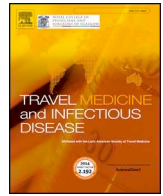




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Vaccine hesitancy in Japan: Is the country well prepared for Tokyo 2020?

To The Editor

The resurgence of measles and vaccine hesitancy is a threat to global health [1], and Japan has been no exception. The number of measles patients in Japan amounted to 744 in 2019 [2]. Since the verification of measles elimination in 2015, Japan has experienced measles outbreaks originating from imported cases [3]; however, in 2019, at least 558 cases were infected domestically [2].

This situation, being the worst in a decade, was originally propelled by a religious group that believes in alternative healing and dismisses modern medicine, including vaccines. Fifty-four people participated in a one-week religious seminar at the sanctuary in Mie prefecture in December 2018, and within five weeks, 49 measles cases including 24 participants were confirmed in Mie [4]. Cases were primarily observed among young adults aged 10–29 years, and those who had received at least one dose of measles vaccine accounted for only 26.5% [4]. Sixteen participants from distant areas also contributed to the generation of secondary or tertiary clusters in several prefectures in central Japan [4]. The outbreak indicated that achieving 95% coverage of the measles vaccination, the herd immunity threshold, is insufficient when the susceptible individual is clustered.

Simultaneously, the re-emergence of rubella epidemic has been detected in Japan since 2018, and as of 29 January 2020, the cumulative cases amounted to 5,280 along with 5 cases of congenital rubella syndrome [5]. Cases were primarily reported among men aged 30–49 years in Tokyo and the Greater Tokyo Area, and those who had received at least one dose of rubella vaccine accounted for only 8.0% [5]. In December 2018, the Ministry of Health, Labor and Welfare (MHLW) launched free rubella vaccination campaigns for susceptible groups identified by the seroprevalence survey on a voluntary basis; nevertheless, only 15.1% of the target population have embraced this opportunity [5].

To combat the current situation, strengthening contemporary health promotion campaigns for the general public and reinforcing evidence-based supplementary vaccination programs for susceptible pockets are imperative. In addition, education for healthcare providers is indispensable in Japan, where some medical professionals conspicuously support anti-vaccination movement that became obvious during the human papillomavirus vaccine crisis [6]. Moreover, incorporating vaccine records into the individual number card which will function as a health insurance card from fiscal year 2020 is helpful. Considering the Japan's political stability, enforcing legal procedures for mandatory vaccination can be an option.

Vaccine-preventable diseases (VPDs) are acknowledged as potential threats for visitors to the Tokyo Olympic and Paralympic Games in 2020 (Tokyo 2020) [7]. Furthermore, as the novel coronavirus outbreak indicates, Asia-Pacific region is recognized as the epicenter for infectious diseases. To ensure that Japan is eligible as the host country for global mass gathering events (MGE) including Tokyo 2020 and Expo 2025, it is high time to implement evidence-based effective countermeasures that are heterogeneous and are bound by rigorous political commitments. Lessons learned will also be an asset for countries preparing for MGE while struggling for the elimination of VPDs.

Contributions

KS designed the overall structure of manuscript. KS analyzed the data and drafted the early version of the manuscript. SS edited the manuscript and KI gave comments on the earlier versions of the manuscript. All authors approved the final version.

Declaration of competing interest

The authors declare no conflicts of interest.

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