# NATIONAL PRIMARY HEALTH CARE DEVELOPMENT AGENCY

## PREPAREDNESS AND RESPONSE TO CORONAVIRUS DISEASE 2019 (COVID-19) AT PRIMARY HEALTHCARE AND COMMUNITY LEVEL

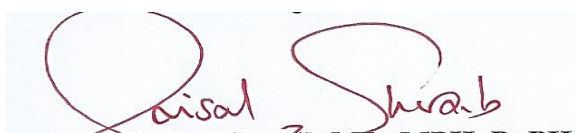### TRAINING MANUAL FOR PRIMARY HEALTH CARE WORKERS

## FOREWORD

The world is currently grappling with a pandemic the magnitude of which exceeds that of Ebola, MERS and SARS combined. The novel Coronavirus (SARS-CoV-2) that causes Coronavirus Disease 2019 (COVID-19) has overwhelmed countries with strong and resilient health systems and has had an enormous toll on human lives. Consequently, the World Health Organization has called for "aggressive preparedness" and improved efforts to contain the outbreak and protect health workers and citizens in all countries.

This is particularly important for countries anticipated to be the most vulnerable; those with weak health systems and inadequate resources, further strained by large populations living in abysmal conditions and suffering from malnutrition and preventable illnesses. Any response that fails to take these factors into consideration will not adequately contain this pandemic, resulting in devastating outcomes.

Nigeria, Africa's most populous country with over 190 million people, is one of such vulnerable countries. Since recording its first case of COVID- 19, the country has experienced an unprecedented increase in the number of positive cases, with worrying evidence of community transmission. As the first point of call in our communities, the health workers manning Primary Health Cate (PHC) facilities are strategically positioned to contribute to the decisive actions required to curb this scourge. They can identify and refer suspected cases, as well as support contact tracing and monitoring efforts. As these workers currently lack the skills and knowledge to do this, they must be provided with the required training.

The National Primary Healthcare Development Agency (NPHCDA) has developed this training manual in line with its mandate to promote health manpower development for PHC and in recognition of the need for strategic shifts in the PHC system to ensure limited resources provide maximal benefits. Designed for both in class and virtual online training, it is aimed at upskilling frontline PHC workers to screen and triage clients presenting at facilities for COVID-19, and safely refer suspected cases. It will also provide health workers with the skills needed to ensure their safety and that of their clients while providing routine PHC services.

I trust that PHC Managers (State and LGA PHC teams) and particularly, PHC workers will make optimal use of this Training Manual to enhance their capacity to curtail the spread of COVID-19 in Nigeria.



**Dr Faisal Shuaib MD, MPH, DrPH**
**Executive Director/CEO**

## ABBREVIATIONS AND ACRONYMS

| | |
|---|---|
| ANC | Antenatal Clinic |
| CCE | Cold Chain Equipment |
| CHEW | Community Health Extension Worker |
| CMAM | Community Management of Acute Malnutrition |
| COVID-19 | Corona Virus Disease 2019 |
| DSNO | Disease Surveillance Notification Officer |
| HAIs | Healthcare Associated Infections |
| HCW | Healthcare Worker |
| IPC | Interpersonal Communication |
| NCDC | Nigeria Centre for Disease Control |
| NGO | Non-Governmental Organization |
| NPHCDA | National Primary Health Care Development Agency |
| PHC | Primary Health Care |
| PPE | Personal Protective Equipment |
| Q&A | Questions & Answer |
| SPHCB | State Primary Healthcare Board |
| WHO | World Health Organization |

## INTRODUCTION TO THIS TRAINING MANUAL

This training manual is designed in accordance with the mandate of the National Primary Healthcare Development Agency to provide technical and programmatic support to states on the development of Primary Healthcare in Nigeria. The general aim is to improve knowledge, build capacity and skills of primary health workers in responding appropriately to service provision and safety concerns during the ongoing COVID-19 pandemic.

