Apprentices also learn other work-related skills, such as communication, problem-solving, and dealing with supervisors (Lerman, 2010). When an apprentice completes training and is certified as having successfully demonstrated acquisition of all the required skills, he or she is referred to as a “journey-level worker.” To learn this full set of skills, apprentices spend part of their time in the classroom and part of their time on the job. Time on the job is productive time for the company, but because apprentices are still learners and thus less proficient, they are paid at a lower rate than journey-level workers.

A single apprenticeship program at company can take on as many or as few new apprentices each year as they will need to meet labor demand. Depending on the occupation and size of the company, this could be one or two new apprentices a year, or it could be in the tens or even the hundreds. In this way, apprentices are assured that they do not waste their time training for an occupation where no jobs are available. Each registered apprenticeship is custom-built to meet the needs of the employer and employee. A company may recruit new employees into its apprenticeship program, or may design the apprenticeship to take workers from certain identified occupations and train them for the next move (or moves) up a career ladder.

Today, there are nearly 29,000 sponsors in the U.S. representing more than 225,000 employers, including UPS, the United States Military Apprenticeship Program, CVS Pharmacy and many others. In 2008, there were approximately 480,000 active apprentices in registered programs across the U.S. It is estimated that somewhere between another 500,000 and 1 million people were undergoing training in unregistered apprenticeships that same year (Lerman, 2009).

There are 1,077 registered apprenticeship programs in Washington state. Joint apprenticeship training committees (JATCs) composed of representatives of management and labor, work together to develop and administer individual apprenticeship training programs. Other apprenticeship programs are sponsored by employers only. There are currently about 10,000 apprentices participating in registered apprenticeship programs in Washington.

Federal standards require that an apprenticeship a minimum of 2,000 hours of on-the-job training (roughly the equivalent of one year of full-time work) plus at least 144 hours of supplemental classroom instruction. Most apprenticeships in Washington state require more education and training than the federal minimums.

### **Employer perceptions of registered apprenticeship**

Studies have found that employers who are sponsors of registered apprenticeship programs, including those in healthcare occupations, report generally positive experiences. In interviews,

Gunn and DeSilva (2008) found that employers' main reason for developing the program is to **ensure a supply of qualified workers**. The benefit they cited most frequently was that the program **produced dedicated employees who could be relied upon to consistently do their jobs well**.

A survey by Lerman, Eyster and Chambers (2009) found that 97 percent of sponsors would recommend registered apprenticeship to other employers. The most frequently cited benefit was that it **met their need for skilled workers** (more than 80 percent of respondents). Other benefits cited by more than half the sponsors were that the apprenticeship program **made it clear which workers had the skills needed**, and it **increased worker productivity, morale and safety**.

### Registered apprenticeships in healthcare

Since 2003, apprenticeship programs have been developed in the U.S. for 40 healthcare occupations (USDOL ETA N.D.b). Fifty-three healthcare and health information technology occupations have been identified by the U.S. Department of Labor as apprenticeable, a first step toward creating registered apprenticeships for those occupations (see Appendix 1).

In Washington state, apprenticeship programs have been approved for 28 different healthcare occupations (see Appendix 2 for a full list), including

- Administrative medical assistant
- Home health technician
- Pharmacist
- Restorative aide
- Ultrasound technician.

As of August 2011, there were ten active apprenticeship programs in Washington state, in seven healthcare occupations. Three of those apprenticeship programs are sponsored by a company called MultiCare. A case study of MultiCare is provided as a part of this report.

Many of the apprenticeship programs that have been launched in the U.S. in the healthcare industry have been in entry-level positions such as Home health aide or Certified nursing assistant (CNA), or in occupations that do not involve direct patient care, such as Pharmacy tech or Web systems support programmer. Barriers to introducing apprenticeship in higher-skill occupations will be discussed later in this report.

Many of these apprenticeship programs were developed during a time when demand for healthcare workers of all types was in very high demand. The economic downturn that began in 2008 slowed that demand somewhat as skilled healthcare workers put off planned retirements. Nonetheless, healthcare labor demand continues to outpace those in other industries. Understanding recent trends in healthcare employment and workforce challenges will help to illuminate areas where the apprenticeship model may be most effective.

## HEALTHCARE EMPLOYMENT AND TRAINING

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Employment in the healthcare field has grown steadily over the past decade, despite recession and high unemployment over the past three years. Healthcare employment has remained a relatively bright spot amidst generally negative employment news. In this same time period, the types of occupations in healthcare have diversified, as have the skill sets required for those occupations.

In fact, growth in healthcare employment is a long term trend, having consistently grown at a faster rate than overall employment in the U.S. economy for the past fifty years (Brewer and Rosenthal, 2008).

Estimates of the number of Americans who work in healthcare varies, depending on how “healthcare occupations” are defined. There is no disagreement, though, that healthcare is a major workforce employer. The *Encyclopedia of Health Services Research* defined the healthcare workforce as “healthcare professionals and those who work in healthcare facilities” (2009). By this definition, in 2006 there were 17.3 million people working in healthcare, representing nearly 12 percent of the nation’s total workforce.

To put those numbers in a global perspective, WHO’s Global Health Workforce Alliance estimates there are 59.2 million full-time paid health workers worldwide (Brewer and Rosenthal, 2008). About two-thirds of them provide direct services, while the rest are engaged in support, research and management.

### Healthcare labor demand

What is perhaps more important, the demand for healthcare workers is projected to continue to grow at a fast pace into the foreseeable future. This is driven in large part by the aging U.S. population. Older individuals who are living longer require more care over time. At the same time that labor demand is rising, the healthcare workforce itself is aging, and retirees need to be replaced with younger workers.

The U.S. Department of Labor’s Bureau of Labor Statistics (BLS) defines “healthcare occupations” as including any position in a healthcare setting, regardless of specific job duties. For example, the hospital industry includes not only workers providing direct patient care, like doctors and nurses, but also thousands of other support workers, such as office managers and janitors. Based on that definition, BLS projects that of the twenty industries projected to gain the most jobs between 2008 and 2018 (most recent data available), five of those industries relate to health care (USDOL BLS, 2009-10):

- Offices of physicians (772,000 new jobs)
- Home health care services (441,000)
- Services for the elderly and persons with disabilities (431,000)
- Nursing care facilities (394,000)
- Offices of dentists (233,000)

Overall, the Health Care and Social Assistance sector is projected to grow more than twice as quickly as the average for all industries between 2008 and 2018. Within the field of professional

and related occupations group alone, healthcare practitioner and technical occupations are projected to gain about 1.6 million new jobs, the largest of any occupation. Of the twenty occupations expecting to see the largest number of new jobs between 2008 and 2018, four are in healthcare, and they account for nearly 30 percent of all new jobs in that ten year period:

- Registered nurses (582,000 new jobs)
- Home health aides (461,000)
- Personal and home care aides (376,000)
- Nursing aides, orderlies and attendants (276,000)

### How healthcare occupations are changing

As with apprenticeship, there are some common misconceptions in the U.S. about employment in the healthcare field. Most people, when they think of healthcare workers, think only of doctors and nurses. They may believe the person who took their vitals the last time they went to the doctor's office simply was a "nurse," but do not realize there are several different categories of training and certification for different types of nurses.

Today, in fact, the majority of the nation's healthcare workforce – about 60 percent of all healthcare workers – is comprised of "allied health professionals," representing more than 70 areas of expertise (Mullner, 2009). The U.S. Department of Health and Human Services (HHS) defines allied health workers as "health care practitioners with formal education and clinical training who are credentialed through certification, registration and/or licensure."

Depending on how allied health is defined, it may include occupations such as

- Audiologist
- Dietitian
- Health information technician
- Kinesiotherapist
- Medical coder
- Pharmacy technician
- Phlebotomist
- Radiation therapist
- Surgical technologist

The specific tasks undertaken by each category of healthcare workers is constantly evolving. That evolution is driven by rapid changes in the way healthcare is delivered, worker shortages (Brewer and Rosenthal, 2008), and ongoing cost-containment measures first popularized in the 1970s (Rodwin, 2008). Allied health workers are often substituted for more highly-educated and more highly-paid professionals in new or extended roles created by employers looking to cut costs. In addition, more students training for healthcare professions are choosing fields with greater status, pay and training requirements, and are increasingly unwilling to perform traditional tasks associated with previous generations of healthcare professionals (Brewer and Rosenthal, 2008).

Changes in occupational responsibilities and scopes of practice are leading to creation of new jobs, often at entry level or just above. They are also leading to changes in roles and relationships

between healthcare workers, and between categories of workers and patients. This can ultimately create situations where healthcare workers are managed by people outside of their specific discipline (Brewer and Rosenthal, 2008). Moreover, changes in responsibilities lead to a need for changes in how different types of healthcare workers are trained.

## Training requirements

Training requirements for healthcare professionals vary widely, as does regulation of those requirements. Some are regulated, certified, licensed or accredited by national bodies; in other cases regulation is left to the states. In still other cases, national minimums are set, with states permitted to add additional requirements.

Training for healthcare professions may include classroom instruction, on-the-job training (generally referred to as *residencies* for physicians and *clinical* for nurses and other occupations), and formal tests to demonstrate competencies. In most professions that require a license, trainees must complete at least an associates' degree level of education (Mullner, 2009).

