

Strengthening Primary Health Care: Emergency and Disaster Preparedness in Community with Multidisciplinary Approach

Fitriana Mawardi ; Ayuningtyas Satya Lestari; Amandha Boy Timor Randita; Daniel Richard Kambey; Irfan Dwidya Prijambada

ABSTRACT

The increasing number of disasters and communities affected, coupled with the threats from climate change, has drawn not only national but also international attention to the risks of disasters and what can be done about them. It is important for communities and all global partners to be more prepared by taking action before disasters occur through disaster risk reduction, including the efforts of emergency preparedness, as well as through disaster response and recovery. To meet the emergency public health needs in any population, there is no other option than strengthening the primary health care system. For this goal, practitioners from various professions can work together and share an affinity in synthesizing knowledge and bridging gaps across functional areas. These include the disaster risk assessment and preparedness involving several disciplines for limiting human and material damage. This primary health care strategy with a multidisciplinary approach is the best possible method in developing improved approaches for disaster risk reduction and emergency preparedness by improving health emergency management plans and protocols.

Key Words: community-building, emergency and disaster preparedness, multidisciplinary, primary health care service

All disasters have increased mortality and morbidity rates.¹ Indonesia is one of the most disaster prone countries in the world because it is located on the Pacific Ring of Fire.²

An efficient and effective emergency medical care system, involving primary health care (PHC) in the health emergency management (HEM) strategy is 1 possible method. The conceptual framework representing some common issues faced in implementing PHC is shown in [Figure 1](#).

THE ROLE OF PRIMARY HEALTH CARE IN EMERGENCY DISASTER PREPAREDNESS

The major threats following disasters were mainly due to lack of proper PHC assistance. Recent lessons from the implementation of emergency response teams highlight the need for sustaining all essential components of PHC during disasters and adapting a holistic approach by integrating emergency medical assistance and disaster response into PHC policies, strategies, and services.³

PHC IN INDONESIA EMERGENCY AND DISASTER PREPAREDNESS

Indonesia faced many challenges within its primary health system in disaster management preparedness. Based on Indonesia's past experiences, when natural

disasters occur, there is only limited district hospitals that meet the community needs. Due to the limited health facilities, the PHC facilities become the key elements that are responsible for providing health care. Accordingly, it is necessary to strengthen the PHC's capacity regarding disaster and emergency preparedness, including human resources, facilities preparedness, standard operating procedures, and policy planning for facing disasters.⁴ To avoid the possibility of a "double-disaster," it is important to strengthen PHC for Indonesia's poor disaster health preparedness.

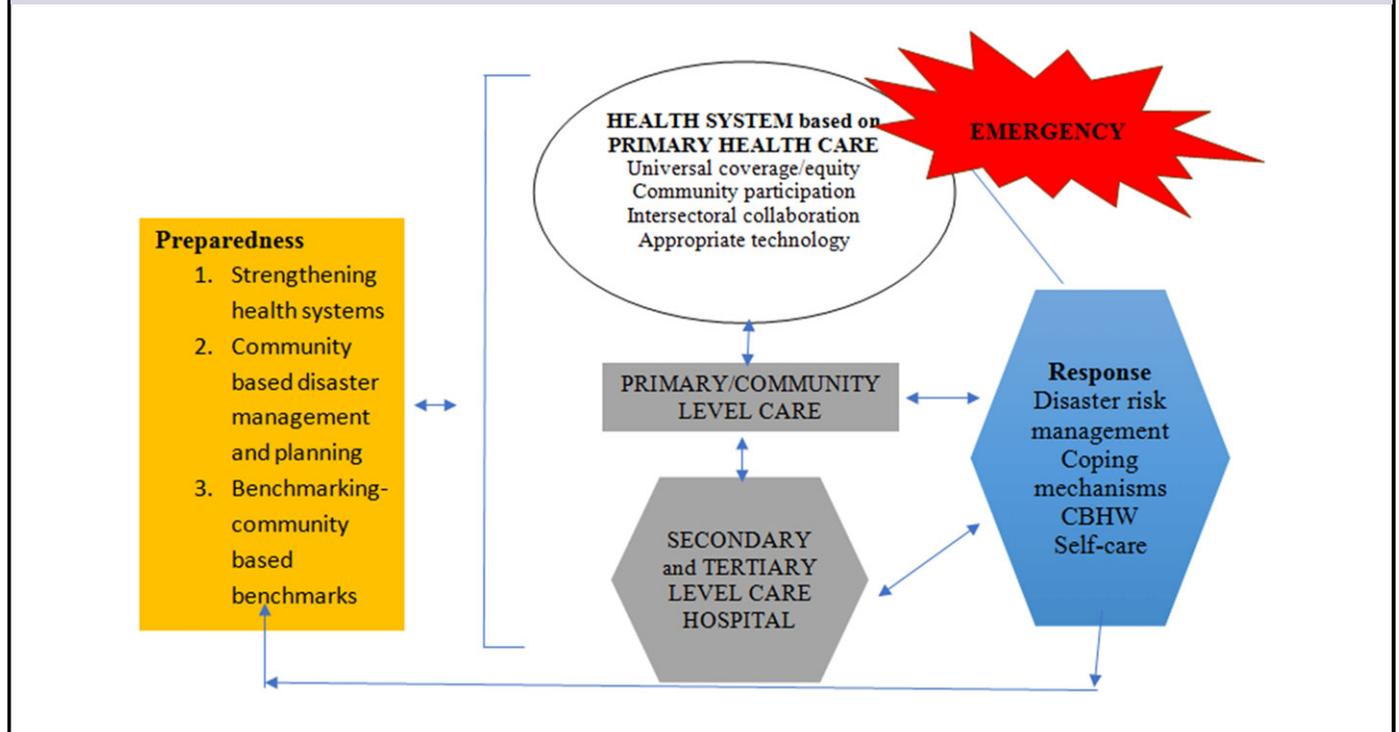
CHALLENGES AND STRATEGIES OF STRENGTHENING PRIMARY CARE IN EMERGENCY AND DISASTER PREPAREDNESS

