Framework for decision-making:

Implementation of mass vaccination campaigns in the context of COVD-19

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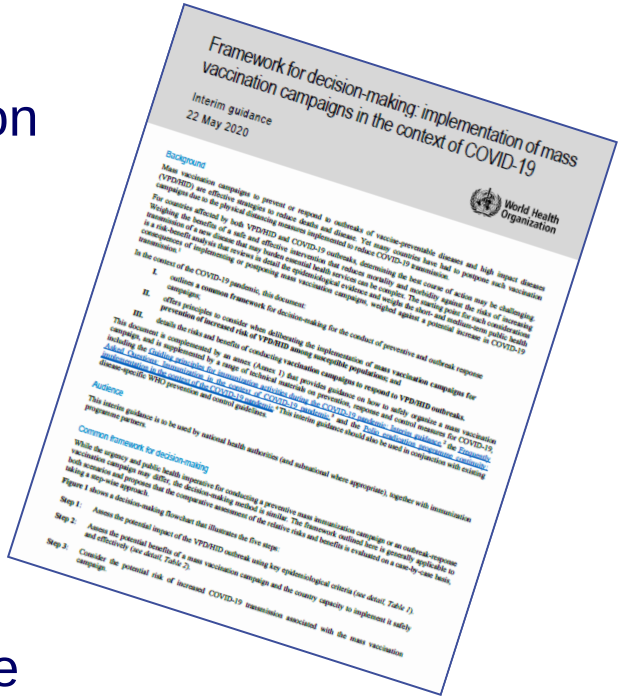
Presentation outline

- Background
- Introduction to the common framework for decision making
- Evaluating the risks and benefits of conducting vaccination campaigns to respond to vaccine preventable diseases/high impact diseases (VPD/HID) outbreaks
- Considerations and recommendations for implementing a mass vaccination campaign in the context of COVID-19



Learning objectives

- At the end of the module, participants will be able to:
  - Apply the **common framework for decision-making** for conducting preventive and outbreak response campaigns for VPDs and HIDs to their national context
  - List the **risks and benefits** of conducting vaccination campaigns to respond to VPD/HID outbreaks
  - Understand the **principles** to consider when organizing a mass vaccination campaign in the context of COVID-19

Background

- **Covid-19 pandemic is disrupting immunization activities in multiple ways**
  - Additional burden on health systems
  - Reduced availability of health personnel for supply chain and services
  - Decreased demand for vaccination (need for physical distancing and/or community reluctance)

- For countries affected by both VPD/HID and COVID-19 outbreaks, weighing the **benefits** of conducting safe and effective vaccination campaigns against the **risks** of increasing transmission of COVID-19 may be challenging

- Deciding on whether to, and how to, implement a mass vaccination campaign is a **complex decision-making process**, and is dependent on the **country-specific context**

Purpose of Document

- The document ***"Framework for decision-making: implementation of mass vaccination campaigns in the context of COVID-19"*** aims to support countries in making these complex decisions
- This interim guidance is to be used by national health authorities (and sub-national where appropriate), together with immunization programme partners
- Additional technical materials on prevention, response and control measures for COVID-19 are also available

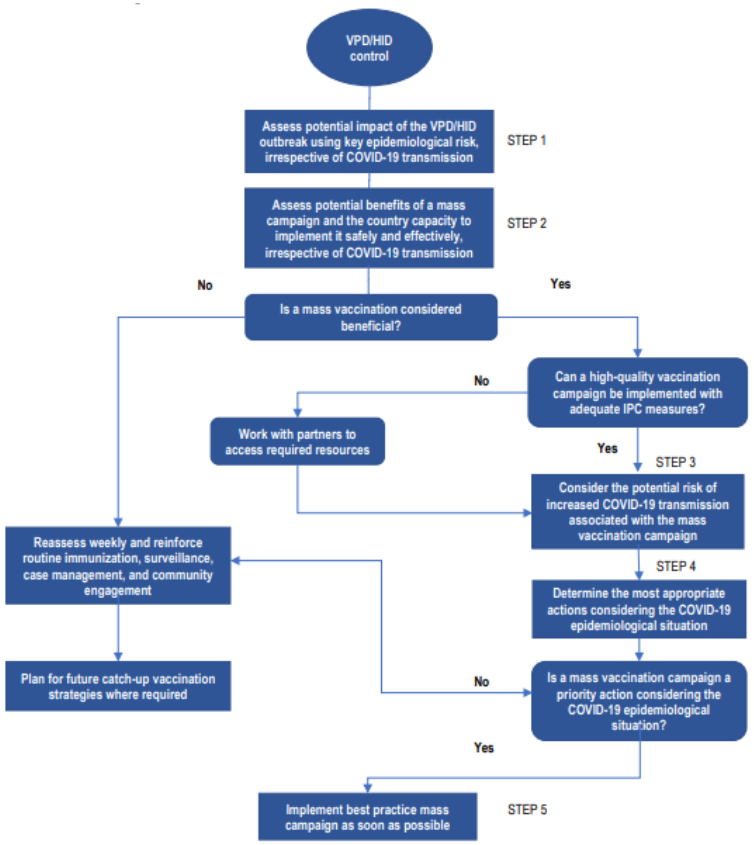
- Guiding principles for immunization activities during the COVID-19 pandemic: Interim guidance
- Frequently Asked Questions: Immunization in the context of COVID-19 pandemic
- Polio eradication continuity planning: measures to ensure continuity of operations in the COVID-19 pandemic

