

Hawai‘i Journal of Health & Social Welfare

A Journal of Pacific Health & Social Welfare

April 2023, Volume 82, No. 4, ISSN 2641-5216

AN ANALYSIS OF EAST ASIAN AMERICAN INPATIENT PSYCHIATRIC DATA FROM THE HAWAI‘I HEALTH INFORMATION CORPORATION DATABASE 83

Maria B.J. Chun PhD; Breanna Morrison PhD

PERCEIVED IMPACT OF A CORE ROTATION ON HAWAI‘I ISLAND ON FUTURE CAREER INTENTIONS AMONG OBSTETRICS AND GYNECOLOGY RESIDENTS 89

Paris N. Stowers MD, MSCTR; Mark Hiraoka MD, MSCR; Kareem Khozaim MD; Emilie Stickley MD; Celeste Adrian MD; John Uohara MD; Ivica Zalud MD, PhD

SOCIAL WORK IN ACTION 94

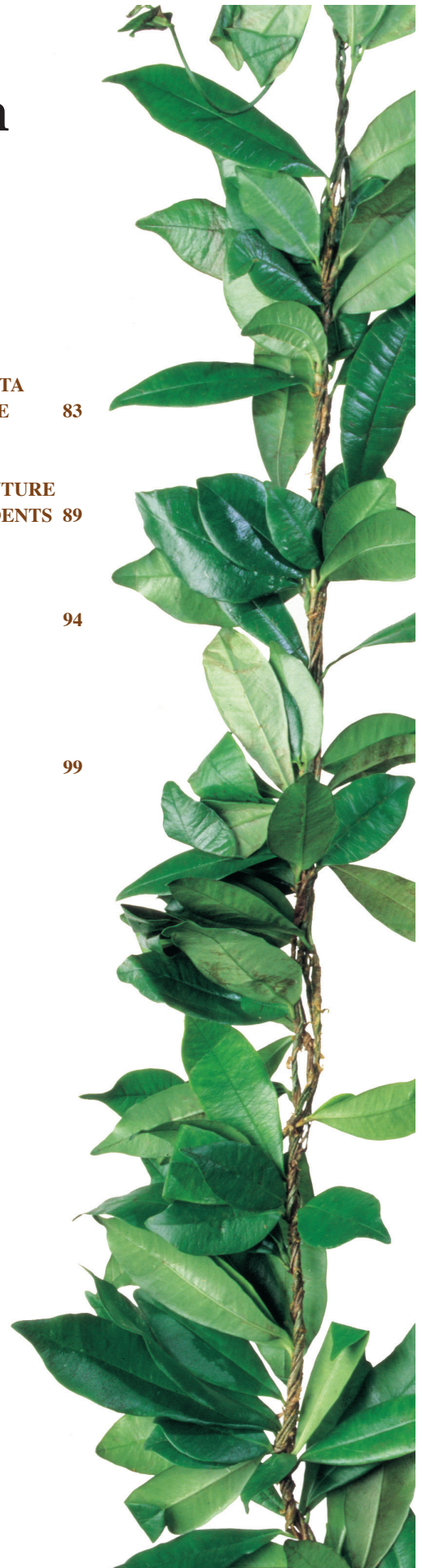
Overdose Data to Action – Care Coordination and Capacity Building (OD2A-C3) Project

Seunghye Hong PhD; Paula T. Morelli PhD, LCSW; Yeonjung Jane Lee PhD; Mei Linn N. Park MSW; Tammie Healani Hoapili Smith MPH; Amy B. Curtis PhD, MPH

MEDICAL SCHOOL HOTLINE 99

University of Hawai‘i Medical School Dean Hedges Reflects on 15 Year Tenure Upon Retirement (2008 -2023)

Jerris Hedges MD, MS, MMM



Hawai'i Journal of Health & Social Welfare

ISSN 2641-5216 (Print), ISSN 2641-5224 (Online)

Aim:

The aim of the Hawai'i Journal of Health & Social Welfare is to advance knowledge about health and social welfare, with a focus on the diverse peoples and unique environments of Hawai'i and the Pacific region.

History:

In 1941, a journal then called The Hawai'i Medical Journal was founded by the Hawai'i Medical Association (HMA). The HMA had been incorporated in 1856 under the Hawaiian monarchy. In 2008, a separate journal called the Hawai'i Journal of Public Health was established by a collaborative effort between the Hawai'i State Department of Health and the University of Hawai'i at Mānoa Office of Public Health Studies. In 2012, these two journals merged to form the Hawai'i Journal of Medicine & Public Health, and this journal continued to be supported by the Hawai'i State Department of Health and the John A. Burns School of Medicine.

In 2018, the number of partners providing financial backing for the journal expanded, and to reflect this expansion the name of the journal was changed in 2019 to the Hawai'i Journal of Health & Social Welfare. The lead academic partners are now the six units of the UH College of Health Sciences and Social Welfare, including the John A. Burns School of Medicine, UH Public Health, the Thompson School of Social Work & Public Health, the Nancy Atmospera-Walch School of Nursing, the UH Cancer Center, and the Daniel K. Inouye College of Pharmacy. Other partners are the Hawai'i State Department of Health and the UH Office of the Vice Chancellor for Research. The journal is fiscally managed by University Health Partners of Hawai'i.

The HJH&SW Today:

The Hawai'i Journal of Health & Social Welfare is a monthly peer-reviewed journal. Full-text articles are available on PubMed Central. The HJH&SW cannot be held responsible for opinions expressed in papers, discussion, communications, or advertisements. The right is reserved to reject editorial and advertising materials that are submitted. Print subscriptions are available for an annual fee of \$250. Please contact the journal for information about subscriptions for locations outside of the US. ©Copyright 2023 by University Health Partners of Hawai'i (UHP Hawai'i).

The HJH&SW is financially supported by the academic units within the UH College of Health Sciences and Social Welfare, the UH Office of the Vice Chancellor for Research, the Hawai'i State Department of Health, and by advertising. However, the journal's editorial board maintains editorial independence from these entities for the acceptance and publication of research articles. All editorial decisions regarding the selection and editing of research articles are made by the members of the journal's editorial board. The decisions of the editorial board are not influenced by nor subject to the approval of these entities.

The aim of the columns of the HJH&SW is to provide a space for the entities that financially support the HJH&SW to disseminate information regarding their research, programs, goals, or current issues facing their respective fields. Columns are edited by the HJH&SW contributing editors, who are employees of the agencies that support the HJH&SW.

The aim of the Hawai'i Journal Watch is to highlight recent research of the entities that financially support the HJH&SW. The research articles that are covered in the Hawai'i Journal Watch are selected by both the HJH&SW and by researchers in the units that support the HJH&SW. The researchers whose articles are covered in the Hawai'i Journal Watch are given the opportunity to fact check the news brief.

Co-Editors:

S. Kalani Brady MD, MPH
Tonya Lowery St. John PhD, MPH

Editor Emeritus:

Norman Goldstein MD

Associate Editors:

Lance K. Ching PhD, MPH
Kathleen Connolly PhD
Daniel Hu PharmD
Karen Rowan DNP
Ekamol Tantisattamo MD, MPH
Ashley B. Yamanaka PhD, MPH

Copy Editor:

Satoru Izutsu PhD

Assistant Editors:

Gayle J. Early PhD, APRN
Jannet Lee-Jayaram MD
Sarah Momilani Marshall PhD, MSW
Stephanie Pyskir MD, MPH
Katie Sherwood MSW
Kara Wong Ramsey MD

Contributing Editors:

Kathleen Connolly PhD, John A. Burns School of Medicine
Sophia Lau PhD, MSW, Thompson School of Social Work & Public Health
Shane Morita MD, PhD, UH Cancer Center
Nichole J. Fukuda MS, Hawai'i State Department of Health
Jarred Prudencio PharmD, Daniel K. Inouye College of Pharmacy
Holly B. Fontenot PhD, Nancy Atmospera-Walch School of Nursing
Mapuana Antonio DrPH, UH Public Health

Journal Production Editor:

Drake Chinen BA, AAS

Graduate Research Assistant:

Jordan M. Marshall

Executive Leadership Committee:

Clementina D. Ceria-Ulep PhD, RN, Nancy Atmospera-Walch School of Nursing
Jerris R. Hedges MD, MS, MMM, John A. Burns School of Medicine
Loic Le Marchand MD, PhD, UH Cancer Center
Lola H. Irvin MD, Hawai'i State Department of Health
Velma Kameoka PhD, UH Office of the Vice Chancellor for Research
Miriam A. Mobley Smith PharmD, FASHP, Daniel K. Inouye College of Pharmacy
Tetine L. Sentell PhD, Thompson School of Social Work & Public Health
Eric Hurwitz DC, PhD, UH Public Health

Editorial Board:

Mapuana Antonio DrPH, S. Kalani Brady MD, MPH, Drake Chinen BA,
Lance K. Ching PhD, MPH, Kathleen Connolly PhD, Gayle J. Early PhD, APRN
Holly B. Fontenot PhD, Nichole J. Fukuda MS, Daniel Hu PharmD,
Satoru Izutsu PhD, Sophia Lau PhD, MSW, Jannet Lee-Jayaram MD,
Tonya Lowery St. John PhD, MPH, Jordan M. Marshall,
Sarah Momilani Marshall PhD, MSW, Shane Morita MD, PhD,
Jarred Prudencio PharmD, Stephanie Pyskir MD, MPH, Kristine Qureshi PhD,
Karen Rowan DNP, Tetine L. Sentell PhD, Katie Sherwood MSW,
Ekamol Tantisattamo MD, MPH, Kara Wong Ramsey MD

Statistical Consulting:

Biostatistics & Data Management Core, JABSOM,
University of Hawai'i (<http://biostat.jabsom.hawaii.edu>)

Advertising Representative:

Roth Communications; 2040 Alewa Drive, Honolulu, HI 96817
Phone (808) 595-4124

Journal Contact Information:

Mailing Address: Hawai'i Journal of Health & Social Welfare
95-1027 Ainamakua Dr., #114
Mililani, HI 96789

Website: <http://hawaiijournalhealth.org/>

Email: hjhswhawaii.edu



An Analysis of East Asian American Inpatient Psychiatric Data from the Hawai'i Health Information Corporation Database

Maria B.J. Chun PhD; Breanna Morrison PhD

Abstract

Past research has examined the complex reasons for the apparent reluctance of East Asian Americans (ie, Chinese, Japanese, Koreans) to seek mental health services when needed. The current study analyzed East Asian American (EAA) mental health, utilizing inpatient hospitalization data from the Hawai'i Health Information Corporation (HHIC) database. Frequency of inpatient hospitalizations for specific mental health diagnoses (depression, bipolar disorder, schizophrenia, and suicide attempts/ideation) in EAA patients was examined. White, Native Hawaiian, and Filipino patients were included for comparative purposes. Retrospective data on adult (18 years and over) inpatient visits in Hawai'i from 2007 to 2017 were analyzed. Variables available for analysis were detailed race/ethnicity, age, sex, island, and insurance type as well as readmission rates, severity of illness (SOI), and initial length of stay (LOS). Overall, there were no significant differences between race/ethnicity groups in regards to readmission, SOI, or LOS for a majority of the diagnoses. However, for depression, even when adjusting for other demographics, Japanese and Chinese patients had significantly higher initial LOS and SOI than White patients, though the strength of this association was weak (*R Squared* model fits being less than .1 for both outcomes). The reason for these findings requires further examination, including whether EAAs may be reticent to seek help and/or whether healthcare providers are not recognizing the need for assistance.

Keywords

East Asian American, Inpatient Psychiatric Data, Mental Health

Abbreviations and Acronyms

ACS = American Community Survey

EAA = East Asian Americans

HHIC = Hawai'i Health Information Corporation

ICD-9 = International Classification of Diseases, Ninth Revision

ICD-10 = International Classification of Diseases, Tenth Revision

LOS = length of stay

NLAAS = National Latino and Asian American Study

PPR = potentially preventable readmission

SOI = severity of illness

WHO = World Health Organization

Introduction

Past research has examined the complex reasons for the apparent reluctance of East Asian Americans (ie, Chinese, Japanese, Koreans) to seek mental health services when needed. For example, Yoo et al reported that internalizing the “model minority myth” can lead East Asian Americans (EAA) to experience stress from excessively high expectations.¹ It may also prevent them from seeking help since they may feel pressured to preserve

a positive self-image as being a member of a racial/minority group that is not perceived as needing mental health services.² Compounding the problem is how EAA's traditional views regarding mental health matters as “shameful” prevent them from getting the help they need.³

A number of past studies note the difficulties with studying Asian American mental health,^{1,3-7} which include viewing Asian Americans as a monolithic group. Aggregation of Asian Americans or when the categorization is expanded to Asian American/Native Hawaiian/Pacific Islander fails to take into consideration the diverse backgrounds/history and experiences of each subgroup. The 2000 Census was the first time that respondents were able to select one or more race categories, allowing for the disaggregation of data.⁸ Since then, efforts have been made to further refine how data is collected, analyzed, and disseminated. These can better inform public policy, program development, and the provision of services; however, small sample sizes for subpopulations prevent meaningful analyses.^{9,10} Taking into consideration the concern with overgeneralizing to such a heterogeneous group, the current study focuses specifically on EAAs (Chinese, Japanese, and Korean adults) in Hawai'i.

