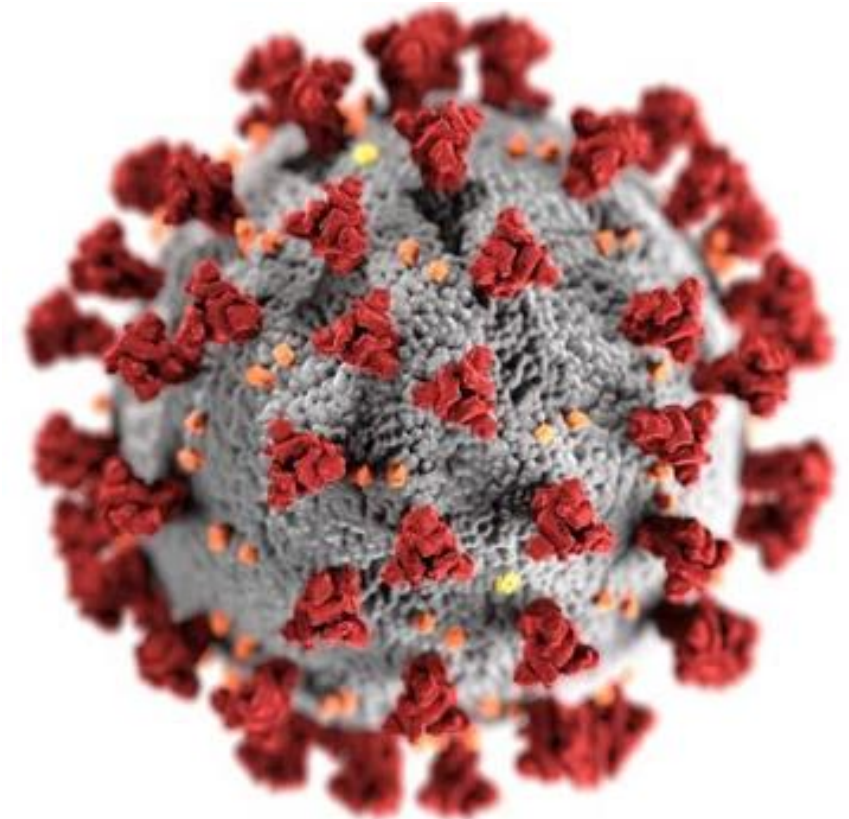


Closing Immunization Gaps Caused by COVID-19

DRAFT – 11 August 2020

Significant immunization service interruptions as a result of COVID-19

- Service delivery disruptions and mass vaccination campaign suspensions
- Decreased access due to physical distancing and transportation reductions
- Concerns by caregivers and health workers about COVID-19 exposure
- Supply chain interruptions
- High risk populations at increased risk for immunization inequity
 - COVID-19 morbidity and mortality
 - Economic downturn

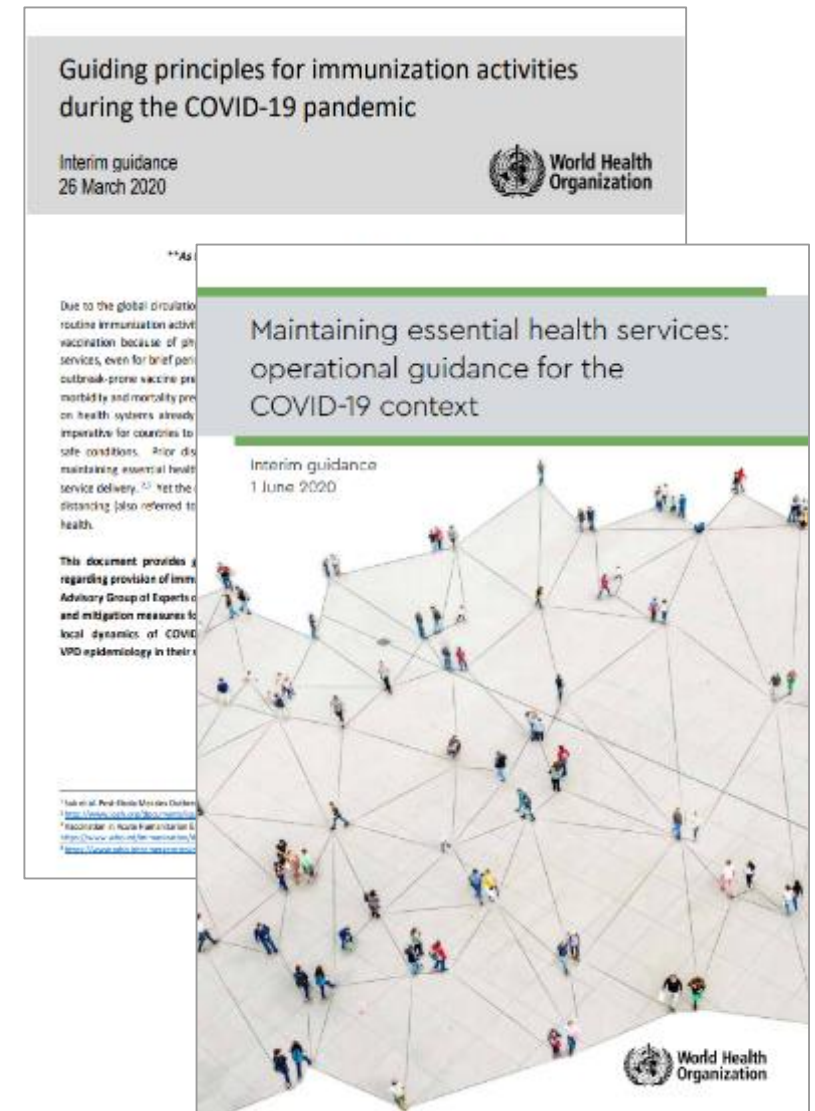


WHO Guidance on maintaining health services during COVID-19

- Prioritize immunization as a core health service
- Maintain ongoing routine immunization delivery (with COVID-19 protection measures in place)
- Plan for **catch-up vaccination** as early as possible
- Implement catch-up activities in parallel with ongoing services
- Follow WHO interim guidance issued:

<https://www.who.int/publications-detail/guiding-principles-for-immunization-activities-during-the-covid-19-pandemic-interim-guidance>

<https://www.who.int/publications-detail/10665-332240>



What is catch-up vaccination?

