

Routine Immunization for Children during the COVID-19 Pandemic in Indonesia: Perceptions of Parents and Caregivers





Sudarmini (28) and her baby Putri (11 months)
in Sidorejo Village, Central Java, Indonesia.

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Background

Since Indonesia reported the first COVID-19 case in March 2020, coverage of routine immunization to prevent childhood diseases such as measles, rubella, and diphtheria has been declining. For example, diphtheria, pertussis, and tetanus (DPT3) and measles and rubella (MR1) vaccination coverage rates reduced by more than 35% in May 2020 compared to the same period in the previous year.¹

To better understand the effects of the COVID-19 pandemic on immunization, the Ministry of Health (MOH) and UNICEF conducted a rapid assessment in April 2020: results showed that 84% of all health facilities reported immunization service interruption at fixed and outreach sites.² Disruptions in immunization services were substantial and immediate, with bottlenecks observed at multiple levels (Figure 1). Access barriers from service suspensions were compounded by reduced demand from fear of contracting COVID-19. The survey found supply constraints resulting from redirecting immunization staff and resources towards COVID-19, limited availability of protective equipment for safe immunization, and commodity shortfalls.

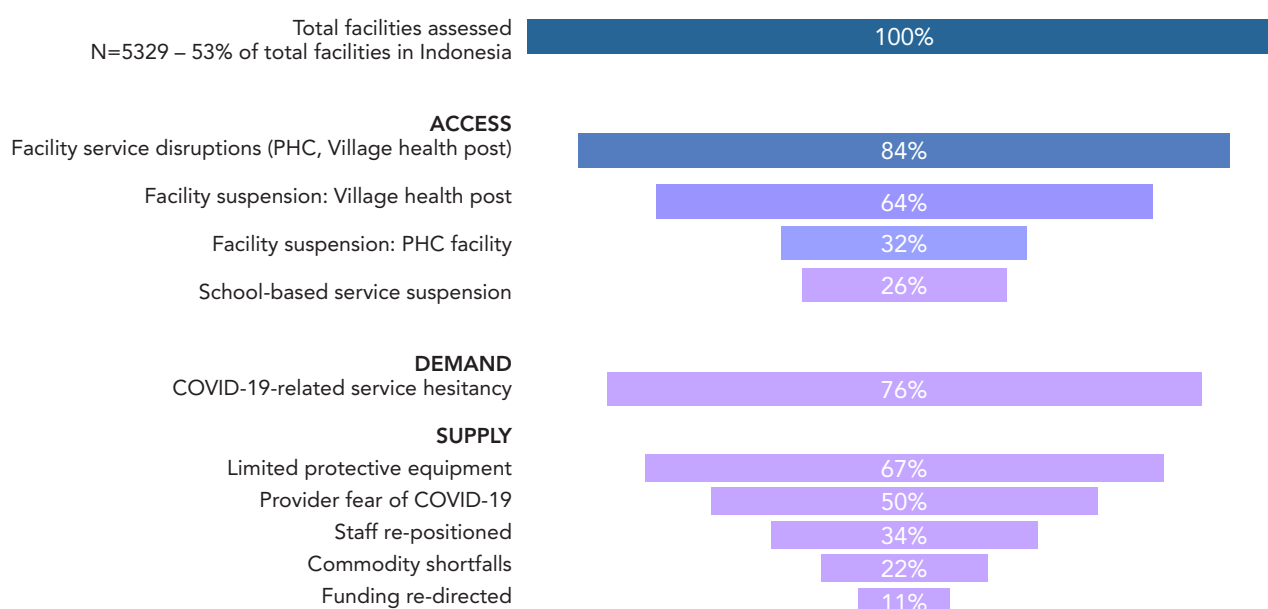


Figure 1. COVID-19-related bottlenecks in immunization service delivery

The Government of Indonesia (GOI) has taken several measures to ensure the containment of the virus and reinforce the capacity of the health system to manage such a pandemic. Immediate service resumption has been considered key to reducing vaccine-preventable diseases. The MOH developed and socialized a series of guidelines, standard operating procedures (SoP), and information, education, and communication

1 Immunization coverage report of the Ministry of Health, June 2020

2 The Ministry of Health and UNICEF: Rapid Assessment: Immunization Services in Indonesia, May 2020 [<https://www.unicef.org/indonesia/reports/rapid-assessment-immunization-services-indonesia>]

(IEC) materials. The MOH, along with partners, has been continuously advocating at national and sub-national levels for strengthening the immunization program during COVID-19 through: a) resuming immunization services; b) earmarking adequate budget for the immunization program, including the catch-up activities during the prolonged pandemic situation; c) ensuring sufficient human resources; d) equipping health workers with adequate PPEs as per MOH protocols; and e) undertaking innovative and contextual social mobilization approaches for regaining communities' trust in the health system.

In conjunction with these efforts, it is critically important to understand community perceptions of immunization services during the COVID-19 pandemic, aimed at guiding the MOH and partners in implementing appropriate communication approaches that address key concerns.

