REPORT TO THE TWENTY-FIFTH LEGISLATURE
STATE OF HAWAII
2009

PURSUANT TO ACT 219, SESSION LAWS OF HAWAII, 2007, RELATING TO HEALTH CARE
AND
ACT 213, PART III, SECTION 52, SESSION LAWS OF HAWAII, 2007, RELATING TO THE STATE BUDGET
FOR THE HAWAII HEALTH CARE WORKFORCE ASSESSMENT

PREPARED BY
THE UNIVERSITY OF HAWAII

JOHN A. BURNS SCHOOL OF MEDICINE

FOR

THE STATE HEALTH PLANNING AND DEVELOPMENT AGENCY

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ACT 219 and ACT 213

In accordance with Act 219, Session Laws of Hawaii (SLH), 2007 and Act 213, Part III, §52, SLH 2007, the State Health Planning and Development Agency (SHPDA) was statutorily directed to contract with an appropriate agency, thereafter identified as the John A. Burns School of Medicine (JABSOM) to work in partnership in creating solutions to the State's health care workforce shortage problems is submitting this interim report to the Hawaii State 2008-2009 Legislature.

Act 219, SLH 2007, and Act 213 similarly, directed JABSOM and SHPDA to:

(1) Compile and analyze existing data on the supply and distribution of licensed health care practitioners, technicians, and other health care workers in the State by profession, specialty, and practice location;
(2) Develop projections through 2020 of the workforce supply and demand to identify shortages;
(3) Develop a plan to address and reduce any identified shortages of health care workers;
(4) Develop a plan to collect and systematically update the data; and
(5) Ensure that data collected is accurate and secure and that data specific to any practitioner is disclosed only with the express written consent of the practitioner.

In 2007 the Hawaii State Legislature recognized that the State's anticipated population demographic changes, specifically its growth and aging, will significantly increase the demand for physician services. Alarmingly coinciding with this, federal statistics show that more than a third of our State's physicians are 55 and older and are expected to leave the workforce at a time when demand is escalating. The Legislature further acknowledged that physician shortages reduce access to care. Physician workforce shortages will significantly raise the already sky-high cost of healthcare. The overall impact of this identified anticipated shortage will likely severely impact neighbor island residents and the elderly, and the indigent, statewide.

In 2006 the federal government released its projections of an across-the-board, national physician shortage by the year 2020. The specialties that predominantly care for elderly patients, such as ophthalmology and cardiology, may see shortages in the 30% to 50% range. Seventeen states and a number of medical and surgical specialty societies have published their internal studies that similarly forecast significant physician shortages.

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MEMORANDUM OF UNDERSTANDING

On May 27, 2008 a Memorandum of Understanding (MOU) was established between the State Health Planning & Development Agency and the John A. Burns School of Medicine.

The project plan was drafted in July 2008 and the project formally began mid-August 2008.

DATABASE

The data will be used to estimate the adequacy of the Hawaii physician workforce and to project supply and demand through 2020.

The database will be created on a Microsoft Access 2007 platform. The data itself will be maintained on a secure SQL server in a locked room within the JABSOM Information Technology Department's work area. Access to the database will be password protected and limited to users specified by the Principal Investigator.

The database will be populated with information on each physician's demographic characteristics, training, specialty(s), and practice location(s). Future research would be helpful to also examine availability to see new patients, intention to relocate/retire, and satisfaction with practice.

Data sources include:

a. DCCA list of physicians licensed in Hawaii
b. AMA Masterfile data: 2005 and 2008
c. JABSOM alumni list
d. MD 2007 relicensure survey data
e. American Board of Medical Specialties
f. Health plan provider lists
g. Hospital privileges list
h. Union provider lists
i. Specialty society lists
j. Public sources, such as the Internet and phone book

The identified data sources are all incomplete or offer variables that will potentially affect outcomes.

Approximately half of the physicians licensed to practice in Hawaii by DCCA do not practice here. Many are on the mainland, some have retired, others perform research, work in public health, are administrators, or teach.

