NATIONAL COVID-19 VACCINE DEPLOYMENT TRAINING
2\textsuperscript{ND} - 3\textsuperscript{RD} MARCH 2021
Module 1:
Overview of Coronavirus Disease (COVID-19)
Learning Objectives

By the end of this module the learner will be able to describe:

- What coronaviruses are?
- What is SARS-CoV2 and COVID-19
- Signs and symptoms of COVID-19
- Diagnosis and treatment of COVID-19
- Prevention of COVID-19
- Current global and local situation
Viruses continue to emerge and pose challenges to public health

Some examples of emerging respiratory viruses include:

- 2002: Severe Acute Respiratory Syndrome coronavirus (SARSCoV)
- 2009: H1N1 influenza
- 2012: Middle East Respiratory Syndrome coronavirus (MERSCoV)
• Human health, animal health and the state of ecosystems are inextricably linked

• 70-80% of emerging and re-emerging infectious diseases are known to be of zoonotic origin (animals and human transmission)

• Population growth, climate change, increasing urbanization, and international travel and migration all increase the risk for emergence and spread of respiratory pathogens
Coronaviruses are a large family of viruses that are known to cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS).

- In humans they can cause mild disease similar to a common cold – others cause more severe disease (such as MERS and SARS).

- Some coronaviruses that are found in animals can infect humans (zoonotic diseases).
Coronaviruses also cause disease in a wide variety of animal species

SARS-CoV was transmitted from civet cats to humans in China in 2002 and MERS-CoV from dromedary camels to humans in Saudi Arabia in 2012

Several known coronaviruses are circulating in animals that have not yet infected humans

A spillover event is when a virus that is circulating in an animal species is found to have been transmitted to human(s)
The disease caused by SARS COV 2 is called COVID-19
SARSCOV2 - How does it spread?

- **How** – most transmission is from symptomatic persons via droplets and through contact with fomites in the environment of the infected person; aerosol transmission is specific settings e.g. when conducting a medical aerosol generating procedure.

- **When** – mostly when individuals are symptomatic but can also happen when individuals are asymptomatic.

- **Where** – close contact, amplified in closed, crowded indoor settings.
COVID – 19: Signs and Symptoms

• Covid-19 is the disease caused by SARSCOV2
• The most common symptoms are: fever, dry cough, shortness of breath
• Other symptoms: aches and pains, nasal congestion, headache, conjunctivitis, sore throat, diarrhea, loss of smell or taste, discoloration of fingers and nails
• Most people who get infected but show very mild or no symptoms
• Disease severity
  - 80% of those with symptoms recover without needing hospitalization
  - Severe disease?
  - Very severe disease?
  - Deaths?
  - Older persons, and those with underlying medical conditions like diabetes, hypertension, lung and heart diseases, cancers are higher risk of developing severe disease.
**SARS – CoV – 2: Standard Case Definition**

### Suspected case of SARS-CoV-2 infection

A person who meets the clinical AND epidemiological criteria:

**Clinical Criteria:**
- Acute onset of fever AND cough; OR
- Acute onset of ANY THREE OR MORE of the following signs or symptoms: Fever, cough, general weakness/fatigue\(^1\), headache, myalgia, sore throat, coryza, dyspnoea, anorexia/nausea/vomiting\(^1\), diarrhoea, altered mental status.

**Epidemiological Criteria:**
- Residing or working in an area with high risk of transmission of virus: closed residential settings, humanitarian settings such as camp and camp-like settings for displaced persons; anywhere within the 14 days prior to symptom onset; or
- Residing or travel to an area with community transmission anytime within the 14 days prior to symptom onset; or
- Working in any health care setting, including within health facilities or within the community; any time within the 14 days prior to symptom onset.

### Probable case of SARS-CoV-2 infection

A patient who meets clinical criteria above AND is a contact of a probable or confirmed case, or linked to a COVID-19 cluster\(^2\)

**Probable case of SARS-CoV-2 infection**

A suspect case with chest imaging showing findings suggestive of COVID-19 disease\(^4\)

A person with recent onset of anosmia (loss of smell) or ageusia (loss of taste) in the absence of any other identified cause.

Death, not otherwise explained, in an adult with respiratory distress preceding death AND was a contact of a probable or confirmed case or linked to a COVID-19 cluster\(^3\)

### Confirmed case of SARS-CoV-2 infection

A person with a positive Nucleic Acid Amplification Test (NAAT)

A person with a positive SARS-CoV-2 Antigen-RDT AND meeting either the probable case definition or suspect criteria A OR B

An asymptomatic person with a positive SARS-CoV-2 Antigen-RDT who is a contact of a probable or confirmed case

### Notes

- **\(^{1}\)** Signs separated with slash (/) are to be counted as one sign.
- **\(^{2}\)** NAAT is required for confirmation, see [Diagnostic testing for SARS-CoV-2](#).
- **\(^{3}\)** A group of asymptomatic individuals linked by time, geographic location and common exposures, containing at least one NAAT-confirmed case or at least two epidemiologically linked, symptomatic (meeting clinical criteria of Suspect case definition A or B) persons with positive Ag-RDTs (based on ≥92% specificity of test and desired >99.9% probability of at least one positive result being a true positive)
- **\(^{4}\)** Typical chest imaging findings suggestive of COVID-19 include the following:
  - Chest radiography: hazy opacities, often rounded in morphology, with peripheral and lower lung distribution.
  - Chest CT: multiple bilateral ground glass opacities, often rounded in morphology, with peripheral and lower lung distribution.
  - Lung ultrasound: thickened pleural lines, B lines (multifocal, discrete, or confluent), consolidative patterns with or without bronchograms.
Any person who meets the standard case definition must be immediately reported to SCDSC or through DDSR through hotlines (0800 721 316 (toll free), 0732 353 535, 0729 471 414).

A case investigation form should be completed for every case meeting the suspected case definition.

Laboratory specimens collected from suspect cases MUST be accompanied by its case investigation form.
• Detecting viral particles
  – Through Polymerase Chain Reaction (PCR) - in Kenya*** laboratories certified to conduct the test; two samples collected – Oral and Nasal pharyngeal swabs
  – Can also be done with rapid kits – ** kits currently certified in Kenya

• Detecting antibodies to the virus
  – Test blood serum
  – Indicate prior infection
  – In Kenya, currently being done in a research setting
SARS – CoV – 2: Prevention

• Detect, test and isolate
• Hand hygiene
• Cough etiquette
• Social and physical distancing
• Use of PPE in different setting including face masks
• Vaccines
Clinical Management of COVID - 19

• No specific treatment for COVID-19 is available

• Care is supportive

• Information still limited on the full spectrum of clinical illness associated with COVID-19
COVID – 19 Response in Kenya

- Enhanced surveillance
  - Community
  - Facilities
  - Points of Entry

- Enhanced testing capacity
  - National –NIC, KEMRI
  - Regional Labs
  - Possibility of introduction of serum tests

- Mandatory quarantine & testing of everyone arriving from outside the country

- Aggressive contact tracing and follow-up

- Case management
  - National quarantine & isolation facilities
  - County quarantine & isolation facilities
  - Training of health workers

- Nationwide curfew from 10 p.m. to 4 a.m. daily

- Closure of schools

- Restricted movement in & out of current epicenters (Nairobi, Mombasa, Kilifi & Kwale counties)

- Vaccines
Module 2:
Rationale, Justification and Objectives for Deployment of the COVID-19 vaccine
By the end of this module the learner will be able to describe:

- Epidemiology of COVID disease
- Rationale for use of COVID-19 Vaccine
- Why AstraZeneca for Kenya
Global Situation
107,252,265
Confirmed Cases

2,355,339 Deaths
Situation In Kenya

[Graph showing the number of cases over time, differentiated by symptom status (Symptomatic vs. Asymptomatic).]
Situation In Kenya – Cases among Health workers

- Total HCW = 3100
- HCW deaths = 32
• 1794 deaths (CFR: 1.8%)
  • 70% (1259) Males
  • 30% (535) Females

• 46% of Deaths in 60 years and above
• COVID-19 disease has no known treatment
  – Prevention is KEY

• COVID-19 vaccination will help protect you from getting COVID-19 disease
  – All COVID-19 vaccines currently available have been shown to be highly effective at preventing the disease
  – Based on what we know about vaccines for other diseases and early data from clinical trials, COVID-19 vaccine protects from getting severe COVID-19 disease
  – Getting vaccinated protects people around you, particularly people at increased risk for severe illness from the disease

• COVID-19 vaccination is a safer way to help build protection
  – Getting COVID-19 may offer some natural protection, known as immunity
  – COVID-19 vaccination will help protect you by creating an antibody (immune system) response without having to experience sickness
The AZD1222 vaccine against COVID-19 has an efficacy of 63.09% (95% CI 51.81; 71.73) against symptomatic SARS-CoV-2 infection.

Why Serum Institute India Aztra Zeneca (SII-AZ AZD1222) vaccine
- Available vaccine through COVAX Facility (Gavi, WHO, CEPI, UNICEF)
- Vaccine to be stored 2-8 °C which is the available cold chain storage in Kenya
COVID-19 vaccination will be an important additional tool to help stop the pandemic.

