

REPORT TO THE 2014 LEGISLATURE

Report on Findings from the  
Hawai'i Physician Workforce Assessment Project

Act 18, SSLH 2009 (Section 5)

Act 186, SSLH 2012

December 2013

## **Hawai'i Physician Workforce**

In accordance with Act 18, SLH, 2009 and Act 186, SLH, 2012

A report to the 2014 Hawai'i State Legislature:

Findings from the Hawai'i Physician Workforce Assessment Project

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December 2013

### *Executive Summary*

In the three years since the physician workforce assessment was fully implemented in 2010, the physician workforce has gone from 2,858 to 2,894 full time equivalents of direct patient care. However, based on population and aging statistics, the shortage of physicians has increased from 662 to 742, indicating a 20% shortage of physicians statewide. The physician specialties with the greatest shortages are primary care, particularly on neighbor islands, as well as specialties such as Neurosurgery, Infectious Disease, Pathology, Anesthesiology, Pulmonology, Thoracic Surgery, General Surgery and Gastroenterology. While the shortage changed little in most specialties, the Neurology shortage decreased from 42% to 37% and the Otolaryngology shortage decreased from 32% to 27%, while the Urology shortage increased from 29% to 40%. Geographically, the physician shortage remains most acute in Hawai'i County and is least severe in Honolulu County.

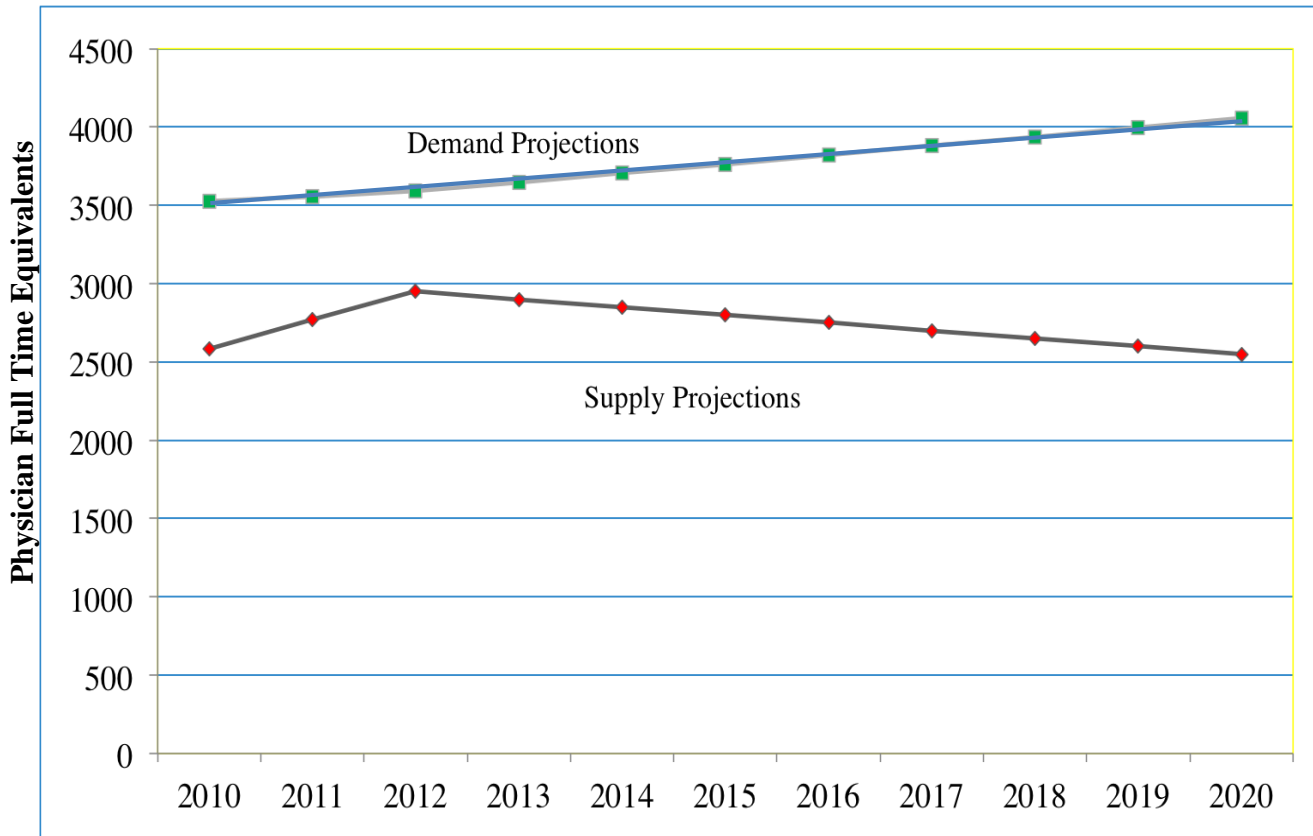
In order to mitigate the physician shortage, twelve interventions were identified by Hawai'i healthcare experts and the Hawaii Medical Education Counsel, of which 10 solutions are being actively addressed by the Physician Workforce Research Team. They include: 1) alerting over 2,632 local students a year to healthcare careers and promoting a statewide resource bank of pathway opportunities; 2) expanding rural and interprofessional healthcare training for 197 students a year; 3) providing loan repayment to 16 providers working in underserved areas; 4) contacting all Hawaii medical school and residency graduates who are practicing on the mainland to recruit them back to Hawaii; 5) creating a more favorable physician practice environment through legislative reform of the Medical Claims and Conciliation Panel to the Medical Inquiry and Conciliation Panel; 6) encouraging ongoing dialog regarding administrative simplification and reimbursement changes; and 7) encouraging and educating providers, government and insurers on moving the model of care toward team-based and "patient centered medical home" delivery model through regular meetings and an annual continuing education conference.

