

Letter to the Editor

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Crisis-Related Measles Outbreaks in Low-Income Countries and the Need for Increased Health Systems Resilience

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Abstract

The measles is a highly contagious disease that can be prevented by vaccination. During and after crises, vaccination against measles decreases in low-income countries, leading to outbreaks. It is possible for developed countries to be at risk from these outbreaks through travel. Low-income countries' health systems are not resilient to crises. Lack of capacity among these countries causes a decrease in vaccinations. As a result, we provide some recommendations for increasing the resilience of the health system in low-income countries in this letter.

Dear editor

It was reported by the World Health Organization (November 16, 2023) that large and disruptive outbreaks of measles increased from 22 countries in 2021 to 37 countries in 2022, mostly in low-income countries.¹ Measles is a highly contagious disease that can result in severe complications and death.² To prevent measles, two doses of the vaccine are required. Following the COVID-19 pandemic, vaccination against measles decreased, particularly in low-income countries. Despite modest increases in global vaccination coverage in 2022 from 2021, 33 million children missed a measles vaccination dose. Twenty-two million missed the first dose, and 11 million missed the second dose. Among the 22 million children who missed their first measles shot in 2022, more than half live in just 10 countries: Angola, Brazil, Democratic Republic of the Congo, Ethiopia, India, Indonesia, Madagascar, Nigeria, Pakistan, and Philippines. Consequently, there have been 18% more cases of measles and 43% more deaths worldwide in 2022 than in 2021. Accordingly, the World Health Organization and the Centers for Disease Control and Prevention estimate that there are 9 million cases of measles worldwide and 136 000 deaths, mostly in children.¹

Additionally, wars in countries such as Ukraine and Ethiopia have reduced vaccination against measles in 2022.^{3,4} In low-income countries, outbreaks of measles can affect developed countries such, as the United States, through travel. As a result, it is crucial to increase measles vaccinations globally and consider this an issue of global health.

As a result of measles outbreaks in low-income countries during and after crises, it is evident that health systems there are not stable and resilient. In essence, resilience means that a system continues to fulfill its mission even when faced with adversity. Health systems in low-income countries are not resilient because of insufficient capacity. As a consequence, it is essential to enhance the capacity of health systems to increase measles vaccination when crises strike. For this goal to be achieved, countries must come together and renew their political commitment, along with the assistance of international organizations. It is necessary for health systems in low-income countries to gain a comprehensive understanding of their functions, including stewardship, financing, service provision, and resource generation. Self-knowledge of the health system provides a wealth of information about its weaknesses, strengths, opportunities, and threats that can assist in coping with crises. As a result of this self-knowledge, health systems are able to utilize resources as a means of increasing strengths and opportunities and reducing weaknesses and threats. Moreover, the health systems in low-income countries need to learn coping skills, including reactive and proactive coping. The skills can be acquired through previous crises experiences or through the experiences of other countries. Finally, it is vital that countries commit to ensuring the safety of civilians and health care centers during wartime. In a collapsed health care center, public health also collapses.

Competing interest. None

Ethical standard. Not applicable

References

1. Global Measles Threat Continues to Grow as Another Year Passes With Millions of Children Unvaccinated. World Health Organization. 2023. Accessed November 16, 2023. <https://www.who.int/news/item/16-11-2023-global-measles-threat-continues-to-grow-as-another-year-passes-with-millions-of-children-unvaccinated>
2. Measles. World Health Organization. 2023. Accessed August 9, 2023. <https://www.who.int/news-room/fact-sheets/detail/measles>
3. Nazir A, Oduoye MO, Tunde AM, et al. Measles outbreak in Ethiopia amid COVID-19: an effect of war-induced hampering of vaccination and pandemic. *Ann Med Surg.* 2023;**85**(4):1336.
4. UNICEF and WHO Warn of Perfect Storm of Conditions for Measles Outbreaks, Affecting Children. World Health Organization. 2022. Accessed April 27, 2022. <https://www.who.int/news/item/27-04-2022-unicef-and-who-warn-of-perfect-storm-of-conditions-for-measles-outbreaks-affecting-children>