



Editorial

# From global to local action: rise from the pandemic, an efforts to increase routine immunization coverage

Dedy Purwito✉

Community Nursing Department, Health Science Faculty, Universitas Muhammadiyah Purwokerto, Banyumas, Central Java, Indonesia

## ABSTRACT

Since the first vaccine was developed (1796; smallpox vaccine), the world has seen its impact on health and well-being. Vaccines are one of the most influential scientific innovations of all time, helping to protect generations of people from infectious diseases throughout their lives. Parents need not worry too much about their children suffering from a deadly disease that has plagued previous generations because of vaccines. However, a top-down approach is needed so that vaccination becomes necessary for every people worldwide.

## INTRODUCTION

Routine immunization coverage has decreased since Indonesia reported the first COVID-19 case in March 2020. There was a significant achievement in 2020 - 2021 compared to previous years, wherein 2020 was 84.2%, and 2021 reached 79.6%. The same situation happened to Measles-Rubella (MR) follow-up immunization of children under two years (2020 and 2021), unable to reach the specified target in 2020 was 65.3% (target 76.4%), and the achievement in 2021 reached 57.8% (target 81%).<sup>1</sup>

A rapid assessment (the Ministry of Health and UNICEF, April 2020) found; that 84% of health facilities reported impaired immunization services.<sup>2</sup> Immunization services were felt, with several barriers observed at various levels. Due to the cessation of services, access barriers are accompanied by a decrease in demand due to the public's fear of contracting COVID-19. Immunization program management officers and immunization resources are diverted to COVID-19 response, limited personal protective equipment for safe immunization, and shortage of commodities.<sup>3</sup> On the other hand, the initiation of a national lockdown, of some form and at some time, restricts people's movement except for those providing essential services. The general public had far more limited activities and often an only movement for necessary actions such as food shopping and non-routine medical care.<sup>4,5</sup>

Martin O. C. et al. (2021) mentioned phenomenon above is one part of pandemic indirect effects. This indirect effect can be broadly considered the negative impact of the social measures implemented to reduce COVID-19 infection

and the necessary prioritization of healthcare services directed towards COVID-19 care; together, and these have inevitably led to substantial disruption of routine medical care services.<sup>6</sup>

## IMMUNITY AND ILLNESS

Immunization is an effort to increase a person's immunity against a disease actively. If exposed to the disease, they will not get sick or only mild illness signs.<sup>7</sup> Children who do not get complete immunizations are vulnerable to several preventable diseases. Currently, there are cases of vaccines preventable diseases (VPDs) and the occurrence of VPDs outbreaks such as measles, rubella, and Diphtheria in several areas. In 2021, 96 districts (23 provinces) reported diphtheria cases, a total of 235 cases. The cases have started to increase, especially since the middle of 2021.<sup>1</sup>

For more than two centuries, vaccines have helped keep people healthy. Vaccination is a success story for global health and development, saving millions of lives every year. Between 2010 and 2018, 23 million deaths were prevented by the measles vaccine. The number of infants vaccinated each year, more than 116 million, or 86% of all babies born, has reached the highest level ever reported. More than 20 life-threatening diseases can now be prevented by immunization. Since 2010, 116 countries have introduced vaccines they had not previously used, including vaccines against major killers such as pneumococcal pneumonia, diarrhea, cervical cancer, typhoid, cholera, and meningitis.<sup>8</sup>

<https://doi.org/10.30595/medisains.v20i1.13586>

©(2022) by the Medisains Journal. Readers may use this article as long as the work is properly cited, the use is educational and not for profit, and the work is not altered. More information is available at [Attribution-NonCommercial 4.0 International](#).

