

# UNIVERSITY OF HAWAI‘I SYSTEM ANNUAL REPORT



REPORT TO THE 2011 LEGISLATURE

ANNUAL REPORT FROM THE  
MEDICAL EDUCATION COUNCIL

HRS 304A-1704 (Act 181, SLH 2003)

November 2010

## Hawai'i Medical Education Council

### Report to the 2011 Legislature

#### Progress Report

The following is a supplement to the report to the 2010 Legislature of the Hawaii Medical Education Council. That more extensive report is provided as Appendix A.

Hawaii continues to face a severe shortage of physicians. Estimates of a deficiency in the physician supply of greater than 500 physicians at present provided last year continue to be supported by ongoing research. In the report to the 2010 Legislature, the Hawaii Medical Education Council emphasize the relative advanced age of Hawaii's physicians and underscored a probability of 40% of them reaching retirement age by 2020. Hawaii will continue to require an additional 1000 physicians beyond current levels to maintain current levels of services over the next 20 years.

The history of this developing shortage is of course not limited to Hawaii, and has been increasingly well-documented since the end of World War II. Supply growth stimuli by the federal government led to the appearance of a surplus in the interval 1980-2000, an appearance predicated on private practice models and limitations in employment opportunities. This had little if anything to do with the actual need for provision of healthcare. Unfortunately, the consequent limitations on development of specialty care training programs, or "residencies", has contributed to the present shortfall in both primary care and specialty services. There has been unequivocal consensus since 2005 that a severe shortages are impending and that the means of physician production are insufficient to meet the shortage. Existing Health Resources and Services Administration (HRSA) projections suggest a 2:1 disproportionate growth of demand to supply by 2020. Interestingly, a superficial examination of the demographics of physicians in Hawaii conceals these risks. Despite a licensure rate of over 8000 physicians in Hawaii, only 3800 are active and only 2600 practice medicine half-time or more here, reflecting a large number who maintain practices elsewhere or who are retired. The deficit is further exacerbated when one takes into account the large number of physicians who are in research, non-clinical specialties (e.g., pathology or preventive medicine/public health), administrative service or academic service, and are thus not providing clinical care. The demographics of deficits are even more complex when consideration is given to the specific services provided: while the overall deficit is greatest among primary care physicians, such as family practitioners and internists, the demand for cardiologists (120 cardiologic physicians needed with fewer than 60 on hand) becomes more striking when it is understood that cardiologic services have almost entirely reverted into the hands of cardiologists where once they were provided at least equally by internal medicine specialists, family practitioners, and general practitioners (two or fewer years of postgraduate training).

Hawai'i continues to need to graduate or recruit a total of 150 physicians per year to maintain current ratios, with over 200 per year to correct the deficit. JABSOM classes have risen to 64 students per year, and of the approximately 90 new physicians who begin practice in Hawaii each year half have JABSOM ties (medical school or Hawaii Residency Program (HRP)). The rest continue to be recruited from outside of the state. Increasing the number of medical trainees in Hawaii is possible, a prospect discussed in

the 2010 report. Based on preliminary data collection, shortages are expected to be most severe in primary care, cardiology, gastroenterology, orthopedics, and general surgery with maldistribution in other medical and surgical subspecialties such as psychiatry. Impending shortages will be national, and so will be competition.

### **Council Assignment**

In 2003, Act 181 created the Hawaii Medical Education Council in an effort to secure additional national and state funds to develop graduate medical education. Specifically, HMEC was tasked to identify physician workforce shortages and develop a statewide plan for meeting workforce needs. Although the original funding mechanism proposed never materialized, the Council has continued to meet to discuss workforce issues. Continued collection and examination of data by JABSOM faculty validates the growing severity of the workforce shortages. The next meeting of the Council is December 10, 2010.

### **Financial Report**

The Council has not received or expended any allocation in 2010.

### **Present State**

The Council continues to hear presentations from the JABSOM research group commissioned to gather workforce data. On 29 June of this year, a graduate medical education (GME) retreat with statewide private and public sector participation was hosted by the School of Medicine, in Honolulu. The retreat was an opportunity to review assembled data, examine models and develop interpretations, project needs, and suggest solutions for the workforce deficit focusing on the graduate medical education resources in Hawaii. The report of that retreat is attached as **Appendix B**. A total of 144 guests attended, representing legislature, University of Hawaii, physician groups, medical groups, third party payers, rural health associations, physician assistants, nurse practitioners, business community and medical students. After four morning presentations addressing national and local physician workforce statistics and trends the participants separated into three working groups. The topics were 1) Supply; 2) Demand; and 3) Support/Retention. Summaries of the three working groups, as well as the statistics and trends data provided as background to the retreat are available at the AHEC webpage <<http://www.ahec.hawaii.edu/workforce.html>>. Samples of graphic interpretations of the data sets are included here as **Appendix C**.

### **Conclusions**

A severe physician shortage will occur over the next 20 years. Immediate attention is required to blunt the negative impact of this national phenomenon here in Hawaii. The shortage affects all medical specialties to varying degrees. The Council reasserts the need for execution of several key recommendations.

## **Recommendations to Consider**

- 1) Continue targeted recruitment of practicing physicians to become faculty in JABSOM and targeted GME programs. This has two benefits: It will immediately increase workforce in key areas while preparing Hawaii to train more physicians. It requires capitalization.
- 2) Rapidly expand the enrollment of JABSOM by 40%. (24 students per year), already commenced.
- 3) Rapidly expand graduate medical education in key areas of projected shortages; this is presently limited by capped CMS support to GME, at 1996 levels. (40% expansion = 100 resident positions)
- 4) Expand training sites to neighbor islands in order to create the capacity to graduate more physicians and expose physicians in training to practices across the state to optimize our ability to recruit them to stay. This has begun with a limited extension of the Department of Family Medicine and Community Health residency training program to the island of Hawai'i.
- 5) Create Island specific projections and engage local business, cultural, political, and community leaders in the planning for and active recruitment of physicians to their local area. Such a model exists on the island of Hawaii (Hawaii Island Health Care Alliance).
- 6) Create a loan forgiveness program to immediately improve recruitment into underserved areas.
- 7) Continue to support the JABSOM physician workforce research team as they clarify the shortages, identify systems solutions to the growing shortages and monitor the impact of interventions. Funding for this research continues to pose a challenge.
- 8) Enhance programs that encourage students to consider careers in health care (e.g. Area Health Education Centers [AHEC]). This can be augmented by partnerships with existing programs such as the National Health Service Corps and the Native Hawaiian Health Care Scholarship Program.
- 9) Continue to explore use of waivers to attract HRP residents training in Hawaii on J-1 visas.
- 10) Expand the Imi Ho'ola Program from 10 to 20 students, presently in development.

## **Timeline Considerations**

Here are the timelines to first practice-ready physicians for the various recommendations above. The timeline remains unchanged from last year's report, although as noted above certain programs – such as medical school expansion, the rural health initiative in Hawai'i and faculty recruitment – have begun and enjoy modest progress.

- Faculty recruitment, island specific recruitment plans, visa waivers, and loan forgiveness – could start immediately with full impact in 2 to 3 years.
- Expansion of existing Fellowships – 1 to 3 years
- Creation of new Fellowships – 3 to 5 years

- Graduation of first new Fellowship trainees – 4 to 7 years
- Expansion of existing Residencies – 3 to 5
- Graduation of first additional Residency trainees – 6 to 8 years
- Creation of new Residency positions - 5 to 7 years
- Graduation of first new Residency trainees – 8 to 10 years
- JABSOM medical student class size expansion - 7 to 10 years
- Encouraging UHM Graduates to enter medicine – 10+ years

*The following projection remains valid a year after the original workforce study and its associated report to the Legislature: "If these measures are immediately and successfully executed, they have the potential of reducing the growing deficit from 60 physicians per year to 30 physicians per year by 2019. Consequently other system or programmatic changes will also need to be initiated to improve the growing shortage. Other solutions to consider include new models of care, interdisciplinary teams of health professionals other than physicians, quality agendas and reorganization of delivery services."*

Respectfully submitted,

Hawaii Medical Education Council, 2010



A. Roy Magnusson, M.D.  
Associate Dean for Clinical Affairs  
John A. Burns School Of Medicine

**Hawai'i Medical Education Council**

**Report to the 2010 Legislature**

**Executive Summary**

*Hawaii is facing a rapidly developing, severe shortage of physicians.* Current estimates of the supply of physicians indicate that Hawaii is well below the demand predicted by a national model of physician workforce assessment. In fact preliminary estimates are that Hawaii is more than 500 physicians short of what is needed, and the physicians are not distributed to maximally meet the needs of Hawaii residents. In addition, Hawaii's physicians are older than the national average and roughly 40% are expected to reach retirement age (age 65) by 2020. Several other factors will dramatically increase demand for health care services. A demand model developed by the Lewin Group that has been utilized by the U.S. Health Resources & Services Administration (HRSA) incorporates factors such as population growth, the aging of the population, generational and gender differences in practices. UH John A. Burns School of Medicine (JABSOM) faculty applied this model to estimate future demand for physicians in Hawaii. Over the next 20 years, Hawaii will need an additional 1000 physicians beyond current levels to maintain current levels of services.

