

## Empowering Hawai'i's Homeless: A Diabetes and Pre-Diabetes Education and Resilience Initiative



**Cohort:**  
2019-2022

**Team Members:**

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**Location:**  
Honolulu, Hawaii

**Focus Areas:**  
Built Environment/Housing/Planning  
Disease Prevention & Health Promotion

### Wicked Problem Description

Homelessness remains a major public health problem in the state of Hawai'i. In January 2018, Hawai'i was reported to have a homeless population of 6,530 individuals and ranked among the top 4 states in the USA with a per capita rate of 46 homeless per 10,000 people (tied with New York). In March 2019, the State reported a ~4% decline in the number of sheltered homeless but a 12% increase of unsheltered homeless since 2017. The human and socioeconomic costs of the homeless population on Hawai'i's health care system is substantial. The mobile medical clinic, known as the Homeless Outreach and Medical Education (H.O.M.E.) Project, has continued to grow with a reported 848 individuals seen during 1,782 visits at 9 homeless shelter sites in 2018. Caring for patients with diabetes (DM) who find themselves homeless is a "wicked problem" due largely to the chronic nature of DM and pre-DM with care management dependent on stable basic living conditions (clean water, storage of refrigerated medications, etc.) that are often lacking even in the "best" homeless shelters.

Because of the unprecedented uncertainty caused by the COVID-19 pandemic, and the challenges it presented to healthcare providers, it became apparent that the group who needed to be trained initially was our inter-professional Emerging Health Professionals (EHP), the students in our disciplines (social work, psychology, medicine, and pharmacy). Resilience training became central to the curriculum originated by our Team Resilience Hawai'i for our

EHP, which originally only included modules to increase knowledge of DM. This curriculum is now designed into training modules soon to be accessible online by EHP. After taking this curriculum, the EHP are better equipped to train homeless individuals on DM/pre-DM who seek medical care at H.O.M.E. Project. Presently, educational materials on resilience and DM/pre-DM are being developed for homeless individuals.

## **Project Strategies**

### **Current Actions**

- Our proposed project is guided by a conceptual model that bridges resilience and empowerment within the context of homelessness and DM/pre-DM self-management education.
- We propose to improve the care of DM and pre-DM for people who are homeless by building individual resilience and then at an interpersonal level by developing empowerment to enact external change.
- To build individual resilience, we are providing inter-professional resilience training to the Emerging Health Professionals, known as EHP (multi-discipline students and interns in medicine, pharmacy, psychology and social work) that our Clinical Scholars Team teaches.

### **Future Actions**

- New EHP will be trained via online resilience and DM/pre-DM curriculum via modules to improve personal and professional resilience to care for homeless individuals.
- We are creating educational materials on DM and pre-DM that are tailored to the homeless population.
- EHP will implement the “new” DM/pre-DM self-management education program with a resilience focus while working at the H.O.M.E. Project.

## **Outcomes**

### **Completed Outcomes**

- Clinical Scholars team convened with H.O.M.E. Project leaders
- H.O.M.E. sites chosen for WPIP project
- EHP training curriculum shifted to focus on improving resilience
- Training curriculum consisting of Seven modules were completed and pilot tested with EHP (Feasibility Study)
  - 1) Resilience Training for Emerging Health Professionals (EHP), 2) Homelessness 101, 3) Care of Pre-DM @H.O.M.E., 4) Care of DM @ H.O.M.E. 5) Building the Patient-Provider Relationship, 6) Medications for Diabetes, and 7) Leadership in Crisis.
- Resilience training of all John A. Burns School of Medicine (JABSOM) students