Based on data from the World Health Organization (WHO), 3 common mental health disorders—depression, bipolar disorder, and schizophrenia—were selected since their commonality would provide adequate sample size and be more relevant to analysis.¹¹ Suicide attempts and ideation were also included given the increasing concern of suicidality.¹² In 2019, WHO reported that approximately 264 million people worldwide have depression, 45 million have bipolar disorder, and 20 million have schizophrenia. WHO also reported on the lack of proper treatment options for those suffering from mental illness, particularly those in low to middle income countries, and is focused on the following 4 objectives for its Mental Health Action Plan (2013-2020): (1) improve leadership and oversight for mental health; (2) assure comprehensive and integrative services that are community-based; (3) implement prevention and promotion strategies; and (4) improve information systems, evidence, and research.

The Hawai'i Health Information Corporation (HHIC) database contains inpatient information from Hawai'i hospitals with details such as patient demographics and diagnoses available for analysis. It is a pay to access dataset.

The most current HHIC dataset was used to answer the following research questions:

1. What is the frequency of inpatient hospitalizations for mental health diagnoses (depression, bipolar disorder, schizophrenia, and suicide attempts/ideation) for Chinese, Japanese, and Korean patients, and are they under- or over-represented when compared to the rest of the population?
2. What are the general demographics for these patients and what were their readmission rates, severity of illness (SOI), and initial length of stay (LOS)?

Methods

Sample. Retrospective data on adult (18 years and over) inpatient visits in Hawai‘i from 2007 to 2017 were analyzed. This newer data allowed for additional variables, such as readmission, to also be evaluated. The University of Hawai‘i’s Office of Research Compliance deemed that this study would not need IRB approval.

Visits where the patient was transferred ($n=56\,702$), was a non-Hawai‘i resident ($n=43\,308$), had Department of Defense insurance and thus had limited race/ethnicity data ($n=72\,094$), and visits related to maternity and newborn related codes ($n=175\,997$) were excluded. Visits where the patient was deceased on the first visit for the diagnosis being analyzed were also excluded. Additionally, patients whose initial visits were not in the database (eg, if their initial visit was before 2007) were also excluded ($n=490$) as there was limited data concerning readmission.

After looking at only visits with the diagnoses of interest there were 36 703 records in the analysis. American Community Survey (ACS) data was used to obtain Hawai‘i population estimates for the race/ethnicity groups of interest,¹³ though this estimate does include those below the age of 18 and may define race/ethnicity groups differently. These numbers were used when estimating the prevalence of certain diagnoses in the population.

Variables. The variables available for analysis were detailed race/ethnicity data, age, sex, island, and insurance type. Island was grouped into O‘ahu and other. Island was analyzed as a variable due to potential differences in accessibility to care.¹⁴ The race/ethnicity groups analyzed were Chinese, Japanese, Korean, White, Native Hawaiian, and Filipino. These self-reported race/ethnicity groups were the most prevalent in the HHIC dataset and thus would give an adequate sample size. Additionally, these were measured by patient self-identification. Insurance type was categorized into public (Medicare or Medicaid), private, or other (eg, self-pay). Insurance type was included as a measure related to social economic status,¹⁵ which is often related to many health outcomes. Readmissions were calculated using the potentially preventable readmissions (PPR) chain number provided in the dataset. A PPR was defined as a

readmission that was clinically related to the initial visit in the chain and as defined by the 3M software, version 20 (3M Health Systems Information, Maplewood, MN) which determined if a specific follow up admission could be clinically tied to an initial admission.

Statistical Analysis

The primary outcomes of this study were number of patients admitted with a primary or secondary diagnoses of interest (depression, schizophrenia, bipolar disorder, and suicide ideation or attempt), SOI, length of stay (LOS), and if they had a readmission. The ICD codes used for depression were ICD 9: 296.2-296.3, 296.9 and for ICD 10: F32, F33. The ICD codes used for schizophrenia were ICD 9: 295.1-295.4, 295.8-295.9 and for ICD 10: F20. The ICD codes for bipolar disorder were ICD 9: 296.4-296.6, 296.38 and for ICD 10: F31. The ICD codes listed from the Agency for Healthcare Research and Quality’s report on *Suicidal Ideation, Suicide Attempt, or Self-Inflicted Harm: Pediatric Emergency Department Visits*¹² was used for suicide ideation and attempts. The patient count with the diagnoses of interest were calculated and compared by race/ethnicity group and compared to ACS data to estimate if certain race/ethnicity groups were under- or over-represented in the inpatient group when compared to the state’s population. The distribution of primary and secondary diagnoses for these race/ethnicity groups were also compared as there could be differing patterns for these diagnoses by type.

SOI was measured according to the 3M Health Systems classification (3M Health Systems Information, Maplewood, MN) with SOI ranging from minor to extreme. SOI was categorized into either minor SOI or more than minor due to patients with the diagnoses of interest being heavily skewed towards minor SOI. Median LOS was used, as LOS was also very skewed. Chi-square tests were used to compare categorical variables (readmission, SOI, island, sex, and public insurance) among race/ethnicity groups who were admitted for the diagnoses of interest. Bonferroni tests were used for any needed follow up tests. For normally distributed variables (age) and non-normally distributed variables (LOS) ANOVA or Kruskal-Wallis procedures were conducted with follow up tests of either Tukey or Dunn’s test, respectively.

Multiple regression or logistic regression was used for outcomes that were significantly different in previous analyses among race/ethnicity groups to see if those group differences were still present after adjusting for the previously listed patient characteristics. Analysis was done using R Statistics, 4.0.4 (R Core Team, Vienna, Austria).

Results

There were 16 376 visits which had a diagnosis of depression, 5170 with a diagnosis of schizophrenia, and 7377 with a

diagnosis of bipolar disorder. Additionally, 7780 visits had a diagnosis of suicide ideation or suicide attempt.

The number of Chinese, Japanese, Korean, White, Native Hawaiian, and Filipino people in Hawai'i was from the 2012 ACS 5-year estimate. This was then compared with patients with either a primary or secondary diagnosis of depression, bipolar disorder, schizophrenia, and suicide attempts/ideation as shown in **Table 1**.

Overall, White patients had higher rates of diagnoses than the other race/ethnicity groups. No noticeable differences for schizophrenia diagnoses were observed across race/ethnicity groups. Rates for Chinese, Koreans, and Japanese patients tended to be similar and lower than for White patients, but not as low as the rates for Filipino patients for depression, bipolar, and suicide attempts/ideation diagnoses.

For patients with a primary diagnosis of one of the mental health diagnoses of interest, outcomes and demographics relating to those patients were examined by race/ethnicity in **Table 2**.

Readmissions were significantly different across race/ethnicity groups but follow up chi-square tests with a Bonferroni correction did not identify any clear differences between specific groups (data not shown). SOI was significantly different across race/ethnicity groups. Japanese patients had a significantly higher rate of SOI (72.2%) when compared with White patients (60.3%) ($P < .001$) and this was the only significant comparison in the post hoc tests.

Length of initial stay differed significantly across race/ethnicity groups. A Kruskal-Wallis with a post-hoc Dunn test showed that for median initial length of stay, Japanese patients tended to have had longer LOS (4 days) when compared to White (3

Race/ethnicity	Depression n (per 10000) ^a	Bipolar n (per 10000)	Schizophrenia n (per 10000)	Suicide attempts/ ideation n (per 10000)	Hawai'i Population Estimates ^b n (percent of total population) (2012, 5 year) n (%)
Chinese	388 (68.0)	137 (24.0)	149 (26.1)	154 (27.0)	57 044 (4.2%)
Japanese	1 732 (92.6)	443 (23.7)	568 (30.4)	566 (30.3)	186 988 (13.7%)
Korean	196 (80.1)	75 (30.7)	81 (33.1)	87 (35.6)	24 466 (1.8%)
Filipino	1 179 (60.2)	380 (19.4)	463 (23.6)	438 (22.3)	195 993 (14.4%)
Native Hawaiian	354 (44.4)	121 (15.2)	108 (13.5)	216 (27.1)	79 749 (5.9%)
White	5 892 (173.8)	2 961 (87.3)	1 189 (35.1)	2 872 (84.7)	339 079 (24.9%)
Total	9 741 (110.3)	4 117 (46.6)	2 558 (29.0)	4 333 (49.1)	883 319 (64.8%)

^a Estimates are calculated with the population estimate as the denominator.

^b American Community Survey DP05 for Hawai'i 2012, 5 year estimate (2008-2012), definition for participant ethnicity is different than the HHIC data (ACS population estimates include under 18 year old and groups those with multiple listed ethnicity differently).

	Chinese n = 84, n (%)	Japanese n = 461, n (%)	Korean n = 48, n (%)	Filipino n = 332, n (%)	Native Hawaiian n = 123, n (%)	White n = 2074, n (%)
Readmission: Yes, $P = .006$	4 (4.8)	72 (15.6)	6 (12.5)	31 (9.3)	20 (16.3)	322 (15.5)
Severity of Illness: More than minor, $P < .001$	63 (75.0)	333 (72.2)	34 (70.8)	212 (63.9)	75 (61.0)	1 250 (60.3)
LOS of initial visit: Days, median (IQR) $P < .001$	4.5 (7)	4 (8)	2.5 (5.3)	3 (4)	3 (3)	3 (4)
Age: Years, mean (SD) $P < .001$	47.18 (19.7)	48.97 (21.7)	42.13 (16.8)	40.63 (17.1)	38.72 (15.0)	43.29 (15.2)
Island: O'ahu, $P < .001$	76 (90.5)	367 (79.6)	42 (87.5)	222 (66.9)	101 (82.1)	1 190 (57.4)
Sex: Male $P = .017$	38 (45.2)	214 (46.4)	18 (37.5)	132 (39.8)	59 (48.0)	1 028 (49.6)
Public insurance: Yes, $P < .001$	47 (56.0)	258 (56.0)	25 (52.1)	180 (54.2)	79 (64.2)	1 346 (64.9)

Note: Length of stay (LOS), interquartile range (IQR). The statistical tests were ANOVA for age, Kruskal-Wallis for LOS, and chi squares for the rest of the variables.

days) and Filipino patients (3 days) (both $P < .001$). Chinese patients also had a significantly longer median LOS when compared to Filipino ($P = .02$) and Native Hawaiian patients ($P = .02$). The rest of the post hoc tests were not significant.

Since age was more normally distributed, a Tukey post hoc tests also showed that Japanese patients tended to be significantly older than White, Native Hawaiian, and Filipino patients (all $P < .001$). Filipino patients were also less likely to be on public insurance when compared to White patients ($P = .002$). The additional post hoc tests were not significant.

Differences in patients with a primary diagnosis of bipolar disorder by race/ethnicity were also examined (data not shown). For a primary bipolar diagnosis, median LOS on initial visit, readmission, and SOI was not significantly different across race/ethnicity groups. Japanese patients were significantly older than Native Hawaiian ($P = .03$) and Filipino patients ($P < .001$). White patients seemed to be more likely to be male but follow up tests were not significant when using the Bonferroni correction. White patients were significantly more likely to have public insurance than Filipino patients ($P < .001$). The other post hoc tests were not significant.

There were no significant differences between race/ethnicity groups in regards to readmission, SOI, or LOS among patients with a primary diagnosis of schizophrenia (data not shown). Post-hoc analyses showed that Japanese patients tended to be significantly older than White ($P < .001$), Filipino ($P < .001$), and Native Hawaiian patients ($P = .003$). White patients tended to be significantly more likely to be male when compared to Korean patients ($P < .003$) and in general were older than other patients but alpha corrections did not show significance for other groups.

Suicide attempts and ideation patients were also compared with regards to readmission, SOI, LOS, age, island, sex, and insurance in **Table 3**.

Among patients who attempted suicide, readmission was significantly different overall across race/ethnicity groups. Follow up tests showed that White patients had a higher rate of readmission than Filipino patients ($P < .001$). SOI and LOS were not significantly different overall. Japanese patients were significantly older than Filipino ($P < .001$), White ($P < .001$) and Native Hawaiian ($P < .001$) patients. Filipino patients were significantly younger than White ($P < .001$), Chinese ($P = .010$), and Japanese ($P < .001$) patients. Both Japanese patients ($P < .001$) and Chinese patients ($P < .001$) were significantly less likely to be on public insurance than White patients.

While for most diagnoses there appeared to be no strong relationship between readmission, LOS, and SOI for depression, LOS and SOI were significantly different across groups. Regression was then used for these outcomes to examine whether race/ethnicity groups were still significantly related to these outcomes when controlling for other variables. These results can be seen in **Table 4**.