As a result, Hawaii will need to graduate or recruit a total of 150 physicians per year to maintain current ratios. Closing the gap between Hawaii and national norms by the year 2020 would require over 200 new physicians per year. JABSOM classes are currently at 62 students per year. Approximately 90 new physicians begin practice in Hawaii each year. Half of these have JABSOM ties (medical school or Hawaii Residency Program (HRP)). The rest are recruited from outside of the state. These new demand projections suggest that we will need to improve overall recruitment by at least 60 physicians per year. Increasing the number of medical trainees in Hawaii is possible and a 40% increase in both JABSOM and residency training positions would likely result in an additional 30 practice-ready physicians with Hawaii ties per year starting in 2018. The rest of the gap will need to be filled through improved recruitment and retention, new models of care (a combination of episodic and medical home models), and interdisciplinary teams that include physicians nurses, pharmacists, physicians assistants, and other health professions.

Based on preliminary data collection, shortages are expected to be most severe in primary care, cardiology, gastroenterology, , orthopedics, general surgery and other medical and surgical subspecialties. Hawaii has training programs in only four of these areas currently. Unless we create training opportunities for these specialties here in Hawaii, we will need to compete for physicians with the mainland where shortages will also be severe, perhaps as high as 150,000 physicians.

Specific recommendations are provided along with the timeline to acquisition of a practice-ready physician.

**Council Assignment**

In 2003, Act 181 created the Hawaii Medical Education Council in an effort to secure additional national and state funds to develop graduate medical education. Specifically, HMEC was tasked to identify

physician workforce shortages and develop a statewide plan for meeting workforce needs. Although the original funding mechanism proposed never materialized, the Council has continued to meet to discuss workforce issues. This year, data collected by JABSOM faculty began shedding light on the growing severity of the workforce shortages.

### **Financial Report**

The Council has not received or expended any allocation in 2009.

### **Introduction / Background**

In 2006, the federal government's Health Resources & Services Administration (HRSA) released a report that forecasted a nationwide 10 to 20% across the board shortage of physicians by the year 2020. (Health Resources Services Administration. Bureau of Health Professions. Physician Supply and Demand: Projections to 2020, Oct. 2006) National organizations like the Association of American Medical Colleges and the College of Graduate Medical Education, have called for an expansion of every medical school's enrollment in the United States by 30%. (Association of American Medical Colleges, AAMC Statement on the Physician Workforce. June 2006.)

In an article recently published in the Hawaii Medical Journal (Withy, Andaya, Vitousek, Sakamoto, JHMA, Dec. 2009) Withy, et al. outlined factors affecting both supply and demand for physicians. They explained that nationally, factors contributing to an inadequate supply of healthcare providers include an insufficient number of students entering into health professions, a reduction in worker productivity based on gender, age and work preferences, technologic changes, and the potential mass retirement of providers characterized as the "baby boomer" generation.

Despite constraints in workforce size and composition, the demand for health services continues to rise, principally due to population growth, aging, changes in expectations of medicine, increasing prevalence of lifestyle related chronic diseases and the impact of new technology and treatment options. HRSA projected future need for physicians to rise 50 to 60% in specialties that care for the elderly.

Finally, Withy, et al., reported a detailed workforce assessment of the Big Island that demonstrated that the island of Hawaii is currently short by 45 physicians, 25 of the positions needed are in primary care. They further estimate that the demand will grow by 40% by the year 2020.

### **Overall Physician Projections for Hawaii**

The Council had the opportunity to hear presentations from the JABSOM research group commissioned to gather workforce data. Although much more information is being gathered, preliminary results reveal very concerning trends that deserve immediate reporting.

While there are nearly 8000 physicians licensed in Hawaii, fewer than 3,000 are seeing patients in a non-military setting. Previous estimates, using the AMA Master file to identify physicians, ranked Hawaii number seven among states with respect to physician workforce. However, detailed work by the JABSOM research team documented that the AMA Master file included names of retired or non-

practicing physicians. Therefore it overstates the supply of physicians. New data, collected by direct review or contact with providers, is much more accurate and is therefore used to advise this report. When adjusted for population size and compared with national averages for physician to population ratios, Hawaii is at least 500 physicians below what the patients in Hawaii would use based on national patterns of utilization of services. Surveys are being conducted to see if this impacts patient access to healthcare. If so, this gap will need to be closed. If not, Hawaii's physicians appear quite efficient when compared to national norms, but Hawaii is starting out at already lean levels when one considers the great demand for replacement physicians on the horizon.

The HRSA projection model for physician demand estimates that Hawaii will need approximately 1000 physicians more by the year 2030. This new information means that we will need 50 new physicians per year in order to maintain current levels of service.

This finding is aggravated by the research group's finding that 40% of the practicing non-military physicians in Hawaii are 54 years of age or older. If this group retires at age 65, they will need to be replaced creating an additional recruitment burden of 100+ physicians per year.

Information gathered regarding incoming physicians suggests that currently, between 50 and 90 physicians begin practice in Hawaii each year. Half of these (45) have gone to medical school or residency at JABSOM. Hawaii Residency Program (HRP) data shows that 80% of JABSOM students that stay in Hawaii for residency training also begin their practice post-residency in Hawaii.

Given that retirement and demand will require at least 150 new physicians per year to keep us at current service levels, and we are currently adding (through training or recruitment) 90 physicians per year, if nothing is done, the physician shortage that currently exists may double during the next 10 years. This trend will continue as "baby boomers" hit their 70's – 80's in the years between 2020 and 2030.

### **Specialty Care Projections**

Shortages will be particularly severe in primary care, cardiology, gastroenterology, orthopedics, general surgery and other medical and surgical subspecialties. Hawaii has training programs in only four of these areas currently. Unless we create training opportunities for these specialties here in Hawaii, we will need to compete for physicians with the mainland where there will also be a severe shortage in 2030, perhaps as high as 150,000 physicians.

The specialty of cardiology provides an extreme example of the challenges ahead. Preliminary estimates are that we need at least 40 cardiologists to meet the current demand, and twice that in the year 2020. Currently, Hawaii has no cardiology fellowship. Queens Medical Center recently submitted a request for such a program but, if successful, it will graduate 1 fellow each year beginning in 2012. Thus, at this pace, we will generate 8 cardiologists during this decade, some of whom may not stay in Hawaii.

### **Conclusions**



A severe physician shortage will occur over the next 20 years. Immediate attention is required to blunt the negative impact of this national phenomenon here in Hawaii. The shortage involves primary care and several key specialties in medicine. The Council believes that several recommendations should be actively pursued in 2010.