Wearing masks and social distancing help reduce your chance of being exposed to the virus or spreading it to others, but these measures are not enough.

Vaccines will work with your immune system so it will be ready to fight the virus if you are exposed.

Stopping a pandemic requires using all the tools we have available, COVID vaccine is an additional tool in stopping the effect of the pandemic.
Thank you for your attention!
Ministry of Health

Module 3:

Target Population, Eligibility Criteria and Contraindications
Learning Objectives

• By the end of the module, learners will be able
  – To describe the phases of Vaccine Introduction
  – To describe the eligibility for Vaccination
  – To outline the contraindications and precautions of COVID-19 Vaccine
Introduction

• The vaccination will be rolled out in three phases
• Focused sites administration in Phase I
• Pre-registration will be required
<table>
<thead>
<tr>
<th>Phase</th>
<th>Target Audience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase I</td>
<td>Frontline Health workers: All Individuals involved in service delivery in ALL health facilities and at administrative levels</td>
</tr>
<tr>
<td></td>
<td>Critical Services: Teaching &amp; non-teaching staff in all educational institutions; Uniformed Forces- Police, Military, Prisons Officers; Immigration Officers; Instructors in Religious Institutions</td>
</tr>
<tr>
<td>Phase II</td>
<td>Individuals over 50 years of age</td>
</tr>
<tr>
<td></td>
<td>Individuals with Co-morbidities: Persons &gt;18 Years living with cancer, diabetes, sickle cell, chronic lung, cardiovascular, and renal diseases, HIV, tuberculosis, obesity, Neurologic conditions and blood disorders</td>
</tr>
<tr>
<td></td>
<td>Individuals working in the hospitality and tourism industry</td>
</tr>
<tr>
<td>Phase III</td>
<td>Individuals in congregate settings: Persons care homes, Prisons and detention centers, shelters; Street Families; Densely populated informal settlements</td>
</tr>
<tr>
<td></td>
<td>Individuals working in entertainment, restaurant, retail and banking sector</td>
</tr>
</tbody>
</table>
Eligibility Criteria

• Part of target population for the phase being rolled out

• Age $\geq 18$ years

• Provide verbal consent

• Persons who have previously had SARS-CoV-2 infection-
  • Vaccination may be offered regardless of a person’s history of symptomatic or asymptomatic SARS-CoV-2 infection.

Source: Serum Institute Of India - ChAdOx1 nCoV-19 Corona Virus Vaccine (Recombinant) - COVISHIELD
Contraindications

- Hypersensitivity to the 1st dose
- Hypersensitivity to the active substance or to any of the excipients
- Anaphylaxis reaction following consumption of eggs or chicken
- Severe illness warranting admission
Precautions

• Acute febrile illness (38°C and above)
  • Postpone administration in individuals suffering from an acute severe febrile illness.
    • However, the presence of a minor infection, such as cold, and/or low-grade fever (37.5-37.9°C) should not delay vaccination.

• Persons with acute PCR-confirmed COVID-19
  • should not be vaccinated until after they have recovered from acute illness and the criteria for discontinuation of isolation have been met (completion of the 10 days of isolation).

• People with bleeding disorders

• Pregnancy only considered when the potential benefits outweigh any potential risks for the mother and fetus.
Thank you for your attention!
Module 4:

COVID-19 Vaccine Attributes, Storage conditions and Supply Logistics
Key issues

1. What is the COVID-19 vaccine presentation?
2. At which Temperature should the vaccine be stored?
3. Where in the refrigerator should COVID-19 vaccines be stored?
4. How do you calculate vaccine requirements and manage your stock?
Learning objectives

• At the end of the module, the participants will have learned to:
  – Describe COVID-19 vaccine characteristics
  – Vaccine Storage requirements
  – Stock management for COVID-19 vaccine
What is the presentation of the vaccine?

The COVID-19 Vaccine (COVISHIELD™ - Recombinant) is available in a liquid formulation:

- As a 10 doses vial
- For intramuscular injection

The appearance of the vaccine. It should be colourless to slightly brown, clear to slightly opaque and free of any particles. *Discard the vaccine if particulates or discolouration are present.*

- Once a vial has been opened it should be discarded after six hours or at the end of the immunization session, whichever comes first.

- Currently the Vial does NOT have a Vaccine Vial Monitor (VVM)
How should the COVID 19 Vaccine be stored

- COVID19 vaccines should be stored between +2°C and +8°C
- COVID19 vaccine is freeze sensitive
- COVID19 vaccine is light sensitive
- Store in original box till ready to use
- Currently NO Vaccine Vial Monitor (VVM)
- It has no preservative
- DO NOT Shake the Vaccine
Where do I place COVID 19 vaccine in the refrigerator

- It will be placed on the same tray as the TT/Td & IPV
  
  YELLOW tray

- Vaccine use should follow First – Expiry – First - Out (FEFO) principle.

- Monitor and record refrigerator temperatures twice daily (Morning and Evening)

- Ensure to read and record Minimum and Maximum Temperature for the previous day
Always monitor and record temperatures daily; morning and evening.

- Use a temperature monitoring device at all times
- Place the temperature monitor on the yellow tray
- Maintain temperature between 2°- 8 ° Celsius
- Store vaccines in the appropriate vaccine tray
- Label open vials appropriately (refer to MDVP guidelines)
- Ensure regular maintenance of the refrigerator
- In case this refrigerator is not maintaining proper temperatures, implement the following steps:

1. Transfer vaccines to nearest working refrigerator
2. Call (write name and telephone no. below)

HF in-charge ________________________________
SCPHN ________________________________
CC Technician ________________________________

**Place your vaccines correctly in the refrigerator**

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Tray</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCV10</td>
<td>Red</td>
<td>Return</td>
</tr>
<tr>
<td>Pentavalent &amp; HPV</td>
<td>Orange</td>
<td>Pentavalent – Return</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HPV - Discard</td>
</tr>
<tr>
<td>TT/Td/IPV/ &amp; COVID19</td>
<td>Yellow</td>
<td>TT/Td- Return</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IPV- Return</td>
</tr>
<tr>
<td></td>
<td></td>
<td>COVID19 - Discard</td>
</tr>
<tr>
<td>Rotavirus Vaccine</td>
<td>Green</td>
<td>Rota - Discard</td>
</tr>
<tr>
<td>BCG &amp; MR</td>
<td>Blue</td>
<td>BCG- Discard</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MR- Discard</td>
</tr>
<tr>
<td>OPV &amp; Yellow Fever Vaccine</td>
<td>Purple</td>
<td>OPV – Return</td>
</tr>
<tr>
<td></td>
<td></td>
<td>YF - Discard</td>
</tr>
</tbody>
</table>
How to pack COVID 19 vaccine in the vaccine carrier

- Place conditioned ice-packs/cool packs in a clean vaccine carrier
- Wipe the icepacks with a dry cloth before putting them in the vaccine carrier
- Place the vaccines and close the lid tightly
- Foam pad keeps vaccines inside the carrier cool while providing a place to hold and protect vials in use.
Use cool packs or conditioned ice packs

1. Frozen packs from freezer could be at very low temperature (-5C to -20C)

2. Place frozen packs on a surface at room temperature till you hear (by shaking) water inside the pack

3. Place the conditioned packs in vaccine carrier / cold box, then put the vaccine
COVID – 19 VACCINE SUPPLY LOGISTICS
Calculate Vaccine and Supply requirements

• Using target population
  – Target population (TP):
  – Immunization schedule COVID19: 2 doses
  – Immunization coverage target (Coverage)
  – Wastage rate - 1.11

• Formula:
  \[ TP \times \text{Immunization schedule} \times \text{Coverage} \times WF + \text{buffer} \]

Use forecasting sheet
Calculating requirements

• Number of doses required = 
  \[ \text{Number of Target Population } \times 2 \text{ dose } \times 1.11 \times 100\% \]

• Number of 0.5 ml syringes required = 
  \[ \text{Number of Target population } \times 1 \text{ dose } \times 1.11 \]

• Number of safety boxes = 
  \[ \left( \frac{\text{Number of syringes}}{100} \right) \times 1.11 \]
How do you order for vaccines?

- Like other vaccines, COVID19 vaccine will be replenished once a month at health facility level.