A detailed examination BLS data (USDOL BLS, 2010) on forty occupations in healthcare and related fields (see Appendix 3 for a list) found that all but one required some kind of post-secondary education, certification, licensure or formal on-the-job training for entry. A total of 14.7 million job openings are projected in these forty occupations by 2018. Entry requirements were broken into four categories, as shown in Table 1:

**Table 1: Entry requirements for 40 health-related occupations**

	<b>Number of occupations (%)*</b>	<b>Number of projected job openings in 2018 (%)</b>
<b>Academic education</b>	26 (65%)	7,752,800 (53%)
<b>Certificate</b>	15 (38%)	5,063,200 (34%)
<b>On the job training</b>	7 (18%)	4,730,400 (32%)
<b>License</b>	17 (43%)	3,607,900 (24%)

*\*Many occupations have more than one entry requirement, so totals are >100%*

Only 18 percent of those occupations required formal on-the-job training for entry. However, those occupations made up nearly one-third of all job openings projected by 2018.

Training for healthcare professionals takes place in a range of settings, including four-year universities, community colleges, vocational schools, hospitals and at the employer's worksite. In the allied health field alone, the American Medical Association lists 6,700 training programs for 65 different disciplines. Some healthcare occupations require training in multiple settings over several years, while others take place exclusively in one location, and can be completed in a matter of weeks. Although a single institution may provide training and education for multiple healthcare occupations, the norm is that students in different training programs for different occupations

never take courses together, share the same faculty or participate in joint clinical teaching (Brewer and Rosenthal, 2008).

High demand for healthcare workers and changes in healthcare occupations have led to some significant challenges in the healthcare workplace. These include challenges for employers and for employees. These may ultimately have an impact on patient care.

## WORKFORCE CHALLENGES IN HEALTHCARE

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While some workforce challenges in the healthcare industry are common across many industries, such as those related to the aging U.S. workforce, others are unique to healthcare. Those include the maldistribution of workers by specialty, and the national patchwork of certifications and licensure.

**Healthcare worker shortages** While there is some debate over whether there is an absolute shortage of healthcare workers, there is consensus nationally that there is a maldistribution of healthcare workers by geography and specialty.

As part of the debate over healthcare reform legislation, the U.S. House of Representatives Committee on Energy and Commerce (2009) looked at data related to health worker shortages. The committee found the following:

- The U.S. Department of Health and Human Services (HHS) estimates an additional 7,000 physicians are needed in areas they have identified as *health professions shortage areas*<sup>3</sup>.
- HHS's Health Resources and Services Administration, which administers the majority of healthcare workforce programs, estimates that by 2020 there will be nearly 67,000 too few primary care physicians in the U.S..
- In 2000 there was a six percent shortage of nurses in the U.S., which is expected to grow to a 20 percent shortage by 2020.
- Within the next ten years, the U.S. is expected to experience a shortfall of 250,000 public health workers.

Among those primary care physicians who are working, a study by the Centers for Disease Control has found that a significant number of them cannot and/or will not accept new patients. In addition, most public health departments in most jurisdictions are seriously understaffed and the workforce is aging, with large numbers approaching retirement (Leviton, Rhods and Chang, 2008).

While data on the numbers and distribution of physicians and nurses is relatively easy to come by, similar figures for the wide range of other healthcare occupations are not readily available, in part because they have not been a significant focus of labor supply policy (Brewer and Rosenthal, 2008).

Through public policy and recruitment by individual employers, the U.S. has sought to address shortages in specific healthcare occupations in part through recruitment of workers from other countries, but that approach is neither adequate nor sustainable, as there is a much more urgent global shortage of healthcare workers. WHO's Global Health Workforce Alliance reports that 57 countries around the world have critical shortage of 2.4 million doctors, nurses and midwives (Brewer and Rosenthal, 2008).

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<sup>3</sup> Health Professional Shortage Areas (HPSAs) are designated by HRSA as having shortages of primary medical care, dental or mental health providers and may be geographic (a county or service area), demographic (low income population) or institutional (comprehensive health center, federally qualified health center or other public facility). Medically Underserved Areas/Populations are areas or populations designated by HRSA as having: too few primary care providers, high infant mortality, high poverty and/or high elderly population. See <http://hpsafind.hrsa.gov>.

In the Seattle-King County area, labor shortages are projected for between 2014 and 2019 in no less than 26 different healthcare occupations. The greatest shortages will be for Registered nurses, Personal and home care aides, and Home health aides (Workforce Development Council, 2011).

**Workforce diversity** There is widespread concern that today's healthcare workforce is less diverse than the patient population it serves. In addition to learning job-specific skills, healthcare workers need to learn cultural competencies and must be able to provide services in an array of languages, in order to provide effective healthcare to the greatest number. For the most part, these skills are not included in training programs for healthcare occupations (Institute of Medicine, 2008).

**Skills to serve an aging population** As the general population in the U.S. ages, their needs begin to change, and the healthcare occupations most commonly providing them with services is changing. Direct-care workers such as Home health aides, Certified nursing assistants and Personal care aides are the primary providers of paid hands-on care and emotional support for older adults, but federal training requirements for those workers are minimal (Institute of Medicine, 2008).

In addition, healthcare training has traditionally focused on diagnosis and treatment of acute problems, but this misses the growing population of people with chronic health problems, including a large share older adults (Pruitt, Canny and Epping-Jordan, 2005).

**Lack of real-world training** While on-the-job clinical training is the norm for physicians and nurses, training for many other healthcare occupations does not include a hands-on component. Moreover, there is increasing awareness that because people are trained for healthcare occupations divided by discipline, they lose an opportunity to gain skills for effectively participating in interdisciplinary teams, while extensive collaboration and interdisciplinary teamwork are commonly needed in healthcare work environments (Institute of Medicine, 2008; Brewer and Rosenthal, 2008).

**National patchwork of certifications and licensure** Regulation, certification and licensure of healthcare occupations may vary dramatically from one state to the next, making it difficult to determine whether any single healthcare worker has the appropriate skills and knowledge to provide high quality healthcare. For example, a study by the Office of the Inspector General in 2006 found that the median number of training hours required for personal-care attendants was 28 hours, but state requirements for that occupation ranged from a minimum of two hours to a maximum of 120 (Institute of Medicine, 2008).

**Increasing use of technology** Whether diagnostic, training or communications tools, the healthcare field is becoming increasingly reliant on technology, and there are concerns about the skills and capacity of the current workforce to utilize those technologies effectively. Introduction of new technologies require healthcare workers to learn additional skills and competencies on top of what may traditionally be considered job skills. Increased use of technology is also leading to creation of new healthcare occupations.

**Maintaining employee skills** Advances in medicine and healthcare are taking place at a rapid speed. Healthcare workers who enter the workforce today may have a very different knowledge base from those who entered ten years ago in the same occupation. While continuing education requirements for some licensed occupations help to keep older workers informed, those kinds of requirements are not universal across all healthcare occupations.

***Return on investment in human resources*** “ROI” is a popular term of art in business management, as companies seek to accurately quantify whether and to what degree any investment pays off against bottom line profits. Because the healthcare industry is extremely labor intensive, investment in hiring, training and retaining skilled workers is one of the largest investments any healthcare employer makes. ROI can be difficult to measure in the healthcare industry, where outcome are long-term health effects, or are experienced in terms of quality of life.

***Lack of clear career pathways*** Opportunities for advancement in healthcare can be opaque. In some cases, there are intentional roadblocks that actually prevent healthcare workers from moving from one occupation into another that might require many overlapping or similar skills. For example, training and licensing for Licensed practical nurses (LPNs) traditionally were so completely separated from training for Registered Nurses (RNs) that any LPN who wanted to advance in the field would have to return to school and start the education process over from the beginning. In recent years, workforce development programs have created clear career pathways that allow LPNs to train to become RNs, with a combination of on-the-job training and education, while still working.

One healthcare employer that has created a bridge program to train their own LPNs to advance to RN positions is MultiCare, based in Tacoma, Washington. MultiCare also runs three of Washington state’s seven active healthcare apprenticeship programs.

## HEALTHCARE APPRENTICESHIP CASE STUDY: MULTICARE

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MultiCare is a nonprofit healthcare organization based in Pierce County, Washington, made up of four hospitals plus more than ninety outpatient clinics and service centers located in a four-county region.<sup>4</sup> Pierce County is home to the city of Tacoma, third largest city in the state, and is the second most populous county. MultiCare is the largest employer in the county, with nearly 10,000 employees.

MultiCare sponsors three apprenticeship programs that are formally registered with the state, and provides a range of other career development opportunities for employees. Those opportunities include

- Up to \$3,000 in tuition assistance annually for employees to take courses that will help them advance in their medical career pathways. Part-time employees are eligible for \$1,000-2,000 annually.
- An on-site career development specialist, staffed by the local Tacoma-Pierce County Workforce Development Council (WDC) and funded jointly by MultiCare and the WDC. The career specialist is on-site part-time, and is available to provide advice on advancement opportunities and related training programs to all staff. In addition to providing advice to employees, the specialist works with MultiCare to modify employee shifts so they can participate in training and education opportunities.
- Institute for Learning and Development, which provides in-house training courses for MultiCare employees.
- On-site master's program in management, with a concentration in Healthcare Management.

In addition, MultiCare provides thousands of hours each year in clinical rotations to student nurses and residencies for student doctors. In 2009, MultiCare invested more than \$900,000 in employee training.