Why a “Common Framework” for decision-making

- The **decision-making** method for conducting a **preventive** mass immunization campaign or an **outbreak-response** vaccination campaign is **similar**
- What may **differ** is the **urgency and public health imperative** for conducting the campaign
- The “**common framework**” is applicable to **both scenarios** for:
  - Conducting a comparative assessment of the relative risks and benefits on a case-by-case basis
  - Taking a step-wise approach
- **NITAGs** should be consulted to provide advice on suspension and/or reinstatement of mass vaccination campaigns based on the evidence and analysis conducted

Common Framework for Decision-making

- A **decision-making flowchart** illustrates the **five steps** to use when deciding whether to conduct a VPD/HID mass vaccination campaign in the context of COVID-19
- There are **key principles** to consider before lifting any temporary suspensions on preventive mass vaccination campaigns



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Key principles

Monitor growing risk of VPD/HID outbreaks

Evaluate country capacity to safely conduct high quality campaigns

Engage with community leaders to plan activities

Establish strong oversight and context-specific non-traditional vaccination strategies

Ensure supervision and monitoring of AEFIs

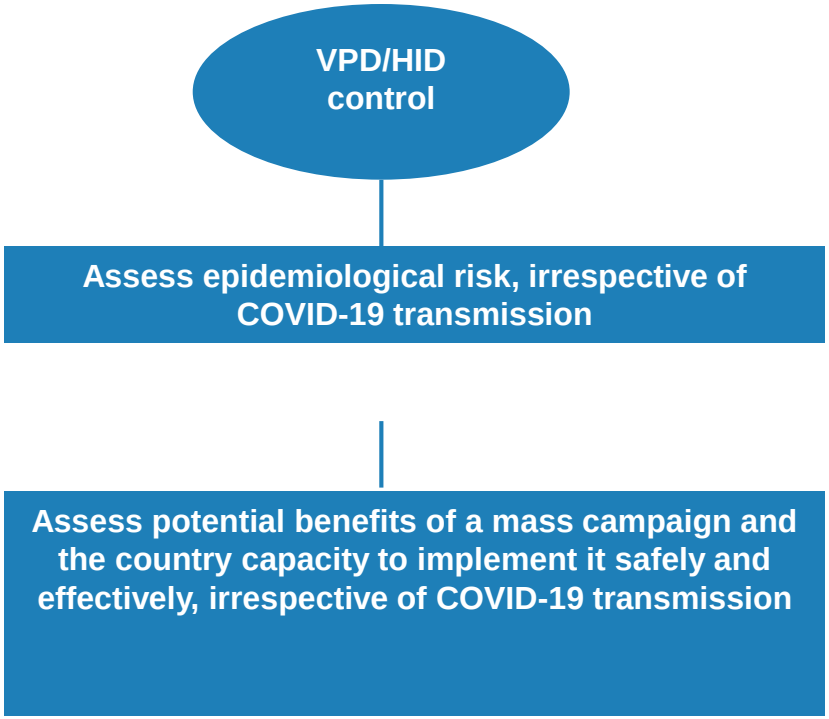
Ensure access to training and monitoring of correct application of IPC for health workers