The American Medical Association maintains detailed information on all physicians; however, their data has been criticized in the literature in terms of accuracy and currency. Although the error rate can be relatively high, nevertheless health workforce researchers consider the Masterfile adequate for use at the state level as there is no other comparable compendium of practicing physicians.

Pertaining to physician practice characteristics, none of the data sources is complete and comprehensive. As such, data on availability to accept new patients, satisfaction with the practice of medicine, or intention to leave the Hawaii workforce must be obtained through a survey mechanism.

A physician survey conducted at regular intervals is the most efficient and effective way of updating the database. As many of the solutions to identified supply/demand imbalances will require large amounts of capital, creating and funding such a survey mechanism would be prudent.

LITERATURE REVIEW

Medical (and other professional) journals are maintained in searchable on-line databases. The medical literature is a compilation of the collective wisdom of generations of researchers in all disciplines from basic bench research to administrative and economic domains. The literature search was generally limited to publications since 1990 and written in English. In a two month period the JABSOM researchers read and wrote summaries of more than 400 detailed articles.

The identified workforce patterns and trends were broken down into the following categories:

- access to care
- recruitment and retention
- supply/productivity
- need/demand
- planning/projections
- cost
- outcomes

Fortunately, other states have published the details of their assessments, projections, and plans to correct or mitigate physician shortages. There is a wealth of useful information in the literature reviewed for this project.

What is conspicuously missing from the vast literature review that has been conducted is a clear answer to the question, 'How many physicians does a community need?' Instead, the literature identified nine different methodologies to assess a community's need for physicians. As one can infer, if there are nine different ways of solving a problem, it's a good bet that none of them work very well. Fundamentally, there is no research data that speaks to a specific physician density (physicians per population) that produces the best health outcomes for a community. Additionally, from conversations with national experts in the field, no such studies are planned. The JABSOM researchers will have to use several different methods of assessing our State's need for physicians and provide the best estimate available.

A similar problem set is found in the supply/demand projection literature. Many approaches have been tried, and some of the most elaborate have produced the worst results. The Rand Corporation, a well-respected California think-tank, attempted in the mid-90s to project the U.S. supply and demand for orthopedic surgeons by the year 2010. Their model projected a large surplus, which is directly contrary to the 2008 consensus. This illustrates the problem of predicting the future in a dynamic industry like healthcare. Changes in the economy, societal expectations, technology, and the delivery system can have large and unknowable effects. Nevertheless, planners and governments must try to anticipate problems so that proactive steps can be taken in a timely way.

As stated earlier, the Health Resources and Services Administration (HRSA) of the federal government projects a nationwide shortage of physicians by the year 2020 (10-20%). Several states have accepted these projections and have responded accordingly. Some have chosen to expend large amounts of capital to open new medical schools while others are continually surveying their physicians to monitor trends.

FOCUS GROUPS

With regard to the physician workforce, the JABSOM researchers are currently setting up a series of focus groups across the state to explore industry leaders' insights on the related issues. Capturing these individuals' perspectives on the current trends, challenges, and potential solutions will play a vital role in the development and utility of this project and its related products.

SUPPLY/DEMAND PROJECTIONS

The JABSOM researchers will select an appropriate methodology to conduct statewide projections through 2020. However, whichever methodology arrived upon and its future correlating outcomes and findings, there is already overriding recognition that the data field is fraught with potential pitfalls. As such, JABSOM researchers may recommend that the State update the projections at five-year intervals, or whenever a major transformation occurs (such as healthcare reform). The JABSOM researchers will likely similarly recommend continual monitoring of the physician workforce in the form of a survey accompanying the bi-annual re-licensure process.

SOLUTIONS

Solutions will be formulated after the assessment and projections have been completed. The JABSOM researchers will also attempt to estimate the cost of the solutions recommended.

TIMELINE

The project is on schedule to be completed by the end of December, 2009. The final report will be submitted to the Twenty-Sixth Hawaii State Legislature, 2009-2010.