Catch-up vaccination refers to vaccinating an individual who is missing doses for which they are eligible per the national immunization schedule

- Providing catch-up vaccination via routine service delivery should be an **essential and ongoing part of all immunization programmes**
- Importance of catch-up vaccination is further pronounced following extended interruption of routine services
- Large gaps created by COVID-19 will require additional specially planned catch-up efforts
- If catch-up vaccination is not already an established policy and practice – **now is the time!**

Catch-up vaccination strategies

Essential and ongoing part of immunization programme

- Establish catch-up vaccination policy & schedule
- Review vaccination history at every health visit (immunization and other); refer or provide catch-up doses
- Ensure robust newborn and defaulter tracking
- Conduct periodic intensification of routine immunization (PIRI) activities that screen for eligibility and record doses
- Implement school and daycare vaccination checks

Following extended interruption to immunization services

- Intensify catch-up vaccination efforts through RI delivery: e.g. mass call backs, intensified defaulter tracking, expanded outreach, etc.
- Conduct targeted and selective multi-antigen vaccination campaigns (PIRI) that screen for eligibility and record doses
- If large numbers unvaccinated, conduct supplementary immunization activities (SIAs) for single or multiple antigens, irrespective of individual vaccination status

Multiple strategies will be needed, either concurrently or in sequence

Assess extent of disruption to determine scale of catch-up required

- **Use dashboards and regional updates to assess ongoing situation**
- **Monitor vaccine coverage and vaccine-preventable disease surveillance data to identify age cohorts and communities for catch-up vaccination**
- **Larger and longer disruptions to immunization services may require more intensified activities for catch-up vaccination or a combination of strategies**
- **Known high risk communities likely higher priority for catch-up vaccination because of existing inequities and higher risk for outbreaks**
- **Conduct risk assessment to determine the highest priority strategies and target areas for specialized catch-up activities**

Framework for decision-making

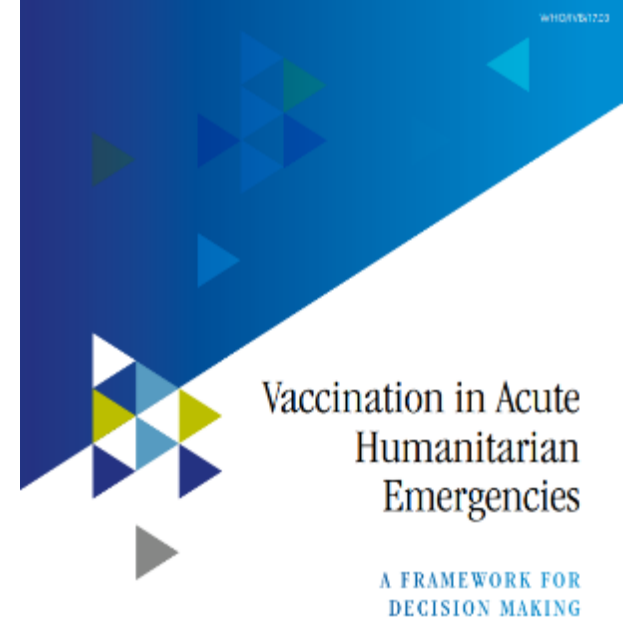
- **WHO Vaccination in Acute Humanitarian Emergencies: a Framework for Decision Making** outlines an evidence-based approach that can be adapted to help prioritize vaccines and strategies for catch-up.

Step 1: Conduct an epidemiological risk assessment for each VPD based on general risk factors (e.g., population immunity, burden of disease, etc.), as well as risk factors associated with the cause of the service interruption (e.g., acute conflict, pandemic, etc.).

Step 2: Consider each vaccine and its amenability for various delivery strategies based on vaccine characteristics (e.g. availability in sufficient quantities, cold chain requirements, etc.) and operational factors for delivery.

Step 3: Assess contextual factors and competing needs (e.g., ethical, political, security, economic, logistic, and other considerations and constraints)

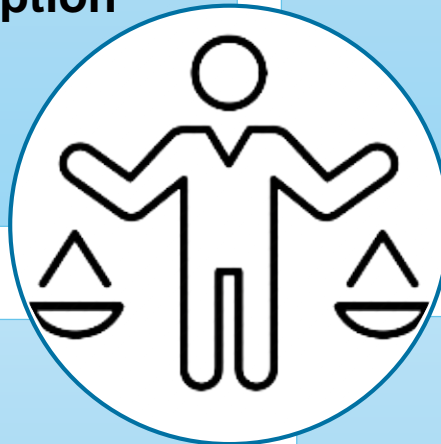
- Framework and VPD risk-assessment worksheets: <https://apps.who.int/iris/bitstream/handle/10665/255575/WHO-IVB-17.03-eng.pdf>
- e-Tool and e-Learning also available: www.who.int/immunization/programmes_systems/policies_strategies/vaccination_humanitarian_emergencies



Issues to consider when selecting catch-up strategies

- Local epidemiology of outbreak-prone VPDs
- Pre-existing population-level immunity
- Duration and extent of service disruption
- Target population (e.g. age, geography) including access

- Human and financial resources
- Vaccine stocks and supplies
- Availability of home-based records and/or immunization registers
- Integration opportunity and feasibility



- Ongoing COVID-19 transmission
- Physical distancing requirements in place
- Infection, prevention and control measures needed (including additional costs)

- Demand and acceptance
- Local context (e.g. rainy season, security, political events)
- Equity

Estimate target population for catch-up

- **Maintain defaulter listing based on individual records (e.g., registers)**
- **Track number of missed individuals based on monthly numerator data**