***Hawai'i Physician Shortage: Supply and Demand***

The supply of physicians in Hawai'i is estimated based on responses to a voluntary survey of physicians administered at time of relicensure, internet searches and direct calling of physician offices to confirm hours of active patient care. Physician demand is estimated using a model created by the Lewin Group in 2010. This model utilizes pooled data on physician utilization in the US adapted for Hawaii's gender, age, general ethnic mix, insurance rates and obesity rates (as a marker of chronic disease). Detailed information on methodology is available in a prior Physician Workforce report at [http://www.ahec.hawaii.edu/workforce/Final\\_report\\_January\\_2011.pdf](http://www.ahec.hawaii.edu/workforce/Final_report_January_2011.pdf).

As of November 01, 2013, approximately 3,633 physicians of the 8,800 licensed were providing some patient care in Hawaii. The time worked totaled 2,894 full time equivalents (FTE) of nonmilitary direct patient care services in Hawai'i, compared to 2,858 in 2010. Demand was estimated at 3,636 FTE compared to 3,527 in 2010.

**Figure 1. Trends in Physician Changes and Future Projections**



## Geographic Distribution of Physicians

The physician shortages are still greatest in the most rural areas of our state. Based on the ratio of physician supply to physician demand, Hawaii County has the greatest unmet needs at 37%, followed by Kauai (35%), Maui (27%) and Oahu (15%). Specialty estimates by individual islands are included in Appendix 1.

**Table 1. Physician Shortage by Island**

Island	2010 Supply	2012 Supply	2013 Supply	2010 Demand	2012 Demand	2013 Demand
Hawaii	313	341	336	487	516	530
Kauai	136	132	130	183	196	199
Maui	279	305	301	396	405	413
Oahu	2130	2177	2127	2461	2468	2494
<b>Total</b>	<b>2858</b>	<b>2955</b>	<b>2894</b>	<b>3527</b>	<b>3585</b>	<b>3636</b>

## Specialty Shortage Changes

When individual specialties with the greatest shortages are examined, we find that the specialties that are more than 20% short of demand are listed below, with the comparison of 2010 and 2012 numbers in the right hand columns.

**Table 3: Hawai'i Statewide Physician Deficit: Specialties in Greatest Need**

Specialty	Supply	Demand	Difference	% Short	% Shortage from 2012	% of Shortage from 2010 assessment
Neurological Surgery	10.2	25	14.8	59%	55%	57%
Infectious Disease	13.18	31	17.82	57%	58%	43%
Pathology, General	42.89	92	49.11	53%	52%	More research needed
Anesthesiology	124.27	237	112.73	48%	47%	35%
Pulmonary	24.97	48	23.03	48%	45%	36%

**Table 3: Hawai'i Statewide Physician Deficit: Specialties in Greatest Need (Continued)**

Thoracic Surgery	15.15	29	13.85	48%	44%	33%
General Surgery	69.07	129	59.93	46%	49%	41%
Gastroenterology	43.65	80	36.35	45%	42%	35%
Radiation Oncology	16.1	27	10.9	40%	40%	More research needed
Medicine/Med Peds	354.86	594	239.14	40%	37%	31%
Urology	31.16	52	20.84	40%	29%	29%
Cardiology	74	121	47	39%	36%	46%
Diagnostic Radiology	117.47	190	72.53	38%	39%	28%
Neurology	35.13	56	20.87	37%	42%	39%
Oncology/Hematology	32.8	50	17.2	34%	33%	33%
Endocrinology	17.35	26	8.65	33%	33%	38%
Otolaryngology	32.81	45	12.19	27%	32%	27%
Family/General Practice	322.20	414	91.8	22%	23%	20%
Geriatrics	36.83	46	9.17	20%	22%	17%

**Solutions Being Implemented**

Efforts to grow the population of satisfied physicians working in patient care in Hawaii are many. The Physician Workforce Research Team held the first Physician Workforce Summit in 2010 in order to prioritize the interventions to initiate first. At the first Summit, ten solutions were identified as the most important interventions in Hawaii to improve the physician workforce. In

2012, with the reauthorization of the Physician Workforce Assessment activities and the emphasis on solutions created in Act 186, SLH 2012, the Physician Workforce Research team began closer collaboration with the Hawaii Medical Education Counsel which identified two additional activities: a state loan repayment program and an initiative to recruit Hawaii medical training graduates back to practice in Hawaii. Below are the solutions being addressed by the physician workforce team and the progress made to date.