### **Recommendations to consider**

- 1) Begin targeted recruitment of practicing physicians to become faculty in JABSOM and targeted GME programs. This has two benefits. It will immediately increase workforce in key areas while preparing Hawaii to train more physicians.
- 2) Rapidly expand the enrollment of JABSOM by 40%. (24 students per year)
- 3) Rapidly expand graduate medical education in key areas of projected shortages. (40% expansion = 100 resident positions)
- 4) Expand training sites to neighbor islands in order to create the capacity to graduate more physicians and expose physicians in training to practices across the state to optimize our ability to recruit them to stay.
- 5) Create Island specific projections and engage local business, cultural, political, and community leaders in the planning for and active recruitment of physicians to their local area. Such a model exists on the island of Hawaii (Hawaii Island Health Care Alliance).
- 6) Create a loan forgiveness program to immediately improve recruitment into underserved areas.
- 7) Continue to support the JABSOM physician workforce research team as they clarify the shortages, identify systems solutions to the growing shortages and monitor the impact of interventions.
- 8) Enhance programs that encourage students to consider careers in health care (e.g. Area Health Education Centers [AHEC]). This can be augmented by partnerships with existing programs such as the National Health Service Corps and the Native Hawaiian Health Care Scholarship Program.
- 9) Explore use of waivers to attract HRP residents training in Hawaii on J-1 visas.
- 10) Expand the Imi Ho'ola Program from 10 to 20 students.

### **Timeline Considerations**

While the Council realizes that economic times are difficult and resources scarce, it is clear that the physician shortage is upon us and will grow worse rapidly. It is also clear that if we are to grow our own, we must begin now. If we wish to compete with the mainland for physicians during this U.S. wide physician shortage, we will need to enhance the attractiveness of practice in Hawaii.

Here are the timelines to first practice-ready physicians for the various recommendations above.

- Faculty recruitment, island specific recruitment plans, visa waivers, and loan forgiveness – could start immediately with full impact in 2 to 3 years.
- Expansion of existing Fellowships – 1 to 3 years
- Creation of new Fellowships – 3 to 5 years
- Expansion of existing Residencies – 3 to 5
- Creation of new Residency positions - 5 to 7 years
- JABSOM medical student class size expansion - 7 to 10 years
- Encouraging UHM Graduates – 10+ years

*If these measures are immediately and successfully executed, they have the potential of reducing the growing deficit from 60 physicians per year to 30 physicians per year by 2019. Consequently other system or programmatic changes will also need to be initiated to improve the growing shortage. Other solutions to consider include new models of care, interdisciplinary teams of health professionals other than physicians, quality agendas and reorganization of delivery services.*

Respectfully submitted,

Hawaii Medical Education Council, 2009

Appendix B

Graduate Medical Education – Physician Workforce Retreat

29 June 2010

Host: John A. Burns School of Medicine, University of Hawai'i at Manoa

Waikiki Beach Marriott Hotel, Honolulu

Proposed Solution from 6/29 Summit	Resources/groups addressing topic	Ways to address the existing challenge	Recommend individuals/organizations with excellent insight into the topic to advise/lead a work group
Administrative Simplification	<p>Hawaii Medical Association (HMA)</p> <p>Hawaii Primary care Assoc (HPCA)</p> <p>Hawaii Medical Service Association (HMSA)</p> <p>University Health Alliance (UHA)</p> <p>Healthcare Association of Hawaii (HAH)</p>	<p>Research if there are national efforts &amp; models to do this.</p> <p>Research what's been done in other states that have worked.</p> <p>Research if there have been any formal efforts to do so in Hawaii.</p> <p>Identify barriers to standardizing. See if this could be linked to HHIE efforts.</p> <p>Research what is included in the Patient Protection and Affordable Care Act related to Administrative Simplification</p> <p>Create Single Preauthorization form</p> <p>Identify barriers to developing a common formulary</p>	<p>Create Hui of Hawaii health plans to include docs and admin</p> <p>Health Law Policy Center, William S. Richardson, School of Law</p> <p>Assoc of Hawaii Health Plans</p> <p>Max Botticelli, UHA</p>

To do (and by whom): Meet with groups to determine feasibility & barriers (KW, DS)  
 Research other state efforts (KW, DS)  
 Create planning group based on what is already going on (if needed)

Proposed Solution from 6/29 Summit	Resources/groups addressing topic	Ways to address the existing challenge	Recommend individuals/organizations with excellent insight into the topic to advise/lead a work group
Community Integration in recruitment and retention	<p>Hawaii Island Healthcare Alliance (HIHA)</p> <p>Chamber of Commerce of Hawaii</p> <p>Physician Family Organization at Pali Momi</p>	<p>Research what's been done elsewhere that has worked.</p> <p>Research if there are national efforts to do this.</p> <p>See what Honolulu Chamber is doing</p> <p>Have businesses opt in to recruitment pools</p> <p>Community volunteer welcome wagons</p>	<p>Hawaii Health Services Corporation (HHSC)</p> <p>Hawaii Association of Realtors</p> <p>Hospital/medical group physician recruiters</p>

To do: Start up volunteer community welcome groups (HIHA)?  
Summarize impact of interventions in other states (KW)  
Meet with Chambers to explore activities and possible collaborations (DS/KW)  
Contact Hawaii Association of Realtors (DS/KW)  
Develop listing of physicians on mainland with ties to Hawaii (KW)  
Group members? Kelley, Sharon? Group leader?

Proposed Solution from 6/29 Summit	Resources/groups addressing topic	Ways to address the existing challenge	Recommend individuals/organizations with excellent insight into the topic to advise/lead a work group
Continuum of Providers (APRN - PA - MD)	<p>HMA, state RNP assoc, HAH, HPCA,</p> <p>Hawaii Center for Nursing</p> <p>UH School of Nursing &amp; dental Hygiene (NP's)</p> <p>Hawaii Academy of Physician Assistants (HAPA)</p> <p>Proposed Depart of Labor (DOLIR) Skill Panel (based on WA State model) for Nursing Focus: Specialty Training Needs and New Graduate Needs</p>	<p>Identify cultural, policy &amp; practice barriers then develop a statewide strategy to prioritize which barriers should be reduced first &amp; how</p> <p>Tried to identify local success stories of effectively using PA &amp; or APRN and impact on financials, outcomes, quality etc. (Queens uses a PA on trauma team,)</p> <p>Need to find out what groups are doing</p> <p>Continue to support FULL scope of Practice for APRNs in Hawaii</p> <p>Support Nurse Managed Clinics</p> <p>Start a PA school here, expand NP and med schools</p> <p>Encourage providers and medical groups to utilize and create jobs for NPs and PAs</p>	<p>Create Hui of PA assoc, RNP assoc. HMA, Kaiser, HAH, Payers, JABSOM</p> <p>Dan Domizio has worked with the national PA assoc which did a review of Hawaii and identified key barriers to be addressed.</p> <p>Anne Leake, PhD APRN</p> <p>Wailua Brandman, APRN</p> <p>Valissa Suanders APRN</p> <p>Vickie Niederhauser DrPH, APRN-agreed to involvement</p> <p>Dean Hedges</p> <p>Ric Custodio, Waianae</p>

To do:

Coordinate meeting of listed organizations to develop and promote collaborative plan (who best to do this?)

Proposed Solution from 6/29 Summit	Resources/groups addressing topic	Ways to address the existing challenge	Recommend individuals/organizations with excellent insight into the topic to advise/lead a work group
Electronic Health Records	<p>HIE</p> <p>HI HIE- Beacon</p> <p>Christine Sakuda</p> <p>HPH, HHIE</p> <p>Federal funding for EMR implementation</p> <p>Proposed Depart of Labor (DOLIR) Skill Panel (based on WA State model) for Health Care IT Needs</p>	We are going to need software and training	<p>HHIE</p> <p>Karen Pelligrin</p>

To do:

Meet with HHIE and Karen Pellegrin to determine what can be done to help facilitate (KW/DS)

Proposed Solution from 6/29 Summit	Resources/groups addressing topic	Ways to address the existing challenge	Recommend individuals/organizations with excellent insight into the topic to advise/lead a work group
Medical Malpractice Reform	<p>HMA</p> <p>Law School and Medical school collaboration</p> <p>Consumer Lawyers of Hawaii</p>	<p>Patients let legislature know their concerns</p> <p>ER amnesty if covering on call</p> <p>Designated decision maker</p> <p>No fault possibilities</p> <p>Pilots of caps</p> <p>Med mal: NY article  <a href="http://online.wsj.com/article/SB10001424052748703467304575383501123709186.html">http://online.wsj.com/article/SB10001424052748703467304575383501123709186.html</a></p>	<p>Lynnae Sauvage, M.D., JABSOM OB Dept. Chair</p> <p>Hazel Bey, Director Health Law Policy Center, WSRSL</p> <p>Bob Toyofuku, lobbyist, Consumer Lawyers of Hawaii</p> <p>Dean Hedges</p> <p>Rick Fried</p>
<p>To do: Meet with consumer lawyers representatives to discuss possible common ground (KW)</p> <p>Establish working group to develop collaborative plan (who best to do this?)</p>			