Even when adjusting for other demographics, Japanese and Chinese patients had significantly higher mean length of stays and initial length of stays than White patients. Filipino patients had a similar trend but to a weaker extent. However, the whole model was very weak in regards to estimating length of stay, which could indicate that there are other demographic or clinical variables that should be measured. When controlling for other variables, Chinese, Filipino, and Japanese patients were more likely to have a severity of illness score above minor when compared to White patients but the overall model for estimating severity of illness was also weak.

	Chinese n = 154, n (%)	Japanese n = 566, n (%)	Korean n = 87, n (%)	Filipino n = 438, n (%)	Native Hawaiian n = 216, n (%)	White n = 2872, n (%)
Readmission: Yes, $P = .006$	31 (20.1)	131 (23.1)	16 (18.4)	72 (16.4)	48 (22.2)	706 (24.6)
Severity of Illness: More than minor, $P = .352$	115 (74.7)	429 (75.8)	61 (70.1)	326 (74.4)	151 (69.9)	2181 (75.9)
LOS of initial visit: Days, median (IQR) $P = .138$	3 (4)	3 (5)	3 (6)	3 (3)	3 (3)	3 (3)
Age: Years, mean (SD), $P < .001$	44.38 (18.7)	46.72 (20.0)	43.66 (18.5)	38.53 (16.4)	39.53 (13.8)	43.4 (14.7)
Island: O'ahu, $P < .001$	137 (89.0)	473 (83.6)	82 (94.3)	344 (78.5)	183 (84.7)	1680 (58.5)
Sex: Male, $P = .087$	79 (51.3)	304 (53.7)	39 (44.8)	224 (51.1)	116 (53.7)	1617 (56.3)
Public insurance: Yes, $P < .001$	81 (52.6)	330 (58.3)	62 (71.3)	279 (63.7)	139 (64.4)	1963 (68.3)

Note: Length of stay (LOS), interquartile range (IQR). The statistical tests were ANOVA for age, Kruskal-Wallis for LOS, and chi squares for the rest of the variables.

Table 4. Regression Model for Length of Stay (LOS) and Severity of Illness (SOI) for those with a Primary Diagnosis of Depression, HHIC 2007-2017 (n = 3579)		
Variables	LOS Initial Visit	SOI
Age: Years	0.17 (SE = 0.01), <i>P</i> < .001	0.04 (SE = 0.003), <i>P</i> < .001
Island: O'ahu	0.6 (SE = 0.43), <i>P</i> = .157	0.08 (SE = 0.08), <i>P</i> = .358
Sex: Male	-0.21 (SE = 0.4), <i>P</i> = .606	0.1 (SE = 0.08), <i>P</i> = .211
% Public insurance	1.34 (SE = 0.42), <i>P</i> = .002	0.52 (SE = 0.08), <i>P</i> < .001
Race ethnicity: Chinese	2.58 (SE = 1.26), <i>P</i> = .040	0.71 (SE = 0.27), <i>P</i> = .010
Japanese	3.19 (SE = 0.59), <i>P</i> < .001	0.52 (SE = 0.12), <i>P</i> < .001
Korean	1.38 (SE = 1.64), <i>P</i> = .401	0.66 (SE = 0.34), <i>P</i> = .051
Filipino	1.32 (SE = 0.67), <i>P</i> = .048	0.37 (SE = 0.13), <i>P</i> = .005
Native Hawaiian	0.03 (SE = 1.05), <i>P</i> = .974	0.22 (SE = 0.2), <i>P</i> = .281
Model fit	0.08	0.09

Note: LOS was multiple regression and SOI was logistic regression meaning that model fit for the LOS model was adjusted R Square and the model fit for the logistic regression was Pseudo R-Square. All variables in the model are shown.

Discussion

This study deliberately focused on Chinese, Japanese, and Korean Americans in Hawai'i in order to investigate the potential mental health concerns faced by this understudied group. Although few statistically significant differences were found among groups, for depression, even after adjusting for other factors, Japanese and Chinese patients had significantly higher mean LOS and initial LOS than White patients. Reflective of past studies, this may be an indication that EAA may be reluctant to seek help until the illness is severe.^{2,3} However, the models predicting LOS and SOI were overall weak likely due to a lack of medical variables that are being used to predict these outcomes. While Japanese and Chinese patients overall inpatient stay numbers seemed to be underrepresented when compared to the population estimates, the ones who were admitted appeared to be more severe cases.

The first (and most current) national study on Asian American mental health was the National Latino and Asian American Study (NLAAS), which was a representative community household survey that investigated the prevalence of mental health disorders and service utilization.⁷ Data was collected from May 2002 to 2003 and included 2095 Asian Americans (Chinese, n=600; Filipino, n=520; Other Asians, n=467). The study analyzed national and subgroup differences, social position, environmental context, and psychosocial factors. Analyses pointed out sex differences when looking at immigration status.⁷ A separate NLAAS-based study reported that Asian Americans who were born in the US – specifically those third generation or later – were more likely to use mental health services (ie, seek help) if needed.¹⁶ Another NLAAS study found that family cohesion played a significant role in mental health service utilization – those with a higher level of cohesion were less likely to utilize services.¹⁷

Studies in Hawai'i, where there is a relatively large Asian American population, have also attempted to analyze and present disaggregated data.^{18,19} Sentell et al noted that prior to their research, past studies with subgroup data regarding inpatient admissions were over 3 decades old. Utilizing the HHIC database, 5 major racial/ethnicity groups in Hawai'i – Japanese (23.8%), Chinese (6.5%), Native Hawaiian (20.7%), Filipino (15.4%), and White (23.6%) were reviewed.¹⁸ Out of the study's sample of 303621 hospitalizations from December 2006 to December 2010, 10831 (3.6%) had mental health as a primary diagnosis. Chinese (11.4 per 10000) had the lowest rate of psychiatric hospitalizations overall and for all diagnoses, with the exception of schizophrenia (Japanese had the lowest at 44 per 10000). Whites had the highest psychiatric hospitalization rates for all diagnoses. Japanese, Chinese, and Filipinos had higher severity of illness or longer stays relative to Whites overall; Chinese and Japanese with schizophrenia with significantly longer stays; and Filipinos with schizophrenia and Japanese with depression had greater severity of illness. The authors suggested that Asian Americans may be less likely to be admitted for psychiatric reasons due to seeking help outside the hospital or possibly may be cared for at home. Lim et al found similar results when analyzing 2010 Hawai'i Medicaid data.¹⁹ Racial/ethnic differences in mental health service utilization for inpatient, outpatient, and emergency department services were examined, and compared to Whites, Asians were less likely to use outpatient services and had lower rates of inpatient visits.

This study has limitations. While the dataset used has near complete data on hospital inpatient visits, the team was not able to see all patients diagnosed with certain mental health disorders to compare with population level estimates. Additionally, some participants may be missing race/ethnicity level data and were not included in the analyses. There can also be definitional differences in how ACS data classifies race/ethnicity when

compared to how HHIC collects race/ethnicity, and while the HHIC data excluded those below the age of 18, ACS data did not for the specific race/ethnicity groups compared. So, while comparing ACS data to HHIC data is not a direct comparison it can still be used to give a general idea of how HHIC demographics may compare to the population. Additionally, the ACS data appears to have more detailed information for those who report multiple racial identities while the HHIC data asks those to self-report the identity they most identify with, leading to different ways these 2 datasets classify those individuals. Another limitation with regard to the data is the possibility of physician coding or data entry errors, similar to what has been noted in previous studies.¹⁹ Additionally, this study only looked at inpatient hospital stays relating to the diagnoses of interest. Different patterns may emerge when focusing on emergency room visits or outpatient visits. Furthermore, although certain ethnic groups demonstrated low rates of hospitalization for the diagnoses examined, they may have possibly higher rates of other mental health diagnoses. Future research should expand on the mental health diagnoses studied. While the sample size allowed for statistical analyses, when looking at the breakdown of these individual groups and comparing them using post-hoc tests, the power of statistical tests was weakened due to the size of groups that were being compared. Finally, while using Hawai‘i data allowed for a reasonable sample size of different East Asian groups, the experience of Asian Americans in Hawai‘i could potentially be different when compared to many other states where Asian Americans are less represented/ethnic minorities, which could impact the generalizability of this study.

This study found differences between EAAs and other ethnic groups when looking at inpatient psychiatric data, which may lead healthcare providers to better tailor their care. However, more research is needed to gain a better understanding of mental health concerns for EAAs. Additionally, taking a disaggregated look at EAA, South Asians, and Southeast Asians could potentially reveal differences within and among these groups. Most importantly, the stigma of mental illness needs to be addressed so that those who need help will receive the care they need.

Authors' Affiliations:

- Department of Surgery, John A. Burns School of Medicine, University of Hawai‘i, Honolulu, HI (MBJC)
- Department of Quantitative Health Sciences, John A. Burns School of Medicine, University of Hawai‘i, Honolulu, HI (BM)

Corresponding Author:

Maria B.J. Chun PhD; Email: mariachu@hawaii.edu

References

1. Yoo HC, Burrola KS, Steger MF. A preliminary report on a new measure: Internalization of the Model Minority Myth Measure (IM-4) and its psychological correlates among Asian American college students. *J Couns Psychol.* 2010;57(1):114-127. doi:10.1037/a0017871
2. Kim PY, Lee D. Internalized model minority myth, Asian values, and help-seeking attitudes among Asian American students. *Cult Divers Ethnic Minor Psychol.* 2014; 20(1):98-106. doi: 10.1037/a0033351
3. Kwok J. Factors that influence the diagnoses of Asian Americans in mental health: An exploration. *Perspect Psychiatr Care.* 2013;49(4):288-292. doi:10.1111/ppc.12017
4. Alegria M, Takeuchi D, Canino G, et al. Considering context, place and culture: The National Latino and Asian American Study. *Int J Methods Psychiatr Res.* 2004;13(4):208-220. doi:10.1002/mpr.178
5. Okazaki S, Kassem AM, Tu MC. Addressing Asian American mental health disparities: Putting community-based research principles to work. *Asian Am J Psychol.* 2014;5(1):4-12. doi:10.1037/a0032675
6. Sue S, Yan Cheng JK, Saad CS, Chu JP. Asian American mental health: A call to action. *Am Psychol.* 2012;67(7):532-544. doi:10.1037/a0028900
7. Takeuchi DT, Zane N, Hong S, et al. Immigration-related factors and mental disorders among Asian Americans. *Am J Public Health.* 2007;97(1):84-90. doi:10.2105/AJPH.2006.088401
8. Srinivasan S, Guillermo T. Toward improved health: disaggregating Asian American and Native Hawaiian/Pacific Islander data. *Am J Public Health.* 2000;90(11):1731-1734. Accessed May 14, 2021. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1446402/>
9. Chin KK. Improving public health surveillance about Asian Americans, Native Hawaiians, and Pacific Islanders. *Am J Public Health.* 2017;107(6):827-828. doi:10.2105/AJPH.2017.303802
10. Shimkhada R, Scheitler AJ, Ponce NA. Capturing racial/ethnic diversity in population-based surveys: Data disaggregation of health data for Asian American, Native Hawaiian, and Pacific Islanders (AANHPIs). *Popul Res Policy Rev.* 2021;40(1):81-102. doi:10.1007/s11113-020-09634-3
11. World Health Organization. Mental disorders. Published November 28, 2019. Accessed May 17, 2021. <https://www.who.int/news-room/fact-sheets/detail/mental-disorders>
12. Agency for Healthcare Research and Quality. *Suicidal Ideation, Suicide Attempt, or Self-Inflicted Harm: Pediatric Emergency Department Visits, 2010–2014 and 2016. Healthcare Cost and Utilization Project.*, 2019. Accessed June 24, 2021. <https://www.hcup-us.ahrq.gov/reports/ataglance/HCUpanalysisPedEDVisitsSuicide.pdf>
13. United States Census Bureau. ACS demographic and housing estimates.2012: ACS 5-Year Estimates Data Profiles. Accessed November 29, 2021. <https://data.census.gov/cedsci/table?q=acs%20hawaii&t=Race%20and%20Ethnicity&tid=ACSDP5Y2012.DP05>
14. Oliveira JM, Austin AA, Miyamoto RES, Kaholokula JK, Yano KB, Lunasco T. The Rural Hawai‘i Behavioral Health Program: Increasing access to primary care behavioral health for native Hawaiians in rural settings. *Prof Psychol Res Pr.* 2006;37(2):174-182. doi:10.1037/0735-7028.37.2.174
15. Robinson MR, Daniel LC, O'Hara EA, Szabo MM, Barakat LP. Insurance status as a sociodemographic risk factor for functional outcomes and health-related quality of life among youth with Sickle Cell Disease. *J Pediatr Hematol Oncol.* 2014;36(1):51-56. doi:10.1097/MPH.0000000000000013
16. Abe-Kim J, Takeuchi DT, Hong S, Zane N, Sue S, Spencer MS, Appel H, Nicdao E, Alegria M. Use of mental health-related services among immigrant and US-born Asian Americans: Results from the National Latino and Asian American Study. *Am J Public Health.* 2007;97(1):91-98. doi:10.2105/AJPH.2006.098541
17. Wang X. Influences on family relational factors and immigration generation status on mental health service utilization among Asian Americans. *Fam Soc.* 2020; 102(2):253-271. doi:10.1177/1044389420949465
18. Sentell T, Unick GJ, Ahn HJ, Braun KL, Miyamura J, Shumway M. Illness severity and psychiatric hospitalization rates among Asian Americans and Pacific Islanders. *Psychiatr Serv.* 2013;64(11):1095-1102. doi:10.1176/appi.ps.201200408
19. Lim E, Gandhi K, Siriwardhana C, Davis J, Chen JJ. Racial and ethnic differences in mental health service utilization among the Hawai‘i Medicaid population. *J Ment Health.* 2019;28(5):536-545. doi:10.1080/09638237.2018.1521917

