



EXECUTIVE SUMMARY

UNDERSTANDING BARRIERS TO ACCESS EARLY WARNING MESSAGES DURING DISASTERS AMONG PEOPLE LIVING WITH NON-COMMUNICABLE DISEASE IN NEPAL



Author:

Tara Ballav Adhikari, PhD

Department of Public Health, Aarhus University (Denmark)

This material has been funded by UK International Development from the UK government; however, the views expressed do not necessarily reflect the UK government's official policies.

Introduction

Floods in Nepal significantly disrupt healthcare access for people living with non-communicable diseases (PLWNCDs), exposing them to heightened health risks during disasters. While early warning systems (EWS) play a critical role in disaster preparedness, they are not adequately tailored to the specific needs of PLWNCDs, who require continuous medical care and timely information to safeguard their health. Challenges such as delayed warnings, language barriers, low community engagement, and limited healthcare integration within disaster response efforts hinder PLWNCDs' ability to respond effectively. Strengthening EWS to address these gaps is essential to improving disaster resilience and healthcare access for vulnerable populations.

This study examines the barriers that PLWNCDs face in accessing and acting on early warning messages in Nepal's flood-prone Kanchanpur and Kailali districts. It aims to identify gaps in current EWS frameworks and provide actionable recommendations to improve their effectiveness, ensuring that PLWNCDs receive timely, accessible, and actionable disaster warnings.

Methodology

A qualitative research approach was employed, involving 96 participants across focus group discussions, in-depth interviews, and key informant interviews. Thematic analysis, guided by Braun and Clarke's framework, was used to analyze data and identify systemic barriers and enablers in early warning dissemination and disaster preparedness for PLWNCDs.



A focus group discussion as part of the data collection process

Key Findings

Delayed and Ineffective Messaging

- Early warning messages often arrive too late for PLWNCDs to take precautionary measures, particularly those who require time to arrange transport, secure medication, or seek medical assistance
- The current EWS is perceived as unreliable due to inconsistent warnings, lack of specificity, and occasional false alarms, leading to scepticism and inaction.
- Many PLWNCDs feel that early warning messages are too generic and do not include health-related recommendations, such as medication stockpiling, locations of health services, or evacuation procedures for people with chronic illnesses

Language and Accessibility Barriers:

- Many PLWNCDs, especially those from ethnic communities, struggle to understand early warning messages that are predominantly delivered in Nepali. The absence of messages in Tharu, Achhami, or other local dialects excludes large portions of the population.
- The format of early warnings—often delivered via SMS—poses a challenge for individuals with low literacy levels or those who do not own mobile phones.
- Those with low literacy levels or visual impairments face additional challenges in understanding written warnings, which highlights the need for multi-modal dissemination, such as loudspeakers or direct phone calls

Low Community Engagement:

- The existing EWS frameworks lack adequate community participation, particularly in planning and decision-making processes, which undermines trust and limits awareness among PLWNCDs.
- Many PLWNCDs are unaware of available disaster preparedness services and health resources due to poor community outreach efforts.
- The absence of community representatives in planning and decision-making processes leads to a lack of ownership and disconnects between local needs and the EWS approach.

Healthcare Access Disruptions

- Floods lead to significant disruptions in healthcare services, with facility closures, road blockages, and lack of transport preventing PLWNCDs from accessing necessary medications and treatment.

- Many PLWNCDs resort to stockpiling medications, but shortages and financial constraints make it difficult for them to sustain this strategy.
- Psychological distress among PLWNCDs is heightened due to concerns over health deterioration during disasters, lack of information about medical support, and inability to travel to health facilities.
- Poor coordination between disaster response teams and healthcare providers means that messages do not include guidance on maintaining access to NCD care.



Local Emergency Operations Center in Bhajani Municipality, Kailali.

Implications and Recommendations

To address the identified challenges, the following recommendations are proposed for policymakers, healthcare providers, and disaster management authorities:

Enhancing timeliness and precision of EWS: Develop more robust systems that allow for timely and accurate dissemination of early warning messages. Early warnings should be disseminated well in advance, providing clear and actionable guidance tailored to PLWNCDs. Collaboration with local meteorological services and local governing units can improve alert reliability.

Localized and multilingual messaging: Implement communication strategies that account for linguistic diversity by providing messages in multiple local languages and dialects. Utilizing

various channels, including SMS, radio, loudspeakers, and social media, can ensure broader reach and better comprehension among different community segments.

Strengthening community engagement and participation: Actively involve community members, including PLWNCDs and local leaders, in the development and implementation of EWS. Engaging local representatives can enhance trust, improve awareness, and ensure that disaster preparedness initiatives address the unique needs of PLWNCDs. Regular community workshops and training sessions can help build local capacity for disaster response.

Integration of NCD care into disaster preparedness plans: Disaster management frameworks must include provisions for the specific healthcare needs of PLWNCDs. This can involve pre-stocking essential medications, ensuring healthcare facilities are accessible during floods, and equipping healthcare providers with training on managing NCDs during emergencies. Establishing mobile health clinics can also help deliver services to remote and hard-to-reach areas during disasters.

Building trust through reliable communication: Address the issues of distrust by ensuring that early warning messages are consistent, accurate, and easy to understand. Collaborate with trusted local entities, such as community organizations and health volunteers, to disseminate information and provide reassurance to PLWNCDs. Regular testing and updates of the EWS can further reinforce the reliability of the system.

Empowering local healthcare providers: Equip local health posts and community health workers with resources and training to prioritize the needs of PLWNCDs during disasters. They should play a proactive role in raising awareness about EWS, facilitating access to health services, and supporting PLWNCDs in preparing for emergencies. Coordination between healthcare providers and disaster response teams can ensure a seamless approach to managing health needs during crises.

Decentralizing skills and services: Strengthen the capacity of local governments and authorities to enhance early warning systems and ensure localized messaging that aligns with community needs. This includes integrating community risk assessments into local disaster plans, actively involving marginalized groups in preparedness and response efforts, and prioritizing access to healthcare information and services, including NCD care.

Conclusion

This study highlights critical gaps in Nepal's EWS in addressing the specific needs of PLWNCDs. By addressing language barriers, strengthening community engagement, and integrating healthcare considerations into disaster management plans, policymakers can significantly improve disaster preparedness for vulnerable populations. Effective and tailored EWS are crucial not only for saving lives but also for ensuring the continuity of care for PLWNCDs during crises. Adopting these recommendations can help strengthen disaster response efforts, reduce health risks, and build a safer, more resilient community for PLWNCDs in Nepal.