Improving Access to Healthcare in Hawaii County
“Without systematic development of a health workforce pipeline, the physician shortage in the neighbor islands will worsen. Hawaii will continue to lose millions of dollars annually to unnecessary health care expenditures. Without adequate access to health care providers, neighbor island development will be stifled.”

—Jerris R. Hedges, M.D., Dean, John A. Burns of School of Medicine
June 22, 2010
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Executive Summary

Why Access to Healthcare Matters

Access to health care plays a vital role in the health of both individuals and populations. According to the Institute of Medicine (1993) “access to healthcare is the timely use of personal health services to achieve the best possible health outcomes.” Access to healthcare is influenced by whether there is an adequate health provider workforce, whether residents have insurance, travel times, language and cultural barriers, and the price of care. Barriers in any of these areas can result in lack of access, delays in care, higher costs and worse outcomes. Population health research by Harvard and Johns Hopkins Universities shows a clear link between better access to primary care, with a higher ratio of primary care providers to the population, and lower death rates. The Center for Disease Control documents that communities with poorer access to coordinated primary care tend to have higher costs and higher rates of “potentially preventable hospitalizations”.

Large Health Disparities and Large Provider Shortages in Hawaii County

Hawaii County has higher death rates in many categories and lower life expectancy compared to the other counties in Hawaii. The Hawaii County healthcare provider shortage is also documented to be worse than elsewhere in Hawaii. The provider shortage is a key barrier to health care access in Hawaii County and a key reason for the higher death rates, and higher costs. Additional reasons for the large health disparities in Hawaii County are related to economic disparities as well as higher smoking and obesity rates. The aging population and aging workforce will make this access problem worse.

Over the past ten years there has been a growing shortage of primary care providers in Hawaii County such that Hawaii County is now about 34% short of primary care providers. Many Big Island physicians have left practice. Many have moved to the mainland, where their incomes are substantially better, and they have better access to quality public schools. Many Big Island residents do not have a primary care provider or usual source of care and too many residents delay care and/or use the Emergency Department. This is linked with lower cancer screening rates, higher complications from chronic diseases - such as diabetes - and higher costs from higher hospital utilization.

The access to care problem has grown to the point that the last two Hawaii County Mayor’s both held health summits to increase focus on the critical situation. Following the Hawaii County 2007 Health Summit, several health leaders formed a voluntary group of stakeholders - the Hawaii Island Healthcare Alliance - to collaboratively address the growing healthcare access problem in Hawaii County. Members include representatives from provider organizations, hospital CEOs, Federally Qualified Health Center CEOs, insurers, SHPDA, government, workforce investment, University of Hawaii (UH) Hilo School of Pharmacy, UH John A. Burns School of Medicine, and business and community organizations.

Benefits of Growing the Primary Care Provider Supply

There is strong evidence that growing the primary care provider workforce will reduce death rates, reduce potentially avoidable Emergency Department and hospital utilization; grow the job market, and help to grow the economy. According to one analysis (Macinko et al., 2007) for each increase of one primary care physician per 10,000 population, there is an associated reduction in the average mortality by 5.3%. According to the Lewin Group, the average number of jobs supported by office based physicians in Hawaii State is 5.8 jobs.

The data in this report, although incomplete, is intended to document the growing problem. The recommendations are intended to serve as a call to action, by the many stakeholders impacted, to collaboratively address the provider shortage in Hawaii County. The benefits will be many.
Recommendations to Improve Access

These recommendations are intended to build on the work of many of the organizations currently addressing the healthcare access problem in Hawaii County. These are the author’s summary of recommendations, however, many of these recommendations come from multiple sources including the John A. Burns School of Medicine, University of Hawaii at Manoa (UH JABSOM) Workforce Forum, Mayors’ Summits and the Hawaii Island Healthcare Alliance. This high level outline of key strategies is intended to be a preliminary list for both dialogue and action.

