JABSOM Action Plans for Improving Quality of Education; Retention and Graduation Rates; and NH Faculty Opportunities

November 14, 2011

JABSOM Medical Student Education

Action Plan for Improving Quality of Medical Student Education:

- Student survey of all required JABSOM medical student courses.
- Student surveys of segments of the medical student curriculum.
- Surveys of JABSOM MD Alumni regarding their preparation in medical school.
- Analysis of all USMLE Exam scores (national medical licensing examinations).
- Analysis of the AAMC Graduation Questionnaire for all graduating medical students.
- Assessment of Residency Match Rates for JABSOM MD graduates.

Future action plans should include development of a more rigorous student evaluation program emphasizing the use of tools predicting medical student achievement of graduation objectives in a documental, valid, and reliable way.

Action Plan for Enhancing Retention and Graduation Rates:

- Learning and test-taking skills assessment for medical students beginning at the MSI orientation (OSA not OME but important).
- Mid-Unit Exams that allow faculty members to identify students at risk for failure or borderline performance in time for remediation to occur.
- Academic, financial, and personal counseling available to all medical students (OME, OSA, many others).
- Assistance to students with learning differences, health issues, and impairments (mostly OSA but OME contributes).
- Creation of a learning environment that encourages student–faculty interaction and support.

Action Plan for Native Hawaiian Advancement for Medical Students:

- Numerous community activities that may touch Native Hawaiian students including SHEP, HYPE (homeless teen intervention).
- High School Medical Problem Solving Course with takes students interested in the health sciences from Kamehameha Schools for a credited course led by OME faculty.
Department of Complementary and Alternative Medicine (MS and PhD Clinical Research Programs)

Retention and graduation rates:

- MS program has had 100% graduation rate for its 2-year program.
- PhD program is a 3 to 4 year program with one outstanding student who’s completion of the program was postponed due to a successful grant and work related to the grant.

Recruitment and Retention Strategy:

In order to foster the appropriate training and education of new clinical scientists, with the goal of increasing the critical mass of clinical investigators in Hawai`i, the MSCR focuses on recruiting diverse individuals with a high probability of becoming successful clinical researchers and remaining in Hawai`i to contribute to enhancing clinical research.

We recruit promising trainees in the following order of priority:

1) Junior faculty members at JABSOM, CRCH, SONDH, and Social Work;
2) Fellows in Community Pediatrics, Geriatrics, Neonatal/Perinatal Medicine, and Surgical Critical Care Programs;
3) Senior and/or Chief Residents in Pediatrics, Internal Medicine, Family Practice, OB/Gyn, Psychiatry, and Surgery (accepted upon successful completion of their residency training program);
4) Post-docs from graduate research programs;
5) New graduates from medical school or PhD programs after one year of a transitional internship or post-doctoral experience;
6) Medical students; and
7) Selected interdisciplinary students in MS and PhD programs.

Quality of Clinical Research Graduate Education:

We set our quality goals by three measures in the MS / PhD Clinical Research Programs. These include the # of presentations, # of publications and the # of grants awarded to students in the programs.
The receipt of an R01 grant award by a PhD candidate Sandi Kwee, MD and a Career Development physician scientist Bradley Wilcox, MD makes us especially proud. Outcomes trends are provided below.

**MSCR and PhDCR Student Productivity**

<table>
<thead>
<tr>
<th>Year</th>
<th># graduated</th>
<th># manuscripts</th>
<th># Study sections</th>
<th># R-award grants</th>
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</thead>
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<tr>
<td>2008</td>
<td>6</td>
<td>9</td>
<td></td>
<td>3</td>
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<td>8</td>
<td>14</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>2010</td>
<td>4</td>
<td>21</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>2011</td>
<td>3</td>
<td>7</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

**Graduate Medical Education (GME) Quality Measures**

The assessment and improvement of retention and graduation rates and educational outcomes for Graduate Medical Education (GME) has been under discussion in 2011. Several programs measure these parameters but it is done by the individual program and there are no standard metrics or formal reporting requirements.

**Action Plan:** JABSOM will be initiating standard measures of recruitment, retention/graduation, and successful completion of standard educational metrics in the coming year. The initial 5 metrics will include:

- Recruitment - # of positions filled in the match, ranking list number to fill, % US and JABSOM graduates.
- Retention - % of residents admitted via the match who graduate from the program in the time expected.
- Retention in Hawaii – the % of residents choosing to practice in Hawaii post-graduation.
Medical Technology

The Medical Technology program admits in the student’s "junior" year, so full-time students should graduate from the program in 2 years. Most students (>98%) are full-time students. Some relevant statistics are provided below:

- # admitted 2004 - 2009: 56
- # graduated within 2 years (from above classes): 42
- Graduation rate (2 year): 75%
- Of those who did not graduate in 2 years: 8 graduated later; 1 is in progress; 6 withdrew (most moved out of state)
- Total graduated (from above class): 49
- Total graduation rate: 88%

Strategies to increase retention and graduation rates:

- Provide academic advising each semester (provide a reminder about graduation requirements, course repeat policy, etc)
- Provide a graduation check one semester before expected graduation
- Provide referrals to the Center for Student Development as necessary

No data are yet available on the new group of students (MLT route).