Objectives and Methodology

To understand parents' and caregivers' views on childhood immunization in the context of the COVID-19 pandemic, from 4-13 July 2020, the MOH in Indonesia, with support from UNICEF, conducted an online survey among parents and caregivers of children under the age of two years. The survey also sought input from the respondents on the reorganization of immunization services and needed communication efforts.

Based on the request from MOH, the Indonesia COVID-19 taskforce, *Gugus Tugas*, sent an SMS blast through all telecom providers in Indonesia. The survey link was also shared with provincial health offices (PHOs), district health offices (DHOs), health centers (*puskesmas*), professional organizations, UNICEF field offices as well as through other networks such as professional associations. It was also posted on the *Gugus Tugas* (<https://covid19.go.id>) website for a day. Each PHO was provided daily updates of the progress and requested to share the survey through their channels.

Findings of the Community Perception Study

► Distribution of Respondents

A total of 12,641 parents and caregivers from all 34 provinces initiated the survey; 7,558 respondents were found to be eligible (i.e., had children under the age of two years), with a completion rate of 89%. Participation varied by province, with nearly two-thirds of the respondents from Java island, which consists of approximately 60% of the total population in Indonesia.

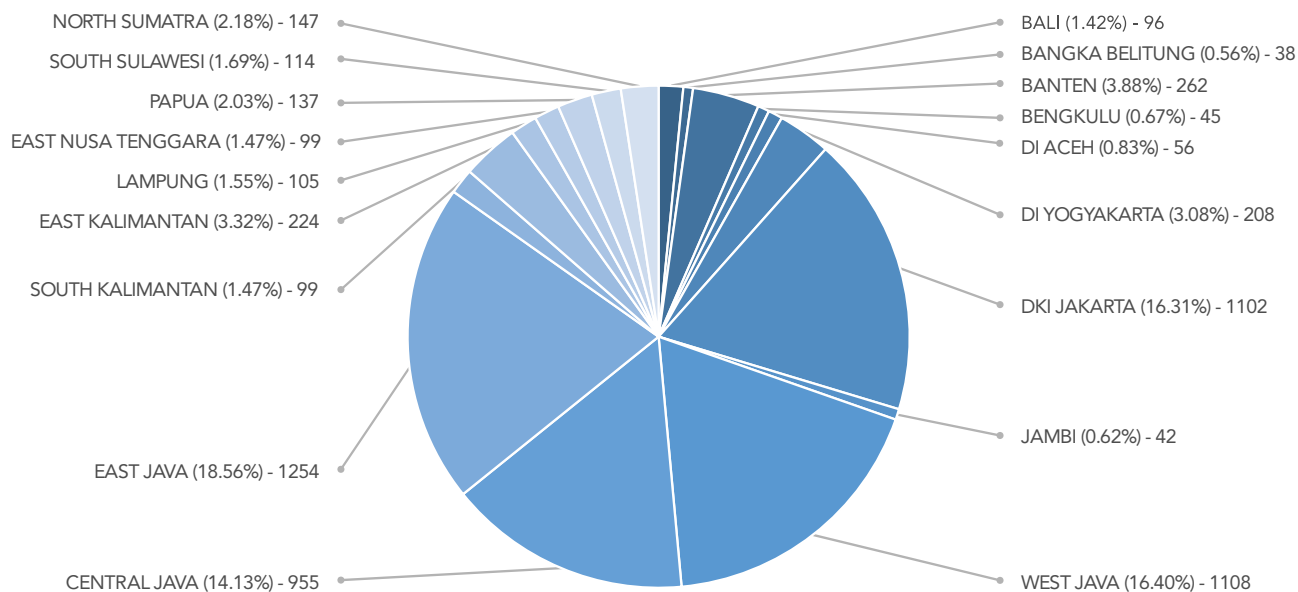


Figure 2. Distribution of the respondents by province

► Profile of Respondents

More than 78% of respondents were parents, followed by other family members of children such as uncles, aunts, siblings, and grandparents. Three-fourths of the parents and caregivers who joined in the survey identified themselves as being between the ages of 20-40 years, and 71% of the total respondents were women.