Perceived Impact of a Core Rotation on Hawai'i Island on Future Career Intentions among Obstetrics and Gynecology Residents

Paris N. Stowers MD, MSCTR; Mark Hiraoka MD, MSCR; Kareem Khozaim MD; Emilie Stickley MD; Celeste Adrian MD; John Uohara MD; Ivica Zalud MD, PhD

Abstract

Hawai'i Island faces a growing shortage of obstetric and gynecology providers. Increased exposure of obstetrics and gynecology residents to rural rotations during their core training may increase their interest in rural practice after graduation. In an effort to address the health care needs of women on Hawai'i Island, the University of Hawai'i Obstetrics and Gynecology Residency Program established a 4-week required gynecology rotation in the town of Hilo. Between July 2019 and June 2020, third- and fourth-year obstetrics and gynecology residents provided outpatient gynecologic care and participated in gynecologic surgeries at Hilo-based medical facilities. A total of 9 residents participated in this Hilo-based rotation. This retrospective study extracted data from post-rotation evaluations. Eight out of 9 participating residents (89%) felt that the rotation slightly or far exceeded their expectations. After the rotation, 7 residents (78%) reported an interest in practicing in a rural community, while only 3 residents (33%) reported having this interest prior to the rotation. Underserved rural areas seeking to recruit and retain obstetrics and gynecology physicians may benefit from partnering with residency training programs.

Keywords

Medical Education, Obstetrics and Gynecology, Rural Medicine, Medically Underserved Area

Abbreviations

COVID-19 = Coronavirus Disease of 2019
FQHC = Federally Qualified Health Center
HHSC = Hawai'i Health Systems Corporation
JABSOM = John A Burns School of Medicine
ObGyn = Obstetrics and Gynecology

Introduction

Across the United States, rural communities are experiencing a shortage of obstetrics and gynecology (ObGyn) providers¹ with less than 3% of ObGyn physicians electing to practice in rural small towns.² The state of Hawai'i faces a state-wide shortage of medical providers. This deficiency is most significant in rural communities on neighbor islands compared to the island of O'ahu where 70% of Hawai'i state residents live.³ O'ahu is home to the densely populated capitol city of Honolulu and the only medical school in the state. The other 400 000 residents live on the smaller, less populated islands of the Hawai'i archipelago,⁴ where they face a growing deficiency of ObGyn clinicians.³ Hawai'i Island, the largest of these rural islands, is home to 200 000 residents and is short 11 ObGyn physicians to meet the needs of its residents.³ This growing ObGyn physi-

cian shortage in rural areas is problematic, likely contributing to health disparities compared to those living in urban areas.^{1,5} Nationwide, individuals living in rural communities face decreased access to reproductive health services, delayed entry into prenatal care, and higher rates of unintended pregnancy.¹

Efforts to address these reproductive health disparities include initiatives to fill the shortage of ObGyn providers.¹ Like many rural areas, Hawai'i Island experiences significant challenges to recruiting and retaining clinicians.⁶ Strategies to improve physician recruitment to rural areas have included loan repayment programs,^{3,7} developing a health care pipeline for individuals with ties to rural areas,^{3,8-10} and introducing rural medicine training opportunities for current medical students and resident physicians through elective and required rotations.^{8,11} In an effort to fulfill its mission of educating future health care professionals to deliver high-quality health care throughout the state of Hawai'i and the Pacific,¹² the University of Hawai'i John A Burns School of Medicine (JABSOM) champions the development of neighbor island learning opportunities for resident physicians. Currently, 7 of the 8 JABSOM residency programs offer training opportunities on neighbor islands, including the rural islands of Maui, Hawai'i, and Kaua'i (see **Table 1**). Investment in these rotations may be especially vital as previous studies demonstrate that required rural medicine rotations during residency are associated with higher rates of choosing rural settings for permanent practice.¹³⁻¹⁴ Rural rotations may also enhance the learning experience of ObGyn trainees, providing much-needed opportunities to assist in major gynecology procedures in a community hospital setting. These experiences expose trainees to both the unique health needs of rural populations and the challenges of practicing without immediate access to subspecialists.^{1,15} Importantly, immersion into a rural community allows junior physicians to meet potential colleagues and mentors for their post-training career, which contributes as a key role in retention of rural medicine physicians.¹⁶

The JABSOM ObGyn residency program has had 2 neighbor island rotations. In 2009, the department developed a structured 4-week rotation in Maui. Over the course of 7 years, 41 ObGyn residents completed this rotation, and 4 (9.8%) participants chose to return to Maui for permanent practice without any prior connection to the area. In 2016, the Maui rotation concluded, and since that time no residency graduates have elected to practice in the Maui community.

After the Maui rotation ended, the JABSOM ObGyn residency program began the process of establishing a permanent rotation on Hawai‘i Island with the long-term goals of addressing the shortage of ObGyn physicians in this community (see **Figure 1**). The development of this training opportunity was contingent on adequate faculty presence, which was achieved by securing an agreement for department faculty to be embedded in Bay Clinic, a local Federally Qualified Health Center (FQHC), and establishing a faculty practice location in Hilo, the largest town on the Hawai‘i Island.¹⁷ A not-for-profit 501c3 organization, the Hawai‘i Health Systems Corporation (HHSC), funded this rotation, covering costs of resident travel, lodging, and full-time equivalent expenses. This non-profit’s mission includes supporting community hospitals in meeting the health care needs of Hawai‘i State residents.¹⁸ With HHSC’s funding, the JABSOM ObGyn Residency Program successfully launched a rotation for third- and fourth-year residents in Hilo in July 2019. During residency, each ObGyn resident completes this month-long rotation twice during the latter 2 years of training. Rotating residents participate in gynecologic surgeries and consultations at Hilo Medical Center and provide outpatient care in both faculty practice and FQHC settings. The initial curriculum focused on minimally invasive hysterectomy techniques and preventive well-woman care. As senior-level trainees, these residents have the surgical skills and experience needed to fully participate in the wide breadth of rural gynecology practice. Additionally, these residents lead a monthly Hilo-based journal club for both academic faculty and community physicians. They also participate in regularly scheduled meetings with the local site director and weekly department conferences through video conferencing. Currently, this is the only rotation on a neighbor island available to JABSOM ObGyn residents. With the development of this new Hilo-based training opportunity, this study aimed to evaluate resident satisfaction with the rotation and assess self-perceived interest in practicing in a rural setting using data from previously collected rotational evaluations.

Methods

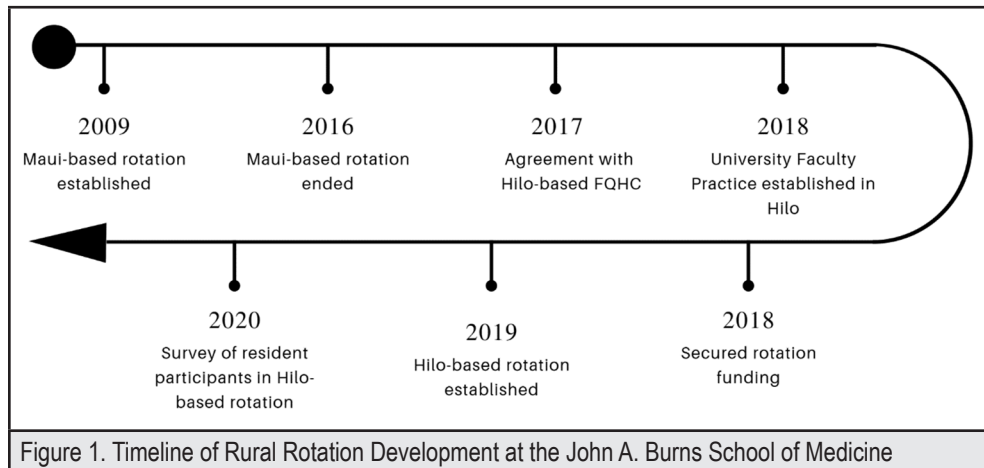
This retrospective study was submitted to the University of Hawai‘i Human Studies Program and was classified as not human subject research (Protocol #2022-00504). Anonymous data was extracted from an existing data previously collected as part of the ObGyn Residency Program’s annual program evaluation process. In July 2020, the department distributed an 11-item web-based evaluation to all ObGyn residents who had participated in the Hilo-based rotation within the previous 12 months. The residency program regularly surveys residents and faculty concerning the quality of clinical rotations and educational interventions using both internal and external assessments. The evaluation included 10 items with a 5-point Likert scale and 1 question eliciting further free-text comments. Questions focused on assessing quality of clinical experiences, interest in practicing in rural settings, perception of faculty, level of interaction with other trainees, perception of the required reading volume, and satisfaction with housing. No incentives were provided. The aggregated responses related to resident satisfaction with the rotation and interest in rural practice were extracted for analysis. Survey responses were analyzed using descriptive statistics in Microsoft Excel 2016 Version 16.0.4266 (Microsoft Corporation, Redmond, WA).

Program	Neighbor Island Rotation	Duration	Location	Topic
Family Medicine	Required	8 weeks	Maui, Hawai‘i, or Kaua‘i	Rural medicine
	Elective	1 to 2 weeks	Maui, Hawai‘i, or Kaua‘i	Varies
General Surgery	Required	4 weeks	Hawai‘i	Rural medicine
Internal Medicine	Required for Primary Care Track	4 weeks	Hawai‘i	Rural medicine
	Elective	4 weeks	Hawai‘i	Rural medicine
Obstetrics & Gynecology	Required	8 weeks	Hawai‘i	Gynecology
Orthopedic Surgery	Not available	-	-	-
Pathology	Required	2 to 4 weeks	Maui	Forensic Pathology
Pediatrics	Elective	2 to 4 weeks	Hawai‘i or Kaua‘i	Rural medicine
Psychiatry	Elective	4 weeks	Kaua‘i	Community Psychiatry

Results

From July 2019 to June 2020, 9 JABSOM ObGyn residents completed the new rotation on Hawai'i Island. Due to 2019 novel coronavirus (COVID-19) pandemic related travel and training restrictions, the rotation was temporarily disrupted for 3 months in spring 2020. Data from 9 evaluations were analyzed in this study. Overall, 8 rotation participants (89%) felt that the

rotation slightly exceeded or far exceeded their expectations. Most participants reported feeling satisfied or very satisfied with the gynecology surgery experience (89%) and teaching quality (100%) during the rotation. Seven residents (78%) expressed at least some interest in practicing in a rural community after the rotation, while only 3 participants (33%) reported having at least some interest in practicing in this setting prior to the rotation. See **Table 2** for details.



FQHC = federally qualified health center

Table 2. ObGyn Resident Evaluation Results for Hawai'i Island Rotation (N = 9)					
	Far Below Expectations	Slightly Below Expectations	Met Expectations	Slightly Exceeded Expectations	Far Exceeded Expectations
Overall, how would you rate your Hilo experience?	0	0	1 (11%)	7 (78%)	1 (11%)
	Very Dissatisfied	Dissatisfied	Neither Satisfied Nor Dissatisfied	Satisfied	Very Satisfied
Were you satisfied or dissatisfied with...					
...Your experience in [Federally Qualified Health Center] clinic?	0	1 (11%)	0	2 (22%)	6 (67%)
...Your [Hilo University Practice] clinic experience?	0	0	0	1 (11%)	8 (89%)
...Your gynecologic surgery experience in Hilo?	0	0	1 (11%)	5 (56%)	3 (33%)
...The teaching and supervision by the [Hilo University Practice] faculty?	0	0	0	0	9 (100%)
	Not at All Interested	Not So Interested	Somewhat Interested	Very Interested	Extremely Interested
Prior to this experience, how interested were you in practicing in a rural community like Hilo after residency?	2 (22%)	4 (44%)	2 (22%)	1 (11%)	0
After this experience, how interested were you in practicing in a rural community like Hilo after residency?	0	2 (22%)	5 (56%)	0	2 (22%)

Discussion

This study aimed to evaluate satisfaction and interest in rural medicine among residents participating in the first-year of a Hilo-based gynecology rotation. One year after implementing a rural medicine rotation for obstetrics and gynecology residents in Hilo, participating residents expressed high satisfaction with the experience and reported an increased interest in practicing in a rural setting. Frequent assessment of this experience is vital to developing a sustainable rotation that meets the needs of both the resident trainees and the Hilo community. Although this preliminary data includes a small sample size and cannot verify true intent to practice in a rural setting, these findings are consistent with the career choices observed among resident and fellowship graduates since the rotation as established. Two of 16 recent ObGyn department graduates from the classes of 2020 and 2021 (13%; 1 resident and 1 fellow) have already started permanent clinical positions on Hawai'i Island after the Hilo rotation was established. The remaining 2020 and 2021 graduates chose to practice in urban settings. Future studies assessing long-term career choices of JABSOM obstetrics and gynecology resident graduates are warranted to further evaluate the true influence of this rotation.