Proposed Solution from 6/29 Summit	Resources/groups addressing topic	Ways to address the existing challenge	Recommend individuals/organizations with excellent insight into the topic to advise/lead a work group
Pipeline programs	Area Health Education Centers (AHEC)  Dept. of Education (DOE)  Honolulu Community College (HCC)  University of Hawaii (UH)Legislature	Identify national models that work and any local models working.  Identify key missing resources & connections.  Loan forgiveness, universal  Advertise opportunities (public service announcements)	Josh Green  KelleyWithy  Teresa Schiff (2nd year JABSOM student) has agreed to rally medical students to develop a list of resources for pipeline students
To do: Develop list of resources (TS) Publicize list of resources (AHEC)			

Proposed Solution from 6/29 Summit	Resources/groups addressing topic	Ways to address the existing challenge	Recommend individuals/organizations with excellent insight into the topic to advise/lead a work group
Reimbursement reform	<p>HPCA</p> <p>HMA</p> <p>Medical home advocates</p>	<p>Learn from Alaska how they achieved frontier status.</p> <p>Learn more about potential for island status to be linked with COLA adjustments.</p> <p>Implement medical home</p> <p>Investigate Medicare reimbursement level</p>	<p>Hui on revising HPSA designations</p> <p>Beth Geisting recently appointed to national committee reviewing.</p> <p>Try to get Hawaii island as a whole designated for 5 year period until can reduce gap between supply &amp; demand.</p> <p>Hawaii IPA, Josh Green</p>

To do: Discuss designation possibilities with Beth Giesting (KW); discuss Medicare issues with Congressional delegation (KW, DS).

Proposed Solution from 6/29 Summit	Resources/groups addressing topic	Ways to address the existing challenge	Recommend individuals/organizations with excellent insight into the topic to advise/lead a work group
Targeted Training	<p>Allen (Chip) Hixon</p> <p>Specialty Associations</p>	<p>Increase training in rural areas</p> <p>Increase rural preceptors</p> <p>Begin planning expansion to Maui and Kauai</p>	<p>JABSOM, A.T. Stills University (ATSU) Waianae, Family Medicine residency program</p> <p>Teresa Schiff is organizing provider survey of interest in teaching</p>
<p>To do: Recruit more rural educators, facilitate travel and lodging, ask communities to get involved in hosting students (TS)  Meet with Chip Hixon to discuss expansion of JABSOM Family Medicine Residency (KW/DS)</p>			

Proposed Solution from 6/29 Summit	Resources/groups addressing topic	Ways to address the existing challenge	Recommend individuals/organizations with excellent insight into the topic to advise/lead a work group
Team approach model	<p>HMSA</p> <p>QHS</p> <p>Dr. John Houk,</p> <p>Center for Nursing</p> <p>Kaiser Permanente</p> <p>Waianae Comp</p> <p>UH School of Nursing &amp; dental Hygiene (Interdisciplinary)</p> <p>Institute for Healthcare Improvement-Don Berwick-improve quality and outcomes</p>	<p>Create medical home practices and assess impact on patient and provider satisfaction</p> <p><a href="mailto:rkorph@hawaii.rr.com">rkorph@hawaii.rr.com</a> volunteer to participate in medical home discussion and action steps in future</p> <p>HPCA having conference on topic 10/6</p> <p>Hold a statewide conference, bring in national experts on models that work, discuss opportunities</p> <p>Include physicians in planning process</p>	<p>Hawaii IPA</p> <p>Kaiser</p> <p>HMSA</p> <p>Gerard Livadais</p>
<p>To do: summarize patient centered medical home literature. Attend 10/6 conference and form working group. Meet with HMSA to find out what their plan involves (KW/DS).</p> <p>Meet with John Houk (KW/DS)</p> <p>Summarize Medical Home Model literature (DS)</p>			

Proposed Solution from 6/29 Summit	Resources/groups addressing topic	Ways to address the existing challenge	Recommend individuals/organizations with excellent insight into the topic to advise/lead a work group
Rural payment incentives	HMA,CMS, HMSA, Primary Care Assoc, HAH Hawaii State Rural Health Association	Pilot a rural differential for primary care out & in patient Hui on Rural  Identify changes in post graduate physician training to better prepare physicians for rural practice	John Berthiaume of HMSA has suggested rural differential in past.  Mary Rydell has suggested COLA for Hawaii for CMS, HMA is meeting with her boss from West coast to discuss soon according to Chris Flanders who is with HMA.  HHSC  Hawaii Residency Program (HRP) leadership
<p>To do: Meet with John Berthiume and Mary Rydell (DS/KW) Meet with JABSOM HRP leadership to discuss changes needed to better prepare new physicians for neighbor island practice (KW)</p>			

Key to abbreviations:

- AHEC-Area Health Education Center
- ATSU-A.T. Stills University School of Medicine Waianae
- CMS-Center for Medicare Services
- DOE-Department of Education
- DOLIR-Department of Labor and Industrial Relations
- DS-David Sakamoto

HAH- Hawaii Hospital Association  
HAPA-Hawaii Association of Physician Assistants  
Hawaii IPA-Hawaii Independent Physician Association  
HCC-Honolulu Community College  
HHA-Hawaii Healthcare Alliance  
HHIE-Hawaii Health Information Exchange  
HMA- Hawaii Medical Association (HMA)  
HMSA- Hawaii Medical Service Association (HMSA)  
HPCA-Hawaii Primary care Association  
HPSA-Health Professions Shortage Area  
HRP-Hawaii Residency Programs  
JABSOM- John A. Burns School of Medicine  
JG-Josh Green  
KW-Kelley Withy  
PA-Physician Assistant  
RNP Association-Registered Nurse Practitioner Association  
QHS-Queens Health System  
TS-Teresa Schiff  
UH-University of Hawaii  
UHA-University Health Alliance

## **Appendix C**

Extracted slides from JABSOM Hawai'i Physician Workforce Project, November 2009 (11 pages).

Office of the Dean, ATTN: W. Haning

John A. Burns School of Medicine

University of Hawai'i at Manoa

Dean's Office # 223C, 651 Ilalo Street, Honolulu, HI 96813

# Act 219, SLH 2007



- 2,620 physicians practice medicine in Hawaii, half-time or more (excludes researchers, administrators, educators, and all other non-patient care physicians; also excludes non-federal physicians)
- 2,542 MDs (97%); 78 DOs (3%)
- 729 are women (28%); 1,891 are men (72%)
- 203 physicians per 100,000 population
- Total FTEs: 2,497