Department of Communication Sciences and Disorders (CSD)

From 2008 to 2011, the Department of Communication Sciences and Disorders (CSD) admitted a total of 52 students to the graduate program. Since then, 4 students have either dropped out of the program or opted to be on temporary leave of absence (because of their dis-satisfaction with the quality of education, or because of their inability to complete the research project). Of the 52 admitted students since 2008, 24 have completed their training and obtained their graduate degrees. Hence, we currently have 24 graduate students who are actively participating in classroom education (didactic teaching) and clinical training.

Action Plan #1 (Improving Quality of Education):

In the past, a major reason for student dis-satisfaction and subsequent drop out/leave of absence was that many faculty members were on casual/emergency hire, which negatively affected the consistency of teaching, and hence quality of education. Moreover, the didactic courses were randomly scattered throughout the day, thus adversely affecting the coordination of each
student’s clinical schedule. The students often had to leave classes early for their clinical training, and vice versa.

To solve the above problem, we worked with the team to restructure the CSD curriculum map, so that a cohort of graduate students can follow a roadmap toward completion of their training. Since September 2010, with support from JABSOM and UHM, we also began phasing out casual hire faculty positions, while hiring new faculty members under permanent positions, so as to provide stability in the department, and consistency in teaching. In addition, we consolidated the weekly didactic classes into 2.5 days a week (1st year students: Tuesday/Thursday 7:30am through 3pm; 2nd year students: Tuesday/Thursday 3-5 pm, and Friday mornings), so that they can have protected blocks of time for their clinical rotation and to facilitate clinically-oriented research projects. This change was welcomed by faculty and students alike.

Action Plan #2 (Improving Retention and Graduation Rates):

It is also well known that completion of the required research project (CSD 695) had been a major hurdle for many graduate students in the CSD program. Historically, over the course of 6 consecutive semesters (the CSD department operates all year round, with 3 semesters per year, including the summer), a student would take CSD 600 (Research Methods) during his/her 1st or 4th semester, and then CSD 695 during his/her last (6th) semester. Typically, there was no research activity in between (during semesters 2, 3, 4, and 5). Lack of continuity between CSD Course 600 (Research Methods) and the CSD Course 695 (Research Project), plus the amount of time required for IRB approval had been two main causes for the students’ inability to finish their research projects on time.

To solve this problem, we advised students to come up with reasonable research plans during (or within one semester after completion of the research methods class (CSD 600). Moreover, we worked with the UHM graduate office and JABSOM to divide the “single-semester, 3-credit” research project (CSD 695) into a sequence of 1-credit courses, over 3 consecutive semesters. The new faculty also met with students on a weekly basis to guide them toward successful completion of their research projects. As a result, students no longer experience the research project as a hindrance to their graduation.

So far, the current students have responded positively to the new changes. Two students who were on temporary leave of absence have come back to try and finish their research projects. The above efforts appear to be conducive to the overall retention and graduation rates of the CSD program.
Action Plan #3 (Promoting Native Hawaiian Health and Recruitment):

Currently the Communication Sciences and Disorders department has 3 native Hawaiian students, and we are in the process of expanding the Native Hawaiian initiative. For training purposes in cultural awareness, our team has encouraged new faculty Dr. Christine Fiestas to communicate with Dr. Martina Kamaka from the Department of Native Hawaiian Health to develop training for the cultural awareness of current CSD students specific to Native Hawaiian culture and with respect to the various cultures of Hawai‘i. Dr. Fiestas attended a training from the UH Manoa Office of Faculty Development on developing courses that honor and engage Hawaiian, Asian or Pacific issues. There are some early plans to offer some clinical placements in sites that serve a large number of Native Hawaiians, specifically to reduce health disparities in this population and to provide students with cultural awareness training. For recruitment, Dr. Fiestas has been in touch with an instructor from the Kamehameha schools about high school student senior research projects and providing students the opportunity to learn more about careers in CSD as a speech-language pathologist or audiologist.