Five steps for countries to consider

1. Assess the potential impact of the VPD/HID outbreak using key epidemiological criteria
2. Assess the potential benefits of a mass vaccination campaign, and country capacity to implement safely
3. Consider potential risk of increased COVID-19 transmission with the mass vaccination campaign
4. Determine appropriate actions considering the COVID-19 epidemiological situation
5. Implement best practice if a mass vaccination campaign is conducted

Common Framework for Decision-making

- The **five steps** are normally implemented in sequence, however some overlap in the step-wise process is possible



STEP 1

STEP 2

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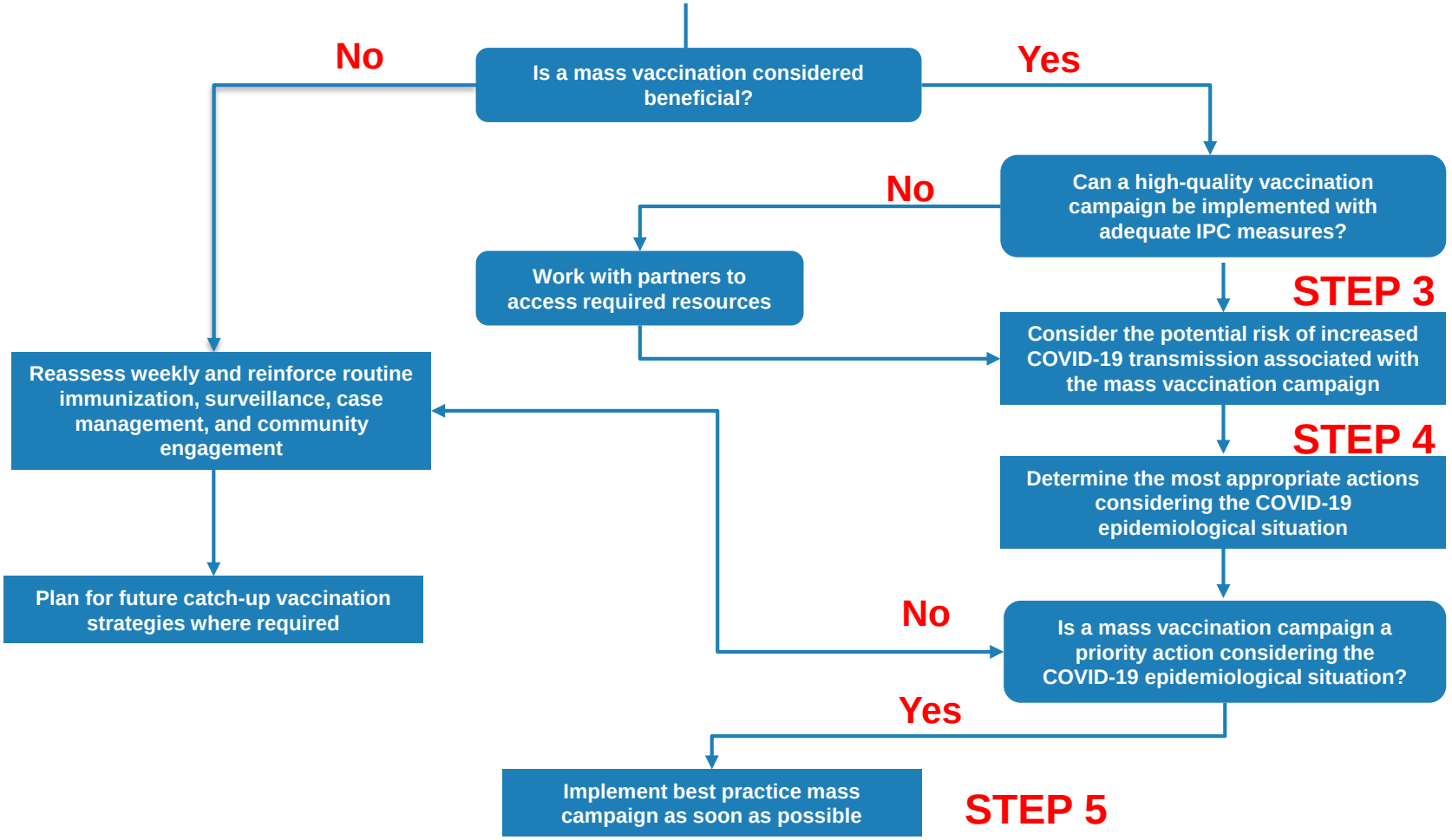
Common Framework for Decision-making (cont'd)



