Routine immunization services during the COVID-19 pandemic

Guidance note

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World Health Organization
Western Pacific Region

1. Introduction

As a public health emergency of international concern, the novel coronavirus disease (COVID-19) pandemic (caused by severe acute respiratory syndrome coronavirus 2, or SARS-CoV-2) has drawn worldwide attention and a global response. As of 18 April 2020, 21 out of 37 countries and areas in the World Health Organization (WHO) Western Pacific Region have reported confirmed COVID-19 cases: 12 out of 21 affected countries and areas with clusters of cases, eight countries and areas with sporadic cases, and one territory with cases pending classification.[1] All countries and areas have initiated measures to contain and mitigate transmission and reduce the impact of the outbreak on health-care systems, including shifting health-care resources to the COVID-19 response, as well as implementing physical distancing at all levels of society, travel restrictions and closures of international borders, and community quarantines at subnational or national levels.[2]

2. Impact of COVID-19 on routine immunization services

During an epidemic, even a temporary interruption of basic health-care delivery such as routine immunization services may lead to secondary health crises such as measles outbreaks during or after the recovery phase,[3] amplifying the economic damage of the epidemic and exacerbating morbidity and mortality. These consequences predominantly affect vulnerable groups. They can also worsen gender inequity, for example when women whose children have vaccine-preventable diseases (VPDs) are delayed from returning to work and participating in the economy.

[1] COVID-19 Dashboard for the Western Pacific Region. Manila: WHO Regional Office for the Western Pacific (https://worldhealthorg.shinyapps.io/wprocovid19/, accessed 18 April 2020).
[2] Adapted for the WHO Western Pacific Region from Guidance on routine immunization services during COVID-19 pandemic in the WHO European Region. Copenhagen: WHO Regional Office for Europe; 2020 (http://www.euro.who.int/en/health-topics/communicable-diseases/rotavirus/publications/2020/guidance-on-routine-immunization-services-during-covid-19-pandemic-in-the-who-european-region-2020).
[3] Takahashi S, Metcalf CJ, Ferrari M, Moss WJ, Truelove SA, Tatem AJ, Grenfell BT, Lessler J. Reduced vaccination and the risk of measles and other childhood infections post-Ebola. Science (New York, N.Y.). 2015;347(6227):1240–2.

3. WHO guiding principles for immunization services during the COVID-19 pandemic[4]

Above all, health services have a responsibility to protect all health workers.

All interactions with patients in health facilities must be conducted under conditions that will protect health workers and patients from infection.

The measures to reduce transmission of infection to health workers, caregivers and patients at immunization opportunities must include wearing protective clothing (masks, gloves, gowns, etc.) as well as handwashing with soap, water and disposable towels at each interaction.

- Immunization is a core health service that should be prioritized for the prevention of communicable diseases and safeguarded for continuity during the COVID-19 pandemic, where feasible.[5] Immunization delivery strategies may need to be adapted and should be conducted under safe conditions, without undue harm to health workers, caregivers and the community.[6]
- VPD surveillance should be maintained and reinforced to enable early detection and management of VPD cases, and where feasible, contribute to surveillance of COVID-19.
- Where feasible, influenza vaccination of health workers, older adults, and pregnant women is advised.
- If provision of immunization services is negatively impacted by COVID-19, countries will need to design strategies for catch-up vaccination for the period post COVID-19 outbreak and make plans which anticipate a gradual recovery. Implementation of catch-up will require strategies to track and follow-up with individuals who missed vaccinations, assess immunity gaps, and re-establish community demand. Innovation and creativity will be required.
- National authorities will need to continuously monitor the dynamics of COVID-19 in their country or region. National Immunization Technical Advisory Groups (NITAGs) have an important role in providing advice with respect to the maintenance, adaptation, suspension and/or reinstatement of immunization services.

4. Priorities for sustaining routine immunization services

4.1 Sustain delivery of routine immunization services

As much as possible, sustain delivery of routine immunization services, while complying with government instructions on physical distancing. Do so without compromising public health measures to prevent community transmission of COVID-19 and maintain the safety of health workers, caregivers and patients.

- Inform the community that travelling to a health facility for routine immunization services is permitted under emergency regulations.
- Where possible, and where essential health resources such as staff and supplies have not been negatively impacted and proper infection prevention materials are available, continue immunization services at fixed sites. Make sure to use the appropriate precautions to prevent the spread of COVID-19.

[4] Extracted from Guiding principles for immunization activities during the COVID-19 pandemic. Geneva: World Health Organization; 2020 (https://apps.who.int/iris/handle/10665/331590).
[5] COVID-19: Operational guidance for maintaining essential health services during an outbreak Interim guidance. Geneva: World Health Organization; 2020 (https://apps.who.int/iris/handle/10665/331561).
[6] Infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected Interim guidance. Geneva: World Health Organization; 2020 (https://apps.who.int/iris/handle/10665/330674).