***LPN-RN training*** One of MultiCare's innovative training programs is a bridge program it runs that takes Licensed Practical Nurses (LPNs) already working at MultiCare and trains them to qualify as Registered Nurses (RNs). MultiCare developed this program in response to continued high demand for RNs and impending retirements of a large share of their existing RNs. Although this program is not a registered apprenticeship program, it includes many of the components of apprenticeship, including a combination of on-the-job learning with classroom-based instruction. MultiCare used some of the best practices they learned when developing the LPN-RN bridge program when developing their registered apprenticeship programs.

Tacoma Community College's nursing program provides the classroom ("didactic") training for the LPN-RN program, while MultiCare provides the required clinical (on-the-job) experience. Like apprentices, LPNs in training work at the lower wage level until they complete the training program and qualify as RNs, at which point they earn the higher RN wage. In addition, MultiCare provides a monthly stipend of \$1,000 to LPNs in the program while they are in the classroom portion of the training, to make up for lost wages.

Entry into the LPN-RN program is extremely competitive. In the first year, nearly one hundred MultiCare LPNs applied, but only ten were chosen. Although this is not a formal apprenticeship

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<sup>4</sup> Pierce, South King, Thurston and Kitsap Counties

program, the United Food and Commercial Workers union (UFCW) that represents the nurses was involved in the program, helping to determine entry requirements. To ensure that MultiCare gets the full value of its investment in the trainees, RNs who come through the bridge program are required to continue working at MultiCare for at least three more years after completion, or they are required to repay the cost of training. To date, 31 LPNs have begun the program, 21 have completed, and only two have dropped out.

*"I wake up every morning  
excited to go to work."*

*--First Health Unit Coordinator  
apprenticeship graduate*

**Public sector investments** MultiCare leverages those investments to provide even more funds for employee training, through partnerships with public agencies. For example, several years ago the organization realized that many entry-level employees in nutrition, environmental services and linen services were unable to take advantage of the tuition assistance program because those funds were only available through reimbursement, and those employees could not afford the initial outlay of funds. In addition, the tuition assistance funds could not be used to pay for books, childcare or transportation, all of which were barriers to employees returning to school. MultiCare developed a partnership with the Tacoma-Pierce County WDC whereby workforce development funds from the Workforce Investment Act (WIA) program were used by the WDC to pay for a MultiCare employee who qualified for WIA to go to school. In addition to covering tuition, the WIA funds could be used to pay for those ancillary costs that MultiCare's tuition assistance could not. When the student successfully completed the program, MultiCare reimbursed the WDC for the cost of tuition, based on the organization's tuition reimbursement policy. The WDC and MultiCare repeated this process many times to help other WIA-qualified employees go to school. Over time, the MultiCare reimbursement fund administered by the WDC continued to grow. By the time WIA funds were cut back, the MultiCare-WDC fund had grown to an amount that is self-sustaining. Today, that fund is recycled again and again to help entry-level workers return to school.

## Registered apprenticeship at MultiCare

It was in the context of MultiCare's existing workforce development programs that they decided to develop their first registered apprenticeship, for the Health Unit Coordinator (HUC) position in 2003. HUCs are the "air traffic controllers" of individual units within hospitals, skilled nursing facilities, outpatient clinics, public health care agencies and other settings where healthcare services are provided. They manage communications, paperwork and patient activities, and coordinate between doctors, nurses and other healthcare providers. MultiCare selected the HUC position for development of a registered apprenticeship program for several reasons. First, they projected rising demand for more HUCs in their service locations combined with rising numbers of retirements in their aging workforce. Second, they wanted to make sure that the HUCs in their clinics were trained in "the MultiCare way" of doing business. Third, they wanted to keep their HUCs on staff and reduce turnover. The HUC apprenticeship is a competitive program open to incumbent MultiCare employees.

A copy of MultiCare's original submission to the Department of Labor's Office of Apprenticeship Training, Employer and Labor Services (precursor to the Office of Apprenticeship) can be found in Appendix 4.

MultiCare currently sponsors two other registered apprenticeship programs. Their Computed Tomography (CT/MRI Technician) takes X-ray Technicians and trains them for this next step up on the career ladder. Their newest is the Engineering Maintenance Mechanic apprenticeship, which is open to workers in their Environmental Services Department.

For each of the apprenticeship programs, MultiCare identified a local community college to provide the classroom training. In some cases, that classroom training takes place at a MultiCare location.

In developing their registered apprenticeship programs, MultiCare had to consider how they would absorb the cost of the trainee. While the apprentice is still in training, even when he or she is working on the job, that person is not a fully-skilled journey level worker. While the employer may be able to pay a lower hourly wage to that person and this may seem to be a benefit, the fact is that the employer has lost the opportunity to fill that position with a full-skilled journey-level employee. In the Engineering Maintenance Mechanic program, MultiCare addressed this issue by incorporating an existing job title, Helper, into the apprenticeship program. The apprentices are in the Helper position while they are still in training. Once they complete training they are journey-level Engineering Maintenance Mechanics. Since MultiCare would have been hiring people to fill those Helper positions anyway, their costs are not increased.

In the case of the Computed Tomography program, however, MultiCare did not have an intermediate job title for the apprentices to fill. In this case, they secured grant funds to help them hire additional staff to cover lost time, backfilling for the apprentices while they are still in training.

Despite difficult economic times that have led to recent layoffs at MultiCare, the organization has moved ahead with establishing its Engineering Technician apprenticeship program and is planning more. In addition, MultiCare has not cut funding for the tuition assistance program. MultiCare leaders see the long-term value in these apprenticeships, and they want employees to see MultiCare as continuing to invest in their future.

### Why apprenticeship works for MultiCare

**Return on investment** Investing in employees' career paths is part of the culture at MultiCare, but as Human Resources staff explain, the company would not make those investments if they did not have a positive impact on the financial bottom line. In fact, for any proposed new investment by the company – whether it is an employee training program or opening of a new clinic – MultiCare requires a rigorous and exhaustive analysis of the amount of the investment and the estimated return on the investment, either in terms of increased revenue or avoided costs. This must be presented to and approved all the way up to the executive level at MultiCare.

*"It's better to grow your own rather than bring in nurses from the outside. It builds trust with employees, builds excellent employees, and it strengthens the community colleges and hospitals."*

*--Nancy Novak, Associate Dean of Nursing, Tacoma Community College*

MultiCare's analysis of the return on investment for their LPN-RN program focused on reducing costs in the recruitment process, a measure of cost avoidance. Recruiting an RN with several years of experience includes expenses such as advertising, a recruiter, processing, and three weeks of orientation, which have to be paid at the RN's full wage. In total, they estimate this as costing MultiCare \$50,000 per experienced RN.

Recruiting a new RN who has just graduated from school can cost even more, depending on the nursing specialty. Costs include the advertising and processing, plus the cost of residency, and this includes the cost of the preceptor providing training as well as additional nursing staff to make up for lost time while the preceptor is providing that training. In total, this new RN is estimated to cost between \$50-75,000.

By comparison, when MultiCare puts one of their own LPNs through the RN bridge course, their residency period can be shorter because they already have many of the required skills already. They are already working at MultiCare, so they know MultiCare's culture and practices. This RN is estimated to cost between \$20-25,000.

**Reducing turnover** In the healthcare industry, most positions above entry level require some kind of certificate or license, plus the educational background to secure that certification. As a result, the healthcare workforce can be more expensive to recruit, which means the cost of turnover can be more significant than in other industries. MultiCare prefers to keep current employees who are familiar with their business and customer service standards and practices, and is willing to invest in those employees in order to keep them. To date, 31 LPNs have been through the LPN-RN program. Each of them is required to stay with MultiCare for a minimum of three years or they will be required to repay the cost of their training. Their current retention rate for program graduates is ninety percent.

*"Employees will stay where they know people care about them,"*

*--Karen Foreman, Student Placement Coordinator, MultiCare*

**Training and administrative infrastructure** MultiCare hospitals and clinics have long been locations where doctors, nurses and other healthcare workers in training complete their required residencies and clinical rotations. In order to manage the large number of person hours and complete the complex paperwork requirements for all their clinical placements, the Human Resources Department has one full time staff person. That individual plus another in HR have been tasked with administering apprenticeship programs and managing the government reporting required. The fact that MultiCare is already familiar with the complex reporting requirements for certification of hours and licensure of doctors and nurses, may give them an advantage when faced with apprenticeship paperwork.

**Leveraging public resources** As described above, MultiCare has partnered with the Tacoma-Pierce County WDC to provide financial support to employees who want to return to school, and to provide the on-site career specialist. In addition, MultiCare secured a Hospital Employee Education and Training (HEET) Grant to take employees working in linen services and train them to become Certified Nurse Assistants. They secured yet another grant to launch the Engineering Maintenance Mechanic apprenticeship. Without those financial supports, staff report, it may not have been possible to launch these apprenticeship and other training programs. MultiCare credits the

Tacoma-Pierce County WDC with being creative and willing to “think outside the box” in order to develop programs that will work effectively for their employees. MultiCare also invests resources by participating in WDC governance. One of their directors serves on the WDC Council, and two HR staff have served on the WDC’s Health Care Skills Panel for several years, one in the capacity of panel chair.

