

Hawaii's Healthcare Workforce 20/20 Plan & Report

Addendum to the Comprehensive
State Plan for Workforce
Development 2009–2014



December
2011

Workforce Development Council | 830 Punchbowl Street, Room 417 | Honolulu, Hawaii 96813
Neil Abercrombie, Governor | State of Hawaii

This project was supported in part by funds from the Bureau of Health Professions (BHP), Health Resources and Services Administration (HRSA), Department of Health and Human Services (DHHS) under grant number P50HP20998, a Healthcare Workforce Planning Grant of \$150,000. The information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any official endorsement be inferred by, the BHP, HRSA, DHHS, or the US Government.

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December 2, 2011

The Honorable Neil Abercrombie
Governor, State of Hawaii
Executive Chambers, State Capitol
Honolulu Hawaii 96813

Dear Governor Abercrombie:

We are pleased to submit the Final Healthcare Industry Workforce Development Plan for 2011-2020. As a part of the New Day Plan's focus on investing in people, this plan will help build the workforce for today and tomorrow while playing a significant role in addressing our most complex challenge: healthcare transformation. With the help of our sponsors, the Department of Labor and Industrial Relations' (DLIR), Career and Technical Education Center at the University of Hawaii, the Chamber of Commerce of Hawaii, and the University of Hawaii Community College System, this plan presents the ideas of over 150 stakeholders statewide from our healthcare community, including business leaders, labor representatives and educators, to align training and funding to meet employer needs in the healthcare sector.

This plan, funded by a \$150k Healthcare Workforce Planning grant administered by the Department of Health and Human Services Health Resources and Services Administration under the Affordable Care Act of 2010, aims to increase the primary care workforce by 20% by the year 2020. In an effort to proactively address major healthcare shortages, partners gathered five Skill Panels in late 2010 to discuss Nursing, Long Term Care, Technical Disciplines, Primary Care, and Workforce Readiness.

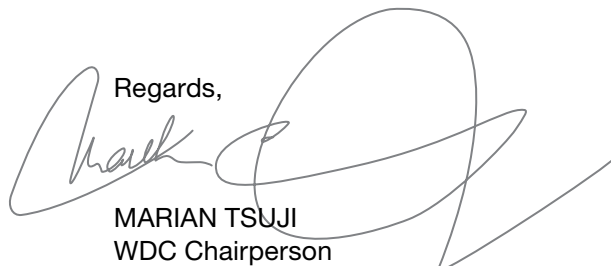
The WDC published an initial report of Skill Panel findings in February 2011, and hundreds of man hours from staff and constituents led to a plan draft. The WDC then joined with UH JABSOM's Hawaii Pacific Basin Area Health Education Center (AHEC) to gain feedback on the initial draft by holding additional Skill Panel meetings in each of the state's four counties. Highlights of the plan include the following goals:

- Create an early warning system for impending labor shortages;
- Fill gaps in education and training;
- Strengthen the healthcare pipeline and recruitment network; and
- Leverage resources to maximize their benefit to the state as a whole.

Additionally, we are pleased that you have appointed Beth Giesting, a participating Skill Panel member, as Hawaii's Healthcare Transformation Coordinator. Ms. Giesting's appointment reflects your administration's persistent investment in Hawaii's people. We would like to pledge our continued support in aligning the WDC's work in transforming the future of healthcare in Hawaii with a shared vision as we implement this plan together.

We look forward to your review and feedback.

Regards,



MARIAN TSUJI
WDC Chairperson

Sponsors

- Workforce Development Council
- Department of Labor and Industrial Relations
- Center for Career and Technical Education,
University of Hawai'i
- The Chamber of Commerce of Hawaii
- University of Hawai'i Community Colleges



Special Thanks To

Hawaii Pacific Health, Windward Community College’s Nursing Pathway program, and Hawaii Pacific Basin Area Health Education Center (AHEC) for their guidance and support, and to all the Healthcare Industry Skill Panel members who have worked tirelessly to share innovative ideas and plan solutions to Hawaii’s most difficult healthcare workforce issues. Your support of this effort as well as your dedication to improving the skills of the healthcare workforce and well-being of Hawaii’s people is commendable.

Table of Contents

Letter from the Chair	3
Primary Care Workforce Plan Summary	5
Background	7
Primary Care Definition	9
Labor Market Information and List of High Demand Occupations in Healthcare	10
Most Difficult Occupations to Fill by County and Plans for Improvement	13
• Hawaii County	15
• Maui County	17
• Kauai County	20
• Honolulu County	21
Legislative and Regulatory Barriers to Hiring	24
Statewide Implementation Strategies	30
Healthcare 20/20 Plan: Goals, Strategies, and Action Steps	32
Conclusion	37
Appendices	39



Primary Care Workforce Plan Summary

Executive Summary

Amidst the revolutionary healthcare reform of the Patient Protection and Affordable Care Act (“ACA”), health care delivery in Hawaii must change drastically over the coming decade to meet the huge challenges looming ahead. In response, the workforce must also change to meet extensive future demands. The Governor’s New Day Plan emphasizes the state’s focus on investing in the health of Hawaii’s people. This plan incorporates the New Day vision by encouraging the healthcare workforce to pull together and implement bold, steady change.

In September 2010, the State of Hawaii Workforce Development Council (“WDC”) received a Healthcare Workforce Planning grant from the Health Resources and Services Administration (“HRSA”) to develop broad-based collaboration and leveraging of resources to identify and address the numerous shortages in healthcare occupations in the state. Hawaii was one of 22 states awarded this \$150,000 grant. The WDC, attached to the State Department of Labor and Industrial Relations (“DLIR”), is the lead agency for the grant’s implementation.

The WDC is a private-sector led body responsible for advising the Governor and Legislature on preparing Hawaii’s workforce development infrastructure to support economic development and employment opportunities for all. The WDC is also the statewide Workforce Investment Board for purposes of state-wide oversight and direction of federal job training dollars funded through the Workforce Investment Act (“WIA”) of 1998. Additionally, the WDC assists the Governor and Legislature in developing and updating the state’s comprehensive five-year strategic workforce investment plans and oversees workforce investment activities in the state.

Under the leadership of WDC members representing Hawaii Pacific Health, the Hawaii Primary Care Asso-

ciation, the University of Hawaii Community College System, and the Chamber of Commerce of Hawaii, and in partnership with the John A. Burns School of Medicine’s Area Health Education Center and the State Board for Career and Technical Education, the WDC had already implemented a sector-based approach known as Industry Skill Panels to identify and resolve specific workforce issues for Hawaii’s healthcare industry.

These Skill Panels met in Honolulu to participate in meetings in October and November of 2010. Participants identified current workforce issues and developed strategies to close industry skill gaps. Over 150 stakeholders participated, representing leaders in business, labor, education, workforce and economic development, and other sectors. The Initial Skill Panel report outlining the discussions may be viewed at: http://hawaii.gov/labor/wdc/FINAL%20Printed%20HC%20Report_031011.pdf.

Designed to be action-oriented, the Healthcare Industry Skill Panels had a number of successes, including:

- Conducting a comprehensive hospital survey identifying high-need specialty nursing occupations based on current vacancies and projected retirement rates;
- Gathering employers and educators to leverage resources by creating a uniform statewide curriculum and pilot project to train Critical Care nurses;
- Forming a new Workforce Readiness Panel spearheaded by community colleges to develop a workforce readiness curriculum leading to a certificate recognized by employers statewide; and
- Identifying industry issues leading to the creation of a Healthcare Workforce Improvement Plan with potential implementation grant funds available in 2012.

Information from the original Skill Panel report, quantitative Labor Market Information (“LMI”) data from the Department of Labor and Industrial Relations

Research and Statistics office (“R&S”), as well as hundreds of WDC staff hours gathering additional data and feedback from stakeholders, has led to the development of this plan that will be used by collaborating partners to address identified needs.

The Hawaii/Pacific Basin Area Health Education Center (“AHEC”), housed within the University of Hawaii at Manoa’s John A. Burns School of Medicine (“JABSOM”), was contracted to act as a third party evaluator for planning grant activities, as well as to gain additional information and input from stakeholders to aid in the development of, and stakeholder buy-in for, this industry driven workforce development plan. Meetings were held in all four counties on the islands of Kauai, Hawaii, Oahu, and Maui. Stakeholders representing employers, educators, healthcare professionals, workforce and economic development, and healthcare students attended meetings hosted by AHEC and the WDC in July 2011 in order to give valuable input on the plan draft.

While Skill Panels began as groups focused on specific industry interest areas (Primary Care, Long-Term Care, Technical Disciplines, Nursing, and Workforce Readiness), it is recommended that local Skill Panels be formed in each county to address unique regional issues. It is also recommended that Skill Panels continue to meet regularly via phone or web conferencing, with in-person meetings when possible, and that local staff positions be created to support these meetings and coordinate the implementation of their decisions. Each of these positions will also have a specialty focus on Human Resources, Health IT, Academics (including Facilities and Preceptorships), or Long-Term Care. The plan also addresses the improvement of LMI through the future deployment of more detailed healthcare workforce surveys, the continuous updating of a HawaiiHealthCareers.org website as a recruitment strategy, and the organization of “Aloha Committees” to welcome new primary care professionals—particularly in rural areas—to increase retention.

Goals for the plan are being met through several initiatives. Strategies for the final plan include:



Strategy 1: Create an early warning system for impending workforce shortages.

Strategy 2: Fill gaps in education and training.

Strategy 3: Strengthen the pipeline into health careers.

Strategy 4: Leverage resources to maximize their benefit to the state as a whole.

Funds will be sought to implement strategies outlined in this plan with the overarching goal of increasing the primary care and support healthcare workforce 20% by 2020.

Background

In the 1970s, Hawaii became a leader in healthcare reform when the state was the first in the nation to implement a Prepaid Healthcare Act, which required healthcare coverage for eligible employees working at least 20 hours per week, to ensure healthcare coverage for non-work related illnesses and injury. Over the years, public and private insurance reimbursement procedures have become increasingly more complicated causing changes in workforce requirements and, as the Affordable Care Act (“ACA”) is implemented, the primary care workforce in Hawaii must increase yet again to meet future demands.

Whereas physicians once spent the majority of their time delivering care to patients, a larger percentage of a physician’s time is now devoted to paperwork.

Whereas physicians once spent the majority of their time delivering care to patients, a larger percentage of a physician’s time is now devoted to paperwork. While it was once profitable for physicians to own and operate a successful private practice, physicians are now leaving solo practice for a number of reasons.

While it was once profitable for physicians to own and operate a successful private practice, physicians are now leaving solo practice for a number of reasons, including the higher cost of skilled staff trained in complicated insurance methods, as well as the low reimbursement rates of Medicare and Medicaid, and the prevalence of overly demanding schedules swamped with administrative tasks.

These issues do not only affect physicians. Much of Hawaii’s primary care workforce has been inundated with additional workloads that reduce time for direct patient care. Yet, given the aging of the population as a major factor, the need for primary care in Hawaii continues to grow. Both short-term and long-term employment forecasts for Hawaii indicate healthcare as a steadily growing industry. According to DLIR R&S,

“Personal care and service occupations are expected to lead growth with 20.4 percent” and “healthcare support will expand significantly by 19.0 percent, followed by healthcare practitioners and technical occupations with a 15.0 percent growth.”¹ If the state does not have enough skilled professionals, it can never support and retain an adequate primary care workforce, yet cuts in state and federal funds have reduced public post-secondary educational and training opportunities, and a number of other barriers have led to a shortage of healthcare professionals.

Currently, the State of Hawaii suffers significant, widening health disparities, many of which could be solved by expanding the primary care and support workforce. The indigenous population, rural residents, homeless

families and recent immigrants are the most likely to have unmet health care needs; however, even a well-known politician has reported being unable to find a primary care provider. While there are many organizations working to assess and solve challenges, until

recently there has been no agency taking responsibility for organizing and overseeing a coordinated statewide effort to address the complex issues involved in healthcare workforce planning, especially for primary care and support professions.

There are 28 hospitals in Hawaii, including 14 public-funded hospitals, Tripler Army Medical Center (military), and one rehabilitation facility. Fourteen Community Health Centers (“CHC”) form the backbone of primary care in rural and low-income areas across six islands in Hawaii.

1. Department of Labor and Industrial Relations, Office of Research and Statistics, State of Hawaii. *Employment Projections for Industries and Occupations, 2008-2018*. Comprehensive State Plan for Workforce Development, State of Hawaii, Year 3, April 2011.

The three largest healthcare employers in Hawaii are:

1. Hawaii Pacific Health (four hospitals plus clinics)
Employees: about 5,000
2. Kaiser Permanente (one hospital plus clinics)
Employees: about 4,400
3. Queen's Medical Center (one hospital plus clinics)
Employees: about 3,500

In addition, the State Department of Health contracts with a number of independent rural clinics to provide healthcare services in Medically Underserved Areas (“MUA”).

State Demographics

Geographic Area	Population	%
STATE OF HAWAII	1,360,301	100%
City & County of Honolulu	953,207	70%
Hawaii County	185,079	14%
Maui County (3 islands)	154,834	11%
Kauai County	67,091	5%

The rate of Hawaii’s aging population is also affecting healthcare economics in the state. The University of Hawaii’s Kupuna Education Center notes that

While America is aging, most of us may not be aware that the speed of aging in Hawaii is much faster than the national average. Hawaii’s older adults (60+) are representing an ever-increasing proportion of the total population. Older adults have grown from representing 12% of the population in 1980 to 18% in 2004 and are expected to exceed 25% by 2030. This change will affect businesses, education, health care, government services and recreation services. In comparison, Hawaii’s 60+ population grew twice as fast as the national average over the past decade. Only three or four states have elderly growth rates that exceed that of Hawaii. By 2011, Hawaii’s “baby boomer” population will begin retiring. Are we prepared for the demands on services, for more workers and more training? At the same time,

the aging revolution also suggests opportunities to tap what has been called “America’s fastest growing natural resource.”²

Also,

Hawaii is expected to have the fourth fastest growth rate for the oldest old (those 85 years old and older) [who often require the most medical attention] of all the states, growing by an estimated 155 percent from 2000 to 2035. This compares to the U.S. median growth rate of 66 percent.³

Hawaii must find ways to tap into the talents and experience of older Americans while gearing up the workforce to meet their future medical needs.

While increasing the healthcare workforce to care for older individuals is crucial, the UH Kupuna Education Center’s focus on encouraging fitness for the aging is equally significant. As older adults begin to retire, it is important to encourage their physical, financial, social, and vocational fitness. Older adults who stay involved in their community retain dignity and purpose, improving overall health and adding productive years during their lifespan. Additionally, by training family members to care for loved ones within the home, and moving long-term care towards home-based settings, patients will be more comfortable, and healthcare costs will be significantly reduced. By supporting Hawaii’s Department of Aging’s 5-Year Plan for implementing fully-functioning Aging and Disability Resource Centers (ARDC), Community Living Programs (CLP), and Person-Centered Hospital Discharge Planning (HDP) initiatives, as well as promoting other initiatives that encourage home-based care and improve the overall fitness of older adults, the state can reduce the overwhelming need for healthcare professionals. Overall, a plan to build and support Hawaii’s healthcare workforce while simultaneously reducing the need for healthcare services must be implemented to manage current and future health service demands.

2. The Kupuna Education Center. *The Tsunami of Aging*. <http://kupunaeducation.com/>. Retrieved August 10, 2011.

3. Executive Office on Aging, *Hawaii State Plan on Aging, 2008-2011*, 2008.

Primary Care Definition

For the purposes of this report, “Primary Care” careers include any occupation which provides or supports basic health services. The definition of primary care can be clarified based on the definition of “required primary health services” from section 330(b)(1) of the Public Health Service Act. (Note: for the purposes of this plan, healthcare care services evaluated will also include careers related to mental or eye health, such as psychiatry or optometry.)

Public Health Service Act 330(b)(1)

Required primary health services:

- (A) In general. The term “required primary health services” means—
- (i.) basic health services which, for purposes of this section, shall consist of—
 - (I.) health services related to family medicine, internal medicine, pediatrics, obstetrics, or gynecology that are furnished by physicians and where appropriate, physician assistants, nurse practitioners, and nurse midwives;
 - (II.) diagnostic laboratory and radiologic services;
 - (III.) preventive health services, including—
 - (aa.) prenatal and perinatal services;
 - (bb.) appropriate cancer screening;
 - (cc.) well-child services;
 - (dd.) immunizations against vaccine-preventable diseases;
 - (ee.) screenings for elevated blood lead levels, communicable diseases, and cholesterol;
 - (ff.) pediatric eye, ear, and dental screenings to determine the need for vision and hearing correction and dental care;
 - (gg.) voluntary family planning services; and
 - (hh.) preventive dental services;
 - (IV.) emergency medical services; and
 - (V.) pharmaceutical services as may be appropriate for particular centers;
 - (ii.) referrals to providers of medical services (including specialty referral when medically indicated) and other health-related services (including substance abuse and mental health services);
 - (iii.) patient case management services (including counseling, referral, and follow-up services) and other services designed to assist health center patients in establishing eligibility for and gaining access to Federal, State, and local programs that provide or financially support the provision of medical, social, housing, educational, or other related services;
 - (iv.) services that enable individuals to use the services of the health center (including outreach and transportation services and, if a substantial number of the individuals in the population served by a center are of limited English-speaking ability, the services of appropriate personnel fluent in the language spoken by a predominant number of such individuals); and
 - (v.) education of patients and the general population served by the health center regarding the availability and proper use of health services.



Labor Market Information and List of High Demand Occupations in Healthcare

Labor Market Information (“LMI”) is an important factor in planning for the future workforce needs of the Hawaii healthcare sector. At the Department of Labor and Industrial Relations (“DLIR”), the Research and Statistics Office (“R&S”) produces local market information for supply and demand on an ongoing basis, using methodology from the Bureau of Labor Statistics (“BLS”) at the U.S. Department of Labor. The LMI information is free to the public and available online at <http://www.hiwi.org>.

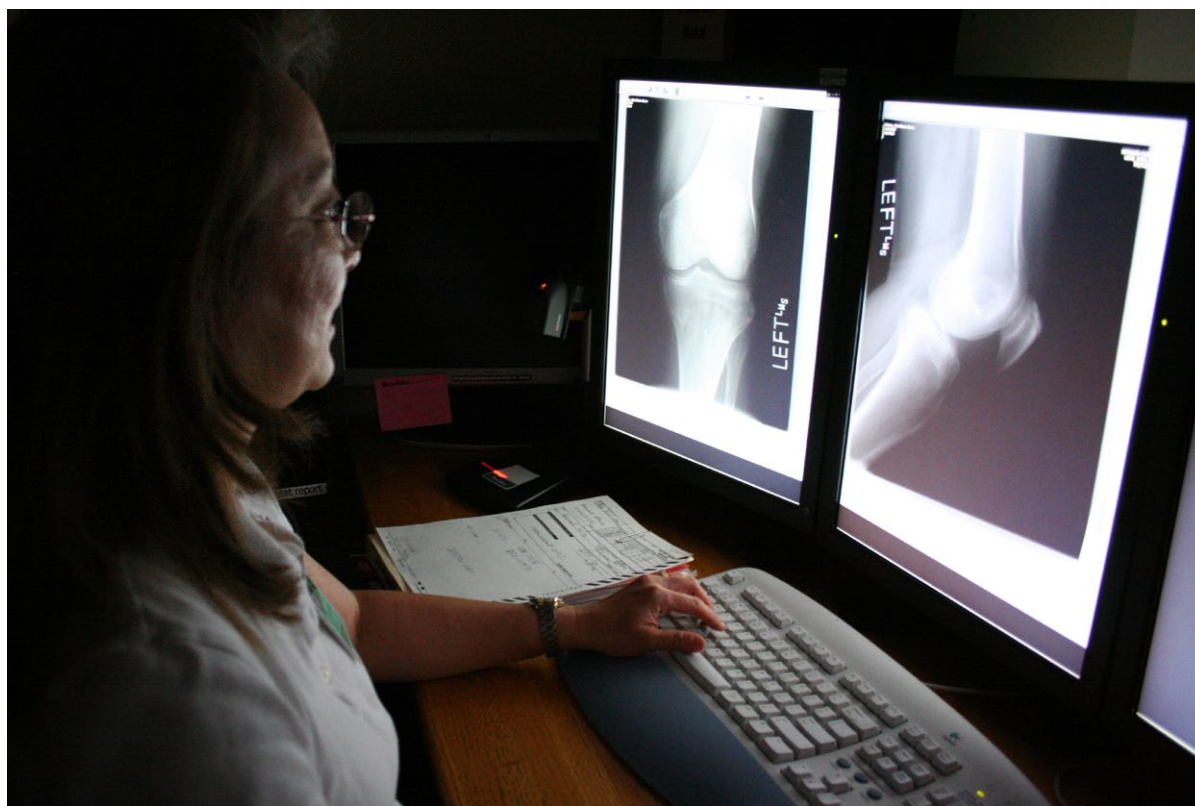
In the Healthcare Workforce Planning Grant (“HWPG”), there is a requirement to include LMI and other sources of supply and demand data to create sustainable and reliable sources of information about healthcare occupations, particularly those in high demand. At the HWPG summit in February 2011, the issue was discussed with an emphasis on implementing a Common Data Set nationwide in order to better determine healthcare demand. This initiative was undertaken to address challenges in the current LMI system, which include:

- A lack of information for specialties in a number of the categories, such as Registered Nurses, Sonographers, and those involved in Long Term Care;
- A lack of demographic data that can inform policy makers of the retirement of healthcare professionals (based on age);
- Data is currently collected using paper surveys issued bi-annually with the Standard Occupational Classification coding system, which may not specifically reflect true healthcare workforce needs, making it difficult for educational institutions to respond to needs; and
- Statewide but not county numbers are provided, which hampers understanding education and training needs in counties and islands other than Oahu (which contains 70% of the state’s population).

Lack of availability of local training offered on a consistent basis (such as training for Diagnostic Medical Sonography) also affects the quality of the LMI information for both short and long term projections. LMI projections performed in a year in which training is offered will undercount future demand for that occupation. In addition, national skill standards from the U.S. Bureau of Labor Statistics sometimes varies from local standards, which causes a variance between the national skill standards published as acceptable for specific healthcare occupations, and the skill standards required by local employers. Research must be done on skill standards and requirements for local employment, and updates must be made to reflect state standards rather than minimum national requirements.

An analysis currently being performed by the University of Hawaii on Hawaii’s Physician shortage has found that more than one-half of doctors licensed in Hawaii do not reside in the state.