The majority of participants in this study reported the Hilo-based rotation exceeded their expectations, suggesting a positive overall experience. While additional qualitative studies may be needed to better understand the factors contributing to the successful reception of this rotation, it is hypothesized that the experience of practicing in a close-knit community and the diversity of surgical case volume may be favorable components. In recent years, the number of hysterectomies have decreased¹⁹ and an increasing number of these gynecology cases are now performed using a surgical robot in urban teaching hospitals.²⁰ These changes have led to a decrease in the number of abdominal and laparoscopic hysterectomy training opportunities available to obstetrics and gynecology residents on O'ahu,²¹ raising concerns about graduating resident competency for these cases if the current trend continues. In contrast, the majority of hysterectomies in rural hospitals are performed without robot-assistance.²² This difference in approach may create a major barrier to new resident graduates considering rural practice, where they need to possess competency to independently perform non-robotic approaches to major gynecologic surgeries. In Hilo, the JABSOM ObGyn Residency Program's faculty perform hysterectomies without the use of a robot. It is hypothesized that exposure to abdominal and laparoscopic hysterectomies likely contributes to a much-needed component of gynecology resident education, and potentially improves resident comfort with practicing in rural communities without access to robot-assisted surgery. However, future studies are needed to assess whether this may be true.

While rural rotations may be key to addressing disparities in access to care within rural areas of the state of Hawai'i,^{8,11} the

JABSOM ObGyn Residency Program faced significant barriers to launching and continuing this rotation. These barriers included: (1) the challenges of establishing and supporting new clinical faculty, (2) the administrative burden of coordinating educational experiences with multiple clinics and a hospital, and (3) the monetary costs of travel arrangements and lodging. The residents required living arrangements with sufficient privacy to accommodate residents with families. Housing also needed to be close to the hospital in order to respond quickly to emergent consultations while on call. Additionally, the COVID-19 pandemic brought unexpected challenges, temporarily disrupting the Hilo rotation. Even after the rotation resumed, COVID-19 continued to exacerbate the administrative challenges of coordinating these programs, such as difficulties navigating quarantine exemptions, changing COVID-19 testing requirements for each clinic and hospital, and the potential need to recall the rotating resident back to Honolulu due to unexpected gaps in resident call coverage. However, this pandemic also revealed the importance of having sufficient health care workers dedicated to rural communities throughout the state, and the limitations of relying on fly-in or locum clinicians. The ongoing health care provider shortage highlights the value of these rotations to ensure access to health care across the state of Hawai'i.

Limitations of this study include the small sample size and the setting in a single institution. As a result, the findings of this survey may not be generalizable to other training programs or settings. The analysis also depends on self-reported data collected at a single time point, requiring residents to retroactively assess their own interest in rural medicine before and after the rotation. This approach and reliance on self-reported data have the potential to introduce bias and are major limitations of this study. This retrospective cross-sectional study cannot assess the true effect of this rotation on resident intentions. Additionally, this study did not assess for factors unrelated to the Hilo rotation, such as place of birth and proximity of family, which may also influence graduating residents' career decisions. Further qualitative research is needed to understand why this rotation has been so well received by the participants. Future studies are needed to compare costs and benefits of this initiative and evaluate this rotation's long-term effects on recruitment of graduating residents, retention of established physicians, and health care outcomes for women in the Hilo community.

Although opportunities for rural medicine exposure are rare among US ObGyn training programs,²³ JABSOM ObGyn residents are now routinely experiencing rural medicine through a mandatory, structured clinical rotation as part of a long-term plan to address the growing ObGyn shortage on the state of Hawai'i neighbor islands. Future plans for this rotation include expanding the rotation to include additional community physicians and incorporating more opportunities for community engagement. Although the initial positive response among rotation participants is promising, ongoing assessments are needed to ensure long-term sustainability and success of this rotation.

Conflict of Interest

None of the authors identify a conflict of interest.

Acknowledgements

Ginny Kamikawa; Kathleen Katt MD; Linda Rosen MD

Authors' Affiliation:

- Department of Obstetrics, Gynecology, and Women's Health, John A. Burns School of Medicine, University of Hawai'i, Honolulu, HI

Corresponding Author:

Paris N. Stowers MD, MSCTR; Email: stowersp@hawaii.edu

References

1. American College of Obstetricians and Gynecologists Committee Opinion No. 586: Health disparities in rural women. *Obstet Gynecol.* 2014;123(2):384-388.
2. Chen F, Fordyce M, Andes S, Hart LG. Which medical schools produce rural physicians? A 15-year update. *Acad Med.* 2010;85(4).
3. Withy K. Report to the 2020 legislature: Annual report on findings from the Hawai'i physician workforce assessment project. University of Hawaii; 2019.
4. Latest Population Estimate Data. Department of Business, Economic Development, & Tourism. Updated May 2022. Accessed May 12, 2022. <https://census.hawaii.gov/home/population-estimate>
5. Cosby AG, McDoom-Echebiri MM, James W, Khandekar H, Brown W, Hanna HL. Growth and Persistence of place-based mortality in the United States: The rural mortality penalty. *Am J Public Health.* 2019;109(1):155-162.
6. Ayers-Kawakami J, Paquiao DF. Addressing health disparities in rural populations: The case of Hawaii county. *J Nursing Practice Applications & Reviews of Research.* 2017;7(2):40-48.
7. Jacobs JL, Kasuya R, Sakai D, Haning W, Izutsu S. Medical education in paradise: Another facet of Hawaii. *Med Teach.* 2008;30(5):490-495.
8. Hixon AL, Buenconsejo-Lum LE. Developing the rural primary care workforce in Hawaii--a 10-point plan. *Hawaii Med J.* 2010;69(6 Suppl 3):53-55.
9. Muneno J, Mead K, Mapelli P, Davis E, Withy K. Medical school hotline: Pipeline to health careers in Hawai'i. *Hawaii J Med Public Health.* 2017;76(2):55-58.
10. Schiff T, Felsing-Watkins J, Small C, Takayasu A, Withy K. Addressing the physician shortage in Hawai'i: Recruiting medical students who meet the needs of Hawai'i's rural communities. *Hawaii J Med Public Health.* 2012;71(4):21-25.
11. Lee DM, Nichols T. Physician recruitment and retention in rural and underserved areas. *Int J Health Care Qual Assur.* 2014;27(7):642-652.
12. John A Burns School of Medicine: Values, Vision, & Mission. Available from: <https://jabsom.hawaii.edu/about-us/values-vision-mission>. Accessed January 21, 2022.
13. Talley BE, Ann Moore S, Camargo Jr CA, Rogers J, Ginde AA. Availability and potential effect of rural rotations in emergency medicine residency programs. *Acad Emerg Med.* 2011;18(3):297-300.
14. Farmer J, Kenny A, McKinstry C, Huysmans RD. A scoping review of the association between rural medical education and rural practice location. *Hum Resour Health.* 2015;13(1):27.
15. Nelson WA, Pomerantz A, Schwartz J. Putting "rural" into psychiatry residency training programs. *Acad Psychiatry.* 2007;31(6):423-429.
16. Hustedde C, Paladine H, Wendling A, et al. Women in rural family medicine: A qualitative exploration of practice attributes that promote physician satisfaction. *Rural Remote Health.* 2018;18(2):4355.
17. QuickFacts: Hilo CDP, Hawaii. United States Census Bureau. Updated July 2021. Accessed May 12, 2022. <https://www.census.gov/quickfacts/hilodphawaii>
18. Mission and Vision. Hawaii Health Systems Corporation. Accessed May 12, 2022. <https://www.hhsc.org/about-us/mission-and-vision/>
19. Whiteman MK, Hillis SD, Jamieson DJ, et al. Inpatient hysterectomy surveillance in the United States, 2000-2004. *Am J Obstet Gynecol.* 2008;198(1):34.e31-34.e37.
20. Cohen SL, Vitonis AF, Einarsson JI. Updated hysterectomy surveillance and factors associated with minimally invasive hysterectomy. *JSLs.* 2014;18(3):e2014.00096.
21. Yamasato K, Casey D, Kaneshiro B, Hiraoka M. Effect of Robotic Surgery on Hysterectomy Trends: Implications for Resident Education. *J Minim Invasive Gynecol.* 2014;21(3):399-405.
22. Smith AJB, AlAshqar A, Chaves KF, Borahay MA. Association of demographic, clinical, and hospital-related factors with use of robotic hysterectomy for benign indications: A national database study. *Int J Med Robot.* 2020;16(4):e2107.
23. Patterson DG, Andrilla CHA, Garberson LA. Preparing physicians for rural practice: Availability of rural training in rural-centric residency programs. *J Grad Med Educ.* 2019;11(5):550-7.

SOCIAL WORK IN ACTION

Overdose Data to Action – Care Coordination and Capacity Building (OD2A-C3) Project

Seunghye Hong PhD; Paula T. Morelli PhD, LCSW; Yeonjung Jane Lee PhD;
Mei Linn N. Park MSW; Tammie Healani Hoapili Smith MPH; Amy B. Curtis PhD, MPH

Social Work in Action is a solicited column from the social work community in Hawai'i. It is edited by HJHSW Contributing Editor Sophia Lau PhD, of the Thompson School of Social Work & Public Health at the University of Hawai'i at Mānoa.

Abbreviations

AMHD = Hawai'i State Department of Health, Behavioral Health Administration, Adult Mental Health Division

BHA = Behavioral Health Administration

CDC = Centers for Disease Control and Prevention

COVID-19 = Coronavirus disease of 2019

DOH = Hawai'i State Department of Health

OD2A-C3 = Overdose Data to Action (OD2A)-Care Coordination and Capacity Building (C3)

SAMHSA = Substance Abuse and Mental Health Services Administration

Thompson School = Thompson School of Social Work & Public Health

UHM = University of Hawai'i at Mānoa

WFD = Workforce Development

Ma 'ema'e Puna I ka hala me ka lehua

One receives abuse in a house without a relative.

Pitiful is the lot of one who dwells with those who do not care. (*'Ōlelo No 'eau*)

Introduction

More than 100 000 people living in the United States died by drug overdose during 2021. Opioid prescription, use and overdose rapidly increased during the 1990s.¹ Between 1999 and 2020, more than 564 000 people died from a drug overdose involving an opioid.² In response to alarming rates of overdose deaths, the United States Department of Health and Human Services through the Substance Abuse and Mental Health Services Administration (SAMHSA) has funded more than \$2 billion toward treatment and prevention.¹

In Hawai'i, from August 2017 to August 2018, there were 384 opioid overdoses, 59 of which were fatal.³ In 2020, there were 274 overdose deaths in Hawai'i, approximately 18.3 overdose deaths per 100 000 people (age-adjusted).⁴ The COVID-19 pandemic and ensuing lockdowns were contributing factors to accelerated opioid use and substance misuse.¹ Isolated from support systems, people experienced depression and lacked access to treatment.¹ During this time the illicit opioid market shifted

from heroin to fentanyl, a highly addictive synthetic opioid.¹ The newest synthetic opioid, isotonitazene (aka: nitazene or ISO), detected in recent overdose cases, is more potent than heroin and morphine. According to experts, ISO may be 20 times stronger than fentanyl.⁵ In this period as well, the Centers for Disease Control and Prevention (CDC) reported overdose deaths rising among people of color and low-income communities.⁶ Since 2019, Hawai'i High Intensity Drug Trafficking Area (HIDTA) has observed increased use of these newer synthetic opioids.⁷ Hawai'i HIDTA reported fentanyl-related deaths increased from 26 in 2020 to 48 in 2021.⁷

Between 2005-2010, an annual average of 93 000 persons aged 12 or older used any illicit drug in Hawai'i State.⁸ Adult excessive drinking in Hawai'i was worse than the national average.⁹ According to 2017 Youth Risk Behavior Survey (YRBS) data, Hawai'i's youth substance use (SU) paralleled national rates.¹⁰ The 2015-2019 Hawai'i YRBS reported 13.7% of those surveyed were currently binge drinking.¹¹ SU rates for Native Hawaiian youth, Other Pacific Islander youth, sex and gender minority youth were found higher than other youth.¹² These rates may be complicated by negative involvement with the system and the transgenerational effects of colonialism in Hawai'i and other Pacific Islanders.⁹ The 2019-2020 Hawaii statewide report on student alcohol, tobacco and other drug use found that "gateway drugs" (alcohol, vape/e-cigarettes, and marijuana) were initiated at age 13 or younger, and that alcohol use increased from 8th to 12th grade.¹³

The Hawai'i Overdose Data to Action, Care Coordination and Capacity Building (OD2A-C3) Project, funded by the CDC through the Hawai'i State Department of Health (DOH), Behavioral Health Administration (BHA), Adult Mental Health Division (AMHD) works to address the opioid crisis by focusing on training practitioners, workforce development and providing prevention resources. Hawai'i OD2A-C3 is managed by a team of faculty and students from the University of Hawai'i at Mānoa, Thompson School of Social Work & Public Health (UHM, Thompson School).

