

Journal of Health Disparities Research and Practice

Volume 12, Issue 4

2018

Article 19

2019 STEP-UP SPECIAL ISSUE

Promoting Local Talents to Fight Local Health Issues STEP-UP in the Pacific

Aneesa Golshan, MPH*

George Hui, PhD,[†]

*University of Hawai'i at Manoa

[†]Department of Tropical Medicine, Medical Microbiology and Pharmacology, John A. Burns School of Medicine, University of Hawaii at Manoa

Copyright ©2018 by the authors. *Journal of Health Disparities Research and Practice* is produced by The Berkeley Electronic Press (bepress). <https://digitalscholarship.unlv.edu/jhdrp>

Promoting Local Talents to Fight Local Health Issues STEP-UP in the Pacific*

Aneesa Golshan, MPH and George Hui, PhD,

Abstract

This manuscript introduces the abstracts for the University of Hawai'i at Manoa Coordinating Center.

KEYWORDS: biomedical research; noncommunicable diseases; Pacific; STEP-UP

*The STEP-UP HS program is supported by the National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health, Grant number: R25DK113659.



Journal of Health Disparities Research and Practice
Volume 12, STEP-UP Special Issue, Summer 2019, pp. 31-32
© 2011 Center for Health Disparities Research
School of Public Health
University of Nevada, Las Vegas

Promoting Local Talents to Fight Local Health Issues STEP-UP in the Pacific

Aneesa Golshan, MPH, University of Hawai'i at Manoa
George Hui, PhD, Department of Tropical Medicine, Medical Microbiology and Pharmacology,
John A. Burns School of Medicine, University of Hawaii at Manoa
Coordinating Center: University of Hawaii at Manoa

INTRODUCTION

The people of the Pacific Islands have struggled to find health within their remote, yet rapidly changing world. In recent decades, the economies of these small island nations have shifted from subsistence to market-based economies, resulting in importation of non-native, less healthy food options such as fatty meats and highly processed foods, ripe with refined sugar. Moreover, this shift has greatly reduced native subsistence farming, transforming local lifestyles from physically demanding to sedentary and inactive (Hawley et al., 2015). Together, these factors have led to a rise in noncommunicable diseases (NCDs) such as cardiovascular disease, diabetes mellitus, and cancer within the Pacific islands (Danaei, et al., 2011).

Once an area where infectious disease dominated causes of morbidity and mortality, NCDs now prevail (WHO, 2011) in the Pacific, including the USAPIs (U.S. Affiliated Pacific Islands). Globally, 80% of all NCD-related deaths occur within low to middle-income countries such as the Pacific island nations, and 70% of all deaths within the Pacific islands are due to NCDs (World Bank, 2012). Compounding the impact of NCDs within the Pacific is a lack of trained healthcare personnel. Many of those living in the Pacific who are interested in healthcare and the biomedical and behavioral sciences leave home behind for both training and employment opportunities. To combat this problem, STEP-UP prioritizes training eager high school students in the biomedical sciences within a STEP-UP training lab established at a local institution. Students work on projects relevant to local health-related issues, fostering a deeper interest in the biomedical sciences and inspiring the next generation of researchers to strive for solutions to regional issues. Since 2010, students have worked in STEP-UP laboratories within American Samoa, the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia, the Republic of the Marshall Islands and the Republic of Palau, researching on local health problems such as obesity, diabetes mellitus and the widespread chewing of the Areca nut, a known risk factor for developing oral cancers.

Pacific STEP-UP (<http://stepup.jabsom.hawaii.edu>), an arm of the NIH, NIDDK STEP-UP Program, has provided opportunities for students to further explore their interest in the biomedical

Journal of Health Disparities Research and Practice Volume 12, STEP-UP Special Issue,
Summer 2019

<http://digitalscholarship.unlv.edu/jhdrp/>

Follow on Facebook: Health.Disparities.Journal

Follow on Twitter: @jhdrp

and behavioral sciences since 2002. In addition to the 5 STEP-UP laboratories mentioned above, students from Hawaii and Guam have also received training at the John A. Burns School of Medicine on Oahu and at the University of Guam, respectively. Pacific STEP-UP has helped to develop the scientific interests of well over 300 high school students, thus far. A great majority of these students have gone on to seek degrees from community colleges or 4-year universities, with many majored in STEM disciplines. A handful of students have achieved high honors during their undergraduate careers, becoming Gates Millennium Scholars or Fulbright Scholars and several have gone on to earn Master's degrees in STEM subjects and professional degrees such as MPH, MD, and PhDs.

The staff of Pacific STEP-UP, Dr. Hui and Ms. Golshan, are honored to work with such driven young minds. This Program would not be possible without the support of local coordinating institutions, agencies, and colleges across the Pacific, particularly the scientists and teachers who help mentor and inspire our students. Pacific STEP-UP is funded by NIH/NIDDK through grant, R25DK078386.

Keywords: biomedical research, noncommunicable diseases, Pacific, STEP-UP

ACKNOWLEDGEMENTS:

The STEP-UP HS program is supported by the National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health, Grant number: R25DK113659.

REFERENCES:

- Hawley, N., McGarvey, S., (2015). Obesity and Diabetes in Pacific Islanders: the Current Burden and the Need for Urgent Action. *Current Diabetes Reports*, 15(29) 1534-4827.
- Danaei, G., Finucane, M., Lu, G., et al., (2011). National, regional and global trends in fasting plasma glucose and diabetes prevalence since 1980: systematic analysis of health examination surveys and epidemiological studies with 370 country-years and 2.7 million participants. *Lancet*, 378(9785) 31-40.
- WHO. (2011). Country Health Information Profiles - American Samoa. Retrieved from http://www.wpro.who.int/countries/asm/1FAMSPRO2011_finaldraft.pdf
- World Bank. (2012). The Economic Costs of Noncommunicable Diseases in the Pacific Islands. Retrieved from <http://www.worldbank.org/content/dam/Worldbank/document/the-economic-costs-of-noncommunicable-diseases-in-the-pacific-islands.pdf>