- **Quantities to order =**
  
  Vaccine requirements (including buffer) ÷ 12 months

- Orders should be placed using Vaccine Requisition voucher/S11

- All vaccines received should be recorded in a designated stock ledger book
<table>
<thead>
<tr>
<th>Date</th>
<th>Vaccines/Diluents To/from</th>
<th>Vaccine Quantity in doses</th>
<th>Vaccine Information</th>
<th>Diluent Quantity in doses</th>
<th>Diluent Information</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Received/Returns</td>
<td>Issues</td>
<td>Losses</td>
<td>Receipts/Returns</td>
<td>Issues</td>
<td>Losses</td>
</tr>
<tr>
<td>Source/Destination name</td>
<td>Received</td>
<td>Issued</td>
<td>Discarded</td>
<td>VVM Stage (1,2,3,4)</td>
<td>Lot/Batch No.</td>
<td>Expiry Date</td>
</tr>
</tbody>
</table>

Ministry of Health
National Vaccines and Immunization Program

VACCINE STOCK LEDGER

VACCINE STORAGE LEVEL (Health Facility, Sub-county, County, Regional, National)

ANTIGEN/ DILUENT
What should you do in this scenario

The Client was Vaccinated using COVISHIELD™ and during the visit for second Dose the COVISHIELD™ is out of stock

Every effort should be made to Ensure the individual Completes the two dose course with the same vaccine.
What should you do in this scenario

John was given COVID19 vaccine and informed on the return back at 4 weeks. John did not come back for the second dose as scheduled but he came back at 8 weeks after the First dose. Will John get the vaccine?

it is recommended that the second dose of COVID19 vaccine should be routinely given at 4 weeks after the first dose, However give John the vaccine

Always Inform the clients in advance of the venue, date, and time of vaccination
<table>
<thead>
<tr>
<th>Vaccine Item</th>
<th>AstraZeneca / Oxford U. vaccine from Serum Institute of India Pvt Ltd- #1 Attributes</th>
</tr>
</thead>
</table>
| Vaccine Logistics                                | • Presentation: 10-dose vial  
• Storage temperature +2 °C to +8 °C and should **not be frozen**.  
• Once a vial has been opened it should be discarded after six hours or at the end of the immunization session, whichever comes first. |
| Formulation                                      | • Liquid, ready to use (NO dilution or reconstitution needed)  
• One dose (0.5 ml) contains:  
• It has no preservative |
<p>| Freeze, light sensitivity                        | • Do not freeze, protect from direct sunlight/UV light (keep in original carton) |</p>
<table>
<thead>
<tr>
<th>Vaccine item</th>
<th>AstraZeneca / Oxford U. vaccine from Serum Institute of India Pvt Ltd- #1 Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaccine schedule</td>
<td>• 2 doses; 4 Weeks between first and second dose</td>
</tr>
<tr>
<td>Dosage, Route of Administration</td>
<td>• 0.5 ml given intramuscularly into the LEFT HAND deltoid muscle</td>
</tr>
</tbody>
</table>
| Considerations                                  | • COVID-19 Vaccine AstraZeneca is a colourless to slightly brown, clear to slightly opaque solution.  
|                                                 | • Inspect vial visually prior to administration and discarded if particulate matter or differences in the described appearance are observed.  
|                                                 | • Care should be taken to ensure a full 0.5 ml dose is administered.  
|                                                 | • DO NOT SHAKE THE VIAL.                                                          |
| Interchangeability of different COVID-19 vaccines | • It is recommended that individuals who receive a first dose of COVISHIELD™ complete the vaccination course with COVISHIELD™ |
| Disposal                                        | • Any unused vaccine or waste material should be disposed of in accordance national waste management guidelines  
|                                                 | • Spills should be disinfected using Chlorine 0.5%.  |
Thank you for your attention!
Module 5:

IPC Principles for COVID-19 Vaccination
Learning Objectives

By the end of the module, learners will be able to:

– Outline infection prevention and control measures during COVID-19 vaccination sessions to protect health workers, vaccine recipients, and the community;

– Outline the set up and management of vaccination site

– Outline the process of safe administration of the COVID-19 vaccine and healthcare waste management
Learning Outcomes

By the end of this module participants should be able to:

1. Apply infection prevention and control measures during COVID-19 vaccination sessions to protect self, health workers, vaccine recipients, and the community;

2. Set up and manage vaccination sites

3. Safely administer the COVID-19 vaccine and safely manage and dispose of health care waste
Importance of Infection Prevention and Control

1. Protecting yourself
2. Protecting your patients/clients
3. Protecting your family and community

Photo 1: © WHO/Blink Media – Giliane Soupe
Photo 2: © WHO/Tom Pietrasik
Photo 3: © WHO2015 Safe & Quality Health Services Package
• Healthcare facilities including vaccination sites are ideal settings for the transmission of SARS-Cov 2.
• Transmission can occur to other patients and healthcare workers.
• Sick patients are more susceptible to acquiring infections.
• Procedures increase patients’ risk of infection.

IPC measures helps reduce the risk of transmitting infections to patients, HCWs and to the environment.
Chain of Infection

SARS-CoV-2

Susceptible host

Infectious agent

Reservoirs

Portal of entry

Portal of exit

Means of transmission

All people, elderly, those chronic condition, etc.

Mucous membrane: Nose, Mouth, Eyes

Droplets, Contact, fomite, airborne.

Excretions, secretions, cough, sneeze

People, Environment

Image source: https://healthscience4.wikispaces.com/Unit+14+Terms

Image source: https://healthscience4.wikispaces.com/Unit+14+Terms
PPE is the least effective control because it involves a high level of worker involvement and is highly dependent on proper fit and correct, consistent use.
IPC Practices

**Standard Precautions**

*Practices used in the care of all patients*

- Hand hygiene
- Proper use of Personal Protective Equipment (PPE)
- Safe injection practices, management of healthcare waste
- Cleaning, disinfection and sterilization
- Respiratory hygiene and cough etiquette
- Vaccination of healthcare workers

**Additional (transmission-based) Precautions**

*Practices used in the care of patients with confirmed infectious disease or pathogen*

- Supplement standard precautions based on how pathogen is spread
### Key Overall IPC Principles for COVID – 19 Vaccine Deployment

<table>
<thead>
<tr>
<th>Principle</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard precautions should be applied during any vaccination activity</td>
<td>✔️</td>
</tr>
<tr>
<td>Provide health workers with specific training and the public with targeted information regarding safe COVID-19 vaccine delivery.</td>
<td>✔️</td>
</tr>
<tr>
<td>Additional IPC precautions (e.g. mask use) are necessary in the context of the COVID-19 pandemic to reduce the risk of transmission</td>
<td>✔️</td>
</tr>
<tr>
<td>Adhere to National guidance and protocols for IPC measures including those related to COVID-19</td>
<td>✔️</td>
</tr>
</tbody>
</table>
Always perform hand hygiene

- Before putting on and after removing PPE (e.g. mask)
- Before preparing the vaccine
- Between each person/vaccine administration
- After a vaccination session

Respiratory Etiquette

• Designed to reduce the spread of infectious respiratory illness to others when one is coughing or sneezing,
Cover Coughs and Sneezes

Cover your mouth and nose with a tissue when coughing and sneezing.
Dispose of the tissue afterwards.
After coughing or sneezing, wash your hands with soap and water.
Wear a mask if you are coughing or sneezing.
Personal Protective Equipment for COVID – 19 Vaccinators

- Important component, **BUT** only one part, of a system protecting staff and other patients from COVID-19 cross-infection.

- Appropriate use significantly reduces risk of viral transmission.

- Should logically be matched to the potential mode of viral transmission occurring during patient care – contact, droplet, or airborne.

- Risk assessment must be performed before PPE use.
Risk Assessment when choosing PPE

1. Am I at risk of exposure to blood or body fluids?

2. Is my face at risk?

3. Are my hands at risk?

4. Are my clothes at risk?

5. Is the patient known or suspected to have infectious disease?

Answer Q 2-5

Face Protection

Gloves

Gowns, Aprons

Additional precautions
For delivering COVID-19 vaccines, the following PPE is recommended:

- Surgical masks – at least 5 per day for the health worker; and
- Surgical or fabric mask for the person receiving the vaccine.

Ensure you are wearing a medical mask throughout the entire vaccination session.

Gloves are NOT indicated for intramuscular injections unless there is skin breakdown.

- If used, they do not replace the need for performing hand hygiene between each vaccine administration and for other indications.
- Applying alcohol-based hand rubs on gloved hands is STRONGLY discouraged.
SIMPLE INSTRUCTIONS ON HOW TO USE A FACE MASK

**DO** make sure the mask covers your nose, mouth and chin completely.

**USE** a mask where social distancing is practically impossible.

**USE** a MEDICAL mask only when you are caring for a sick person.

**REMOVE** the mask by pulling on the string from behind your head and not by touching the surface of the mask.

**DISPOSE** a used mask in a covered waste bin immediately after removing it from your face.

**WASH** your hands before putting on the mask and after removing the mask from your face.

**If you use** a cloth mask, make sure to wash it separately with soap and disinfectant before using it again.

**USE** a NEW mask each time if you are using a disposable mask.

**DO** remove and replace your mask when it is damp or wet.

Wearing a face mask CORRECTLY, in addition to good hand hygiene practices and physical distancing can help prevent the spread of COVID19 to others.
SIMPLE INSTRUCTIONS ON HOW NOT TO USE A FACE MASK

DO NOT wear the face mask under your nose
DO NOT wear the face mask on your neck
DO NOT let children under 2 years old wear face masks
DO NOT touch the front of your face mask when it is on your face, if you do, clean your hands with alcohol-based rub or wash hands with soap and water immediately
DO NOT share a mask with another person
DO NOT eat or drink while your mask is on your face
DO NOT smoke while your mask is on your face
DO NOT rub your mask on another person or object
DO NOT use a disposable mask more than once
DO NOT wear more than one mask at a time
DO NOT hug another person while wearing a mask
DO NOT use a mask that has holes or is broken

Wearing a face mask CORRECTLY, in addition to good hand hygiene practices and physical distancing can help prevent the spread of COVID-19 to others.
The seven steps to safe injections

1. Clean workspace
2. Hand hygiene
3. Sterile (auto-disabled-AD) syringe
4. Sterile vial of vaccine and or diluent
5. Skin preparation
6. Appropriate collection of sharps waste
7. Appropriate waste management

Cleaning and disinfection procedures should follow MOH IPC guidance on COVID-19.