In many emergency situations, there is often an imbalance between increased local public health needs and the limited resources available. To meet the emergency public health needs, there is no other option than to strengthen the PHC system. The bridging of primary care providers with HEM concepts would have to be developed through an adapted strategy that combines the best characteristics from PHC.⁵

Furthermore, there are major barriers to the provision of optimal health care during disasters, such as the need for integrated PHC services and lack of disaster

FIGURE 1

A Conceptual Framework.



management competencies and skills. The listed competencies for first-level health care providers and cadre can be broadly categorized into 3 domains: (1) Disaster/Emergency Preparedness, Early Warning and Response System, (2) Patient Care and Mass Casualty Management, and (3) Resource (human and material) Management and Eviction.³

CONCLUSION

The integration of disaster management in PHC is needed. Indonesia as a disaster-prone area should immediately begin optimizing health care by making PHC an essential part of the disaster response system. It is vital in promoting PHC disaster preparedness in Indonesia to start providing disaster management training for PHC health staff and to develop a comprehensive as well as coordinated approach with all other sectors.

About the Authors

Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia (Dr Mawardi, Miss Lestari); Medical Education Unit, Faculty of Medicine, Universitas Sebelas Maret, Surakarta, Indonesia (Mr Randita); Department of International Cooperation for Medical Education, School of International Health, University of Tokyo, Tokyo, Japan (Mr Kambey); and Directorate of Community Empowerment, Universitas Gadjah Mada, Yogyakarta, Indonesia (Dr Prijambada).

Correspondence and reprint requests to Dr. Fitriana Mawardi, Jalan Farmako No 1 Sekip Utara Sinduadi Mlati Sleman Yogyakarta 55284 (e-mail: Fitriana.8918@ugm.ac.id).

Acknowledgments

We extend our thanks to Disaster Response Unit (DERU) Team for their contribution during the data gathering.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

REFERENCES

1. Ray K, Ghimire J, Bc RK. Effects of disaster on primary health care in low income countries. *J Nepal Health Res Counc.* 2019;17(1):1-8. <http://doi.org/10.33314/jnhrc.1688>.
2. Indonesia Humanitarian Country Team. Emergency response preparedness in Indonesia. 2016.
3. Swathi JM, González PA, Delgado RC. Disaster management and primary health care: implications for medical education. 2017;epub:414-415. <http://doi.org/10.5116/ijme.5a07.1e1b>.
4. Fuady A, Pakasi TA, Mansyur M. Primary Health Centre disaster preparedness after the earthquake in Padang Pariaman, West Sumatra, Indonesia. *BMC Res Notes J.* 2011;4. <http://doi.org/10.1186/1756-0500-4-81>.
5. Redwood-Campbell L, Abrahams J. Primary health care and disasters – the current state of the literature: what we know, gaps, and next steps. *Prehosp Disaster Med.* 2011;26(3):184–191.