For clarification purposes, the Hawaii Physician Workforce Research Team is housed in and works hand-in-hand with the Hawaii Area Health Education Center (AHEC) Program, which is a federal grant funded program to improve the distribution, diversity and quality of the health professions workforce in the region. Dr. Withy, the principal researcher for the Physician Workforce Research Team, is the Director of the Hawaii AHEC, as well as president of the Hawaii State Rural Health Association and a member of the Governor's Healthcare Transformation Task Force. She works to expand collaborations across multiple groups and organizations to maximize benefits for the present and future health workforce in Hawaii and to leverage available resources with the simplified goal of "the right amount of happy healthcare providers practicing in Hawaii". All the activities are collaborative in nature as outlined below.

#### **Hawaii Physician Workforce Assessment Research Team Activities:**

1. ***Expanding the pathway to health careers:*** Between the one year period 7/1/2012 and 6/20/2013, the Area Health Education Center (AHEC) contacted 2,636 students to promote health careers through classroom visits, career fairs, Teen Health Camps, after-school mentoring, summer intervention programs and other training. Dr. Withy is working with communities across the state to organize local meetings to discuss health career resources and needs. These meetings are designed to create a resource bank for each region of student activities and opportunities as well as alert each community to potential partnerships to expand resources. It is anticipated that these Roadmap meetings will culminate in a statewide meeting on September 6, 2014, where all resource information will be shared, solutions to unmet needs brainstormed and a resource bank created that will include a webpage and a booklet of statewide health career pathway resources and training

opportunities. In addition, Dr. Withy is a member of the Governor's Healthcare Transformation Task Force and the State Innovation Models Workforce Committee. Dr. Withy is working with academic and industry partners to create an early warning system for health workforce monitoring and a flexible and robust training system to meet the needs identified.

2. ***Expanding rural training opportunities:*** AHEC directly supports the newly developing Hilo Family Medicine Residency Program through the AHEC Center on the Big Island. In addition, AHEC has expanded support for travel to rural training experiences to reach over 197 health professions students a year through partnerships with the Department of Veterans Affairs (VA) and regional healthcare establishments. The future goal is to double the number of students training in underserved areas so that they return to work in areas of need.
3. ***Practice Reform, Patient Centered Medical Home (PCMH):*** The Physician Workforce Research team and AHEC held the 2013 Hawaii Health Workforce Summit: Improving Provider Satisfaction and Practice Sustainability on April 20, 2013. This was an eight hour continuing education conference addressing multiple facets of PCMH that provided assistance to the 241 health professionals who attended. This conference was free to participants and travel was supported from neighbor islands. We are currently planning the 2014 Health Workforce Summit with the theme of Change=Opportunity. An emphasis will be maximizing understanding healthcare and payment reforms, care coordination networks, improving skills at precepting, sharing health careers pipeline resources to create a book and webpage, having a career awareness fair for health professions students and a career fair for young healthcare providers. Attendance is expected to be over 500 individuals, including healthcare providers, thought leaders, teachers and legislators.
4. ***Interprofessional Teamwork in Practice:*** AHEC is working to develop a registry of all interprofessional training in healthcare in Hawaii. JABSOM and UH School of Nursing continue to grow interprofessional training opportunities, including the joint didactic activities and the VA rural interprofessional initiative.



5. ***Payment Reform:*** The 2014 Health Workforce Summit will emphasize payment changes, Affordable Care Act and Accountable Care Organization information. Two national speakers and local experts will present on the topics. The Health Workforce Research Team is studying reimbursement across the country in a collaborative partnership with Hawaii Medical Association and will be publishing an article on the findings soon.
  
6. ***Rural Payment Incentives:*** There have been many changes to reimbursement in Hawaii and there are currently two insurers that provide rural incentives, however these are expected to decrease in the future. On the bright side, rural primary care physicians are getting paid at Medicare rates for seeing Medicaid patients from 1/1/2013-12/31/2014. Dr. Withy is actively engaged in examining payment methodologies and working with insurers to maximize parity of pay for rural providers.
  
7. ***Community Involvement:*** The Research Team is working with Hawaii State Rural Health Association and other groups to implement the Ho'okipa Initiative, a welcome wagon for new hires, interviewees and health professions students visiting neighbor islands. Three contracts were awarded to accomplish this task, as well as hold the Roadmap meetings mentioned above. In addition, Dr. Withy worked closely with Hawaii Department of Labor when they held Healthcare Skill Panel meetings and in development of a plan to increase the health professions workforce by 20% by 2020.
  