Focus on growing an efficient healthcare workforce, especially primary care providers:

Grow number of providers
- Support growing our own primary care providers through support for the University of Hawaii Family Practice Rural Residency Program in Hilo.
- Strengthen the provider pipeline through work with Hawaii public and private schools;
- Support collaborative recruitment of specialists
- Increase access to Student Loan Repayment programs to attract young providers in part through expansion of Health Professional Shortage Area (HPSA) designations.
- Improve, streamline and shorten the provider licensing and credentialing processes.

Grow capacity to hire providers and improve productivity
- Improve the capacity of Hawaii County healthcare employers to recruit, hire and retain primary care providers; Grow group practice and “staff model” practices.
- Improve capacity to mentor young providers.
- Improve provider capacity to effectively use technology and provider skills in clinical transformation through the Hawaii Island Beacon Community Grant.
- Support development of primary care teams with more effective use of non-physician clinicians (physician assistants, nurse practitioners and certified nurse midwives).
- Reduce policy and administrative barriers to effective use of non-physician clinicians.
- Support workforce development and training for ancillary health professionals.
- Support effective use of technology alternatives to in-person visits, where appropriate.

Reduce fragmentation of stakeholders; catalyze a network of collaboration; develop shared aims:

- Support island wide efforts to reduce fragmentation and increase communication and systems perspective through Hawaii Island Healthcare Alliance, Hawaii Island Beacon Community, State Office of Rural Health and Hawaii Health Systems Corporation.
- Support island wide acute hospital collaboration, through the Big Island Hospital Collaborative to provide core services on-island, support regional planning for core services and partnerships for transfer when appropriate.
- Support island wide collaboration through Hawaii Island Beacon Community to use population health information to continuously improve healthcare delivery and quality.
- Support island wide collaboration to improve maternal child health improvements though, Hawaii Collaborative Heath Initiative (HI- CHI).
- Support island wide collaboration to improve services for seniors, especially services which support seniors to remain in the community.
Recommendations to Improve Access

**Support stakeholder alignment on high leverage healthcare policy change:**

- Support state and community funding of *UH Family Practice Rural Residency Program* in Hilo.
- Increase awareness of the healthcare access problem in Hawaii County, its human and financial impact especially the associated higher cost of higher Emergency Room and hospital utilization. Increase awareness of the impending impact of population aging which will dramatically increase demand for healthcare services.
- Support a rural payment differential for Neighbor Island providers.
- Increase Federal Health Professional Shortage designations in Hawaii County - to increase access to federal funds for loan repayment and 10% Medicare increase for primary care.
- Support reducing the barriers to financially sustainable hospitals and providers by reducing the gap between cost of providing care and reimbursement and by recalculating Hawaii Geographic Practice Cost Indices (GPCIs) for Medicare.
- Continue to investigate federal "Island" designation.

**Support economic development of the healthcare sector in Hawaii County:**

- Leverage the well-recognized economic multiplier effect of growth of the healthcare sector to address the simultaneous Hawaii County need for jobs and economic development.
- Develop health enterprise zones in Hawaii County to stimulate economic development of the healthcare sector.

**Reduce demand for healthcare services:**

- Support consumer and community engagement in maintaining and improving healthy lifestyles.
- Support appropriate use of palliative and support services.
Recommendations to Improve Measurement of Access

*Improving access will also require improving the measurement of access to healthcare.*

These recommendations are intended to catalyze further dialogue and action to improve the measurement of access. It is essential to have an accurate physician database in order to have an accurate assessment of the problem, credible way to track progress and appropriate federal shortage designations, so that Hawaii County receives appropriate access to federal funding. For these reasons the author suggests these data improvements:

- Improve data accuracy on the number of actively practicing primary care physicians and total physicians. Also improve accuracy on the number of physician assistants, and nurse practitioners in active practice. Work with JABSOM and Hawaii Island Beacon Community to develop process to update provider database. Then use the updated accurate data to update the American Medical Assessment (AMA) master file (used for federal HPSA designations and national population provider ratios).

- Improve data accuracy on the total relevant population by investigating federal policy on adding an appropriate number of the daily visitor population to the standard resident census population.

- Improve usefulness of physician data collected by the Department of Commerce and Consumer Affairs (DCCA) though its online medical licensing and re-licensing process in order to provide more accurate physician data on primary vs. specialty care, location of practice and the amount of time spent in practice.