Hawai'i OD2A-C3

In September 2019, Hawai'i OD2A-C3 began prevention efforts concentrating on strengthening the availability of appropriate prevention services and resources. Managed by a team of faculty and students from the UHM Thompson School, the OD2A-C3 project combined community training, workforce development and resource dissemination (**Figure 1**).

OD2A-C3 provided activities and resources for social workers and other allied health and human services providers to address opioid misuse, abuse, and overdose. OD2A-C3 goals included CDC OD2A Strategy 5: to integrate state and local prevention efforts, build capacity for effective and sustainable surveillance and prevention efforts, and promote prevention response strategies at the state and local level.

The project coordinated efforts with community partner-organizations to leverage community strengths and local resources against substance misuse and overdose. Sustained education and awareness will galvanize and empower communities to seek help and take appropriate preventative action.

Achievements and Impacts

Over the last 3 years, OD2A-C3 completed activities in 3 areas: (1) training social workers, allied health, and human service professionals; (2) workforce development: a 12-week intensive, paid internship for social work, public health, and psychology

undergraduate and graduate students teaching a variety of tailored knowledge and skills and experience collaborating with community agencies; and (3) development and dissemination of prevention materials (eg, infographics, brochures) to enhance public awareness.

Training

Since March 2019, 14 webinars have been provided to Hawai'i communities covering opioids, substance use disorders, behavioral mental health, polysubstance use, co-occurring disorders, recovery, family strengths and resilience issues. The training, presentations, resources, and related documents are easily accessible online to aid community practitioners and providers in their prevention and intervention efforts.

Workforce Development (WFD)

The paid fellowship program provided comprehensive, innovative training to 46 social work, public health, and psychology UHM undergraduate and graduate selected fellows (15 Fellows for Year 1/ Summer 2020, 16 Fellows in Year 2/ Summer 2021, and 15 Fellows in Year 3/ Summer 2022). The online training topics included but were not limited to naloxone, opioid overdose and misuse, polysubstance use, and co-occurring disorders. WFD Fellows worked closely with community partner-organizations: Big Island Substance Abuse Council (BISAC), EndMeth, Hawai'i Health Harm Reduction Center (HHHRC), Hawai'i State Rural Health Association (HSRHA),

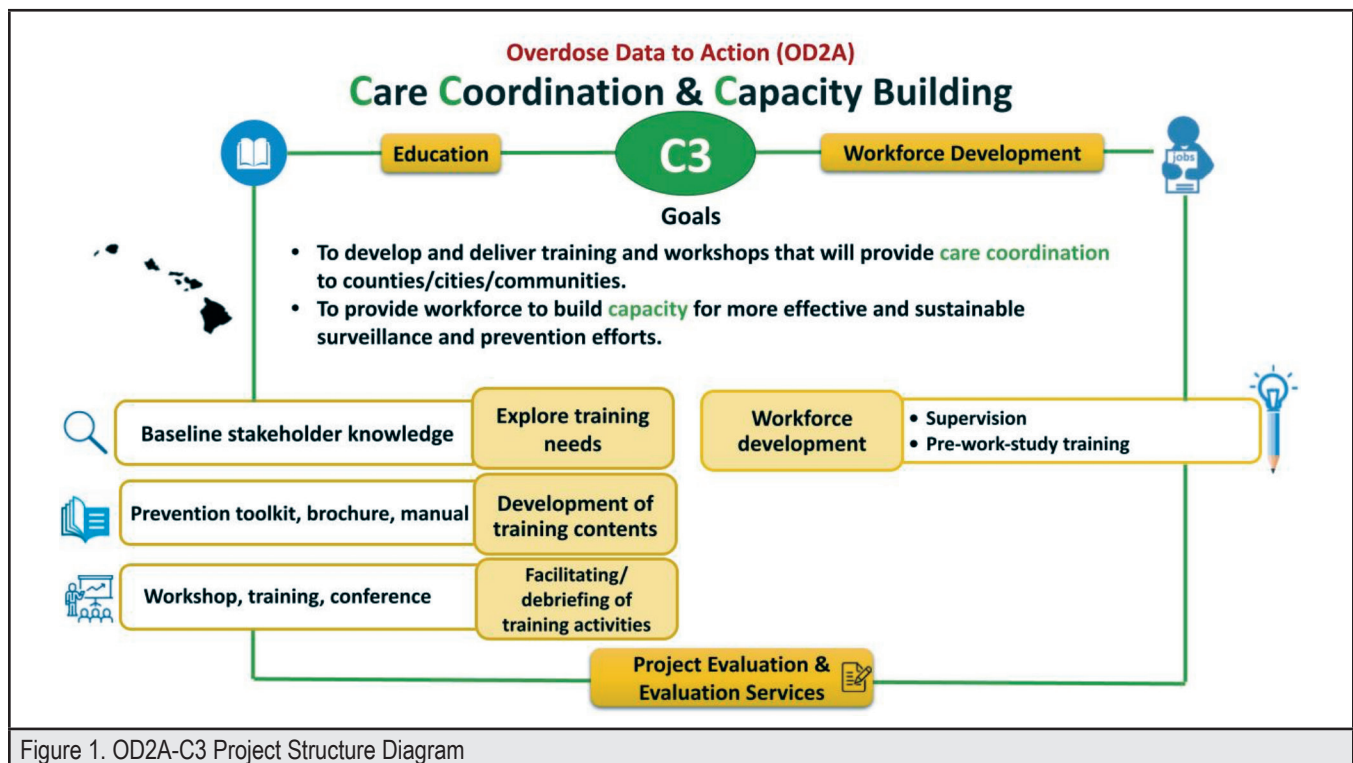


Figure 1. OD2A-C3 Project Structure Diagram

West Hawai'i Community Health Center (current Hawai'i Island Community Health Center), Coalition for a Drug-Free Hawai'i, Hawai'i High Intensity Drug Trafficking Area (Hawai'i HIDTA),

and Papa Ola Lokahi. Teams of WFD fellows developed opioid and substance misuse prevention products to support their sponsor agencies.

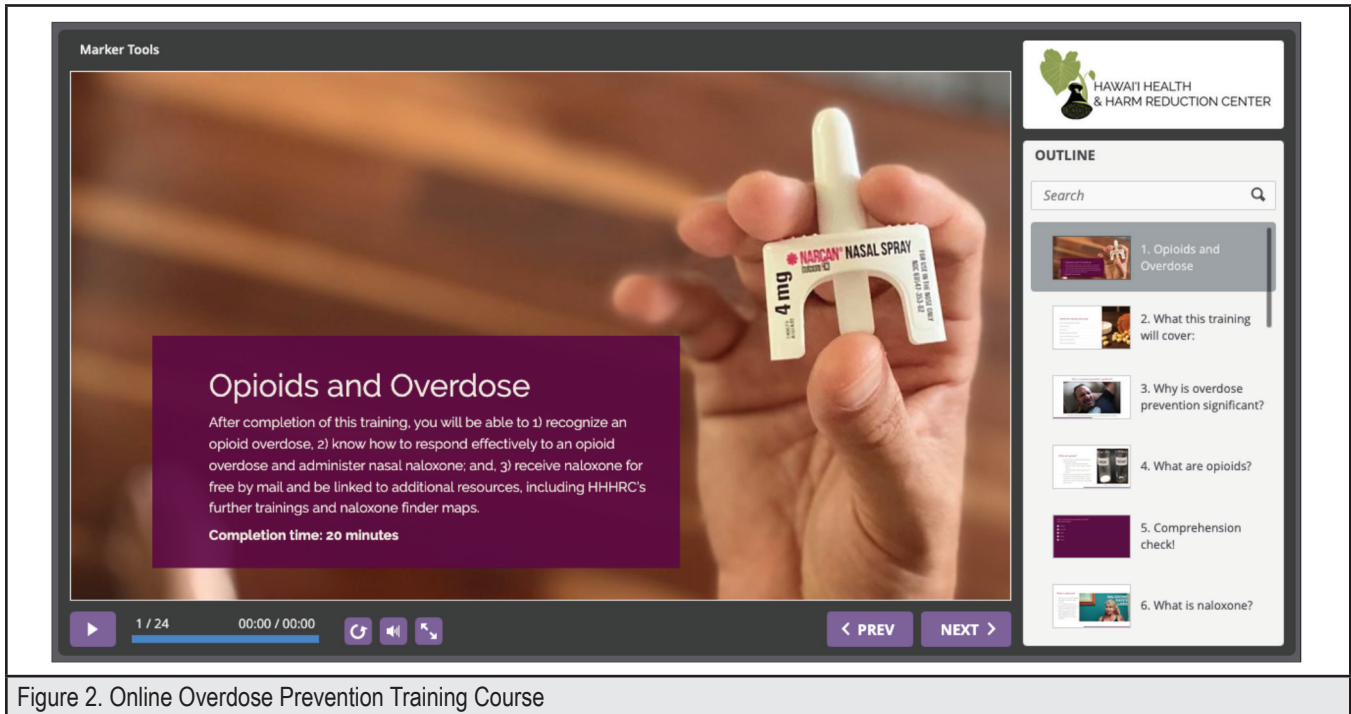


Figure 2. Online Overdose Prevention Training Course



Figure 3. Online Substance Use Disorder Help Guide

Creation and Dissemination of Prevention Materials

OD2A-C3 fellows and the team researched evidence-based resources, and developed user-friendly, culturally-informed overdose prevention infographics accessible to the general public, youth, health professionals, and educators. Infographic content addressed drug use prevalence, substance use and misuse, vulnerable populations, drug overdose risk factors, and protective factors.

Moving Forward

In the 2023, Hawai'i OD2A-C3 will continue its activities and respectfully approach geographically isolated communities asking their permission to share workforce development training and prevention resources. Depending on the response, the team will collaboratively examine appropriateness of curriculum, make modifications as needed, share training and co-develop resources. The commitment will be to develop local-community relationships and listen to their needs.

Conclusions

Hawai'i OD2A-C3 aims to increase local and state capacity for prevention efforts; understand context, resources, and needs in state and local communities; and understand evidence-based, scalable responsible approaches. OD2A-C3 hopes to achieve greater awareness of drugs and opioids overdose epidemic with respect to challenges and resources by increasing preparedness and response at the state and local level.

Acknowledgements

Mahalo ā nui to our hard-working students and faculty at UHM, Thompson School and community partners for their commitment and aloha in sharing and developing co-created resources to end substance misuse and overdose in Hawai'i. Deepest gratitude to: Big Island Substance Abuse Council (BISAC), EndMeth, Hawai'i Health Harm Reduction Center (HHRC), Hawai'i State Rural Health Association (HSRHA), West Hawai'i Community Health Center (current Hawai'i Island Community Health Center), Coalition for a Drug-Free Hawai'i, Hawai'i HIDTA (Hawai'i High Intensity Drug Trafficking Area), Papa Ola Lokahi, and AMHD.