8. ***Medical Malpractice Reform:*** As a result of efforts of the Hawaii Physician Workforce Assessment, Hawaii legislature passed Act 296, HSL 2012 changing the Medical Claims and Conciliation Panel to the Medical Inquiry and Conciliation Panel. As of 1/1/2013, all new cases filed will be heard by a Medical Inquiry and Conciliation Panel of one doctor and one lawyer, who will receive an increased payment of \$450 each, will no longer require a written judgment/decision, will allow an option for both sides to agree to go directly to court or mediation and will give the panel more leeway on how it is conducted. A training took place at JABSOM on 12/5/12 for more than 40 lawyers and doctors and was repeated for

more than 50 physicians at the Health Workforce Summit in April 2013. Dr. Withy has participated on one of the first MICP panels, continues to give talks to groups including Kaiser Executive Committee and recruits physicians to be panel members in collaboration with the Department of Commerce and Consumer Affairs.

9. ***Administrative Simplification:*** Dr. Withy is a member of the Governor's Healthcare Transformation Task Force as well as the State Innovation Models Multipayer Committee and is working with the insurers to create administrative simplification changes in Hawaii. AHEC staff performed nine focus groups for providers across the state under a contract with the Governor's Office. Preliminary analysis indicates that the favored method to accomplish this administrative simplification is by eliminating prior authorization requirements, at least for providers who do not overuse services.
  
10. ***Electronic Health Records (EHR):*** The Research Team meets regularly with Hawaii Health Information Exchange leadership to offer assistance with widespread implementation of EHR and encourage systems that will assist with administrative simplification and safe information sharing. We anticipate adding a question to the relicensure survey in the future regarding having an electronic health record and reaching meaningful use requirements.

In addition, two important interventions that were identified by the Hawaii Medical Education Council and accomplished by the Physician Workforce Research Team are:

1. ***Hawaii State Loan Repayment Program:*** In June 2012, the Hawaii AHEC applied for federal funding to match contributions offered by HMSA and Queens to establish the first ever State Loan Repayment Program in Hawaii. The two-year grant was awarded to UH in September and five individuals (two family nurse practitioners, one internist and two family physicians) received up to \$40,000 a year of loan repayment each from 9/1/2012 to

8/31/2013 and will receive a similar amount 9/1/2013 to 8/31/2014. The application cycle reopened in May 2013. In year two, 20 applications were reviewed and 11 awards made. Over the course of the two years, almost \$600,000 will be spent directly repaying loans for the 16 individuals described below: Two APRNs on Hawaii Island, one OB/Gyn and one Family Physician on Maui, one APRN on Molokai and one APRN on Lanai, five APRNs, two Pediatricians, one Psychiatrist, one Internist, and one Family Physician on Oahu.

2. ***Practice in Paradise Campaign*** Job opportunities for physicians, APRNs and physician assistants in Hawaii are regularly posted on the internet at [www.ahec.hawaii.edu](http://www.ahec.hawaii.edu) through regular internet searches and contact with the recruiters for the local medical systems. AHEC staff participate in the monthly meeting of local recruiters in Hawaii. AHEC has collected a list of 50 mainland providers interested in job postings in their specialty and regional areas and are sending them that information. A career fair for young physicians is planned for September 6, 2014.

### ***Next Steps***

The Physician Workforce Research Team will continue to conduct the research and implement the solutions described above. Additional research will be conducted to identify who is entering and leaving the workforce, as well as specific findings for specialties such as Psychiatry (for which an article is in production). In addition, Dr. Withy is always willing to present the findings of the study statewide and perform exit surveys of providers leaving the state to better understand barriers to retention.

Continuation of the Hawaii State Loan Repayment Program past the 8/31/2014 grant end date depends on future influx of funding, most likely from multiple sources including the Hawaii Health Corps legislation, private donors and matching federal funds, but most other solutions will be continued with funding from the Physician Workforce Assessment special fund and the Area Health Education Center until no longer needed. Annual Health Workforce Summits will be held emphasizing systems reform and other factors that will improve provider recruitment and career

satisfaction. Medical Inquiry and Conciliation Panel recruitment and training will be ongoing via electronic and face to face sessions, as well as offered to physician groups across the state. Health careers recruitment activities are ongoing, as is the planning for local and statewide meetings to pool resources and produce a resource guide. Collaborative work with communities to promote health professions training, recruitment and retention will continue, as will collaborative efforts with health insurers, the legislature and the Governor's Healthcare Transformation Taskforce to provide physician incentives, encourage administrative simplification and systems change that increase teamwork and patient centered medical homes and create meaningful payment reforms. More information on ongoing and upcoming activities is available at the AHEC website: [www.ahec.hawaii.edu](http://www.ahec.hawaii.edu). The AHEC office number is 808-692-1060 and Dr. Withy's direct office line at JABSOM is 808-692-1070 and email is [withy@hawaii.edu](mailto:withy@hawaii.edu).

## Appendix 1: Evaluation of 2013 Physician Workforce Summit

### Hawaii Health Workforce Summit: Evaluation

Did you attend the 2012 Physician Workforce Summit last year?