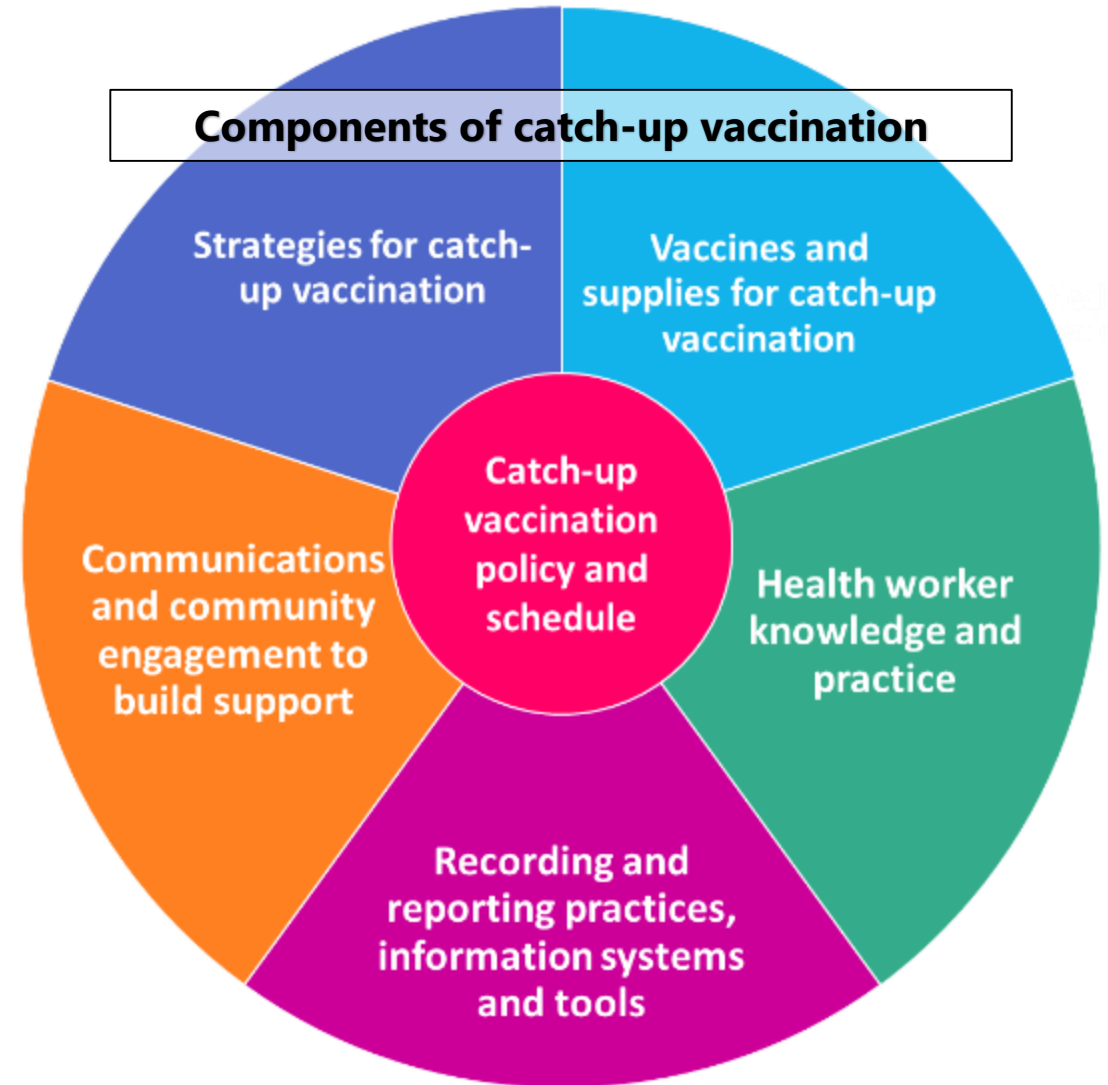
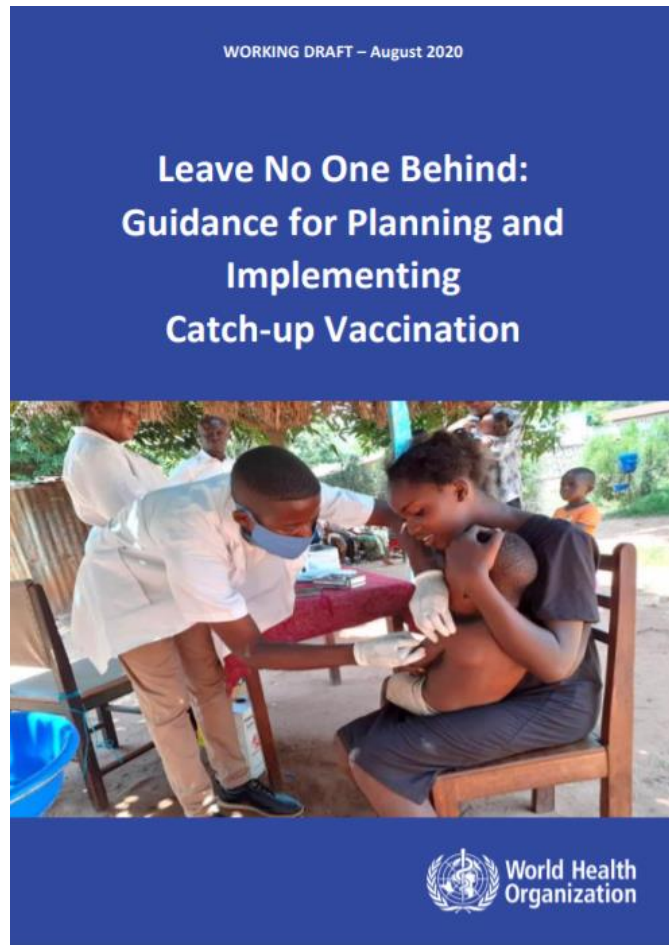
Compare (A) difference in cumulative vaccinations year-to-date to (B):

- **Cumulative target, if credible; or**
- **Equivalent number on last year's tabulation, if target cannot be used; or**
- **Average monthly doses pre-disruption if last year performance not representative**

Difference between (A)-(B) can be used as an estimated target for catch-up

- **Add estimate of missed individuals to normal monthly targets for catch-up months for vaccine orders and session planning.**

Guidance for planning and implementing catch-up vaccination



Establish a catch-up vaccination policy



- **Engage National Immunization Technical Advisory Groups (NITAGs) or other advisory groups to review policies that create barriers to catch-up vaccination, revise if needed**
 - **Age restrictions**
 - **Multi-dose vial policies (minimum number of children to open vial)**
 - **Limitations on where or when vaccination takes place and which cadres can vaccinate**
 - **Develop catch-up vaccination schedule and guidance (if not in place)**
 - **Plan for rapid dissemination of revised policies to all levels**
 - **Consider interim guidance (e.g. temporary lifting age-cutoffs) if policy revision time too lengthy**
- [See WHO Catch-up guidance for details and examples of catch-up schedules and job aids](#)