# Hawaii Physicians and Gender



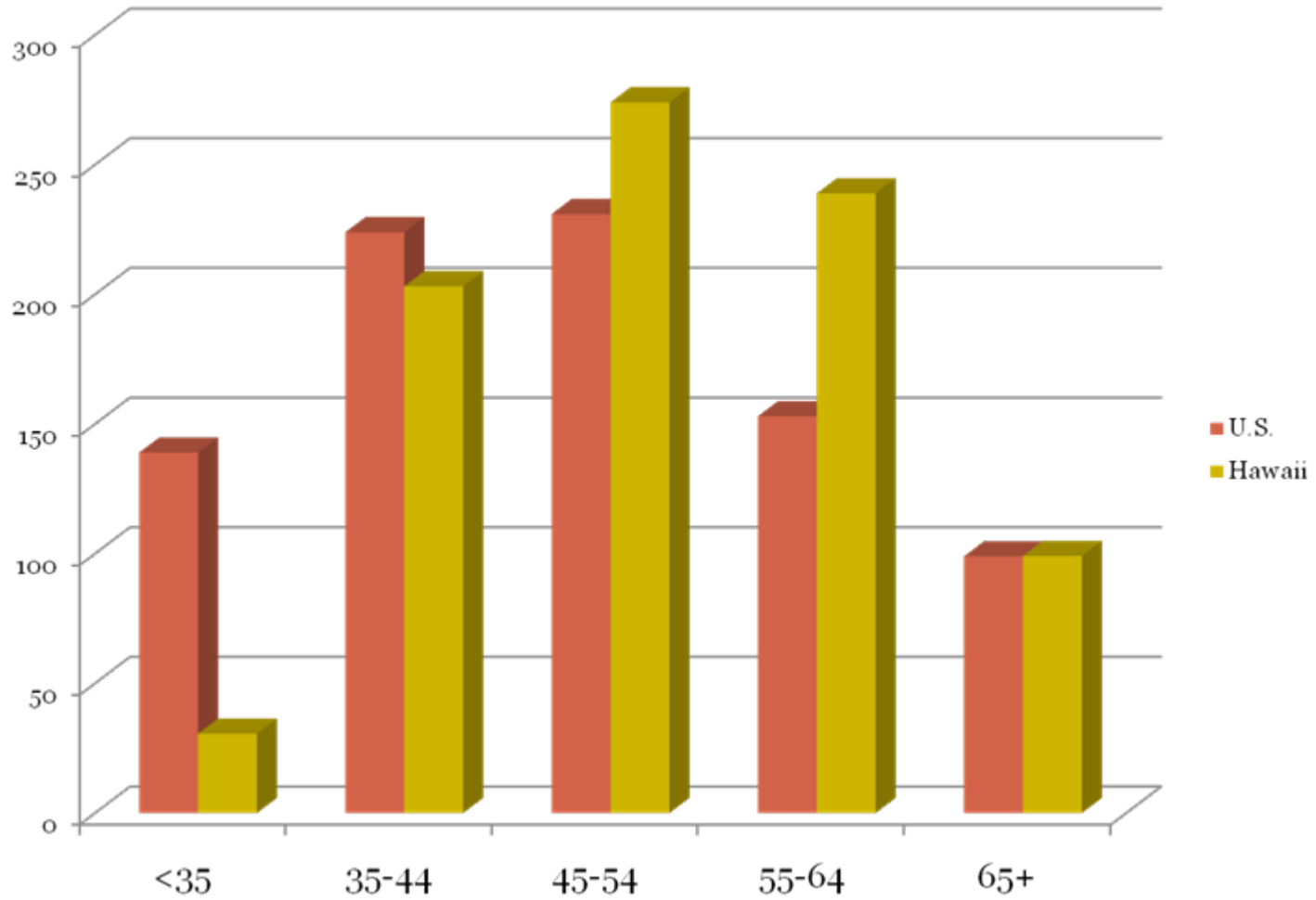
## Women

- n = 729
- Average age = 47.8
- Median age = 47
- $\geq 54$  y/o = 26.7%
- $\geq 60$  y/o = 11.4%
- $< 40$  y/o = 22.2%
- 74% practice on Oahu

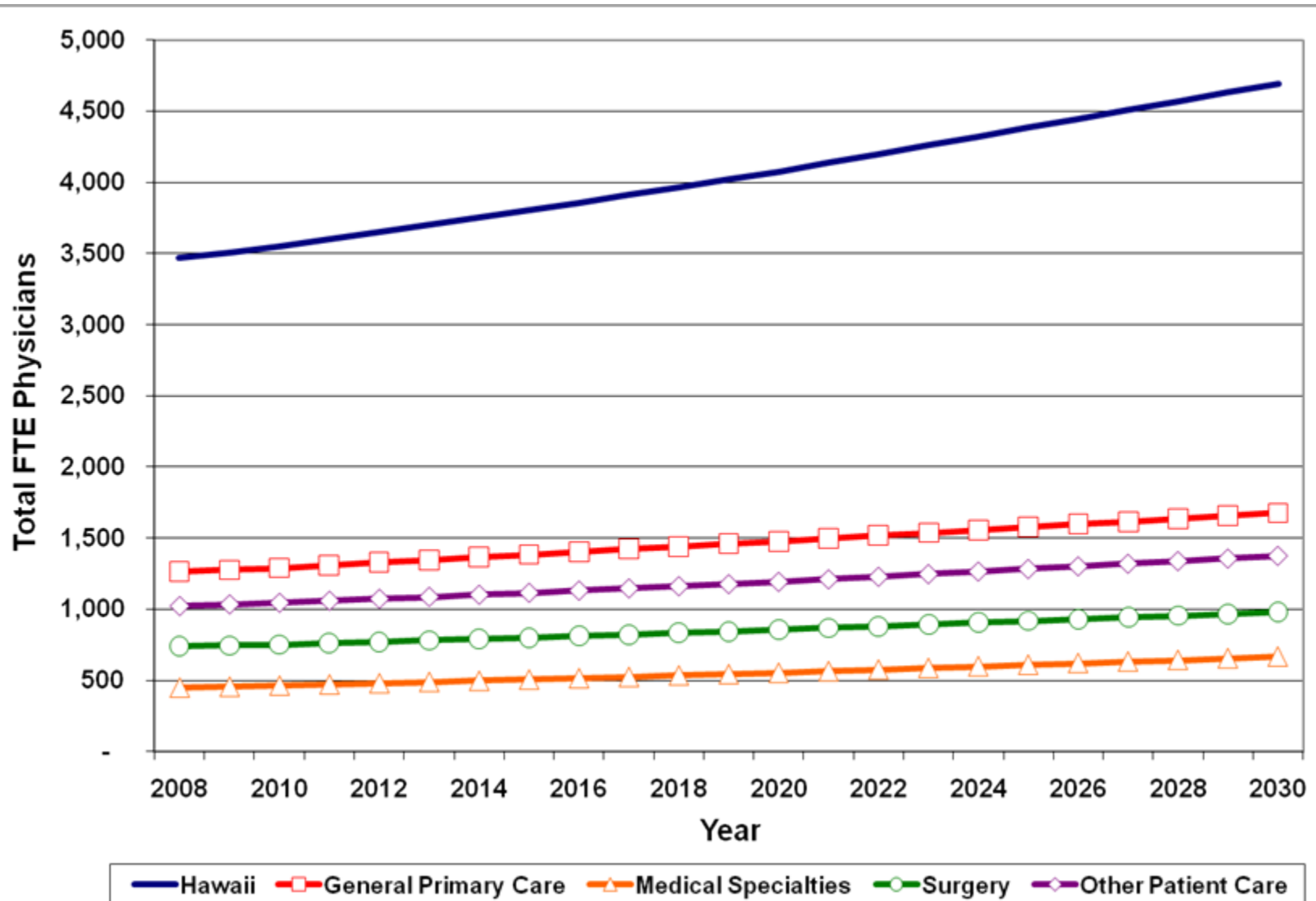
## Men

- n = 1891
- Average age = 53.3
- Median age = 54
- $\geq 54$  y/o = 51.1%
- $\geq 60$  y/o = 27.3%
- $< 40$  y/o = 11.2%
- 76% practice on Oahu