Currently DLIR R&S mails an extensive survey to healthcare employers bi-annually to obtain information on local supply and demand; however, these surveys are lengthy and complicated, and often do not yield complete results. R&S has submitted a proposal in anticipation of a healthcare workforce implementation grant to develop a new baseline survey to be sent to over 3,600 businesses classified as “healthcare organizations.” This federally-required survey, which would be in addition to the bi-annual survey sent to selected employers to determine current and future workforce needs, would identify those areas needing further refinement (such as specialty occupations) or to identify changes in occupations and clusters (such as the emerging area of electronic medical records and the resulting occupation classifications). R&S would develop and launch the survey, then analyze the findings to supplement existing BLS survey data. Results from this specialized survey will be incorporated into



a report that identifies the number of unfilled jobs, length of time jobs remained unfilled, occupations for which employers are having difficulty finding suitable workers, and work skills that are lacking in potential employees.

In addition, the WDC and R&S will continue discussions with the Department of Commerce and Consumer Affairs (“DCCA”), Professional and Vocational Licensing Division, and the Hawaii Information Consortium (“HIC”), LLC, to replicate the national Common Data Set within the 20 licensed healthcare occupations in the DCCA system. Currently, only Physicians and Registered Nurses have a demographics survey that captures information such as specialty, responder’s age, and other elements helpful in establishing supply-side information for healthcare planning. In order to meet the criteria being developed for the Common Data Set, however, additional survey questions are needed.

Hawaii’s unique location and thriving tourism industry make it a common target for non-practicing licensure renewals. An analysis currently being performed by the University of Hawaii (“UH”) on Hawaii’s Physician shortage has found that more than one-half of doctors

licensed in Hawaii do not reside in the state. This situation may also apply to other licensed healthcare occupations. Without developing a method to measure the number of licensed healthcare professionals who currently reside and practice in Hawaii, it becomes difficult to gauge current workforce needs. Also, respondent age and practice information can assist in better determining primary care workforce requirements based on anticipated retirements and changes in practice (such as the reduced level of single-physician offices).

Overall, by developing an additional, straightforward survey for licensed healthcare occupations, and by gaining healthcare establishment buy-in to accurately complete these surveys, the state will have a better way of tracking potential workforce shortages and addressing shortcomings, such as developing educational and training programs to meet future needs.

The table on the next page is a list of health occupations in high demand in Hawaii based on advertised and projected job openings, updated in September 2011 and compiled and developed by DLIR R&S. Additional tables with information for each county can be found as appendices in this report.

Health Occupations in High Demand in Hawaii *Based on Advertised & Projected Job Openings*

SOC Occupation Title (Occupations from Skill Panels)	Average Monthly Advertised Openings	Average Annual Projected Openings 2008-2018	National BLS Training Requirement	Local Preferred Qualifications
Registered Nurses [Nurse Practitioner, RN, APRN, Nurse Manager]	1,392	330	Associate Degree	Bachelor's or Master's Degree
Physical Therapists	263	40	Master's Degree	Master's Degree
Nursing Aides, Orderlies, & Attendants [Certified Nurse Asst (CNA), Patient Care Tech (PCT)]	190	170	Postsecondary Vocational Training	150 hours for CNA; additional 5 vocational courses for PCT
Medical Records & Health Information Technicians [Medical Coder]	123	20	Associate Degree	Vocational Certificate or Associate Degree
Pharmacists	117	30	First Professional Degree	Plus 1,500 hours of practical experience
Clinical, Counseling, & School Psychologists	104	40	Doctoral Degree	PhD or DPsych Degree
Medical Assistants	106	90	Moderate-term-on-the-job training	150 hours of vocational and clinical training or OJT
Mental Health & Substance Abuse Social Workers [Community Case Manager]	94	30	Master's Degree	Master's Degree
Family & General Practitioners	55	30	First Professional Degree	Plus Residency (GME)
Data Entry Keyers [Health IT Data Entry]	52	20	Moderate-term-on-the-job training	Work Experience and Medical Terminology
Pharmacy Technicians	42	50	Moderate-term on-the-job training	Moderate-term on-the-job training
Home Health Aides	40	40	Short-term on-the-job training	150 hours of vocational training
Physicians & Surgeons, All Other [Neurologist]	38	30	First Professional Degree	Plus Residency (GME)
Dental Hygienists	25	30	Associate Degree	Bachelor's Degree
Diagnostic Medical Sonographers	24	<10	Associate Degree	Associate Degree
Substance Abuse & Behavioral Disorder Counselors	19	20	Bachelor's Degree	Bachelor's Degree
Physician Assistants	17	10	Master's Degree	Master's Degree
Medical & Public Health Social Workers	11	20	Bachelor's Degree	Bachelor's Degree
Internists, General	11	10	First Professional Degree	Plus Residency (GME)
Billing, Posting, & Calculating Machine Operators [Billing/Reimbursement Personnel]	10	40	Short-term on-the-job training	With ICD-10, Vocational Certificate and OJT
Dentists, General [Pedodontist]	8	20	First Professional Degree	With General Anesthesia Authorization Certificate
Mental Health Counselors	7	10	Master's Degree	Master's Degree
Health Educator [Community Health Worker]	7	10	Bachelor's Degree	5-6 non-credit courses plus OJT
Obstetricians & Gynecologists	4	10	First Professional Degree	Plus Residency (GME)
Statistical Assistants [Health IT Data Analysis]	3	<10	Moderate-term on-the-job training	Vocational Degree or Certificate

Source: Research & Statistics Office, Department of Labor and Industrial Relations, State of Hawaii. Last updated September 2011.

Hawaii's Most Difficult Occupations to Fill by County and Plans for Improvement

This plan is the result of continuing Skill Panel meetings and has had significant stakeholder buy-in from all counties throughout the process. After the initial Skill Panel meetings were held in late 2010, a series of follow-up meetings were held in each county in July 2011. Facilitated by the University of Hawaii's John A. Burns School of Medicine Hawaii/ Pacific Basin Area Health Education Center ("AHEC") and the WDC, these follow-up meetings were meant to continue discussions about Hawaii's healthcare workforce resources and to address healthcare-occupation shortages in each county by refining lists of each county's "Most Difficult Occupations to Fill."

The lists were initially developed during the 2010 meetings and subsequently published in February 2011's Initial Skill Panel Report. The lists were then bolstered by HireNet Hawaii's advertised job counts and DLIR R&S's projected openings data (similar to the more recent table on the previous page).

At the July 2011 meetings, stakeholders from each county were given these lists of healthcare careers and asked to identify the five "most difficult to fill" positions in their respective counties. "Most difficult to fill" was defined as being a high-needs position that takes the most amount of time, funds, and/or effort to place and retain a qualified professional. Though in the February 2011 report these lists were ranked in order of number of projected openings, this survey alphabetized the list in order to produce an unbiased ranking. Participants were also encouraged to write in careers if they did not appear in the list.



The highest ranking careers chosen by individual Skill Panel meetings in each county are identified on the next page; additional special needs mentioned during the discussion of high-demand occupations are also included. Occupations are listed in order of the largest number of stakeholders who identified the occupation as "most difficult to fill." Occupations that received the same number of selections are included together in the results, causing some island lists to be larger than others. Then, following the list, pages 15–23 outline a county-by-county plan for improvement to increase the number of qualified professionals for each identified occupation in the local area.



Hawaii's Most Difficult Occupations to Fill:

Hawaii County

- Physicians
- Medical Assistants
- Certified Nurse Aides
- Coders
- Health Information Technology Experts—entry level, scanning medical records into EHR
- CV techs (Echo tech)
- Speech Pathology

Kauai County

- Radiology Technician
- Ultrasound Technician
- Mental Health and Substance Abuse Social Workers
- Physical Therapists
- Occupational Therapists

Maui County

- Speech-Language Pathologists
- Registered Nurses
- Primary Care Physicians
- Pharmacists
- Occupational Therapists
- Mental Health Counselors
- Dietitians & Nutritionists

Honolulu County

- Primary Care Physicians
- Registered Nurses—especially Critical Care
- Health Information Technology experts
- Physician Assistants
- Cardiovascular Technicians
- Nurse Aides
- Health Educators
- Physical Therapists

Hawaii County's

Most Difficult Occupations to Fill and Plans for Improvement

1. Physicians

Background: Hawaii County has a very high cost of living and a high cost of doing business. Physicians simply cannot earn enough money to support a family's needs or satisfy their expectations coming out of school or residency. Hawaii County also lacks in educational and work opportunities for physician spouses and children. Additionally, the county lacks comprehensive island-wide planning for healthcare needs, resources that focus on physician recruitment and retention, and group medical practices. Without group medical practices and a support workforce (such as Physician Assistants, Nurse Practitioners, and Midwives), physicians find they are overworked, underpaid, and eventually have a full caseload and can no longer accept new patients. Often, Hawaii County residents are then left without a local primary care physician.

Plans for Improvement:

Solution 1: Actively recruit new physicians, while increasing the number of medical students at the University of Hawaii John A. Burns School of Medicine (JABSOM), and provide funding for the University of Hawaii Rural Family Practice Residency Program.

Solution 2: Provide resources to support/maintain the current physician workforce, and especially support developing group practices.

Solution 3: Encourage team-based practices that reduce the work load of existing physicians, and increase the utilization of non-physicians (such as Physician Assistants, Nurse Practitioners, and Midwives). By reducing physician workloads, and opening their practices, income will increase, and physicians will be able to afford to continue practicing in Hawaii County.

2. Certified Medical Assistants

Background: Certified Medical Assistant (CMA) training is not currently offered on the Big Island, despite the fact that Community Health Centers and other primary care providers need more CMAs. A common cause is that in order to save RNs for higher skilled tasks (such as serving complicated patients or completing complicated paperwork required for financial reimbursement), CMAs are needed to provide direct patient care that was once provided by RNs.

Some Medical Office Assistant courses will begin this fall at Hawaii Community College (HCC). While this curriculum will cover some necessary CMA skills, it is not a complete CMA certification.

Another issue is that many potential students interested in being a CMA choose to be a LPN instead, because LPNs take the same amount of time to complete training, yet earn more money.

Plan for Improvement: Since a CMA program is offered at Kapiolani Community College (KCC) on Oahu, HCC could look at ways to partner to offer the full spectrum of CMA training on the Big Island.

3. Certified Nurse Aides

Background: (see p. 26, Barrier #8)

Plans for Improvement:

Solution 1: (see p. 26, Barrier #8 Solutions).

Solution 2: Encourage organizations to partner to offer a program to help CNAs in the third group get their required 24 hours of employment in a federally qualified health center and pay for their certification. More discussion is needed on this.

4. Coders

Due to changing needs in current Health IT, stakeholders could not reach a consensus on possibilities for resolution. The WDC continues to evaluate solutions to issues with this profession.

5. Health Information Technology Experts

Background: The new meaningful use requirements for Electronic Health Records are causing new training needs for Health IT professionals. While the HIT program exists at Hawaii community colleges, employers have not been provided clear programmatic information to help potential participants understand the training outcomes and encourage the best matches for program participants. Additionally, the HIT program focuses equally on healthcare professionals who want to learn IT and IT professionals who want to learn the healthcare system, yet employers on the Big Island have found that healthcare professionals willing to learn IT become better health IT professionals rather than IT professionals trying to learn healthcare, because it is much more difficult to learn the culture and system of healthcare than to learn IT. Also, only one of 48 participants finished the first round of the HIT program, and much of this can be attributed to people not knowing the magnitude and extent of the course length before they start. While the majority of these 48 participants were from Oahu, this training is available online to individuals statewide, and could be more widely accessed if employers were better educated concerning training outcomes and workplace applications.

Plan for Improvement: While it seems to be a much needed program, it should be reconfigured so that people know what they will be training in and so that the training matches the jobs that will be available for them. Also, the program should be delivered in smaller, more specialized pieces. There was a suggestion for the program to change based on feedback on employer needs, but that would require input from the grant awardee as issues could be a result of the scope of work issue or grant requirements set by the funding agency. Additionally, the HIT program needs to be marketed. It

is a grant funded program that is being underutilized, although it is quite relevant and necessary as hospitals and other health providers transition and prepare for full implementation of Electronic Health Records.

6. Cardiovascular/Echo Techs

Background: Most areas on Big Island have only two of these professionals, so when one is off or on leave, there is only one available, yet there is too much work for one person to accomplish. This leads to many patients on Big Island having to stay in the hospital days longer than needed because they are waiting on a Cardio Echo Tech. This wastes staff time, which becomes expensive to hospitals while causing patients an unnecessary expense.

Plan for Improvement: Create a program for doctors to share these professionals within the state or region.

7. Speech Pathologists

Background: Since this educational program is much more difficult than people realize, it is common for those who start not to finish, because they were not prepared for the difficulty of the course-load. In Hawaii, a master's degree is required for this occupation.

Plan for Improvement: The Department of Education should gear youth in public schools toward this career, especially those students in Health Occupations Students of America (HOSA).

Maui County's

Most Difficult Occupations to Fill and Plans for Improvement

1. *Speech Language Pathologists (particularly for age 0-3)*

Background: A Speech Pathology and Audiology program exists at UH Manoa, and at one time the Department of Education paid for students to finish the program; however, the seats never completely filled and that funding has now ended. One issue is that many students shy away from this profession because a master's degree is required yet the pay is not comparable to the extensive amount of educational requirements. While many from the mainland apply for these jobs, applicants quickly turn down job offers when they discover how low the pay is compared to mainland states. Often local jobs end up being filled by out-of-state, young, single adults who are willing to accept the low pay for one or two years in exchange for the Hawaiian lifestyle, yet soon return to the mainland for higher pay and lower cost of living once the "honeymoon" stage has ended. This forces employers to fill these empty positions on a rolling basis with expensive temporary contract workers from staffing agencies (i.e. "flyers") until a full-time replacement may be hired.

Also, on Molokai, there is only one Speech Pathologist, and this person only works with students, so stroke patients do not have a doctor on island. While the ITAAC program produced Aides for this profession, they cannot work with patients unless they are supervised by a Speech Pathology practitioner.

Plans for Improvement:

Solution 1: Have Hawaii's Speech Pathology program added to the WUE/WICHE list so that mainland students will come to Hawaii to take advantage of the in-state tuition, and will then be more likely to stay in the state due to connections within the community made while in school.

Solution 2: Target the second career population who are looking for a career change.

Solution 3: Locally replicate Health Academy in Waianae.

2. *Registered Nurses*

Background: The majority of specialty nurse positions are difficult to fill, such as Advanced Clinical and Academic nursing occupations including Cardio, Telemetry, CCU, OR, OB, ER, and Med-Surg. While specialty nurses can often be trained by their employer, this takes at least six weeks, and in the meantime the position must be filled by expensive "flyers." Additionally, Public Health Nurses are especially hard to fill because their pay is lower, and most nursing schools focus on clinical nursing and therefore do not prepare nurses for this specialty. Currently, DOH is paying for Mental Health Advanced Practice Registered Nurses in child mental health specialties to be flown to different islands as needed because DOH had budget cuts and is no longer training mental health APRNs. While this practice is currently able to fill needs, it may not be sustainable.

Plans for Improvement:

Solution 1: Review Nursing School requirements to see if requirements can be augmented to include a final semester focusing on a specialty, including options like public health or CCU.

Solution 2: Acute Care Facilities should partner with other organizations to provide more personal team-based care. This would allow case managers in hospitals to work in continuum with Public Health RNs and will therefore require fewer RNs. This will also speed up patient discharges, which will reduce the number of readmissions. In the end, this partnership could pay for itself.

3. Primary Care Physicians

Background: The biggest issues in retaining local Physicians are Medicare reimbursement issues, billing changes, increased paperwork requirements, and other regulatory and bureaucratic barriers that make it more difficult for doctors to provide quality patient care and afford to stay in a private practice. Additionally, Hawaii's higher cost of living and housing and the isolation from the mainland play a significant role.

Plans for Improvement:

Solution 1: Assess what will keep doctors here, and create an Aloha Committee to welcome and help situate new Physicians and their families into affordable homes. The Aloha Committee will also promote retention by helping doctors find spousal work opportunities, schools, churches, familiar food items, and get their families involved in the community, etc. Housing subsidies may also be needed.

Solution 2: Since Waianae Coast Comprehensive Health Center has ten Doctor of Osteopathy students every year, Maui could provide some of them with residency opportunities. Local employers should be asked to find out who is willing to take them.

Solution 3: Continue to increase the pipeline of students prepared to enter the medical field by focusing on getting students interested in this field while they are young. Develop more internships, job shadowing, and high school senior projects. Students should also be led on tours of hospitals while they are young. There needs to be more coordination between DOE Pathways and real healthcare workforce settings so that students can witness what real job sites are like; however, high schools will need funding to coordinate this.

Solution 4: Provide free CME opportunities.

4. Pharmacists

Background: Since the program at UH Hilo recently began, we should have enough Pharmacists to fill openings in a couple of years. Eventually these graduates may actually glut the market and have to go to

other states to find jobs. Some current issues include a high need for Clinical Pharmacists such as Oncology Pharmacists, which are at a critical shortage. Currently these specialists must be flown in from Oahu to neighbor islands daily. Also, medication management assistance is needed for the elderly.

Plans for Improvement:

Solution 1: Since it is so difficult to find Clinical Pharmacists, Hawaii needs to have a clinical rotation available for students so they can learn clinical pharmacology skills in a Critical Care and/or Oncology Unit.

Solution 2: Since Medicare now reimburses three to four visits annually for medication management, healthcare professionals should begin to meet with patients on a regular basis to review and discuss current medication and make sure doses are taken accurately.

5. Occupational Therapists

Background: There is no school for this program in Hawaii; however, since we only need a few professionals, we do not need to develop a local training program—this would not be cost effective and could lead to a surplus. Currently some employers fly to the West Coast to recruit from affiliated schools to bring them back to Hawaii; however, this is a very expensive practice.

Plans for Improvement:

Solution 1: Create a program to subsidize or pay local students to go to mainland schools, with a requirement that the students come back to practice in Hawaii.

Solution 2: Recruit students to do their practicum here. While there is no obligation for them to come back, they may be more likely to return due to local connections made during their practicum.

Solution 3: For “small” professions like this, where there may never be training programs in the state and the job openings are historically difficult to fill, it might

be useful to do a detailed analysis to anticipate shortages. For example, if there are five total in a county, two are over the age of 60, and two have expressed an interest in starting a family, contingency plans should be developed and put into effect. Perhaps for these difficult-to-fill “small” professions, there should be ongoing proactive measures, such as directing interested students to do summer externships with willing professionals; if the student expresses an interest in the profession, someone should assist the student in gathering information and applying for training.

6. Mental Health Counselors (especially for Geriatric Psychiatry)

Background: Hawaii now has many programs, including a new master's program, which is helping with the Psychologist shortage, so we now have better pathways that should increase the future workforce. However, there are still other issues causing a shortage.

Plans for Improvement:

Solution 1: Have more practicums available to bring more students here.

Solution 2: Have in-patient training settings, which involve a Physician who would train staff to understand what sets a patient off, etc.

7. Dieticians & Nutritionists

Background: Since this profession requires a master's degree, often these professionals will only stay in Hawaii for one or two years before moving to the mainland, where other states often pay higher salaries. Unfortunately, since their services are not reimbursable by Medicaid or most private insurance plans, their wages cannot be raised to meet the level found with mainland jobs. Because of the low quantity of these professions, Nutrition Aides are often providing nutrition counseling for low to moderate needs, and are trained by local employers using a curriculum acquired from Alaska.

Plan for Improvement: Create a legislative package requesting that Nutrition Services be reimbursable by Medicaid, insurance, etc. (see “Legislative Barriers”).

8. Medical Technologists

Background: Current professionals plan to retire soon. There were no issues filling these positions until UH changed the school. However, UH JABSOM is now offering regular classes in this subject again, so in the future these job openings should not be so difficult to fill. The program of study can be viewed at <http://www.hawaii.edu/medtech/Medtech.html>.

9. Nurse Practitioners (especially for state jobs)

Background: It is especially difficult to recruit and retain Nurse Practitioners for the state, because the salaries are not competitive. Since the positions are classified as “Civil Servants,” their salaries cannot be negotiated; however, it is important to keep Nurse Practitioners working for the state as physician extenders.

Plan for Improvement: Reclassify their job title so that they are “EXEMPT” instead of “Civil Servants.” A title suggestion could be “Public Health Servant.” This would enable them to increase salaries to keep these positions filled.

10. Respiratory Therapist Technicians

Background: Lanai has no Respiratory Therapist Technician to go to houses and make sure oxygen devices are optimally functioning. Currently only the vendors check them, and this is sometimes only on an annual basis. This professional is needed to listen to the lungs, heart, etc. While Lanai used to have a nurse who would do this, she is now retired.

Plan for Improvement: A specified Home Care Doctor, Respiratory Therapist, or Registered Nurse could do a trip there once every three months to make rounds and check on patients.

Kauai County's

Most Difficult Occupations to Fill and Plans for Improvement

1. Radiology Technician

Background: There are a few professionals on the island, but not enough to have a continuous training program.

Plan for Improvement: More training should be available to train locals in this profession—but not too often, or this could cause a surplus.

2. Ultrasound Technician

Background: There are not enough local training opportunities available to recruit and retain these professionals.

Plan for Improvement: A local post-graduation specialization training should be developed, like a residency.

3. Mental Health and Substance Abuse Social Workers

Background: Licensing for both is difficult.

Plan for Improvement: Develop on-island CSAC training and Social Work training.

4. Physical Therapist

Background: Since there are few Physical Therapists on the island, it is difficult to meet needs when even one professional leaves their practice.

Plan for Improvement: An early warning system should be put into place to prepare for potential losses of employees. Currently there is no survey to gain information about retirements or life changes that may cause these professionals to leave their practice. A survey like this should be implemented to provide accurate labor market information and allow for employers to have adequate time to recruit new professionals.

5. Occupational Therapist

Similar solutions were discussed in Maui. See Maui County's discussion of Occupational Therapist.

6. Health IT

Background: A grant through the university is offering Health IT training statewide, but the training provided through the grant requires six months and is too long and detailed to meet the local needs.

Plan for Improvement: Kauai needs more entry-level training, not high-level. People need to be able to scan in documents to electronic health records, so more training should be available for lower-skilled Health IT tasks instead of what is offered by the HIT grant.

Honolulu County's

Most Difficult Occupations to Fill and Plans for Improvement

1. Primary Care Physicians

This issue is discussed in detail in the recent UH Hawaii Physician Workforce Report. No new comments were offered at the July meeting. The WDC continues to evaluate potential resolutions.

are expensive, and every time one of Hawaii's youth goes out of state for Nursing education and training, they are less likely to return. Additionally, Registered Nurses from the mainland often lack cultural competencies needed to serve Hawaii's diverse population.