	Yes	No	No answer	
Did you attend last year?	60	50	9	
Are you a PCMH	71	33	15	
What criteria	NCQA 7	HMSA 49	4	Other-hipa,pmag,HDD

Of those that said Yes to attending last year:

	Yes	No
Did last year increase understanding of PCMH?	53	9
Did it help you become a PCMH?	25	26

### Hawaii Health Workforce Summit: PCMH Evaluation

	Physician	Nurse Practitioner	Physician Assistant	Other HCP	Academ. Faculty	Administrator	Staff	Other
Count	100	4	1	2	3	11	2	4
Specialty	Ped13 FM24 IM27 PrevMed1 ER3 OB2 Psy1 Cardio.1 Geri.2 Radio1 Gen1 urgentcare1 addiction1	FM2 FNP1	FM1	Psych pedRN 1 RN3 Dentist 1 Nurse-educator 1	Ped1 ER1	MD3		Semi-ret. Dr 1 Physician recruiter 1 Patient advocate consultant- 1 medicare specialist-1

<i>Please write in and rate the quality and helpfulness for the <u>two</u> Break Out Sessions you attended:</i>	<i>Poor</i>	<i>Below Average</i>	<i>Average</i>	<i>Above Average</i>	<i>Excellent</i>
Provider Incentives (Bottom Line)		6	25	32	17
Telehealth	5	7	13	6	1
Interprofessional Practice	1	3	12	22	7
Medical Malpractice		2	4	16	13

	<i>I have no idea</i>	<i>I've heard things but don't know much</i>	<i>I know something about it</i>	<i>I can describe it very generally</i>	<i>I can explain to others</i>	
<b>Before hearing the speakers:</b>						
How will federal healthcare reform impact me?	3	21	33	32	10	
How can I increase net profit in my practice setting?	11	21	27	25	12	
How can I increase personal satisfaction with my career?	7	7	40	32	15	
What happens with a malpractice case in Hawaii?	17	30	27	19	4	
Team based collaborative care/Interprofessional practice	7	12	36	30	12	
Telehealth uses in Hawaii	11	36	33	11	3	
<b>After hearing the speakers:</b>	<i>I have no idea</i>	<i>I've heard things but don't know much</i>	<i>I know something about it</i>	<i>I can describe it very generally</i>	<i>I can explain to others</i>	<i>Increase in knowledge</i>
How will federal healthcare reform impact me?	1	4	35	39	19	13%
How can I increase net profit in my practice setting?	6	6	28	36	25	26%
How can I increase personal satisfaction with my career?	1	4	25	41	29	14%
What happens with a malpractice case in Hawaii?	6	19	30	18	14	9%
Team based collaborative care/Interprofessional practice	5	6	30	26	26	7%
Telehealth uses in Hawaii	18	18	29	21	7	8%

Participants showed an average increase in knowledge in all categories, ranging between a 7% increase and a 26% increase. A good question to have asked is: Are you going home today with at least one new idea about how to increase your career satisfaction?

Comments on breakout sessions:

1. 15 minutes shorter please then we can squeeze one more in.
2. Tele health has so many possibilities which were never covered! Also, the dangers of loading patient information into a cloud was also never discussed. There may be a major HIPPA violation if the system is hacked, needs to be talked about.
3. Not clear on what will happen after payment and delivery system reform.
4. I expected more information about employing NP & PA's.
5. Inter. Pro. Practice should be more about setting up efficient models (MA, LPN, RN, NCM, mid levels, etc.) within practice. Getting folks to practice at the top of their level.
6. It was good to have the lawyers there who know the details.
7. The panel did not cover how interprofessional practice should happen/occur in terms of a model of med mal panel.

What was the most beneficial part of this conference?

1. Panel discussion.
2. Q&A after each session.
3. Economic Perspective Dr. Nichols.
4. Med mal 2.
5. Transformation of medical care- and who can change them- JABSOM, Government, Legislation.
6. Dave and Len.
7. Economic, Dr. Nichols.
8. Hearing from other MD re: ways to cope w/PCCMH.
9. Key note speakers.
10. Dr. Yano.
11. Have a panel w dean of UH SOM, nursing, Social Work or Department of clinical Psychology Chair, & UH Hilo College of Pharm to discuss inter. Prof practice.
12. Micro practice presentation.
13. Future of med i.e.: economic and how practices are going to change.
14. Mr. Taylor, the governor, happy doctor panel.
15. PCMH info is a necessity.
16. Non Physician role in Hawaii is a very interesting, but could that mean doctors will be displaced in certain areas of medicine?
17. Represent other practice models other than private practice perspectives since most graduates are choosing employed physician model.

