

Toolkit for Building Resilience in Emerging Health Professionals and Homeless Communities Facing Diabetes



**CLINICAL
SCHOLARS**

A Robert Wood Johnson Foundation program

Toolkit for Building Resilience in Emerging Health Professionals and Homeless Communities Facing Diabetes

AUTHORS

- **Dee-Ann Carpenter**, MD, University of Hawai'i at Manoa John A Burns School of Medicine, Department of Native Hawaiian Health
- **Camlyn Masuda**, PharmD, University of Hawai'i Hilo Daniel K. Inouye College of Pharmacy
- **Aukahi Austin Seabury**, PhD, I Ola Lāhui
- **Francie Julien-Chinn**, PhD, University of Hawai'i at Manoa Thompson School of Social Work & Public Health
- **Marjorie Mau**, MD, MS, University of Hawai'i at Manoa John A Burns School of Medicine, Department of Native Hawaiian Health

ABOUT

This toolkit can provide guidance toward an interdisciplinary resilience curriculum for students in healthcare fields or Emerging Health Professionals (EHP), who will be working in homeless communities with diabetes/pre-diabetes.

CONTACT

For more information, contact: deeannc@hawaii.edu

TABLE OF CONTENTS

EXECUTIVE SUMMARY	2
PLANNING	3
PROJECT TEAM	3
KEY SKILL SETS	3
FUNDING	3
COMMUNITY PARTNERSHIPS.....	4
PROJECT WORK	5
RELATIONSHIP / TRUST BUILDING	5
TRAINING MODULES.....	5
EVALUATION AND DISSEMINATION	7
FEASIBILITY STUDY	7
FULL TRAINING PROJECT	7
KEY MESSAGES.....	8
LESSONS LEARNED	9
SUCCESSIONS	9
RECOMMENDATIONS	9
BEST PRACTICES.....	9

CLINICAL SCHOLARS

Support provided by



Robert Wood Johnson Foundation

Citation: Carpenter, D, Masuda, C, Austin Seabury, A, Julien-Chinn, F, Mau, M. 2022. Toolkit for Building Resilience in Emerging Health Professionals and Homeless Communities Facing Diabetes. clinicalscholarsnli.org

Executive Summary

Resilience Hawai'i: 'a'ohē makani nana e kula'i

This project provides resilience training to students in health care professional schools or Emerging Health Professionals (EHP) and has partnered with the Homeless Outreach and Medical Education (H.O.M.E.) Project to empower and increase resilience with people with diabetes and pre-diabetes, who are homeless on the island of Oahu in the state of Hawai'i.

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). The human and socioeconomic costs of the homeless population on Hawai'i's health care system is substantial. A mobile medical clinic, 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 for our EHP, which originally only included modules to increase knowledge of DM. This curriculum is now in training modules soon to be accessible [online](#):

- Homelessness 101
- Building the Patient-Provider Relationship
- Caring for people with Pre-DM at H.O.M.E.
- Caring for people with DM at H.O.M.E.
- Medications for Diabetes
- Leadership in Crisis
- Resilience for Health Professionals

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.

319 Emerging Health Professionals Trained

"As a student, the modules helped me to have the right mindset and approach to establish trust and a working relationship... and take part in identifying resources to fit our shared goal towards better health."

– Pharmacy Student Training Participant



Planning

We began with a simple question. What is a wicked problem facing Hawai'i? While the answers to that question could be many, homelessness emerged as our top priority because it is caused by the intersection of many systemic, social, economic, political, and historical forces that land on individuals and families. What can we, a group of health providers and educators, do to end homelessness? This is the ultimate goal of the team but realized that we needed to have a more focused approach. The more specific objective was to improve the health of those who are homeless. The project focused on chronic conditions of diabetes and prediabetes because of the high prevalence over 11% of the population diagnosed with diabetes and 37% of the population with prediabetes and having early interventions can prevent progression to diabetes or complications of diabetes.

Project Team

Dee-Ann Carpenter, MD: Project Lead and Physician

Camlyn Masuda, PharmD: Project Support and Pharmacist

Aukahi Austin Seabury, PhD: Project Support and Psychologist

Francie Julien-Chinn, PhD: Project Support and Social Worker

Marjorie Mau, MD, MS: Project Support and Endocrinologist



Key Skill Sets

The team was formed based on the people who were the focus of the project. Because of the many contributing factors that cause homelessness, it was necessary to have a team of different disciplines that would be able to support the different needs that those that are homeless face and have experience with working with people who are homeless. In addition, team members should have:

- Team building skills
- A shared team goal/objective with community partners
- Interdisciplinary clinical skills
- Experience in teaching and training health education
- Resilience

Funding

RWJF Clinical Scholars was the primary funding source of this project. After working at H.O.M.E. and seeing the need for interdisciplinary work, I Ola Lāhui secured 4 years of funding to provide faculty and students from psychology and social work to work with existing medical services provided at H.O.M.E. sites. Funding from OLA Hawai'i program provided for some focus groups of clients and workers at H.O.M.E. with information incorporated into our project, as well as direct supplies for clients. RWJF supplemental grants helped with designing and implementing a website, improving our modules, and related project work for COVID funding for families and schools in need. In kind monies from University of Hawai'i schools of medicine, pharmacy and social work as well as I Ola Lāhui were used for the team to do administrative work, have Zoom meetings, and to host our website.