Plans for Improvement:

Solution 1: Since so many Nursing programs are full and have to turn away qualified applicants, this may be an opportunity to interest those who are turned away in other high-needs health careers, and offer them counseling on how to attain new career goals. This will keep our local students in Hawaii to study health careers which will support the Nursing workforce. Later, if turnover becomes high, healthcare professionals that were initially turned away from Nursing school could then enter.

Solution 2: Continue developing the Critical Care Nursing Specialty curriculum and pilot program. If this program proves successful, seek funding to implement the program statewide and encourage the development of additional pilots for other high-need Nursing specialties.

2. Registered Nurses (specialties such as Critical Care)

Background: Career opportunities for Nurses have widened, with over 200 careers in Nursing, so that most Nurses stay Nurses and have multiple professional careers. Nursing schools are full and have a waiting list to get into, yet there is a massive shortage of RN specialties, especially in the areas of Peri-operative, ER, Neonatal, ICU, and CCU. Oahu's capacity for training advanced practice Nurses is limited and Nurse Managers are in high need. Additionally, while turnover is low right now, this may change when the economy improves. Furthermore, a Geriatric Nursing specialty is needed due to our increasing aging population. The state needs to focus on training our own specialty Nurses. Temporary Nurses through staffing agencies



Windward Community College Nursing Pathway Program 2011 Annual Report to the Community. This program is an excellent best practice of how Nurse Aides can exhibit leadership in their community and take responsibility to build their own Pathway Out of Poverty eventually becoming excellent LPNs and RNs.

Solution 3: Culturally competent educational programs should be developed statewide, such as Windward Community College's Nursing Pathway Program, which helps lift locals out of poverty and into high-skilled, high-wage Nursing positions by moving them up the Nursing career ladder and simultaneously encouraging leadership, responsibility, and culturally competent care to address the needs of Hawaii's aging and diverse populations.

3. Health Information Technology Experts

Background: With the Affordable Care Act steadily being implemented, healthcare organizations most need people who can code for billing purposes, and who also know compliance rules. Currently, employers can train HIT experts on the job, but since a supervisory level for HIT requires a bachelor's degree in HIT, they do not have anyone with the qualifications to supervise the new employees to get started.

Plan for Improvement: Educate employers about the HIT grant, which focuses on training five different types of professionals (incumbent workers). Also, encourage closer collaboration between the HIT grant and employers to better meet the needs of the community. More information is available at http://continuinged.kcc.hawaii.edu/index.php?option=com_content&view=article&id=1291:health-information-technology-hit-program&catid=31:general.

4. Physician Assistants and Nurse Practitioners

Background: In Hawaii, both of these professions have less autonomy to write prescriptions than they do in other mainland states. This prevents professionals from wanting to practice in Hawaii because they cannot use the full extent of their training. Also, some legislation has been changed, so we need to evaluate whether PAs or NPs could optimize their skills in Hawaii's current regulatory structure before focusing support on one or the other. Also, there are attitudinal barriers preventing maximum use of NPs and PAs.

Plans for Improvement:

Solution 1: Legislation should be passed so that both PAs and NPs have the same prescriptive authority as parallel professionals have in the majority of other states.

Solution 2: Create synergistic medical teams. Since NPs and PAs do not have the same autonomy to write prescriptions in Hawaii as in other mainland states (i.e., they cannot prescribe opiates), and attitudinal barriers often exist, Hawaii healthcare professionals need training in working as a healthcare team. An example of a potential healthcare provider team that Hawaii may want to model from is used at Kaiser Permanente in California.

5. Cardiovascular Technicians

Background: There is currently no training for this occupation in the state. This is because only a small number are needed in the state. Also, it is difficult to fill a classroom, since the training for this position is extensive, requiring 1,700+ hours of training. Most of the existing professionals have been around a long time and are very experienced, and unfortunately they are very difficult to replace when they leave because replacements take a great deal of time to train.

Plans for Improvement:

Solution 1: The Queens Medical Center recruits for these positions from mainland schools and often finds local Hawaiians to bring back, which increases the occupation's retention rate. Other employers may want to look into sharing recruitment costs to recruit mainland school students from Hawaii back to the state and then share the applicants.

Solution 2: Focus on getting kids interested in multiple health careers while they are young, including Cardiovascular Technicians. Develop more internships, job shadowing, and high school senior projects. Students should also be led on tours of hospitals while they are young. There needs to be more coordination between DOE Pathways and real healthcare workforce settings so that students can witness what real job sites are like; however, high schools will need funding to coordinate this.

6. Nurse Aides

Background: Many new Registered Nurse grads are filling Nurse Aide positions, so new Nurse Aides often cannot get jobs until the bottleneck is reduced. Nurse Aides are not only filling jobs in long-term care, but also in hospitals, primary care offices, and other healthcare centers, and employers often prefer Nurse Aides to be certified to prove they have a basic level of competency. Since employers often prefer Certified Nurse Aides (CNAs) over Nurse Aides, CNAs need to be redefined to increase access to recertification. Also, there is no standard for testing and no uniformity of training options for CNAs, and most job openings require one year of experience, so new Nurse Aides often cannot get a starting job to gain that experience.

Plans for Improvement:

Solution 1: CNAs interested in recertification should check job descriptions where they apply to work so they can be in the units that require and qualify for recertification.

Solution 2: Support legislation to redefine CNAs, or change licensure recertification requirements to be based upon competency rather than employment (See “Legislative Barriers”).

7. Health Educators

Background: The title of this profession is confusing in nature. Many Skill Panel members were unsure whether this meant teachers in health profession-related education or training, or health educators that serve the community.

- Teachers in Health Profession-Related Education or Training: the restrictions for teaching are sometimes overly restrictive. For instance, a person who has been a CNA for 20 years will not qualify to teach CNA classes without a higher level degree. When there are no qualified teachers for classes, these health occupation classes are often discontinued, yet there are many experienced professionals willing to apply.

- Health Educators: there are no regulated requirements to call oneself a Health Educator. A person with a GED and a person with a master's degree in Health Education could be earning the same salary. This reduces the incentive for Health Educators to pursue higher education and causes strong attitudinal barriers between those with higher-level skills and lower-level skills.

Plans for Improvement:

Solution 1: Teachers in Health Profession-Related Education or Training: Qualifications for teachers should be revisited to include exceptional professionals with experience in the field of study.

Solution 2: Health Educators: Health Educators should earn their certification to stand out, and employers should make the certification a preference when reviewing Health Educator applicants.

8. Physical Therapists

Background: There is currently no school for this in Hawaii, but WICHE and WUE programs exist for students to train in mainland schools. However, it is common for students to stay in the mainland to practice once they have completed their education, since there they will earn higher pay.

Plans for Improvement:

Solution 1: Develop incentives and find ways to send locals to the mainland to get training and then recruit them back to Hawaii.

Solution 2: Have internships, grants, and programs to encourage more students to move here for their clinical. Once they build local connections, they may be encouraged to stay.

Solution 3: Develop more programs that provide scholarships or loan repayment for practitioners who choose to practice in Hawaii, and make it a stipulation that they must pay the full amount back if they decide not to practice in Hawaii after all.

Legislative and Regulatory Barriers to Hiring

The complicated laws and regulations imposed on healthcare practitioners have both positive and negative effects. Often laws and regulations are instituted to provide individuals with better quality care; however,

Some laws and regulations have become barriers to a healthy workforce, and are reducing the number of qualified professionals willing to work in the state.

some laws and regulations in Hawaii far exceed those of other states and restrict practitioners from using the full extent of their education and scope of practice. This causes the opposite of the desired effect. Some laws and regulations have become barriers to a healthy workforce, and are reducing the number of qualified professionals willing to work in the state, and therefore are reducing access to quality healthcare for Hawaii residents.

Barriers were gathered from stakeholders over a six-month period and represent over 100 hours of WDC staff time coordinating and gathering information. Ideas were combined into a single document and sent to stakeholders for review in August. Later, the WDC invited over 150 stakeholders to attend teleconferences to comment and negotiate on this list.

This plan encourages the annual analysis of legislative and regulatory barriers. Before each legislative session, Skill Panels should be consulted to identify and prioritize legislative and regulatory barriers based on their importance in increasing the supply of high-need healthcare professionals. Barriers with high priority should be reviewed further and compared with the legislation of other states; after, additional stakeholder input should be gained to create and submit an official legislative agenda. Each agenda should also identify constituents able to testify on behalf of the measures.

This plan also encourages the analysis of laws that have been passed previously to ensure implementation. Since this has been an issue in the past, such as the

lack of implementation of the law requiring the licensing of Dental Hygienists through the Department of Commerce and Consumer Affairs, it is important to continuously follow up, even after helpful legislation is passed, to ensure timely implementation.

While not exhaustive, the following list outlines legislative and regulatory barriers that are currently affecting Hawaii's healthcare workforce, then offers solutions to those barriers as suggested by healthcare stakeholders.



Barrier #1

Many policymakers in state government often have very little knowledge of what healthcare workers are trained to do. Historically, they often restrict practice or preclude implementation of new laws to allow for further research.

Plans to Resolve:

Solution 1: Conduct seminars for policymakers to provide uniform education on healthcare in general and also specifically on the education and training of nurses and other disciplines, which may help to facilitate decisions on workforce issues and implementation

of new laws, and could also be offered as credit for lawyers' continuing education requirements.

Solution 2: Compile an information packet on pertinent healthcare issues to distribute to policymakers to make it more accessible for those who cannot attend seminars.

Barrier #2

With conflicting state and federal laws, Hawaii measures become law without adequate research on conflicting federal laws. Conflicting federal laws supersede state laws and, in turn, render the new law moot. It can also place practitioners in a libelous situation.

Plan to Resolve: More research on conflicts with federal laws prior to state measures being brought to legislation. Request for the legislature to direct the legislative auditor to study conflicting federal laws prior to passing a state law.

Barrier #3

Prescriptive Rx restrictions for Medical Psychologists are impeding the delivery of mental health services to the population of lower-needs mental health patients in medically underserved areas. There are strong interests against providing Rx authority for Psychologists, even though medically underserved areas are extremely short of psychiatric coverage.

Plans to Resolve:

Solution 1: Give prescriptive authority to specially trained psychologists working in medically underserved areas, which may include federally qualified health centers (FQHCs) and rural health clinics such as Hilo's Bay Clinic.

Solution 2: Allow doctoral level Psychologists with advanced training in psychopharmacology to prescribe within their scope of practice.

Solution 3: It was noted that electronic medical records and tele-health may be potential solutions for these

prescriptive issues as well. While one concern is that drug seekers will "doctor shop" until they gain multiple prescriptions of their desired drug of choice, the use of technology to share prescription information through extensive sharing of Electronic Medical Records will soon be implemented to avoid this complication. In addition, other forms of technology could be employed to meet needs in rural areas, such as tele-health, wherein doctors with prescriptive authority could prescribe needed psychiatric medicines to patients in rural areas via tele-health technologies, such as videophones.

Barrier #4

Restricted privilege for Dental Hygienists to do their work under direct dental supervision is resulting in excessive costs for preventative dental care. This requirement exceeds those of many other states.

Plan to Resolve: Change the scope of practice to allow Dental Hygienists to work under general rather than direct supervision by a dentist. This change should also include educational settings in order to make education for Dental Hygienists more cost-effective as well.

Barrier #5

Failure to provide structure for licensing. Licensure laws and regulations for certain health occupations have been passed by the legislature, but the state has not established licensing authority or finalized processes. Additionally, coordinating licensure with other states may increase the number of professionals willing to work in Hawaii.

Plans to Resolve:

Solution 1: Provide adequate systems for implementing new laws and set a priority for high-need health occupations.

Solution 2: The Continuing Education Joint Advisory Committee (CEJAC), established by the Hawaii State Legislature (SCR 167) in 2010 and charged to examine whether continuing education should be a requirement for continued licensure, could also be utilized to deter-

mine how new licensure laws should be implemented once they have passed the legislature.

Solution 3: Coordinate research and sign on to the Nurse Licensure Compact, which allows a nurse with a license in one state to practice in other states, subject to each state's practice law or regulation.

Barrier #6

Scope-of-practice barriers for Advanced Practice Registered Nurses (APRNs) do not allow those nurses to practice to the full extent of their education and training.

Plans to Resolve:

Solution 1: Establish licensing authority for APRN's expanded scope of practice (ACT 169).

Solution 2: Reform scope-of-practice regulations to conform to the National Council of State Boards of Nursing Model Nursing Practice Act and Model Nursing Administrative Rules (Article XVIII, Chapter 18).

Solution 3: Require third-party payers that participate in fee-for-service payment arrangements to provide direct reimbursement to Advanced Practice Registered Nurses who are participating within their scope of practice under state law.

Barrier #7

Certified Nurse Aide (CNA) testing requirements, the availability of testing sites on neighbor islands, and inadequate test preparation materials are impeding the ability of some Nurse Aides to get certified. American Red Cross (the only CNA tester in Hawaii) uses only one testing method (manual) for measuring blood pressure. As a result, the fail rate due to inaccurate blood pressure measure is unnecessarily high because blood pressure measures can be subjective and testing is done in a way that is not aligned with current practices. In addition, there is limited CNA testing on the neighbor islands and test preparation material is not sufficiently updated and disseminated to CNA trainers.

Plans to Resolve:

Solution 1: American Red Cross should use alternative testing measures for testing blood pressure, such as an automated arm.

Solution 2: American Red Cross should increase the availability of testing on the neighbor islands.

Solution 3: American Red Cross should provide adequate and updated test prep materials to CNA training providers.

Barrier #8

CNA recertification requirements are impeding the ability of some CNAs to get recertified and continue providing care using best practices, which will in turn ensure the safety of older adults and adults with disabilities. The state's current recertification requirements for CNAs who work in Medicare/Medicaid-certified nursing facilities (Group 1) does not ensure that CNAs are keeping up with best practices, because continuing education (or NATCEP) is not needed. CNA or Nurse Aides working in other settings (Group 3) are providing similar care as CNAs in Medicare/Medicaid or State-certified settings (Groups 1 & 2), but do not have the same oversight and safety assessments. Group 2, CNAs working in State-certified/licensed healthcare settings, is the only group that is required to do continuing education or NATCEP testing in order to retain certification.

Plans to Resolve:

Solution 1: Adopt a new definition for CNAs that includes those CNAs who are working in other settings outside of Medicare/Medicaid-certified nursing facilities or State-certified/licensed healthcare settings (Group 3).

Solution 2: Revisit the 2007 legislative audit report and its recommendation for the state to regulate all Nurse Aides and shift the emphasis of regulation "on their competency and not their employment" (Sunrise Analysis: Nurse Aides, Report No. 07-06, April 2007).



Solution 3: It was noted that potential national legislation is being written now to create a national Direct Care Giver curriculum and certification. This could solve the issue for identifying a definition for Group 3; however, if this federal legislation passes, a state agency would still need to be established as overseer of this group.

Barrier #9

The state currently does not recognize any of the national work readiness certifications, and despite some efforts, has not been able to identify which credential would be the best certification to adopt. Because it has not been viewed as a need in Hawaii's public education system, this has contributed to a labor force that is lacking in work readiness regardless of education level or industry.

Plans to Resolve:

Solution 1: Employers should buy in and recognize the value of work readiness certifications by listing it as a preferred qualification when hiring new employees and/or requiring new employees to be trained in work readiness upon hiring.

Solution 2: Educators should have a work readiness curriculum available for students to receive credentialing (Windward Community College is currently running a pilot program).

Solution 3: Educators should create a work readiness program available for employers to send workers and new hires to receive training and/or credentialing (Windward Community College is currently developing an employer package).

Solution 4: One national certification, either the Work Readiness Credential (WRC) or the National Career Readiness Certificate (CRC), should be adopted as Hawaii's statewide recognized credential for work readiness.

Barrier #10

There is a disincentive for medical students to go into family practice and primary care. Medical students are graduating with exorbitant debts from personal and student loans due to the high cost of medical school. These debts are a financial stress for medical school graduates when transitioning from school to the healthcare workforce and graduates are economically motivated to choose higher paying jobs, which are generally not in family practice or primary care. According to the American Medical Association, the average debt of a medical student upon graduation is \$157,944.

Plans to Resolve:

Solution 1: Create state-sponsored incentives, such as loan forgiveness, loan repayment, and scholarship programs.

Solution 2: Lowered tuition costs or loan repayment programs for students entering primary care and family practice upon graduation, with required service in underserved areas for a specified length of time.

Solution 3: State tax deductions for loan interest.

Solution 4: The state should seek out federal matching dollars for the state's loan forgiveness and repayment programs.

Solution 5: Support increased primary care residencies in shortage areas. See Hilo's Rural Family Practice Residency Program at <http://hilomedicalcenterfoundation.com/press-releases/fund-aids-residency-program>.

Barrier #11

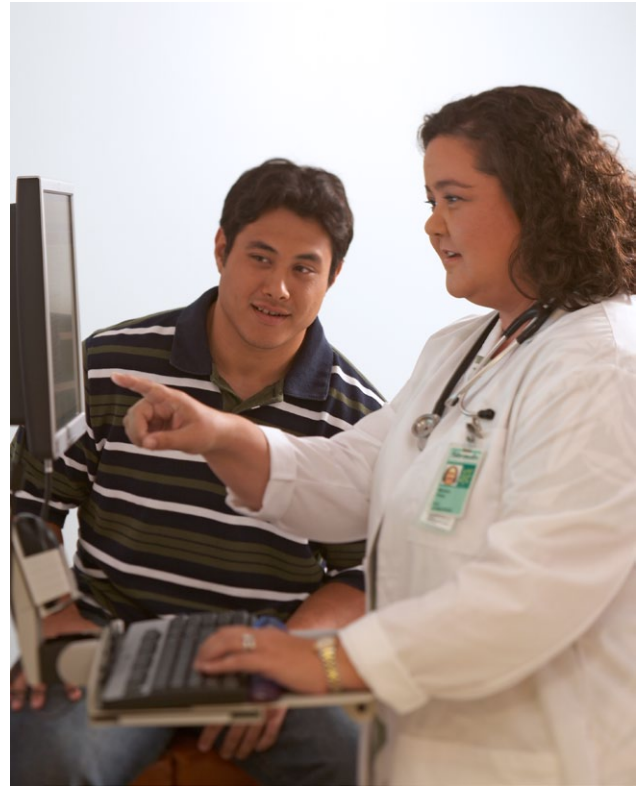
There is a lack of state definitions for rural/frontier designations. When no state definition exists, the federal definition is used. The Rural Assistance Center notes that “there are three government agencies whose definitions of what is rural are in wide use: the U.S. Census Bureau, the Office of Management and Budget, and the Economic Research Service of the U.S. Department of Agriculture (USDA).” The federal government recently migrated from zip codes to Census Tracts. The definition of a Frontier Medical Service Study Area is an MSSA with a population density of less than 11 persons per square mile.

In some cases, the federal definition does not take into account certain geographic factors and characteristics that would define an area as non-rural, thus placing the area into the urban or metro category. For example, under the U.S. Census Bureau's definition, Hilo proper is not considered rural. This is an important issue for unlocking federal programs and funding to assist underserved areas, like Hilo, where there is a critical shortage of primary care and other physicians. The federal designation also prevents Hilo from being qualified to apply for a number of rural health grants (where a state definition might prevail). Hawaii County has looked into the situation but so far no action has been taken.

Plans to Resolve:

Solution 1: Create a definition for “rural” that is recognized and used statewide.

Solution 2: Once a state definition for “rural” is created, a rural differential for provider reimbursement or other rural tax credits/breaks and other state sponsored rural mandates can move forward. There might also be advantages for a “frontier” designation such as that recently developed by California.



Barrier #12

Current restrictions on Physician Assistants (PAs) in HAR Title 16, Chapter 85, which include:

1. The requirement that every chart be reviewed by the supervising Physician within 7 days is burdensome and time-consuming for supervising Physicians, detracting from their time spent in care of more complex patients, and is difficult in rural areas where PAs practice at clinics that are remote from the supervising Physician.
2. Restriction on the number of PAs supervised at any one time is unnecessary and is limiting the potential number of providers available.
3. Restriction on prescribing Schedule II drugs limits the ability of PAs to prescribe Schedule II medications, which are the current standard of care in the treatment of chronic pain. This is a barrier to the adequate treatment of chronic pain in rural areas where the supervising Physician is not always present.

Plan to Resolve: Support and endorse revisions to HAR Title 16, Chapter 85, as proposed by HAPA and AAPA to the Physician Assistant Advisory Committee after review, revisions and approval by the Physician Assistant Advisory Committee which will include:

- a. Chart-review requirements and the number of PAs supervised need to be specific to the practice. There should be no co-signature requirement or restriction on the number of PAs supervised. These are to be determined by the Physician and based on the nature of the practice, the experience and skills of those supervised, and the standard of care in the community.
- b. Physicians should be able to delegate the ability for PAs to write prescriptions for Schedule II drugs as per the Physician/PA practice agreement specific to the practice. Thirty-five states allow PAs to prescribe Schedule II drugs. This is the standard of care for chronic pain patients.

Barrier #13

Dietitians and Nutritionists earn relatively low wages. Since these occupations require a master's degree, often these professionals will only stay in Hawaii for one or two years before moving to the mainland, where other states often pay higher salaries. Unfortunately, since Dietician and Nutritionist services are not reimbursable by Medicaid or most private insurance plans, their wages cannot be raised to meet the level found with mainland jobs. Because of the low quantity of these professions in Hawaii, Nutrition Aides are often providing nutrition counseling for low to moderate needs, and are trained by local employers using a curriculum acquired from Alaska.

Plan to Resolve: Create a legislative package requesting Nutrition Services be reimbursable by Medicaid and private insurers.

Statewide Implementation Strategies

Originally, Skill Panels were formed based on interest groups, with stakeholders from all counties coming to Oahu to participate in discussions on specific topics; however, by traveling to each county for additional feedback on the final plan, it became evident that the state's counties are highly diverse and each has unique healthcare workforce resources, issues, and needs that must be addressed individually. While some issues are statewide, and a central organization like the Workforce Development Council is needed to make legislative recommendations, many issues have local causes and solutions. A statewide early warning system must be developed to gather relevant local information affecting the workforce. In order to address this issue, a

of need. Then these specialists, known as Healthcare Workforce Coordinators ("HWC") will continue local Skill Panel meetings, as well as coordinate statewide activities in their specialization and provide relevant workforce information to improve labor market information on a real-time basis. These coordinators will also host segments of online "gatekeeper" courses statewide. These gatekeeper courses will be offered online by community colleges as a way to help potential students interested in health careers to understand the requirements of and gain a current outlook for the various health careers in Hawaii, so that they can make more informed decisions about which careers will best suit them while considering the career's future outlook.

The state's counties are highly diverse and each has unique healthcare workforce resources, issues, and needs that must be addressed individually. While some issues are statewide, and a central organization is needed to make legislative recommendations, many issues have local causes and solutions.

draft of this comprehensive plan was developed based on information from early Skill Panel meetings. This draft was then discussed at the July Skill Panel meetings, where input was gathered from stakeholders to develop the final 2020 plan.