Please suggest changes that could improve the conference (bolded answers given more than once):

1. **Research, volunteer, and shadowing opportunities for premed students.\*\*\***
2. **Tele health is too general.**
3. **Time keepers need to be more strict on the panel.**

4. **Doctor Burnout, what are other options, more ideas for solutions please.**
5. **Room was freezing.**
6. **Longer and more Q&A.**
7. **Happy Doctors were not so happy, and took too long. They need to prepare a speech, so they are not so long winded. Also more Q&A.**
8. More break out groups-less gen. lect.
9. Doctor shortage should be at the forefront of the conference: the big island has 13% pop of the state but 25% of the doctor shortage.
10. Limit panel discussion, have them write their speech so they are not wasting time trying to think of words to say.
11. More mentorships for less experienced doctors.
12. Alternative medicine.
13. Invite Dr. Bender PCMH Extreme make over.
14. Invite Dr. Rosenbloom MD PhD – Portland pediatrician.
15. Ask the dean to do a general session about med schools contribution to the doctor shortage, including AHEC.
16. Could be more engagement, or activities.
17. Panel discussion took too long, not as helpful as it could be, could be more organized.
18. Medical student enrollment from neighbor islands and public schools.
19. Raise the PCMH credit.
20. More opportunities for Q&A at each time period.
21. Need MD workforce data updated every year & what are the trends?
22. More transparency about the payment model on the island and the mainland.
23. Let's talk about health care reform in other perspectives.
24. Telehealth could be more elaborative on its possibilities such as application and standardization.
25. Learning about the new MICP process.
26. More people from government need to sit and listen to the whole thing, not just leave asap
27. Incorporating info about FQHCs into the conversation.
28. Break outs could be specific to a specialty, ie: pediatrics is complex & the issues are different than internal med.
29. Panel discussion, need better moderators to stay on task.
30. Access to inform to educate a patient panel on proactive issues ie. insurance coverages, industry charges and increases.

Please tell us what you would like to have the Summit address next year and any suggestions you have for physician workforce activities (bolded answers were given more than once):

1. **Research, volunteer, and shadowing opportunities for premed students.\*\*\***
2. **Invite more students from JABSOM.**
3. **More people from government such as senators, mayor, Chair of senate and house Health Committees. THEY need to hear this more than most of us. To discuss their social /political platform for building a health care system to increase access and quality, and also manage cost.**
4. **Open dialogue on how specialists fit into the medical neighborhood.**



5. **Include a general session showing the impact of reform on the states that have already enacted it.**
6. **ACO's role in Hawaii.**
7. **Are 1st year JABSOM students from outer islands increasing?**
8. People from government should stay and listen to what the doctors have to say, not leave after speech is done.
9. What is the retention rate of student staying in Hawaii to study & practice? New docs staying in HI?
10. More tools and resources.
11. Which tort reform changes are possible and have the greatest impact in other states.
12. More patient engagement.
13. A discussion speaker on keeping overhead low and increasing revenue in current healthcare reform.
14. Trauma informed care ACE study results/implementation & collaboration w/BH & Integrated Health.
15. Technology use in PCMH.
16. Effective physician leadership, obtaining the skill set we need.
17. Where are the HAPPY docs?
18. Discussion about malpractice cap.
19. ACO→how to eval & decide to participate.
20. Build leadership capacity to increase physician impact at policy level.
21. How does telehealth coordinate to lower Hospital Readmission?
22. What is the top healthcare crisis on the horizon.
23. Advanced nursing roles.
24. Payer panel on payer reform.
25. Telehealth "users" panel.
26. More people talking about how to get more MD/DO's.
27. Discuss current successful models for interprofessional practice. Education, training and how to set up a community based interprofessional practice.
28. Solo-practitioners.
29. We need to discuss and address mental health issues.
30. Identify neighbor island kids that are going to medical schools on the mainland and create a "coming home" elective for them to do a primary care based rotation through the Family Med department. Let them know there are opportunities when they are ready to return home.
31. Sponsor a crash course in how to be a good preceptor for physicians who are willing to have a medical student in their clinic.

## Appendix 2: 2013 Physician Workforce Relicensure Survey Questions

1. Do you provide healthcare to patients in Hawaii? Yes No  
If no, please skip further questions
2. Do you primarily serve a military or military dependent population? Yes No
3. Are you still in training (internship, residency or fellowship)? Yes No
4. What is your primary specialty? Other specialty?
5. Please tell us about your practice environment(s):
  - a. What is the primary location where you see patients?
  - b. Address 1:
  - c. City
  - d. State
  - e. Zip code
  - f. Phone number
  - g. Email/web address
  - h. How many hours a week do you see patients at this address?
  - i. Are you accepting new patients at this address?
  - j. Are you accepting new Medicare patients at this address?
  - k. Are you accepting new Medicaid or Quest patients at this address?
  - l. Do you have an additional office address?