It will be recalled that in January 2020, the World Health Organization declared COVID-19 outbreak a public health emergency of international concern. As at the 11th of April 2020, all the continents had reported COVID-19 confirmed cases with many more countries across the globe reporting cases on a daily basis. Close to two million people are currently infected and the number keeps climbing on a daily basis. The Nigerian government is closely monitoring events while putting interventions in place to respond to the pandemic. As at 13th April 2020, the country had an ongoing established community transmission of the virus with a total number of 343 confirmed cases spread over several states mostly in Lagos and Abuja.

COVID-19 poses a major threat to healthcare workers. Records exist of fatalities arising from virus transmission while providing services to infected clients. This pandemic constitutes an unprecedented challenge to the Nigerian health system. The delivery of routine healthcare services, client flow and organization of the clinic within the context of social distancing is novel while preventing transmission of pathogens to healthcare workers and other clients is of paramount importance. Training and retraining of the PHC workforce with new and updated information to build their capacity, skills and competencies is one of the key recommendations to equip this human resource to contain the outbreak as well as to protect the health and wellbeing of PHC workers.

## OBJECTIVES OF THE TRAINING

**By the end of this training, participants should be able to:**

- Know the historical background of Coronaviruses and COVID-19
- Understand the modes of transmission and prevention of COVID-19
- Practice strategies and standard infection precautions for PHC workers
- Discuss the key requirements and mechanism for service provision in PHC clinics in the era of COVID-19
- Identify commodities and equipment required to ensure service provision, safety of clients and PHC worker
- Know the procedure for handling solid waste, liquid waste, decontamination and sterilization of medical instruments during COVID-19 outbreak
- Communicate the right messages on COVID-19 to clients and know how to link services within the community

**SESSION PLAN**

| Session | Session Title | Time (in Minutes) | Method | Learning resources & Materials |
|---------|---------------|-------------------|--------|--------------------------------|
| Module 1: Introduction to the training and Overview of Corona Virus Disease (COVID-19) | | | | |
| 1.1 | Introduction, expectations and objectives | 30 | Lecturette with Q&A | Training manual, Flipchart paper and stand, Posters, Markers, Masking tape |
| 1.2 | Historical background of corona viruses and COVID 19 | 30 | Brainstorming, Presentation with Q&A | Training manual, Flipchart paper and stand, Posters, Markers, Masking tape |
| 1.3 | Transmission of COVID-19 | 30 | Brainstorming, Presentation with Q&A | Training manual, Flipchart paper and stand, Posters, Markers, Masking tape |
| 1.4 | Classification of COVID-19 cases | 30 | Presentation with Q&A | Training manual, Flipchart paper and stand, Posters, Markers, Masking tape |
| 1.5 | Prevention of COVID-19 | 30 | Presentation with Q&A | Training manual, Flipchart paper and stand, Posters, Markers, Masking tape |
| | | | | |

| Module 2: Infection prevention and control during the COVID-19 pandemic | | | | |
|---|---|---|---|---|
| 2.1 | Risk based approach to the use of Personal Protective Equipment | 90 | Lecturette Questions and answers, Discussions, Lecture/presentation | Flipchart paper and stand, Cardboards, markers, Masking tape, scissors, Training manual |
| 2.2 | Transmission based precautions | 60 | Lecture/presentation | Training manual, Pictorials |
| 2.3 | Screening and triage of clients for COVID-19 | 55 | Lecture, Discussions | Training manual, Pictorials |
| 2.4 | Hand washing (Demonstration) | 60 | Lecture, Demonstration (Participants first, then facilitator) | Training manual, Handwashing materials (Handwashing stand, bucket with clean water, liquid soap, paper towels) Pictorials |
| Module 3: Provision of PHC services during COVID-19 outbreak | | | | |
| 3.1 | Conduct of general clinic sessions | 120 | Presentation, Video, Discussion, Simulation of clinic settings, Demonstration | Training manual, Flipchart paper and stand, Posters, Markers, Masking tape, Office furniture |
| 3.2 | Antenatal clinics | 60 | Lecture, Video, Discussion, Brainstorming | Training manual, Flipchart paper and stand, Posters, Markers, Masking tape |
| 3.3 | Labour, delivery services and immediate postnatal clinic | 120 | Lecture, Discussion, Group work | Training manual, Flipchart paper and stand, Posters, |

