

‘Imi Ho‘ōla: Creating Pathways to Success for Indigenous Students in Medicine at the University of Hawai‘i John A. Burns School of Medicine

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Abstract

‘Imi Ho‘ōla is a program for those seeking to heal. Since 1973, ‘Imi Ho‘ōla has provided educational opportunities to students from underrepresented populations in medicine and has demonstrated its success as a pathway for Native Hawaiians and other Pacific Islanders into the University of Hawai‘i John A. Burns School of Medicine (JABSOM). The program’s student-centered, individualized, and team-based approach offers participants the opportunity to develop effective learning and study skills while solidifying students’ foundation in the basic sciences and humanities. ‘Imi Ho‘ōla is an educational model that has had a longstanding impact on the diversity within JABSOM and has contributed to the success of indigenous students in medicine.

Abbreviations

JABSOM = John A. Burns School of Medicine
NHOPI = Native Hawaiian and Other Pacific Islander
PBL = Problem Based Learning

Introduction

A significant body of evidence demonstrates that increasing the number of Native Hawaiian and Other Pacific Islander (NHOPI) health professionals may help to reduce health disparities experienced by NHOPI patients.¹⁻³ NHOPI suffer from the highest rates of chronic disease with a disproportionately higher prevalence of diabetes, heart disease, and cancer when compared to all other ethnicities in Hawai‘i.⁴ The longevity of disparities contribute to a 10 year gap between the longest-living groups, Japanese and Chinese, and the shortest-living group, Native Hawaiians.⁵ Studies have found that when there is racial or ethnic concordance between doctor and patient, patients note a greater degree of trust, higher patient satisfaction, and improved perceived quality of care.⁶ One significant factor that has been shown to increase the representation of minorities within the health professions is the educational pipeline. Health education pipeline and pathway programs are aimed at increasing the number of qualified students from underrepresented backgrounds who successfully matriculate into health professional schools. A Robert Wood Johnson Foundation study of a summer program to support minority college students’ aspirations and subsequent preparation for medical school found that participants had a 70 percent greater odds compared to the minority control group of students in gaining admission to medical school.⁷ Evaluation of University of California premedical post baccalaureate programs that enrolled higher numbers of minority and disadvantaged

students also found that program participants were more than twice as likely as control students to matriculate into medical school.⁸ Although pathway programs have been found to have a positive impact, the numbers of historically underrepresented students in medicine, including NHOPI, remain low. NHOPI residents make up 26.2% of the total Hawai‘i population and only 3.7% of the total Hawai‘i physician workforce, translating to an average ratio of 2.96 NHOPI physicians per 10,000 NHOPIs.⁹ These sobering statistics underline the critical need for educational pathway programs such as the ‘Imi Ho‘ōla Post-Baccalaureate Program. The purpose of this article is to describe the program’s admissions process, curricula, student support services, and participant outcomes.

Program Overview

‘Imi Ho‘ōla (Hawaiian meaning “those who seek to heal”) is a longstanding pathway program originally established in 1973 to increase the representation of Native Hawaiian and Other Pacific Islander (NHOPI) students in medicine.⁹ In the first two decades of the program’s history (1973-1994), the program provided premedical enrichment for aspiring medical students, many of whom were from Hawai‘i and the greater Pacific. Up to 25 students were accepted each year and upon program completion, students would then competitively apply for admission into JABSOM. In 1996, ‘Imi Ho‘ōla underwent a significant organizational change. In order to meet newly established, federal funding priorities, the program was restructured to become a post-baccalaureate program providing educational opportunities to students from disadvantaged backgrounds. The program currently seeks out students from economically, socially, and/or educationally disadvantaged backgrounds who possess the potential to succeed in medicine and have shown a commitment to serve in Hawai‘i and the Pacific.¹⁰ Although ‘Imi Ho‘ōla is not limited to persons of Hawaiian, Filipino, Samoan, Chamorro or Micronesian descent, a large number of students from these backgrounds have demonstrated that they are from a disadvantaged background and are deemed eligible for the program.