**Targeting existing employees** MultiCare’s apprenticeship programs are designed to give current employees an opportunity to move up within the organization. Each apprenticeship program targets people who already have a known skill set, then helps them improve upon those skills. For example, the Computed Tomography apprenticeship program is only open to skilled X-ray Technicians. In this way, MultiCare also knows that the individual being brought into the apprenticeship program knows “the MultiCare way” of doing business and is familiar with the organization’s culture and practices.

*“We wanted them to focus on school and not worry about paying the rent.”*

*--Jody Smith, Director, HR - Employee and Labor Relations, MultiCare*

**Competition and selectivity** MultiCare determines the size of their apprenticeship classes by demand for those occupations, to ensure neither they nor the apprentices waste valuable resources. As a result, entry into the apprenticeship programs and the LPN-RN bridge program are highly competitive, and MultiCare can select the best of the best. Only ten LPNs were chosen for the first year of the LPN-RN program. The Engineering Technician program will target up to four apprentices in its first year.

**Teamwork** MultiCare puts a high value on teamwork in their health units. They have found that their apprenticeship and other employee training programs have helped to foster an attitude of teamwork, rather than the silos between occupations that traditional healthcare occupations training programs tend to reinforce.

**The “MultiCare way”** MultiCare prides itself on quality, and on “doing things right the first time.” Patient safety is always paramount for staff in every occupation. MultiCare sees its training programs as a way to ensure that quality.

**Partnership with organized labor** Union representation at MultiCare varies by site. Fifty-four percent of MultiCare’s employees are represented by several unions including the United Food and Commercial Workers union (UFCW). The Service Employees International Union (SEIU) represents workers at some locations, and some locations are non-union. MultiCare has worked cooperatively with the relevant unions to establish the apprenticeship programs and the LPN-RN program, with union representatives helping to determine the entry requirements and competencies to be learned in each apprenticeship.

## HEALTHCARE APPRENTICESHIPS INTERNATIONALLY

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While apprenticeship in the U.S. has focused primarily on occupations in fields like construction and manufacturing, the range of occupations that utilize apprenticeship training is far more extensive in many countries with advanced economies, where apprenticeship is a mainstream route to career success (Lerman, 2010). Three countries that have developed a significant number of apprenticeship programs in healthcare occupations are the United Kingdom, Germany and Australia.

### United Kingdom

Compared to countries like Germany and Denmark, apprenticeship in the United Kingdom is less standardized and less widespread (Dieckhoff, 2008). Apprenticeship is overseen by the UK Industry Training Boards, and their goals are to ensure the supply of training, improve quantity and quality of training, and to share the costs of training across employers. After some years of decline, the UK government set out to revitalize the apprenticeship system in 1994. The UK government pays out a bonus to the employer for every apprentice that completes an apprenticeship at their company.

Each industry has a Sector Skills Council (SSC), which is an independent, employer-led organization whose purpose is to increase skills and productivity of that sector's workforce. The SSCs contribute to the design and approval of apprenticeship frameworks. The Alliance of SSCs<sup>5</sup> works in partnership with the UK Commission for Employment and Skills. There are three separate sets of frameworks for England and Wales, Scotland, and Northern Ireland.

Funding for the apprenticeship program comes from the Department of Education and Skills. Funding for vocational colleges comes from the Further Education Funding Council.

"Apprenticeship frameworks" in the UK are somewhat corollary to "apprenticeship standards" in the U.S. An apprenticeship framework is the document that colleges, employers and training providers follow to ensure that their apprenticeship program is consistent with national standards. It also provides guidance on how to enter apprenticeship programs, how much time it will take to complete, and career pathways. Each apprenticeship is structured to include a knowledge-based element, a competence-based element, key skills, and employment rights and responsibilities.

Length of time for the apprenticeship is left to the employer's discretion. The amount of time spent in on-the-job training, off-the-job training and time working varies by sector and framework. In the Health and Social Care category, apprentices generally spend three hours per week in off-the-job training, which is lower than many other apprenticeships (Steedman, 2007).

As of 2009 there were more than 180 apprentice frameworks in a wide range of industries, including healthcare. The SSC for the healthcare sector is Skills for Health.<sup>6</sup> In addition to employer-run apprenticeship programs, Skills for Health runs its own apprenticeship programs, and can provide those apprentices to employers who do not run their own apprenticeship programs (Skills for Health, 2011).

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<sup>5</sup> Alliance of Sector Skills Councils: <http://www.sscalliance.org>

<sup>6</sup> Skills for Health: <http://www.skillsforhealth.org.uk>

## Germany

Germany is well known internationally for its highly standardized and institutionalized “dual system” of vocational training, designed to ensure that training meets the needs of the company hosting the apprentice, and that apprentices will acquire valuable and portable skills (Dieckhoff, 2008). Apprenticeships (*Ausbildungsberufe*) provide training for 50 to 70 percent of young people in Germany (Lerman, 2010). Currently, apprenticeships are available in 356 different trades. About 23 of them are in healthcare (see Appendix 5 for a partial list).

Policy oversight of German apprenticeships begins with the Federal Ministry of Economics and Technology (*Bundesministeriums für Wirtschaft und Technologie*, or BMWi),<sup>7</sup> whose major policy priorities are to provide clear and transparent training regulations, create training opportunities for everyone, and optimize final exams. The Federal Institute for Vocational Education and Training (*Bundesinstitut für Berufsbildung*, or BiBB)<sup>8</sup> regulates apprenticeship programs. The German government provides subsidies to employers for taking on apprentices.

Content to be taught in each apprenticeship program is determined by employers' associations and unions, working with professional staff from the BiBB (Culpepper, 1999). Each employer is a member of a chamber of industry and commerce, and those chambers are para-public bodies that approve companies to run apprenticeships, supervise training in the companies, and test apprentices at the end of training. Apprenticeship programs in healthcare are less standardized than for other trades, and vary somewhat from state to state (Kruger, 1999).

A standard German apprenticeship generally takes three to three and a half years to complete. .

## Australia

The Department of Education, Employment and Workplace Relations (DEEWR)<sup>9</sup> manages the Australian Apprenticeships<sup>10</sup> training and employment program, which falls into the Higher Education division. DEEWR runs more than 300 *Australian Apprenticeship Centres* across the country.

While the early years of apprenticeship were managed by and more focused on industry, today they have a greater emphasis on training and education (Ray, 2001). After 1996, apprenticeships and traineeships were combined as part of what was then called the "New Apprenticeships" initiative, which introduced new national training agreements, qualifications and training packages.

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<sup>7</sup> Federal Ministry of Economics and Technology (*Bundesministeriums für Wirtschaft und Technologie*): <http://www.bmwi.de>.

<sup>8</sup> Federal Institute for Vocational Education and Training (*Bundesinstitut für Berufsbildung*): <http://www.bibb.de>.

<sup>9</sup> Department of Education, Employment and Workplace Relations: <http://www.deewr.gov.au>.

<sup>10</sup> Australian Apprenticeships: <http://www.australianapprenticeships.gov.au>.

The Australian Apprenticeship Incentives Program<sup>11</sup> provides financial support both to employers who take on apprentices and to workers who undertake an apprenticeship. The policy goal of the incentives program is to build a more skilled workforce in the country.

In Australia today, apprenticeships vary by state or territory. They generally last three to four years, and are available in every major industry in the country. There are a wide range of apprenticeships available in Health, Care and Community Services, at various levels (e.g., Certificate III, Certificate IV). Apprenticeships are available in such interest areas as Emergency Response, Hospital Support Services, Massage and Alternative Health Care, and Medical Technicians.<sup>12</sup>

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<sup>11</sup> Australian Apprenticeship Incentives Program: <http://www.jobaccess.gov.au>.

<sup>12</sup> Australian Apprenticeship Pathways: <http://www.aajobpathways.com.au>.

## ANALYSIS AND RECOMMENDATIONS

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Apprenticeship can be an extremely effective training model that meets the employer’s need for skilled labor and the employee’s need for a job with good starting wages and clear career advancement. Applied in the healthcare industry, it could achieve these goals while also meeting the ultimate goal of providing high quality healthcare services to patients. The examples from MultiCare and from other countries demonstrate that apprenticeship is already being used to train healthcare workers in a variety of occupations, both in the U.S. and other countries with advanced economies. In fact, the trajectory for the use of apprenticeship for healthcare occupations is upward.

At the same time, there are significant barriers to using the apprenticeship model in the healthcare industry. Analysis of both potential uses of apprenticeship and barriers to its use can illuminate some specific areas of opportunity where apprenticeship might be most appropriate.

### Meeting healthcare workforce needs

Why should healthcare employers consider developing registered apprenticeships to train their workforce? To begin with, apprenticeship mirrors traditional training methods currently used in the healthcare field in many ways. The apprenticeship model includes all of the following, which are common in many healthcare occupations:

- A clinical model of paid, on-the-job training, paired with an advanced professional mentor
- Competencies-based skills training combined with classroom-based learning
- Certifications and licenses, which require workers to demonstrate they have the skills and competencies required for their occupation
- Continuing education requirements

The table below analyzes how apprenticeship could be used to address challenges and needs faced by healthcare employers.

<b>Healthcare workforce challenge/need</b>	<b>How apprenticeship can help</b>
Increasing the supply of skilled healthcare workers	Apprentices can enter the workforce sooner than workers who must complete all their training before beginning a job. Although they have fewer skills in the beginning, employers will know the skills apprentices will learn in the apprenticeship and make labor planning decisions accordingly.
Reducing maldistribution by expertise and geography	The “earn while you learn” model is extremely attractive to potential workers. By introducing apprenticeship in areas of expertise or geography where there are shortages, employers can increase the numbers of people entering those areas and offer them career ladders.