| | | | | Markers, Masking tape |
|---|---|---|---|---|
| 3.4 | Community Management of Acute Malnutrition (CMAM) | 60 | Lecture, Discussion, Group work | Training manual, Flipchart paper and stand, Posters, Markers, Masking tape |
| 3.5 | Immunization | 90 | Lecturette, Discussion, Group work | Training manual, Flipchart paper and stand, Posters, Markers, Masking tape |
| Module 4: Equipment and commodities required in a PHC during COVID-19 pandemic | | | | |
| 4.1 | List of equipment and commodities required in a PHC during COVID-19 pandemic | 60 | Presentation, Discussions, Group work | Training manual, job aid, Flip chart paper and stand, Markers, Laptop, Projector, participants folder, course timetable and masking tape |
| 4.2 | Mechanisms to maintain availability of essential medications, equipment and supplies during a pandemic | 30 | Presentation, Discussions, Group work | Training manual, job aid, Flip chart paper and stand, Markers, Laptop, Projector, participants folder, course timetable and masking tape |
| 4.3 | Vaccine security during COVID-19 outbreak | 30 | Presentation, Discussions, Group work | Training manual, job aid, Flip chart paper and stand, Markers, Laptop, Projector, |

| | | | | participants folder, course timetable and masking tape |
|---|---|---|---|---|
| **Module 5: Handling safe linen, waste management and environmental cleaning at PHC** | | | | |
| 5.1 | Segregation and handling of healthcare waste | 60 | Presentation, Discussion, Demonstration | Training manual, Flipchart paper and stand, Posters, Markers, Masking tape |
| 5.2 | Decontamination and sterilization of reusable medical equipment | 30 | Presentation, Discussion, Demonstration | Training manual, Flipchart paper and stand, Posters, Markers, Masking tape |
| 5.3 | General environmental cleaning techniques | 30 | Presentation, Discussion, Demonstration | Training manual, Flipchart paper and stand, Posters, Markers, Masking tape |
| **Module 6: Risk communication for PHC workers** | | | | |
| 6.1 | Risk communication for PHC workers during COVID-19 pandemic | 90 | Lecturette, Discussion, Group work, Q&A | Training manual, Flipchart paper and stand, Posters, Markers, Masking tape |

## MODULE ONE: INTRODUCTION TO THE TRAINING AND OVERVIEW OF COVID-19

**Duration:** 150 minutes

**Introduction to Module**

This module introduces participants, facilitators and other resource persons. It gives an overview of the training and describes the course approach. The module also provides an overview of COVID-19, its mode of transmission and how transmission can be prevented.

**Module Objectives**

**At the end of this module, participants should:**

- Know their fellow participants, facilitators and expectations of the course
- Understand ground rules and precautions to prevent spread of COVID-19 amongst participants
- Know the historical background of coronaviruses and COVID-19
- Be able to identify the key symptoms of COVID-19
- Understand the different ways by which COVID-19 is transmitted
- Be able to distinguish between a suspected case, probable case and confirmed case of COVID-19
- Be able to identify the different measures to reduce the risk of transmission of COVID-19

**Methodology**

- ❖ Presentation, Brainstorming with Q/A session

**Learning materials and resources**

- ❖ Training manual, Posters, Flip charts & stand, Markers

**Specific objectives**

- ❖ On completing this module, Participants should:

**Know:**

- Their fellow participants and facilitators
- The expectations of the course
- Course objectives and purpose of the training
- The administrative and housekeeping arrangements
- The key symptoms of COVID-19
- The different ways by which COVID-19 is transmitted
- The difference between a suspected case, probable case and confirmed case of COVID-19
- The different measures to reduce the risk of transmission of COVID-19

## SESSION 1.1: INTRODUCTION, EXPECTATIONS AND OBJECTIVES

**Duration:** 30 minutes

**Introduction to Session**

This session welcomes participants, facilitators, and other resource persons. It gives an overview of the training and describes the course approach: active participation, teamwork, mutual respect, knowledge and experience sharing. The session also establishes precautionary measures amongst participants to prevent transmission of COVID-19 amongst participants.