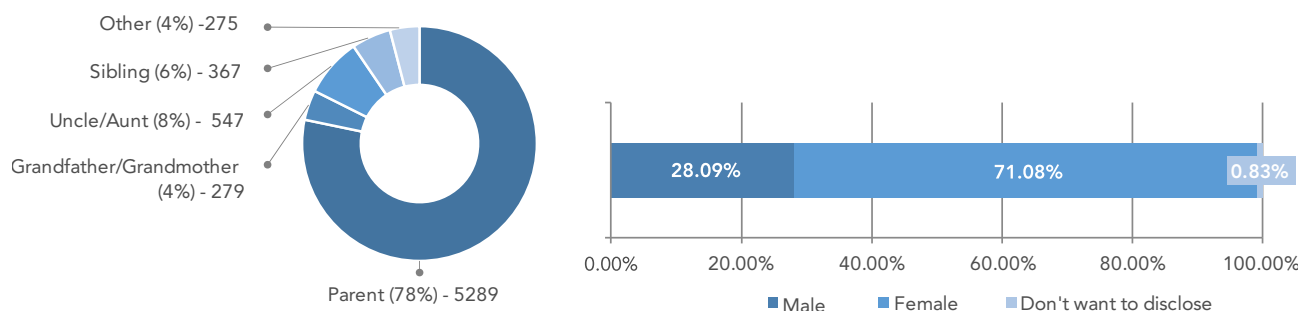


Figure 3. Characteristics of the respondents

► Immunization-seeking behaviors and practices in pandemic

More than half (51%) of the respondents reported that they recently (in the past one-two months past) attended immunization sessions during the COVID-19 pandemic to vaccinate the child(ren). The reasons behind the other half not attending immunization sessions could either be the conditions created by the COVID-19 pandemic or that the children did not need a vaccine in the given timeframe.

The immunization care-seeking behavior and practices have been altered during the COVID-19 pandemic.

Before COVID-19, in Indonesia, around 90% of children were vaccinated in public facilities: 75% in health posts (*posyandu*), 10% in health centers (*puskesmas*), and 5% in village birth facilities (*polindes*). The remaining 10% of children were vaccinated in private clinics and hospitals.³ However, the survey respondents indicated that private clinics and hospitals have become the primary source for seeking childhood immunizations (more than 43%), followed by *puskesmas* (29%) and *posyandu* (21%).

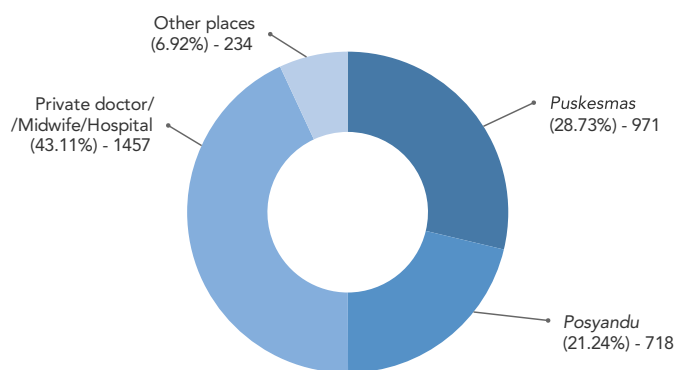


Figure 4. Source of immunization services in pandemic

This could happen due to the unavailability of immunization services, especially at the *posyandu* and *puskesmas* level. Simultaneously, it reflects the high demand for vaccines, with parents and caregivers exploring alternative service points that offer immunization services that are perceived to be safe. However, respondents raised concerns about the compliance of vaccinators to the safe immunization guidelines at the *puskesmas*, indicating a preference to receive immunizations either at home or at *posyandu*.

"I have not brought my child for vaccination in the past two months as my child has completed the DPT3 vaccination. The next immunization schedule is when he is 9 months, and it is this month. I want to vaccinate my child even in the midst of this pandemic, but the posyandu is closed." Respondent

During a pandemic like this, I have been vaccinating my children at a midwife's clinic which is less crowded compared to the hospital or puskesmas." - Respondent

Parents reported concerns about the closure of immunization services, especially at the *posyandu* level. Most caregivers and parents perceived that immunization services at *posyandu*, as well as home visits, are safer than the immunization services at health facilities due to various reasons. Respondents indicated that health facilities offer services for both sick and healthy children, and not all facilities and staff comply with the MOH recommended health safety protocol. Thus, they are reluctant to visit *puskesmas* due to fear of contracting COVID-19 and there is a high demand for resumption of immunization services at *posyandu* and community levels. Along with this, there is also a high demand for home-to-home visits for screening and vaccination.

3 Coe, Martha, Gergen, Jessica, Phily, Caroline, and Annette Ozaltin. August 2017. "Indonesia Country Brief". Sustainable Immunization Financing in Asia Pacific. Washington, DC: ThinkWell

Several participants reported high out-of-pocket (OOP) expenditure for obtaining vaccination at private health facilities. Immunization services at public facilities are free of charge, while fees from the private clinics are not covered by *Jaminan Kesehatan Nasional* (JKN) (national health insurance). If families with lower socioeconomic status refrain from immunization services during the COVID-19 pandemic due to unaffordability, this will further exacerbate inequity between the rich and poor children.

"I brought my child for immunization at posyandu because they only accept healthy children to be vaccinated...whereas I don't trust puskesmas and hospitals because it will definitely be a place of reference for sick people who might have COVID-19. I prefer to pay for my child's vaccine, instead of relying on a free puskesmas with an environment that might be a source of infection." - Respondent

"I still visit a private clinic because the schedule is more flexible, but I have to pay expensive fees. Public health facilities should be more flexible, so that those who don't have money can vaccinate easily." - Respondent

► Decision Making for Seeking Immunization

Nearly half of the respondents reported that the decision to seek immunization is influenced by their spouse and more than 25% decide for themselves. Furthermore, nearly 12% of the respondents consult health workers and cadres (volunteers).