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1

Assess potential impact of the VPD/HID outbreak (1/2)

Use **key epidemiological criteria** to assess the potential impact of the VPD/HID outbreak

1. **Population susceptibility:**
   - *Disease endemicity, recent outbreak, recent campaign conducted, vaccination coverage, people vaccinated, birth rate, population movement*

2. **Intensity and magnitude of transmission:**
   - *Cases/deaths reported, overall outbreak trend and timeline, age groups/gender affected, rate of severe complications and deaths, speed of transmission, effective reproduction number*

1

Assess potential impact of the VPD/HID outbreak (2/2)

3. **Geographical spread:**
   - *Cases localized or in multiple areas, high density populations affected, spread to other countries, risk of international spread*

4. **Seasonal patterns:**
   - *Impact of seasonal and cyclical variations on evolution of the outbreak, stage of season in which outbreak is occurring*

5. **Socio-political context:**
   - *Outbreak occurring in fragile, conflict or vulnerable settings, IDP camps, affecting vulnerable sectors (e.g. children under 5, pregnant women, elderly, hard-to-reach), community perception of outbreak*

2

Assess potential benefits of a mass vaccination campaign (1/2)

Assess the risk-benefit for implementing a mass vaccination campaign – *irrespective of COVID-19 transmission scenarios* - and country capacity to implement it **safely** and **effectively**

- **Assess impact** of the mass vaccination campaign on VPD/HID transmission
  - *Potential to interrupt VPD/HID transmission, level of potential morbidity/mortality reduction, potential to induce herd protection, impact of COVID-19 on VPD surveillance*
- **Determine country capacity** to implement high-quality mass vaccination campaign safely**:**
  - *Capacity and availability of human resources, material resource needs (including PPE), potential COVID-19 related supply chain disruptions, financial resource needs and availability, surveillance for AEFI and for COVID-19*

2

Assess potential benefits of a mass vaccination campaign (2/2)

- Estimate public health **impact** of **not conducting** the mass vaccination campaign:
  - *Excess morbidity and mortality, increased risk of amplification and spread, strain on health services from VPD/HID disease burden, indirect mortality from other diseases, disruption of essential health services, increased risk of exposure to COVID-19 from increased demand for health care*

- Assess strength of **community engagement:**
  - *Community perception of risks for COVID-19 and for VPD/HID outbreak, engage community representatives, tailor community engagement and communication strategies, understand risk-communication needs for AEFI or aggravation of COVID-19*

3

Consider potential risk of increased COVID-19 transmission associated with mass vaccination campaign

Large gatherings may **increase risk** of introduction and increased transmission of COVID-19. To assess potential risk, countries are strongly advised to consider the following:

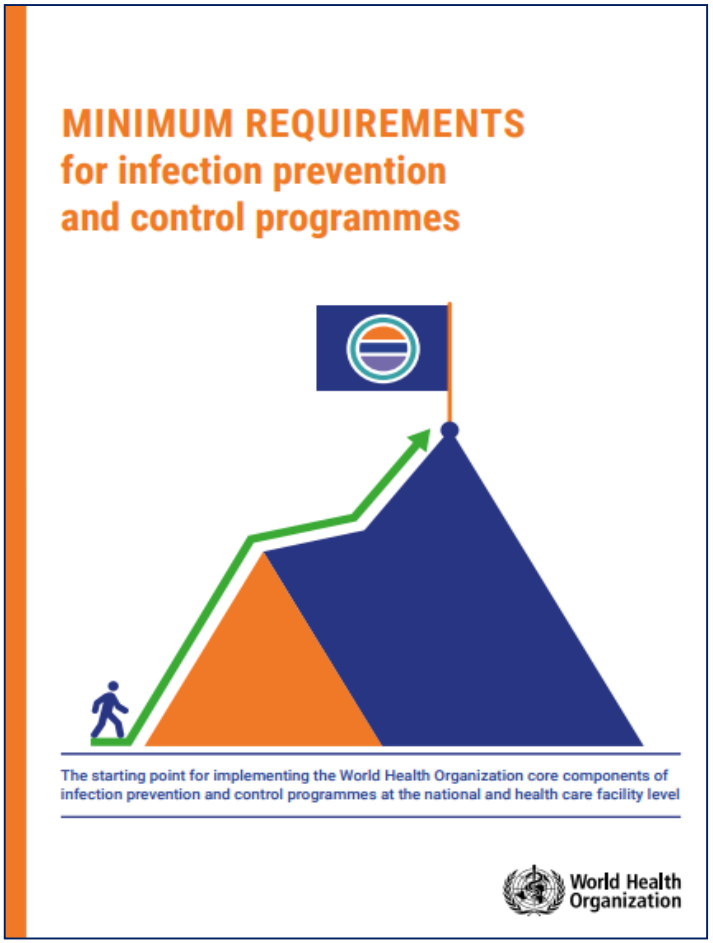
a) The COVID-19 transmission scenario in the country and areas affected