- Health Resources and Services Administration Behavioral Health Workforce, Education, and Training Grant: 4-Year \$1,144,874 grant to I Ola Lāhui (nonprofit agency providing integrated behavioral health services), UH Thompson School of Social Work and Public Health, JABSOM Dept of Psychiatry to have Psychology and Clinical Social Work learners in Integrated Primary Care Settings and expanded behavioral health services availability at the H.O.M.E. Project.
- National Institute on Minority Health and Health Disparities (NIMHD) administered by Ola Hawai'i (a department within the University of Hawaii at Manoa John A Burns School of Medicine that supports improving health and wellness by impacting inequalities) Grant of \$50,000 to gain a better understanding through interviews with people who are homeless and have diabetes mellitus, and focus-group interviews with volunteers who work with people who are homeless to get their recommendations on creating an effective program to improve diabetes care and management.
- Robert Wood Johnson Foundation COVID-19 Rapid Response Funding Grant: \$10,000 for "Addressing Health Inequity and Supporting Innovation Through COVID-19 in Schools."
- Robert Wood Johnson Foundation COVID-19 Rapid Response Funding Grant: \$10,000 for "Supporting Houseless Hawai'ian Children's Wellbeing and Education in COVID."

Community Partnerships

Engaging and maintaining partnerships is a critical component of developing and implementing partnerships in Hawai'i. Our first steps involved understanding the landscape of health services for individuals facing homelessness. This occurred as the inspiration for our initial idea formation and became our project when we found a partner that was asking for the type of support that we could provide in the H.O.M.E. Project.



Project work

YEAR 1

- Meet with H.O.M.E. leaders and individual assessments of each location
- Choose which location would work best for our curriculum.
- Evaluate workflow and training of volunteers at H.O.M.E.
- Discussion of curriculum needed for EHPs/patients at H.O.M.E.
- Devise pre-/post-evaluation of curricular modules and utilize Connor-Davidson resilience scale.
- Design logo for Resilience Hawai'i team.
- IRB approval for curricular modules.

YEAR 2

- Clinical Scholars and their EHPs at H.O.M.E., working to implement diabetes screening into protocol at H.O.M.E.
- Design, generate and implement modules for EHPs.
- Pilot curriculum to JABSOM medical students, as well as EHPs in psychology, pharmacy and social work.
- Due to COVID-19 pandemic, focus on resilience of EHPs, before delivering curriculum to H.O.M.E. patients.



YEAR 3

- Create a website to house curriculum modules.
- Using feedback from evaluations and RWJF funding for QI of modules.

Relationship / Trust Building

Our original project was “Empowering Hawai’i’s Homeless: A DM and Pre-DM Education and Resilience Initiative”. Our interdisciplinary team started working at H.O.M.E. with our respective EHP. Relationship building is key to working with a group that is different from your own. H.O.M.E. was already running their clinic in a particular protocol, which we had to learn, to see where our team of consultants (and EHPs) would be able to work there with the medical students/faculty and H.O.M.E. team with the least disruption. We also had to see where our idea of adding to their protocol a screening for diabetes, and education of EHPs and clientele would fit in.

We initially visited the different H.O.M.E. sites (10 places at the time) to learn of the H.O.M.E. protocol. Information was gathered, and vetted within our Clinical Scholars team, with feedback to the leadership at H.O.M.E., of which H.O.M.E. setting that would most likely have more people that have diabetes or prediabetes, where our project would have the most impact.

Once our team started attending regularly, trust was built between us and the medical school faculty. Gaps noted by the team lead to a grant, which now pays for 4 more (in addition to the past year) years of psychology (Clinical Scholar) attending as well as psychology and social work EHPs who can interact with the clientele at H.O.M.E., as well as cross train to work with the medical team that is already there. Pharmacy (Clinical Scholar) faculty and EHPs working with her are also embedded into the H.O.M.E. protocol now as well.