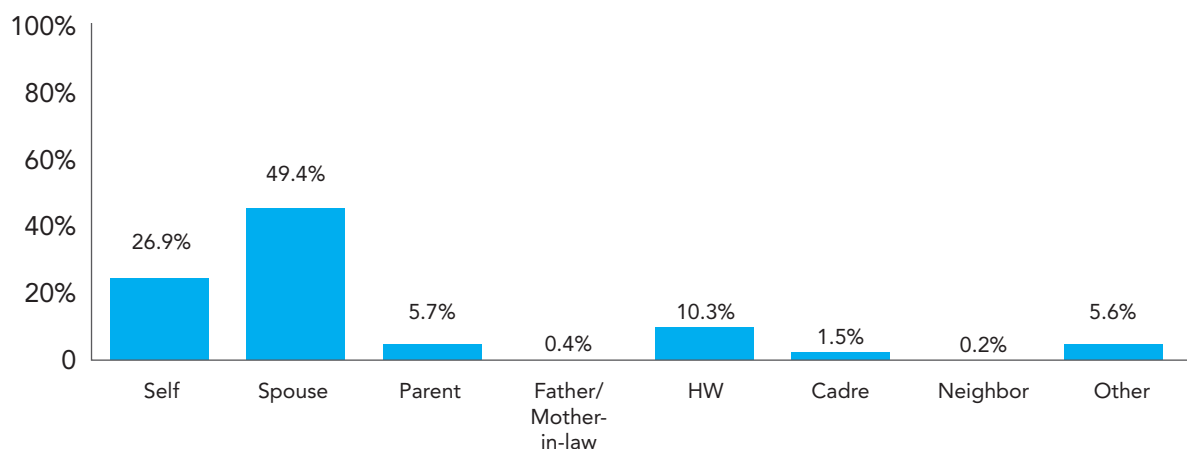


Figure 5. Decision makers for seeking immunization services during the pandemic

► Vaccine Demand and Hesitancy

Vaccination of children is a widely held social norm in Indonesia. However, some persistent issues, such as vaccine haram-halal issues, mistrust, and fear of multiple injections, have shaken public confidence in vaccines and highlighted challenges in reaching all children with life-saving vaccines in order to prevent and control illness, disability and mortality of vaccine-preventable diseases (VPDs). This has been further challenged by vaccine hesitancy around COVID-19. About two-thirds of parents and

caregivers sought to vaccinate their children during this pandemic, considered as 'active acceptance.' However, 23% of the respondents decided not to bring their children for vaccination, considered as 'active refusal.' It is important to note that more than 13% of parents and caregivers are yet to decide and could be categorized as 'hesitant.'

The findings indicate the need for targeted and contextual communication strategies aimed at different categories of parents and caregivers.