If yes, please answer the following questions on the second work location:

- a. Address 2:
  - b. City
  - c. State
  - d. Zip code
  - e. Phone number
  - f. Email/web address
  - g. How many hours a week do you see patients there?
  - h. Are you accepting new patients at this address?
  - i. Are you accepting new Medicare patients at this address?
  - j. Are you accepting new Medicaid or Quest patients at this address?
  - k. Do you have an additional office(s) in Hawaii? Yes no
6. Please check all the terms that apply to your patient care experience in Hawaii:
    - a. Private Practice
    - b. Employed with no ownership interest
    - c. Employed with ownership interest
    - d. Self employed
    - e. Locums
    - f. Faculty
    - g. Administrator
    - h. Researcher
    - i. Other
    - j. Other
  7. What is the size of your practice group (how many partners do you have including yourself)?  

1-2	3-5	6-10	11 or more
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8. Do you provide care to Hawaii patients via telemedicine? Yes No
9. Would you like your name and office contact information listed in a directory of Hawaii physicians? Yes No (such a directory does not currently exist, but if there is desire by physicians, we can create a web based Hawaii physician directory. It would only include your name and address contact information, but **NO OTHER INFORMATION COLLECTED ABOVE**).
10. Comments and suggestions addressing the survey or the physician workforce needs in Hawaii:

### Appendix 3: Hawaii State Loan Repayment Recipients

#### Year 1 (9/1/2012-8/31/2014)

Irene Hwang	Family Medicine MD Hauula CHC	Committed to working with the underserved. Has had experience working with HIV patients and at a methadone clinic in New York. Came to Hawaii on a vacation and fell in love with the place and the people. She wants to work in a quiet area with cultural diversity.
Anna Holt	Family Nurse Practitioner Waimanalo CHC	Dedicated to Hawaii, "Hawaii is my home, it means so much to me". Has a strong interest in working with the medically underserved.
Ahoora Payam	Internal Medicine MD Waikiki Health Center	Did his residency clinic at Waikiki Health Center and decided to stay. Enjoys teaching and playing guitar. Teaches regularly and looking forward to doing more.
Megan Wright	Family Medicine DO Malama I Ke Ola Health Center Maui	Megan is a family doctor from upstate New York who moved her family to Maui (where her husband is from) and hopes to stay forever. Likes to teach medical students.
Jennifer Krome	Family Nurse Practitioner Hui Malama Ola Na OIwi Hilo	Attended college at UHH and nursing school at UHM. Is very involved in improving health for the medically underserved. She is very interested in caring for Native Hawaiians.
Total		3 Oahu, 1 Big Island, 1 Maui 2 APRN, 2 Family Medicine physicians, 1 Internal Medicine MD

#### Year 2 (9/1/2013-8/31/2014)

Name	Location	Background
Aileen Duran	Family Nurse Practitioner Lanai CHC	Aileen migrated to Hawaii at age 7 and grew up in Kalihi. She attended UH School of Nursing in the Family Nurse Practitioner Program with a focus in Women's Health. She completed a rotation at Lanai Community Health Center during her last year and saw the need for a bilingual provider who can speak Tagalog and Ilokano. She started working as a locums for LCHC in May and accepted a full time position in July. Aileen enjoys giving back to the community. She received the Farrington High School Scholarship

		Program, which allowed her to attend UH Manoa full ride so she gives back to the school by visiting her alma mater every year to speak to Health Academy students. She has taught recent migrated Filipinos health literacy including how to read prescription bottles. She goes to the Lanai Senior Center every month to teach a health topic of their choice. Aileen also teaches APRN students from the UH School of Nursing and Dental Hygiene
Jasmine Waipa	Pediatrician Waianae Coast Comprehensive Health Center	I was born and raised in Hawaii, the eldest of four children. I attended Kamehameha Schools and graduated in 1998. I graduated from Harvard University magna cum laude in 2002 with a BA in Sociology. I attended Stanford School of Medicine and completed my residency in Pediatrics at Stanford's Lucile Packard Children's Hospital. While at Stanford, I received training in advocacy, especially in regard to health disparities, and developed projects to help Polynesian adolescents in poor neighborhoods, such as East Palo Alto. Finally, I was able to return home in 2011 to begin my work as a community pediatrician, dividing my time between Waianae Coast Comprehensive Health Center, a federally funded community health center, and Kapiolani Medical Center for Women and Children in the NICU and Well Baby Nursery. I enjoy the continuity of my jobs, as I attend the deliveries of many babies that eventually care for in clinic. My interests are health disparities, adolescent medicine, obesity and preventable chronic disease in children, teaching and mentorship, and quality improvement in pediatric care.
Erik Anderson	Kalihi Palama Health Center Geriatric Nurse Practitioner	I was born and raised in Hawaii. I grew up in Kailua where my father has been practicing as a pediatrician for over 35 years. Upon graduating from Iolani School, I attended UC Santa Cruz and graduated with a BS in biology. I then returned to Hawaii to work as a skills trainer for autistic students at Lanikai Elementary School and coached high school kayaking at Le Jardin Academy until I pursued a career as a nurse practitioner. In 2008, I became a member of the UH School of Nursing and Dental Hygiene's new MEPN program and later completed my MSN there as an Adult and Geriatric Nurse Practitioner. During my education at UH, I had the pleasure of doing a clinical rotation at Kalihi Palama Health Center. I enjoyed working with the patients from Kalihi, including the new Micronesian immigrants, and have been fortunate to be hired there as a nurse practitioner with the adult medicine team. I continue to keep in touch with the UH School of Nursing and Dental Hygiene as a board member of the UH Nursing Alumni Association.
Duffy Casey	Obstetrician at Community Clinic of Maui	Moved to HI 4 years ago. Had clinical rotations on neighbor islands. Lots of international experience; Honduras, Haiti, Burma. Grew up in small town, likes where he is at now.
Anjalie Graham	Family Nurse Practitioner	I have lived in HI for 2 years and hope to stay. WHCHC conducts homeless clinic once a week and I enjoy providing care. I'm hoping