Ensure available vaccines and supplies



- **Re-map inventory at all levels and coordinate redistribution as needed**
- **Review needs considering expired/damaged vaccine, delayed deliveries, etc.**
- **Forecast and procure sufficient vaccines and supplies including buffer stock and surge stock for catch-up of missed individuals, home-based records, and waste management supplies**
- **Review cold chain capacity to ensure sufficient storage space and modify distribution schedules to avoid strain on cold chain**
- **Consider accepting delivery of vaccine with reduced shelf-life (prioritize use following “first expiry, first out” (FEFO) principle)**

Emphasize importance of recording and reporting

- Recording delayed doses may be a challenge where systems are not currently designed to capture doses given outside recommended age range
- Emphasize importance of recording all doses and dates they were administered in home-based record and immunization register (even if not a designated place to record)
 - Suggest standard interim practice to health workers so recording is standardized
 - This will be critical to enable estimation of vaccine coverage through later coverage survey

Develop and disseminate training to supervisors and health workers

- **Prepare written guidance, job aids and training on updated practices for catch-up vaccination, including catch-up schedule, how to determine age and eligibility, and recording/reporting late doses**
- **Train on recommended IPC measures and physical distancing requirements for COVID-19 transmission scenarios**
- **Provide opportunities during training for participants to practice most important skills, including screening and recording of doses, managing multiple injections, and techniques to reduce pain during vaccination**
- **Develop dissemination strategy to reach supervisors and health workers as quickly and efficiently as possible (e.g. social media, WhatsApp)**

Managing multiple injections

- **Ensure health workers are able to comfortably communicate the safety and benefits of giving multiple injections:**
 - ✓ **Protect as soon as possible**
 - ✓ **Reduce number of visits needed**
 - ✓ **Minimize risk of defaulting**
- **Follow recommended techniques to reduce pain at time of vaccination**
- **If concerns remain, caregiver or individual should not be pressured to receive all catch-up doses in one visit. Work with them to agree on when to return to receive remaining doses at earliest opportunity**

Recommended IPC measures for health workers



COVID-19 transmission setting	IPC measures in any setting (fixed, outreach, mass campaign)	Personal Protective Equipment
No Cases	<ul style="list-style-type: none"> Adhere to national IPC protocols Always apply standard precautions Screening recommended in all settings 	<ul style="list-style-type: none"> Adhere to national IPC protocols Additional PPE indicated by the risk assessment per recipient
Sporadic or Cluster cases	<ul style="list-style-type: none"> Maintain 1 meter distance between vaccinators and accompanying members/family members as much as possible Ensure that the recipient and caretaker is positioned sideways to the vaccinator (not face to face) 	<ul style="list-style-type: none"> Adhere to national IPC protocols Medical masks can be considered for use by health workers Where surveillance is weak, health workers are encouraged to wear medical masks
Community transmission	<ul style="list-style-type: none"> Hand hygiene between recipients Disinfection of surfaces after every patient (if applicable) 	<ul style="list-style-type: none"> Adhere to national IPC protocols Health workers should wear medical masks throughout the session



**HAND HYGIENE
FOR ALL**

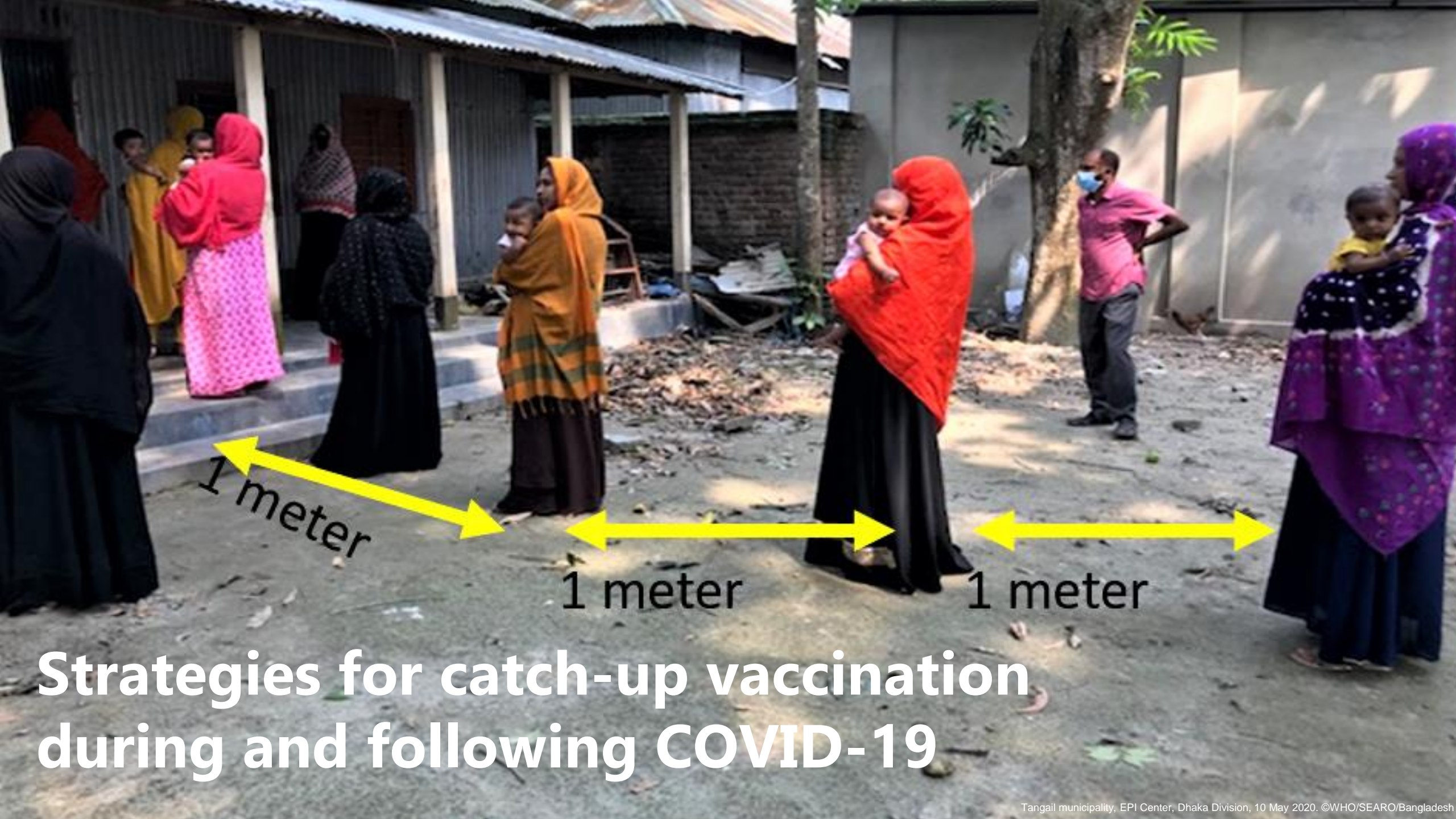
Stress the importance of hand hygiene

- Hand hygiene is the first defense against COVID-19, a highly cost-effective public health measure, and a cornerstone of safe, effective health care
- COVID-19 response is a chance to institutionalize hand hygiene into systems to reduce the risk of future outbreaks
- New WHO-UNICEF WASH Technical guidelines and interim recommendations on obligatory hand hygiene are key resources