Training Modules

Team Resilience Hawai’i was already working on modules revolving around diabetes and pre-diabetes, as well as homeless. Resilience, which was to be part of our modules, due to the pandemic,

became the most important and initial module needed. The timeline was shortened for this output, and it was delivered first to EHP working with our Clinical Scholars, followed by medical students who would be working at H.O.M.E. and then to all of the medical students at JABSOM. In addition, teaching of the medical school faculty on resilience was placed into the faculty development curriculum, to help the medical students that they were mentoring. Therefore, our response to the pandemic was to stretch and focus on building resilience through education of EHPs.

We transformed the focus of our WPIP to RESILIENCE education to EMPOWER Emerging Health Care Professionals serving the homeless in Hawai'i. We learned to Zoom: to teach EHPs remotely and design methods to build personal resilience and skills to manage DM/Pre-DM at HOME and beyond. Our program focuses on resilience, leadership skills and approaches to DM & pre-DM care for the homeless. Our overall goal: Empowering our EHPs and ourselves through the practice of resilience. Pre and post-evaluation were used after each module, and the Connor-Davidson resilience scale was also added to measure resilience in the EHPs.

- **Homelessness 101:** Homelessness can have different definitions for those who are experiencing it. There are those who are without a permanent address but are living in a shelter or those who couch surf from one place to another. Homelessness is a pressing problem especially in Hawai'i. It is common for homeless individuals to struggle on a daily basis to take care of their health. They also experience unique obstacles to receive primary care. In order to provide the best care possible to our homeless population, it is important to break down biases and learn how to tend to this community.
- **Building the Patient-Provider Relationship:** The patient-provider relationship is important in order to provide the best care and build trust. As a provider, we are responsible for closing the gap between the culture of medicine and the beliefs underlying patients' value systems. Being aware of your personal characteristics, prior experiences, and biases can affect the communication you have with your patients so it is important to take a deep look at yourself. Also, knowing how to engage with your patients will help one to build a strong connection.
- **Caring for people with Pre-DM at H.O.M.E.:** Pre-diabetes or pre-DM, is also a pressing concern within the homeless population. Learning how to manage one's lifestyle in order to prevent pre-dm becoming diabetes can be very beneficial.
- **Caring for people with DM at H.O.M.E.:** While homelessness is a big issue in Hawai'i, many of those who are homeless or houseless struggle with diabetes. In order to help those with this health concern, it is important to be educated on diabetes within the homeless community so we can help educate them.
- **Medications for Diabetes:** This presentation will help educate on some of the medications used to help lower blood sugar or treat diabetes. There are factors to consider about the medications that are used to treat diabetes in those that are homeless. It is important to recognize these challenges in order to best serve this population.
- **Leadership in Crisis:** Regardless of profession or location, everyone will face a time of crisis. Although it can be difficult to adjust and be resilient through a crisis, it is important for healthcare professionals to develop key traits to help guide others through tough times.
- **Resilience for Health Professionals:** Resilience is important because it can motivate you when the task is challenging or tedious, helps you persist when you are tired, and reduces the number of choices to make on a daily basis which can prevent one from considering quitting a difficult profession. A resilient mindset allows one to have self-efficacy, a belief that they can change what is changeable and makes one persist in trying again after each failure. Healthcare professionals who are resilient not only have self-efficacy, but they are able to transmit that belief to their patients as well which results in better patient outcomes.

Evaluation and dissemination

Feasibility Study

We started our training project with the intention of evaluation in order to learn what areas worked and what areas needed to be changed and/or improved.

Each module was initially created for a synchronous format. We piloted each module, except for the Leadership in Crisis training due to time constraints, at a virtual, synchronous format to groups of Emerging Health Professionals (EHPs), including medical students, social work students, psychology students, and pharmacy students. Participants, the EHPs, were asked to take pre- and post-tests evaluating the training.

The pre- and post-tests were encouraging and all indicated that the training was effective and little was needed in terms of changing and/or improving. The main issue that was presented during the feasibility study was the COVID-19 pandemic and the need to make the training asynchronous. Using the existing training, all of the 5 modules were converted into asynchronous formats.

In 2021, our team presented our resilience training from the feasibility study at the [Health Professionals Education Conference](#) (HPEC) and had a workshop session after the presentation. Additionally, our results from the feasibility study were presented in a poster presentation to the Clinical Scholars convening.



ScholarSpace is the institutional repository for the University of Hawai'i at Mānoa and is maintained by Hamilton Library.

Full Training Project

The full training project has been a mix of synchronous and asynchronous formats. For each training we ask all participants to take a pre- and post-test to evaluate their learning. In the resilience training the Connor-Davidson 10-item resilience scale is included to assess for a base-line resilience score.

Our plan was to have participants engage in a practicum learning opportunity at the H.O.M.E. clinic. At the end of their time at the clinic they would retake the Connor-Davidson scale to assess the change in resilience scores after the mentoring program. We are still working on this aspect of the evaluation as due to COVID-19 many of the students were not able to interact at H.O.M.E.