b) The type and level of control measures and interventions imposed by governments, and community adherence to those measures

c) The vaccination strategies and type of vaccine administration
   - Decentralizing vaccine delivery to limit large gatherings
   - Supervised self administration, or directly-observed delivery of oral vaccines to limit face to face contacts

– Country capacity to implement rigorous COVID-19 IPC measures and to communicate and engage effectively with the community

Core components of IPC



- IPC Programmes should be implemented at national and health care facility levels; they should include an IPC focal point at each facility.
- IPC should be an ongoing activity undertaken by all health workers.
- IPC programmes involve training in IPC measures; including PPE and understanding of modes of transmission of diseases, including COVID-19 virus.

https://www.who.int/infection-prevention/publications/core-components/en/

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4 Determine most appropriate actions in COVID-19 epidemiological situation (1/4)

Based on risk-benefit analysis conducted in Steps 1-3, health authorities can determine appropriate action according to epidemiological risk of the VPD/HID outbreak and the COVID-19 transmission scenario

- Recommended interventions according to VPD/HID outbreak epidemiological risk and COVID-19 scenario are shown below

Epidemiological characteristics of the VPD and HID outbreak	Covid-19 transmission scenarios[b]			
	No cases	Sporadic cases	Clusters of cases	Community transmission
Low risk				
Moderate risk				
High risk				

[b] WHO COVID-19 transmission scenarios were developed to classify countries and can also be applied at sub-national level

Recommended actions

(All scenarios: strengthen routine immunization)

	Implement outbreak response vaccination with standard IPC precaution measures
	Re-assess weekly, implement VPD/HID outbreak control measures, consider preventive vaccination campaign,
	Re-assess weekly and implement VPD/HID outbreak control measures
	Both implementation or postponement of the campaign could have a negative impact. Decision should be made on a case by case basis

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4 Determine most appropriate actions in COVID-19 epidemiological situation (2/4)

- Countries should first analyse the **epidemiological risk** for VPD/HID outbreak

Epidemiological characteristics of the VPD and HID outbreak	Covid-19 transmission scenarios[b]			
	No cases	Sporadic cases	Clusters of cases	Community transmission
Low risk				
Moderate risk				
High risk				

[b] WHO COVID-19 transmission scenarios were developed to classify countries and can also be applied at sub-national level

- **Low risk:** sporadic cases in a geographically localized area where herd immunity is present
- **Moderate risk:** cluster of cases in a geographically localized area with no/low herd immunity
- **High risk:** risk of rapid increase in cases, two or more districts affected, fragile-conflict settings and vulnerable populations

4 Determine most appropriate actions in COVID-19 epidemiological situation (3/4)

- Next, countries should analyse the **COVID-19 transmission scenario** being experienced by the country

Epidemiological characteristics of the VPD and HID outbreak	Covid-19 transmission scenarios[b]			
	No cases	Sporadic cases	Clusters of cases	Community transmission
Low risk				
Moderate risk				
High risk				

[b] WHO COVID-19 transmission scenarios were developed to classify countries and can also be applied at sub-national level

- **No cases:** no reported cases
- **Sporadic cases:** one or more cases, imported or locally acquired
- **Clusters of cases:** experiencing cases, clustered in time, geographic location and/or by common exposures
- **Community transmission:** Countries/area/territories experiencing larger outbreaks of local transmission defined through an assessment of factors including, but not limited to:
  - Large numbers of cases not linkable to transmission chains
  - Large numbers of cases from sentinel lab surveillance
  - Multiple unrelated clusters in several areas of the country/territory/area

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4 Determine most appropriate actions in COVID-19 epidemiological situation (4/4)