Communication and Community Engagement



- **Develop tailored messages**
 - **Emphasize value of vaccines and importance of timely completion of schedule**
 - **Inform that those who missed vaccination are still eligible and that delayed vaccination still safely and effectively protects against VPDs**
 - **Provide info on when immunization services resuming (if stopped), updated timing and location of services, service delivery changes (e.g. appointment scheduling)**
 - **Assure that protection measures in place to ensure safe environment at health facility**
- **Identify communication channels and define trusted information sources (e.g. establish “hotline” or WhatsApp group for questions and concerns)**
- **Seek community support by working with community leaders, CSOs, NGOs, community health workers, etc.**



1 meter

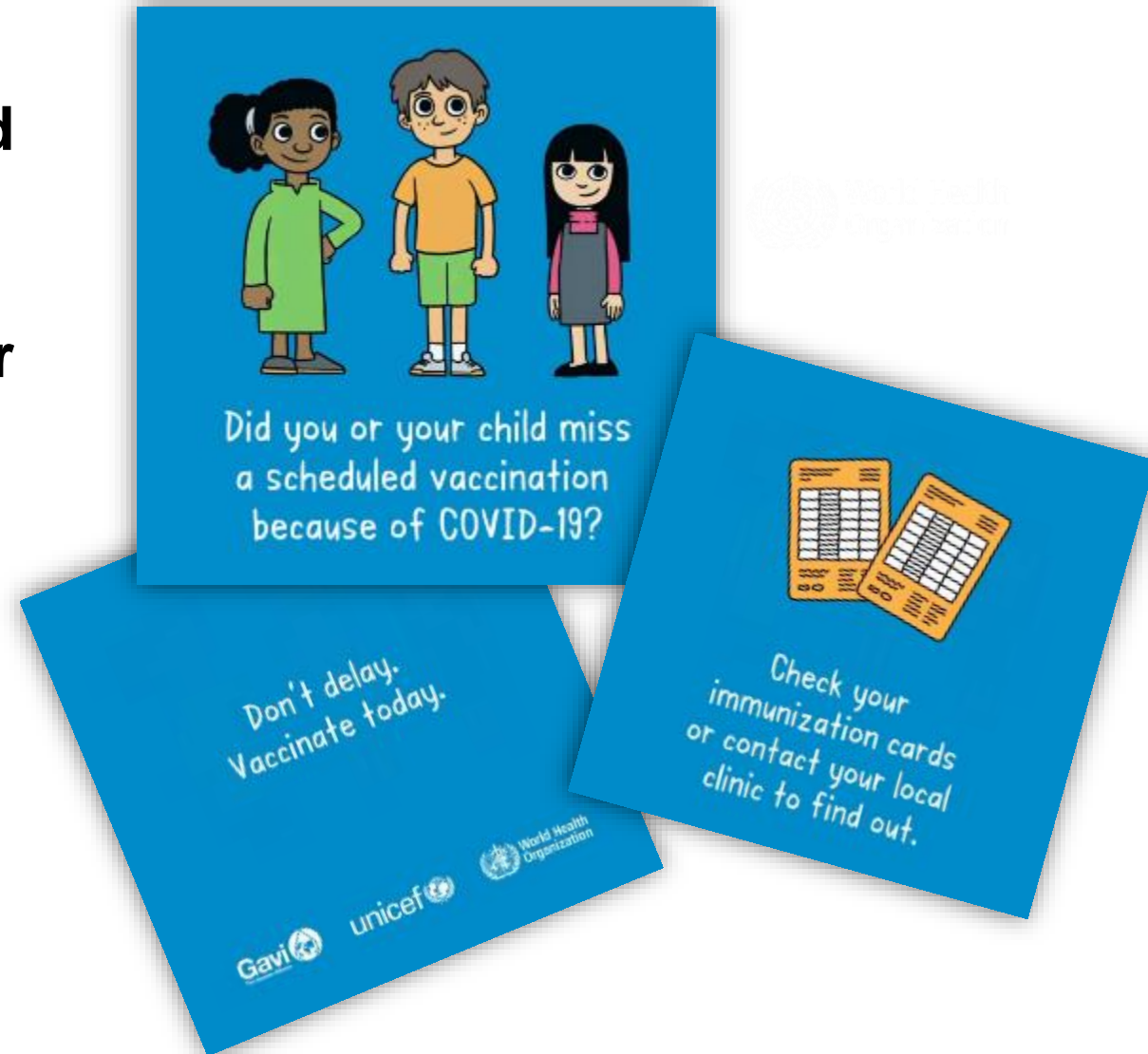
1 meter

1 meter

Strategies for catch-up vaccination during and following COVID-19

Intensify efforts to catch up through routine service delivery

- Trace and follow up with defaulters and newborns born during COVID-19
- Issue “mass callbacks” – information campaign to remind people to come for vaccines, even if late:
 - Phone calls, emails, SMS text messages, WhatsApp, etc.
 - Notices on official government websites, social media (Facebook, Twitter, etc.)
 - Media (newspapers, radio, television)
 - Community mobilizers
 - Professional societies, etc.