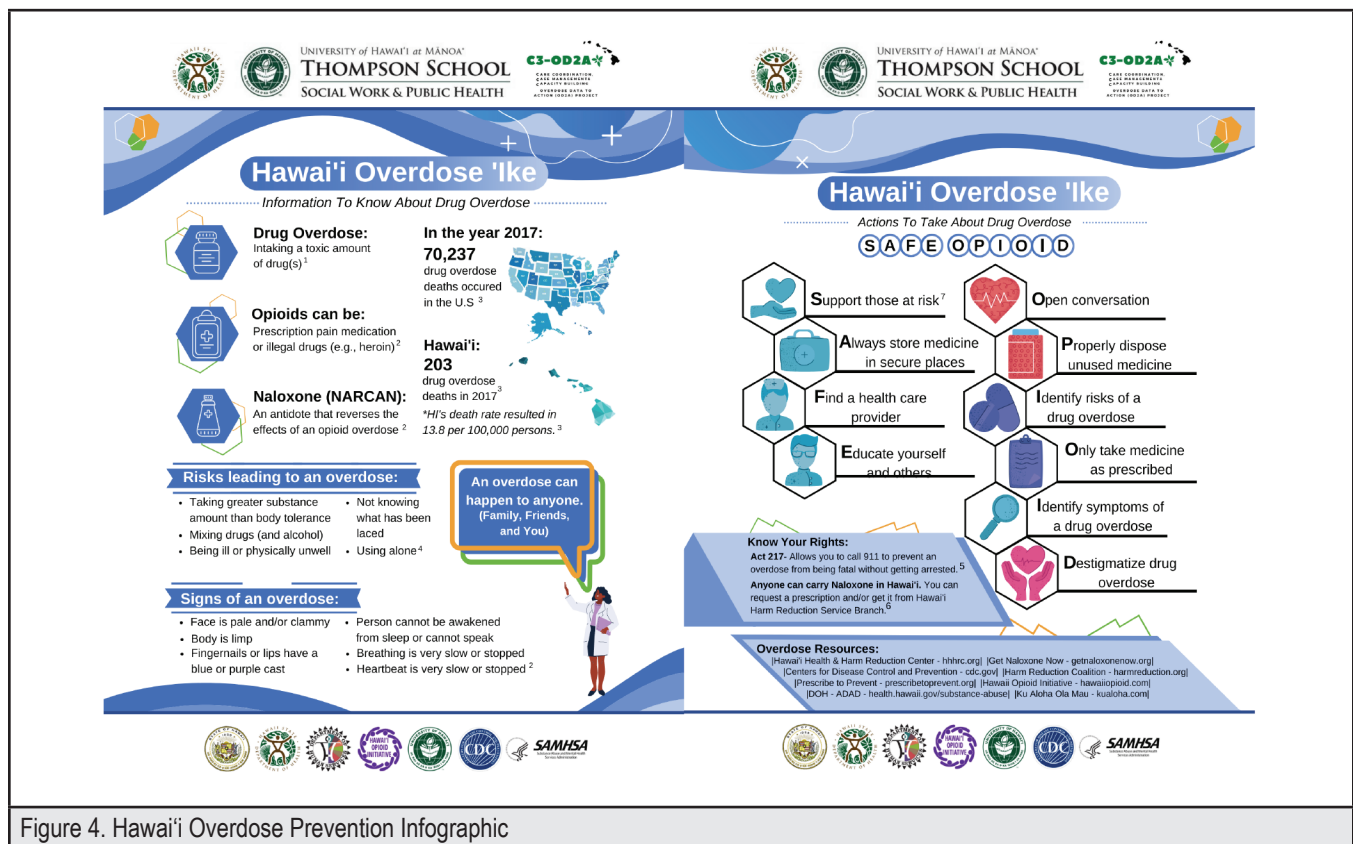


Figure 4. Hawai'i Overdose Prevention Infographic

Authors' Affiliation:

- Department of Social Work, Thompson School of Social Work and Public Health, University of Hawai'i at Mānoa, Honolulu, HI

References

1. Weir K. A major federal initiative targets the opioid epidemic. *Monitor on Psychology*. 2022;53(7):44-51. <https://www.apa.org/monitor/2022/10/opioid-crisis-federal-initiative>
2. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Opioid data analysis and resources. CDC.gov. Updated June 1, 2022. Accessed January 23, 2023. <https://www.cdc.gov/opioids/data/analysis-resources.html>
3. Hawai'i State Department of Health, Harm Reduction Services Branch. Opioid overdose prevention. Hawaii.gov. Accessed January 23, 2023. <https://health.hawaii.gov/harmreduction/protect-yourself/opioid-related-overdose-prevention/#:~:text=OPIOIDS%20ARE%20THE%20LEADING%20CAUSE,and%20other%20drugs%20like%20methamphetamine>
4. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Hawaii priority topic investments. CDC.gov. Updated April 29, 2022. Accessed January 23, 2023. <https://www.odc.gov/injury/budget/policystatesnapshots/Hawaii.html>
5. United States Drug Enforcement Administration, Washington, DC Division. New, dangerous synthetic opioid in D.C., emerging in tri-state area. DEA.gov. Published June 1, 2022. Accessed December 31, 2022. [https://www.dea.gov/stories/2022/2022-06/2022-06-01/new-dangerous-synthetic-opioid-dc-emerging-tri-state-area#:~:text=Isotonitazene%20\(aka%20nitazene%20or%20%22ISO,seeing%20move%20into%20the%20area](https://www.dea.gov/stories/2022/2022-06/2022-06-01/new-dangerous-synthetic-opioid-dc-emerging-tri-state-area#:~:text=Isotonitazene%20(aka%20nitazene%20or%20%22ISO,seeing%20move%20into%20the%20area)
6. Kariisa M, Davis NL, Kumar S, et al. Vital signs: Drug overdose deaths, by selected sociodemographic and social determinants of health characteristics - 25 states and the District of Columbia, 2019–2020. *MMWR CDC Surveill Summ*. 2022;71(29):940-947. <http://dx.doi.org/10.15585/mmwr.mm7129e2>
7. Hawai'i State Department of Health, Alcohol and Drug Abuse Division. Substance use state plan. Hawaii.gov. Published October 2022. Accessed January 23, 2023. <https://health.hawaii.gov/substance-abuse/files/2022/10/Draft-State-Plan-Oct-2022-Comprehensive-Chapter.pdf>
8. National Survey on Drug Use and Health. Substance use and mental disorders in the Honolulu metropolitan statistical area (MSA), Substance Abuse and Mental Health Services Administration, SAMHSA.gov. Published May 13, 2014. Accessed December 30, 2022. <https://www.samhsa.gov/data/report/honolulu-hi>
9. Monick B, Rehuher D, Wilczek K, Helm S. Eliminating disparities in youth substance use among Native Hawaiian, Micronesian, and sex and gender minorities: A qualitative needs assessment from interviews with public service leaders. *Psychol Serv*. 2023;20(1):103-116. <https://doi.org/10.1037/ser0000609>
10. Kann L, McManus T, Harris WA, et al. Youth risk behavior surveillance - United States, 2017. *MMWR Surveill Summ*. 2018;67(8):1-114. <http://dx.doi.org/10.15585/mmwr.ss6708a1>
11. Saka SM, Gerard K, Afaga L. Results of the 2017 Hawai'i state and counties youth risk behavior surveys (YRBS) and cross-year and national comparisons. Hawaii Health Data Warehouse, HHDW.org. Published September 2018. Accessed January 23, 2023. <https://hhdw.org/wp-content/uploads/2018/12/2017-YRBS-HI-State-and-Counties-YRBS-Cross-Year-and-National-Comparisons.pdf>
12. Spencer SD, Pokhrel P, Helm S, Wilczek K, Galimov A, Sussman S. Emerging adulthood attributes, discrimination, mental health, and substance use in a sample of Asian, Native Hawaiian/Pacific Islander, and White college students. *Asian Am J of Psychol*. Advance online publication. <https://doi.org/10.1037/aap0000254>
13. Onoye J, Miao T, Goebert D, Thompson M, Helm S, Akamu C, Gomes I, Terakubo J, Salvador M, Alejo L, Kuniyoshi E. 2019-2020 Hawai'i student alcohol, tobacco, and other drug (ATOD) survey: Statewide report. Hawaii.gov. Published 2021. Accessed January 23, 2023. <https://health.hawaii.gov/atod-survey/>

MEDICAL SCHOOL HOTLINE

University of Hawai‘i Medical School Dean Hedges Reflects on 15 Year Tenure Upon Retirement (2008 -2023)

Jerris Hedges MD, MS, MMM

In 1993, the Medical School Hotline was founded by Satoru Izutsu PhD (former vice-dean UH JABSOM), it is a monthly column from the University of Hawai‘i John A. Burns School of Medicine and is edited by Kathleen Kihmm Connolly PhD; HJH&SW Contributing Editor.

A wise person once said, “Goodbyes only hurt because what came before was so special.” Oh, and it has been so special. (Dr. Who – The Power of the Doctor - October 2022)

Looking back on 15 years serving as the dean of the University of Hawai‘i (UH) John A. Burns School of Medicine (JABSOM), I am drawn to many special moments. More importantly, those years were filled with many special people.

I have been blessed with the opportunity to serve the people of Hawai‘i, assist our great medical school, and help contribute to the proud history of Hawai‘i. Like most transplants to Hawai‘i some of my colleagues questioned whether I would have the fortitude to stay in this role for more than a few years. Indeed, I was initially recruited to help the school obtain full accreditation after a failed dean search, and achieving full accreditation was not expected by many at the time.

Several of the dean candidates before me questioned how UH could have a cancer center separate from the medical school. This situation remains a challenge adversely impacting both the cancer center and the medical school. Others were struck by the absence of a university hospital and the fledgling and flailing faculty practice affiliated with the medical school. A well-coordinated approach to training health professionals was not present at the time.

Many promises previously had been made by UH leaders regarding the viability of the new campus at Kaka‘ako and the role of the medical school in the university and the state. Similar promises were being made about the cancer center which was in the process of moving to Kaka‘ako. Neither program was popular with the general faculty at Mānoa, given there were other long-standing challenges with facilities, program support, and operations across UH Mānoa.

Given all these challenges, the JABSOM department chairs and administrative leadership team had their hands full. We were fortunate to have a talented media lead (Tina Shelton), a



Jerris Hedges MD, MS, MMM

committed development officer (Jeffrie Jones), a phenomenal grants development administrator (Tammy Ho), a wise admissions director (Satoru Izutsu) – (who I quickly assigned as senior associate dean and later as the vice dean), and a strong office of medical education led by (Richard Kasuya) who subsequently became an associate dean for medical education.

We quickly recruited additional skilled talent from within the JABSOM ranks and a few from afar. Among the early recruits were Nancy Foster (who returned home from Colorado to serve as Chief Financial Officer and to lead our operations and finance team) and Roy Magnusson (who followed me from Oregon and filled many roles for the medical school and practice plan).

We faced challenges on several fronts during those early days.

At that time, the faculty practice plan was poorly managed and Pat Blanchette stepped away from her founding chair of geriatric medicine role to help implement sweeping fiscal, operational, and cultural change. She also helped us formalize an academic affiliation agreement between UH and the practice plan. Dr. Blanchette went on to play major roles with the cancer center and in the JABSOM dean's office. At that time, Roy Magnusson took over the practice plan which was contributing about \$7M annually in extramural support for faculty and staff in the medical school.

The school successfully defended its primary accreditation 9 months after my arrival and received a well-deserved maximum of 8 years of reaccreditation. The administrative and educational team continued to function at a high-level and received a second 8 years of reaccreditation in 2017.

At the legislature, on the Mānoa campus, and with the public, the school began to better explain its many contributions to the public's health, the many ongoing efforts to address the physician shortage across Hawai'i, its vital role in the provision of graduate medical education following medical school graduation (ie, JABSOM's many residency and fellowship programs), and its growing contributions to research innovations and the Hawai'i state economy. This growing awareness demonstrated that JABSOM was truly making good on the promises of past deans and university leaders through hard work, efficient operations, and strong science. The medical school quickly established itself as a national leader in National Institutes of Health (NIH) grant acquisition for public, community-based medical schools.

The medical school's reputation grew, especially for its contributions to primary care education and its connection with the community. JABSOM earned top quartile rankings in the US News & World Report Rankings, despite our faculty and student numbers putting JABSOM in the lower quartile of all US medical schools by employee numbers. Although students from Hawai'i had always excelled, student quality became more visible nationally, thus allowing our students access to the best residency/fellowship training programs in the country. Further, despite ongoing redistribution of state-directed medical school resources elsewhere in Mānoa by campus leadership, the medical school found a way to grow opportunities for medical students. The class size has grown from 62 entering students (where it had been for more than a decade prior to my arrival) to 77 students entering each year. Programs to increase education on neighbor islands have supported this effort.

A key factor in the JABSOM success story has been philanthropic efforts led by hard-working development officers. Our development team has always been small, and we have lost several team members to retirement and/or more financially

promising opportunities elsewhere. Yet, these ambassadors of the goodwill done every day by JABSOM faculty, staff, learners, and leaders have done phenomenal work on behalf of JABSOM. They helped develop a successful internal giving campaign engaging our own faculty, staff, and leadership to invest in the school. They helped advance a major scholarship program that has helped put JABSOM in the top echelon of US medical schools for the proportion of students graduating without educational debt, despite JABSOM students having one of the lowest family median income levels nationally. These development officers have helped grow JABSOM's foundation market value from \$23M in 2008 to \$72.6M in 2022.

Graduate medical education at the medical school has always been a partnership with the major health systems on Hawai'i, and the Hawai'i Residency Programs, Inc. was created to allow support for services across multiple health systems under the sponsorship of the medical school. Two years after my arrival, we were stunned by self-inflicted wounds during the reaccreditation of our residency and fellowship programs. The challenge of a short accreditation cycle (ie, a status one step before probation might be assigned and which can discourage resident applicants from coming to or staying in Hawai'i) could only be addressed by the medical school assuming a greater role in the coordination and oversight of the graduate medical education programs.