Department of Native Hawaiian Health (The Imi Ho‘ola Post-Baccalaureate Program):

The mission of the Imi Ho‘ola Post-Baccalaureate Program at UH-Manoa JABSOM is to improve health care in Hawai‘i and the Pacific by promoting diversity of the health care workforce and by producing physicians who demonstrate a strong commitment to practice in underserved communities in Hawai‘i and the Pacific. Up to 12 students from economically, socially, and/or educationally disadvantaged backgrounds are selected to participate in the 12-month enrichment program. The curriculum emphasizes the integration of concepts and principles in the basic sciences and humanities and further develops students’ critical thinking, communication, and learning skills. Upon successful completion of the program, students enter JABSOM as first-year medical students. Faculty and students are also involved in pipeline efforts (e.g., teaching social responsibility at Kalaupapa and providing health screenings for Pu‘ukohala cultural fest participants several times a year).

Outcomes:

- 273 Imi Ho‘ola alumni have been accepted to JABSOM
  - 219 (80%) have graduated from JABSOM
  - 29 (11%) are currently enrolled in JABSOM
  - 25 have been dismissed or withdrew from JABSOM (9%)
- 86 of the 219 alumni (39%) are Native Hawaiian (NH)
- Imi Ho‘ola alumni have achieved a 100% passing rate for USMLE Step 1 on first attempt for the past 6 years
Action Plan for Retention and Graduation Rates for Imi Ho’ola alumni enrolled in JABSOM:

- In 2004, the Student Development Team was developed to provide academic advising, career counseling, and academic remediation services for all alumni throughout 4 years of training at JABSOM
- Since 2003, United States Medical Licensing Examination (USMLE) Step 1 Board Preparation has been provided to Imi Ho’ola alumni enrolled in JABSOM
- The Imi Ho’ola Peer Mentoring Network pairs current Imi Ho’ola students with an Imi Ho’ola alumni enrolled in the 1st and 2nd year in JABSOM.

Department of Native Hawaiian Health (Native Hawaiian Center of Excellence - NHCOE):

The Native Hawaiian Center of Excellence (NHCOE) supports the recruitment and retention of NH students and faculty in medicine and other health professions. To strengthen the educational pipeline for Native Hawaiians to enter health professional schools, NHCOE has affiliated partnerships with ‘Ahahui o Na Kauka (Association of Native Hawaiian Physicians), Kipuka Native Hawaiian Student Center (UH-Hilo), UHM Office of Student Equity, Excellence and Diversity, Papa Ola Lokahi, and the UHM Myron B. Thompson School of Social Work. As a pilot initiative, the Native Hawaiian Student Pathway to Medicine (NHSPM) Program was created to increase NH students’ competitiveness and preparation for medical school admission.

Outcomes:

- Since 2010, 37 Native Hawaiian undergraduates and post-baccalaureate students have completed the Native Hawaiian Student Pathway to Medicine Program (2 out of the 37 participants have applied and have been accepted to U.S. medical schools)
- Since 2010, 18 (8 NH) JABSOM faculty received faculty development training through the NHCOE Fellowship Training Program and/or NHCOE Faculty Development Program
- Cultural Competency Development training provided to 100% of JABSOM first year medical students

Action Plan for Improving Native Hawaiian JABSOM Student Retention and Graduation Rates:

- Individual advising and mentoring provided to NH students up to 2 years after NHSPM program completion
- USMLE Step 1 Preparation Assistance for Native Hawaiian JABSOM students
- Supplemental academic enrichment and advising services for NH students currently enrolled in JABSOM
Additional actions and activities already underway in the School of Medicine:

1. Department of Native Hawaiian Health chair position was hired in January 2011 (vacant for over a year). Chair’s start up package included additional administrative position support, financial subsidy to maintain the department’s Native Hawaiian Health Clinic and faculty support including approval and funding to fill all vacant Imi Ho‘ōla teaching faculty vacancies due to retirements in 2011.

2. For fiscal year 2011-2012, Chancellor awarded two .75 FTE Faculty Cluster Hires specifically supporting Native Hawaiian Health and Public Health indigenous health studies in Hawai‘i in collaboration with UHM’s School of Hawaiian Knowledge.

3. Minor renovation to existing research space and the addition of adjoining (approximately 2500 square feet) research space for the Native Hawaiian Health department will be completed in January 2012.

4. 16.67% Imi Ho‘ōla Post Baccalaureate (described in the section below) program class size expansion, effective Fall 2011.

5. Renewed support from the Queen’s Health System which supports: 1) 60 students over a 5 year period enrolled in the Imi Ho‘ōla Program, 2) assists in funding Native Hawaiian community assessment and capacity for building projects and 3) supports the recruitment and training of 2 post-doctoral fellows in health disparities research.