The plan calls for the creation of county-wide Healthcare Workforce Skill Panels with local support staff who have specialized duties. It was recognized that a local staff person is needed to continue support and coordination of Skill Panel meetings, yet that this local person would be highly unlikely to have expertise in all the needed areas of Human Resources, Academics (including Facilities and Preceptors), Long-Term Care, and IT. Since expertise in these four areas is key to coordinating workforce development activities of the future, it was suggested at the July meetings that mini-grants be offered to organizations statewide to hire experts specializing in one of these specific areas

At least one HWC will be located in each county. The positions will be based on winners of state RFPs, with specific job descriptions recommended by a local steering committee. The committee will consist of at least one representative from the following

areas: public and private educational institutions, public and private healthcare employers' human resources, workforce development, Primary Care, Long-Term Care, IT, Nursing, and Allied Health. The committee will choose the strongest proposals and make decisions for housing the HWCs, and will schedule occasional travel to other islands to ensure all community needs are being met on a regular basis. The committee will decide on the number of positions needed based on funding availability; however, it is recommended that at least one staff member be placed in each county, with two placed in Oahu, pending availability of funds. These individuals will also represent at least:

- one full-time employee with a Human Resources focus (or two, pending funding availability)
- one full-time employee with an Academic focus
- one full-time employee with a Long-Term Care focus
- one full-time employee with a Health IT focus

Human Resources Focus

This individual should have a strong Human Resources background, and will be responsible for collaborating with healthcare employers to establish current and future workforce needs and encourage collaboration between employers to leverage resources and cut costs for developing programs to meet those needs. This individual will also coordinate closely with the Academic focus staff member to ensure academic programs are employer-driven.

Academic Focus

This individual should have a strong Academics background with connections in Hawaii's mainstream educational system, and will be responsible for encouraging collaboration between academic programs to meet the academic needs of the state, including assisting with the coordination of facilities and preceptorships needed. This individual will also coordinate closely with the Human Resources focus staff member(s) to ensure academic programs are employer-driven and workforce needs are met. It is recommended this person be housed at Kapi'olani Community College, which offers several Health Career Programs that meet the requirements of the respective national and state accreditation bodies. As part of the UH system, Kapi'olani is in the best position to lead the Academics focus for all Health Career Programs (with the exception of the Nursing consortium agreement).

In addition, this position would play a key role in promoting the proposal that students across the UHCC system would have access to all Health Career Programs via online and/or PolyCom in a hybrid telecourse. In this proposal, students would attend the clinical components on their "home" island through a preceptor component and the didactic portion of their courses through any UH campus or computer with internet access. This individual would be needed to help coordinate training of the preceptors and evaluation of clinical site needs with the current Health Career Program Directors at Kapi'olani Community College for the UHCC system, who would make the assessments by identifying the training of the preceptors and needs at clinical sites on each island.

Long-Term Care Focus

This individual should have a strong background in Long-Term Care with connections in the Long-Term Care community. With Hawaii's growing aging population and ever increasing need for Long-Term Care professionals, this individual will be responsible for coordinating to address Long-Term Care issues. The field of Long-Term Care is frequently changing, and with changes brought on by the Affordable Care Act, the future of Long-Term Care's current practices are uncertain. Therefore, this individual is needed to collaborate with stakeholders to fill Long-Term Care workforce gaps and coordinate the resolution of issues involving Long-Term Care professionals, such as the numerous issues surrounding CNAs.

Health IT Focus

This individual should have a strong Health IT focus, and will be responsible for gathering the Chief Information Officers of major healthcare employers into a Health IT Skill Panel to provide information on current HIT needs and coordinate to fill HIT training gaps. Kapi'olani Community College is currently proposing an Associates of Science Degree in Health Information Technology as well as the curriculum to meet the national certificates in Health Information Technology. The degree and certificates would be offered system-wide and will meet the national accrediting board's standards. If approved, the faculty member responsible for the program would be an excellent candidate to lead this focus.

These HWCs will meet together on a regular basis via phone to discuss local needs and specialty area accomplishments. Overall, these individuals will strive to coordinate workforce needs in their local county through Skill Panels, and coordinate statewide efforts in their specialty focus area. Once hired, the HWCs will develop an implementation timeline with projected outcomes to increase the healthcare workforce by 20% by 2020 for each of the following statewide benchmarks:

Healthcare 20/20 Plan: Goals, Strategies, and Action Steps

THE GOAL: Increase the primary care and support healthcare workforce 20% by 2020.

Strategy #1: Create an early warning system for impending workforce shortages.

Action Steps	Monitoring Evidence/ Data Sources	Person(s)/Group(s) Responsible	Resources Needed
Improve Labor Market Information Data (see further details in "List of High Demand Occupations in Healthcare" section)	LMI reports/ stakeholder feedback	DLIR staff	Funding, staff time.
Hire Health Workforce Coordinators (HWC) in each county to assess workforce needs and coordinate collaborative efforts.	HWC Quarterly Reports	WDC	Funding.
Hold local Skill Panel meetings with workforce surveys quarterly to assess unmet demand and workforce issues.	HWC Quarterly Reports	HWCs	Funding, staff time.
Create a system where institutions can report workforce needs (including required skills lacking in workforce) quickly and efficiently.	HWC Quarterly Reports	DLIR staff	Funding, staff time.
Compare results with HRSA projections of demand.	HRSA Projections	DLIR Staff, AHEC	Funding, staff time.
Coordinate with health professions boards to implement voluntary surveys assessing work hours, location, and specialty.	HWC Quarterly Reports	HWC, DLIR staff, DCCA	Funding, staff time.
Create and maintain database with all healthcare worker locations of practice and FTE similar to UH JABSOM's physician shortage report.	Future AHEC Database	AHEC	Funding and existing AHEC resources.
Maintain a database of training programs and track numbers of trained completers.	Career Kokua, Future Database.	DLIR staff	Funding, staff time.
Identify appropriate metrics and required HR input to provide enough lead time to train individuals for future workforce needs.	LMI reports/ stakeholder feedback	HWCs, WDC, DLIR R&S, Skill Panels and healthcare stakeholders	Funding and leveraging of existing DLIR resources.
Develop a survey system to obtain data from provider organizations.	LMI reports/ stakeholder feedback	HWCs, WDC, DLIR R&S, Skill Panels and healthcare stakeholders	Funding and leveraging of existing DLIR staff time and resources.



Strategy #1 *continued*

Action Steps	Monitoring Evidence/ Data Sources	Person(s)/Group(s) Responsible	Resources Needed
Develop a reporting system to warn industry of future demands with identified triggers.	HWC Quarterly Reports/ LMI reports/ stakeholder feedback	HWCs, WDC, DLIR R&S, Skill Panels and healthcare stakeholders	Funding and leveraging of existing DLIR staff time and resources.
Create a quarterly analysis of potential impending shortages and workforce needs.	LMI reports/ Future databases	HWCs, WDC, DLIR R&S, Educators, Skill Panels and healthcare stakeholders	Funding, leveraging of existing DLIR resources, and implementation of Hawaii Health Careers website.
As triggers are reached, address impending shortages locally during quarterly Skill Panel meeting.	Future Quarterly Analysis	HWCs, WDC, Skill Panels, healthcare experts	HWCs, Funding.
Gather additional information as needed and develop specialized ad hoc action plans to reduce shortages.	TBD	HWCs, WDC, Skill Panels, healthcare experts	HWCs, Funding.
Coordinate implementation of each specialized ad hoc action plan to resolve problem within specified timeframe.	Future Ad Hoc Action Plans	HWCs, Skill Panels, healthcare experts	HWCs, Funding, additional resources as needed.
Create a comprehensive, supportive and resource rich web based compilation of healthcare resources for training and recruitment to health careers in Hawaii.	Career Kokua, Stakeholder Input, Healthcare Asset Map data, etc.	WDC staff, Skill Panels, healthcare experts	DLIR staff time, and extended HRSA grant funding.

Strategy #2: Fill gaps in education and training.

Action Steps	Monitoring Evidence/ Data Sources	Person(s)/Group(s) Responsible	Resources Needed
Meet with college educators twice a year to understand changes in programming.	Recent Educational Course Catalogues	DLIR staff	Funding.
Analyze the gap between training offered and current/future workforce needs on a quarterly basis.	Career Kokua, Course Catalogues, updated LMI data, HWC reports	DLIR staff	Funding.
Support employer-driven curriculum that fills workforce gaps, such as the Critical Care pilot coordinated by the Nursing Skill Panel.	Stakeholder input, Course Catalogues, Workforce Gap Analysis	HWCs, DLIR staff	HWCs, Funding.
Coordinate the creation or expansion of necessary training programs to needed areas.	Stakeholder input, Course Catalogues, Workforce Gap Analysis	HWCs, WDC, Educators, Skill Panels and healthcare stakeholders	HWCs, Funding.
Share resources on training opportunities throughout the state.	Stakeholder input, Future Hawaii Health Career website	HWCs, WDC, Educators, Skill Panels and healthcare stakeholders	HWCs, HawaiiHealthCareer.org website.
Coordinate partnering with mainland training programs as needed to provide local educational experiences.	Stakeholder input, Course Catalogues, Workforce Gap Analysis	HWCs, WDC, Educators, and healthcare stakeholders	HWCs, Funding.
Develop tele-health programs to better equip rural, medically underserved areas with the tools needed to meet growing healthcare needs.	Workforce Gap Analysis, Stakeholder input	HWCs, Skill Panels, healthcare stakeholders	Funding.
Encourage the creation of select high needs educational and training programs that do not currently exist within the state, such as Diagnostic Medical Sonography, Physician Assistant, and Physical Therapy programs.	Workforce Gap Analysis, Stakeholder input	HWCs, healthcare stakeholders, educators	Community support, Funding.
Provide support services and scholarships for individuals interested in pursuing education in high need healthcare occupations with low statewide demand for which education is only available in others states, yet for which creating a local program would be cost prohibitive, such as Optometrists and Occupational Therapists.	Workforce Gap Analysis, Stakeholder input	DLIR staff, educators	Funding.

Strategy #3: Strengthen the pipeline into health careers.

Action Steps	Monitoring Evidence/ Data Sources	Person(s)/Group(s) Responsible	Resources Needed
Create a comprehensive website listing educational and pipeline resources with local testimonials resembling myfirstday.org.	Career Kokua, Stakeholder Input, Healthcare Asset Map data, etc.	WDC, DLIR staff	HawaiiHealthCareers.org website, staff time, leveraged WDC resources.
Consistently update comprehensive website listing education and pipeline resources.	Stakeholder input	HWCs, Skill Panels, healthcare stakeholders	HWCs, HawaiiHealthCareers.org website, Funding.
Hold statewide conference/s to compile and disseminate pipeline resources for addition to website.	Stakeholder input	WDC, AHEC	Funding.
Maintain health careers pipeline task force to discuss ideas and implement collaborative ideas.	Stakeholder input	WDC, AHEC	Funding.
Encourage local students to take part in health career activities such as HOSA, health fairs, career fairs, etc.	HWC reports	HWCs	Funding.
Promote close collaboration with DOE Health Services Career Pathway program.	HWC reports	WDC, HWCs, AHEC	Staff time.
Provide job readiness training for high school students and those returning to the workforce.	Work Readiness Pilot project report	DOE, other academic institutions	Community buy-in, funding.
Promote the adoption of a statewide job readiness certification and encourage the further development and adoption of the UH's Job Readiness curriculum with customizable add-ons for employers, such as "caring for aging adults" and "cultural competencies"	HWC reports	UH, HWCs, WDC, Skill Panels, stakeholders	Staff time.
Support and emulate holistic pathway programs that foster work readiness skills and encourage the climbing of career ladders leading to self sufficient careers, such as Windward Community College's CNA-LPN-RN Nursing Pathway out of Poverty program.	Nursing Pathway annual reports and additional reports on successful programs	HWCs, WDC, DLIR, Educators	Funding, leveraged partnerships.
Re-credential the University of Hawaii's teaching program for the Health Services Pathway high school instructors and expand the program to at least half of public high schools in the state by the year 2020.	UH CTE data and reports	DOE, other academic institutions	Staff time & buy-in from credentialing authority.
Clarify pathways to climb health career ladders to ensure transparency for potential students.	National Bureau of Labor Statistics and stakeholder input	HWCs and WDC with guidance from educators and stakeholders	Staff time.
Assess local hiring incentives and coordinate with government agencies to improve hiring incentives.	DLIR Asset Map	HWCs	Funding.
Create and coordinate Aloha Committees to welcome interviewees and new hires for necessary rural primary care positions.	TBD.	HWCs, local Skill Panels	Funding.

Strategy #3 *continued*

Action Steps	Monitoring Evidence/ Data Sources	Person(s)/Group(s) Responsible	Resources Needed
Outreach and provide long-term follow-up for primary care professionals interested in working in Hawaii's rural areas as indicated by 3RNet (the National Rural Recruitment and Retention Network) and the National Health Service Corps (NHSC) with data provided by the Department of Health's Primary Care Office.	3RNet data	HWCs, rural stakeholders	Funding.
Maintain contact with Hawaii high school grads studying primary care on the mainland to recruit them home after graduation.	TBD	HWCs	Funding.
Create a road show and marketing materials to exhibit at national conferences with a slogan like "Live the dream, practice in Hawaii."	HWC reports	HWCs, WDC	Funding.

Strategy #4: Leverage resources to maximize their benefit to the state as a whole.

Action Steps	Monitoring Evidence/ Data Sources	Person(s)/Group(s) Responsible	Resources Needed
As needs are identified, seek alternative funding sources such as interested stakeholders and private and federal grants.	Grants.gov, grant listservs, HWCs	WDC, interested stakeholders	Staff time.
Encourage statewide movement toward a "medical team" approach to healthcare by encouraging the physicians to form "integrated medical teams" which share administrative costs.	HWC reports	HWCs, Healthcare and government stakeholders	Community buy-in.
Encourage statewide movement toward simultaneous education and training of professionals who will likely work as a team in the workforce (i.e.. Physicians with Physician Assistants and Nurses).	Stakeholder input, HWC reports	Educators, Healthcare and government stakeholders	Community buy-in.
Create local and statewide networks for quickly disseminating healthcare workforce information to employers, educators, and professionals.	HWC reports	HWCs, WDC	Staff time.
Collaborate with the Office on Aging and ADRCs to provide guidance in retaining older workers and create mentoring opportunities for retired health professionals to mentor interested youth.	Department of Aging reports, HWC reports	HWCs, WDC, Office on Aging, ADRC	Staff time.
Promote initiatives that encourage home-based care and improve the overall fitness of older adults, such as supporting the Hawaii Department of Aging's 5-year plan for implementing fully functioning ADRCs, Community Living Programs, and Person Centered Hospital Discharge Planning initiatives.	Department of Aging reports, HWC reports	HWCs, healthcare stakeholders, WDC, Office on Aging, ADRC	Staff time.
Led by healthcare stakeholders, create an annual legislative agenda concentrating on easing licensure and practice barriers which unnecessarily restrict the practice of qualified professionals.	Stakeholder input, Legislative data	Interested stakeholders, WDC, HWCs	Stakeholder support, staff time.

Conclusion

While each strategy in this action plan is an important component for bringing about positive change, none of these changes will produce the workforce needed to completely meet Hawaii's healthcare needs without legislative and administrative changes that encourage more healthcare professionals to work in the state. Therefore, the legislative and regulatory barriers included in this plan—as well as any future barriers—must be examined, and the resolution plans provided herein by healthcare stakeholders should be given consideration. Legislators are encouraged to review legislative barriers along with this action plan to support necessary changes.

Fortunately, the Honorable Governor Neil Abercrombie has shown tremendous support for healthcare reform and shares many of the same beliefs as Hawaii's healthcare stakeholders, as evident in his healthcare manifesto from the New Day Plan entitled *Healthcare for Everyone in Hawaii*. With continuous government and stakeholder support, the implementation of this plan will provide ways to analyze Hawaii's healthcare industry workforce with the major outcome of increasing the primary care and support healthcare workforce 20% by 2020.

Appendices

Local Knowledge of Healthcare Workforce Resources	40
--------------------------------------------------------------------	-----------

Occupations Ranked by Projected Job Openings, 2008–2018

State of Hawaii	42
Honolulu MSA	44
Hawaii County	46
Maui County	48
Kauai County	50

Health Occupations in High Demand in Hawaii

Based on Advertised & Projected Job Openings	52
-------------------------------------------------------------------	-----------

Advertised Healthcare Jobs, 2008–2011

State of Hawaii	54
Honolulu MSA	56
Hawaii County	58
Maui County	60
Kauai County	62

Hawaii’s Department of Labor and Industrial Relations Healthcare-

Related Workforce Development Programs and Funding Sources	64
---------------------------------------------------------------------------	-----------

Hawaii’s Healthcare-Related Public Workforce Development

Programs, Earmark and Alternative Funding Sources, 2011	65
--------------------------------------------------------------------------	-----------

Hawaii’s Healthcare-Related Scholarships and

Funded Education and Training Programs, 2011	68
---------------------------------------------------------------	-----------

Hawaii’s Healthcare-Related Academic Support

and Pipeline Programs, 2011	70
----------------------------------------------	-----------

Hawaii’s Public Post-Secondary Institutions with Healthcare-Related Education and Training Programs

Funded by the Department of Education, 2011	74
--------------------------------------------------------------	-----------

Hawaii’s Private Post-Secondary Institutions with Healthcare-

Related Education and Training Programs, 2011	76
----------------------------------------------------------------	-----------

Local Knowledge of Healthcare Workforce Resources *Pre- and Post- Survey Results, July 2011*

In July 2011, Skill Panel meetings were held in each of Hawaii's four counties and included pre- and post-meeting surveys concerning stakeholder knowledge of community resources for healthcare workforce education and training. The pre- and post-meeting surveys were completed by a total of 83 stakeholders representing each county. The first section of the surveys concerned the attendee's knowledge of three community resources—the WDC, One-Stop Centers, and HireNet Hawaii—as these are the areas targeted for community training.

Stakeholders were asked, “How familiar are you with each of the following agencies/organizations?” The survey then listed the following:

- Q1: Workforce Development Council
- Q2: One-Stop Centers
- Q3: HireNet Hawaii

The assessment tool utilized was a Likert scale with the following values:

- 1: Never heard of it
- 2: Heard of, but don't really know what they do
- 3: Have an idea what they do
- 4: I can describe one thing they do
- 5: I can describe 3 things they do in my community
- 6: I know a great deal about this organization.

Pre-meeting results were as follows:

County	Q1: WDC	Q2: One-Stop	Q3: HireNet	Avg.
Honolulu (Oahu)	3.9	3.2	3.1	3.4
Maui	3.5	3.5	3.1	3.4
Hawaii (Big Isle)	4.1	3.8	3.1	3.7
Kauai	4.1	4.4	4.1	4.2

After a one-hour educational session at each meeting, the collective total of 83 participants in the four meetings showed a consistent increase in knowledge that ranged from 28% to 47% in the different counties. Oahu showed an overall 47.6% increase in knowledge, Maui demonstrated an overall 46.5% increase in knowledge, Big Island showed an overall 36.5% increase in knowledge and Kauai attendees demonstrated an overall 28.1% increase in knowledge. Altogether, the four counties showed a 43.4% increase in knowledge subsequent to the presentation.

Post-meeting results and knowledge increases can be found in the chart on the next page.