Fortunately, Naleen Andrade (former department chair of psychiatry) agreed to help us rebuild our relationship with the health systems and the Hawai'i Residency Programs, Inc. With her help and that of the members of the UH Office of General Counsel, formal agreements delineating mutual responsibilities were developed and the medical school increasingly assumed a role guaranteeing a higher quality of training for medical school graduates in Hawai'i. This effort - subsequently led by Lee Buenconsejo-Lum as the associate dean for academic affairs and designated institutional official for graduate medical education - has continued to flourish with return of full accreditation status to 18 different training programs.

As was alluded above regarding the challenges of working side-by-side with the cancer center which has a separate UH governance structure, despite significant mission overlap, the medical school has continually sought ways to support and assist the frequently changing cancer center leadership. The medical school assisted with the formation of the Hawai'i Cancer Consortium and the medical school provides access to its vivarium facilities for the cancer center faculty members, thus saving many millions of dollars for UH, among other supportive activities. For 18 months beginning in Fall 2014, I oversaw both the UH Cancer Center and JABSOM while a new cancer center director was sought. Operational synergies, cross-unit faculty development activities, and aligned strategic initiatives were implemented, a few of these remain at this time. Fortunately, UH leadership has begun to develop plans for better

coordination of these highly complementary UH Mānoa units. Some degree of a unified structural governance between the medical school and cancer center would immensely benefit the people of Hawai‘i, but such action is the task of UH leadership.

Growth of the Kaka‘ako campus into the state’s Health & Well-Being campus (as envisioned by former Governor Benjamin Cayetano) has been slow, but in addition to support of the construction of the UH Cancer Center building on the property overseen by JABSOM, there have been other investments by JABSOM to strengthen and coordinate the Mānoa-based health sciences. For example, after a fire on the Mānoa campus, JABSOM relocated the teaching clinic for the Department of Communication Sciences and Disorders (speech pathology) to a modern space in the 677 Ala Moana building in Kaka‘ako. The JABSOM Department of Native Hawaiian Health also has grown in the adjacent 677 Ala Moana building – creating an opportunity for housing a new NIH-sponsored clinical translational research grant (PIKO) with strong community partnerships. Due to deterioration of clinic space at Leahi Hospital, the teaching and HIV/AIDS research clinic (ie, Clint Spencer Clinic) was moved into a translational research clinic on the JABSOM campus.

With a growing understanding of the significance of the physician workforce shortage in Hawai‘i, medical leadership with many contributions from Kelley Withy (Hawai‘i and Pacific Area Health Education Center director) identified multiple factors contributing to this shortage, as well as methodologies for quantifying and tracking the physician demand over time. The school leadership worked with legislators, donors, and federal agencies to develop the most successful health services federal-matching-loan repayment program in the country; a provider tax credit for those primary care clinicians volunteering to train future health care professionals in their practice; support for neighbor island travel and training for learners; a job recruitment program for physicians wishing to return or move to Hawai‘i; and other initiatives to grow our physician workforce and strengthen our communities.

In 2022 the legislature and Governor David Ige provided key financial support to help expand neighbor island growth of physician training both at the medical school level and during residency and fellowship training. Opportunities for greater participation in clinical training at sites overseen by the Veterans Administration Pacific Islands Health Care System is an important component of this effort. The state support complements efforts that JABSOM has undertaken through philanthropy (eg, working with the Chan Zuckerberg Initiative) to recruit, train, and retain JABSOM learners on neighbor islands. This effort is being done in part to address the disproportionate shortage of physicians on neighbor islands and in part as a component of JABSOM’s efforts to address health disparities in Hawai‘i, especially among Native Hawaiians and Pacific Islanders.

JABSOM was one of the first UH Mānoa academic units to advance opportunities for Native Hawaiians. Although my predecessors launched a number of these initiatives, it took the work of many others including community donors to grow these programs. JABSOM programs, supported in large part through philanthropy, provide multiple pathways for Native Hawaiians and underrepresented minority groups in medicine to prepare for health profession education in Hawai‘i, including stipends and scholarships to support our ‘Imi Ho‘ōla post-baccalaureate students preparing for medical school and during their medical school education. The JABSOM Kaka‘ako campus embraces Native Hawaiian culture and includes a healing garden with local traditional healing plants and an *ahu* dedicated to four Native Hawaiian elders of our medical school (Kekuni Blaisdell, Benjamin Young, Marjorie Mau, and Naleen Andrade). Dr. Blaisdell was the school’s first chair of the Department of Internal Medicine. Dr. Young served as the first associate dean for admissions and founded the school’s post-baccalaureate pathway program. Dr. Mau served as the school’s founding chair of the Department of Native Hawaiian Health and is an internationally recognized health disparities scholar. Dr. Andrade served as the school’s chair of the Department of Psychiatry, graduate medical education leader and innovator, former President of the American Board of Psychiatry and Neurology, and has held a multitude of leadership posts for the Queen’s Health System.

Although still working with many community partners to grow our Native Hawaiian presence and leadership, JABSOM via its many traditions and programs has been a leader in honoring the profession’s Native Hawaiian heritage and commitment to the peoples of Hawai‘i and the Pacific. The school has embraced the state’s multiethnic and multicultural essence. Many of our research efforts have highlighted an interprofessional and cross-cultural effort to reduce those health disparities found in Hawai‘i. With the help of Noreen Mokuau (dean emeritus of the Thompson School of Social Work and Public Health), our research teams acquired major grants from the NIH allowing us to focus on understanding and solving health challenges for the people of Hawai‘i and developing the next generation of scientists.

Many other medical school scientists warrant recognition for their work in cancer, aging, multicultural behavioral health, cardiovascular disease, human development, diabetes, and infectious diseases (including vaccine development). They contributed greatly to our success by generating a robust research engine in the medical school. This success was guided in part by Mariana Gerschenson who has worked tirelessly to mentor junior investigators, basic science department chairs and others. While maintaining her own successful research career she has championed collaborative research, graduate health science educational programs, and the acquisition of resources for health science research at JABSOM and UH Mānoa. It is unfortunate that many in the community and within UH leadership have

narrowly focused on the educational mission of the medical school and overlooked that with very modest state support for research, JABSOM has been a major contributor to the research reputation and extramural funding success of UH Mānoa. Indeed, there remain individuals at UH Mānoa who fail to see the great synergy proven possible when a medical school successfully melds education, research, and community service.

Perhaps one of the more interesting paths which JABSOM has traveled has been related to its development of a robust clinical learning environment for medical students, residents, fellows, and other health science learners. With the support of the University Health Partners of Hawai‘i (the JABSOM developed faculty practice plan for UH health sciences) and through partnerships with multiple health systems in Hawai‘i, clinical learning programs have matured and received national recognition.

Following phenomenal work by Patricia Blanchette and Roy Magnusson to grow the practice plan, Larry Shapiro (former dean of the Washington University School of Medicine – St. Louis, Missouri) agreed to lead the practice plan through a challenging transition period during which the practice plan and two major health system partners (Hawai‘i Pacific Health and

the Queen’s Health Systems) would each embed components of the JABSOM practice plan historically connected to those health systems. The leadership of the academic departments will continue to receive practice support for faculty, assist with health system oversight of a growing academic faculty, and along with leadership of JABSOM, be active in the strategic planning and integration of clinical operations and clinical education in those health systems. Along the way, the practice plan has supported the UH Cancer Center and nursing school in their own clinical endeavors.

Of course, these are just some highlights of my experience working as dean of JABSOM with so many wonderful individuals from JABSOM and our larger community ‘ohana. In closing, I am reminded of the words of another wise person who reflected on the importance of finding work that fills one’s soul, rather than one’s wallet.

“No amount of money can take the place of not having to work for a living.” (Hedges – 1970)

Author’s Affiliation:
- Departments of Surgery and Internal Medicine, John A. Burns School of Medicine, University of Hawai‘i at Mānoa, Honolulu, HI



Over 75 Years of Dedication to Hawai'i's Physicians

The Board of Directors at Physicians Exchange of Honolulu invite you to experience the only service designed by and for Physicians in Hawai'i.

President:
Garret Yoshimi

Vice President:
Robert Marvit, M.D.

Secretary:
Kimberly Koide Iwao, Esq.

Treasurer:
Richard Philpott, Esq.

Directors:
Linda Chiu, M.D.
Jon Graham, M.D.
Myron Shirasu, M.D.
Amy Tamashiro, M.D.
David Young, M.D.

Executive Director:
Rose Hamura

- Professional 24 Hour Live Answering Service
- Relaying of secured messages to cell phones
- Calls Confirmed, Documented and Stored for 7 Years
- HIPAA Compliant
- Affordable Rates
- Paperless Messaging
- Receptionist Services
- Subsidiary of Honolulu County Medical Society
- Discount for Hawai'i Medical Association members

"Discover the difference of a professional answering service. Call today for more information."

Physicians Exchange of Honolulu, Inc.
1360 S. Beretania Street, #301
Honolulu, HI 96814

(808) 524-2575

Looking for data about population health in Hawai'i? We've got you covered.

Build your own report with our interactive tool to analyze data and view trends over time.

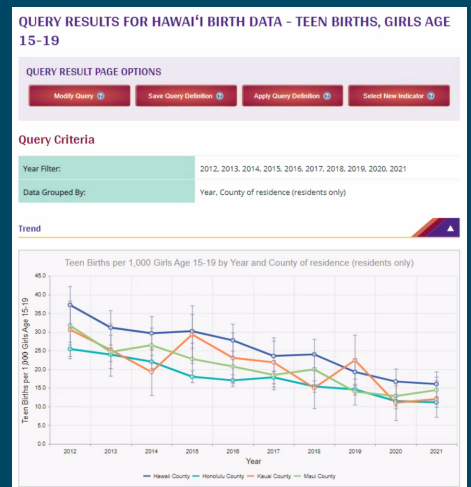
NEW

2021 data is now available for:

- Birth Records
- Death Records
- Youth Risk Behavior Survey

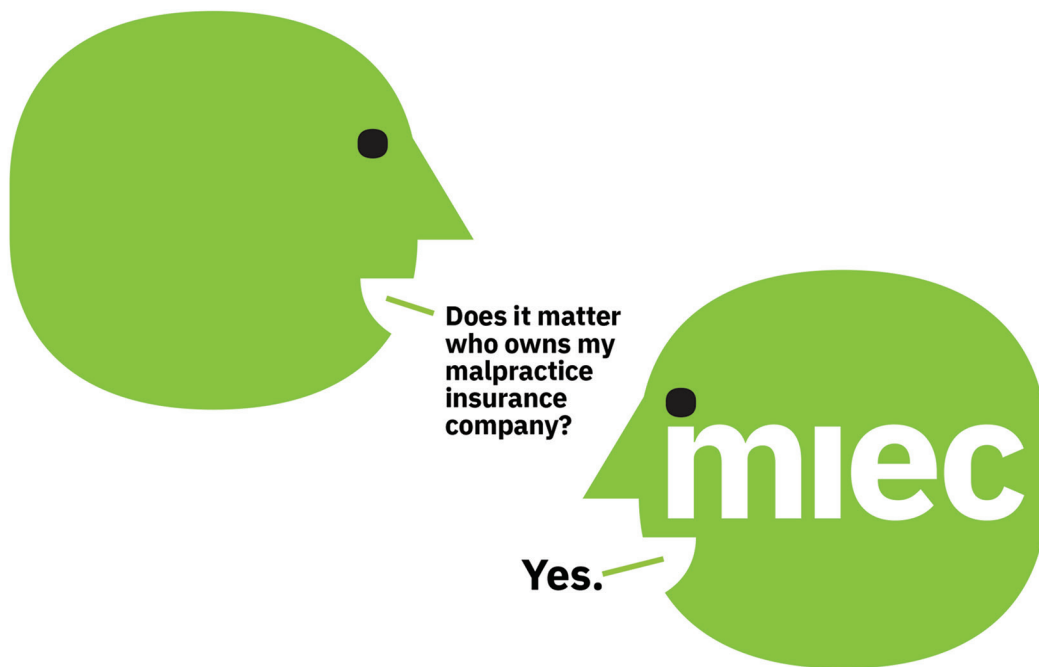
Explore our other datasets:

- Behavioral Risk Factor Surveillance System (2021 coming soon!)
- Pregnancy Risk Assessment Monitoring System (2021 coming soon!)
- Youth Tobacco Survey



Interact with our data!
Scan the QR code or visit:
hhdw.org/data-sources





As a reciprocal exchange, MIEC is entirely owned by the policyholders we protect. With no external shareholders to satisfy, this ownership model allows us to return profits to whom they rightfully belong—MIEC policyholders. We do not inflate our surplus or tie up profits in nonguaranteed deferred retirement plans, we give it back. Over the last 45 years we have put more than **\$446 million** back in the pockets of our policyholders. To learn more about the benefits of being an MIEC policyholder, or to apply, visit **miec.com** or call **800.227.4527**.

Get a
quote
today.



Insurance
by physicians,
for physicians.™

miec

miec.com | 800.227.4527