- performed frequently; at least twice daily with special attention to high-touch surfaces in screening/triage areas e.g. desktops, doorknobs, switches etc

Minimize clutter to aid cleaning.

Principles of Cleaning a Vaccination site

- No dry sweeping and dusting in the vaccination site
- Clean and disinfect high touch surfaces e.g., door handles, table tops, computers, taps at least twice daily
- Frequency of cleaning is determined by the risk of contamination
- Cleaning tools are to be cleaned, disinfected and dried between uses
Environmental Cleaning and Disinfection Solution

• **Cleaning agents:** Detergents (liquid or powdered)

• **Disinfectants:** 0.5% Chlorine solutions made from chlorine products:
  - Sodium hypochlorite
  - Calcium hypochlorite
  - Sodium dichloroisocyanurate tablets

• Ethyl or isopropyl alcohol (70-90%) (used on items that might react to water)
• Improved hydrogen peroxide
• Quaternary Ammonium Compounds e.g Benzalkonium chlorides
Preparing 0.5% chlorine solution from Sodium hypochlorite

\[
\frac{\text{Available concentration}}{\text{Desired concentration}} - 1 = \text{Parts of water to be mixed with one part of sodium hypochlorite}
\]

\[\frac{3.5}{0.5} - 1 = 6\]

E.g. Using 3.5% sodium hypochlorite

\[
\text{Parts of Water} + \text{Parts of Sodium Hypochlorite}
\]
Health Care Waste Management
Introduction

• Health care waste management is the process of collection, treatment and disposal of the health care waste produced by vaccination

• Management of waste related to COVID-19 vaccination requires special attention.

• Due to the infectious nature of the virus and usage of PPE, large volumes of immunization waste will be generated.

• Safe collection and final disposal of health care waste will eliminate the potential risk to health workers, the public and protect the environment.
Health Care Waste Management

• COVID-19 vaccination campaigns are expected to generate unusually large amounts of health care waste.

• Counties should ensure there is:
  – A safe and effective waste management plan,
  – Budget for training,
  – Employment of waste handlers,
  – Bins and waste treatment technologies are in place prior to vaccine deployment, including the option of outsourcing to certified private providers.
County Responsibilities for HCWM

• Develop a plan
  – To minimize risks as the vaccination campaign will generate a large amount of waste (e.g. vaccine, vials, needles, syringes and PPE)
  – For additional capacity to collect the increased volumes of health care waste generated by the vaccination campaign.

• Mobilize resources and additional capacities during deployment for collection, transport and disposal of hazardous waste;

• Facilitate transportation of healthcare waste to the designated sites, treat it and safely dispose of it.
County Responsibilities for HCWM (cont)

• Locate and map the current waste disposal facilities that can be used for disposal of hazardous waste and record their data in the information system.

• Calculate the estimated total daily amount of waste that each vaccination site will generate based on the size of the population to be vaccinated and determine the capacity and cost of waste collection and disposal.

• Identify routes for collection and transport of waste to the disposal sites.

• Document the vaccination sites without waste disposal services, the distance to the closest location with capacity, or the lack of means to transport waste.
Evaluate current capacity
• Prepare a list of national regulations
• Locate and map the current waste disposal facilities
• Calculate the estimated total daily amount of waste that each vaccination site will generate
• Select routes for collection and transport of waste to the disposal sites.
• Inspect the current waste treatment sites for compliance

Definition of a hazardous health care waste management strategy
• Define strategies for mobilization of resources and additional capacities
• Review the current systems, determine the strategy for mobilization of resources, and specify the additional capacity for treatment of the volumes of waste expected.

STEP 1
Select the methods used for health care waste collection, transport, treatment and disposal
• Decide which methods will be used for waste collection, transport, treatment and disposal.
• Decision should be communicated to all staff members responsible for waste management during the pandemic.
• Determine the waste management supplies required at each vaccination site

STEP 2
STEP 3
Disposal of Needles and Syringes

1. Use auto-disable (AD) syringes and dispose of them as sharps waste.

2. Do not recap the needle.

3. Discard the used syringe into the safety box or safe syringe container.

4. Do not fill the safety box more than ¾ of its capacity or up to the red line on the container.

5. Properly label the safety box with the infectious substances symbol.

6. Seal the safety box before transporting it to the treatment site.

7. Appropriate Disposal.
• Put used vaccine vials and unopened vaccine vials which have expired or suffered heat exposure into a red or yellow puncture proof container for infectious waste, or into a biohazard container.

• Ensure that the containers are properly labeled with the infectious substances symbol.

• Seal the containers before transporting them to the disposal site.
Disposal of PPE

- Contaminated PPE is infectious waste and should be disposed as hazardous waste.

- Use a room/place away from the vaccination area to remove all used PPE.

- Ensure that container is properly labeled with the infectious substances symbol.

- Seal the containers before transporting them to the treatment site.
## Safe Disposal of waste at the Vaccination Facility

### Disposal of syringes
- Without recapping the needle, discard the contaminated syringe into a safety box
- Do not fill the safety box more than ¾ of its capacity or up to the red line on the container
- Seal the safety box before transporting it to the treatment site.
- Properly label the safety box with the infectious substances symbol.
- **Dispose off appropriately** (incineration)

### Disposal of vials
- Put used vaccine vials and unopened vaccine vials which have suffered heat exposure into a red or yellow bag for infectious waste, or into a biohazard container.
- Ensure that bags/containers are properly labeled with the infectious substances symbol.
- Seal the containers before transporting them to the disposal site.
- **Dispose off appropriately**

### Disposal of PPE
- Contaminated PPE is infectious waste and should be disposed as hazardous waste.
- Use a room/place away from the vaccination area to remove all used PPE.
- Ensure that bag/container is properly labeled with the infectious substances symbol.
- Seal the containers before transporting them to the treatment site.
- **Dispose off appropriately**
Preferably use best available technologies such as decontamination of waste by autoclaving or similar procedures or high-temperature incineration.

In low-resource settings, transitional methods such as pit burning or open burning can be used.
Recommendations

• Review waste management plans often during the campaign.

• Update plans based on changes in vaccine delivery systems or waste management technology.

• Stress test plans to verify their effectiveness.

• Adapt plans when operational gaps are observed, ensuring safe and rapid collection of sanitary waste.
SETTING UP A VACCINATION SITE

IPC CONSIDERATIONS
**Preparation and Planning Phase 1**

### Staffing
- Appoint a facility IPC focal point for the planning, deployment and monitoring of the vaccination activities.
- Ensure adequate number of vaccinators.
- Deliver IPC training to vaccinators.
- Identify HCW for supervision of vaccination activities and evaluation of IPC practices.

### Guidance
- Adopt national guidelines and SOPS for COVID-19 vaccination:
  - Screening and triaging policies
  - IPC measures for safe administration of COVID-19 vaccines
  - Environmental cleaning and disinfection
  - Waste management
  - Hand Hygiene
  - Training and educational materials
  - Occupational Safety & Health Policy
Environmental and Engineering considerations at the Vaccination Site (2)

- Clearly marked one-way foot traffic flow with clear entry and exit areas through the vaccination clinic
- Screening and vaccination area should have;
  - Sufficient space to accommodate 1.5m separation between persons
  - Naturally or mechanically well ventilated
- Medically equipped post vaccination observation area
- Functional and accessible HH stations at the point of care
- Adequate space for vaccine storage and preparation
- Appropriate distance between vaccination stations
- Appropriate waste management systems
- Signage and posters with reminders (HH, mask wearing)
• Ensure continuous and sufficient availability of the following:
  – PPE (masks, eye protection, gloves, gowns)
  – HH supplies (soap, running water, disposable towels, ABHR)
  – Thermoscans
  – Pedal operated Waste bins and liners
  – Puncture and leak proof safety boxes
  – Cleaning and disinfection equipment and supplies
  – Appropriate visual reminders and signage (including floor markings)
  – Physical barriers to aid partial separation
  – Suitable storage area for supplies
Operational Phase

- Use a daily checklist to monitor and ensure that the IPC and other safety measures are adhered to (such as the injection safety checklist and HH audit tools).
- Screening all staff and individuals arriving.
- Implement the scheduling process for vaccination appointment.
- Limit accompanying individuals to only those needing assistance.
- Ensure infrastructure described above is always in place to support adequate implementation of IPC measures.
- Enhance multidisciplinary teamwork (to include daily check-in, discussing monitoring data, agreeing actions and improving situational awareness of safety concerns).
Critical Components of Setting up a Vaccination Site

1. Hygienic environments and adequate ventilation
2. Physical Distancing
3. Hand Hygiene
4. Screening and crowd control
5. Flow and positioning
Hygienic Environments and Adequate Ventilation
Physical Distancing

Adequate physical distancing: Ensure at least 1.5 meter distance in all directions between each person.
Make available hand-washing stations or alcohol-based hand rub dispensers.
Screening and Crowd Control

Screen for respiratory symptoms before entering the vaccination site.