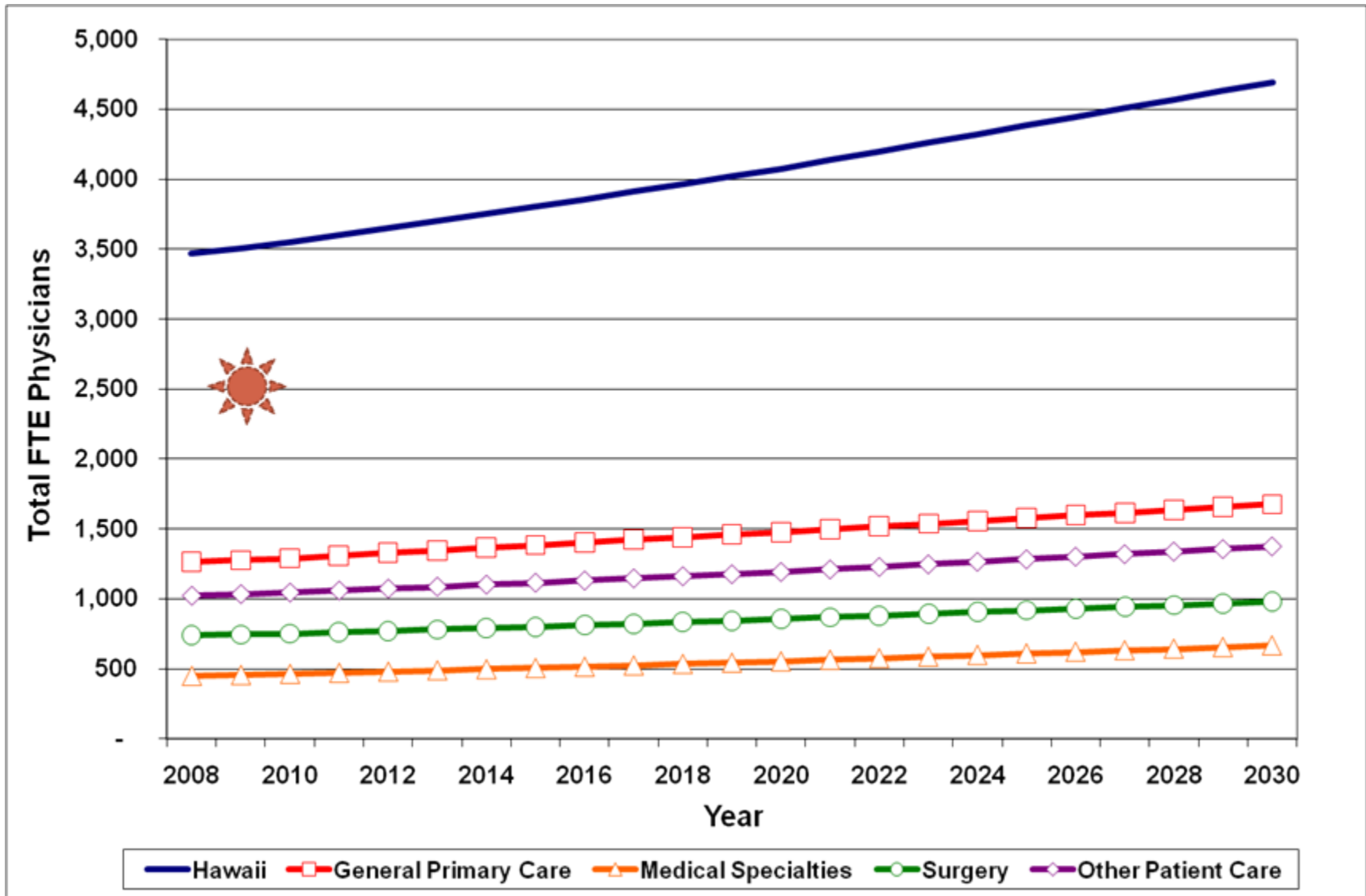
## Age: National v. Hawaii



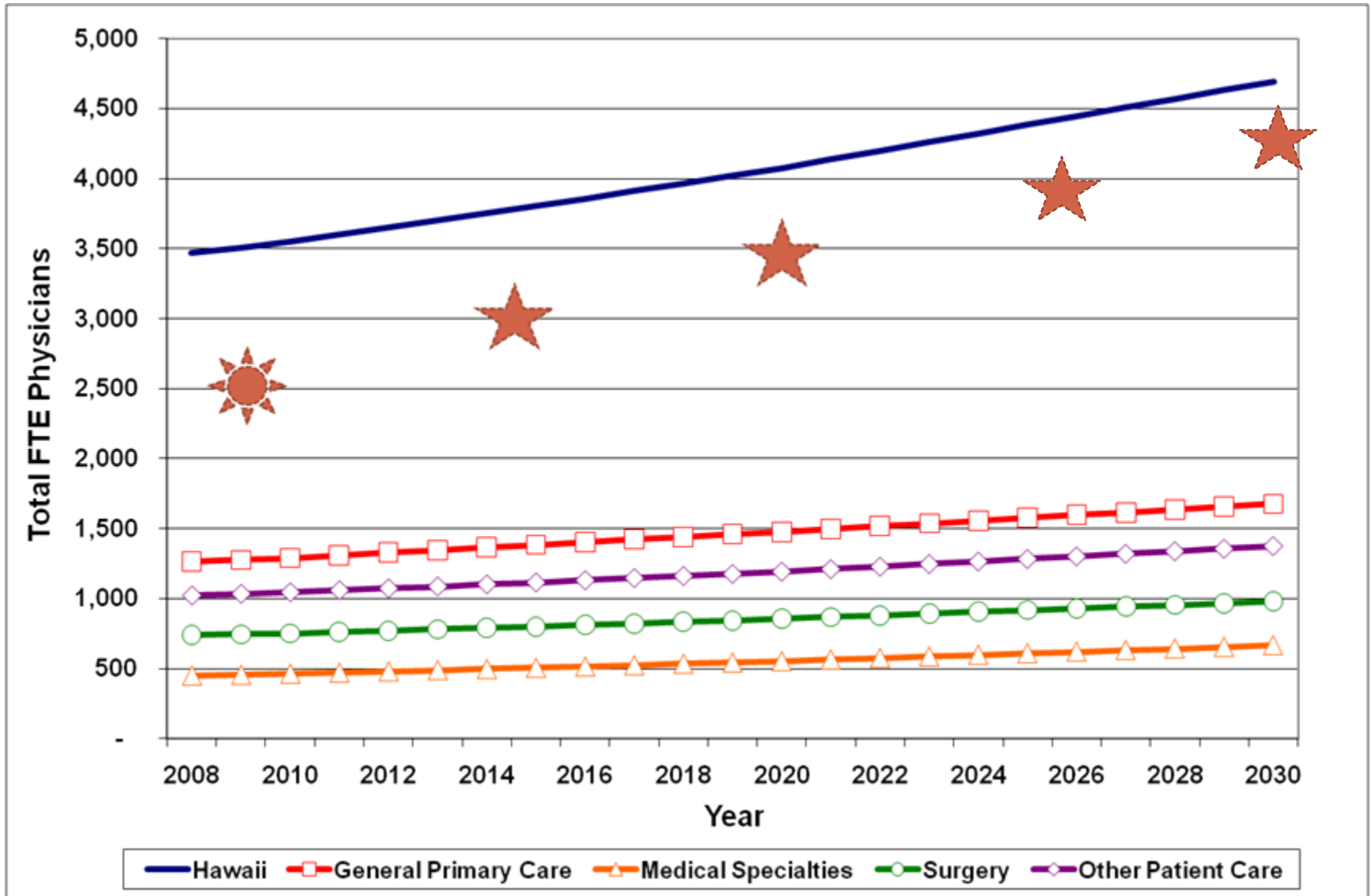
## Hawaii Physician Demand (based on US Ave Utilization)



