

Policy Brief

Strengthening the Community Health System to Combat Non-Communicable Diseases:

Mapping the Health System in Southeastern Myanmar

Executive Summary

Community Partners International (CPI) conducted 32 key informant interviews and a two-day workshop with patients, village health workers (VHWs), ethnic health organization (EHO) staff and leadership, and donors to try to understand the strengths and challenges of the healthcare system for those with hypertension or diabetes. This was done to inform the design of a VHW-based intervention to increase treatment for individuals with cardiovascular disease risk factors, to ultimately reduce the morbidity and mortality caused by strokes and heart attacks.

This research identified the following challenges and opportunities where VHWs may help improve the system:



Patient Challenges to Receiving Care

- Patients are unaware of cardiovascular disease risks
- Transport to clinics for medicines or diagnosis is difficult, expensive and potentially dangerous
- Medicines are seen as useful only for symptoms
- Many patients needing care may be elderly or disabled - increasing challenges

Identified Potential VHW Interventions

- VHWs can screen communities for cardiovascular disease risk
- VHWs can monitor patients to ensure adherence to medications and provide refills
- VHWs can provide health education on smoking cessation and healthy living
- VHWs can connect those identified as high risk to further care

Background

The health system in Southeastern Myanmar has suffered from chronic conflict, underinvestment, and limited access to care for decades. Following a period of progressive convergence of EHOs and the national public health system, the 2021 Military Coup resulted in the near-complete separation of EHOs and the government health system. In this context, many conflict-affected populations will rely exclusively on health services from EHOs for the foreseeable future. The ethnic health system has successfully overcome obstacles to scaling and sustaining interventions targeting malaria, tuberculosis, and women's and child health. However, EHOs have only recently targeted care for individuals at risk of heart attacks or strokes (cardiovascular disease, or CVD),

CVD is the leading cause of death and disability in Myanmar.¹ The Eastern Burma Retrospective Mortality Survey, conducted by 7 EHOs in remote areas of Eastern Myanmar in 2019 assessed CVD risk factors in over 3,400 adults over 40 years old: half (50%) smoke, one third (32%) have hypertension and 14.3% are at increased risk for stroke or heart attack (10% or higher risk of an event in the next 10 years).

This research², funded by Research for Health in Humanitarian Crises (R2HC) will tailor and implement a population-based strategy to screen and treat those at risk for heart attacks and strokes living in conflict-affected regions in Karen State, Myanmar, utilizing health delivery strategies led by EHO VHWs. This intervention will be tested using a cluster randomized controlled trial that will consist of universal CVD risk factor screening of individuals ≥40 years, confirmatory diagnosis by medics and monthly monitoring visits by VHWs. VHWs will support a household census to screen all individuals ≥40 years for pre-existing history of heart attack or stroke and measure height, weight and blood pressure; individuals with prior CVD, hypertension or overweight/obesity will also have their blood glucose checked to screen for diabetes. Medics will initiate medications appropriate to treat CVD risk factors, and VHWs will conduct monthly household visits with enrolled participants to monitor medication adherence, and provide linkage to care.

The first phase of this research is outlined below. The goal of this phase is to collaboratively create a VHW intervention to support individuals with risks for heart attacks and strokes living in Karen State, Myanmar, utilizing qualitative interviews and a causal loop analysis workshop. Causal loop analysis is utilized to represent complex systems, and to understand how interventions might affect the system.

Methods

Phase I included a review of evidence for community health worker care models for CVD risk factors in low- and middle-income countries; a facility survey of all six clinics in the study area and 32 key informant interviews of patients, VHWs, EHO clinic staff and leadership, and donors. KIIs yielded emergent themes that were organized into a causal loop diagram of the health system as it relates to care for CVD risk. A two-day workshop that included representatives of interviewed groups was held on May 11th and 12th, 2023. During this workshop, stakeholders discussed the health care system, the findings of the evidence review and qualitative interviews, and helped researchers generate a more complete understanding of the health system. A subset of these stakeholders (EHO leadership and clinic staff) then generated recommendations for a clinical protocol and VHW intervention.

The research team updated the previously created causal loop diagram, shown below:

¹ Vos, Theo, et al. "Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019." The Lancet 396.10258 (2020): 1204-1222. https://doi.org/10.1016/S0140-6736(20)30925-9.

² This research project is funded by Elrha's Research for Health in Humanitarian Crises (R2HC) Programme, which aims to improve health outcomes by strengthening the evidence base for public health interventions in humanitarian crises. R2HC is funded by the UK Foreign, Commonwealth and Development Office (FCDO), Wellcome, and the Department of Health and Social Care (DHSC) through the National Institute for Health Research (NIHR). Visit elrha.org for more information about Elrha's work to improve humanitarian outcomes through research innovation and partnership.





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Results

The causal loop diagram generated in this workshop is outlined above. The following limiting factors were identified with regards to the health of individuals with risks for heart attack and stroke living in Karen State, Myanmar:

- 1. Most stakeholders are unaware of the high CVD risk burden in Eastern Myanmar. Many, but not all, health system leaders and clinic staff did not see CVD as a health priority in the region. Most patients with risks for cardiovascular disease are unaware of their risk.
- 2, Individuals face structural/financial barriers to primary care in Karen State. Transportation costs and travel times are often prohibitive; low mobility further constrains access care for the elderly and individuals living with disability. Additionally, many incur costs in obtaining medications and in seeking clinical care, despite most EHO services being provided free of charge.
- 3. Conflict has exacerbated challenges to care access. Transportation costs have skyrocketed in some regions, and in others travel is simply no longer possible. Supply chains for clinics have been disrupted, resulting in poor medication supply—an issue that was repeatedly mentioned during both the interviews and the workshop. Additionally, funding has shifted toward providing humanitarian aid, which often lacks resources for CVD care, despite explicit inclusion of CVD in SPHERE and the Humanitarian Response Plan (HRP) for Myanmar.

The group identified several key points where a VHW program might support the health of patients with risks for heart attack or stroke. These are outlined below:

- VHWs can provide basic health education on smoking cessation and the importance of a healthy diet and physical activity, and can promote medication adherence.
- 2, VHWs can screen communities for cardiovascular disease risk and connect those at high risk to clinical care.

- 3. VHWs can provide community-based monthly monitoring of blood pressure and (when applicable) blood glucose and report their findings to the regional medic on a monthly basis for review.
- 4. VHWs can facilitate delivery of medications in their communities; patients often struggle to return to clinics to obtain medications, a major reason for a lack of consistent adherence to their treatment plans.
- 5. VHWs can facilitate referrals and assist with transportation to higher levels of care.

Next Steps

The research team will develop a VHW intervention model in close collaboration with our EHO partners. This intervention will be tested during a pilot phase starting in August 2023, and later more broadly tested via a cluster randomized trial in the EHO catchment areas. The trial is designed to estimate the impact of VHW care on coverage and equity of evidence-based treatments, and to model the impact on CVD events and cost-effectiveness; we anticipate sharing results with stakeholders in the Summer of 2024.









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