- Avoid routine immunization activities that are conducted using mass immunization strategies, such as school-based immunization or mass immunization campaigns, if they might interfere with public health measures to enforce physical distancing.
- Limit outreach immunization sessions as they may be constrained due to restrictions on travel and availability of health staff at their fixed sites.
- When resources are limited, prioritize immunization activities for vulnerable populations at higher risk of morbidity and mortality from VPDs, such as communities at higher risk of outbreaks due to low vaccination coverage or higher risk of VPD exposure.
- Apply innovation and creativity to adapt immunization practices to the changing local conditions, challenges and constraints arising from the COVID-19 pandemic. These may include the following:
    - Health clinics may decide to delay all routine childhood health checks and conduct only newborn checks and immunization sessions.
    - Immunization sessions may be held at a different time and/or location than for sick patients. For example, immunization for children without fever or recent history of fever could be held in a separate disinfected area and at a completely different time (e.g. early in the morning) from patients seeking diagnosis and treatment.
    - If immunization services are compromised due to severe limitation of health-care resources, vaccines for epidemic-prone diseases (poliomyelitis, measles, rubella, diphtheria and pertussis) may need to be prioritized while vaccination of other antigens may be delayed. Alternatively, intervals between doses in a multidose series may need to be lengthened.
- When feasible, involve the NITAG or equivalent expert body in decision-making around modifications in immunization policy or practice during the COVID-19 pandemic.
- Any temporary changes in immunization practice due to the pandemic should be widely disseminated to all health facilities, local governments, nongovernmental organizations and community organizations. Simple notices can be displayed to inform the time and place for immunization sessions that comply with physical distancing requirements.

4.2 Decrease preventable use of health-care resources

Use vaccination to reduce the impact of COVID-19 on essential health services by decreasing preventable use of health-care resources.

- Where available, provide seasonal influenza vaccine to adults aged over 65 years and other high-risk groups for influenza and pneumonia, such as pregnant women, people with chronic diseases, children aged under 5 years and health workers.
- Similarly, where available, administer pneumococcal vaccine (conjugate or polysaccharide) to adults aged over 65 years and people with chronic diseases to help reduce health-care visits and hospitalizations with respiratory illnesses. Avoid unnecessary congregation of high-risk individuals in health centres for vaccination sessions. These vaccines may be provided opportunistically to patients presenting for other health-care services or through further strategies designed to minimize preventable exposure to COVID-19.

4.3 Prevent outbreaks within quarantine and health-care facilities

Prevent outbreaks of measles and rubella within quarantine and health-care facilities experiencing increased patient volumes due to the COVID-19 pandemic. These settings present a high risk for transmission of measles and rubella. Take special care in such settings and ensure all patients and staff are vaccinated with measles and rubella-containing vaccine to prevent VPD outbreaks.

4.4 Interrupt and resume routine immunization services

Where it is not feasible to continue immunization services due to availability of health-care resources or ongoing physical distancing measures, routine immunization services may need to be halted temporarily, either partially or fully.

If routine immunization services must be limited or interrupted, ensure the following:

- Restart services at full capacity as soon as possible to limit the accumulation of susceptible unvaccinated individuals.
- Prepare detailed plans for identifying and providing catch-up vaccination for children who have missed scheduled appointments, as soon as is feasible once the COVID-19 situation permits. Where possible, this may include actively maintaining lists of people who have missed their vaccinations to guide catch-up activities.

5. Key considerations for adjusting routine immunization services

The ongoing COVID-19 pandemic is rapidly evolving across the world and is affecting populations in different ways and at different times. Decision-making around strategies to sustain routine immunization services will need to be flexible and adaptable as the situation evolves and as more knowledge becomes available about the disease, its epidemiology and virus characteristics.

As the situation evolves, decision-makers must develop plans for sustaining routine immunization services during the COVID-19 pandemic while evaluating and regularly re-evaluating the following information:

- populations with elevated risk for VPDs (e.g. groups with low vaccination coverage and cohorted populations at risk of outbreaks such as people grouped in hospitals, quarantine centres or temporary camps for internally displaced people) – this should include evaluation of VPD surveillance data, subnational vaccination coverage and local knowledge of special risk groups;
- current and expected epidemiological trends and the constraints of current public health measures;
- capacity and constraints of health-care resources, especially staff; and
- status of vaccine stock, cold chain and related logistics.

6. Guidance development

6.1 Acknowledgements

This document was developed by a guideline development group composed of staff from the WHO Regional Office for the Western Pacific.

6.2 Guidance development methods

This document was developed based on a review of relevant literature and guideline development group discussion and consensus.

6.3 Declaration of interests

Interests have been declared in line with WHO policy, and no conflicts of interest were identified from any of the contributors.

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