## GLOBAL AND LOCAL CONCERNS ON IMMUNIZATION

WHO works with countries worldwide to raise awareness of vaccines and immunizations and ensure each country has technical guidance and support to implement high-quality immunization programs. World Immunization Week 2022, celebrated every April, will bring together people worldwide to highlight the importance of vaccines and how vaccines protect people against diseases, allowing us to pursue a decent life.<sup>9</sup> The ultimate goal of WIW 2022 is for more people and their communities to be protected from VPDs. This year's theme, "Long Live for All," aims to bring people together around the idea that vaccines allow us to pursue our dreams, protect our loved ones and live long and healthy lives.<sup>10</sup>

In the Indonesia context, The MoH takes into account the recommendations of the Indonesian Technical Advisory Group on Immunization (ITAGI) and the National Verification Committee for the Elimination of MR / Congenital Rubella Syndrome (CRS); regarding the implementation of supplementary MR immunization, the first dose of polio immunization (IPV1) and the recommendation of the Expert Committee for Overcoming Diphtheria on Outbreak Response Immunization for areas experiencing outbreaks, prepared the National Child Immunization Month (Bulan Imunisasi Anak Nasional / BIAN) agenda which was carried out in 2 phase. The first phase (May 2022) for all provinces on Sumatra, Kalimantan, Sulawesi, Nusa Tenggara, Maluku, and Papua, and the second phase (August 2022) for provinces on Java and Bali.<sup>1</sup>

An excellent momentum to revive the immunization program is what the government expects. COVID-19 pandemic teaches that people should be aware of the power of vaccines to fight disease, save lives, and create a healthier, safer, and more prosperous future. BIAN coverage targets at least 90% for MR and a minimum of 80% of the catch-up immunization<sup>1</sup>; it seems must be realistic. The experience of the 2017-2018 MR Immunization campaign, although the coverage reached 100.98% in Java (MoH target was 95%); but for provinces outside Java the coverage was only 73.35%, even though it was carried out twice and extended for five months. The lowest coverage was 10% in one of the provinces in Sumatra; until the end of the campaign, nearly 10 million children remained unimmunized.<sup>11</sup>

At that time, skepticism about vaccines increased globally.<sup>12</sup> The COVID-19 Vaccine acceptance survey (November 2020) was obtained; 65% of respondents were willing to accept the COVID-19 vaccine, while 8% refused. The remaining 27% expressed doubt. The highest level of vaccine acceptance was in Papua, Java, and Kalimantan

provinces. Acceptance rates in several provinces (Sumatra, Sulawesi, and Maluku) are lower than in other provinces. West Papua Province has the highest acceptance rate (74%) of all other provinces, while Aceh Province has the lowest (46%).<sup>13</sup>

## DEMAND FOR VACCINES

One of the essential variables in the success of vaccination coverage is public acceptance. The more people willing to be vaccinated, the bigger the coverage. It is necessary to design a program campaign aimed at those who say they "do not know or are in doubt," not at the people willing to receive the vaccine. People who hesitate do not necessarily become convinced if they are threatened with punishment and fines. It is not appropriate to intervene by forcing and threatening punishment in the form of fines for this group. Conspiratorial hard-line anti-vaccine groups are also not a prime target because it is almost impossible to change their irrational views on vaccination. We need to understand the levels of people's doubts about vaccines and their reasons so that we can develop the right campaign to change the targeted people's minds and attitudes of the targeted people.<sup>14</sup>

Vaccination acceptance is a behavioral outcome that results from a complex decision-making process that various factors can potentially influence. WHO and EURO Working Group on Vaccine Communications developed the vaccine hesitancy determinants; contextual, individual and group factors, and vaccine/vaccination-specific influences.<sup>15</sup>

### Contextual Influences

Contextual influences arise due to historical, socio-cultural, environmental, health system, economic or political factors; a. communication and media environment, b. influential leaders, immunization program gatekeepers, anti or pro-vaccination lobbies, c. historical influences, d. religion/culture/gender/socio-economic, e. politics/policies, f. geographic barriers, and g. perception of the pharmaceutical industry.

### Individual and Group

Individual and group influences arise from the personal perception of the vaccine or influences of the social environment; a. personal, family, and community members' experience with vaccination, including pain, b. beliefs, attitudes about health and prevention, c. knowledge, d. health system and providers trust and personal experience, e. risk/benefit, f. immunization as a social norm vs. not needed.

### Vaccine/vaccination – specific issues

Directly related to vaccine or vaccination; a. risk/benefit (epidemiological and scientific evidence), b. introduction of

a new vaccine, c. mode of administration, d. design of vaccination program of delivery (e.g., routine program or mass vaccination campaign), e. reliability and source of supply of vaccine and vaccination equipment, f. vaccination schedule, g. costs and h. the strength of healthcare professionals' recommendations, knowledge base, and attitude.