‘Imi Ho‘ōla accepts up to 12 students per year and once enrolled in the program, participants gain a conditional acceptance to JABSOM. The program’s mission continues to focus on improving health care for Hawai‘i and the Pacific by increas-

ing the number of physicians through a year-long educational program that addresses disadvantaged students' academic and professional needs. Its success is largely due to the longstanding commitment by the medical school, community supporters and stakeholders. For the past 15 years, the Queen's Health Systems has provided essential monthly stipends to program participants that are used for tuition, books, and other educationally-related expenses. All 'Imi Ho'ōla faculty positions and operational costs are completely institutionalized within JABSOM and is part of the Medical Education division of the Department of Native Hawaiian Health.¹¹

Admissions/Student Selection

All applicants must apply by November 1 of the calendar year prior to matriculation into the program. Applications undergo a review for initial screening which includes *kama'āina* (having ties to the state of Hawai'i and the Pacific), academic (minimum requirements), and disadvantaged requirements. Disadvantaged is defined as "an individual who: 1) comes from an environment that has prevented the individual from obtaining the knowledge, skills, and abilities required to enroll in and graduate from medical school; and/or 2) comes from a family with an annual income below low-income thresholds based on family size as published by the US Census Bureau." A Community Advisory Committee, comprised of leaders in education, medicine, law, and business reviews prospective candidates and provide recommendations for selection into the program. The Community Advisory Committee also provides input regarding admissions policy and overall guidance to the program. Students are reviewed based on their academic and professional potential as well as their commitment to serve in underserved communities of Hawai'i and the Pacific. The recommendations made by the Advisory Committee are then forwarded to the JABSOM Admissions Committee who completes the final selection of students who enter the 'Imi Ho'ōla Post-Baccalaureate Program.

Curricula

The curricula is divided into three phases, termed Phase 1 - Orientation and Assessment, Phase 2 - Academic Enrichment and Phase 3 - Pre-Matriculation. In Phase 1, students undergo a 5-week orientation in which the program administers formal assessments to obtain baseline data on students' knowledge in the biochemical sciences, reading, and learning/study skills. Faculty conduct presentations on specific learning strategies (eg, time management, exam preparation) with application to content-specific material; facilitate exercises to foster learner confidence; introduce students to the Problem Based Learning (PBL) process, and help students familiarize themselves with campus resources.¹² During Phase 2, students are immersed in the basic science curricula which includes Medical Biology and Medical Biochemistry. Students are also enrolled in Humanities in Medicine, a course formerly known as the Scientific Basis

of Medicine. During the Humanities in Medicine course, key discussion topics include an introduction to social determinants of health, health disparities, cultural competency, the structure and implementation of the health care system, community-based participatory research and community health experiences. Phase 3 is designed to ease the students' transition into medical school. Students engage in JABSOM's traditional PBL format which is more student-directed and less teacher driven. Students also participate in a one week rural shadowing experience with a community physician located in a rural setting on the island of O'ahu or on one of the neighboring islands, including Hawai'i Island, Kaua'i, Moloka'i or Maui. Once participants complete Phase 3 and achieve satisfactory credit in all courses, they matriculate into JABSOM ties to the state of Hawai'i and the Pacific.

Throughout the three phases of the program, program faculty utilize an integrated, team-based approach in which students learn how to improve critical thinking skills through mixed teaching methods. Faculty utilize a modified PBL format in which instructors provide more direction and guidance related to learning issues, formal lectures, small group discussions, and hands on experiences in gross anatomy lab and biochemistry to expose students to a diverse teaching environment that meets their individual learning needs. Students also participate in a year-long service-learning project in which they learn about the history of Hansen's disease (formerly known as leprosy) and its impact on the patient, their families, and communities. The service-learning project culminates with an annual trip to Kalaupapa located on the island of Moloka'i. Kalaupapa is a former settlement for Hansen's disease patients now established as a national park. The Kalaupapa service-learning project offers students the opportunity to learn about culturally competent health care services and the unique needs of rural and underserved patient populations.