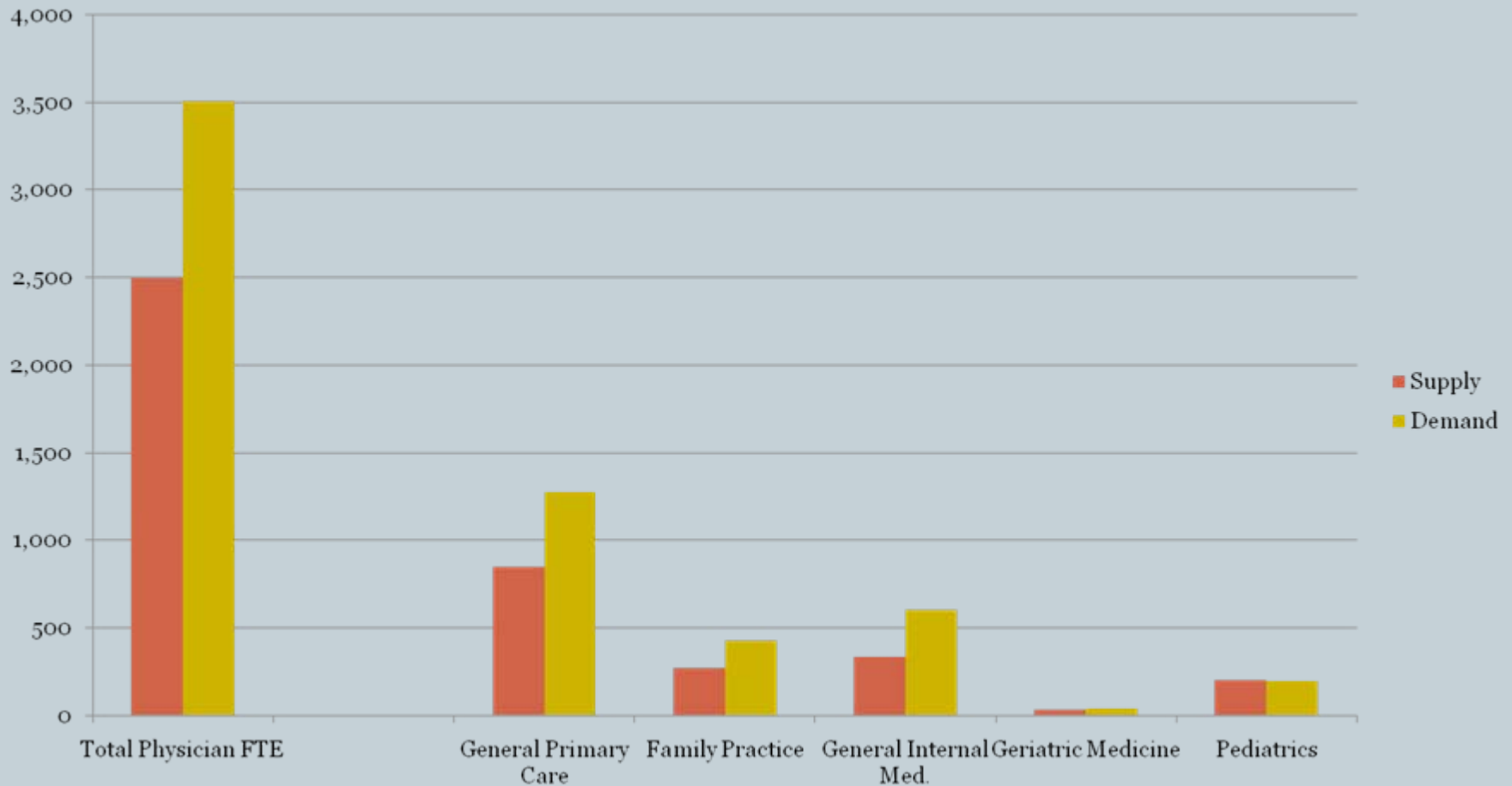
# Hawaii Physician Demand (based on US Ave Utilization)



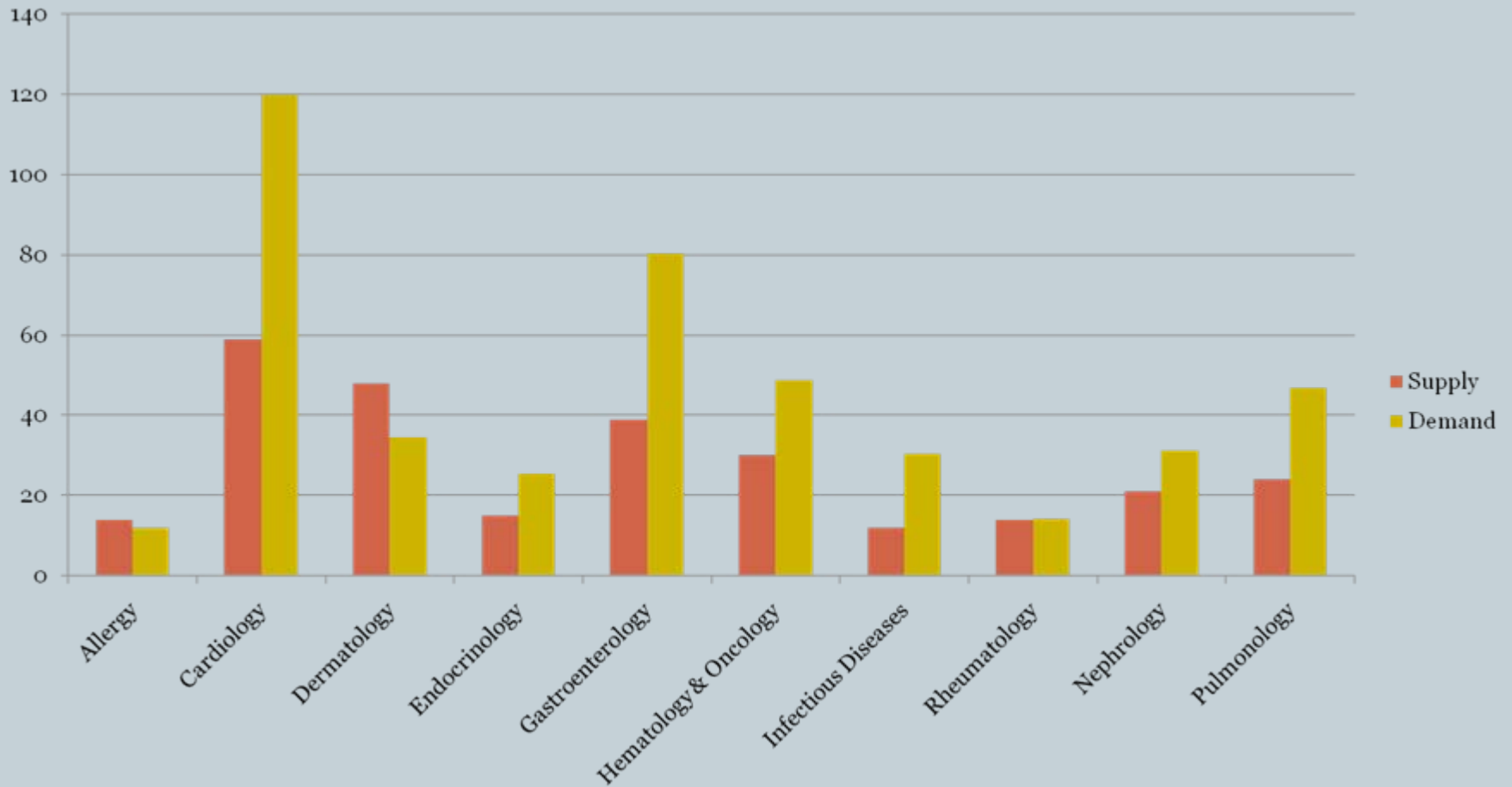
# Hawaii Physician Demand (based on US Ave Utilization)