Implement IPC, PPE, and physical distancing measures

- **Modify service hours to allow for increases in patient flow**
- **Physically separate immunization services from other treatment areas**
- **Schedule appointments to avoid overcrowding, but still allow those arriving without appointment to be vaccinated**
- **Assign specific service hours for certain population groups**



Follow principles to reduce “Missed Opportunities for Vaccination”



- Remind caregivers and individuals to bring home-based record to every health visit; use every opportunity to check and provide missing doses
- Provide vaccination with other primary health care activities
 - Ensure health workers in other areas (e.g. prenatal, post-natal, primary care) check vaccination status and either vaccinate or refer to immunization clinic
 - Health workers should log patients for appropriate follow up, if necessary



Expand Outreach and Mobile Posts

- **Update outreach calendar based on microplanning with information from communities**
- **Expand outreach to include wider age ranges or target populations that may not normally be included in outreach activities**



- **Consider innovative strategies (e.g., “drive-thru” immunization) and alternative locations (e.g., pharmacies, schools, daycares, open-air markets)**
- **Door-to-door immunization activities may be possible (if appropriate safety measures can be taken)**

Leverage daycares and schools

- Resume school-based immunization as soon as possible (if postponed) and contact caregivers with details
- If vaccine series (e.g. HPV) was interrupted, it is still safe and efficacious to continue, even with longer interval between doses
- Consider implementing vaccination checks at school and daycare, and provide missed doses or refer to health centre



WHO information on school vaccination checks:

www.who.int/immunization/programmes_systems/policies_strategies/school_vaccination_checks/

Consider targeted and selective mass vaccination campaigns (PIRI)

- Consider ability to safely deliver mass vaccination while minimizing COVID-19 risk (including additional costs)
- Tailor campaigns to reach high-risk areas or groups
- Increase length and number of sites to reduce crowding
- Set up sites away from health centres, ideally open-air spaces (e.g., school yards, parks, stadiums)
- Ensure stock of replacement HBRs for those who need
- Integrate with other interventions where appropriate and feasible

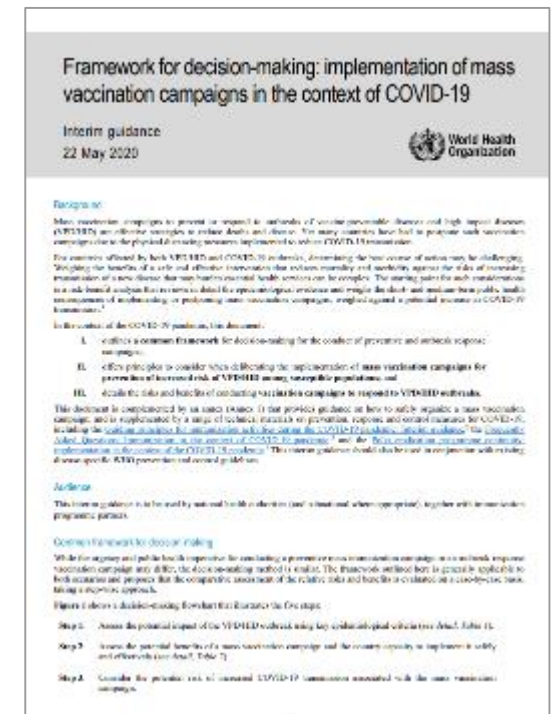


Address large immunity gaps with Supplementary Immunization Activities (if needed)



- If urgent to vaccinate a large number of individuals with specific antigens (e.g., outbreak-prone VPDs), without regard to past vaccination status, SIAs may be needed
- Consider ability to safely deliver mass vaccination while minimizing COVID-19 transmission risk, and associated increase in costs (see next slide)
- Encourage integrating delivery with multiple antigens and other health interventions where appropriate and feasible

<https://www.who.int/publications-detail/framework-for-decision-making-implementation-of-mass-vaccination-campaigns-in-the-context-of-covid-19>



Costs of COVID-19 adaptations for campaigns

The **operational cost per dose** of an immunization campaign held during COVID-19 could increase by:

- **5-20%** through adding PPE and IPC measures
- **10-26%** to support physical distancing and screening
- **8-32%** due to additional per diems resulting from changes in delivery strategy
- **10-40%** when operational costs such as transport and social mobilization are increased

Overall, implementing these measures results in an estimated cumulative increased operational cost per dose ranging from 49% to 154%

Costs of COVID-19 adaptations for routine immunization outreach

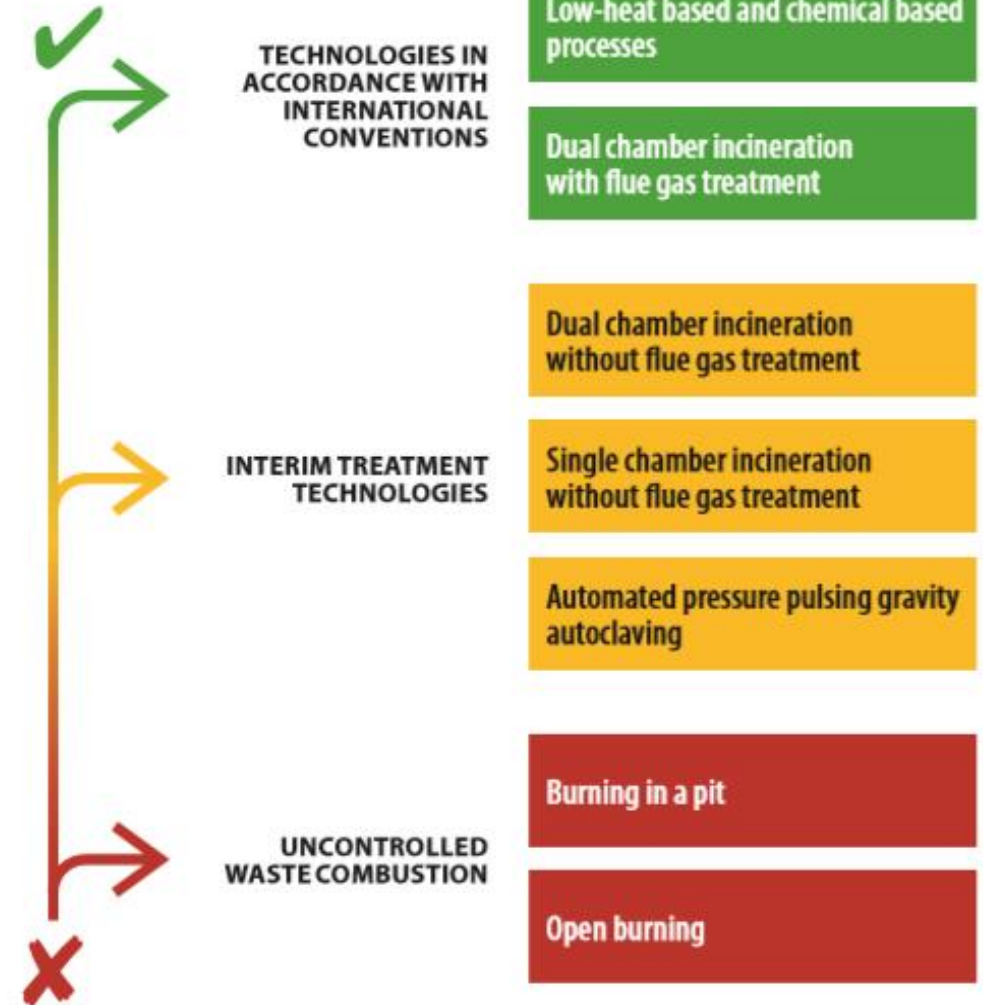
The **operational cost per dose** of delivering immunization through outreach services during COVID-19 could increase by:

