

Strengthening Community Disaster Resilience Through Sustainable Community First Aid Training

Commonwealth of the Northern Marianas Islands



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Continuation Award: Extending Public Health Disaster Research and Community Engagement in the U.S. Territories
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Project Overview

Disaster Risks

- The Commonwealth of the Northern Marianas (CNMI) is particularly vulnerable to disasters including typhoons, flooding, earthquakes, tsunamis, and volcanoes.
- In addition, the CNMI's extreme isolation and lower socioeconomic issues significantly increases disaster risks.

Super Typhoon Yutu, the second-strongest typhoon to ever strike the US or its territories, with torrential rain and sustained winds of 130-180 mph, Oct. 2018.



Project Overview

Community First Aid

- Due to inherent delays in organized response, the importance of community layperson emergency medical response in disasters is critical (Khorram-Manesh et al., 2020).
- To address the CNMI's extensive disaster risks and to train community laypersons in emergency medical response in 2021 the Natural Hazards Center funded *Community First Aid Training: A Tool To Strengthen Community Resilience*
- This grant successfully trained dozens in *Disaster Response Advanced First Aid*, however, it became evident that the extensive 3-day training was not sustainable or practical in the long run due to lack of local instructors and time commitments.
- To address this issue, a second grant, *Strengthening Community Disaster Resilience Through Sustainable Community First Aid Training*, was funded in 2022-23 as a continuation grant.





Project Activities

1

The project identified and recruited 6 local disaster and EMS experts, and using *curriculum mapping*, identified the critical aspects of disasters and disaster first aid in the CNMI to develop a new, shorter, and more practical course, *Basic Disaster First Aid*.

2

The project developed a train-the-trainer model, and prepared 8 local first responders and 2 disaster experts to teach *Basic Disaster First Aid*.

3

The project delivered two classes for the general public, serving dozens, while coaching the new local instructors in teaching *Basic Disaster First Aid*.

Community Partners

This project greatly benefited from, and would not have been possible without, the following community partners:

- The half-dozen CNMI Emergency Medical Services and disaster response experts who helped with modifying the original 3-day Disaster Response Advanced First Aid (DFAFA) into a much more practical 6 hour Basic Disaster First Aid class.
- Northern Marianas College and particularly the Office of Cooperative Research, Extension, and Education Services (CREES) who led the very successful marketing efforts, and who provided classroom space, logistical support, and photo/video documentation of the trainings.
- CNMI Department of Fire and Emergency Medical Services who shared expertise and personnel
- CNMI Homeland Security & Emergency Management who shared expertise and personnel



Project Outputs



1

As mentioned, this project delivered curriculum enhancement, a train-the-trainer class, and two coached and mentored public offerings of the new *Basic Disaster First Aid* course.

2

In addition to the aforementioned outputs, this project is meeting its ultimate goal of making *Basic Disaster First Aid* sustainable with classes currently being scheduled for Tinian and beyond and with youth programs in the planning stage.

3

The project also met its goals of recruiting more women and laypersons (versus already trained first responders) and by addressing particularly vulnerable communities, such as Goat Island.

Work Product

Work products that have been developed include

- **PowerPoints** – A complete series of PowerPoint modules to teach Basic Disaster First Aid was developed, tested, and shared with the new local instructors
- **Supplies, gear, and financial support to teach** – Four sets of supplies and gear to teach the class were developed and left in the CNMI for future classes to be taught. Additional supplies are being collected so each of the main three islands have their own full set of teaching tools. Grant money is set aside to support volunteer trainers to deliver classes.
- **Marketing tools** – Videos have been developed to market the new class to community laypersons

Public Health Implications

- The new, adapted training, Basic Disaster First Aid (BDFA), enhances resilience by preparing laypersons and first responders to deliver first aid during and immediately after disasters, helping communities to absorb impacts and more quickly and effectively recover.
- BDFA training adds to resilience through its robustness, redundancy, and rapidity (Norris et al., 2008). By working with, and training individuals from multiple organizations, BDFA develops and strengthens networks and relationships, increasing social capital (Roque, et al., 2020). Finally, BDFA builds resilience by reducing the need for acute health system surge capacity (Reeve et al., 2015).
- Much of the literature about resilience and disasters is academic and abstract. BDFA provides a public health tool to not just theorize, but to implement, test, and ultimately to make a real-world difference in the lives of disaster survivors and their communities.

Public Health Implications (cont.)

- Beyond resilience, BDFA positively impacts public health by addressing half of the “10 Essential Public Health Services” (Centers for Disease Control, 2020) including building infrastructure for public health, communicating to educate, strengthening communities and partnerships, creating and implementing plans, and building a skilled workforce.
- This study also has public health implications based on the setting’s sociodemographic characteristics. As an isolated island chain, facing significant economic struggles, the CNMI provides a model for similar U.S. Territories and small island nations, in terms of social vulnerabilities. Shown to be effective in the Northern Marianas, BDFA could also be valuable in other challenged locations.

Acknowledgements

Expert Review Panel

•Patrick George (Fire Crew Supervisor, Department of Fire and Medical Emergency Services (DFEMS), Saipan)

•Leo Mereb (FFI, DFEMS Rota)

•Dinicio Reyes (FFII, DFEMS Tinian)

•Melton Atalig (FFII, DFEMS Tinian)



•Juan Diego Tenorio (Disaster Program Manager, American Red Cross - NMI Chapter)

Community Partners

•Patricia Coleman, Interim Dean, Northern Marianas College - Cooperative Research, Extension, and Education Services (NMC-CREES)

•Franklin R. Babauta, Special Assistant, CNMI Homeland Security and Emergency Management (HSEM)

•Gerald J. Deleon Guerrero, Deputy Special Assistant, CNMI Homeland and Emergency Management (HSEM)

•Juan A. Pua, Commissioner, Saipan Department of Fire and Emergency Management Services (DFEMS)

•Raymond T. Dela Cruz - Resident Deputy Commissioner, Tinian Department of Fire and Emergency Management Services (DFEMS)

•Glenn L. Maratita, Resident Deputy Commissioner, Rota Department of Fire and Emergency Management Services (DFEMS)

•Ron H. Ogo, Assistant Chief Of Fire, Rota Department of Fire and Emergency Management Services (DFEMS)

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•Victorino L. Mendiola Jr., Operation Officer in Charge, Rota Department of Fire and Emergency Management Services (DFEMS)

•Clement Bermudes, Commissioner, CNMI Department of Public Safety (DPS)

•Juan Diego Tenorio, Disaster Program Manager, American Red Cross - NMI Chapter

•Steven Aguon (CERT Coordinator, Homeland Security, CNMI)

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