**Methodology**

Presentation, Q&A

**Training materials and Resources**

Training manual, Posters, Flip charts & stand, Markers

**Objectives**

At the end of this session, participants should know:

- Their fellow participants and facilitators
- The expectations of the course
- Course objectives and purpose of the training
- The administrative and housekeeping arrangements

**Self-Introduction by Participants and Expectations from the Training**

This usually serves as 'the ice breaker' during which participants are encouraged to disclose their background information in a lively, humorous and interactive manner

Facilitator introduces a presentation game for introduction such as:
- Asking each participant to stand up and introduce himself/herself, workshop name, expectations of the training and other agreed details
- Dividing participants into pairs and asking each pair to exchange names, background, expectations of the training and other agreed details; paired participants then introduce each other at plenary

**Classroom setting and ground rules**

It is important that participants understand that precautionary measures need to be established and maintained in order to abide by the guidelines for conducting meetings and training in the context of COVID-19 pandemic. Participants also need to agree on ground rules that will ensure a favourable learning relationship.

Facilitator begins by asking participants to take turns in stating their observations on the sitting arrangement and other precautions and why they think such measures were taken. Note all responses on a flip chart and reiterate why participants should abide by the measures and ground rules

**Notes**

_____

-------------------------------------------------------------------------------------------

_____

_____

-------------------------------------------------------------------------------------------

**Precautionary measures to be taken and maintained during the training**

| | |
|---|---|
|  | Daily temperature checks before entering the training hall |
|  | Wash Hands before entering the training hall and at regular intervals |

3

| | |
|---|---|
|  **2 meters** | Seat and remain seated at least two meters apart during group work and at plenary |
|  | Use hand sanitizers while seated in the training hall |
|  | Microphone should be sanitized before it is passed to a speaker |
|  | Participants and facilitators should wear face masks at all times |
|  | Any participant or facilitator who feels unwell, even within the course of the training must not attend or should stop attending the training |

## SESSION 1.2 – HISTORICAL BACKGROUND OF CORONAVIRUSES AND COVID-19

**Duration:** 30 minutes
**Objectives**

- Describe the history of COVID-19 disease outbreak
- List the symptoms of Corona Virus disease

**Outcome**

At the end of this session, participants should know:

- The history of COVID-19 disease outbreak
- Symptoms of Corona Virus disease

**Methodology**

- ❖ Brainstorming, Presentation, Q&A

**Training materials and Resources**

- ❖ Training manual, Posters, Flip charts & stand, Markers

**Brainstorming on COVID-19**
- ❑ The facilitator starts by asking participants to take turns in mentioning one thing each person knows about COVID-19.
- ❑ The responses are captured on a flip chart and discussed by the class
- ❑ Thereafter, the facilitator provides additional information from the

Coronaviruses are zoonotic viruses (viruses that affect animals but can be transmitted to humans). When transmitted to humans, they can lead to illness ranging from mild cold symptoms to severe illness. Coronavirus disease (COVID-19) is caused by an emerging strain of coronavirus (SARS-Cov-2) that had not been previously identified in humans.

On 31 December 2019, the World Health Organization (WHO) was notified of an outbreak of respiratory illness of unknown cause in Wuhan, China. On 7 January 2020, the causative agent was identified to be a novel coronavirus, SARS CoV-2. Following rapid spread of the virus to other countries, the Director-General of WHO declared the outbreak a public health emergency of international concern, and, on 11 March 2020, the 2019 coronavirus disease (COVID 19) received the status of a pandemic (an epidemic of global scale).