- **11-14%** by adding handwashing stations and hand sanitizer at outreach sites
- **45-61%** through adding PPE (masks, gloves, goggles)
- **9-42%** to add staff to support crowd control and infrared temperature screening
- **40-119%** to increase the frequency of outreach with smaller session sizes
- **10-11%** due to increased outreach volumes to compensate for reductions in facility-based coverage

Overall, implementing these measures results in an estimated cumulative increased operational cost per dose ranging from 20% to 129%

Waste management

- Prioritize the use of treatment technologies which do not form and release chemicals or hazardous emissions (e.g. incineration, autoclaving, microwaving)
- In low-resource or emergency settings, transitional methods can be used but efforts should be made to incrementally improve waste management and engage in multi-sectoral efforts to strengthen systems change.
- WHO has published new guidance:





COVID-19 resources

Guiding principles for immunization activities during the COVID-19 pandemic

Interim guidance
26 March 2020



<https://www.who.int/publications-detail/guiding-principles-for-immunization-activities-during-the-covid-19-pandemic-interim-guidance>

Available Arabic, Chinese, French, Russian, Spanish

Immunization in the context of COVID-19 pandemic

Frequently Asked Questions (FAQ)
16 April 2020



<https://www.who.int/publications-detail/immunization-in-the-context-of-covid-19-pandemic>

Available Arabic, Chinese, French, Russian, Spanish

Bacille Calmette-Guérin (BCG) vaccination and COVID-19

Scientific brief
12 April 2020



[https://www.who.int/publications-detail/bacille-calmette-gu%C3%A9rin-\(bcg\)-vaccination-and-covid-19](https://www.who.int/publications-detail/bacille-calmette-gu%C3%A9rin-(bcg)-vaccination-and-covid-19)

POLIO ERADICATION PROGRAMME CONTINUITY PLANNING

<http://polioeradication.org/wp-content/uploads/2020/03/COVID-POL-programme-continuity-planning-20200325.pdf>

Community-based health care, including outreach and campaigns, in the context of the COVID-19 pandemic

Interim guidance
May 2020



<https://www.who.int/publications-detail/community-based-health-care-including-outreach-and-campaigns-in-the-context-of-the-covid-19-pandemic>

Considerations for school-related public health measures in the context of COVID-19

Annex to Considerations in adjusting public health and social measures in the context of COVID-19

10 May 2020



Framework for decision-making: implementation of mass vaccination campaigns in the context of COVID-19

Interim guidance
22 May 2020



<https://www.who.int/publications-detail/considerations-for-school-related-public-health-measures-in-the-context-of-covid-19>

<https://www.who.int/publications-detail/framework-for-decision-making-implementation-of-mass-vaccination-campaigns-in-the-context-of-covid-19>

POLIO GLOBAL ERADICATION INITIATIVE **RECOMMENDATIONS**

Thursday, 21 May 2020

POLIO ERADICATION IN THE CONTEXT OF THE COVID-19 PANDEMIC

Updated urgent country and regional recommendations

Maintaining essential health services: operational guidance for the COVID-19 context

Interim guidance
1 June 2020



<http://polioeradication.org/wp-content/uploads/2020/03/updated-POB-country-and-regional-recommendations-20200521.pdf>

<https://www.who.int/publications-detail/10665-332240>

Regional guidance



Guidance on routine immunization services during COVID-19 pandemic in the WHO European Region, 20 March 2020

<http://www.euro.who.int/en/health-topics/communicable-diseases/hepatitis/publications/2020/guidance-on-routine-immunization-services-during-covid-19-pandemic-in-the-who-european-region,-20-march-2020>

Immunization in the context of the SARS-COV2 (COVID-19) pandemic
Operational guidelines for National Immunization Programs in the WHO African Region
IVD program, WHO AFRO
21 April 2020

<https://www.technet-21.org/en/forums/discussions/operational-guidelines-for-national-immunization-programs-in-the-who-african-region>

Routine immunization services during the COVID-19 pandemic

Guidance note
13 April 2020



<https://apps.who.int/iris/handle/10665/331925>

COVID-19

The Immunization Program in the Context of the COVID-19 Pandemic

Version 2: 24 April 2020¹

<https://www.paho.org/en/documents/immunization-program-context-covid-19-pandemic-version-2-24-april-2020>



Extra slides

Description of Delivery Strategies: Purpose, Geography, Antigens

	Routine Immunization*	Intensified Routine Immunization	Preventive SIA
Purpose	Provide vaccination (including catch-up) to all target groups based on eligibility, in accordance with national immunization schedule	Reach underserved populations and rapidly identify and catch up children who are overdue for vaccination	Rapidly increase population immunity to prevent outbreaks by providing specific antigen doses to a target geographic and age-range, regardless of prior vaccination status
Geographic scope	Nationwide	Nationwide or selected geographic areas	National or selected geographic areas, based on epidemiologic data
Number of antigens	Multiple	Multiple	Single vs multiple, depending on feasibility (target populations, cost, logistics, planning)

*Includes fixed, outreach, mobile, school-based immunization

Description of Delivery Strategies: Age, Screening, Recording Doses

	Routine Immunization*	Intensified Routine Immunization	Preventive SIA
Age of target population	<p>Corresponds to target age groups in national immunization schedule.</p> <p>May expand age range to catch up individuals who are overdue for vaccination</p>	<p>Corresponds to target age groups in national immunization schedule. May expand age range to catch up individuals who are overdue for vaccination</p>	<p>Expanded target age group, based on epidemiologic needs</p>
Screening of target population	<p>Based on age and vaccination status</p>	<p>Based on age and vaccination status</p>	<p>Based on age only</p>
Classification and recording of doses	<p>Each dose considered routine per the national immunization schedule and must be recorded on home-based record, clinic-based register, and tally sheet</p>	<p>Each dose considered routine per the national immunization schedule and must be recorded on home-based record, clinic-based register, and tally sheet</p>	<p>Each dose considered supplemental and recorded on tally sheet for the SIA, and ideally recorded as a supplemental dose on home-based record</p>