Improving care for an aging population	The skills and knowledge specific to providing healthcare to an aging workforce can be built into any apprenticeship program’s training curriculum.
Diversification of the healthcare workforce	In other industries, apprenticeship has proven to be very popular with individuals from the kinds of racial and ethnic groups that are underrepresented in the healthcare field. Diversifying the workforce will increase skills in cultural competencies and language within the healthcare workforce as those individuals bring those skills with them.
Increasing the technology skills of the healthcare workforce	As younger workers enter healthcare occupations apprenticeships, they bring with both them the technology skills and the comfort with technology that is common to their generation.
Reducing turnover and related costs	Apprenticeship programs lay out clear wage progressions and opportunities for advancement, which encourages workers to remain with the employer. Employer investment in worker skills and opportunities pays off in worker loyalty.
Improving career pathways within healthcare	In designing their apprenticeship programs, employers can design pathways that will ensure they have a pipeline of workers who move into positions requiring advanced skills as they gain experience and knowledge.
Keeping the incumbent healthcare workforce up-to-date on the medical knowledge and skills	Apprenticeships can be designed so that they include additional training for “journey-level” workers, and can include pay and other incentives for participation. The apprenticeship model and the role of the mentor foster lifelong learning skills (Souster and Jackson, 2003) and ultimately can lead to a broader culture of learning among employees.
Improving soft skills in the healthcare workforce	An employer can design the apprenticeship program to include training in specific soft skills necessary for that occupation and company.
Improving leadership and supervisory skills in the healthcare workforce	An employer can design the apprenticeship training to include specific leadership or supervisory skills appropriate to the occupation and company.
Improving interdisciplinary skills in the healthcare workforce	Tradition, curricula and disciplinary silos between healthcare occupations that exist in the academy can be overcome or ignored when designing an apprenticeship program. The on-the-job training component of an apprenticeship can be used to build teamwork.

Standardizing training for poorly-regulated occupations	Registered apprenticeships are regulated at the state and federal level. While the primary beneficiary of a portable certification may be the employee who attains it, employers benefit when they know that anyone they hire who already has that certification has the same skills as other employees already on the job.
Quantifying the financial return on the investment made in healthcare workers	Measuring the cost of developing and managing an apprenticeship program may be easier than calculating the costs of other measures to retain workers and improve their skills.
Increasing funds to train healthcare workers	Apprenticeship programs often partner with workforce development agencies, social services providers, educational institutions, foundations, unions and others that can bring financial and other resources to support worker training.
Improving employee morale	Employee morale can have a significant impact on performance, and in a healthcare setting, poor performance can translate into poor patient outcomes. MultiCare sees its employee training programs as important investments in employee morale.
Professionalize allied health and support occupations	Apprenticeship not only teaches knowledge and technical skills, but socializes apprentices into their roles as a healthcare company employee and value systems for the profession (Fealy, 2006).

***Giving employers a voice in worker training*** In the apprenticeship model, employers play a critical role in defining the skills, knowledge and competencies all trainees will gain. This model gives employers a greater voice in the process of training healthcare workers. In many cases, the only opportunity an employer has to comment on training is when they make a decision to hire (or fire) an employee. They may know that certain institutions turn out highly skilled graduates, while another one does not, and make hiring decisions accordingly. However, the employer may have no opportunity to communicate that directly to the training institution. Similarly, the employer may not be able to communicate to local training institutions that they need to add a particular competency or skill, in order to prepare their students. Apprenticeship is designed to give employers a strong voice in the content of training. It also gives employees an opportunity to create a “feedback loop” from the employees who train apprentices on the job, identifying areas where training needs to be improved.

### Barriers to using apprenticeship in healthcare

Notwithstanding the many ways in which the registered apprenticeship model *could* work in the healthcare industry and the examples nationally and internationally of how it is being used, there are some significant barriers to wider adoption. Some of those barriers are long-term, structural realities in the industry that cannot be easily changed. Others are more esoteric, but have no less impact.

**Existing licensing and certificate systems** Some occupations in the healthcare field already have licensing or certificate systems in place that are recognized in the state or nationally. Where employers are satisfied with those systems, it will be difficult to introduce a new system like registered apprenticeship. Moreover, adding the registered apprenticeship process on top of existing licensing/certificate programs would likely be resisted as an added regulatory burden.

**Patchwork of administration and regulation** While a state's labor agency will be the one that oversees the development of registered apprenticeship programs, regulation of licensure and certification for different healthcare occupations is vested in different state agencies. These are most commonly the agencies that regulate health or education. In some cases, however, licensure or certification takes place not at the state level but nationally. Developing an apprenticeship program requires the participation of all relevant agencies. In addition, community colleges are involved in the existing training and certification system for many healthcare occupations. Securing the agreement and participation of that many agencies and organizations in developing an apprenticeship program is an extremely difficult task.

**Service payment structures** Companies that provide healthcare services are generally paid for the service provided by insurance companies or government programs like Medicare and Medicaid. Rates are negotiated by the insurers and are regulated by state and federal bodies. Rates are based on the specific service, not on the hours of labor. In many cases, implementing employee pay structures where healthcare apprentices earn incremental wage increases as their skills increase, would require renegotiation of reimbursement rates, a process that is already highly politicized.

Moreover, reimbursement rates from Medicare and Medicaid have been cut in recent years, as state and federal governments seek to reduce expenses. Restructuring employment practices and wages structures in this environment could prove to be very difficult.

**Hospital closings** Many states are in the process of considering the closure of public sector hospitals that primarily serve low income communities. Private hospitals are being closed in response to reduced Medicare and Medicaid reimbursements. As those hospitals close, individuals who might otherwise be treated there turn to outpatient clinics and home-based services to meet their healthcare needs. This trend has two apprenticeship-related impacts. First, clinics and companies providing home-based services are often smaller than hospitals with fewer employees. Second is a reduction in higher-wage, higher-skill jobs and growth in jobs like CNAs and home health aides.

**Perceptions** The perception of apprenticeship as something only for blue collar trades in construction and manufacturing is very salient in healthcare. Nurses, in particular, have fought for years to have their occupation recognized as a profession rather than a trade, and have been strongly resistant to the apprenticeship model. This is equally true among nurses represented by unions and those who are not. It may be that apprenticeship terminology could be changed in the healthcare setting to better reflect healthcare practices (for example, referring to *on-the-job* training time as *clinical* experience), but the general perception would still need to be overcome.

**Administrative costs** In order to develop an apprenticeship program, an employer needs to consider the cost of the manager's time in working out the details of the apprenticeship program. Staff will be needed for administrative and reporting tasks once the apprenticeship is in place. At a larger employer, these costs may be easier to absorb by leveraging existing administrative or human resources staff. For smaller employers, these costs could be prohibitive.

**Cost of clinical experience** Under current training regimens, hospitals and clinics where doctors and nurses have their on-the-job clinical training bear the cost of that training. Adding on-the-job clinical training for more occupations would be an increased cost to those businesses. Those costs include additional staffing to backfill for apprentices still in training and for professionals overseeing apprentices while on the job. Financial support may be needed for them to consider taking on that cost.

**Cost to employees** Many employees may wish to return to school for additional training and education so they can advance in their careers, but the cost of tuition, books, childcare and transportation on top of the possibility of reduced hours at work to make school possible are significant barriers. This is particularly true for entry-level workers who are earning lower wages, and these are the very employees apprenticeship programs most often serve.

### Areas of opportunity

Within the healthcare industry, different occupations and structures should be analyzed carefully along with all of the above factors to identify places where apprenticeship might be most likely to work. Some of those key areas of opportunity for registered apprenticeship in healthcare may include

- Occupations where there are no licensure/certification systems, or where those systems are weak
- Occupations where training requirements are less than what employers need to ensure quality patient services
- Information technology occupations in healthcare, on the rise due to HIPAA requirements
- Growth in the “medical home” concept, which is expected to increase demand for entry-level healthcare workers to help patients navigate the medical system
- Occupations where on-the-job training is not used to train workers, but could improve the quality of training, services or skills
- Companies seeking to reduce the costs of recruitment and turnover
- Other high demand occupations

One way employers can identify occupations or areas where apprenticeship and similar training programs might be particularly effective within their own companies is to look at the places where people get “stuck” and do not move up career ladders. Survey employees to find out whether they know how to advance, and to discover what kinds of barriers prevent them from getting training or education on their own. An apprenticeship program could help a company create a supply of workers moving up the career ladder and into jobs with higher labor demand.

The cost of apprenticeship to the employer – or the perception of costs – is a significant barrier to its use. Greater opportunity to engage healthcare employers in testing out apprenticeship may be found in areas where public resources can be leveraged to support the creation or continuation of apprenticeship programs. Those areas might be defined by occupations (high demand), geographic areas (underserved), populations of need, or other factors where public policymakers have an interest.

## CONCLUSION

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While registered apprenticeship has been proven to work effectively to benefit both workers and employers in a variety of industries, the model has not been applied widely enough in the U.S. to fully demonstrate those benefits in the healthcare industry. This is true despite the fact that apprenticeship is used widely to train healthcare workers and develop career pathways in the healthcare industry in other countries with advanced economies.