See page 13

Local Knowledge of Healthcare Workforce Resources *Pre- and Post- Survey Results, July 2011*

Area	Pre- Survey Average Scores	Post- Survey Average Scores	Score Difference	Increase in Knowledge	% Increase in Knowledge
Oahu Q1	3.86	5.04	+1.18	0.31	30.5%
Oahu Q2	3.16	4.92	+1.76	0.56	55.7%
Oahu Q3	3.12	5.00	+1.88	0.60	60.4%
Oahu total	3.38	4.99	+1.61	0.48	47.6%
Maui Q1	3.50	4.90	+1.40	0.40	40.0%
Maui Q2	3.50	4.70	+1.20	0.34	34.3%
Maui Q3	3.10	5.20	+2.10	0.68	67.7%
Maui total	3.37	4.93	+1.57	0.47	46.5%
Big Island Q1	4.06	4.93	+0.87	0.21	21.4%
Big Island Q2	3.75	5.13	+1.38	0.37	36.9%
Big Island Q3	3.25	5.13	+1.88	0.58	57.9%
Big Island total	3.69	5.03	+1.35	0.36	36.5%
Kauai Q1	4.14	5.14	+1.00	0.24	24.1%
Kauai Q2	4.43	5.43	+1.00	0.23	22.6%
Kauai Q3	4.14	5.71	+1.57	0.38	37.9%
Kauai total	4.24	5.43	+1.19	0.28	28.1%
Average Q1	3.88	5.00	+1.12	0.29	28.8%
Average Q2	3.45	5.00	+1.55	0.45	45.0%
Average Q3	3.24	5.16	+1.92	0.59	59.3%
Average total	3.52	5.05	+1.53	0.43	43.4%

Occupations Ranked by Projected Job Openings, 2008–2018, State of Hawaii

SOC Code/Occupation Title		Healthcare Occupations (from Skill Panels)	Avg. Annual Openings Due to...		
			Growth	Replacement	Total
29-1111	Registered Nurses	Nurse Practitioner, RN, APRN, Nurse Manager	170	160	330
31-1012	Nursing Aides, Orderlies, and Attendants	Certified Nurse Asst (CNA), Patient Care Tech. (PCT)	120	50	170
31-9092	Medical Assistants	Medical Assistants	60	30	90
29-2061	Licensed Practical and Licensed Vocational Nurses		30	50	70
31-9091	Dental Assistants		30	30	60
29-2052	Pharmacy Technicians	Pharmacy Technicians	30	20	50
19-3031	Clinical, Counseling, and School Psychologists	Psychologists	10	30	40
29-1123	Physical Therapists	Physical Therapists	30	10	40
31-1011	Home Health Aides	Home Health Aides	40	10	40
43-3021	Billing and Posting Clerks and Machine Operators	Billing/Reimbursement Personnel	10	30	40
11-9111	Medical and Health Services Managers		10	20	30
21-1023	Mental Health and Substance Abuse Social Workers	Community Case Manager	10	20	30
29-1051	Pharmacists	Pharmacists	10	20	30
29-1062	Family and General Practitioners	Family and General Medicine	10	20	30
29-1069	Physicians and Surgeons, All Other	Neurologist	10	20	30
29-2012	Medical and Clinical Laboratory Technicians		10	20	30
29-2021	Dental Hygienists	Dental Hygienists	10	20	30
31-9099	Healthcare Support Workers, All Other		10	20	30
21-1011	Substance Abuse and Behavioral Disorder Counselors	Substance Abuse Counselors	10	10	20
21-1022	Medical and Public Health Social Workers	Social Worker	10	10	20
29-1021	Dentists, General	Pedodontist	<10	20	20
29-1041	Optometrists		<10	10	20
29-1126	Respiratory Therapists		10	10	20
29-2011	Medical and Clinical Laboratory Technologists		10	10	20
29-2034	Radiologic Technologists and Technicians		10	10	20
29-2071	Medical Records and Health Information Technicians	Medical Coder	10	10	20
31-9011	Massage Therapists		10	20	20
43-9021	Data Entry Keyers	Health IT Data Entry	0	20	20
19-3039	Psychologists, All Other		0	10	10
21-1014	Mental Health Counselors	Mental Health Counselor	10	<10	10
21-1091	Health Educators	Community Health worker	10	10	10
29-1031	Dietitians and Nutritionists		<10	10	10
29-1061	Anesthesiologists		<10	10	10
29-1063	Internists, General	Internal Medicine	<10	10	10

Table continues next page

Occupations Ranked by Projected Job Openings, 2008–2018, State of Hawaii *continued*

SOC Code/Occupation Title		Healthcare Occupations (from Skill Panels)	Avg. Annual Openings Due to...		
			Growth	Replacement	Total
29-1064	Obstetricians and Gynecologists	Obstetricians and Gynecologists	<10	<10	10
29-1067	Surgeons		<10	10	10
29-1071	Physician Assistants	Physician Assistants	10	10	10
29-1122	Occupational Therapists		<10	10	10
29-1125	Recreational Therapists		<10	<10	10
29-1127	Speech-Language Pathologists		<10	10	10
29-1199	Health Diagnosing and Treating Practitioners, All Other		<10	<10	10
29-2041	Emergency Medical Technicians and Paramedics		0	10	10
29-2055	Surgical Technologists		<10	10	10
29-2099	Health Technologists and Technicians, All Other		<10	10	10
29-9091	Athletic Trainers		<10	<10	10
29-9099	Healthcare Practitioners and Technical Workers, All Other		<10	<10	10
31-1013	Psychiatric Aides		10	10	10
31-2021	Physical Therapist Assistants		10	<10	10
31-9093	Medical Equipment Preparers		<10	<10	10
21-1013	Marriage & Family Therapists		0	<10	<10
25-1071	Health Specialties Teachers, Postsecondary		<10	<10	<10
25-1072	Nursing Instructors and Teachers, Postsecondary		<10	<10	<10
29-1011	Chiropractors		<10	<10	<10
29-1029	Dentists, All Other Specialists		<10	<10	<10
29-1065	Pediatricians, General		<10	<10	<10
29-1066	Psychiatrists		<10	<10	<10
29-1129	Therapists, All Other		<10	<10	<10
29-2031	Cardiovascular Technologists and Technicians		<10	<10	<10
29-2032	Diagnostic Medical Sonographers	Diagnostic Medical Sonographers	<10	<10	<10
29-2033	Nuclear Medicine Technologists		<10	<10	<10
29-2051	Dietetic Technicians		<10	<10	<10
29-2081	Opticians, Dispensing		<10	<10	<10
31-2022	Physical Therapist Aides		<10	<10	<10
31-9094	Medical Transcriptionists		<10	<10	<10
31-9095	Pharmacy Aides		0	<10	<10
43-9111	Statistical Assistants	Health IT Data Analysis	0	<10	<10
31-2011	Occupational Therapist Assistants		*	*	*
31-2012	Occupational Therapist Aides		*	*	*

* No data available

Occupations Ranked by Projected Job Openings, 2008–2018, Honolulu County

SOC Code/Occupation Title		Healthcare Occupations (from Skill Panels)	Avg. Annual Openings Due to...		
			Growth	Replacement	Total
29-1111	Registered Nurses	Nurse Practitioner, RN, APRN, Nurse Manager	120	120	240
31-1012	Nursing Aides, Orderlies, and Attendants	Certified Nurse Asst (CNA), Patient Care Tech. (PCT)	80	40	120
31-9092	Medical Assistants	Medical Assistants	40	30	70
29-2061	Licensed Practical and Licensed Vocational Nurses		20	30	50
31-9091	Dental Assistants		20	20	40
43-3021	Billing and Posting Clerks and Machine Operators	Billing/Reimbursement Personnel	10	30	40
11-9111	Medical and Health Services Managers		10	20	30
19-3031	Clinical, Counseling, and School Psychologists	Psychologists	<10	30	30
29-1051	Pharmacists	Pharmacists	10	20	30
29-1123	Physical Therapists	Physical Therapists	20	10	30
29-2052	Pharmacy Technicians	Pharmacy Technicians	20	20	30
21-1022	Medical and Public Health Social Workers	Social Worker	10	10	20
21-1023	Mental Health and Substance Abuse Social Workers	Community Case Manager	10	20	20
29-1062	Family and General Practitioners	Family and General Medicine	10	10	20
29-1069	Physicians and Surgeons, All Other	Neurologist	10	20	20
29-1126	Respiratory Therapists		10	10	20
29-2011	Medical and Clinical Laboratory Technologists		10	10	20
29-2012	Medical and Clinical Laboratory Technicians		10	10	20
29-2021	Dental Hygienists	Dental Hygienists	10	10	20
29-2071	Medical Records and Health Information Technicians	Medical Coder	10	10	20
31-9099	Healthcare Support Workers, All Other		10	10	20
43-9021	Data Entry Keyers	Health IT Data Entry	0	20	20
21-1011	Substance Abuse and Behavioral Disorder Counselors	Substance Abuse Counselors	<10	10	10
21-1014	Mental Health Counselors	Mental Health Counselor	10	<10	10
21-1091	Health Educators	Community Health worker	<10	10	10
29-1021	Dentists, General	Pedodontist	0	10	10
29-1031	Dietitians and Nutritionists		<10	10	10
29-1041	Optometrists		<10	10	10
29-1061	Anesthesiologists		<10	10	10
29-1063	Internists, General	Internal Medicine	<10	10	10
29-1064	Obstetricians and Gynecologists	Obstetricians and Gynecologists	<10	<10	10
29-1067	Surgeons		<10	10	10
29-1071	Physician Assistants	Physician Assistants	10	<10	10
29-1122	Occupational Therapists		<10	<10	10

Table continues next page

Occupations Ranked by Projected Job Openings, 2008–2018, Honolulu County *continued*

SOC Code/Occupation Title		Healthcare Occupations (from Skill Panels)	Avg. Annual Openings Due to...		
			Growth	Replacement	Total
29-1127	Speech-Language Pathologists		<10	10	10
29-2034	Radiologic Technologists and Technicians		10	10	10
29-2041	Emergency Medical Technicians and Paramedics		0	10	10
29-2055	Surgical Technologists		<10	10	10
29-2099	Health Technologists and Technicians, All Other		<10	10	10
29-9091	Athletic Trainers		<10	<10	10
31-2021	Physical Therapist Assistants		10	<10	10
31-9011	Massage Therapists		10	10	10
29-1011	Chiropractors		<10	<10	<10
29-1029	Dentists, All Other Specialists		<10	<10	<10
29-1065	Pediatricians, General		<10	<10	<10
29-1066	Psychiatrists		<10	<10	<10
29-1125	Recreational Therapists		<10	<10	<10
29-1129	Therapists, All Other		<10	<10	<10
29-1199	Health Diagnosing and Treating Practitioners, All Other		<10	<10	<10
29-2031	Cardiovascular Technologists and Technicians		<10	<10	<10
29-2032	Diagnostic Medical Sonographers	Diagnostic Medical Sonographers	<10	<10	<10
29-2033	Nuclear Medicine Technologists		<10	<10	<10
29-2051	Dietetic Technicians		<10	<10	<10
29-2081	Opticians, Dispensing		<10	<10	<10
31-2022	Physical Therapist Aides		<10	<10	<10
31-9093	Medical Equipment Preparers		<10	<10	<10
31-9094	Medical Transcriptionists		<10	<10	<10
31-9095	Pharmacy Aides		0	<10	<10
43-9111	Statistical Assistants	Health IT Data Analysis	0	<10	<10
19-3039	Psychologists, All Other		*	*	*
25-1071	Health Specialties Teachers, Postsecondary		*	*	*
25-1072	Nursing Instructors and Teachers, Postsecondary		*	*	*
29-9099	Healthcare Practitioners and Technical Workers, All Other		*	*	*
31-1011	Home Health Aides	Home Health Aides	*	*	*
31-1013	Psychiatric Aides		*	*	*
31-2011	Occupational Therapist Assistants		*	*	*
31-2012	Occupational Therapist Aides		*	*	*

* No data available

Occupations Ranked by Projected Job Openings, 2008–2018, Hawaii County

SOC Code/Occupation Title		Healthcare Occupations (from Skill Panels)	Avg. Annual Openings Due to...		
			Growth	Replacement	Total
29-1111	Registered Nurses	Nurse Practitioner, RN, APRN, Nurse Manager	30	20	50
21-1022	Medical and Public Health Social Workers	Social Worker	<10	<10	10
29-1021	Dentists, General	Pedodontist	<10	<10	10
29-1051	Pharmacists	Pharmacists	<10	<10	10
29-1062	Family and General Practitioners	Family and General Medicine	10	<10	10
29-1123	Physical Therapists	Physical Therapists	<10	<10	10
29-2052	Pharmacy Technicians	Pharmacy Technicians	<10	<10	10
29-2061	Licensed Practical and Licensed Vocational Nurses		<10	10	10
31-9011	Massage Therapists		<10	<10	10
31-9091	Dental Assistants		10	<10	10
31-9092	Medical Assistants	Medical Assistants	10	<10	10
11-9111	Medical and Health Services Managers		<10	<10	<10
19-3031	Clinical, Counseling, and School Psychologists	Psychologists	<10	<10	<10
21-1011	Substance Abuse and Behavioral Disorder Counselors	Substance Abuse Counselors	<10	0	<10
21-1091	Health Educators	Community Health worker	<10	<10	<10
29-1011	Chiropractors		<10	<10	<10
29-1122	Occupational Therapists		<10	<10	<10
29-1127	Speech-Language Pathologists		<10	<10	<10
29-2071	Medical Records and Health Information Technicians	Medical Coder	<10	<10	<10
43-3021	Billing and Posting Clerks and Machine Operators	Billing/Reimbursement Personnel	<10	<10	<10
19-3039	Psychologists, All Other		*	*	*
21-1014	Mental Health Counselors	Mental Health Counselor	*	*	*
21-1023	Mental Health and Substance Abuse Social Workers	Community Case Manager	*	*	*
25-1071	Health Specialties Teachers, Postsecondary		*	*	*
25-1072	Nursing Instructors and Teachers, Postsecondary		*	*	*
29-1029	Dentists, All Other Specialists		*	*	*
29-1031	Dietitians and Nutritionists		*	*	*
29-1041	Optometrists		*	*	*
29-1061	Anesthesiologists		*	*	*
29-1063	Internists, General	Internal Medicine	*	*	*
29-1064	Obstetricians and Gynecologists	Obstetricians and Gynecologists	*	*	*
29-1065	Pediatricians, General		*	*	*
29-1066	Psychiatrists		*	*	*
29-1067	Surgeons		*	*	*
29-1069	Physicians and Surgeons, All Other	Neurologist	*	*	*

Table continues next page

Occupations Ranked by Projected Job Openings, 2008–2018, Hawaii County *continued*

SOC Code/Occupation Title	Healthcare Occupations (from Skill Panels)	Avg. Annual Openings Due to...		
		Growth	Replacement	Total
29-1071 Physician Assistants	Physician Assistants	*	*	*
29-1125 Recreational Therapists		*	*	*
29-1126 Respiratory Therapists		*	*	*
29-1129 Therapists, All Other		*	*	*
29-1199 Health Diagnosing and Treating Practitioners, All Other		*	*	*
29-2011 Medical and Clinical Laboratory Technologists		*	*	*
29-2012 Medical and Clinical Laboratory Technicians		*	*	*
29-2021 Dental Hygienists	Dental Hygienists	*	*	*
29-2031 Cardiovascular Technologists and Technicians		*	*	*
29-2032 Diagnostic Medical Sonographers	Diagnostic Medical Sonographers	*	*	*
29-2033 Nuclear Medicine Technologists		*	*	*
29-2034 Radiologic Technologists and Technicians		*	*	*
29-2041 Emergency Medical Technicians and Paramedics		*	*	*
29-2051 Dietetic Technicians		*	*	*
29-2055 Surgical Technologists		*	*	*
29-2081 Opticians, Dispensing		*	*	*
29-2099 Health Technologists and Technicians, All Other		*	*	*
29-9091 Athletic Trainers		*	*	*
29-9099 Healthcare Practitioners and Technical Workers, All Other		*	*	*
31-1011 Home Health Aides	Home Health Aides	*	*	*
31-1012 Nursing Aides, Orderlies, and Attendants	Certified Nurse Asst (CNA), Patient Care Tech. (PCT)	*	*	*
31-1013 Psychiatric Aides		*	*	*
31-2011 Occupational Therapist Assistants		*	*	*
31-2012 Occupational Therapist Aides		*	*	*
31-2021 Physical Therapist Assistants		*	*	*
31-2022 Physical Therapist Aides		*	*	*
31-9093 Medical Equipment Preparers		*	*	*
31-9094 Medical Transcriptionists		*	*	*
31-9095 Pharmacy Aides		*	*	*
31-9099 Healthcare Support Workers, All Other		*	*	*
43-9021 Data Entry Keyers	Health IT Data Entry	*	*	*
43-9111 Statistical Assistants	Health IT Data Analysis	*	*	*

* No data available

Occupations Ranked by Projected Job Openings, 2008–2018, Maui County

SOC Code/Occupation Title		Healthcare Occupations (from Skill Panels)	Avg. Annual Openings Due to...		
			Growth	Replacement	Total
29-1111	Registered Nurses	Nurse Practitioner, RN, APRN, Nurse Manager	20	10	30
31-1012	Nursing Aides, Orderlies, and Attendants	Certified Nurse Asst (CNA), Patient Care Tech. (PCT)	10	10	20
21-1011	Substance Abuse and Behavioral Disorder Counselors	Substance Abuse Counselors	<10	<10	10
29-2012	Medical and Clinical Laboratory Technicians		<10	<10	10
29-2052	Pharmacy Technicians	Pharmacy Technicians	<10	<10	10
29-2061	Licensed Practical and Licensed Vocational Nurses		<10	10	10
31-9091	Dental Assistants		<10	<10	10
31-9092	Medical Assistants	Medical Assistants	<10	<10	10
43-3021	Billing and Posting Clerks and Machine Operators	Billing/Reimbursement Personnel	<10	<10	10
19-3031	Clinical, Counseling, and School Psychologists	Psychologists	<10	<10	<10
21-1023	Mental Health and Substance Abuse Social Workers	Community Case Manager	<10	<10	<10
29-1031	Dietitians and Nutritionists		0	<10	<10
29-1051	Pharmacists	Pharmacists	<10	<10	<10
29-1063	Internists, General	Internal Medicine	<10	<10	<10
29-1069	Physicians and Surgeons, All Other	Neurologist	<10	<10	<10
29-2011	Medical and Clinical Laboratory Technologists		<10	<10	<10
29-2021	Dental Hygienists	Dental Hygienists	<10	<10	<10
29-2034	Radiologic Technologists and Technicians		<10	<10	<10
29-2071	Medical Records and Health Information Technicians	Medical Coder	<10	<10	<10
31-9011	Massage Therapists		0	<10	<10
31-9094	Medical Transcriptionists		<10	0	<10
31-9099	Healthcare Support Workers, All Other		<10	<10	<10
29-2032	Diagnostic Medical Sonographers	Diagnostic Medical Sonographers	0	0	0
11-9111	Medical and Health Services Managers		*	*	*
19-3039	Psychologists, All Other		*	*	*
21-1014	Mental Health Counselors	Mental Health Counselor	*	*	*
21-1022	Medical and Public Health Social Workers	Social Worker	*	*	*
21-1091	Health Educators	Community Health worker	*	*	*
25-1071	Health Specialties Teachers, Postsecondary		*	*	*
25-1072	Nursing Instructors and Teachers, Postsecondary		*	*	*
29-1011	Chiropractors		*	*	*
29-1021	Dentists, General	Pedodontist	*	*	*
29-1029	Dentists, All Other Specialists		*	*	*
29-1041	Optometrists		*	*	*

Table continues next page

Occupations Ranked by Projected Job Openings, 2008–2018, Maui County *continued*

SOC Code/Occupation Title	Healthcare Occupations (from Skill Panels)	Avg. Annual Openings Due to...		
		Growth	Replacement	Total
29-1061	Anesthesiologists	*	*	*
29-1062	Family and General Practitioners	*	*	*
29-1064	Obstetricians and Gynecologists	*	*	*
29-1065	Pediatricians, General	*	*	*
29-1066	Psychiatrists	*	*	*
29-1067	Surgeons	*	*	*
29-1071	Physician Assistants	*	*	*
29-1122	Occupational Therapists	*	*	*
29-1123	Physical Therapists	*	*	*
29-1125	Recreational Therapists	*	*	*
29-1126	Respiratory Therapists	*	*	*
29-1127	Speech-Language Pathologists	*	*	*
29-1129	Therapists, All Other	*	*	*
29-1199	Health Diagnosing and Treating Practitioners, All Other	*	*	*
29-2031	Cardiovascular Technologists and Technicians	*	*	*
29-2033	Nuclear Medicine Technologists	*	*	*
29-2041	Emergency Medical Technicians and Paramedics	*	*	*
29-2051	Dietetic Technicians	*	*	*
29-2055	Surgical Technologists	*	*	*
29-2081	Opticians, Dispensing	*	*	*
29-2099	Health Technologists and Technicians, All Other	*	*	*
29-9091	Athletic Trainers	*	*	*
29-9099	Healthcare Practitioners and Technical Workers, All Other	*	*	*
31-1011	Home Health Aides	*	*	*
31-1013	Psychiatric Aides	*	*	*
31-2011	Occupational Therapist Assistants	*	*	*
31-2012	Occupational Therapist Aides	*	*	*
31-2021	Physical Therapist Assistants	*	*	*
31-2022	Physical Therapist Aides	*	*	*
31-9093	Medical Equipment Preparers	*	*	*
31-9095	Pharmacy Aides	*	*	*
43-9021	Data Entry Keyers	*	*	*
43-9111	Statistical Assistants	*	*	*

* No data available

Occupations Ranked by Projected Job Openings, 2008–2018, Kauai County

SOC Code/Occupation Title		Healthcare Occupations (from Skill Panels)	Avg. Annual Openings Due to...		
			Growth	Replacement	Total
29-1111	Registered Nurses	Nurse Practitioner, RN, APRN, Nurse Manager	10	10	20
29-2061	Licensed Practical and Licensed Vocational Nurses		<10	<10	10
31-9011	Massage Therapists		<10	<10	10
11-9111	Medical and Health Services Managers		0	<10	<10
19-3031	Clinical, Counseling, and School Psychologists	Psychologists	0	<10	<10
21-1011	Substance Abuse and Behavioral Disorder Counselors	Substance Abuse Counselors	<10	<10	<10
29-1051	Pharmacists	Pharmacists	<10	<10	<10
29-2052	Pharmacy Technicians	Pharmacy Technicians	<10	<10	<10
29-2071	Medical Records and Health Information Technicians	Medical Coder	<10	<10	<10
31-9091	Dental Assistants		<10	<10	<10
31-9092	Medical Assistants	Medical Assistants	<10	<10	<10
43-3021	Billing and Posting Clerks and Machine Operators	Billing/Reimbursement Personnel	0	<10	<10
43-9021	Data Entry Keyers	Health IT Data Entry	0	<10	<10
31-9095	Pharmacy Aides		0	0	0
19-3039	Psychologists, All Other		*	*	*
21-1014	Mental Health Counselors	Mental Health Counselor	*	*	*
21-1022	Medical and Public Health Social Workers	Social Worker	*	*	*
21-1023	Mental Health and Substance Abuse Social Workers	Community Case Manager	*	*	*
21-1091	Health Educators	Community Health worker	*	*	*
25-1071	Health Specialties Teachers, Postsecondary		*	*	*
25-1072	Nursing Instructors and Teachers, Postsecondary		*	*	*
29-1011	Chiropractors		*	*	*
29-1021	Dentists, General	Pedodontist	*	*	*
29-1029	Dentists, All Other Specialists		*	*	*
29-1031	Dietitians and Nutritionists		*	*	*
29-1041	Optometrists		*	*	*
29-1061	Anesthesiologists		*	*	*
29-1062	Family and General Practitioners	Family and General Medicine	*	*	*
29-1063	Internists, General	Internal Medicine	*	*	*
29-1064	Obstetricians and Gynecologists	Obstetricians and Gynecologists	*	*	*
29-1065	Pediatricians, General		*	*	*
29-1066	Psychiatrists		*	*	*
29-1067	Surgeons		*	*	*
29-1069	Physicians and Surgeons, All Other	Neurologist	*	*	*
29-1071	Physician Assistants	Physician Assistants	*	*	*

Table continues next page

Occupations Ranked by Projected Job Openings, 2008–2018, Kauai County *continued*

SOC Code/Occupation Title	Healthcare Occupations (from Skill Panels)	Avg. Annual Openings Due to...		
		Growth	Replacement	Total
29-1122 Occupational Therapists		*	*	*
29-1123 Physical Therapists	Physical Therapists	*	*	*
29-1125 Recreational Therapists		*	*	*
29-1126 Respiratory Therapists		*	*	*
29-1127 Speech-Language Pathologists		*	*	*
29-1129 Therapists, All Other		*	*	*
29-1199 Health Diagnosing and Treating Practitioners, All Other		*	*	*
29-2011 Medical and Clinical Laboratory Technologists		*	*	*
29-2012 Medical and Clinical Laboratory Technicians		*	*	*
29-2021 Dental Hygienists	Dental Hygienists	*	*	*
29-2031 Cardiovascular Technologists and Technicians		*	*	*
29-2032 Diagnostic Medical Sonographers	Diagnostic Medical Sonographers	*	*	*
29-2033 Nuclear Medicine Technologists		*	*	*
29-2034 Radiologic Technologists and Technicians		*	*	*
29-2041 Emergency Medical Technicians and Paramedics		*	*	*
29-2051 Dietetic Technicians		*	*	*
29-2055 Surgical Technologists		*	*	*
29-2081 Opticians, Dispensing		*	*	*
29-2099 Health Technologists and Technicians, All Other		*	*	*
29-9091 Athletic Trainers		*	*	*
29-9099 Healthcare Practitioners and Technical Workers, All Other		*	*	*
31-1011 Home Health Aides	Home Health Aides	*	*	*
31-1012 Nursing Aides, Orderlies, and Attendants	Certified Nurse Asst (CNA), Patient Care Tech. (PCT)	*	*	*
31-1013 Psychiatric Aides		*	*	*
31-2011 Occupational Therapist Assistants		*	*	*
31-2012 Occupational Therapist Aides		*	*	*
31-2021 Physical Therapist Assistants		*	*	*
31-2022 Physical Therapist Aides		*	*	*
31-9093 Medical Equipment Preparers		*	*	*
31-9094 Medical Transcriptionists		*	*	*
31-9099 Healthcare Support Workers, All Other		*	*	*
43-9111 Statistical Assistants	Health IT Data Analysis	*	*	*