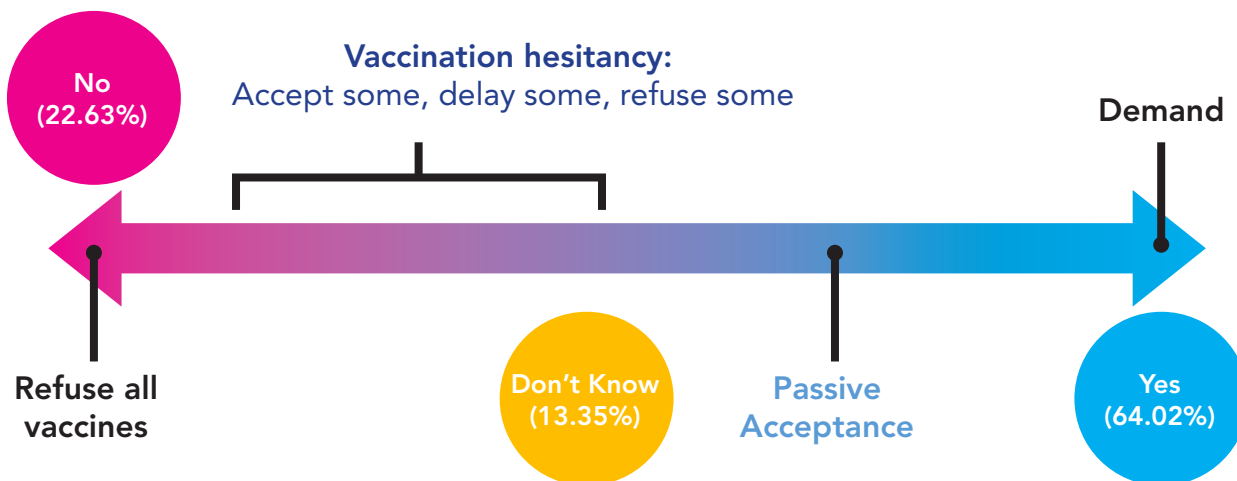


Figure 6. Willingness to bring child(ren) for vaccination during the pandemic

► Factors contributing to decision making

Multiple factors contribute to decisions of whether parents and caregivers will seek immunization services during the COVID-19 pandemic. The level of understanding of the benefits of vaccines is the most critical. Respondents also reported that the perceived quality of immunization services was important, as is the availability of immunization services. Parents and caregivers also stated that the risk of contracting COVID-19 during vaccination was an important consideration. It is worth noting that 84% of respondents perceived that their trust in vaccinators, especially midwives, was critical. Physical and financial accessibilities played less of a role in the decision to seek immunization services.

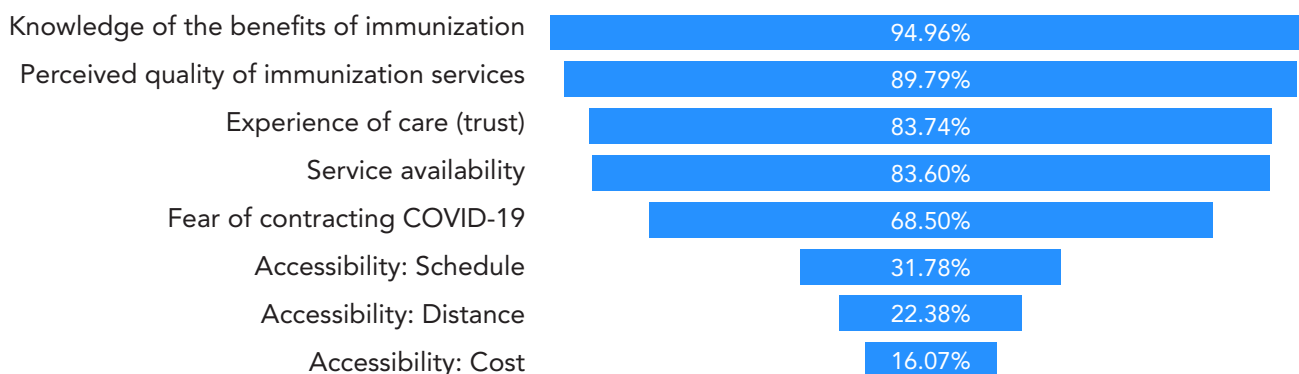


Figure 7. Key factors considered during the decision making



"If immunization is carried out at the puskesmas/posyandu, it will cause crowds and the vaccinators do not change PPEs between patients. Therefore, we are afraid that the PPE used by the vaccinators can carry the virus from the previous patient. Please visit homes to vaccinate children and change the PPE every time." - Respondent

► Awareness Among Parents and Caregivers of MOH's Protocols

MOH has developed and socialized a series of guidance and protocols, such as safe puskesmas guidelines, safe immunization practices, and infection prevention and control SoPs. More than 78% of respondents reported being aware of the MOH's recommendation of continuing safe immunization services during the COVID-19 pandemic. The study found that those parents and caregivers who are aware of safe immunization and health guidelines were more willing to bring their children for vaccination.

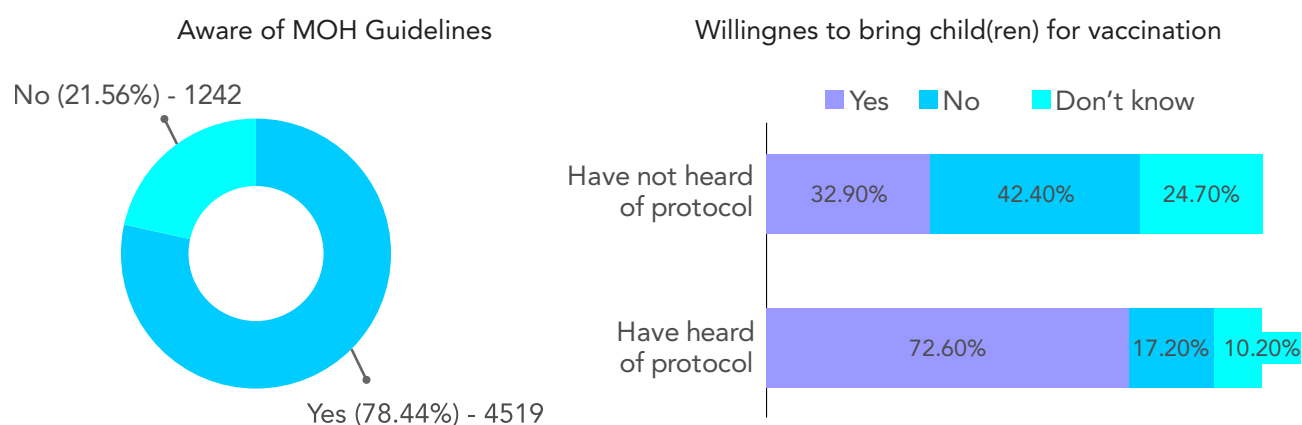


Figure 8. Awareness of parents and caregivers and its effects on the vaccination intention

► Preferred Communication Channels

Approximately 60% of respondents stated that health workers and cadres are the primary sources of information about MOH's protocol for safe immunization services. Social media is the most common channel (58%) for disseminating such information. WhatsApp (WA 42%), Instagram (IG 22%), and Facebook/Messenger (14%) are predominately used for outreach.

