

Letter to the Editor

A case of measles in a Nepalese child: where are we failing?

Sir,

Measles affected more than 90% of children under 15 years of age and caused 2-3 million measles-associated deaths globally each year before the introduction of vaccines against it. Today, measles vestiges a leading cause of vaccine-preventable illness worldwide, causing more than 100,000 deaths annually. Characterized by a febrile rash illness, measles is often self-resolving. However, significant complications can occur including encephalitis with permanent neurologic sequelae and death in one to three out of 1000 measles cases.^{1,2} Although global measles elimination is a WHO goal, current trends in the epidemiology of measles and vaccine hesitancy suggest that this goal is not yet attainable.³ As the most highly transmissible vaccine-preventable disease, measles is especially subtle to changes in herd immunity, the impact of vaccine refusal and globalization.⁴

The “big six” countries (Bangladesh, India, Indonesia, Myanmar, Nepal, and Thailand) in the world health organization South-East Asia Region (WHO SEAR) are currently facing severe encounters in measles elimination and subsequent childhood mortality reduction, with inadequacies and inequalities in the coverage of the measles-containing-vaccine first-dose (MCV1) being major obstacles. Inequalities were marked in all countries, except Thailand, and were more prominent in the sectors of wealth, education, antenatal care (ANC) status, and vitamin A supplementation (VAS) when compared against the areas of gender and urban/rural residence.⁵ 27% of global measles deaths still occurred in the WHO SEAR in 2018.⁶ The “big six” countries, so-called because they comprise 95% of the population of the WHO SEAR, remain endemic for measles.⁷ A Nepalese female child of four years was brought to the primary health centre by her parents with a history of generalized febrile rash. She was examined and a case of measles was suspected. Her blood serum was sent to WHO regional reference laboratory, Thailand and a diagnosis of measles was confirmed.

Nepal, a low-income country, in the South East Asia region has a vaccination coverage of about 95% and 65% for first and second doses respectively. The region has adopted the goal of measles elimination by 2023, however, there was a significant impact of COVID-19 on measles activities in the region. There were two major outbreaks in the year 2020. In addition to the clinical implications of measles infection and under-vaccination,

measles outbreaks are associated with significant communal costs. Among 16 United States outbreaks in 2001 that affected 107 persons, containment required 42,600-83,100 personnel hours and cost US\$2.7-53 million to perform follow-up with 8900 – 17,500 contacts.⁸ Even in one of the developed nations like the United States, the aforementioned figure is frightening. The condition of Nepal, in case of the measles outbreak, can be imagined and the loss of human resources and capital will be inevitable.

CONCLUSION

Even a single case of measles is troublesome as it is highly infectious. Several flaws like vaccine hesitancy, misinformation, improper vaccine transport medium and cold chain have been the major barriers to the resurgence of this deadly disease. Additionally, lack of awareness and COVID-19 pandemic have been other hindrances in Nepal related to the surge of measles. It is high time that the government and the stakeholders address this issue and help globally in achieving the goal of global measles elimination.

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