The MultiCare case study shows that the return on investment in apprenticeship and related training programs can be significant for employers. The case study also shows how apprenticeship can be introduced in a large healthcare workplace. Other models that bring together multiple, smaller employers may also be possible, and are likely to be important in the future as labor demand rises for occupations such as Home health aide and Personal care aides.

Because apprenticeship is structured around on-the-job learning, demonstration of competencies and formal licensure, it may seem familiar to many individuals who work in healthcare. The apprenticeship model adds the benefit of allowing employers to pay less to workers with fewer skills, then rewarding trainees with greater earnings as they gain new skills. However, those lower wages come at the cost of employing a less-skilled worker. While there are challenges to introducing those kinds of pay scales to occupations that have not traditionally used them, the MultiCare case study shows that it is far from impossible.

Healthcare employers may see registered apprenticeship as risky and unfamiliar, and they may be concerned about costs (program administration, workers taking time off for training) and bureaucracy (reporting requirements). Policymakers, unions, human service agencies and others interested in introducing the apprenticeship model will need to address those concerns, and find ways to leverage existing public and private resources so that the risks and costs are reduced, at least during the early days before cost savings can be fully realized.

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## APPENDICES

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### Appendix 1

Healthcare occupations determined by the U.S. Department of Labor's Office of Apprenticeship to be apprenticeable

#### Apprenticeable Healthcare Occupations

1. Ambulance Attendant (EMT)
2. Biomedical Equipment Technician
3. Certified Nursing Assistant Lattice
4. Certified Nursing Assistant I
5. Certified Nursing Assistant Advanced
6. Certified Nursing Assistant Geriatric
7. Certified Nursing Assistant Restorative
8. Certified Nursing Assistant Dementia
9. Certified Nursing Assistant Mentor
10. Contour Wire Specialist, Denture
11. Dental Assistant
12. Dental Equipment Installation and Service
13. Dental Laboratory Technician
14. Electro-medical Equipment Repairer
15. Emergency Medical Technician
16. Embalmer
17. Health Care Sanitary Technician
18. Health Support Specialist
19. Health Unit Coordinator
20. Home Health Aide
21. Home Health Director
22. Laboratory Assistant
23. Laboratory Technician
24. Long-term Care Nurse Manager
25. Medical Assistant
26. Medical Laboratory Technician
27. Medical Secretary
28. Medical Transcriptionist
29. Nurse, Licensed Practical
30. Optical Instrument Assembler
31. Optician
32. Optician (optical goods)
33. Orthotics Technician
34. Orthotist
35. Orthodontic Technician
36. Paramedic
37. Pharmacist Assistant
38. Pharmacy Support Lattice
39. Pharmacy Service Associate Level I
40. Pharmacy Support Technician Level II
41. Lead Pharmacy Technician Level III
42. Podiatric Assistant
43. Prosthetics Technician
44. Senior Housing Manager
45. Surgical Technologist
46. Veterinary and Laboratory Animal Technician

#### Apprenticeable Health Information Technology Occupations

1. Health Unit Coordinator
2. Medical Coder
3. Medical Transcriptionist
4. Information Assurance Specialist
5. Information Management
6. IT Project Manager
7. IT Generalist

## Appendix 2

Occupations with approved registered apprenticeship programs in Washington State (occupations in **bold had active programs** as of August 2011).

- Administrative Medical Assistant
- Cardiovascular Surgeon
- **Computed Tomography (1 active program)**
- Dental Chairside Assistant
- **Dispensing Optician (3)**
- Emergency Medical Technician (EMT)
- **Food Service Manager (1)**
- Health Technician (Ultrasound)
- **Health Unit Coordinator (1)**
- Home Health Technician
- **Magnetic Resonance Imaging (1)**
- Medical Assistant
- Nurses Aide
- Nutrition Services Aide
- Operating Room Technician (O.R)
- Paramedic
- Pharmacist
- Physical Therapist Aide
- Physical Therapist Assistant
- Prosthetist-Orthotist
- Registered Pharmacist
- Respiratory Therapy Technician
- **Restorative Aide (1)**
- Safety Technician
- **School Health Technician (2)**
- Ultrasonic Electronic Technician
- Ultrasound Technician
- Urological Technician

## Appendix 3

40 healthcare occupations analyzed for Table 1 (by BLS category)

### **Management positions**

1. Medical and health services managers

### **Health diagnosing and treating practitioners**

2. Audiologists
3. Chiropractors
4. Dentists
5. Dietitians and Nutritionists
6. Optometrists
7. Pharmacists
8. Physical Therapists
9. Physician Assistants
10. Physicians and Surgeons
11. Podiatrists
12. Radiation Therapists
13. Recreational Therapists
14. Registered Nurses
15. Respiratory Therapists
16. Speech-Language Pathologists

### **Health technologists and technicians**

17. Athletic Trainers
18. Cardiovascular Technologists and Technicians
19. Clinical Laboratory Technologists and Technicians
20. Dental Hygienists
21. Diagnostic Medical Sonographers
22. Emergency Medical Technicians and Paramedics
23. Licensed Practical and Licensed Vocational Nurses

24. Medical Records and Health Information Technicians

25. Nuclear Medicine Technologists
26. Opticians, Dispensing
27. Pharmacy Technicians and Aides
28. Radiologic Technologists and Technicians
29. Surgical Technologists

### **Other professional and related occupations**

30. Respiratory Therapy Technicians

### **Healthcare support occupations**

31. Dental Assistants
32. Home Health Aides and Personal and Home Care Aides
33. Massage Therapists
34. Medical Assistants
35. Medical Transcriptionists
36. Nursing and Psychiatric Aides
37. Occupational Therapist Assistants and Aides
38. Physical Therapist Assistants and Aides

### **Miscellaneous installation, maintenance, and repair occupations**

39. Medical Equipment Repairers

### **Miscellaneous production occupations**

40. Medical, Dental, and Ophthalmic Laboratory Technicians

**Appendix 4**

MultiCare’s original Health Unit Coordinator apprenticeship submission to the Department of Labor’s Office of Apprenticeship Training, Employer and Labor Services

**BULLETIN 2004 - 21**

**Date: September 30, 2004**

U.S. Department of Labor Employment and Training Administration Office of Apprenticeship Training, Employer and Labor Services (OATELS) Washington, D.C. 20210	<u>Distribution :</u> A-541 National Office A-546 All Field Tech A-547 SD+RD+SAC+; Lab.Com	<u>Subject:</u> New Apprenticeable Occupation – Health Unit Coordinator  <u>Code:</u> 200
Symbols: DSNIP:FJH		Action: Immediate

**PURPOSE:** To inform the Office of Apprenticeship Training, Employer and Labor Services (OATELS), Bureau of Apprenticeship and Training (BAT) Staff of a new apprenticeable occupation:

Health Unit Coordinator  
 O\*NET Code: 43-9061.00  
 RAIS Code: 1084  
 Training Term: 2,000 hours  
 Type of Training: Time - based

**BACKGROUND:** State Director Anne Wetmore, on behalf of the Multicare Health System, of Tacoma, WA, initiated this apprenticeability request for the Health Unit Coordinator occupation.

The Health Unit Coordinator is responsible for transcribing physicians’ orders, maintaining patient’s charts, requisitioning daily labs, scheduling diagnostic tests, communicating with all levels of staff and coordinating unit activity. Due to the exposure of patient care, hospital systems, medical terminology, etc., Health Unit Coordinators are ideally suited to advance up career ladders to a variety of occupations in healthcare such as LPN’s, RN’s, Information Technicians, Billers and Imaging Technologists.

Health Unit Coordinator will be added to the list of occupations recognized as apprenticeable by OATELS when the list is reissued.

A suggested work process schedule and related instruction outline are attached.

**ACTION:** BAT staff should review and retain a copy of this Bulletin, including all attachments, as a source for developing apprenticeship standards and/or providing technical assistance.

Attachments

**WORK PROCESSES HEALTH  
UNIT COORDINATOR**

O\*NET/SOC CODE: 43-9061.00 RAIS CODE: 1084

**JOB DESCRIPTION:** The Health Unit Coordinator is responsible for transcribing physicians' orders, maintaining patient's charts, requisitioning daily labs, scheduling diagnostic tests, communicating with all levels of staff and coordinating unit activity. Due to the exposure of patient care, hospital systems, medical terminology, etc., Health Unit Coordinators are ideally suited to advance up career ladders to a variety of occupations in healthcare such as LPN's, RN's, Information Technicians, Billers and Imaging Technologists.