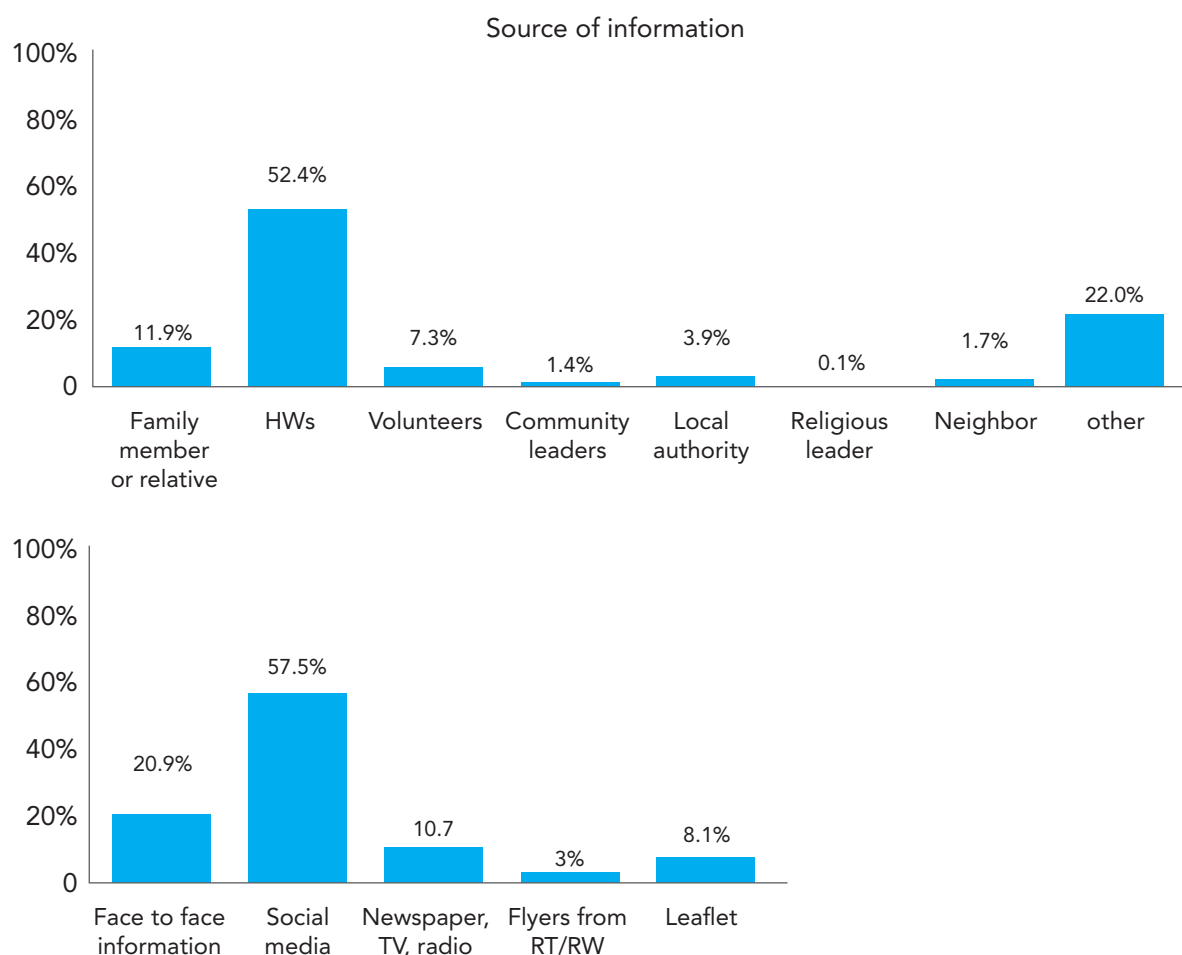


Figure 9 Source of information about safe immunization protocols

In the absence of face-to-face interactions with health workers and cadres, more than 83% of respondents indicated a preference to be reached via WA, followed by telephone (8%) and SMS (5%).