* No data available

Health Occupations in High Demand in Hawaii *Based on Advertised & Projected Job Openings*

SOC Code	SOC Occupation Title (Occupations from Skill Panels)	Average Monthly Advertised Openings, 2008-2011	Average Annual Projected Openings, 2008-2018	BLS Training Requirement
19-3031	Clinical, Counseling, & School Psychologists	104	40	Doctoral Degree
21-1011	Substance Abuse & Behavioral Disorder Counselors	19	20	Bachelor's Degree
21-1014	Mental Health Counselors	7	10	Master's Degree
21-1022	Medical & Public Health Social Workers	11	20	Bachelor's Degree
21-1023	Mental Health & Substance Abuse Social Workers [Community Case Manager]	94	30	Master's Degree
21-1091	Health Educator [Community Health Worker]	7	10	Bachelor's Degree
29-1021	Dentists, General [Pedodontist]	8	20	First Professional Degree
29-1051	Pharmacists	117	30	First Professional Degree
29-1062	Family & General Practitioners	55	30	First Professional Degree
29-1063	Internists, General	11	10	First Professional Degree
29-1064	Obstetricians & Gynecologists	4	10	First Professional Degree
29-1069	Physicians & Surgeons, All Other [Neurologist]	38	30	First Professional Degree
29-1071	Physician Assistants	17	10	Master's Degree
29-1111	Registered Nurses [Nurse Practitioner, RN, APRN, Nurse Manager]	1,392	330	Associate Degree
29-1123	Physical Therapists	263	40	Master's Degree
29-2021	Dental Hygienists	25	30	Associate Degree
29-2032	Diagnostic Medical Sonographers	24	<10	Associate Degree
29-2052	Pharmacy Technicians	42	50	Moderate-term-on-the-job training
29-2071	Medical Records & Health Information Technicians [Medical Coder]	123	20	Associate Degree
31-1011	Home Health Aides	40	40	Short-term on-the-job training
31-1012	Nursing Aides, Orderlies, & Attendants [Certified Nurse Asst (CNA), Patient Care Tech (PCT)]	190	170	Postsecondary Vocational Training
31-9092	Medical Assistants	106	90	Moderate-term-on-the-job training
43-3021	Billing, Posting, & Calculating Machine Operators [Billing/Reimbursement Personnel]	10	40	Short-term on-the-job training
43-9021	Data Entry Keyers [Health IT Data Entry]	52	20	Moderate-term-on-the-job training
43-9111	Statistical Assistants [Health IT Data Analysis]	3	<10	Moderate-term-on-the-job training

Licensed Occupation Title/Type	Current Number of Active Licenses					as of	Licensing Agency and Board
	Honolulu County	Hawaii County	Maui County	Kauai County	State of Hawaii		
Psychologist (PSY)	508	73	44	34	659	7/27/11	DCCA Board of Psychology (860)
Mental Health Counselor (MHC)	138	34	24	7	203	7/27/11	DCCA Mental Health Counselor (640)
Social Worker (LSW, LBSW, LCSW)	1,090	156	115	63	1,424	7/27/11	DCCA Social Workers (920)
Dentist (DT)	822	103	95	38	1,058	7/27/11	DCCA Board of Dental Examiners (220)
Pharmacist (PH)	880	133	111	59	1,183	7/27/11	DCCA Board of Pharmacy (820)
Physician (MD)	3,239	394	348	163	4,144	7/27/11	DCCA Hawaii Medical Board (630)
Osteopathic Physician and Surgeon (DOS)	157	32	26	13	228	7/27/11	DCCA Hawaii Medical Board (630)
Physician Assistant (AMD)	118	9	22	8	157	7/27/11	DCCA Hawaii Medical Board (630)
Advanced Practice Registered Nurse (APRN)	566	83	44	35	728	7/27/11	DCCA Board of Nursing (750)
Advanced Practice Registered Nurse— Prescriptive Authority (RX)	177	50	23	8	258	7/27/11	DCCA Board of Nursing (750)
Registered Nurse (RN)	10,016	1,592	1,308	621	13,537	7/27/11	DCCA Board of Nursing (750)
Physical Therapist (PT)	539	103	109	42	793	7/27/11	DCCA Board of Physical Therapy (825)
Dental Hygienist (DH)	532	64	91	30	717	7/27/11	DCCA Board of Dental Examiners (220)
Nurse Aide					7,740	6/30/11	American Red Cross

Advertised Healthcare Jobs, 2008–2011, State of Hawaii

SOC Code	Occupation Title	Healthcare Occupations (from Skill Panels)	2008	2009	2010	2011*	Total Avg. Monthly Openings
29-1111	Registered Nurses	Nurse Practitioner, RN, APRN, Nurse Manager	2,137	1,343	1,010	1,076	1,392
29-1123	Physical Therapists	Physical Therapists	372	272	189	219	263
31-1012	Nursing Aides, Orderlies, & Attendants	Certified Nurse Asst (CNA), Patient Care Tech. (PCT)	202	249	157	152	190
29-2061	Licensed Practical & Licensed Vocational Nurses		242	210	114	122	172
29-1122	Occupational Therapists		251	150	107	111	154
29-2071	Medical Records & Health Information Technicians	Medical Coder	231	131	50	78	123
29-1051	Pharmacists	Pharmacists	199	100	65	104	117
31-9092	Medical Assistants	Medical Assistants	66	37	134	186	106
19-3031	Clinical, Counseling, & School Psychologists	Psychologists	179	136	43	57	104
21-1023	Mental Health & Substance Abuse Social Workers	Community Case Manager	261	64	24	26	94
29-1127	Speech-Language Pathologists		110	69	53	70	76
11-9111	Medical & Health Services Managers		107	80	22	59	67
29-1062	Family & General Practitioners	Family & General Medicine	86	14	63	59	55
43-9021	Data Entry Keyers	Health IT Data Entry	74	50	38	54	54
29-2034	Radiologic Technologists & Technicians		75	32	49	57	53
31-9091	Dental Assistants		49	22	40	77	47
29-2052	Pharmacy Technicians	Pharmacy Technicians	50	20	33	65	42
31-1011	Home Health Aides	Home Health Aides	11	32	39	80	40
29-1069	Physicians & Surgeons, All Other	Neurologist	42	64	8	**	38
31-2021	Physical Therapist Assistants		19	18	50	45	33
29-1125	Recreational Therapists		73	48	6	3	32
29-1126	Respiratory Therapists		28	16	32	38	29
31-2022	Physical Therapist Aides		63	43	2	1	27
31-9093	Medical Equipment Preparers		31	14	6	58	27
31-2011	Occupational Therapist Assistants		39	18	24	23	26
25-1071	Health Specialties Teachers, Postsecondary		63	28	3	4	25
29-2021	Dental Hygienists	Dental Hygienists	28	6	15	50	25
29-2032	Diagnostic Medical Sonographers	Diagnostic Medical Sonographers	48	17	11	22	24
29-1031	Dietitians & Nutritionists		28	23	20	26	24
29-2055	Surgical Technologists		9	15	40	30	23
29-2011	Medical & Clinical Laboratory Technologists		21	7	27	35	23
29-2051	Dietetic Technicians		21	41	8	15	21
31-9011	Massage Therapists		26	12	14	28	20

Table continues next page

Advertised Healthcare Jobs, 2008–2011, State of Hawaii *continued*

SOC Code	Occupation Title	Healthcare Occupations (from Skill Panels)	2008	2009	2010	2011*	Total Avg. Monthly Openings
21-1011	Substance Abuse & Behavioral Disorder Counselors	Substance Abuse Counselors	28	20	14	13	19
29-2012	Medical & Clinical Laboratory Technicians		18	8	20	28	18
29-1071	Physician Assistants	Physician Assistants	20	17	17	13	17
29-1067	Surgeons		5	16	34	11	17
29-1199	Health Diagnosing & Treating Practitioners, All Other		23	18	5	**	15
29-2031	Cardiovascular Technologists & Technicians		15	10	11	15	13
21-1022	Medical & Public Health Social Workers	Social Worker	26	15	3	2	11
29-1063	Internists, General	Internal Medicine	16	6	11	12	11
19-3039	Psychologists, All Other		20	9	1	**	10
43-3021	Billing, Posting, & Calculating Machine Operators	Billing/Reimbursement Personnel	20	14	1	3	10
29-2033	Nuclear Medicine Technologists		8	5	7	14	8
29-1021	Dentists, General	Pedodontist	14	4	4	9	8
21-1091	Health Educator	Community Health Worker	12	4	8	6	7
21-1014	Mental Health Counselors	Mental Health Counselor	21	6	1	1	7
31-1013	Psychiatric Aides		18	4	3	2	7
21-1013	Marriage & Family Therapists		7	4	7	8	6
29-2041	Emergency Medical Technicians & Paramedics		11	5	5	6	6
29-1066	Psychiatrists		10	7	3	3	6
25-1072	Nursing Instructors and Teachers, Postsecondary		2	**	3	10	5
29-1061	Anesthesiologists		5	6	6	4	5
29-2081	Opticians, Dispensing		5	1	3	12	5
31-9094	Medical Transcriptionists		8	4	4	4	5
31-9099	Healthcare Support Workers, All Other		8	2	4	2	4
29-1064	Obstetricians & Gynecologists	Obstetrician & Gynecologists	5	4	2	4	4
29-1129	Therapists, All Other		6	4	1	2	3
29-2099	Health Technologists & Technicians, All Other		4	3	2	4	3
31-9095	Pharmacy Aides		2	**	3	4	3
29-1065	Pediatricians, General		3	4	1	3	3
43-9111	Statistical Assistants	Health IT Data Analysis	1	4	4	**	3
29-1041	Optometrists		5	2	1	2	2
29-9091	Athletic Trainers		4	2	2	2	2
29-1011	Chiropractors		2	2	1	1	1
29-9099	Healthcare Practitioners & Technical Workers, All Other		**	**	1	**	1
31-2012	Occupational Therapist Aides		1	1	1	**	1

* Advertised openings for 2011 are from January to June of that year. ** No data available

Advertised Healthcare Jobs, 2008–2011, Honolulu County

SOC Code	Occupation Title	Healthcare Occupations (from Skill Panels)	2008	2009	2010	2011*	Total Avg. Monthly Openings
29-1111	Registered Nurses	Nurse Practitioner, RN, APRN, Nurse Manager	1,683	1,064	852	849	1,112
29-1123	Physical Therapists	Physical Therapists	276	182	159	160	194
31-1012	Nursing Aides, Orderlies, & Attendants	Certified Nurse Asst (CNA), Patient Care Tech. (PCT)	173	224	141	128	167
29-2061	Licensed Practical & Licensed Vocational Nurses		171	190	85	68	128
29-1122	Occupational Therapists		191	98	87	84	115
21-1023	Mental Health & Substance Abuse Social Workers	Community Case Manager	252	61	19	24	89
31-9092	Medical Assistants	Medical Assistants	47	31	110	164	88
29-2071	Medical Records & Health Information Technicians	Medical Coder	160	100	40	47	87
19-3031	Clinical, Counseling, & School Psychologists	Psychologists	138	100	37	45	80
29-1051	Pharmacists	Pharmacists	132	55	42	71	75
11-9111	Medical & Health Services Managers		96	68	19	46	57
29-1127	Speech-Language Pathologists		94	41	34	45	54
43-9021	Data Entry Keyers	Health IT Data Entry	67	29	35	50	45
31-9091	Dental Assistants		46	22	34	70	43
29-1062	Family & General Practitioners	Family & General Medicine	64	9	40	35	37
29-2052	Pharmacy Technicians	Pharmacy Technicians	40	18	27	53	34
31-1011	Home Health Aides	Home Health Aides	9	20	32	74	34
29-2034	Radiologic Technologists & Technicians		51	21	35	27	33
29-1069	Physicians & Surgeons, All Other	Neurologist	35	38	5	**	26
29-1126	Respiratory Therapists		26	15	30	30	25
29-1125	Recreational Therapists		59	32	4	2	24
31-2021	Physical Therapist Assistants		16	13	35	33	24
31-2022	Physical Therapist Aides		47	22	2	**	23
29-2021	Dental Hygienists	Dental Hygienists	26	6	13	46	23
31-9093	Medical Equipment Preparers		27	10	5	49	23
29-2032	Diagnostic Medical Sonographers	Diagnostic Medical Sonographers	43	14	9	20	21
29-2055	Surgical Technologists		9	14	36	27	21
29-1031	Dietitians & Nutritionists		22	17	19	26	21
29-2011	Medical & Clinical Laboratory Technologists		21	7	22	33	21
25-1071	Health Specialties Teachers, Postsecondary		48	23	3	2	19
21-1011	Substance Abuse & Behavioral Disorder Counselors	Substance Abuse Counselors	24	13	13	12	15
31-2011	Occupational Therapist Assistants		20	10	17	14	15
29-2012	Medical & Clinical Laboratory Technicians		15	8	18	20	15

Table continues next page

Advertised Healthcare Jobs, 2008–2011, Honolulu County *continued*

SOC Code	Occupation Title	Healthcare Occupations (from Skill Panels)	2008	2009	2010	2011*	Total Avg. Monthly Openings
31-9011	Massage Therapists		21	11	11	17	15
29-1067	Surgeons		4	12	30	7	13
29-1071	Physician Assistants	Physician Assistants	18	12	14	9	13
29-2051	Dietetic Technicians		7	24	4	9	11
21-1022	Medical & Public Health Social Workers	Social Worker	22	14	2	1	10
29-2031	Cardiovascular Technologists & Technicians		11	7	8	12	10
19-3039	Psychologists, All Other		20	8	1	**	10
29-1199	Health Diagnosing & Treating Practitioners, All Other		13	13	2	**	10
43-3021	Billing, Posting, & Calculating Machine Operators	Billing/Reimbursement Personnel	20	13	1	3	9
29-2033	Nuclear Medicine Technologists		8	5	7	14	8
21-1091	Health Educators	Community Health Worker	11	4	7	6	7
29-1063	Internists, General	Internal Medicine	7	4	7	9	7
21-1014	Mental Health Counselors	Mental Health Counselor	18	6	1	1	7
29-1021	Dentists, General	Pedodontist	11	3	4	8	6
31-1013	Psychiatric Aides		17	3	2	2	6
21-1013	Marriage & Family Therapists		3	3	7	11	6
29-2041	Emergency Medical Technicians & Paramedics		9	4	4	6	6
29-1066	Psychiatrists		9	5	3	4	5
29-2081	Opticians, Dispensing		4	1	2	10	4
29-1061	Anesthesiologists		4	4	5	3	4
25-1072	Nursing Instructors and Teachers, Postsecondary		2	**	4	6	4
31-9094	Medical Transcriptionists		5	3	4	4	4
29-2099	Health Technologists & Technicians, All Other		4	3	2	4	3
29-1129	Therapists, All Other		5	4	1	2	3
31-9099	Healthcare Support Workers, All Other		4	2	3	2	3
29-1041	Optometrists		5	2	1	2	2
29-1064	Obstetricians & Gynecologists	Obstetrician & Gynecologists	3	2	1	4	2
43-9111	Statistical Assistants	Health IT Data Analysis	1	3	3	**	2
29-9091	Athletic Trainers		3	2	2	2	2
31-9095	Pharmacy Aides		1	**	1	3	2
29-1065	Pediatricians, General		4	2	2	**	2
29-1011	Chiropractors		1	1	**	1	1
29-9099	Healthcare Practitioners & Technical Workers, All Other		**	**	1	**	1
31-2012	Occupational Therapist Aides		1	1	1	**	1

* Advertised openings for 2011 are from January to June of that year. ** No data available

Advertised Healthcare Jobs, 2008–2011, Hawaii County

SOC Code	Occupation Title	Healthcare Occupations (from Skill Panels)	2008	2009	2010	2011*	Total Avg. Monthly Openings
29-1111	Registered Nurses	Nurse Practitioner, RN, APRN, Nurse Manager	187	131	77	81	119
29-1123	Physical Therapists	Physical Therapists	65	51	13	27	39
29-1122	Occupational Therapists		51	47	12	14	31
29-1051	Pharmacists	Pharmacists	30	31	15	22	24
29-2061	Licensed Practical & Licensed Vocational Nurses		33	8	13	31	21
29-1127	Speech-Language Pathologists		16	28	18	22	21
19-3031	Clinical, Counseling, & School Psychologists	Psychologists	29	26	5	4	17
31-2022	Physical Therapist Aides		17	21	1	**	13
29-2071	Medical Records & Health Information Technicians	Medical Coder	12	10	6	11	10
31-1012	Nursing Aides, Orderlies, & Attendants	Certified Nurse Asst (CNA), Patient Care Tech. (PCT)	8	3	5	17	8
29-1062	Family & General Practitioners	Family & General Medicine	7	2	12	12	8
31-2011	Occupational Therapist Assistants		19	6	3	5	8
29-2034	Radiologic Technologists & Technicians		7	3	6	14	8
29-1069	Physicians & Surgeons, All Other	Neurologist	3	12	6	**	7
43-9021	Data Entry Keyers	Health IT Data Entry	4	18	1	3	7
31-2021	Physical Therapist Assistants		3	6	7	11	7
29-1125	Recreational Therapists		9	13	2	2	7
31-9092	Medical Assistants	Medical Assistants	5	2	7	5	5
11-9111	Medical & Health Services Managers		6	6	2	4	5
29-2052	Pharmacy Technicians	Pharmacy Technicians	4	2	5	6	4
29-2051	Dietetic Technicians		2	7	5	2	4
29-1199	Health Diagnosing & Treating Practitioners, All Other		6	2	**	**	4
21-1023	Mental Health & Substance Abuse Social Workers	Community Case Manager	6	2	3	2	3
31-9011	Massage Therapists		2	**	3	5	3
21-1011	Substance Abuse & Behavioral Disorder Counselors	Substance Abuse Counselors	3	5	2	2	3
31-1011	Home Health Aides	Home Health Aides	1	4	3	4	3
29-1031	Dietitians & Nutritionists		3	4	2	**	3
31-9099	Healthcare Support Workers, All Other		4	**	2	**	3
29-2033	Nuclear Medicine Technologists		3	**	**	**	3
29-2032	Diagnostic Medical Sonographers	Diagnostic Medical Sonographers	3	3	3	1	2
25-1071	Health Specialties Teachers, Postsecondary		4	3	1	1	2
29-1063	Internists, General	Internal Medicine	2	1	3	3	2
29-1071	Physician Assistants	Physician Assistants	2	4	1	2	2

Table continues next page

Advertised Healthcare Jobs, 2008–2011, Hawaii County *continued*

SOC Code	Occupation Title	Healthcare Occupations (from Skill Panels)	2008	2009	2010	2011*	Total Avg. Monthly Openings
29-1064	Obstetricians & Gynecologists	Obstetrician & Gynecologists	3	3	1	**	2
29-1126	Respiratory Therapists		3	1	**	3	2
31-9095	Pharmacy Aides		1	**	2	4	2
29-1011	Chiropractors		2	2	**	**	2
31-9091	Dental Assistants		1	**	2	3	2
29-2012	Medical & Clinical Laboratory Technicians		1	1	1	5	2
29-1067	Surgeons		1	2	2	2	2
29-2099	Health Technologists & Technicians, All Other		2	2	**	**	2
31-9094	Medical Transcriptionists		2	1	**	**	2
29-1021	Dentists, General	Pedodontist	2	1	2	1	2
29-2021	Dental Hygienists	Dental Hygienists	2	1	1	3	2
29-2031	Cardiovascular Technologists & Technicians		1	1	2	2	2
29-2041	Emergency Medical Technicians & Paramedics		2	1	2	1	2
29-2011	Medical & Clinical Laboratory Technologists		1	**	**	2	2
29-2055	Surgical Technologists		1	1	2	2	1
21-1022	Medical & Public Health Social Workers	Social Worker	2	1	**	1	1
31-1013	Psychiatric Aides		1	1	2	**	1
29-1066	Psychiatrists		2	1	1	1	1
19-3039	Psychologists, All Other		1	1	**	**	1
29-2081	Opticians, Dispensing		**	**	1	1	1
29-1061	Anesthesiologists		**	1	1	1	1
21-1014	Mental Health Counselors	Mental Health Counselor	1	1	**	**	1
21-1091	Health Educators	Community Health Worker	1	1	1	**	1
29-1129	Therapists, All Other		1	**	**	**	1
31-9093	Medical Equipment Preparers		2	1	**	1	1
43-3021	Billing, Posting, & Calculating Machine Operators	Billing/Reimbursement Personnel	1	1	**	**	1
43-9111	Statistical Assistants	Health IT Data Analysis	**	1	1	**	1
21-1013	Marriage & Family Therapists		1	**	**	1	1
25-1072	Nursing Instructors & Teachers, Postsecondary		**	**	**	1	1
29-1041	Optometrists		**	**	**	**	**
29-1065	Pediatricians, General		**	**	**	**	**
29-9091	Athletic Trainers		**	**	**	**	**
29-9099	Healthcare Practitioners & Technical Workers, All Other		**	**	**	**	**
31-2012	Occupational Therapist Aides		**	**	**	**	**

* Advertised openings for 2011 are from January to June of that year. ** No data available