The School of Medicine’s future action plan to promote the advancement of Native Hawaiian initiatives is our resubmission of JABSOM’s fiscal years 2012 and 2013 Biennium Program Change Request (PCR). The PCR funding request supports the advancement of Native Hawaiian initiatives by providing:

1) Support for sustainability and expansion of the Imi Ho‘ola Program, a (post-baccalaureate) labor-intensive year-long, pre-medical school preparatory program for disadvantaged students including the continuation of Neighbor Island student recruitment effort.

   a. **Addressing Hawai‘i’s Graduation Initiative with Imi Ho‘ola's Proven Outcomes:** Of the 213+ Imi Ho‘ola alumni that have graduated from JABSOM, 40% are Native Hawaiian, 55% are practicing in Hawai‘i and the Pacific, and 82% are in primary care. This is an essential pipeline program that provides the opportunity for up to 12 select students with the promise of successful matriculation in medical school given adequate mentoring. Largely due to Imi Ho‘ola’s success, other programs within the UH system have contacted the Imi Ho‘ola program for assistance in forming similar educational opportunity/pipeline programs, such as the STEP (Steps towards Excellence in Pharmacy) program at the UH-Hilo School of Pharmacy.

   b. **Also addressing Hawai‘i’s Graduation Initiative with Neighbor Island Recruitment:** During the academic year in collaboration with our education partners, recruitment sessions are scheduled each year in Kauai, Hawaii Island
and Maui County (Maui, Molokai, and Lanai). At recruitment sessions, students and counselors at the various schools will be provided resource information about health workforce educational opportunities as well as financial aid. This effort will be coordinated with the JABSOM Area Health Education Center and Hawai'i Rural Health Association.

c. **Imi Ho'ola and Neighbor Island Recruitment Performance Measures:**
   
i. Each year, approximately 80% of Imi Ho'ola students will matriculate into the JABSOM MD Program. This measure will be assessed by monitoring the Imi Ho’ola post-baccalaureate class size expansion and anticipated sustainment of the quality metrics associated with recruitment (e.g., average entering class GPA, science and overall, and MCAT scores). Determination of prior residence on neighboring islands and Native Hawaiian status will also be documented in a database.

   ii. A total of 300 neighbor island high school, undergraduate, and post-baccalaureate students and counselors will be exposed to health professions at JABSOM via recruitment sessions each year to Kauai, Hawaii Island, and Maui County (Maui, Molokai, and Lanai). Evaluation of the effectiveness of sessions will be measured by survey (usefulness of information, presentation content, and delivery) and results will be collected and analyzed. The number of students from diverse backgrounds in attendance as well as the number of recruitment sessions held on Kauai, Hawaii Island, and Maui County (Maui, Molokai, and Lanai) will also be collected.

2) **Support for Native Hawaiian Center of Excellence (NHCOE) which provides (a) Native Hawaiian Student Pathway to Medicine (NHSPM) program that creates a pipeline for Native Hawaiian students interested in becoming physicians, (b) supporting the School’s USMLE Simulation Center and (c) development of cultural competency in healthcare research and clinical training, specific to the Native Hawaiian population, for all JABSOM students.**

   a. **Addressing UH-Manoa's Workforce Development Shortage in Hawaii with NHCOE Institutionalization:** The PCR funding request will institutionalize NHCOE’s on-going efforts at JABSOM for Native Hawaiian and other under-represented Pacific Island students’ educational success and provide sustainable support for Native Hawaiian cultural competency research and clinical teaching/training by supporting faculty and administrative positions in the DNHH.

   b. **NHCOE Performance Measures:**
      
      i. Each year, the NHSPM program will enroll up to 20 Native Hawaiian and other under-represented Pacific Island undergraduate and post-baccalaureate students from UH-Hilo and UH-Manoa pursuing
admission to JABSOM MD program. This measure will be assessed by documenting the number students selected and enrolled in the NHSPM. Demographic data will be documented in a database and student participants’ progress through the application process to medical school will be tracked. Effectiveness and impact of this program will be measured by how many students, who complete the NHSPM, apply to and are accepted into the JABSOM MD program.

ii. Each year, 100% of Native Hawaiian and other under-represented Pacific Island students enrolled at JABSOM will achieve a passing score on the United States Medical Licensing Exam (USMLE) Step I on their first attempt. This pass rate will be achieved through providing a USMLE Step I preparatory program that will support students academically and financially. Students will be tutored on content, test-taking skills, time management, and exam scheduling. Personal guidance and social support will also be provided on a one-on-one basis. For the past five years, all Native Hawaiian students in their second year of medical school successfully passed the USMLE Step I, however, not all students were successful on first attempt of the exam. This negatively impacted their progression through the JABSOM MD program, financial aid status, and graduation. This program will be available for all Native Hawaiian and other under-represented Pacific Island students in the first and second year at JABSOM.

iii. Each year, NHCOE will place at least 10 JABSOM medical students into community-based health facilities that serve a significant number of Native Hawaiians on Oahu and the Neighbor Islands. Students will be able to work with a traditional Native Hawaiian healer in caring for their patients at select sites. Students and MD preceptors will complete an evaluation of their rotation.