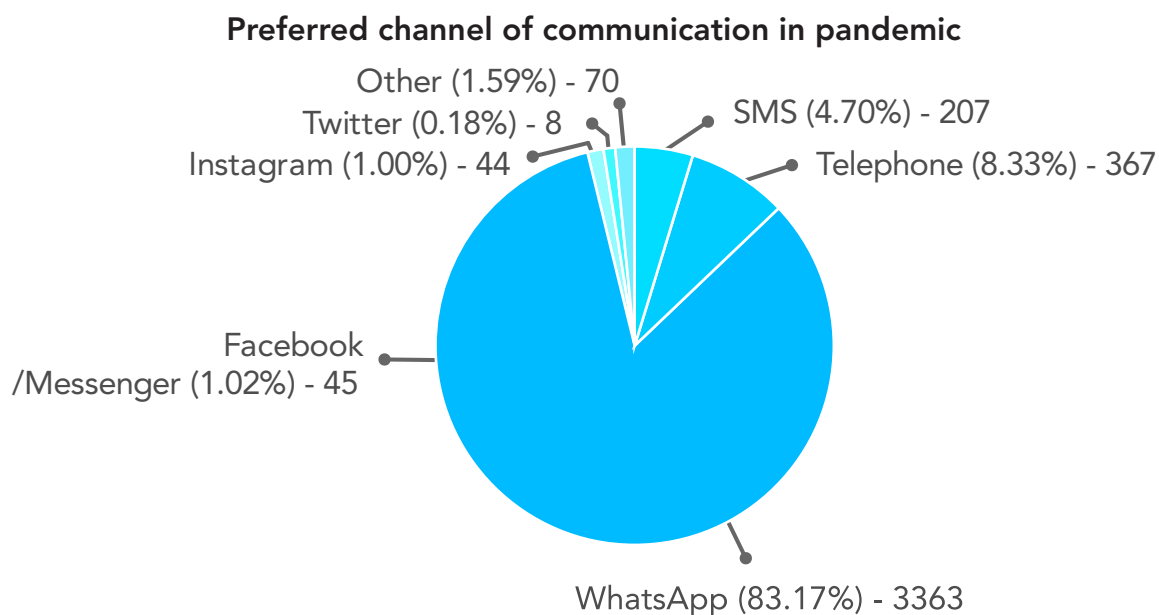


Figure 10. Preferred channel of communication

► Expectations of Parents and Caregivers

Parents and caregivers are concerned about the safety of immunization services. Nearly 82% reported the need to receive accurate information from the GOI about the provision of safe immunization services as well as the need for MOH to ensure that health workers take adequate protective measures according to recommended standards. Respondents also indicated that the government should provide parents and caregivers with adequate safety precautions, such as handwashing facilities at vaccination sites. Two-thirds of the survey participants stated that reminders from their health facility about the next vaccination schedule and place of service would be necessary.

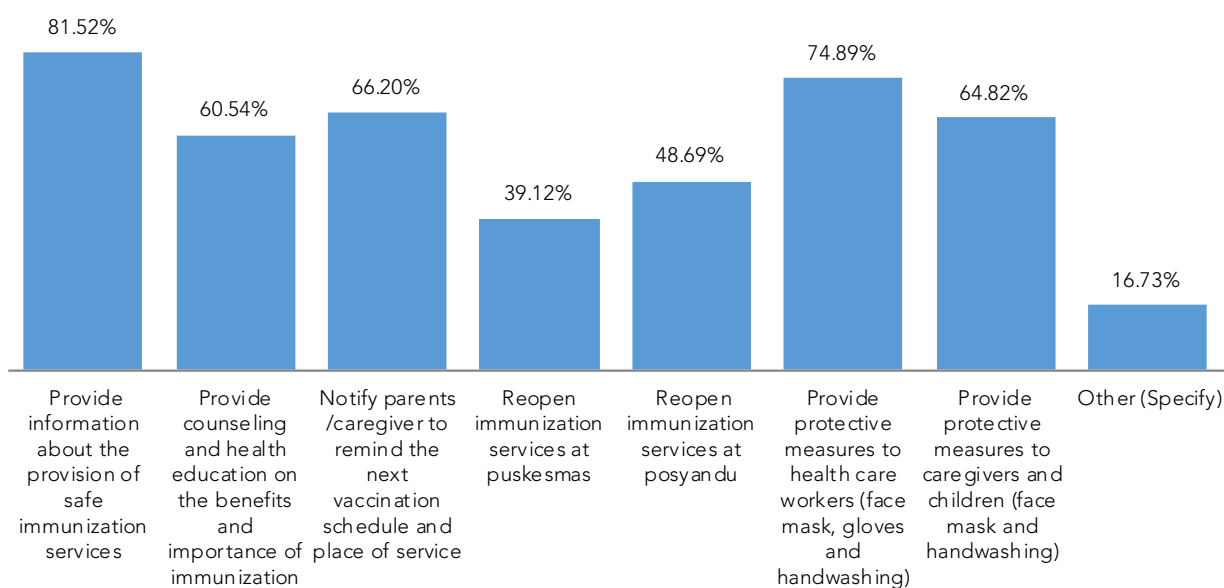


Figure 11. Key recommendations from parents and caregivers

"The concern is not only about health workers, but also about other parents and whether they are following the safety protocols. Looking at the situation on the ground, few parents seriously keep their distances or wear masks." - Respondent