#	Task Performed in Duty	Hours	Related Competencies / Outcomes
<b>1</b>	<b>Customer Service / Caring Actions</b>	<b>124</b>	
	Greets patients, families, visitors, physicians, and other MHS staff using Caring Actions		Customer Service Skills used with all MHS customers.
	Patient privacy		Patient satisfaction, confidentiality of patients, and compliance with HIPPA regulations
	Remind patients of appointments		Customer accommodation
	Facilitate patient flow		Patient Satisfaction with less down time for MHS departments waiting for "no show" or late/lost patients.
<b>2</b>	<b>Communication/Department functions</b>	<b>310</b>	
	Good interpersonal, oral, and written communications		Use of Standard English grammar and spelling in oral and written communications.
	Actively listens		Able to utilize good listening skills as a means of preventing and/or solving conflicts with a variety of customers.
	Receives, places and transfer phone calls		Phone calls answered, placed and transferred in a timely and business format.
	Records, communicate, or deliver messages accurately & timely		Accurately records communications using Standard English, proper grammar and common spelling.
	Interviewing skills and information gathering techniques		Solicit information from customers required for patient admission and documentation, including financial and insurance information.
	Monitors EMS and Charge Nurse/Unit Supervisor communications and coordinates notification of appropriate individuals in event of code, shock/trauma or critical patient		Prioritize emergent, critical patient care information from charge personnel to appropriate individual in a timely fashion.
	Facilitate unit communications		Is able to facilitate unit communications to all department members.
	Participate in unit committees and projects		Is able to participate in unit committees and projects as interested and needed.
	Attends staff meetings		Is able to attend staff meetings or do follow up of staff minutes as delineated in departments.
	Participate in continuing education		Is able to participate in continuing education.
<b>3</b>	<b>Staffing</b>	<b>43</b>	

**WORK PROCESSES HEALTH  
UNIT COORDINATOR**

O\*NET/SOC CODE: 43-9061.00 RAIS CODE: 1084

#	Task Performed in Duty	Hours	Related Competencies / Outcomes
	Staff availability, rotation and forecasting needs reported		Work with Charge Nurse/Supervisor to adequately supply the department with appropriate staff to care for patient population.
	Maintain call roster and daily call assignment		Update and reference call roster and daily call assignment.
	Review census report		Follow up with received department census report to confirm accuracy.
<b>4</b>	<b>Computers/Charges</b>	<b>645</b>	
	LastWord / Epic Web		Is able to look up a patient in LW; register the patient without creating a duplicate medical record; place orders; place patient charges; transfer the patient from one department to another; look up test results; find information in patient's MMG EpicCare chart using Epic Web.
	Outlook/email		Is able to access their individual email account on the MHS Intranet. Can send and receive emails.
	MHS Intranet		Is able to access the MHS Intranet to include MHS Policies and Procedures, Education, MultiNews update; employee directory; and other information on MHS.
	Register patient's using SLUP, accurate demographics, insurance and guarantor information		Is able to register a patient in LastWord using the standard look up procedure (to prevent duplication of medical records and activate existing medical record numbers for registration when located); place accurate demographics in the patient's record using patient confidentiality while soliciting the information.
	Enter correct admitting and attending physicians info		Is able to distinguish between the admitting, attending and specialty physicians and place in the appropriate location in the patient record.
	Process and transcribes physician orders		Is able to accurately process physician's orders into the LastWord system to the appropriate receiving department.
	Follow up on work flow		Is able to follow up on initial work completed to assure work was initially completed accurately and is being processed.
	Follow up on abnormal lab and X rays		Is able to distinguish on lab and X ray print outs the notification that results are abnormal and to bring that to the attention of the person in charge.
	Prioritize orders		Is able to distinguish which orders are needed more urgently and process them first.

**WORK PROCESSES HEALTH  
UNIT COORDINATOR**

O\*NET/SOC CODE: 43-9061.00 RAIS CODE: 1084

#	Task Performed in Duty	Hours	Related Competencies / Outcomes
	Discharge patients		Is able to complete discharge of a patient in LastWord.
	Input patient charges		Is able to input accurate charges into computer, and during downtime processes appropriately on downtime requisitions.
	Review charge sheet from IS		Is able to discern if accurate charges were made to patients from the printout sent from Information Services.
	Receive payments and generates receipt		Is able to generate a receipt for customer when payments are received.
	Secure funds received from patients		Is able to send received funds to finance office with appropriate paperwork.
	Forward pertinent information to Patient Accounts for cash postings and reconciliation for billing/collecting		Is able to discern what information needs to be forwarded to Patient Accounts for received cash.
<b>5</b>	<b>Insurance</b>	<b>35</b>	
	Acquire patient and guarantor information		Is able to acquire current and accurate patient insurance information.
	Third party liability information		Is able to distinguish and document third party liability information.
	Verification of payment/authorization		Is able to verify authorization of payment for those specific insurance providers that require it.
	Assist patient with completion of financial forms		Can assist the patient in completing the appropriate financial forms accurately.
	Financial counseling		Is able to assist the patient and family on financial counseling as needed.
<b>6</b>	<b>Patient Care/Scheduling/Reporting Requirements/ Isolation Precautions</b>	<b>58</b>	
	Patient bed assignment		Is able to assign a patient to the appropriate bed based on patient diagnosis, infection control needs, prisoner requirements, equipment needs, and patient acuity and transfer them in LastWord.
	ID band		Is able to generate an accurate ID band for each patient.
	Addressograph plate		Is able to generate an accurate addressograph plate for each patient and dispose of using MHS guidelines and HIPPA requirements.
	Refer to Social Work, Chaplain, ped. Psychology		Is able to provide communication to appropriate source to meet patient needs.
	Explain purpose and obtain patient signature for documentation for consent for treatment and assignment of insurance benefits		Is able to complete consent for patient treatment and assignment of insurance benefits.
	Child growth and development and Family Centered Care		Is able to identify the stages in growth and development to respond appropriately to the individual.

**WORK PROCESSES HEALTH  
UNIT COORDINATOR**

O\*NET/SOC CODE: 43-9061.00 RAIS CODE: 1084

#	Task Performed in Duty	Hours	Related Competencies / Outcomes
			Is able to include family in patient care plans.
	Effectively cope with death and dying and life threatening emergencies		Is able to practice personal post -traumatic stress syndrome debriefing for trauma, death, and illness related to client exposure.
	Appointments		Is able to schedule MHS clients for appointments.
	Test/exams		Is able to schedule MHS clients for ordered test/exams.
	Notify appropriate facility- e.g., animal bites, etc.		Is able to report/notify appropriate facilities of mandated incidents such as animal bites.
	Utilize appropriate precautions for specific patient, staff, and visitors needs.		Is able to identify which patients need isolation precautions. Is able to communicate to staff and visitors the implemented isolation precautions for patients and/or their protection. Is able to utilize PPE as needed for personal protection.
<b>7</b>	<b>Patient Chart</b>	<b>650</b>	
	Order prior patient medical records from HIMS as requested		Is able to obtain previous patient medical records from HIMS.
	Coordinate completion of chart		Is able to provide completed, processed patient care charts and records.
	File reports and tests		Is able to accurately file patient care reports and tests in patient care records.
	Obtain physician signatures as needed prior to discharge		Is able to complete patient care records prior to patient discharge.
	Process to Medical Records		Is able to process patient care records for storage to HIMS.
<b>8</b>	<b>Supplies</b>	<b>20</b>	
	Inventories/par levels		Is able to maintain par level for department supplies.
	Orders		Is able to order required supplies through current system.
	Stocks		Is able to place ordered supplies in designated sites.
<b>9</b>	<b>Equipment, Patient Care – coordinate</b>	<b>15</b>	
	Ordering		Can order required equipment for patient care through in-house process from designated company in a timely manner.
	Assembling		Is able to do minor assembly of patient care equipment as designated per department.
	Maintenance		Is able to process patient care equipment for routine and repair maintenance.
	Disassembling		Is able to disassemble patient care equipment as designated per department.

**WORK PROCESSES HEALTH  
UNIT COORDINATOR**

O\*NET/SOC CODE: 43-9061.00 RAIS CODE: 1084

#	Task Performed in Duty	Hours	Related Competencies / Outcomes
	Returning		Is able to return rented patient care equipment through MHS system to owner company.
	Confirm physician dictation completion		Can confirm completion of physician dictation
<b>10</b>	<b>Equipment, office – use</b>	<b>5</b>	
	Computer		Demonstrate use of designated programs within the MHS computer system following MHS guidelines for use, confidentiality, and password.
	Copier		Can operate and troubleshoot department copy machine.
	Fax		Can operate and troubleshoot department Fax machine.
	TTY/TDD		Can obtain TTY/TDD device from communications as needed for patient and family care.
	Embossing		Is able to emboss patient addressograph plate.
	ENVOY verification		Is able to use ENVOY for verification.
<b>11</b>	<b>Patient valuables</b>	<b>5</b>	
	Secures/retrieves		Is able to secure and retrieve patient valuables in MHS vault during regular and after business hours.
	Documents		Can document in patient care record according to MHS guidelines securing and retrieving patient valuables.
<b>12</b>	<b>Verify physician privileges</b>	<b>5</b>	
	Hospital		Is able to identify and locate physician MHS privileging.
	Specialty		Is able to identify and locate physician MHS specialty privileging.
<b>13</b>	<b>Clerical support</b>	<b>75</b>	
	Medical terminology		Is able to accurately identify and use medical terminology in work.
	Good grammar and spelling		Is able to use good English grammar and spelling in work.
	Type/keyboard 45 WPM		Is able to type/keyboard at 45 wpm.
	Filing		Is able to accurately file records, reports, and tests in appropriate sites.
	Copying/duplicating		Is able to operate and efficiently copy identified work without infringing on copyright laws.
	Print schedules		Is able to print required schedules from