*Includes fixed, outreach, mobile, school-based immunization

Description of Delivery Strategies: Reporting, Communication, Integration

	Routine Immunization*	Intensified Routine Immunization	Preventive SIA
Reporting of doses	All doses captured in annual administrative estimates of coverage	All doses are captured in annual administrative estimates of coverage	All doses captured in report for the SIA
Communication on next doses	Inform caregiver or individual on when to return for next dose	Inform caregiver or individual on when to return for next dose	Inform caregiver of need for and importance of routine immunization
Ease of integration with other health services	High	Moderate-High (dependent on feasibility based on target populations, cost, logistics, planning time)	Moderate (dependent on feasibility based on target populations, cost, logistics, planning time)

*Includes fixed, outreach, mobile, school-based immunization

Catch-up instructions for health workers



- 1. At every health contact, review vaccination history (home-based record or immunization register) to determine whether any vaccine doses are missing or due. If there is no evidence or confirmation of vaccination history, assume the person has not been vaccinated.**
 - Do not blame the caregiver or individual if they are missing any missing doses.**
- 2. Always respect the minimum age of eligibility for each vaccine in the schedule.**
- 3. For most vaccines, it is better to vaccinate late than never. Refer to the national catch-up vaccination policy and catch-up schedule for any exceptions to this general principle.**
- 4. If more than one vaccine is due (or overdue) provide one dose of each vaccine at that visit. Do not unnecessarily defer giving vaccines that are due or overdue.**

Catch-up instructions for health workers



5. **It is safe to give multiple injections at the same time.**
 - **Explain that this will allow protection as soon as possible, reduce the number of return visits needed, and minimize the risk of defaulting.**
 - **If concerns remain, a caregiver or individual should not be pressured to receive all catch-up doses during one visit. Work together with the individual to agree when to return to receive remaining doses at earliest opportunity.**

6. **Observe minimum intervals permissible between doses – for most vaccines in the primary series, this is 4 weeks (1 month) between doses. For HPV, the minimum interval is 5 months.**
 - **Intervals recommended in the national immunization schedule may be reduced if a previous dose was delayed, as long as the minimum interval is respected.**

Catch-up instructions for health workers



- 7. If previous vaccination history shows that some but not all doses were given in a series, do not restart the series, regardless of the time that has passed between doses. Continue with the next dose required in the series.**
- 8. Record dose(s) according to the dose number in the series they are due and actually receive (regardless of age).**
- 9. Schedule subsequent visits, following the appropriate minimum interval, and communicate this schedule with the individual so they know when to return.**
- 10. Once the individual is back on track/caught up to date, revert to using the national immunization schedule until they are fully vaccinated.**
- 11. Remember to listen carefully to any questions and respond in a caring manner. Remind the caregiver or individual of the importance of vaccination and need to bring the home-based record to every visit.**

Table A2.10 Measles disease specific factors

Example of Disease Specific Worksheet from WHO Vaccination in Acute Humanitarian Emergencies: A Framework for Decision Making, 2017, pg 63.

<https://apps.who.int/iris/bitstream/handle/10665/255575/WHO-IVB-17.03-eng.pdf>

Risk characterization

Type of threat: Epidemics occur in population groups where the number of susceptibles becomes higher than the number of the birth cohort. Measles outbreaks can result in many deaths in unvaccinated individuals, especially among young, malnourished children. The risk of death is greatly reduced in people who are vaccinated; therefore, in areas with high vaccination coverage, the risk of death is also lower as most cases are in vaccinated individuals.

Time frame: Incubation period of 10–14 days. Measles is highly infectious. Outbreaks can occur rapidly (<1 month) in crowded settings with a high proportion of non-immune population.

Age-specific burden: Children <5 years are especially vulnerable; children 5–14 generally have lower rates of complications or death but should also be vaccinated. The risk of complications and death increases with age beginning around 15 years, and recent epidemics have featured considerable transmission in young adults, warranting consideration of these age groups for vaccination. Special efforts may be needed to mobilize older children and adolescents for vaccination.

Factor	Risk level			Comments
	High	Medium	Low	
Risk level for the setting Geography, climate and season	<ul style="list-style-type: none"> Sub-Saharan Africa South and South-East Asia High transmission season occurring currently or within the next 3 months 	<ul style="list-style-type: none"> High transmission season within the next 3–6 months 	<ul style="list-style-type: none"> Low transmission season The Americas, Europe and the Middle East 	<p>Likely that seasonal climate patterns influence population density that, in turn, increases the transmission of measles.</p> <p>Strongest seasonal effect is in the Sahel, where cases peak in the dry season as people congregate in villages and towns. In other parts of Africa, cases peak in the cool rainy season. Local experts should be consulted on local seasonal changes.</p>
Population immunity	<ul style="list-style-type: none"> Routine vaccination coverage for children <18 months is <70% 	<ul style="list-style-type: none"> Routine vaccination coverage for children <18 months is 70–89% 	<ul style="list-style-type: none"> Routine vaccination coverage for children <18 months is >95% and routine immunization can be maintained. 	<p>Reaching all children with 2 doses of measles-containing vaccine should be the standard for all national immunization programmes.</p> <p>Infection is thought to provide long-lasting/lifelong immunity. Acute malnutrition and vitamin A deficiency increases measles mortality. Case management is very important in an outbreak.</p>
Burden of disease	<ul style="list-style-type: none"> The area has experienced one or more large outbreaks in the past 3 years, and/or An outbreak is currently ongoing 	<ul style="list-style-type: none"> The area has experienced one or more outbreaks in the past 5 years, but none of them large 	<ul style="list-style-type: none"> The country has achieved elimination status 	<p>A large outbreak could consist of >100 cases or >10 deaths.</p> <p>Global burden estimated at 20 million cases/year; 114 900 measles deaths globally in 2014.</p> <p>CFR can range from <1% to 5–6% (higher in Africa, SE Asia); CFR >10% have occurred in refugee camps.</p>