Fig 1.2: Image of Corona Virus
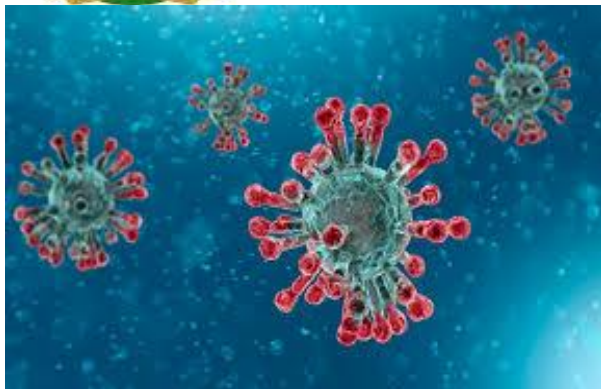
"Corona" means "crown" in Italian. The virus is named corona because it looks like a crown under electron microscopy

the WHO Africa Region, the COVID-19 outbreak has spread rapidly, as reflected by the significant upsurge in the number of cases and the rapid geographical expansion of the disease. In Nigeria, the Federal Ministry of Health confirmed the first COVID-19 case in Lagos State on 27 February 2020. Since then the disease has spread and, as at April 11, 2020, Nigeria had 305 confirmed cases of COVID-19 across 19 States with 7 deaths.

**Symptoms:**
COVID-19 appears to cause mild to severe non-specific and respiratory symptoms like:

| | |
|---|---|
| Fever | Myalgia |
| Sore throat | Cough |
| Malaise | Difficulty in breathing |

**Disease progression**

From current evidence, about 80% of cases (persons with COVID 19) will recover. In about 10- 15% of cases, it will cause a severe illness. Death is not a common outcome and occurs mostly in elderly clients and those with underlying health issues such as diabetes, heart disease, and immunosuppression. There is no specific treatment yet for COVID-19. However, many of the symptoms can be treated. Treatment is based on the client's clinical condition but supportive care for infected persons can be highly effective.

Notes

---------------------------------------------------------------------------------------------------------

---------------------------------------------------------------------------------------------------------

--------------

---------------------------------------------------------------------------------------------------------

-------

---------------------------------------------------------------------------------------------------------

**Duration:** 30 minutes

**Objectives**

- Describe the various ways by which COVID-19 is transmitted
- Explain the difference between a suspected case, probable case and confirmed case of COVID-19

**Outcome**

At the end of this session, participants should know:

- The modes of transmission for COVID-19
- The difference between a suspected case, probable case and confirmed case of COVID-19

**Methodology**

- ❖ Presentation, Q&A

**Training materials and Resources**

- ❖ Training manual, Posters, Flip charts & stand, Markers

COVID-19 is a highly infectious disease. The major symptoms compatible with the disease are fever, cough and difficulty in breathing. These symptoms appear within 2-14 days after exposure to the virus, although the average incubation period is 5 days.

People who have been exposed but are not showing symptoms of the disease can also transmit the virus.

**Routes of Transmission**

It can be transmitted through the following means:

1. <u>Directly, from person to person</u>: This occurs between people who are in close contact with one another (within about 1 metre or 3 feet), primarily via respiratory droplets. Droplet transmission occurs when respiratory droplets generated via coughing, sneezing or talking contact susceptible mucosal surfaces, such as the eyes, nose or mouth. Respiratory droplets are large and are not able to remain suspended in the air thus they are usually dispersed over short distances.

2. <u>Indirectly, from infected materials to humans</u>: This occurs through physical contact (usually hands) with fomites/materials contaminated with the virus and subsequent contact with susceptible mucosal surfaces.
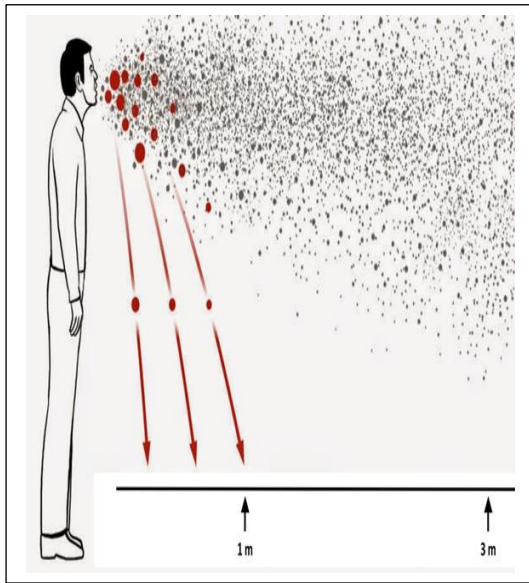
The virus is very large, so transmission is through droplets.