**WORK PROCESSES HEALTH  
UNIT COORDINATOR**

O\*NET/SOC CODE: 43-9061.00 RAIS CODE: 1084

#	Task Performed in Duty	Hours	Related Competencies / Outcomes
			sources.
	Maintain manuals		Can maintain required department manuals to current information.
	Maintain statistics		Can maintain required statistics as required by department.
<b>14</b>	<b>Time management</b>	<b>5</b>	
	Ability to prioritize work		Is able to prioritize work to complete emergent/urgent first.
	Able to complete projects, work assignments		Is able to manage time to complete work projects and assignments in designated time.
<b>15</b>	<b>Meet MHS dress code standards</b>	<b>1</b>	
	Clothes		Is able to identify what is classified as casual business attire to wear.
	Jewelry		Is able to limit jewelry and location worn according to MHS policy.
	Tattoos		Is able to cover tattoos according to MHS policy.
<b>16</b>	<b>Emergency Procedures</b>	<b>4</b>	
	Emergency Contact Numbers		Is able to distinguish and use the appropriate emergency number based on location in the MHS system.
	Bomb Threat (Code Yellow)		Is able to identify a Code yellow and follow MHS guidelines when code is initiated.
	Cardiac Arrest (Code 4)		Is able to identify a Code 4 and follow MHS guidelines when code is initiated.
	Disaster Code (Code 10/99)		Is able to identify and distinguish between a Code 10 and Code 99 and follow MHS guidelines when the codes are initiated.
	Earthquake		Is able to identify an Earthquake and follow MHS guidelines when code is initiated.
	Evacuation		Is able to identify an Evacuation and follow MHS guidelines when an evacuation is initiated.
	Fire (Code Red/Green)		Is able to identify and distinguish between a Code Red and a Code Green and follow MHS guidelines when codes are initiated.
	Hazardous Material Incident		Is able to identify Hazardous Material Incident and follow MHS guidelines when incident is initiated.
	Infant/Child Abduction (Code Pink)		Is able to identify Code Pink and follow MHS guidelines when code is initiated.
	Security Incidents		Is able to identify Security Incidents and follow MHS guidelines when incident is initiated.
	Show of Force (Code Orange)		Is able to identify Code Orange and follow MHS guidelines when code is initiated.
	Utility System Failure		Is able to identify Utility System Failure and

**WORK PROCESSES HEALTH  
UNIT COORDINATOR**

O\*NET/SOC CODE: 43-9061.00 RAIS CODE: 1084

#	Task Performed in Duty	Hours	Related Competencies / Outcomes
			follow MHS guidelines when code is initiated.
	<b>TOTAL HOURS</b>	<b>2000</b>	

**RELATED INSTRUCTION  
HEALTH UNIT COORDINATOR**

O\*NET/SOC CODE: 43-9061.00 RAIS CODE: 1084

**Element: Computer Training:** ..... **76 hours**  
28 hours classroom/48 hours clinical lab. At the completion of this course, the learner will be able to operate the MultiCare System (MHS), (the employer) computer systems by inputting and retrieving accurate data – including patient look up, patient registration, order and charge placement, patient transferring, lab and imaging test results look up, and use Epic web to look up patient information in MMG physician office records; access and send emails; access MHS policies and procedures and employee directory; produce word-processed documents; and provide accurate memos.

**Element: Phone Skills:** ..... **28 hours**  
4 hours classroom/24 hours clinical lab. At the completion of this course, the learner will be able to handle the multi-line MHS phone system and features including answering calls, transferring/forwarding calls, retrieving and deleting messages, calling in emergency codes, and set phone messages.

**Element: Customer Service:** ..... **24 hours**  
12 hours classroom/12 hours clinical lab. At the completion of this course, the learner will be able to illustrate customer service to all MHS clients using caring actions and other skills.

**Element: General Communication:** ..... **7 hours**  
2 hours classroom/5 hours clinical lab. At the completion of this course, the learner will be able to generate appropriate phone and personal responses to all MHS customers and staff.

**Element: Human Behavior:** ..... **5 hours**  
4 hours classroom/1 hour clinical lab. At the completion of this class, the learner will be able to: diffuse angry or difficult people and practice post-traumatic stress syndrome debriefing for trauma, death, and illness related to client exposure.

**Element: Medical Terminology/Anatomy & Physiology:** ..... **19 hours**  
12 hours of classroom/14 hours of clinical lab. At the completion of this class, the learner will be able to accurately identify anatomical and physiological sites and processes.

**Element: Pharmacology:** ..... **20 hours**  
6 hours of classroom/14 hours of clinical lab. At the completion of this class, the learner will be able to: identify common pharmacological drugs used in patient care and place accurate physician orders.

**Element: Medical Insurance:** ..... **6 hours**  
4 hours of classroom/2 hours of clinical lab. At the completion of this class, the learner will be able to: Obtain accurate information of medical insurance processing.

**Element: Financial:** ..... **3 hours**  
2 hours of classroom/1 hour of clinical lab. At the completion of this class, the learner will be able to: process funds from MHS clients.

**Element: Supplies:**..... **3 hours**  
1 hour of classroom/2 hours of clinical lab. At the completion of this class, the learner will be

**RELATED INSTRUCTION  
HEALTH UNIT COORDINATOR**

O\*NET/SOC CODE: 43-9061.00 RAIS CODE: 1084

able to: maintain par level supplies by ordering, receiving, and stocking.

**Element: Equipment – Patient Care: ..... 2 hours**

1 hour of classroom/1 hour of clinical lab. At the completion of this class, the learner will be able to: Process internal and external patient care equipment.

**Element: Equipment – Office: ..... 4 hours**

3 hours of classroom/1 hour of clinical lab. At the completion of this class, the learner will be able to: operate copy and fax equipment located in their department; obtain the TDD/TTY equipment from communications source.

**Element: Patient Rights: ..... 1.5 hours**

1 hour of classroom/.5 hour of clinical lab. At the completion of this class, the learner will be able to: apply patient rights to MHS client care.

**Element: Confidentiality/HIPPA regulations: ..... 2 hours**

1 hour of classroom/1 hour of clinical lab. At the completion of this class, the learner will be able to: maintain patient confidentiality in and out of the work environment.

**Element: Advance Directives: ..... 1.5 hours**

1 hour of classroom/.5 hour of clinical lab. At the completion of this class, the learner will be able to: support advance directive documentation in their job role.

**Element: Patient Charts/Records: ..... 50 hours**

2 hours of classroom/48 hours of clinical lab. At the completion of this class, the learner will be able to: provide completed, processed patient care charts and records.

**RELATED INSTRUCTION  
HEALTH UNIT COORDINATOR**

O\*NET/SOC CODE: 43-9061.00 RAIS CODE: 1084

**Element: Forms & Documentation:..... 16 hours**

2 hours of classroom/14 hours of clinical lab. At the completion of this class, the learner will be able to: produce accurate, complete documents/forms for patient care.

**Element: Physician Privileges: ..... 1.5 hours**

1 hour of classroom/.5 hour of clinical lab. At the completion of this class, the learner will be able to: access physician privileging information.

**Element: Patient Valuables: ..... 1.5 hours**

1 hour of classroom/.5 hours of clinical lab. At the completion of this class, the learner will be able to: process patient valuables to and from the security safe and document in the patient care record.

**Element: Patient Advocacy: ..... 1 hour**

1 hour of classroom. At the completion of this class, the learner will be able to advocate for the patient.

**Element: Patient Bed Assignment: ..... 2 hours**

1 hour of classroom/1 hour of clinical lab. At the completion of this class, the learner will be able to: process patient bed assignments.

**Element: ID Band: ..... 2 hours**

1 hour of classroom/1 hour of clinical lab. At the completion of this class, the learner will be able to: acquire patient ID bands.

**Element: Addressograph Plate: ..... 2 hours**

1 hour of classroom/1 hour of clinical lab. At the completion of this class, the learner will be able to: acquire patient addressograph plate.

**Element: Patient Referral: ..... 2 hours**

1 hour of classroom/1 hour of clinical lab. At the completion of this class, the learner will be able to: provide accurate and appropriate communication for patient referral.

**Element: Time management: ..... 1 hour**

1 hour of classroom. At the completion of this class, the learner will be able to manage their time to complete their workload.

**RELATED INSTRUCTION  
HEALTH UNIT  
COORDINATOR**

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1084

**Element: Staffing Rosters:** ..... **4 hours**  
1 hour of classroom/3 hours of clinical lab. At the completion of this class, the learner will be able to maintain current staffing rosters.

**Element: Census Reports:** ..... **2 hours**  
1 hour of classroom/1 hour of clinical lab. At the completion of this class, the learner will be able to compare obtained census reports to actual patient population.

**Element: Dress Code:** ..... **1 hour**  
1 hour of classroom. At the completion of this class, the learner will be able to dress in a professional manner acceptable to MHS policy and procedure for dress code.

**Total** **288 Hours**  
*(Combination of Classroom and Lab)*

## Appendix 5

Healthcare occupations with approved apprenticeships (*Ausbildungsberufe*) in Germany

1. Geriatric nurse
2. Nursing Assistant
3. Dietician
4. Occupational therapist
5. Midwife
6. Health and pediatric nurses
7. Nurses
8. Health and nursing assistants
9. Speech
10. Masseur and medical lifeguard
11. Paramedic
12. Medical clerk (formerly known as physician assistants)
13. Orthoptist
14. Physiotherapist
15. Paramedic
16. Dental Assistant (former dental assistant)
17. Optometrists
18. Hearing
19. Prosthetist and Bandagist
20. Orthopedic shoe technician
21. Dental Technician
22. Specialist for Dental Affairs
23. Chemist (druggist)
24. Medical assistant
25. Pharmaceutical technician
26. Pharmaceutical clerk
27. Dental assistant