- Based on the outcome of these two analyses, countries can determine how to proceed with controlling the VPD/HID outbreak in the context of COVID-19

Epidemiological characteristics of the VPD and HID outbreak	Covid-19 transmission scenarios[b]			
	No cases	Sporadic cases	Clusters of cases	Community transmission
Low risk				
Moderate risk				
High risk				

Recommended actions (All scenarios: strengthen routine immunization)	
	Implement outbreak response vaccination with standard IPC precaution measures
	Re-assess weekly, implement VPD/HID outbreak control measures, consider preventive vaccination campaign,
	Re-assess weekly and implement VPD/HID outbreak control measures
	Both implementation or postponement of the campaign could have a negative impact. Decision should be made on a case by case basis

5

Implement best practice (1/2)

- If a decision is made to proceed with a mass vaccination campaign in the context of COVID-19, countries should **implement best practice**
- Follow WHO recommendations on organizing **high quality** vaccination campaigns *(Annex 1),* using the following **key considerations**
  - Coordination
  - Planning
  - IPC
  - Vaccination strategies
  - Community engagement
  - Equitable access
- Additional **disease-specific guidance** for outbreak control is also available together with WHO guidelines for IPC in the context of COVID-19

5

Implement best practice (2/2)

- Where appropriate and feasible, use a mass vaccination campaign as a **“window of opportunity”** for other interventions
  - Multi-antigen campaigns
  - Integrated delivery of other health interventions, e.g. vitamin A, deworming, insecticide-treated bed nets
- Carefully **assess** anticipated positive impact as including other interventions may
  - Increase crowd size
  - Extend implementation time and thus duration of contact between health worker and recipients
- The following **key considerations** to implement best practice for a mass vaccination campaign are presented in the following slides

Considerations for implementation: *Coordination and Planning*

- Establish strong **coordination** and oversight mechanisms between COVID-19 task teams, immunization programme partners, CSOs, community leaders, international health agencies and donors

- Detailed **planning** should include:
  - updated **information** on target population, best estimates for PPE requirements and adequate measures for IPC and waste management
  - additional human and financial **resources** to implement a high-quality campaign, including implications of physical distancing and specific COVID-19 prevention and control measures
  - updated **SOPs and training** on IPC, use of PPE and modified vaccination approaches

Considerations for implementation: *Infection prevention and control (IPC)*

- Immunization activities should be undertaken only if aligned with WHO IPC guidance on **minimizing COVID-19 transmission**
- Adhere rigorously to IPC good practices to **protect health workers** against COVID-19 and other pathogens transmitted via person-to-person or needlestick injuries, as per WHO recommendations
- Ensure adequate **access to IPC supplies**, e.g. masks, hand sanitizer or hand washing units with soap and water

Considerations for implementation: *Vaccination strategies*

- **Tailor** strategies to enable safest, most effective delivery of the vaccination campaign
- Consider increasing timeframe and number of sites to reduce number of people vaccinated per site and allow for physical distancing
- Consider tailored targeted campaigns in high risk areas and/or to high risk groups
- Consider **decentralizing** vaccination sites using empty public or private premises. House-to-house vaccination could be considered if resources, logistical and IPC capacities are available
- Use **non-traditional methods** to deliver vaccine, e.g. supervised self-administration of OCV to reduce physical contact between vaccinators and recipients

Considerations for implementation: *Community engagement*

- Involve **community leaders** in vaccination campaign planning, health message dissemination on COVID-19 prevention and care seeking if individuals experience potential symptoms of COVID-19
- Build **public trust** in the ability of the vaccination campaign to avoid increased risk of COVID-19 infection
- Work with **community** to minimize risk of COVID-19 transmission during the vaccination campaign, e.g. encourage people with fever and respiratory symptoms to seek care before getting vaccinated

Considerations for implementation: *Equitable access (through global mechanisms)*

- **Global emergency vaccine stocks** for responding to cholera, measles, meningitis, polio and yellow fever outbreaks are readily available

- International coordination mechanisms allow rapid and equitable access to vaccine **supplies** and **operational costs** for mass vaccination campaigns

Conclusion

- Countries with VPD/HID outbreaks need to weight the **risks** and **benefits** of conducting safe mass vaccination campaigns in the context of COVID-19
- For countries affected by both VPD/HID and COVID-19 outbreaks, weighing the benefits of conducting safe and effective vaccination campaigns against the risks of increasing transmission of COVID-19 may be challenging
- Deciding on whether to, and how to, implement a mass vaccination campaign is a complex decision-making process, and dependent on the country context
- If a decision is made to proceed with a mass vaccination campaign in the context of COVID-19, countries should **implement best practice**
- Refer to "***Framework for decision-making: implementation of mass vaccination campaigns 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