Advertised Healthcare Jobs, 2008–2011, Maui County

SOC Code	Occupation Title	Healthcare Occupations (from Skill Panels)	2008	2009	2010	2011*	Total Avg. Monthly Openings
29-1111	Registered Nurses	Nurse Practitioner, RN, APRN, Nurse Manager	162	82	42	84	93
29-1123	Physical Therapists	Physical Therapists	15	36	10	19	20
29-2071	Medical Records & Health Information Technicians	Medical Coder	25	14	3	18	15
29-2061	Licensed Practical & Licensed Vocational Nurses		23	9	10	18	15
29-2034	Radiologic Technologists & Technicians		13	5	6	13	9
29-1062	Family & General Practitioners	Family & General Medicine	12	1	9	9	8
31-1012	Nursing Aides, Orderlies, & Attendants	Certified Nurse Asst (CNA), Patient Care Tech. (PCT)	10	13	5	2	8
29-1065	Pediatricians, General		**	7	**	**	7
19-3031	Clinical, Counseling, & School Psychologists	Psychologists	8	9	3	6	7
29-1051	Pharmacists	Pharmacists	9	5	4	10	7
31-9092	Medical Assistants	Medical Assistants	6	1	9	11	7
29-1122	Occupational Therapists		9	4	4	9	7
29-2051	Dietetic Technicians		7	6	2	6	5
31-2011	Occupational Therapist Assistants		**	5	6	4	5
29-1069	Physicians & Surgeons, All Other	Neurologist	4	8	3	**	5
29-2012	Medical & Clinical Laboratory Technicians		**	**	3	6	4
11-9111	Medical & Health Services Managers		3	3	2	8	4
29-1199	Health Diagnosing & Treating Practitioners, All Other		5	5	3	**	4
29-2032	Diagnostic Medical Sonographers	Diagnostic Medical Sonographers	1	**	3	7	4
31-9011	Massage Therapists		4	**	2	4	3
29-2052	Pharmacy Technicians	Pharmacy Technicians	4	2	2	5	3
25-1071	Health Specialties Teachers, Postsecondary		7	1	1	**	3
29-1125	Recreational Therapists		5	2	3	3	3
31-9093	Medical Equipment Preparers		4	4	1	2	3
29-1031	Dietitians & Nutritionists		2	2	**	**	2
29-1071	Physician Assistants	Physician Assistants	5	1	2	2	2
31-1011	Home Health Aides	Home Health Aides	2	3	2	2	2
29-2011	Medical & Clinical Laboratory Technologists		1	3	4	1	2
43-9021	Data Entry Keyers	Health IT Data Entry	3	2	3	2	2
29-1063	Internists, General	Internal Medicine	5	1	1	**	2
29-2055	Surgical Technologists		1	2	5	1	2
31-9091	Dental Assistants		1	1	3	3	2
21-1023	Mental Health & Substance Abuse Social Workers	Community Case Manager	3	2	2	**	2

Table continues next page

Advertised Healthcare Jobs, 2008–2011, Maui County *continued*

SOC Code	Occupation Title	Healthcare Occupations (from Skill Panels)	2008	2009	2010	2011*	Total Avg. Monthly Openings
19-3039	Psychologists, All Other		2	2	**	**	2
29-1064	Obstetricians & Gynecologists	Obstetrician & Gynecologists	2	2	**	**	2
29-1066	Psychiatrists		2	2	**	2	2
21-1013	Marriage & Family Therapists		**	2	3	1	2
21-1011	Substance Abuse & Behavioral Disorder Counselors	Substance Abuse Counselors	1	3	2	1	2
25-1072	Nursing Instructors and Teachers, Postsecondary		**	**	1	2	2
29-2031	Cardiovascular Technologists & Technicians		**	1	1	3	2
29-1067	Surgeons		1	1	3	2	2
21-1014	Mental Health Counselors	Mental Health Counselor	2	2	1	**	2
31-2021	Physical Therapist Assistants		1	**	2	2	2
29-1127	Speech-Language Pathologists		1	1	1	3	2
43-3021	Billing, Posting, & Calculating Machine Operators	Billing/Reimbursement Personnel	**	2	**	**	2
31-1013	Psychiatric Aides		2	1	**	**	1
31-9095	Pharmacy Aides		2	**	1	1	1
29-2021	Dental Hygienists	Dental Hygienists	2	**	1	1	1
29-1011	Chiropractors		2	1	1	1	1
29-1061	Anesthesiologists		1	2	1	1	1
29-1021	Dentists, General	Pedodontist	2	1	1	**	1
29-2081	Opticians, Dispensing		1	1	1	**	1
29-9091	Athletic Trainers		1	1	1	**	1
21-1091	Health Educators	Community Health Worker	1	**	**	1	1
31-2022	Physical Therapist Aides		1	**	**	1	1
31-9094	Medical Transcriptionists		1	1	1	**	1
29-1129	Therapists, All Other		1	**	**	**	1
29-2099	Health Technologists & Technicians, All Other		**	1	**	**	1
21-1022	Medical & Public Health Social Workers	Social Worker	**	**	**	**	**
29-1041	Optometrists		**	**	**	**	**
29-1126	Respiratory Therapists		**	**	**	**	**
29-2033	Nuclear Medicine Technologists		**	**	**	**	**
29-2041	Emergency Medical Technicians & Paramedics		**	**	**	**	**
29-9099	Healthcare Practitioners & Technical Workers, All Other		**	**	**	**	**
31-2012	Occupational Therapist Aides		**	**	**	**	**
31-9099	Healthcare Support Workers, All Other		**	**	**	**	**
43-9111	Statistical Assistants	Health IT Data Analysis	**	**	**	**	**

* Advertised openings for 2011 are from January to June of that year. ** No data available

Advertised Healthcare Jobs, 2008–2011, Kauai County

SOC Code	Occupation Title	Healthcare Occupations (from Skill Panels)	2008	2009	2010	2011*	Total Avg. Monthly Openings
29-1111	Registered Nurses	Nurse Practitioner, RN, APRN, Nurse Manager	105	66	38	64	68
29-2071	Medical Records & Health Information Technicians	Medical Coder	34	7	2	3	12
29-1123	Physical Therapists	Physical Therapists	16	7	8	13	11
29-1051	Pharmacists	Pharmacists	29	9	4	2	11
31-1012	Nursing Aides, Orderlies, & Attendants	Certified Nurse Asst (CNA), Patient Care Tech. (PCT)	11	10	5	5	8
29-2061	Licensed Practical & Licensed Vocational Nurses		15	3	7	5	7
31-9092	Medical Assistants	Medical Assistants	9	5	8	6	7
29-2012	Medical & Clinical Laboratory Technicians		6	**	**	**	6
19-3031	Clinical, Counseling, & School Psychologists	Psychologists	8	3	3	4	5
31-2021	Physical Therapist Assistants		1	**	8	3	4
31-1011	Home Health Aides	Home Health Aides	1	10	3	2	4
29-2051	Dietetic Technicians		6	4	2	3	4
29-1062	Family & General Practitioners	Family & General Medicine	4	3	2	3	3
29-2034	Radiologic Technologists & Technicians		4	2	2	2	3
31-2011	Occupational Therapist Assistants		3	**	**	**	3
29-1071	Physician Assistants	Physician Assistants	**	5	3	1	3
43-9021	Data Entry Keyers	Health IT Data Entry	5	2	2	3	3
29-2052	Pharmacy Technicians	Pharmacy Technicians	5	1	3	2	3
29-1126	Respiratory Therapists		**	2	2	4	3
31-9093	Medical Equipment Preparers		1	**	**	6	4
29-1127	Speech-Language Pathologists		**	**	2	3	2
11-9111	Medical & Health Services Managers		2	3	**	2	2
29-1063	Internists, General	Internal Medicine	5	1	1	2	2
29-2031	Cardiovascular Technologists & Technicians		5	2	2	1	2
25-1071	Health Specialties Teachers, Postsecondary		5	2	1	1	2
29-1122	Occupational Therapists		1	1	4	3	2
29-1031	Dietitians & Nutritionists		5	2	1	1	2
31-9091	Dental Assistants		4	1	2	2	2
29-2032	Diagnostic Medical Sonographers	Diagnostic Medical Sonographers	2	3	1	**	2
31-9011	Massage Therapists		1	1	2	4	2
29-2055	Surgical Technologists		**	**	2	2	2
29-1067	Surgeons		2	3	1	**	2
29-1064	Obstetricians & Gynecologists	Obstetrician & Gynecologists	3	1	1	**	2

Table continues next page

Advertised Healthcare Jobs, 2008–2011, Kauai County *continued*

SOC Code	Occupation Title	Healthcare Occupations (from Skill Panels)	2008	2009	2010	2011*	Total Avg. Monthly Openings
29-1199	Health Diagnosing & Treating Practitioners, All Other		3	1	**	**	2
21-1022	Medical & Public Health Social Workers	Social Worker	1	2	1	**	2
29-1061	Anesthesiologists		2	2	1	1	2
29-1065	Pediatricians, General		1	1	1	3	2
31-9099	Healthcare Support Workers, All Other		2	1	**	**	2
43-9111	Statistical Assistants	Health IT Data Analysis	**	2	1	**	1
21-1014	Mental Health Counselors	Mental Health Counselor	2	**	**	1	1
29-1125	Recreational Therapists		2	1	1	**	1
21-1011	Substance Abuse & Behavioral Disorder Counselors	Substance Abuse Counselors	1	2	1	1	1
21-1023	Mental Health & Substance Abuse Social Workers	Community Case Manager	1	**	1	**	1
31-9094	Medical Transcriptionists		2	1	1	**	1
29-2011	Medical & Clinical Laboratory Technologists		**	**	1	1	1
29-2021	Dental Hygienists	Dental Hygienists	1	1	1	1	1
29-1069	Physicians & Surgeons, All Other	Neurologist	1	**	**	**	1
21-1091	Health Educators	Community Health Worker	1	**	1	**	1
29-1021	Dentists, General	Pedodontist	**	**	**	1	1
29-1129	Therapists, All Other		1	**	**	**	1
29-2081	Opticians, Dispensing		**	**	**	1	1
31-2022	Physical Therapist Aides		1	**	**	**	1
31-9095	Pharmacy Aides		**	**	1	1	1
43-3021	Billing, Posting, & Calculating Machine Operators	Billing/Reimbursement Personnel	1	**	**	**	1
21-1013	Marriage & Family Therapists		**	1	**	1	1
25-1072	Nursing Instructors and Teachers, Postsecondary		**	**	**	1	1
19-3039	Psychologists, All Other		**	**	**	**	**
29-1011	Chiropractors		**	**	**	**	**
29-1041	Optometrists		**	**	**	**	**
29-1066	Psychiatrists		**	**	**	**	**
29-2033	Nuclear Medicine Technologists		**	**	**	**	**
29-2041	Emergency Medical Technicians & Paramedics		**	**	**	**	**
29-2099	Health Technologists & Technicians, All Other		**	**	**	**	**
29-9091	Athletic Trainers		**	**	**	**	**
29-9099	Healthcare Practitioners & Technical Workers, All Other		**	**	**	**	**
31-1013	Psychiatric Aides		**	**	**	**	**
31-2012	Occupational Therapist Aides		**	**	**	**	**

* Advertised openings for 2011 are from January to June of that year. ** No data available

Note: The information collected in the charts on pages 62–76 are estimates based on the most recent Program or Fiscal Year data as of April 2011. The charts serve as a basic guide of 2011 resources. Data may have since changed, and in no way reflects absolute current data.

Hawaii's Department of Labor and Industrial Relations Healthcare-Related Workforce Development Programs and Funding Sources, 2011

Recipient	Program Name	Total Funds	Annual Number Served in Most Recent Program Year
Local Workforce Investment Boards	Workforce Investment Act (Title 1-B Adult)	\$2,786,714	538
	Workforce Investment Act (Title 1-B Dislocated Worker)	\$3,268,124	924
	Workforce Investment Act (Title 1-B Youth)	\$2,286,665	567
Workforce Development Division	Wagner-Peyser	\$2,500,000+	74,338
	Veteran Employment & Training Services	\$632,000	4,675
	Foreign Labor Certification	\$73,355	71
	Federal Bonding	\$25,000	5
	Work Opportunity Tax Credit	\$66,000	4,888
	Trade Adjustment Act	\$16,000	n/a
	National Emergency OJT Grant	\$601,873	70
	Military Spouse CAA	\$2,450,000	524
	ETF Macro & Micro Grants	\$1,000,000	88,759
	Volunteer Internship Program	\$328,570	221
	SNAP Employment & Training Program	\$243,517	1,739
	First-to-Work Program	\$634,491	9,671
	Senior Community Service Employment	\$2,553,380	263
Research & Statistics Office, Workforce Development Council	HIWI Career Kokua	\$313,801	230,000+
Hawaii Job Corps Center	Health Occupations Training	\$720,000	19

Hawaii's Healthcare-Related Public Workforce Development Programs, Earmark and Alternative Funding Sources, 2011

Recipient	Program Name	Total Funds	Funding Period
Maui Economic Development Board WIA Earmark Funds	Public Health Leadership Development	\$81,825	6/30/06–6/29/11
	ARCH Operator Training	\$11,412	6/30/06–6/29/11
	Radiologic Technician Training	\$162,791	6/30/06–6/29/11
	Certified Nurse's Aide Training	\$46,378	5/1/09–4/30/11
	Wai Ola 'O Hina ITAC Certificate Program	\$85,487	5/1/09–4/30/11
	Medical Assistant Training	\$150,000	5/1/09–4/30/11
	Nurse's Aide Training	\$100,000	5/1/09–4/30/11
	Dental Equipment Training	\$58,087	6/1/10–5/30/12
University of Hawaii, Maui WIA Earmark Funds	Medical Specialties	\$94,070	3/1/11–2/28/13
	Nurse's Aide Training	\$80,000	3/1/11–2/28/13
	Medical Assistant Training	\$170,000	3/1/11–2/28/13

Description of Programs:

Local Workforce Investment Boards, Workforce Investment Act (WIA) Title I-B Adult: This program provides a comprehensive range of workforce development activities to advance the basic and occupational skills of low-income adults to increase their employment, job retention and earnings. Priority for intensive and training services is given to recipients of public assistance and other low-income individuals. All participants must be 18 years of age or older and an United States citizen or noncitizen authorized to work in the U.S. Services, available through One-Stop Career Centers on all islands. More information available at: <http://hawaii.gov/labor/wdd/PDF/WIA%20Title%20I-B%20Adult.pdf>

Local Workforce Investment Boards, Workforce Investment Act (WIA) Title I-B Dislocated Worker: Offers similar services as described by WIA Title I-B Adult section; however, provides a comprehensive range of workforce development activities and services to dislocated workers. A dislocated worker is an individual who: (1) Has been terminated or laid off, is eligible for or has exhausted unemployment insurance benefits, and is unlikely to return to a previous industry or occupation; or (2) Has been terminated or laid off or received notification of termination or layoff from employment as a result of a permanent closure or substantial layoff; or (3) Was self-employed (including employment as a farmer, a rancher, or a fisherman) but is unemployed as a result of general economic conditions in the community or because of a natural

disaster; or (4) is a displaced homemaker who has been providing unpaid services to family members in the home and who has been dependent on the income of another family member but is no longer supported by that income and is unemployed or underemployed and is experiencing difficulty in obtaining or upgrading employment. <http://hawaii.gov/labor/wdd/PDF/WIA%20Title%20I-B%20Dislocated%20Wrkr.pdf>

Local Workforce Investment Boards, Workforce Investment Act (WIA) Title I-B Youth: The WIA youth program provides education, training, and employment opportunities for low-income youth to achieve academic and employment success. Eligible participants include low-income youth between the ages 14 to 21 who also fall within one or more of the following categories: deficient in basic literacy skills, school dropout, homeless, pregnant or a parent, offender, runaway, or foster child. Males, 18 years of age or older must also meet the additional requirement of registration for Military Selective Service. The year-round youth program emphasizes basic skills competencies, academic and occupational training, and exposure to the job market and employment. More information available at: <http://hawaii.gov/labor/wdd/PDF/WIA%20Title%20I-B%20Youth.pdf>

Workforce Development Division, Wagner-Peyser: The Wagner-Peyser Act of 1933 is a nationwide system of free public employment offices known as the Employment Service. 90% of funding is used primarily for staff expenses to provide services which include: job search assistance, job referral and placement assistance, re-employment services for unemployment insurance claimants, and recruitment services to employers with job openings. The One Stop delivery system provides universal access to an integrated array of labor exchange services so that workers, job seekers and businesses can find the services they need in one stop and frequently under one roof in easy-to-find locations. Hawaii's one-stop center locations may be found at: <http://hawaii.gov/labor/wdd/onestops>.

Workforce Development Division, Veteran Employment and Training Services: Provides funds to exclusively serve veterans, other eligible persons, transitioning service members, their spouses, and, indirectly, employers. Offers employment and training services through State Workforce Agencies. Both Disabled Veterans Outreach Program Specialists

and Local Veterans' Employment Representatives provide services to develop increased hiring opportunities within the local workforce by raising the awareness of employers of the availability and the benefit of hiring veterans. More information can be found at: <http://hawaii.gov/dod/ovs/ovs-spotlight/veterans-employment-training-service>

Workforce Development Division, Foreign Labor Certification: Allows employers to hire foreign workers, temporarily or permanently, when there are insufficient U.S. workers who are able, qualified, and available to perform the job. The program also helps ensure that employment of foreign workers will not adversely affect the wages and working conditions of U.S. workers employed in the same or similar occupations. More information can be found at: <http://www.foreignlabor-cert.doleta.gov/>

Workforce Development Division, Federal Bonding: provides temporary fidelity bonding for job seekers who are not bondable by commercial companies, and/or who are viewed by employers as "at risk" such as: ex-offenders, recovering substance abusers, welfare recipients, and other persons having poor financial credit. Each bond is limited to \$5,000 coverage for the first six months of employment. There is no cost to the job applicant or employer for acquiring a bond. The bond protects the employer from employee dishonesty and provides an incentive for hiring "at risk" job applicants. Employers interested in bonding an employee should contact their nearest WDD office.

Workforce Development Division, Work Opportunity Tax Credit (WOTC): provides a tax credit to employers who hire: IV-A (welfare) recipients; Veterans; Ex-felons; Vocational Rehabilitation Referrals; Summer Youth Employees; Food Stamp Recipients; Supplemental Security Income Recipients; and/or Long-Term Family Assistance Recipients.

Workforce Development Division, Trade Adjustment Act: the federal government certifies employers whose businesses are suffering adverse impact from foreign imports or shifts in production to foreign countries. Employees laid off from TAA-certified businesses are eligible for various services and benefits under the TAA. Strict time limits apply to different benefits.

Workforce Development Division, National Emergency OJT Grant: focuses on providing on-the-job training opportunities in order to train dislocated workers for unfilled job placements. Individuals will be able to return to the workplace and earn wages to support themselves and their families while adding new skills or learning technologies and experiences to meet the requirements of a new occupation or industry. The grant will provide supportive services to 70 persons who are dislocated workers, laid off after January 1, 2008, and prolonged unemployed, which means exceeding the State's average weeks of unemployment.

Workforce Development Division, Military Spouse Career Advancement Account Demonstration Grant: provides military spouses with financial assistance of up to \$6,000 to pursue college or technical training to obtain a credential and/or license that is required for a specific career. Among other requirements, eligible participants must be: married to an active duty service member assigned to the following installations: Pearl Harbor Naval Base; Hickam Air Force Base; Schofield Barracks; or Marine Corp Base Hawaii.

Workforce Development Division, Employment and Training Funds: Provides businesses the opportunity to upgrade the skills of their employees from entry-level to top management. ETF monies are generated through an employer assessment collected with unemployment insurance contributions. Employers can access ETF in one of two ways: Macro Grants or Micro Grants. Macro Grants are awarded to business associations who develop customized training projects in a consortia to address industry needs in the state. Micro Grants enable employers to register their workers for short-term, non-credit training courses offered by ETF-approved public and private training vendors to upgrade employees' skills to meet the competitive demands of the workplace. ETF will pay 50% of the cost for any course taken that meets eligibility criteria its eligibility criteria. Computer related courses and soft skills (customer service, human resource management, and interpersonal skills) are some of the most frequently requested courses.

Workforce Development Division, Volunteer Internship Program (VIP): allows job seekers receiving unemployment insurance (UI) benefits to gain work-

force training. Upon completion of training, claimants receive certification of job skills acquired and consideration for employment.

Workforce Development Division, SNAP Employment and Training Program: provides the following services to food stamp recipients: vocational counseling; skills assessment; support services; and, job search assistance.

Workforce Development Division, First to Work Program: provides job development and case management services to able-bodied adults statewide who receive welfare assistance under the following programs: Temporary Assistance to Needy Families (TANF); or Temporary Assistance to Other Needy Families (TAONF).

Workforce Development Division, Senior Community Service Employment: provides unemployed, low-income individuals who are 55 and older and who have poor employment prospects with the opportunity to engage in training through part-time community service assignments. Through these assignments, participants will be able to develop skills and experience which they may be able to utilize to transition into unsubsidized employment. Participants are paid minimum wage for their participation time in community service activities.

Research & Statistics, Workforce Development Council, HIWI Career Kokua: a computerized system of localized, current career and related educational information essential for sound career decision making. Career Kokua provides an excellent start in planning your life's work. After using Career Kokua you should have a better sense of self, your career goals, and the decisions affecting the achievement of these goals.

Hawaii JobCorps Center, Health Occupations Training: a no-cost education and career technical training program administered by the U.S. Department of Labor that helps young people ages 16 through 24 improve the quality of their lives through career technical and academic training. The Job Corps program is authorized by Title I-C of the Workforce Investment Act of 1998. Health occupations training may vary yet often include Certified Nursing Assistant training.