- Track the *Healthy People 2020* measure: the proportion of people with a usual source of care; work with *Hawaii Island Beacon Community* and health plans to add additional standardized measures of access.

- Track progress by reporting ratio of population to primary care providers.
More Uninsured

Hawaii County, (like the other Neighbor Islands) has a higher proportion of the population who were uninsured in 2010. The proportion of uninsured on all islands has risen as unemployment has risen. Survey data often underestimates the proportion of uninsured. Those who lack insurance often defer or delay healthcare. Children without health insurance are more likely to use emergency rooms for regular care and more likely to delay seeking care.

Hawaii County has nearly 15% of adults who are uninsured compared to 9.2 % for City & County of Honolulu, according to the American Community Survey 2010 data. Hawaii County also has more seniors (>65 years) who are uninsured compared to all other counties. Hawaii County has more youth (< 18 years) uninsured 4.4% compared to the City and County of Honolulu 3.3%.

Resource: To find information or to help enroll children in health insurance, see www.coveringkids.com/news. Kids’ Health Insurance hotline – dial 211. This is a free call from all islands.
**Fewer Physicians per Population**

Hawaii County has the lowest ratio of licensed physicians with a Hawaii primary address per 1,000 population compared to the other counties. Approximately 50% of physicians licensed in Hawaii have a mainland primary address and presumably do not practice in Hawaii. Therefore, only licensed physicians with a Hawaii primary address are used to calculate ratios of physicians per population. Because many of the licensed physicians, with a primary Hawaii address, are not actively practicing, the actual practicing ratios are even lower than calculated here.

Eventually, it would be preferable to report and track ratios of population per primary care provider, which has national benchmarks and is linked with reduced death rates.

**Hawaii County has 14% of the State’s Population but only 10% of the State’s Physicians**

Hawaii County has 14% of the state’s population, based on the U.S. Census 2010; however, Hawaii County has only 10% of the state’s licensed physicians with a primary Hawaii address, as of July 27, 2011.
Access to Healthcare Problem in Hawaii County

**Hawaii County has a Shortage of 179 Doctors and of 58 Primary Care Doctors**

Hawaii County faces a total shortage of 179 physicians including a shortage of 58 primary care doctors, according to updates to the Hawaii County Physician Workforce Study 2010 by University of Hawaii John A. Burns School of Medicine (UH-JABSOM). The gap of 58 physicians in primary care is 34% of the demand. The UH-JABSOM study was based on the actual supply of actively practicing physicians compared to the calculated demand, using a nationally standardized model from the Lewin Group.

![Figure 5: Hawaii County Gap Between Supply and Demand for Doctors - 2010](source: U.H. John A. Burns School of Medicine, Area Health Education Center)

**Older Physician Workforce in Hawaii and Fewer Young Physicians**

Also according to the UH-JABSOM Workforce Study (2010) Hawaii State has a larger proportion of older physicians than the U.S. and a substantially smaller proportion of younger physicians, especially in the under 35 age group.

Hawaii has been unable to attract younger physicians according to the same study and will face even worse shortages in 2020 when about 43% of physicians older than 65 are expected to retire.

- 29% of U.S. physicians are 55 years or older\(^6\)
- 41% of Hawaii physicians are 55 years or older\(^6\)
- Hawaii State has only one Cardiologist under the age of 35\(^6\)
- Hawaii State has no Neurologist under 35\(^6\)
- Hawaii State has no Neurosurgeon under the age of 45\(^6\)
Impact of Access Problem in Hawaii County

More Hawaii County Residents Report Being Without a Personal Doctor

For 2010, Hawaii County residents reported high rates of not having a personal doctor, 16% compared to 13% for the City and County of Honolulu, according to the Behavioral Risk Factor Surveillance Survey, 2010. This phone survey may underestimate the problem.

More Hawaii County Residents with “No Doctor Visit within Past Two Years”

In 2010, about one quarter of Hawaii County residents surveyed by the Behavioral Risk Factor Surveillance Survey reported no doctor visit in the past two years. The percent in Hawaii County reporting no visit increased slightly from 2005-2010 and is higher for Hawaii County than the State average.
Fewer mothers in Hawaii County received first trimester prenatal care compared to the State average from 2000 – 2009. In 2009, only 76% of mothers in Hawaii County received first trimester care, compared to 84% for the State.