Annex 1

Recommendations for organising the vaccination site (1/2)

- Conduct sessions in **well-ventilated**, frequently **disinfected** areas
- Ensure availability of **hand sanitizer** or equipped **hand washing station** at the entrance to vaccination sites and health facilities
- **Limit number** of people accompanying the person to be vaccinated
- Maintain at least **1 metre distance** between recipients and between companions

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Annex 1

Recommendations for organising the vaccination site (2/2)

- **Screen** recipients and companions to prevent spread of COVID-19 including assessing COVID-19 exposure risk and COVID-19 symptoms
  - If **screening is negative** – vaccination can proceed
  - If **screening is positive** – offer a medical mask, do not vaccinate, refer for COVID-19 evaluation, offer vaccination at COVID-19 evaluation site, or postpone vaccination for 14 days after symptom resolution, manage in accordance with WHO guidance
- Avoid crowded waiting areas by
  - **Integrating** vaccination with other essential health services
  - **Planning** small vaccination sessions and extending the duration of the campaign
  - Use **outdoor** spaces and adhere to physical distancing
  - Establish exclusive vaccination sessions for people with **pre-existing medical conditions**
- Where possible, separate vaccination from curative services, e.g. by allocating different hours and different spaces

Annex 1

Recommendations for vaccinators

- Perform **hand hygiene** after each recipient with soap and water or hand sanitizer containing 60-80% alcohol
- Use **surgical gloves** only if the skin of the recipient is not intact, e.g. rash, lesion or cut
  - If surgical gloves are used, the vaccinator must change them between each recipient, dispose of them in a bin with a lid and practice hand hygiene
- **Wear a medical/surgical masks** in areas with **widespread community transmission of COVID-19**.
- Consider use of **masks** for vaccinators where COVID-19 transmission is not well known, or surveillance is weak
- When no direct contact with individuals is involved, such as self-administration of OCV, use of PPE is not required
- If experiencing any respiratory illness **symptoms**, vaccinators should seek care and **should not vaccinate**

Use of PPE during immunization delivery

Hand hygiene 	Practice between each recipient (before and after contact).
PPE item	**When to use**
Masks 	In areas with COVID-19 community transmission, health workers should wear a medical mask throughout the immunization session. If COVID-19 cases are sporadic or in clusters, medical masks can be considered for use by health workers. The mask should be replaced when damaged, contaminated or damp.
Eye protection 	Not routinely required. Use only if risk of splashes from droplets or body fluids are anticipated into the eyes, as indicated by risk assessment conducted before every interaction with recipients. Consider for oral vaccination when self-administration is not possible.
Gloves 	Not routinely required. Use only if there is risk of direct contact with blood and body fluids, non-intact skin is anticipated, as indicated by risk assessment conducted before every interaction with recipients. Gown or gloves should be discarded after single use.
Gown 	

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Recommended IPC kit for outreach/campaign kit

- In addition to vaccination supplies, health workers are advised to carry **IPC kits** with them, as a precaution. This kit contains PPE that may be required based on individual risk assessment

- This kit should at minimum contain:
  - Alcohol based hand rub
  - Medical mask (bring several for replacement needs)
  - Eye protection (in case there is a need)
  - Gloves (in case there is a need)
  - Gowns (in case there is a need)
  - Garbage bag

- The document “Home care for patients with COVID-19 presenting with mild symptoms and management of their contacts” may be of use alongside these kits

https://www.who.int/publications-detail/home-care-for-patients-with-suspected-novel-coronavirus-(ncov)-infection-presenting-with-mild-symptoms-and-management-of-contacts

Annex 1

Vaccination of COVID-19 cases (confirmed or suspected)

- Currently there are **no known medical contraindications** to vaccinating persons who have COVID-19
- As a person with suspected COVID-19 **risks spreading infection** by staying in the health facility, they should **defer vaccination** until symptoms resolve and preferably after two consecutive negative COVID-19 tests.
- If testing is not feasible, WHO recommends deferring vaccination for **14 days after symptom resolution**.

End of module

Thank you for your attention!