Limit the number of individuals to avoid crowding and long waiting times.
Flow and Positioning

Ensure one-way flow through the vaccination site.

Sideways positioning: Avoid positioning yourself face-to-face with the vaccine recipient.
Immunization Clinic Flow

1. Eligibility screening area (multiple stations)
2. CLINIC ENTRANCE
3. Waiting area
4. Registration/ Q&A/form completion area (multiple stations)
5. Medical screening/ treatment area (as needed)
6. Vaccination area (multiple stations)
7. Post vaccination waiting area
8. CLINIC EXIT

Adapted from Centers for Disease Control and Prevention training module: Planning Vaccination Clinics at Satellite, Temporary, or other Off-Site Locations during the COVID-19 pandemic
• Hand hygiene: use alcohol-based hand rub or clean running water and soap
• Perform respiratory hygiene/cough etiquette
• Rational PPE use
• Environmental cleaning and disinfection
• Apply safe injection practices and safe disposal of waste
End of Module 5

Thank you for your attention!
Module 6:

COVID-19 Vaccine Administration and Safety
Learning Objectives

• By the end of this module, the learner will be able to:

  – Describe the activities carried out before, during and after an immunization session.
  – Describe the technique to administer the vaccine
  – Describe considerations for conducting immunization sessions
  – Describe ways to ensure safe injection and proper waste management during vaccination
Preparing for immunization sessions: Phases and Critical activities

Phase 1
Before Clients come for immunization

Phase 2
During an immunization session

Phase 3
After an immunization session
The seven steps to safe injections

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Clean workspace</td>
</tr>
<tr>
<td>2</td>
<td>Hand hygiene</td>
</tr>
<tr>
<td>3</td>
<td>Sterile <em>Auto-disabled - AD syringe</em></td>
</tr>
<tr>
<td>4</td>
<td>Sterile vial of medication</td>
</tr>
<tr>
<td>5</td>
<td>Skin cleaning and antisepsis</td>
</tr>
<tr>
<td>6</td>
<td>Appropriate collection of sharps</td>
</tr>
<tr>
<td>7</td>
<td>Appropriate waste management</td>
</tr>
</tbody>
</table>
• For delivering COVID-19 vaccines, the following PPE is recommended:
  – Surgical masks – for the health worker; and
  – Surgical or fabric mask for the person receiving the vaccine.

- **Ensure you are wearing a Surgical mask throughout the entire vaccination session.**
Masks – how to safely wear them

Step 1. Perform hand hygiene.

Step 2. Place the loops around the ears. Ensure the mask fits over your nose, mouth and chin. Avoid touching it.

Step 3. Perform hand hygiene before removing or touching the mask.

Step 4. Remove by the straps and pull away from your face.

Step 5. Discard in a closed bin.

Step 6. After discarding, perform hand hygiene again.

More information:  https://youtu.be/adB8RW4I3o4
Setting up vaccination sites: Hygienic environments and adequate ventilation

- Ensure adequate ventilation.
- Open windows and doors in indoor spaces. If outdoors, pick a well-ventilated area.

© WHO/CO DRC

Setting up vaccination sites: Physical distancing

Adequate physical distancing:
Ensure at least 1 meter distance in all directions between each person.
Make available hand-washing stations or alcohol-based hand rub dispensers.
Setting up vaccination sites: Sites screening and crowd control

Screening before those getting vaccinated enter the vaccination site.

Limit the number of individuals to avoid crowding and long waiting times.
Setting up vaccination sites: flow and positioning

Ensure one-way flow through the vaccination site.

Sideways positioning: avoid positioning yourself face-to-face with the vaccine recipient.
Preparing for a vaccination session

For any vaccine delivery strategy:

- Inform the community and target groups in advance of the location, Date and time of vaccination.
- Set up safe vaccination sites and ensure adequate quantities of:
  - vaccines and supplies
  - adequate cold-chain equipment
  - appropriate injection equipment
  - appropriate PPE
  - safety boxes
  - reporting tools.
Requirements for a vaccination session (fixed post)

- Vaccine doses: target number x adequate wastage factor (WF)
- Vaccine vials: vaccine doses ÷ X (number of doses per vial)
- Auto disable (AD) syringes: 1 per vaccine dose
- Safety boxes: total number of syringes ÷ 100
- Tally sheets and other reporting forms
- List with contact phone numbers (e.g. supervisor, focal person for adverse events following immunization (AEFI), ambulance driver)
- AEFI kit and AEFI reporting forms (specific for COVID-19 vaccine)
- Infection prevention and control kit
- Containers for used/empty vaccine vials and swabs /Waste bin/bag
- Water and soap for cleaning hands/Sanitizer
Requirements for Other Vaccination Sites

- Adequate vaccines
- Other supplies (Syringes, Safety Boxes)
- Appropriate PPE
- Reporting tools
- Micro plan of the area
- A vaccine carrier in good condition with coolant packs and foam pad
- Infection prevention and control kit
- Tally sheets (or other reporting forms, depending on recommendation, including tracking for 2 doses)
- List with contact phone numbers (e.g. supervisor, local AEFI focal person, ambulance driver), AEFI kit and AEFI reporting forms (specific for COVID-19 vaccine)

- **Water and soap for cleaning hands/Sanitizer**
Phase 1: before clients come for immunization

1. Take vaccines and vials out of the refrigerator
2. Check expiry date status for each vial
3. Record the Time the Vial opened
4. Correctly pack vaccine carrier
5. Collect & arrange supplies and monitoring tools for immunization session
6. Verify the name of the Client
7. As with all other vaccinations prepare an emergency tray
Immunization clinic flow

Eligibility Criteria and Pre-registration/Screening → Clinic ENTRANCE → Waiting Area → Registration Q&A/Form → CLINIC EXIT → Post Vaccination Waiting Area → Vaccination Area
What to do during an immunization session

1. Greet the Client, Screen
2. Verify eligibility, explain facts about COVID19 vaccine
3. Prepare for vaccination
4. Inject in the left upper arm
5. Determine date for next vaccine dose
6. Record in the register, tally sheet and vaccination card. Give back the updated vaccination card
7. Observe the Client for 15’ Minutes
Administration of intramuscular (IM) injection

1. Perform hand hygiene between each vaccine administration
2. Hold the AD syringe barrel with fingers and thumb on the sides of the barrel and with the bevel of the needle facing upwards.
3. Gently stretch and support the skin with the other hand and quickly push the needle at a 90° angle down through the skin into the muscle.
4. Site for Vaccine administration: The deltoid muscle of the **LEFT** upper arm
5. Depress the plunger smoothly, do not move the needle under the skin.
6. Pull the needle out quickly and smoothly at the same angle as it went in.
7. Discard the needle and syringe straight into the safety box.
Next Steps

Thank
- Thank the Client, and tell her the dates for next dose.

Emphasize
- Emphasize the importance of getting all two doses as indicated.

Congratulate
- Congratulate her/Him.

Observe
- Observe for 15 minutes, then allow to leave.

Complete
- Complete Immunization tally sheet
Closing the vaccination site

- Discard in a separate waste bag or container any used COVID-19 vaccine vials.
- Count the unopened COVID-19 vaccine vials and record in the number on the Vaccine Stock Ledger.
- For other vaccination sites, return unopened COVID-19 vaccine vials, the vaccine carrier, and coolant-packs to the distribution point.
- Summarize on the tally sheet the number of clients Vaccinated at the end of day.
- Count Number of vials received, opened, discarded, and returned and record.
Safe waste disposal at health facility and other vaccination sites

• Effective waste management reduces the risk of needle-stick injuries and infections,
• Place a safety box close to the vaccinator so that used syringes and needles can be disposed off immediately at the point of use,
• Do not manually sort needles and syringes
• Avoid recapping the needle.
• Refer to PEP guidelines in case of needle stick injury
• Do not manually remove the used needle from the syringe.
• Close the safety box securely when it is three-quarters full.
• Dispose empty vaccine vials in separate container or a waste bag.
• Contaminated PPE is infectious waste and should be disposed in a separate container or a waste bag as all other hazardous waste
Maryann 28 years old a health care worker working in DILI Hospital is pre-registered and she is ready for vaccination

1. Prepare, Vaccinate and close the immunization session

Time: 15 Minutes
Key Messages

- COVID-19 vaccine session requires planning of activities before Clients come, when they arrive, and after all clients leave.
- The quality of vaccine should be checked before giving the vaccine.
- The COVID-19 vaccine is given as an intramuscular injection in the deltoid muscle of the LEFT upper arm.
- Always follow proper safety and waste management procedures during vaccination sessions.
Thank you for your attention!
Module 7:

Communication for COVID – 19 Vaccine Introduction
Learning Objectives

- By the end of the module, learners will be able to:
  - Describe health care workers' roles and responsibilities for COVID-19 vaccination
  - Demonstrate effective and individualised communication about COVID-19 vaccination
  - Explain communication strategies for three potential scenarios with community members
  - How to communicate effectively in the case of a COVID–19 vaccine related crisis
# HCW: Roles and Responsibilities