**Figure 8**

Percent Mothers Receiving Prenatal Care in First Trimester

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<tr>
<td>2009</td>
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Healthy People 2020 Target -77.9%

Source: Department of Health - Office of Health Status Monitoring, 2000-2009

Photo courtesy of www.office.microsoft.com
Lower Rates of Preventive Screening

Preventive screening is a cost-effective way to identify and treat potential health problems before they develop or worsen (Center for Disease and Control, 2011). Preventive screening such as pap tests, mammograms and sigmoidoscopy and/or colonoscopy can help to detect diseases at an earlier more treatable stage. See the Guide to Clinical Preventive Services (2009) Recommendations of the U.S. Preventive Services Task Force.

Fewer Hawaii County Women Get Mammograms

On average from 2008-2010, only 74.5% of Hawaii County women (40+ years) surveyed had a mammogram, within the past two years, compared to 77.6% for the State.

Fewer Hawaii County Residents Screened for Colon Cancer

In 2010, slightly fewer Hawaii County residents, 60% vs. 61%, for the State were screened for colon cancer with a sigmoidoscopy or colonoscopy. Though there has been increased screening at both the County and the State levels, Hawaii County screening is consistently lower that the State.
**Impact of Access Problem in Hawaii County**

**More Hospitalizations for Diabetes**

The provider shortage most likely contributes to Hawaii County's relatively high rate of hospitalizations and of "potentially avoidable hospitalizations" for uncontrolled diabetes per 100,000 population. The Hawaii County rate for hospital admission from uncontrolled diabetes was nearly twice the City and County of Honolulu's rate in 2009. Hawaii Island Beacon Community will be addressing and tracking this measure.

![Uncontrolled Diabetes Hospital Admissions: Observed Rates - 2009](chart-url)

**Higher All Causes Death Rates**

Hawaii County has a consistently higher all causes death rate compared to the State rate.

![All Causes - Age-Adjusted Death Rate](chart-url)
**Impact of Access Problem in Hawaii County**

**Higher Cardiovascular Death Rates**

Hawaii County has consistently higher cardiovascular death rates.

![Figure 13](chart_13.png)

**Higher Overall Cancer Mortality**

Hawaii County has a generally higher cancer death rate for most years in the past decade.

![Figure 14](chart_14.png)
Impact of Access Problem in Hawaii County

**Higher Infant Mortality Rates**

Infant mortality is defined by an infant's death within the first year after birth. In general, infant mortality is linked with socioeconomic indicators as well as access to care. Because it is a relatively rare occurrence, rates vary more in smaller populations. Hawaii County infant mortality rate per 1,000 births has been generally higher that the State rate. In 2009, the Hawaii County infant mortality rate was 6.9 compared to 5.9 for the State.

![Infant Mortality Rate Chart](chart.png)

**Lower Life Expectancy**

Life expectancy is a summary measure. Hawaii County had the lowest average life expectancy, 79.7 years, compared to the other counties.

![Average Life Expectancy at Birth by County](chart.png)
More Residents in Poverty

Hawaii County proportion of population below 100% of the federal poverty level is 18.4% compared to 9.1% for the City and County of Honolulu in 2010. The Hawaii County poverty rate is two times higher than the City and County of Honolulu.

More Children in Poverty

Hawaii County has 25% of youth (children below 18 years of age) in poverty. The Hawaii County child poverty rate is more than two times higher than the child poverty rate for the City and County of Honolulu.
**More Native Hawaiians in Hawaii County**

Hawaii County has a higher proportion of self-reported Native Hawaiians at 33.8% compared to the City and County of Honolulu at 24.5%.

![Native Hawaiian Population - 2010 (alone and/or in combination)](chart.png)

**More Native Hawaiian’s in North Hawaii**

The Waimea – Puuanahulu census tract (217.02) has 42% self-reported Native Hawaiians compared to 33.8% for Hawaii County, and 26.2% for the State.