Student Support Services

'Imi Ho'ōla services are student-centered, individualized, and comprehensive. In phase 1 of the program, students complete a battery of assessments that are used to determine the students' current level of learning skills development and approach to mastering new information. The information obtained by the learning assessments are analyzed by the Learning Specialist and faculty to create an individualized educational plan for each student. The learning plan is a culmination of results from the learning assessments, students' academic history, and personal/social demographics. This comprehensive educational plan is used throughout the year to offer feedback and to assist students in developing their optimal learning and study strategies to achieve success in the program. Students receive formal feedback a minimum of 6 times throughout the year via student conferences. During each student conference, the Director, Learning Specialist, and Program Assistant facilitate open dialogue with the student while providing feedback and

encouraging student reflection regarding his or her academic progress and professional behavior in the program.

Based on learning assessment results and student performance, students can be referred to services that may include evaluation for learning differences and behavioral health needs. The program works directly with Kahi O Ka Ulu 'Ana (KOKUA), a student services support program located on the University of Hawai'i at Mānoa campus which offers identification evaluation, and recommendations for students with learning differences or disabilities to promote their success academically. Testing accommodations and/or referrals to behavioral health professionals and other services that enhance student well-being and academic success are also provided within the individualized educational plans.

Participant Outcomes

Since 1978, 'Imi Ho'ōla's contributions to NHOPI diversity at JABSOM are significant for 38% of all Native Hawaiians, 34% of Filipinos, 57% of Micronesians, and 89% of Samoan students accessing medical school through the 'Imi Ho'ōla program and successfully graduating from JABSOM. Over the past 2 decades, there have been a total of 210 participants of 'Imi Ho'ōla. Of the 210, 168 (80%) students have successfully completed the program and matriculated into JABSOM. Many factors contribute to a student's ability to successfully complete the program which may include academic readiness and personal/social circumstances. Of these JABSOM matriculants, 41% were male and 59% female. Eighty percent (80%) of 'Imi Ho'ōla completers are from the state of Hawai'i, 16% from US affiliated Pacific Islands, and the remaining 4% from the continental US and various parts of Asia. Self-reported primary ethnicity of program completers is as follows: 32% Native Hawaiian, 29% Asian (includes Japanese, Chinese, Korean, Vietnamese, and Taiwanese), 25% Filipino, 12% Pacific Islander (includes Chamorro, Samoan, Palauan, Pohnpeian), and 2% making up a combination of American Indian/Alaska Native, African American, Laotian, and Caucasian.

After exclusion of 'Imi Ho'ōla graduates who are currently enrolled in JABSOM, 137 program graduates remain. Of the one hundred thirty-seven 'Imi Ho'ōla graduates who then obtained their MDs from JABSOM, fifty-eight percent have chosen primary care with the majority specializing in family practice (23%) and internal medicine (21%). Of those providing health care services following residency, 42% practice in Hawai'i, while 58% are practicing on the continental United States.

Table 1. Self-Reported Primary Ethnicity of 'Imi Ho'ōla Graduates (1996-2016)

Ethnicity	%
Native Hawaiian	32
Asian	29
Filipino	25
Pacific Islander	12
Other	2

Summary

For the past 45 years, 'Imi Ho'ōla has served as a pathway for indigenous students to achieve the challenging goal of becoming physicians. Through a combination of student-centered curricula and individualized student support services, 'Imi Ho'ōla participants strengthen their basic sciences foundation while developing effective learning strategies, building self-confidence, and creating a longstanding and critical support network that promotes their success in medical school and as a future physician. The 'Imi Ho'ōla program is essential to diversifying the physician workforce in Hawai'i, positively impacting health care services and improving health disparities experienced by NHOPI.

Conflict of Interest

None of the authors identify a conflict of interest.

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