Hawaii's Healthcare-Related Scholarships and Funded Education and Training Programs, 2011

Locations Served	Recipient	Program Name	Total Funds
<i>Nationwide</i>	Kamehameha Schools	Various Pre-School, K-12, and post-High School Scholarships	varies
<i>Big Island, Kauai, Maui, Molokai, Oahu</i>	Alu Like	Kahua Ho'oma U Ola	varies
		HTI short-term healthcare training	\$232,833
		Hana Lima Scholarship	\$138,000
<i>Oahu, limited online</i>	Kapiolani Community College	Ulu Pono Project	\$1,748,615
<i>Oahu</i>	UH Manoa–Papa Ola Lokahi	Native Hawaiian Health Scholarship Program	varies
<i>Big Island</i>	UH Hilo Center for Rural Health Science	STEP Program	varies
<i>Big Island</i>	UH Hawaii Community College	Health IT Workforce Development Program	\$84 million
<i>Maui</i>	Community Clinic of Maui	I Ola Lahui	varies
<i>Lanai</i>	Lanai Community Health Center	Rural Multidisciplinary Training Program	varies
<i>Nationwide</i>	National Health Service Corps	Scholarship Fund	\$277,057,000+ combined
		Loan Repayment Fund	
<i>Oahu</i>	UH John A. Burns School of Medicine (JABSOM)	Imi Ho'ola	varies
		Native Hawaiian Center of Excellence	\$3 million+
<i>Oahu</i>	Waianae Coast Comprehensive Health Center	Wai'anae Health Academy	varies
		Health Career Community Scholarship	varies
<i>Statewide</i>	Health Resources and Services Administration	Nursing Scholarship Program	\$93.8 million
		Faculty Loan Repayment	\$1.2 million
<i>Nationwide</i>	Inova Health System	Military to Medicine	varies

Annual Number Served	Description
varies	KS considers all areas of study in its awarding process, with special consideration given for Native Hawaiian applicants pursuing degrees in designated areas of study identified by KS, including healthcare.
varies	Provides internship work experiences to Native Hawaiian Post-secondary students. as training with stipends to Native Hawaiian graduates of the Employment Training Center vocational programs.
78	HTI delivers short-term post-secondary training to Native Hawaiian Post-secondary students for Medical Assisting and Pharmacy Technician certifications by providing instruction designed to accommodate the learning styles of Native Hawaiian students, and by providing work experience in local businesses and healthcare facilities.
92	Provides financial assistance to students participating in a post-secondary vocational or technical education program for specific occupations, currently including: Dental Assisting, Health IT, Medical Assistant, Mobile Intensive Care Technician, Nursing, Medical Coding, etc.
100+	Provides healthcare career training tuition funds to eligible non-traditional participants, including: Nurse Aide, Medical Assistant, Dental Assistant, Pharmacy Technician, and Medical Billing & Coding Specialist. Students are expected to cover other expenses including books, supplies, uniforms, etc.
varies (+/-10)	Scholarship for selected full-time Native Hawaiian students at an accredited university in the U.S. Pays tuition, books, other related costs, and a monthly stipend while enrolled. For every year of funding received, the student is obligated to one year of service in a medically under-served area in the state of Hawaii.
5	An intensive three-year scholarly preparatory program that pays for tuition and fees for up to 3 years for up to five selected students leading to entry into UHH College of Pharmacy PharmD program.
varies	Intensive 6-month non-credit training program, including courses like: UHCC 01 Medical Terminology for Health Care Professionals, and UHCC 04 Introduction to Information and Computer Science for Health Care Professionals.
varies	Identifies pre-Doctoral and post-Doctoral trainees interested in working in rural, Native Hawaiian, and/or medically under-served communities, and teaches them to provide culturally-minded, evidence-based care with training opportunities in Community Health Centers.
varies	Provides training opportunities to UH Manoa graduate students in the Nurse Practitioner program to attract future Nurse Practitioners to rural areas and inspire Community Health Center staff members to consider a career path as a Nurse Practitioner.
389	Offer multiple scholarship and loan repayment opportunities in healthcare-related fields.
2,971	
up to 10	Provides post-baccalaureate educational opportunities for individuals from disadvantaged backgrounds who are capable of succeeding in medical school.
up to 20	Improves health through research, education, and training of individuals with Native Hawaiian ancestry.
varies	Waianae Coast residents. Provides job training and economic development in a MUA-based patient-centered health care home with over 1,300 graduates and 1,671 people provided with tuition-free college or vocational program courses in the last 5 years. Fifty percent of students served have been either unemployed or underemployed.
5–10	
varies	Helps needy nursing students complete their degree by paying tuition, fees, and other reasonable costs, with monthly stipend for selected participants. In exchange for scholarship, recipients work for an eligible high-needs provider.
varies	Health professions faculty from disadvantaged backgrounds can receive as much as \$40,000 toward repayment of their student loans in exchange for educating tomorrow's clinicians.
3,200+	Extended military family, including military spouses, wounded warriors, and other service members transitioning to civilian employment.

Hawaii's Healthcare-Related Academic Support and Pipeline Programs, 2011

Locations Served	Organization	Program Name	Annual Number Served	Target Population
Big Island, Kauai, Maui, Molokai, Oahu	Alu Like	Kūlia Ma Kapi'ola Ni	68	Native Hawaiian students in post-secondary Healthcare and Nursing programs.
		E 'Ola Pono	55	Native Hawaiian students in grades 10–12 at Castle High School.
Oahu	UH Manoa	'Ike Ao Pono Program	80–100	Native Hawaiian and Pacific Islander undergraduate and graduate nursing students at the UH SONDH at Manoa.
		Health Careers Opportunity Program	varies	High school juniors and seniors from diverse socioeconomically disadvantaged backgrounds.
		Pre-professional Advising Center	varies	Students interested in law, medicine, or health sciences.
		Options in Health Professions	up to 400	Introduces high school students to the many options in health professions programs at UH Manoa.
		GEAR Up	varies	Farrington and Waipahu High School students.
Big Island, Kauai, Lanai, Maui, Molokai, Oahu	Health Occupations Students of America	Hawaii HOSA	1,100+	Students interested in health careers.
Oahu	Queens Medical Center	Summer Student Volunteer Program	100+	High school and college students, aged 15 years and older.
		Summer Nurse Intern Program	10–15	Nine-week, 40 hour/week Nurse internship for experienced nursing students currently enrolled in an accredited nursing program.
Oahu, Kauai, Lanai	Hawaii Pacific Health	Summer Student Research Program	8–10	College students with an interest in medicine.
		Summer Student Internship Program	80–100	High school students in their graduating year.
Big Island, Kauai, Lanai, Maui, Molokai, Oahu	Na Pua No'eau	(Multiple Programs)	varies	Hawaiian children from Kindergarten through grade 12.
Oahu	UH Cancer Research Center of Hawaii	UH Cancer Center Internship Program	25	High school and undergraduate students who have excellent academic qualifications and are highly interested in cancer research, with preference given to students who belong to groups underrepresented in cancer research, particularly Native Hawaiian and Pacific Islanders.

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Hawaii's Healthcare-Related Academic Support and Pipeline Programs, 2011 *continued*

Locations Served	Organization	Program Name	Annual Number Served	Target Population
Statewide	NIAID	Research Opportunities Program (INRO)	20	Underrepresented and/or financially disadvantaged full-time students of accredited 4-year colleges or universities who are interested in biomedical research.
Big Island, Kauai, Lanai, Maui, Molokai, Oahu	STEM Inter-community Portal	Pre-Academy	varies	Middle school students.
Big Island, Kauai, Lanai, Maui, Molokai, Oahu	Career & Technical Education Center (CTE)	Career Pathways	2,800	Secondary students.
Big Island, Kauai, Maui, Molokai, Oahu	University of Hawaii System	Various TRIO Grants (19 total)	5,500+	Various participants depending on program, including: non-traditional and potential first generation college students.
Big Island, Kauai, Maui, Molokai, Oahu	AHEC	Rural Health Careers Pathways	30+	High school students from rural areas.
Big Island	Hawaii Community College	Summer Career Explorations	up to 24	High school students on the Big Island interested in pursuing a career in healthcare.
Statewide	Hawaii Center for Nursing	Nurse Leadership Program	varies	Experienced Nurses.
Statewide	Department of Education	Health Services Pathways Advisory Council (HSPAC)	n/a	Secondary students.
Oahu	Windward Community College	CNA-LPN-RN Pathway Out of Poverty	73	Highly dedicated, non-traditional students.

Description of Programs:

Alu Like KŪLIA MA KAPI'OLANI: a highly refined and effective suite of culturally based support services woven into various CTE programs. Support services include but are not limited to, academic assessment and intervention, student tutorials, financial aid assistance, employment related skills, and continuing education and job placement programs. A significant emphasis is placed on internship opportunities within all CTE programs. The project has a high rate of employment placement for students successfully completing their particular program of study.

Alu Like E 'OLA PONO: The E 'Ola Pono project offers an integrated program of study designed for Native Hawaiian students in grades 10-12 that are interested in pursuing health care related careers. Health Careers Academy classes are infused with rigorous academic content focused on health care themes. Academy students will gain hands on experience in the health care field and will be able to utilize these skills upon successful completion of high school or in postsecondary education. Additional services incorporated into the project include smaller class sizes, mentoring and academic counseling, college and career guidance, and Math and English tutorials.

UH Manoa, 'Ike Ao Pono Program: Helping Native Hawaiian and Pacific Islander students apply to, succeed in and graduate from the SONDH, while providing support to nursing students enrolled at UH Manoa through advising, support services and tutoring, study group sessions, and scheduled workshops including cultural health issues.

UH Manoa, Health Careers Opportunity Program: HCOP provides an educational pipeline for students to pursue health careers within the University of Hawaii system. High School students are exposed to various healthcare career fields and introduced to university academic requirements and campus life through a summer residential program. Upon entrance into college, students receive assistance as they pursue and complete their health degree program. There is no cost to participate in this program.

UH Manoa, Pre-professional Advising Center: Formerly known as the Professions Advising Center, is a walk-in resource center for students interested in law, medicine (allopathic, chiropractic, naturopathic, osteopathic, podiatric), or the health sciences (dentistry, optometry, pharmacy, physician assistant, occupational therapy, physical therapy, veterinary medicine, etc.). <http://manoa.hawaii.edu/pac/>

UH Manoa, Options in Health Professions: Secondary school students from public schools with Health Service Career Pathways visit UH-Manoa to increase the student numbers health care programs and UHM, as well as another avenue to expose Services students to careers in health care.

UH Manoa, GEAR Up: provides college visits, tutoring, advising, counseling, test preparation workshops, a student club, and other academic enrichment activities for students, teachers, and parents. Available to Farrington and Waipahu secondary students. <http://manoa.hawaii.edu/gearup/farrington/>

Health Occupations of America, Hawaii State Association (Hawaii HOSA): provides an avenue for students interested in health and medical careers to demonstrate their understanding of knowledge, skills and attitudes expected in the healthcare industry. www.hawaiihosa.org

Queen's Medical Center, Summer Volunteer Program: Summer volunteer program for high school or college students age 15 or over. http://www.queensmedicalcenter.net/index.php?option=com_content&view=article&id=19:become-a-volunteer&catid=15:become-a-volunteer

Queen's Medical Center, Summer Nurse Intern Program: 9-week, 40 hours/week Nurse Internship for experienced nursing students currently enrolled in an accredited nursing program. <http://www.queensmedicalcenter.net/jobs/summer-student-nurse-intern-program>

Hawaii Pacific Health, Summer Student Research Program: With the guidance of a physician mentor, each Research Scholar works through the complete

cycle of the clinical research process, and analyzes the results of their findings to prepare an academic paper. Interns then present their findings at a culminating scientific session. The program aims to inspire college students to pursue a career in medicine.

Hawaii Pacific Health, Summer Student Internship

Program: During their senior year, high school students are invited to apply for a 6-week paid internship to interact with and learn from healthcare professionals and gain first-hand experience in the industry. Participating departments include: Nursing, Physical Therapy, Child Life, Surgery, Respiratory, Human Resources, Information Technology, and Patient Accounting.

Na Pua No'eau: Multiple programs with purpose of providing enrichment opportunities for Hawaiian children grades Kindergarten-12th. Centers are located on the islands of Kauai, Maui, Oahu, Molokai, Lanai, and the West and East side of the island of Hawaii. Programs provide education and career pathways to students in science, technology, engineering and math (STEM), leadership and health careers. <http://nnpn.uhh.hawaii.edu/>

UH, Cancer Research Center of Hawaii Internship

Program: Internship that encourages high school and undergraduate students to pursue future careers in the biosciences, particularly cancer research, giving practical meaning to academic coursework. <http://www.crch.org/internships.htm>

Intramural NIAID Research Opportunities: a program for talented students from populations underrepresented in the biomedical sciences who are interested in exploring career opportunities in allergy, immunology, and infectious diseases. Potential training opportunities include summer internship program, post-baccalaureate or doctoral intramural research training, graduate partnership programs, year off training program for graduate and medical students. <http://www.niaid.nih.gov/labsandresources/labs/training/inro/>

STEM Intercommunity Portal, First Academy: unique programs that open the door to a world of interactive

learning opportunities, where middle school students are engaged in relevant curriculum and activities across STEM (Science, Technology, Engineering, and Math). <http://www.sip-hawaii.org/pre-academy>

Career and Technical Education (CTE) Career Pathways:

establish career pathways for public education in various career fields, including Health Services. <http://www.hawaii.edu/cte/index.html>

UH System, TRIO Programs: federally funded educational opportunity outreach programs designed to motivate and encourage students from disadvantaged backgrounds. UH has 19 TRIO programs operating across all campuses. <http://windward.hawaii.edu/TRIO/>

AHEC, Rural Health Careers Pathways: to support expansion of local health careers pipeline programs, collaboration, and intra-island activities.

Hawaii Community College, Summer Career Explorations:

DOE offers 1/2 elective credit for high school students to explore health careers through a summer enrichment program.

Hawaii Center for Nursing, Nurse Leadership

Program: The Program consists of a two-day facilitated workshop which focuses on collaborative and values based leadership. An e-mentoring component facilitates the ongoing application of skills and knowledge in the practice setting.

DOE, Health Service Pathways Advisory Council:

Working on developing a standard curriculum to be used throughout the State of Hawaii public school system. HSPAC completed the standards for year one of a health careers pathway and is currently working on year two.

Windard Community College, CNA-LPN-RN Pathway

Out of Poverty Program: provides academic support and leadership opportunities during CNA, LPN, and RN vocational training and higher education for those who must overcome barriers to accessing more traditional forms of education and training.

Hawaii's Public Post-Secondary Institutions with Healthcare-Related Education and Training Programs Funded by the Department of Education, 2011

Locations Served	Institution Name	Healthcare Programs	Students Completed	Certificates and/or Degrees Offered
Oahu	University of Hawaii Manoa	School of Nursing and Dental Hygiene	150+ total	Registered Nurse (BS), Dental Hygienist (BS), Nurse Practitioner (Adult NP, Geriatric NP, Pediatric NP, Family NP, Dual NP, Advanced Public Health Nursing, Adult Health Clinical Nurse Specialist, Nursing Administration, Nursing Administration (MBA), Masters Entrance in Nursing, Nursing PhD
		School of Public Health		Master of Public Health, Master of Science in Public Health, PhD in Epidemiology, PhD in Public Health
		John A. Burns School of Medicine	6	Post-Baccalaureate Certificate for Clinical Training (Medical Technology), Medical Technologist (BS), Speech Pathology and Audiology (BS), Public Health (MPH, MS, DrPH), Communication Sciences and Disorders (MS), Cell and Molecular Biology (MS, PhD), Clinical Research (MS, PhD), Epidemiology (PhD), Developmental and Reproductive Biology (MS, PhD), and Tropical Medicine
Big Island	University of Hawaii Hilo	Nursing and Pharmacy	53	Nursing (BS), Pharmacy (BAPS), Pharmacy (PhD and PharmD), Experiential and Pre-pharmacy Programs
Oahu	University of Hawaii West Oahu	Forensic Science, Health Sciences Administration, Respiratory	n/a	Substance Abuse Counseling (SUBS CC), Nursing (RN, ASN), Respiratory Care (BAS). Note: KCC students and other graduates with a Respiratory Therapist Assistant (AS), can go to UH West Oahu for a Bachelors in Applied Science in Respiratory Care)
Big Island	UH, Hawaii Community College	Nursing and Applied Health	24	Practical Nurse (certificate preparing for LPN licensure exam), Health Information Technology (continuing education), Medical Office Assistant, and Medical Reimbursement Specialist (continuing education), Adult Resident Care Home Operator Training Program, Registered Nurse (AS)
Oahu, with limited online courses	UH Kapiolani Community College	Emergency Medical Services	189 total	Emergency Medical Technician, Mobile Intensive Care Technician (AAS)
		Health Sciences		Exercise and Sports Science (AAS), Medical Assisting (AAS), Dental Assisting, Occupational Therapy Assistant (AAS), Physical Therapy Assistant (AAS), Radiologic Technology (AAS), Respiratory Care Practitioner (AAS), Medical Lab Technician
		Nursing		LPN-RN Transition (AAS), Nursing (ADN), Long-Term Care Nurse Aide Program (with clinical experience), Practical Nursing Program
		Kupuna Education		Home Care Worker, Family Caregiver Training, Active Aging, Paraprofessional, and online Gerontology

Table continues next page

Hawaii's Public Post-Secondary Institutions with Healthcare-Related Education and Training Programs Funded by the Department of Education, 2011 *continued*

Locations Served	Institution Name	Healthcare Programs	Students Completed	Certificates and/or Degrees Offered
<i>Kauai</i>	UH Kauai Community College	Health Services Administration and Nursing	45	Practical Nursing, Certified Nurse Aide, Medical Office Receptionist, Registered Nurse (AS)
<i>Oahu</i>	UH Leeward Community College	Health Programs and Substance Abuse Counseling	varies	Medical Assistant, Phlebotomy Technician, Nurse Aide, Adult Residential Home Care Operator, Substance Abuse Counseling, Nursing (ADN)
<i>Maui</i>	UH Maui College	Dental and Allied Health and Nursing	48	Dental Assisting, Dental Hygiene (AS), Practical Nurse, Registered Nurse (AS), Substance Abuse Counseling, Substance Abuse Counseling (AS)
<i>Molokai</i>	UH Maui College, Molokai	Nursing	varies	Nurse Aide Certificate
<i>Oahu</i>	UH Windward Community College	Nursing	4	Certified Nurse Aide
<i>Oahu</i>	Hawaii Job Corps Center	Health Occupations	19	Nurse Assistant (CNA), Home Health Aide
<i>Statewide</i>	Hawaii Red Cross	First Aid and CNA Certification	varies	First Aid and Nurse Assistant classes and CNA certification exam

Note: Student completion numbers were collected directly from institutions reflecting the most recent available program year, or were based on data from healthcare-related majors from the National Center for Educational Statistics based on 2009–2010 school years.

Hawaii's Private Post-Secondary Institutions with Healthcare-Related Education and Training Programs, 2011

Locations Served	Institution Name	Healthcare Programs	Annual Students Completing Degrees or Certificates in Health-care Fields	Certificates and/or Degrees Offered
Oahu	Argosy University	Health Sciences	72	Dental Hygiene, Diagnostic Medical Sonography, Health Services Management, Histotechnology, Medical Technology, Public Health, Radiation Therapy, Radiologic Technology, Medical Laboratory Technology, Medical Technology, Public Health, Radiation Therapy, Master of Sciences in Health Services Management, Master of Public Health, and MA in Marriage and Family Therapy
Oahu	Chaminade University	Pre-Med and Nursing	90	Biology Pre-Med/Pre-Health Sciences (BS), Nursing (BSN)
Oahu	Hawaii Pacific University	Nursing and Public Health	234	Forensic Health Science Certificate, and Transcultural Nursing Certificate, Health Sciences (BS), Nursing (BSN), Pre-Chiropractic, Pre-Med, Pre-Physical Therapy, MSN as Community Clinical Nurse Specialist (CNS) or Family Nurse Practitioner (FNP)
Oahu	Brigham Young University	Exercise and Sports Sciences	11	Exercise and Sports Sciences (BS)
Oahu	University of Phoenix	Nursing and Health Care	15–30	Healthcare Administration (AA, MSN, or PhD), Healthcare Administration Medical Records (AA), Health Administration and Emergency Management (BS), Health Administration and Health Information Systems (BS), Health Administration and Long-Term Care (BS), Health Administration and Health Management (BS), LPN/LVN (BSN), RN to BSN, Administration/Informatics, Nursing (MSN), Master of Business Administration/Healthcare Management (MSN), Healthcare Education (MSN), Specialization in Informatics (MSN), Doctor of Philosophy in Nursing
Oahu	Caregiver Training School	Caregiver Training	no data	Dental Assistant, Phlebotomy Technician, Basic EKG Technician, IV Insertion, Patient Care Technician, Blood Borne Pathogens, Certified Pharmacy Technician, Medical Billing and Coding, and Certified Professional Coder Review Class
Oahu	Hawaii Medical Institute	Medical Careers	10	Clinical Medical Assisting, Pharmacy Technician, Medical Coding Billing and Insurance Professional
Oahu	Heald College, Honolulu	Health Care Programs	172	Medical Assisting, Medical Assisting (AS), Phlebotomy, Medical Office Administration, Medical Office Administration (AS), Dental Assisting (AS), Health IT (AS), Pharmacy Technician (AS), Medical Administrative Assistant (second associate degree)
Oahu	Remington College of Hawaii	Massage Therapy and Clinical Medical Assisting	54	Clinical Medical Assisting

Table continues next page

Hawaii's Private Post-Secondary Institutions with Healthcare-Related Education and Training Programs, 2011 *continued*

Locations Served	Institution Name	Healthcare Programs	Annual Students Completing Degrees or Certificates in Health-care Fields	Certificates and/or Degrees Offered
Oahu	Med-Assist School of Hawaii	Medical Assisting	75	Medical Assisting, Medical Coding
Oahu	Hawaii Technology Institute	Health Careers	no data	Medical Assisting, Pharmacy Technician, Health Information Technology (Medical Coding and Billing)
Oahu (military base)	Central Michigan University	Health Services Administration	10	Masters of Health Services Administration (Schofield Barracks location)
Oahu and Mainland	Pacific University	Physician Assistant Hawaii Outreach Program	<2	Physician Assistant (MPAS). Note: this program is only for students in Hawaii or from Hawaii living on the mainland who wish to return to Hawaii. It requires one year of study in Oregon and a later 6-week study in Oregon with majority of clinical rotations in Hawaii.
Mainland	Weber University	Sonography	varies	Sonography (certificate) or Ultrasound (BS). Note: this university is in Ogden, Utah, and has an articulated agreement with Kapiolani Community College so that someone with an AS in Radiation Technology from KCC can go to Weber University.
Oahu and Mainland	A.T. Still University	School of Osteopathic Medicine	10	Osteopathy (MD). The first year of medical school will be spent at ATSU in Arizona. Years two, three, and four will be at the hub sites (such as Waianae Coast Comprehensive Health) so the medical students will learn and train with health center doctors and staff
Oahu (military base)	Wayland Baptist University	Health Care Administration	varies	Business Administration with specialization in Healthcare Administration (Associates or Bachelor of Science)
Oahu	World Medicine Institute	Acupuncture and Herbal Medicine	9	Traditional Chinese Medicine, Taoist Medicine, Treatment and Needling, Herbal Medicine, Biomedicine, Clinic
Oahu	Institute of Clinical Acupuncture and Oriental Medicine	Acupuncture and Oriental Medicine	6	Acupuncture, Herbal Medicine, Biomedicine
Big Island	Traditional Chinese Medical College	Oriental Medicine	2	Masters of Science in Oriental Medicine
Oahu	Heisei International School of Massage	Massage Therapy	8	Massage Therapy Diploma Program

Note: Student completion numbers were collected directly from institutions reflecting the most recent available program year, or were based on data from healthcare-related majors from the National Center for Educational Statistics based on 2009–2010 school years.

Workforce Development Council

The WDC is a private-sector led public agency attached to the Department of Labor and Industrial Relations, responsible for advising the Governor and Legislature on preparing Hawaii's workforce development infrastructure to support economic development and employment opportunities for all. The WDC is also the Statewide Workforce Investment Board for purposes of the federal Workforce Investment Act of 1998. The WDC assists the Governor and Legislature in developing and updating comprehensive five-year strategic workforce investment plans and oversees workforce investment activities in the state.

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