![Hawaiian Population – 2010 (Native Hawaiians Alone and/or in Combination) By Census Tract](chart2.png)
**Entire Hawaii County Designated as Medically Underserved Area**

Hawaii County, as a whole, has a federal designation as a Medically Underserved Area (MUA) and Medically Underserved Population\(^{13}\).

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*Figure 21*

**Location of Federally Designated Medically Underserved Area and/or Population**

State of Hawaii 2009

- Medically Underserved Area / Population
- Not - Medically Underserved Area / Population

There are guidelines to determine if a place is a medically underserved area or population area based on the Index of Medical Underservice (IMU) variables. The IMU involves four variables:
- ratio of primary medical care
- physicians per 1,000 population,
- infant mortality rate,
- percentage of the population with incomes below the poverty level, and
- percentage of the population age 65 or over.

Prepared by North Hawaii Outcomes Project - March 2010

Source: State of Hawaii Primary Care Needs Assessment Databook 2009
Current Federal Designations of Provider Shortage

Only Parts of Hawaii County Receive Federal HPSA Benefits

Despite the entire Island being designated as a medically underserved area, currently, only a few parts of Hawaii County are designated as a Health Professional Shortage Area (HPSA)\(^{14}\). This is despite the clear data documenting the severe and growing island wide provider shortage. HPSA designation is important because it improves Medicare reimbursement for primary care by 10%.

| State: Hawaii |
| County: Hawaii County |
| Date of Last Update: All Dates |
| HPSA Score (lower limit): 0 |
| Discipline: Primary Medical Care |
| Metro: All |
| Status: Designated |
| Type: All |

(Satellite sites of Comprehensive Health Centers automatically assume the HPSA score of the affiliated grantee. They are not listed separately.)

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Conclusions

A key high level recommendation to improve access is to increase the areas designated as a Healthcare Professional Shortage Area in Hawaii County. This is especially important because of the higher proportion of Native Hawaiians, especially in census tract 217.02, the higher death rates and the aging healthcare workforce in Hawaii County. Please see additional recommendations to improve access on page two and three.

Substantially improving healthcare access in Hawaii County, for the long run, will require additional collaboration and additional investments. Investing in access is expected to pay off in economic growth because of the well-recognized healthcare economic multiplier effect and because of the expected reduced cost from reduced potentially avoidable Emergency Room and hospital utilization.
## List of Figures

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<td>Department of Commerce and Consumer Affairs</td>
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<td>Department of Health and Human Services, Health Resources and Health Administration</td>
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According to the Healthy People 2010, “Healthy People provides science-based, 10-year national objectives for improving the health of all Americans.” One of the Healthy People 2020 goals is to improve access to quality health care services.

The following objective measures of Access to Health Services (AHS) are intended to track progress on that goal:

AHS–1 Increase the proportion of persons with health insurance.

AHS–2 Increase the proportion of persons with health insurance coverage for clinical preventive services.

AHS–3 Increase the proportions of people with a usual primary care provider.

AHS–4 Increase the number of practicing primary care providers.

AHS–5 Increase the proportions of persons who have a specific source of ongoing care.

AHS–6 Reduce the proportion of individuals who are unable to obtain or delay in obtaining necessary medical care, dental care, or prescription medicines.

AHS–7 (Developmental) Increase the proportion of persons who receive appropriate evidence-based clinical preventive services.

AHS–8 (Developmental) Increase the proportion of persons who have access to rapidly responding pre-hospital emergency medical services.

AHS–9 (Developmental) Reduce the proportion of hospital emergency department visits in which the wait time to see an emergency department clinician exceeds the recommended timeframe.
Appendix B – References

1. Millman, Michael, Ph.D., Access to Health in America, Committee on Monitoring Access to Personal Health Care Services Institute of Medicine, 1993


8. The Economic Impact and Multiplier Effect of a Family Practice Clinic on an Academic Medical Center, July 21, 1989, Schneeweiss et al. 262 (3): 370 – JAMA


“Improving health care services depends in part on ensuring that people have a usual and ongoing source of care. People with a usual source of care have better health outcomes and fewer disparities and costs.”

—Healthy People 2020