<table>
<thead>
<tr>
<th>Primary recipients of the vaccine</th>
<th>COVID – 19 Vaccinators</th>
<th>Vaccination Advocates</th>
<th>Community Representatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health workers are at</td>
<td>HCW are expected to communicate:</td>
<td>• Share own vaccination experience</td>
<td>• Links the community and health system</td>
</tr>
<tr>
<td>– Highest at risk</td>
<td>– Factual information on COVID – 19 Vaccination</td>
<td>• Credible sources of health information for the community</td>
<td>• Advocate with decision makers at the community level</td>
</tr>
<tr>
<td>– May transmit the disease</td>
<td>– Vaccine safety</td>
<td>• Addressing misinformation, misconceptions, rumours and myths (Infodemics)</td>
<td>• Community mobilisation and stakeholder engagement</td>
</tr>
<tr>
<td>– Play a critical role in providing essential health services</td>
<td>– Effectiveness of the vaccine</td>
<td>• Raise awareness about the vaccination and need to complete the schedule</td>
<td>• Sustain demand generation for the vaccine</td>
</tr>
<tr>
<td>HCW safety comes first</td>
<td>– Dosage and scheduling (pre – registration, reminders )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– HCW vaccination creates public confidence vaccine safety</td>
<td>– AEFI (Mild and severe)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>– Addressing misinformation, misconceptions, rumours and myths</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Effective communication maintains respect and trust between health workers, families and communities.

Effective communication entails:

- **Asking questions** in order to understand and listen to community members' experiences and perspectives.

- **Providing simple, practical information** about who will receive the vaccine, why and where.

- Responding to questions and concerns with **empathy and respect** to increase trust and address refusals.

- Acknowledging local challenges and show **respect for customs and cultures**.
Effective communication process

1. Before session
   Set aside time to give personal attention

2. On arrival
   Welcome warmly and praise for coming

3. In session
   Encourage expression of ideas and feelings

4. In session
   Listen actively to show interest and respect

5. In session
   Acknowledge concerns with empathy

6. In session
   Ask questions to check understanding

7. End of session
   Summarize and request commitment to vaccinate
# KEY messages for specific vaccine target groups

<table>
<thead>
<tr>
<th>Target Group</th>
<th>Vaccination Phase</th>
<th>Suggested Key Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Care worker</td>
<td>Phase 1</td>
<td>As a health worker, the COVID-19 vaccine will help <strong>protect you from exposure</strong> while you are performing your job. By getting vaccinated, you can <strong>help reduce the risk of COVID-19 transmission</strong> to your patients, family, neighbours and community, and continue to provide essential health services.</td>
</tr>
<tr>
<td>Elderly or older person</td>
<td>Phase 2</td>
<td>COVID-19 has been shown to affect older people more adversely. The vaccine <strong>will help protect you from COVID-19</strong> or from becoming severely ill if you are infected with the virus.</td>
</tr>
<tr>
<td>People with chronic conditions</td>
<td>Phase 2</td>
<td>COVID-19 has been shown to affect people with chronic conditions more adversely. The vaccine <strong>will help protect you from COVID-19 infection</strong> or from becoming severely ill if you are infected with the virus.</td>
</tr>
<tr>
<td>Other essential workers (e.g. teachers, truck drivers, food service, cleaners, etc.)</td>
<td>Phase 2</td>
<td>As an essential worker who encounters other people in your day-to-day routine, the COVID-19 vaccine <strong>will help protect you from exposure</strong> while you are performing your job.</td>
</tr>
</tbody>
</table>
Communication strategies

Case Scenario 1:

Syombua is a 38-year-old woman at the health facility for her infant's well-baby care visit. Syombua has diabetes and is overweight. She does not ask about the COVID-19 vaccine. Syombua always brings her baby for health visits and accepts routine vaccines.

Is Syombua eligible for the vaccine?
Use a presumptive approach: assume they will accept the COVID-19 vaccine.

- Inform her that the vaccination will be provided in phases and she will be informed when due
- Share key messages about the COVID-19 vaccine, benefits, common side-effects, care and follow-up.
- Inform her that she is eligible for the vaccine.
- Explain the registration process.
- Address any questions or concerns she may have
Case Scenario 2:

Atieno is a 25-year-old female who arrives at the health facility for a family planning visit. She works as a supportive staff in the hospital. When you ask her about the vaccine, Atieno replies, "I read it can cause health problems. Is it true and should I trust it?"

Is Atieno eligible for the vaccine?
Use a participatory approach: identify and address misinformation/rumours; help them to understand the importance/need for vaccination.

- Ask questions to discover misinformation.
- Share facts and interest stories to debunk myths and respond to concerns with empathy. (by taking this vaccination you protect your family)
- Acknowledge risks and benefits of the vaccine.
- If there are no questions or concerns proceed with the registration process
- Inform her that she is eligible for the COVID19 vaccination.
- If she remains hesitant, be respectful and provide information to take home; encourage to consider vaccination.

Context: If eligible for COVID – 19 vaccine
Case Scenario 3:

Maria is a healthy 28-year-old who brings her infant for Routine Vaccination. While at the health facility she says that she would like to have a COVID-19 vaccine. Current medical history demonstrate no commodités neither among the target priority occupation.

Is Maria eligible for COVID-19 vaccine? What would you say to Maria?
Context: If not eligible for COVID – 19 vaccine

If not eligible for the vaccine:

– Recognize and appreciate her interest in keeping herself and family healthy.
– Explain that currently she is not eligible for the Covid 19 vaccine
– Advise her on other recommended prevention measures.
– Assure her she will be informed when due
Key Messages

- **Health workers play important roles** in COVID-19 vaccination as vaccine recipients, vaccinators and health educators, trusted advocates, and representatives to the community.

- **Use empathy** to put yourself in community members’ position to better understand and respond to their challenges and fears about the vaccine.

- **Demonstrate caring and respect** to community members to foster trust and increase uptake of the vaccine.

- **Target communication** messages to community members’ at highest risk of disease transmission.

- Direct media to the Covid 19 designated spokesperson.
Crisis Communication in Immunization

- A crisis is an unexpected, non-routine event or series of events that creates high levels of uncertainty associated with vaccinations.
- It simultaneously presents an organization with both opportunities for and threats to its high priority goals.
- A crisis is usually
  - unpredictable
  - non expected,
  - develop suddenly
  - take an uncontrolled course and
  - evokes uncontrolled reactions
  - negative reaction
- Crisis communication is an exchange of information among trained health spokespersons with various publics in society about the likelihood and consequences of adverse events.
Importance of Crisis Communication

• Is an **important** tool for disseminating information and understanding about a **risk** management decision (COVID 19 Vaccination).

• Is to provide meaningful, relevant and accurate information, in clear and understandable terms targeted to a specific audience

• Is a tool to address overabundance of information, both online and offline (infodemic).

• Stakeholders play an important role in **risk communication**
### Crisis Communication: an example

<table>
<thead>
<tr>
<th>ISSUES</th>
<th>MITIGATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concern over COVID 19 vaccine development (clinical trials and regulatory processes)</td>
<td>Identify spokespersons who are reputable scientists of vaccines to clearly explain the vaccine development process as well as the regulatory process.</td>
</tr>
<tr>
<td>Vaccine/stockouts</td>
<td>Before vaccination, there should be clear communication on eligibility in terms of age, and location. Communicate on the reason for stock out, there can be communication on the reason for the stock out as well as strategies in place to mitigate the shortages and stock outs</td>
</tr>
</tbody>
</table>
### ISSUES

Adverse Events following immunization (AEFI)

- Before vaccination, inform the recipient about the common side effects for vaccines include soreness around the area of injection, or a low-grade fever.
- In case of an uncommon AEFI, reassure the recipient and inform them that the AEFI will be reported and investigated fully.
- Keep the recipient informed with follow-up information and facts on what is known, what is not known
  - clarity on their roles and responsibilities - the actions they should take
- Disseminate a consistent set of easy to understand key messages

### FREQUENCY

<table>
<thead>
<tr>
<th>ADVERSE REACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Common</td>
</tr>
<tr>
<td>Headache, Nausea, Fatigue, myalgia, malaise, pyrexia, chills</td>
</tr>
<tr>
<td>Injection site related: tenderness; pain; warmth; erythema; pruritus; swelling; bruising;</td>
</tr>
<tr>
<td>Common</td>
</tr>
<tr>
<td>Vomiting</td>
</tr>
<tr>
<td>Uncommon</td>
</tr>
<tr>
<td>Decreased appetite*, Lymphadenopathy*, Dizziness*, Abdominal pain*, Hyperhydrosisa*(excessive sweating), Pruritisa*, rash*</td>
</tr>
</tbody>
</table>