We have been able to disseminate findings focused on our resilience training, specifically a training we have conducted to 3rd year medical students. These findings have been presented at the 2022 HPEC conference, the international 2022 Resilience Conference, and currently we have a manuscript in preparation with these results and an abstract submitted to a national social work conference. We are preparing to disseminate results from the additional training modules through publications and presentations at national conferences.

Key Messages

- Our training program is a data-supported program designed to educate EHPs to build personal skills to sustain their educational goals while learning to improve the care and well-being of their patients.
- We train our students on improving overall patient-provider care, developing skills for leadership in crisis, understanding Diabetes/Pre-Diabetes management, working with houseless individuals, and finally, improving resilience within the EHP and the patients with whom they work.
- Overall, we aim to educate EHPs to improve patient care while attending to the holistic health (mental, physical, emotional) needs of the EHPs themselves through resilience training.
- This project was modified in response to the public health crisis initiated by the global spread of the SARS-CoV2 pandemic that necessitated the need to develop innovative approaches to supporting our students on multiple levels of their lived experience during the pandemic (i.e. personal, educational and clinical). With the strong support provided by the RWJF-CSP we were encouraged to “stretch” and rise to the occasion in which we as health leaders were called upon during the unprecedented pandemic of 2020-2022.
- Our program offers non-credit/non-certificate asynchronous webinar training modules that support and supplement existing healthcare professional school/college curriculum. Training modules will be available on a public website.

The Story Behind Our Logo

The team felt it was important to have a logo that represented the project and our team’s strengths. The logo would be used to help with recognition of the Team members and EHP when working at the HOME Project. Dr. Austin Seabury, one of the members who speaks native Hawaiian language, described a native Hawaiian plant called a’ali’i. This plant has an 'Olelo No'eau, or a Native Hawaiian proverb, which says, “He ‘a’ali’i kū makani mai au; ‘a’ohe makani nāna e kula’i”. This translates to “I am a wind-resisting ‘a’ali’i plant; no gust can push me over.”

This saying and the symbolism of this plant was perfect for everything our team represents and for the main focus of our project, building resilience. The research assistant for the project, Dayna Sur, drew 5 main flower buds at the top, representing the 5 members of our group. A few more buds along the side of the branch to represent the different components and people to have a successful outcome.



Lessons learned

One of the most significant challenges our team faced was the impact and speed that the COVID 19 restrictions had on our entire project. The H.O.M.E. mobile van and the EHP were immediately “shut down” and for a moment instructors and faculty struggled to familiarize themselves to teach students on a virtual learning platform. The University enforced policies that restricted clinical teaching experiences and a “work from home” policy for all staff, faculty AND students was implemented. The ripple effects of the pandemic shutdown across the State affected not just physical workplace activities but also promoted a decline in the emotional, mental, physical and spiritual sense of wellbeing of individuals, families and communities across the State. Within this setting, our Resilience Hawai'i team stepped up to the multiple levels of distress experienced by our health professional students, the homeless community, and our teaching institutions.

Successes

- Improved understanding of challenges people who are houseless/homeless face
- Built resilience in EHPs so they are better able to handle challenges they face and help build resilience in the people they take care of

Recommendations

An essential part of success is developing and fostering an interdisciplinary team in the areas of psychology, pharmacy, social work and medicine that have experience in working with people who are houseless and teach/train emerging health professionals. Active discussions with community partners to determine a shared objective and gather information on what was done in the past to achieve the objective, issues/problems/challenges that have come in the past and what activities were successful. Discuss with community partners and research if there are other organizations that are doing projects similar to what you are doing and meet with these organizations to determine if the goal/objectives are similar enough to collaborate with. Also discuss other community organizations and leaders about the project and how it will be integrated into the community. Then create plans that do not repeat unsuccessful activities and expand/develop activities that were successful. Like all quality improvement projects, it is important to provide updates and foster discussion with key players and community organizations to discuss ways to improve or expand the project.

Building relationships with the team and community partners takes time and is crucial to the ultimate success of the project. It would not be realistic to think that you can completely finish the project within a three year time period. Be prepared to apply for funding that will support the project for at least five years. Do not give up. If it feels like that the project cannot be completed, then consider changing the project or breaking the project into smaller parts.

Best Practices

- Delay deadlines when you need more time to gather information from key stakeholders, community partners and determining data points
- Continue to move forward with aspects of the project that you are able to or adjust part of the project/break up into smaller pieces that can be implemented
- Be open-minded and assume everyone has good intentions
- The team should create a team charter at the start of the project (e.g. conversation guidelines, managing conflict, missteps) with the understanding that the document will evolve
- Have a resilient mindset-when things do not go as planned, then make changes and another plan
- Hire a research assistant to organize, create/update timelines and remind team on key deadlines