► Recommendations by Parents and Caregivers

Respondents made a series of recommendations to address barriers to immunization services, summarized below:

Organization of Services	Delivery of Services	Logistics and Resources	Social and Behavior Change Communication
Immunization services should be organized in a safe space: spacious settings, without crowds, and away from other children or patients.	Vaccination through home visits is preferred	Stock out of vaccines, such as polio (IPV) vaccine, should be addressed	Reminders for parents about the next vaccination schedule/ place
Health safety protocols must be applied: a complete set of personal protective equipment (PPEs), and provision of handwashing facilities. Health workers should change gloves for every child	Post-vaccination counseling session is needed	Fees for vaccination at private clinics should be reimbursed	Provision of information about safe immunization services
Maintain infection prevention measures during every step: avoid paper-based registration systems and multi-use of a pen	Immunization at <i>posyandu</i> (instead of <i>puskesmas</i>) is preferred; midwife can provide immunization through a flexible schedule	Cost of immunization services at private clinics should be covered through JKN	Use of social media (especially WA) and TV messages to increase parents' knowledge of immunization
Pre-arranged appointment through different means (especially through WA)	Supplementary nutritious food for children could also be provided	Important for vaccinators to be friendly and skilled	Involvement of active cadres to notify the community

► Strategies to Address the Community Perceptions about Immunization

Based on the findings of the survey, the MOH, the National Immunization Technical Advisory Group (NITAG), the World Health Organization (WHO) and UNICEF have identified the following strategies to increase the utilization of immunization services during the COVID-19 pandemic:

Proposed Strategies	Possible Solutions
Resumption of immunization services under the MOH safe immunization guideline	<ol style="list-style-type: none"> 1. Further socialization of different existing SoPs and guidelines, including safe immunization and <i>puskesmas</i> guidelines as well as infection prevention and control. 2. Coordination with the Ministry of Home Affairs (MOHA) and other related sectors to support the national immunization program (NIP) through issuing a circular letter by MOHA to all governors. 3. Issuing a circular letter by the MOH to reiterate: <ol style="list-style-type: none"> a. reopening of health and immunization services, especially at the <i>posyandu</i> level, b. adapting flexible vaccination service schedule, c. ensuring the proper handling of children and records including the introduction of digital recording, and d. the importance of reminder and defaulter tracking tools. 4. Developing a comprehensive SoP about: <ol style="list-style-type: none"> a. Vaccination through mobile clinics along with the existing service delivery points, b. Catch-up activities /back-log fighting through existing service points, and c. Mass vaccination campaigns (multi-antigen) if low coverage and high decrease in coverage (depending on risk assessments and expert opinions). <p>Note: <i>Drive-through vaccination is not recommended as this practice will not allow health workers to observe children for at least 30 minutes after vaccination.</i></p>
Ensure adequate logistics for vaccinators	<ol style="list-style-type: none"> 1. Provision of PPEs to vaccinators: <ol style="list-style-type: none"> a. Ensure adequate PPEs for vaccinators as well as training in proper PPE use, b. Incorporate the procurement plan in the logistic and operational plan for COVID-19 response. 2. Ensure the availability of vaccines and cold chain equipment.

Provide information to the community about the delivery of safe immunization services	<ol style="list-style-type: none"> 1. Undertake innovative and contextual social mobilization approaches, focused on key immunization messages aimed at restoring communities' trust in the health system. 2. Develop and disseminate IEC materials, public service announcements (PSAs), other learning materials highlighting information about: <ol style="list-style-type: none"> a. Continuation of immunization services, b. Safe immunization services compliant to safe health protocols, and c. Immunization schedule, benefits of immunization, and timely immunization. 3. Use different social media (mainly WA) and local media, as well as other platforms such as announcements at worship place (i.e., local mosques, etc.), 4. Implement innovative and remote capacity-building initiatives for vaccinators and cadres with a particular emphasis on counseling and communication skills.
Coordination and collaboration between the private and public sectors	<p>Strengthen coordination and collaboration among District Health Office (DHO), <i>puskesmas</i>, hospital/ private clinics to ensure:</p> <ol style="list-style-type: none"> a. quality immunization services without a financial burden (free of charge); b. integrated reporting and recording system, and c. availability of vaccines and other logistics to avoid missing opportunities.

► Acknowledgment

The Ministry of Health and UNICEF would like to express its gratitude to *Gugus Tugas Percepatan Penanganan COVID-19* (<https://covid19.go.id>), telecom providers, PHOs, DHOs, all health facilities across the country, NITAG members and the WHO. We are grateful to the parents and caregivers who participated actively and shared their valuable inputs.



A Nurse, Rina Widyaningsih, performs a home visit to check on Sudarmini (28) and her baby Putri (11 months) in Sidorejo Village, Central Java, Indonesia.

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