Most of the reported reactions are mild
<table>
<thead>
<tr>
<th>ISSUES</th>
<th>MITIGATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rumours</td>
<td>• Before developing, any key messages take time to find out more information through the community health volunteers, Sub County and county health promotion officers on the rumor. Where does it come from? What is the motivation  behind the rumor is it based on facts? , Who is likely to be affected by it? , How is it spread and by whom?</td>
</tr>
<tr>
<td></td>
<td>• In your key messages, acknowledge existence of rumours, provide factual messages through the same channels as those used by the rumormongers</td>
</tr>
<tr>
<td></td>
<td>• Respond promptly to questions and rumors, conduct a sustained, well-planned and implemented social mobilization campaign in areas with persistent rumors</td>
</tr>
<tr>
<td></td>
<td>• Do not raise the rumormongers’ profile by identifying and denouncing them in public.</td>
</tr>
<tr>
<td><strong>ISSUES</strong></td>
<td><strong>MITIGATION</strong></td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>-------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Temporary suspension of the vaccine</td>
<td>• Communication should clearly describe which vaccine has been suspended (provide batch numbers and other specific details)</td>
</tr>
<tr>
<td></td>
<td>• Reason(s) for the suspension, the decision-making process that will resolve the uncertainty and the safety criteria must be met before the vaccine programme can be restarted.</td>
</tr>
<tr>
<td>Temporary recall of the vaccine</td>
<td>• Key messages could indicate reasons for withdrawing the current vaccine,</td>
</tr>
<tr>
<td></td>
<td>• Details of the new replacement vaccine including its safety profile and time frame for introducing the new vaccine,</td>
</tr>
<tr>
<td></td>
<td>• The logistics of the vaccine replacement (including when will the replacement start, who will be affected, where will the replacement start), and the collection and disposal of the withdrawn vaccine</td>
</tr>
</tbody>
</table>
What is **vaccine hesitancy** and what should I do?

**Hesitancy spectrum**

- **Accept all vaccines**
  - Offer positive encouragement: "That is wonderful!"

- **Accept but unsure**
  - Discuss to better understand questions and concerns: "Tell me more about that." Respond with empathy.

- **Accept however some delay, or some hesitancy**

- **Refuse but unsure**

- **Refuse all vaccines**
  - Focus on their concerns: Show respect and do not argue. Point to trusted community members and sources.

For additional information: see https://ipc.unicef.org.
<table>
<thead>
<tr>
<th>Hesitancy spectrum</th>
<th>Accept all vaccines</th>
<th>Accept but unsure</th>
<th>Accept however some delay, or some hesitancy</th>
<th>Refuse but unsure</th>
<th>Refuse all vaccines</th>
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<tr>
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<tr>
<td><strong>Examples of how to respond to hesitancy with empathy</strong></td>
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<tr>
<td><strong>Health worker:</strong> “I understand that you want to make the best choice for yourself. What side-effects are you concerned about?”</td>
<td>&quot;I know vaccinating will help me, but I am afraid of side-effects.&quot;</td>
<td>&quot;I am not sure what to do. My community leader objects to vaccines.&quot;</td>
<td>&quot;I read rumours about COVID-19 vaccine online. I do not know what to believe.”</td>
<td>Health worker: “Social media and websites can spread false information. You can get the latest on COVID-19 vaccine from the source I trust at MOH Website. I am also here to answer your questions.”</td>
<td></td>
</tr>
</tbody>
</table>
Thank you for your attention!
Module 8:

Data Management and Reporting
Learning Objectives

At the end of this module, learners should be able to:

- Demonstrate proper recording and reporting
- Understand the target population
- Understand how to use COVID 19 data tools
- Correctly capture client’s information in all COVID 19 data tools
- Understand the process for follow up of defaulters by use of data tracking tools (if applicable)
The following are the recording and reporting tools that will be used for COVID-19 vaccine documentation.

- COVID-19 Vaccination Card
- COVID-19 Vaccination facility Register/Electronic facility register
- COVID-19 Vaccine tally sheet
- COVID-19 Vaccine monthly/daily/weekly summary sheet
- COVID-19 AEFI reporting tool
- COVID-19 Monitor chart
- COVID-19 Defaulter tracking tool
- COVID-19 Vaccine stock ledger book
- COVID-19 Vaccine ordering form
- COVID-19 Vaccine forecasting sheet
- COVID-19 Pre-registration form
Phase I (Q3 & Q4, FY 2020/2021)
- **Focus**: Rapidly reaching critical target populations
- **Priority Group**: Front line Health Care Workers (HCWs- Including CHWs) Critical/ Essential Workers
- **Target Population**: 1.25 Million

Phase II (FY 2021/2022)
- **Focus**: Rapidly reaching target populations most vulnerable to severe disease and death
- **Priority Group**: Persons >50 years and those >18 years with co-morbidities
- **Target Population**: 9.76 Million

Phase III (FY 2022/2023)
- **Focus**: Ensuring equitable vaccination of other vulnerable groups
- **Priority Groups**: Persons > 18 years in congregate settings, Hospitality and tourism industry
- **Target Population**: 4.9 Million
What is the purpose of vaccination records

- As proof of vaccination for individual’s travel, educational or occupational purposes
- To establish vaccination status in coverage surveys
- To provide vaccination information in case of AEFI or positive COVID-19 test
- To provide an immunization document for adults and older adults to which other vaccinations can be recorded, along with vaccination for COVID-19
- To monitor timing of subsequent vaccination dose (if required)

What’s Recorded on the Card
- Date of vaccination
- Vaccine product
- Dose number
- Batch/lot number
- Name of facility/provider/institution
COVID – 19 Facility Register

• Assist health care workers to keep track of the COVID immunization services offered

• It gives the workload of each facility at any point in time

• It provides important information in case of follow up
<table>
<thead>
<tr>
<th>NO.</th>
<th>Date of Birth (dd/mm/yyyy)</th>
<th>Serial Number</th>
<th>NEMIS Number</th>
<th>Name of Girl</th>
<th>Date of Birth (dd/mm/yyyy)</th>
<th>Name of School</th>
<th>Class</th>
<th>Name of Parent / Guardian</th>
<th>Parent / Guardian Telephone Number</th>
<th>Physical Address / Village / Estate / Landmark</th>
<th>DATE WHEN IMMUNISATION WAS GIVEN MUST BE INDICATED. TICKS OR CHECKS ARE NOT ACCEPTABLE</th>
<th>HPV Vaccine Dose 1</th>
<th>HPV Vaccine Dose 2</th>
<th>Remarks</th>
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<tbody>
<tr>
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</tbody>
</table>
Insert a Covid 19 Vaccination card

VACCINATION CARD

Keep this card safely and present it when you come for next dose.
Covid 19 Preparedness Checklist

**Ministry of Health**

**CHECKLIST FOR VERIFICATION OF PREPAREDNESS**

<table>
<thead>
<tr>
<th>Sub County</th>
<th>Date</th>
<th>Sub County</th>
<th>Date</th>
</tr>
</thead>
</table>

**Activity**

1. Coordinating and Planning
   - Is there a sub-County SIA on Covid 19?
   - Are there minutes of the Sub-County Coordinating Meetings?
   - Has the Sub-County level compiled the preparedness Checklist?
   - Have micro-plans been submitted?
   - Are appropriate maps available at sub-county level?
   - Have the Sub-County identified hard to reach areas and settlements?
   - Have the Sub-County identified formal and informal border crossing points?
   - Is there a strategy to reach the border crossing points?

**Insert Covid 19 preparedness Checklist**
MINISTRY OF HEALTH
NATIONAL VACCINES AND IMMUNIZATION PROGRAMME
Immunization Monitoring Chart

Insert the Covid 19 Monitoring Chart

4 ways to reduce 'drop out'
- Ensure availability of vaccines, supplies and logistics at all times
- Organise regular outreach sessions
- Make sure parents/caretakers know the return date
- Establish default tracing systems

Disease Surveillance

Measles
- Measles
- Neonatal Tetanus
- Acute Flaccid Paralysis (AFP)

Place this chart on the wall where it can be seen by staff every day
COVID-19 Vaccine Tally Sheet

• Forms to keep track of vaccinations administered by a vaccination provider or facility during an established period

• Allows to tally by target group of interest (age, sex, pre-existing condition, etc.)

• Separate sheets can be used for sessions targeting specific groups such as frontline health workers and essential workers, CHWs, vulnerable to severe disease

• Used to summarize administered vaccinations by dimension of disaggregation (age, sex, occupation, etc.) together with vaccines used and other relevant information

• Prepared as a paper report at the service delivery level, consolidated and digitized both at the designated facility at the sub-county levels
Summary Sheet

Insert summar sheet
KHIS2 Data Entry

• The designated facilities will enter data straight to the KHIS2 by........,
• Facilities with no credentials will send their reports to the Sub-county level for uploading.
• Upon receipt, the sub county data manager will:
  • Log in the reports
  • Verify the reports for accuracy, completeness & timeliness.
• Need to have a checklist on reporting facilities to ensure compliance
• Provide feedback to the facility
• Archive the hard copies for future reference
Sub County Data verification and entry into KHIS2

Health Facility Vaccination data capture on registers, tally sheets & summary sheets

County (Access rights to KHIS2)

National (Access rights)

Partners Receive summaries and give feedback

Designated Facilities with rights will upload data to KHIS2

Data flow Feedback
Defaulter Tracking Approaches

Reminder Cards

Tickler box

- Depends on the platform used to pre register. SMS Reminders?