When an infected person coughs or sneezes, a person in close contact with such a person can inhale the virus in the droplets.

The droplets can also fall and contaminate objects which an uninfected person can pick on his/hands when s/he touches them.

Notes

-------------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------

## SESSION 1.4 – CLASSIFICATION OF COVID-19 CASES

**Duration:** 30 minutes

**Objectives**

- Explain the difference between a suspected case, probable case and confirmed case of COVID-19

**Outcome**

At the end of this session, participants should know:

- The difference between a suspected case, probable case and confirmed case of COVID-19

**Methodology**

- ❖ Presentation, Q&A

**Training materials and Resources**

- ❖ Training manual, Posters, Flip charts & stand, Markers

Cases of COVID 19 can be classified into 3, based on clinical, epidemiological and laboratory findings:

1. Suspected case
2. Probable case
3. Confirmed case

**COVID-19 Suspected case:**

Any person (including severely ill clients) presenting with fever, cough or difficulty in breathing AND who within 14 days before the onset of illness had any of the following exposures:

1. History of travel to and more than 24 hours transit through any high-risk country or state with widespread community transmission of COVID-19

2. Close contact with a confirmed or probable case of COVID-19 OR

3. Exposure to a healthcare facility where COVID-19 case(s) have been reported

**COVID-19 Probable case: Any suspect case:**

1. For whom testing for COVID-19 shows Indeterminate (inconclusive) results OR

2. For whom testing was positive on a pan-coronavirus assay OR

3. Who dies before samples can be collected from him /her

**COVID-19 Confirmed case:** Any person with laboratory confirmation of COVID-19 infection with or without signs and symptoms

Notes

------------------------------------------------------------------------------------

------------------------------------------------------------------------------------

------------------------------------------------------------------------------------

-----------------------------------------------------------------------------------

------------------------------------------------------------------------------------

-----------------------------------------------------------------------------------

## Who is a contact?

A contact is a person who has had any of the following exposures during the 2 days before and the 14 days after the onset of symptoms of a probable or confirmed case:

·       Face-to-face contact with a probable or confirmed case within 1 metre and for more than 15 minutes

·       Direct physical contact with a probable or confirmed case

·       Direct care for a client with probable or confirmed COVID-19 disease without using proper personal protective equipment

·       Other situations as indicated by local risk assessments

Note: For confirmed asymptomatic cases, the period of contact is measured as 2 days before, through the 14 days after the date on which the sample was taken which led to confirmation.

**Duration:** 30 minutes

**Objectives**

● Explain the measures required to reduce the risk of transmission of COVID-19

**Outcome**
At the end of this session, participants should know:

• The measures required to reduce the risk of transmission COVID-19

**Methodology**

❖ Presentation, Q&A

**Training materials and Resources**

❖ Training manual, Posters, Flip charts & stand, Markers

**Introduction**

Everyone is at risk of contracting coronavirus disease. However, health care workers have an additional job-related risk.

Prevention of COVID 19 has been divided into 2 parts:
1.      General preventive measures for all members of the public, including health workers
2.      Prevention measures for Primary Health Care workers - This will be discussed in detail in other modules
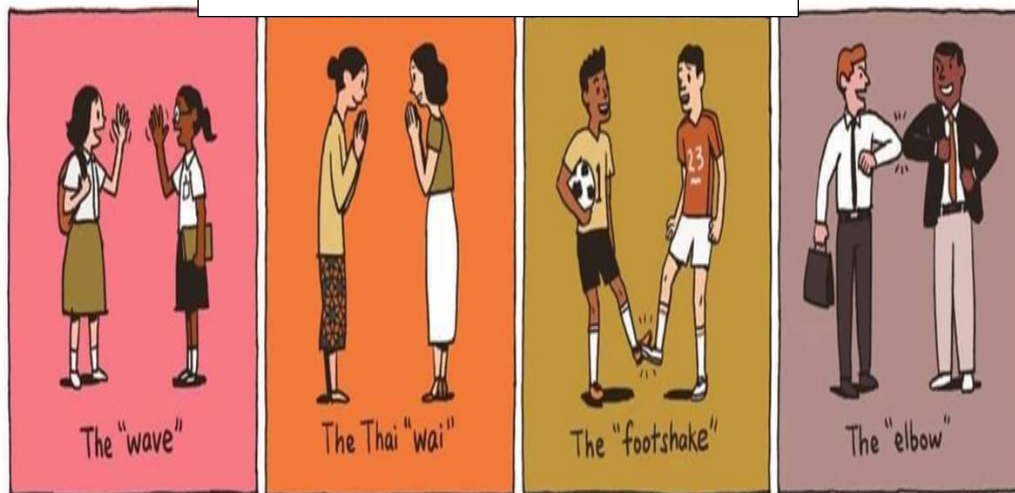
**General prevention measures**