	West Hawaii Community Health Center	to participate in a new migrant worker health program starting at WHCHC. I have worked in community health in various forms my entire nursing career.
Heather Porter	Family Nurse Practitioner-Waianae Coast Comprehensive Health Center	Born and raised on O'ahu and part Hawaiian. Grew up seeing many of the health issues that Native Hawaiians experience in her own family. That motivated her to enter nursing. After a few years of working in the hospital and seeing people suffering from multitudes of preventable health problems, she was inspired to further her nursing career. She gained a Master's Degree and became a FNP so that she could play an active role in family clinics whose staff often serve as the first layer of detection of health deterioration. She sees this first layer of detection having a dual role of protection. The health provider can recognize the patient visit as an opportunistic catalyst to engage people in conversations that can both educate and empower individuals to make lifestyle interventions that promote health and prevent disease.
Lisa Garrett-Guadnola	Family Nurse Practitioner Waianae Coast Comprehensive Health Center	I was born and raised in Detroit, Michigan where my parents were automobile assembly line workers. After high school, I graduated from the Shapiro School of Practical Nursing. I continued my education while working in hospitals and nursing care centers in the Detroit Metropolitan area. While in my masters program, I had the opportunity to work with Catholic Charities of Hawaii in Maili. This was my first introduction to the Waianae coast and I felt right at home. I assisted families with anything they needed from blood pressure checks to health and nutrition education, and fun family activities. I enjoy health teaching and caring for people. I know that my nursing knowledge, experience, and love of learning makes a difference in kind of care my patients receive. When I'm not working, I really enjoy travel. I have traveled to quite a few countries including Canada, Mexico, England and Egypt. I believe that it is by reaching out and getting to know each other and about our vibrant cultures, that we can make a peaceful world for our children. I love to hang out at the beach with my family and friends, and I feel very fortunate to live here in Hawaii, as it has been a wonderful community to raise my four sons.
Jennifer Morita	Family Nurse Practitioner, Womens Health Waianae Coast Comprehensive Health Center	Born and raised on Oahu, grew up in a single parent household in Palolo Valley, graduated from Kaimuki High School, and went to UH-Manoa for nursing. Her training sites included IHS Homeless Clinic, Kokua Kalihi Valley, and Waikiki Care A Van. She is committed to serving the underserved, particularly Native Hawaiians and Micronesians, and has a special interest in helping women currently in domestic violence.
Christopher Lawlis	Psychiatrist Halawa Prison	Moved to HI two months ago. This is his first post-residency job. Pharmacist wife gave birth to daughter a few weeks ago, wants to raise children in HI. Very interested in homeless and chemical

		dependence issues. Believes incarcerated can be helped to get back on track.
Alicia Turlington	Pediatrician Kokua Kalihi Valley Health Center	Alicia grew up on Kauai she graduated from medical school in 2008 from University of Southern California, Keck School of Medicine. She completed pediatric residency at the University of Hawaii Pediatrics residency program where she trained at Kapiolani Medical Center for Women and Children and completed a chief residency in 2012. Her pediatric continuity clinic was at an FQHC, Kokua Kalihi Valley Comprehensive Family Services beginning in 2008 and she has been there ever since, now as a pediatrician and attending for the pediatric residency clinic.
Denise Houghtaling	Family Nurse Practitioner Molokai Community Health Center	Grew up in Washington State, but has lived in HI for 7 years. She has been on Molokai for 6 months in her current position. She is also in a doctorate program at Johns Hopkins doing a Capstone project that focuses on providing services to sex/child abuse assault victims on Molokai.
Total	11	1 Molokai, 1 West Hawaii, 1 Lanai, 1 Maui, 4 Waianae Coast Comprehensive Health Center, 1 Kalihi Palama Health Center, 1 KKV, 1 Halawa 7 APRN 1 OB 1 Psych 2 Ped

Hawaii Providers Receiving Direct Federal National Health Service Corps Loan Repayment or Nurse Loan Repayment but participating in mentoring and CME activities

	Malia Ribeiro	FNP Honolulu Kalihi Palama Homeless Shelter
	Doede Donough	DO Ka'u Family Health Center Na'alehu, Hawaii
	John Kurap	Family Medicine MD Bay Clinic Hilo