- Resilience training of JABSOM faculty mentors
- Presentation of Feasibility Study at Health Professions Education Conference, Honolulu, HI February 2021
- EHP in inter-disciplinary training at H.O.M.E.
- Improvement in EHP resilience and knowledge of resilience to teach to homeless individuals
- Improvement in EHP of knowledge of DM and ability to train patients on self-management of DM
- Resilience training of EHP working with Team Resilience Hawai'i members
- Received a \$10K from RWJF Rapid COVID response opportunity that have been awarded and implemented which have impacted Native Hawaiian homeless communities during COVID, by working with Partners in Development to deliver Chromebooks to 26 families and hotspots for 20 of these families.
- Received a \$10K grant from RWJF Rapid COVID response opportunity which has been awarded and implemented. This grant worked with a Hawaiian Charter School, Kula o Kamakau, has impacted 75 families, and helped the school to obtain another grant to help their families.
- Received 1 grant (\$50,000), presently being implemented, which will obtain information from homeless individuals who visit H.O.M.E. Project with DM/pre-DM on what they need to help improve management of DM or pre-DM. It is titled: Improve Diabetes Mellitus (DM) and pre-DM care in the H.O.M.E. Project. The Ola Hawaii grant U54MD007601-35 is from the National Institute on Minority Health and Health Disparities (NIMHD), a component of the National Institutes of Health (NIH).
- Expanded consistent behavioral health presence at H.O.M.E. Project to address mental health issues

### **Anticipated Future Outcomes**

- Website completed with training curriculum components (recorded online modules) and data collection from EHP, H.O.M.E. volunteers and homeless shelter volunteers
- Protocol created and implemented at H.O.M.E. sites for diabetes/pre-diabetes screening
- Write and publish Feasibility Study
- Write and publish findings on Resilience Study
- Diabetes/pre-diabetes training created for homeless patients
- Improved implementation of primary and preventive interdisciplinary integration in service and training model at H.O.M.E.
- Improved health and resilience in homeless individuals who utilize H.O.M.E.

### **Timeline - (for the remaining fellowship time period)**

- EHP working at H.O.M.E.- by Feb 2021
- Website and recorded modules on website- by Nov 2021
- Formalized platform for web-based curriculum evaluation of curriculum for EHP on website-by Nov 2021

- Protocol for DM screening at HOME created and implemented-by Nov 2021
- DM/pre-DM training modules created for homeless patients-by Dec 2021
- Convene Advisory Council-by Dec 2021
- Evaluate DM/pre-DM knowledge of homeless patients at H.O.M.E.- Mar-Aug 2022
- Evaluate resilience in EHP-by August 2021

## **Partnerships - (including community partnerships, extended team members, etc.)**

- H.O.M.E Project
- Partners in Development
- Ke Kula o Samuel M. Kamakau Laboratory Public School

## **Evaluation Strategies and any findings so far**

Inter-professional resilience training in the context of homelessness, diabetes/pre-diabetes in time of crisis has been done with an initial group of EHP July-Aug 2020, with encouraging evaluations. The trainings were virtual and were conducted with cohorts of students and interns from the disciplines of medicine, psychology, pharmacy, and social work. The EHP completed pre- and post-surveys to analyze the effectiveness of our modules. For all of the sessions covering resilience, the scores improved over time and the biggest positive change from pre- to post-test were for the questions, “I can teach my patients skills to be more resilient” and “I am competent in using strategies that help people who are homeless live healthy lives.” For the session on homelessness, biggest positive change from pre- to post-tests were for the questions, “I am competent in using strategies that help people who are homeless live healthy lives,” followed by “I am aware of my biases about people who are homeless and work actively to address them.” For the DM/pre-DM, medications for DM, and building the patient-provider relationships sessions, on average the biggest positive change from pre- to post-test were for the questions, “I understand diabetes and its complications enough to discuss with patients” and “I can teach lifestyle changes to people who have pre-DM and are homeless, to prevent them from having diabetes.” For the leadership in crisis session, done asynchronously, results from the surveys showed that the biggest positive change from pre- to post-test was for the question, “regardless of what happens to me, I believe I can make it through.”

All sessions showed the training to be helpful and participants felt they could apply it to their own life. The post-test results from all surveys ranged from 2.77 to 3.92 (out of 4), indicating improvement of knowledge. We received many positive comments from the EHP regarding our training sessions such as, “I know a lot of these concepts were really important but covered quickly, so a whole afternoon I would personally love,” “I really loved this training! Thank you so much!” “I feel this topic is very pertinent in time of Covid-19 and with the degrees of uncertainty. I think this training can help any profession learn resilience,” and “Really appreciate the interdisciplinary perspectives!” This Feasibility study was presented at a Resilience Workshop by our Clinical Scholars Team Resilience Hawaii at the John A. Burns School of Medicine 2021 Health Careers Professionalism Conference.

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