To reduce the risk of spread of COVID-19, all members of the public are advised to adhere to the following measures:

1.  Wash your hands frequently with soap under running water for at least 20 seconds or use an alcohol-based sanitizer if water is not available

2.  Avoid touching your eyes, nose and mouth with unwashed hands

3.  Avoid close contact with anyone showing symptoms of respiratory illness. Maintain at least 2 metres (6 feet) distance between yourself and anyone who is coughing or sneezing repeatedly

4.  Cover your mouth and nose properly with a tissue paper when sneezing and/or coughing. Dispose of the tissue properly immediately after use. You may also cough into your elbow if a tissue is not available

5. Obey national and state directives on cancelling/avoiding large gatherings, staying at home in areas where lockdowns have been directed, social distancing and self-isolation

6. Do not mingle with people or congregate if you feel unwell with symptoms like fever, cough, sneezing or difficulty breathing

7. Clean all frequently touched surfaces such as door knobs, phones, and tables, with soap and water, diluted bleach or other disinfectant regularly



HANDSHAKE ALTERNATIVES

The "wave"   The Thai "wai"   The "footshake"   The "elbow"

---

**Module Evaluation**

1. Enumerate the two main modes of transmission
2. Differentiate between the following cases within the context of COVID-19 infection:
   a. Suspected case, b. Probable case and c. Confirmed case
3. List 5 general prevention measures for COVID-19

## MODULE 2: INFECTION PREVENTION AND CONTROL DURING THE COVID-19 PANDEMIC

**Duration:** 265 minutes

**Introduction to Module**

Infection prevention and control is a scientific approach with practical solutions designed to prevent harm caused by infections, to clients and health care workers. It is grounded in principles of infectious disease, epidemiology, social science and health system strengthening, and rooted in client safety and health service quality (WHO). However, if proper attention is not given to Infection prevention and control by healthcare workers, it may cause increase transmission of pathogenic organism and eventual infection- Health care-associated infections (HAIs). Infection control is therefore about, eliminating, minimizing or preventing the risk of acquiring infection during the provision of Healthcare services.

**Module Objectives**

- Understand Infection prevention and control
- Assess the risk of infection to self, and others, and decide on the appropriate personal protective equipment to (PPE) use.
- Describe key elements of Transmission based precautions and key element of IPC as it relates to COVID-19.
- To facilitate the early identification of cases of suspected COVID-19 infection and apply standard precautions.
- To demonstrate proper hand wash as a key component of Infection prevention and control

**Module Outcome**

**At the end of this module, participants should know:**

- What Infection prevention and control entails
- How to assess risk at the facilities and the correct choice of personal protective equipment
- The mode of transmission of specific pathogens (especially COVID-19) and the corresponding precautionary measures to take
- How to ensure triage, early recognition and isolate clients with suspected COVID-19 infection
- Why, who and how to perform proper hand washing at the facilities or wherever it is required

## SESSION 2.1 – RISK BASED APPROACH TO THE USE OF PERSONAL PROTECTIVE EQUIPMENT

**Duration:** 90 minutes

**Introduction:**

The is a higher risk of encountering pathogenic organisms at the healthcare environment by the nature of the various activities carried out as compared with other environments, thus it's importance to adequately identify the various risk factors and decide on the appropriate personal protective equipment (PPE).