Immunization Reminder Box
Year: 2001
Vaccination and tracking Of Defaulters

Policy definition of defaulter;

❖ A person is defined as a defaulter once he/she fails to turn up for immunization at least 2 weeks after the appointment date

❖ Each facility should compile a list of defaulters at least once a month and efforts to trace them be made

❖ There are several methods to track defaulters that can be adopted
  ❖ Use of Vaccination registers
  ❖ Use of immunization diaries
  ❖ Use of tickler cards
  ❖ Use of short text messages to caregiver
  ❖ Physical tracing using Community health volunteers
Key Message

• Record every client in the COVID 19 register
• Tally every child seen
• Compile a Monthly summary
• complete monthly report and submit Weekly or 5th of every month to the next level
• File all documentation tools
• Use data for planning and decision making
Thank you for your attention!
Module 9:
COVID-19 Vaccine Safety Monitoring and Surveillance
Learning Objectives

• By the end of the module, learners will be able to
  – Identify an adverse event following immunization (AEFI);
  – Classify the AEFIs
  – Describe how to identify and respond to AEFI
  – Explain how to report AEFI following COVID-19 vaccination
What is an AEFI?

- An Adverse Event Following Immunization is
  - Any unwanted or unexpected medical occurrence which **FOLLOWS** immunization
    - May or **may not** be caused by the vaccine
  - May be an unfavorable or unintended sign, abnormal laboratory finding, symptom or disease
The AEFI Surveillance cycle

- **Causality assessment**
  - National Vaccine Safety Advisory Committee (AEFI safety committee)

- **AEFI detection, notification reporting**
  - National
    - County
    - Health worker
    - Vaccine recipient or parent
  - Caregiver
    - Healthcare worker

- **Investigation & analysis**
  - National/county/sub-county team
# Types of AEFI by cause

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vaccine product-related reaction</td>
</tr>
<tr>
<td></td>
<td>One or more of the inherent properties of the vaccine product.</td>
</tr>
<tr>
<td>2</td>
<td>Vaccine quality defect-related reaction</td>
</tr>
<tr>
<td></td>
<td>One or more quality defects of the vaccine product including its administration device as provided by the manufacturer.</td>
</tr>
<tr>
<td>3</td>
<td>Immunization error-related reaction</td>
</tr>
<tr>
<td></td>
<td>Inappropriate vaccine handling, prescribing or administration</td>
</tr>
<tr>
<td>4</td>
<td>Immunization anxiety-related reaction</td>
</tr>
<tr>
<td></td>
<td>Anxiety about the immunization.</td>
</tr>
<tr>
<td>5</td>
<td>Coincidental event</td>
</tr>
<tr>
<td></td>
<td>Something other than the vaccine product, immunization error or immunization anxiety</td>
</tr>
</tbody>
</table>
## Examples of vaccine product – related AEFI

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Vaccine Reaction</th>
<th>Onset</th>
<th>Rate per million doses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measles Rubella</td>
<td>Rash</td>
<td>7–10 days</td>
<td>20,000-50,000</td>
</tr>
<tr>
<td>Pentavalent</td>
<td>Persistent (&gt;3hours) inconsolable screaming</td>
<td>0-24 hours</td>
<td>1,000-60,000</td>
</tr>
<tr>
<td>BCG</td>
<td>Suppurative lymphadenitis</td>
<td>2-6 months</td>
<td>100-1000</td>
</tr>
<tr>
<td>OPV</td>
<td>Vaccine-associated paralytic polio (VAPP)</td>
<td>4-30 days</td>
<td>1.4-3.4</td>
</tr>
<tr>
<td>Measles Rubella</td>
<td>Anaphylaxis</td>
<td>0-1 hour</td>
<td>3.5 to 10</td>
</tr>
</tbody>
</table>
Vaccine-quality related reaction

- Quality defects of vaccine product e.g.
  - Incompletely inactivated polio vaccine (IPV) leads to cases of paralytic polio

- *It is important to report known vaccine reactions so as to establish any change in rates*
Immunization error – related reactions

- May occur due to human error
  - reconstitution error
  - contamination of vaccine and/or syringe
  - administration error
- These errors are **PREVENTABLE.**
Immunization anxiety – related reactions

• Contributing factors:
  - Different vaccination environment,
  - Novelty of the vaccine, fear of injection.

• Anxiety related reactions
  - Fainting
  - Hyperventilation
  - Vomiting
  - Convulsions

• Prevention:
  - Reassurance of the recipient before vaccination
  - Individuals need to rest 15 -30 minutes after vaccination.
Two or more cases of the same adverse event related in time, place or vaccine administered.

Clusters can be usually associated within:

A particular provider or health facility

A vial/vials of vaccine that has/have been

- Inappropriately prepared
- Contaminated
- Inappropriately stored (e.g. freezing vaccine during transport)
Classification of AEFI by seriousness

- **Serious AEFI** – can result in:
  - results in death
  - life-threatening
  - requires hospitalization/prolongation hospitalization
  - results in persistent or significant disability

- **Non-serious** - does not pose a potential risk to the health of the recipient.

*Both serious and non-serious events should be carefully monitored.*
How can you prevent immunization error – related AEFI

**Do’s**

- Always check the labels of vaccines and diluents before reconstitution
- Follow manufacturer’s recommendations
  - Draw the auto-disable (AD) syringe just before vaccination
  - Contact supervisor for clarification when in doubt.
  - Document the opening time on the vial
  - Discard at the recommended discard time (**6 hours for COVISHIELD**) or end of session whichever comes first

**Don’t**

- Don’t touch the needle.
- Don’t touch the rubber cap of the vaccine vial.
- Do not hesitate to report issues or concerns when identified.
Responding to an AEFI

- First manage per presentation, refer as appropriate
- Reassure the caregivers
- Report on AEFI reporting form
- Send to Sub-county Public Health Nurse or Medical Officer of Health, to be uploaded to KHIS
- Serious AEFI are notifiable and should be reported Immediately to the Head, National Vaccines and Immunization Program, through the Sub-county Public Health Nurse, for further investigation
- Reporting can also be electronically on online AEFI reporting form https://pv.pharmacyboardkenya.org
- Record in Tally Sheet and Summary Sheet

**Note: Submission of the report does not mean that the vaccine or vaccinator caused the event. The AEFI can fall in any of the five categories!**
• Report **ALL** AEFIs.

• Ensure all the fields are filled

• In case of serious AEFI;
  
  • Inform your supervisor and/or AEFI focal person immediately (over telephone) and complete the reporting form **within 24 hours.**
AEFI Surveillance Flow Chart

- **Report to next level by phone immediately for Serious AEFI**
  - Lead AEFI investigation, request for technical assistance

- **Report to next level by phone immediately for Serious AEFI and submit form within 24 hours**, and submit AEFI reporting form within 7 days for all AEFIs through the DHIS2 event capture module
  - AEFI investigation
  - Detect and offer appropriate management for AEFI
  - Record AEFI on MCB, AEFI reporting form, tally sheet (MoH702), Monthly summary (MoH710)
  - Report to next level by phone immediately for Serious AEFI and submit form within 24 hours, and submit AEFI reporting form within 7 days for other AEFIs
AstraZeneca ChAdOx1 nCoV-19 vaccine safety

- Most of the reported reactions are mild

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Adverse Reaction</th>
</tr>
</thead>
</table>
| Very Common (≥1 in 10) | • Headache, Nausea,  
|                  | • Fatigue, myalgia, malaise, pyrexia, chills  
|                  | • Injection site related: tenderness; pain; warmth; erythema; pruritus; swelling; bruising |
| Common (≥1 in 100) | Vomiting                                                                        |
| Uncommon (≥1 in 1000) | Decreased appetite, Lymphadenopathy, Dizziness, Abdominal pain, excessive sweating, Pruritis, rash |
• Anaphylaxis
  – Very rare but severe and potentially fatal reaction.
  – Proper diagnosis and urgent treatment and management are essential.
  – Possible diagnosis when sudden loss of consciousness occurs >5–10 minutes after immunization apart from fainting.

https://www.who.int/publications/i/item/978-92-4-151594-8
Steps of managing anaphylaxis: ACBD

Place the patient in the recovery position if unconscious and ensure the airway is clear. If the patient is conscious, lie him/her face-up with elevated feet (unless vomiting or this results in breathing difficulties). Patient should not stand.

Check respiration and pulse

Promptly administer: children- 0.01 ml/kg (maximum 0.5 ml), Adults: 0.2 mL to maximum of 0.5 mL of aqueous adrenaline 1:1000 by intramuscular injection in the antero-lateral thigh; speedy intervention is of paramount importance. Repeat at 5-20 minutes’ interval if symptoms are still present (maximum 3 doses).

Monitor vital signs and reassess the situation frequently, to guide management and medication use. If required- begin CPR/IV Fluids (where available).

Arrange for transfer/ referral
Key Messages

• Monitoring and reporting AEFI related to COVID vaccine is essential for dispelling rumors and monitoring continued safety of COVID vaccines

• AEFI should be reported using the existing system established by the national immunization program

• Suspected AEFI related to COVID vaccines should be reported immediately to reporting authorities

• The AEFI reporting form should contain details of patient, event, vaccine and reporter details
“You need not be certain…

Just be suspicious”

Report all SUSPECTED adverse events
Thank you for your attention!