## PERSON TO PERSON COMMUNICATION

Unlike the social determinants of health, vaccine hesitancy determinants, education, and socio-economic status do not influence in only one direction. Higher education may be associated with both lower and higher levels of vaccine acceptance.<sup>16</sup> The Working Group concluded that communication was a tool, not a determinant. While communication is not a specific factor, like confidence, complacency, and convenience, it can negatively influence vaccination uptake and contribute to vaccine hesitancy when it is poor or inadequate. Poor quality services of any type, including poor communication, can undermine acceptance. This can be a problem in any setting. Thus, regardless of the setting and causes of vaccine hesitancy, poor communication needs to be addressed generally, and developing targeted communication to address hesitancy issues and improve vaccination uptake.

## REFERENCES

1. Kementerian Kesehatan Republik Indonesia. *Petunjuk Teknis Penyelenggaraan Bulan Imunisasi Anak Nasional Tahun 2022.*; 2022.
2. Kementerian Kesehatan Republik Indonesia, UNICEF. *Imunisasi Rutin pada Anak Selama Pandemi COVID-19 di Indonesia : Persepsi Orang tua dan Pengasuh Agustus 2020.* Published online 2020:1-16.
3. Kementerian Kesehatan Republik Indonesia dan UNICEF. *Rapid Assessment: Immunization Services in Indonesia.* Published online 2020:1-7.
4. Caristia S, Ferranti M, Skrami E, et al. Effect of national and local lockdowns on the control of COVID-19 pandemic: A rapid review. *Epidemiol Prev.* 2020;44(5-6):60-68. doi:10.19191/EP20.5-6.S2.104.
5. Souty C, Guerrisi C, Masse S, et al. Impact of the lockdown on the burden of COVID-19 in outpatient care in France, spring 2020. *Infect Dis (Auckl).* 2021;53(5):376-381. doi:10.1080/23744235.2021.1880024.
6. Martin O. C. Ota, Selim Badur, Luis Romano-Mazzotti and LRF. Impact of COVID-19 pandemic on routine immunization. *Annals of Medicine.* doi:10.1080/07853890.2021.2009128.
7. Unicef. *Immunization.* Published 2022. <https://www.unicef.org/immunization>
8. WHO. *The Global Vaccine Action Plan and the Decade of Vaccines Review and Lessons Learned.* *World Heal Organ.* 2013;01(01):1689-1699.
9. WIW. *Vaccines help make it possible for everyone to pursue a life well-lived.* *World Immunization Week.* Published 2022. <https://www.worldimmunizationweek.org>
10. WHO. *World Immunization Week 2022 - Long Life for All.* WHO International. <https://www.who.int/campaigns/world-immunization-week/world-immunization-week-2022>
11. Pronyk P, Sugihantono A, Sitohang V, et al. Vaccine hesitancy in Indonesia. *Lancet Planet Heal.* 2019;3(3):e114-e115. doi:10.1016/S2542-5196(18)30287-0.
12. Coombes R. Europe steps up action against vaccine hesitancy as measles outbreaks continue. *BMJ.* 2017;359:j4803. doi:10.1136/bmj.j4803.
13. Kementerian Kesehatan Republik Indonesia, ITAGI, WHO, UNICEF. *Survei Penerimaan Vaksin COVID-19 di Indonesia.* *Satuan Gugus Tugas Penanganan COVID-19.* 2020;(November):1-26.
14. Zein RA. 27 Persen Warga Indonesia Ragu Vaksin Covid-19, Bagaimana Meyakinkan Mereka? *Kompas.com.* Published 2021. <https://www.kompas.com/sains/read/2021/01/26/190300723/27-persen-warga-indonesia-ragu-vaksin-covid-19-bagaimana-meyakinkan-mereka>
15. MacDonald NE, Eskola J, Liang X, et al. Vaccine hesitancy: Definition, scope and determinants. *Vaccine.* 2015;33(34):4161-4164. doi:10.1016/j.vaccine.2015.04.036.
16. WHO. *Review of social determinants and the health divide in the WHO European Region. Final report.* Published online 2017. <http://www.euro.who.int/en/publications/abstracts/review-of-social-determinants-and-the-health-divide-in-the-who-european-region.-final-report>