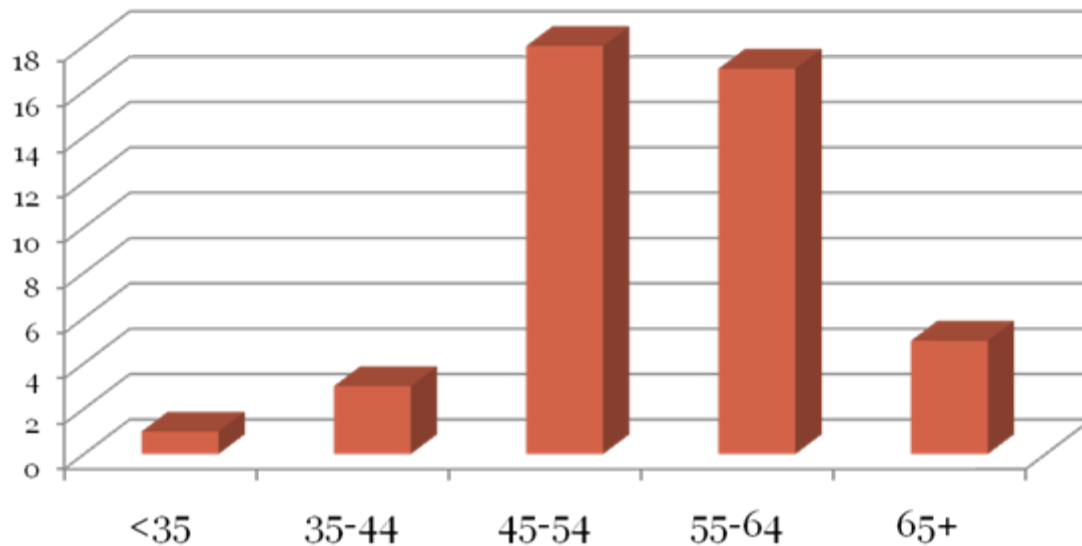
# Supply/Demand Total and Primary Care



# Medical Specialties



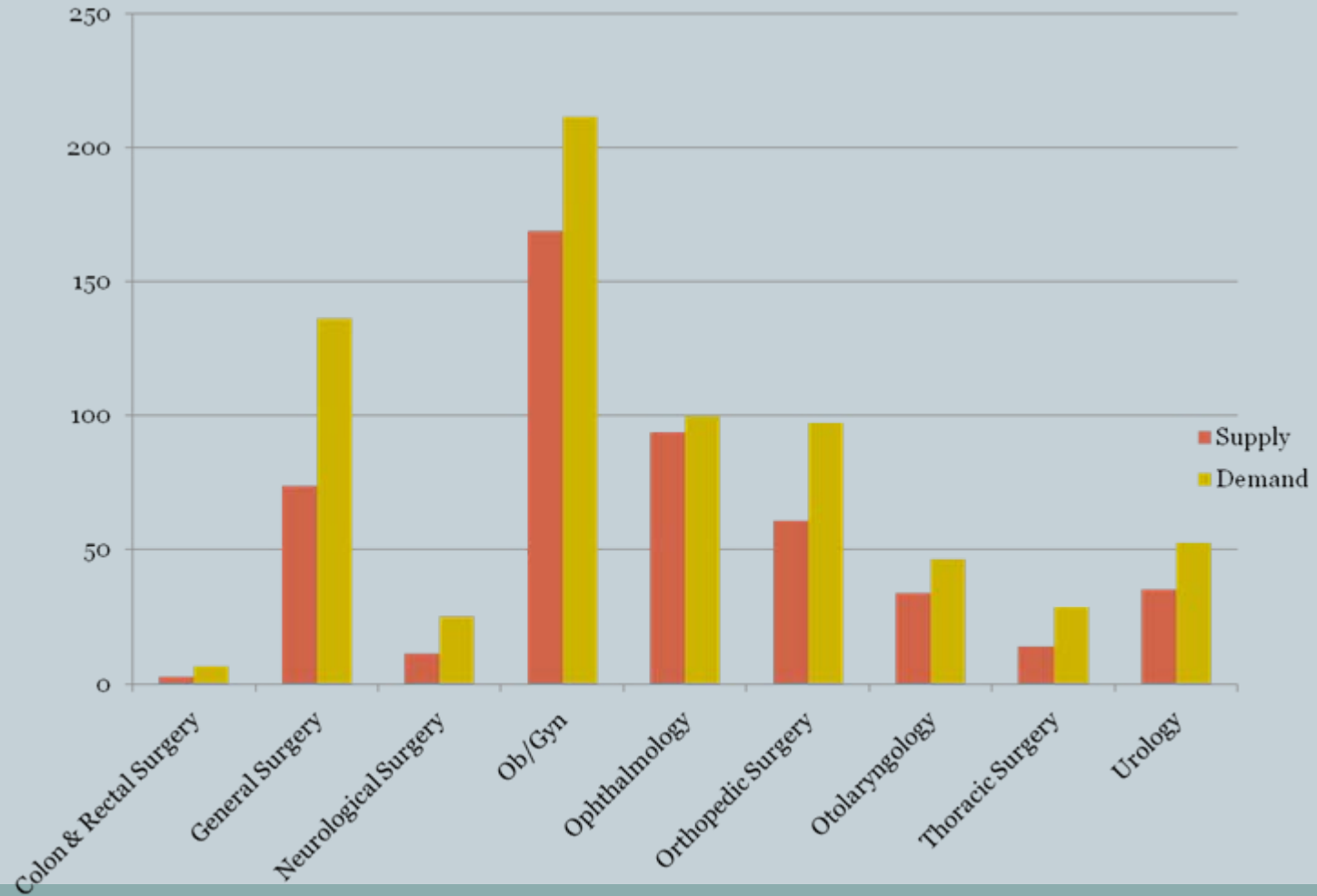
## Oahu Cardiologists



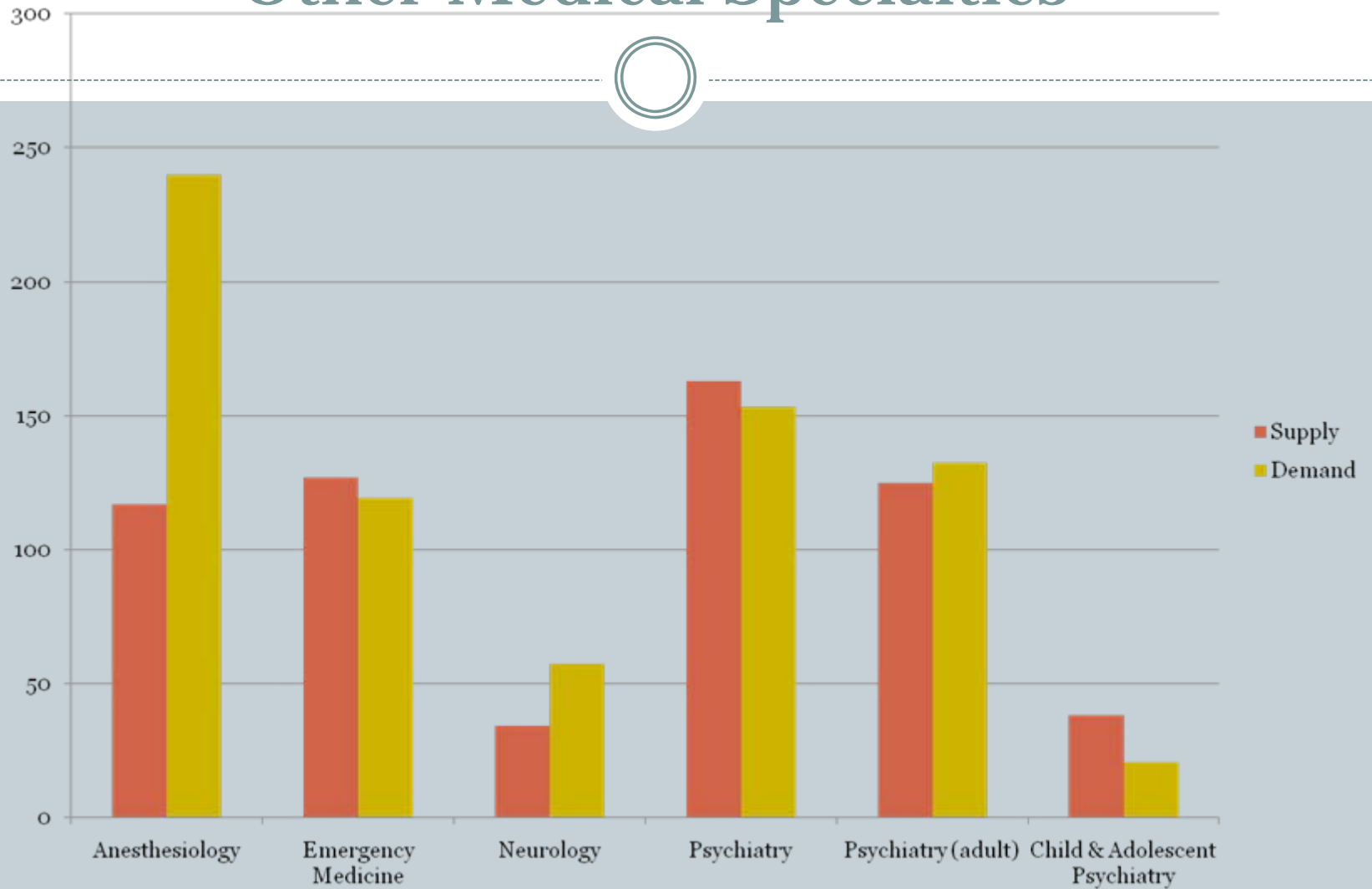
mean	55.2	
median	54	
n	44	
$\geq 54$	24	55.8%
$\geq 60$	11	25.6%
$< 40$	1	2.3%



# Surgical Specialties



# Other Medical Specialties



# Percent Growth in Demand by County