**Session Objectives:**
- Define Risk in Infection Prevention and Control?
- List factors that can affect IPC Risk.
- Using the concept of Point of care risk assessment, in choice of PPE

**Methodology**

- ❖ Questions and answers, Discussions, Lecture/presentation

**Training Materials and Resources**

- ❖ Flipchart paper and stand, Cardboards, markers, Masking tape, scissors, Training manual

---

### THE "THINK TANK" PARTICIPATORY APPROACH

The facilitator divides the participants into two (2) groups

**Group 1**: How well do you know your environment?

**Group 2**: The four Systemic view

STEPS:

1. Give 4 rectangular cut out cardboards (different colours) to all the participants
2. Base on the group, each participant answers the four questions on the cardboards
3. Give 10 minutes for them to answer the questions
4. Ask for six (6) volunteers from each group to come out with the cardboards and ask for the answer to each question on the cardboard
5. Stick each answer on the flipchart board one after the other, allow the audience to ask questions and make inputs.
6. Call for the next volunteer and repeat the process above.

**Group 1**

**How well do you know your environment?**

The aim of this session is for participants, to get to know each other, the facilities they work and infection prevention control practices

1. Participant's name
2. Which of the Primary Healthcare facilities are you from?
3. The number of beds in your facility
4. Are you happy/pleased with the IPC in your facility (Yes/No, explain the reason why?)
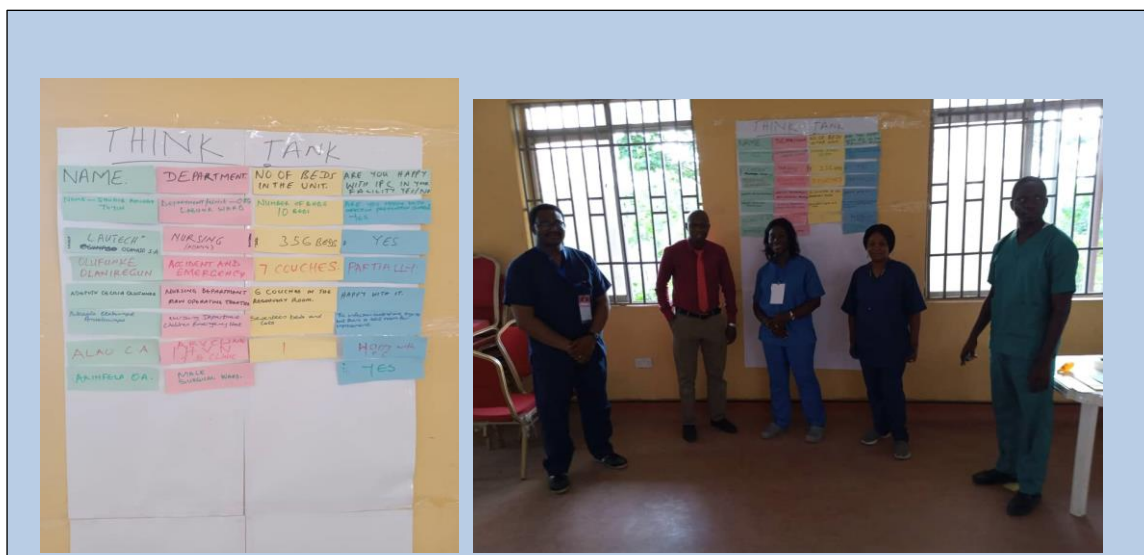


**Group 2:**

**The four Systemic view**

This is focused on participant's risk assessment before contact with a patient and the correspondent mitigation factors/how each of the risk listed can be avoided

1. Me factor (a person/profession): the healthcare worker would write the risks they may face while performing their daily duties
2. We factor (as a group and as a team): the healthcare worker lists the risk they may pose to their fellow colleagues at work
3. Theme (work task/assignment): the healthcare worker lists the risk they may face while performing a task/duty at the health facility
4. Globe factor (the working context): the healthcare worker lists the risk the health facility may pose to the community if health personnel do not perform their duties optimally

**Risk in Infection Prevention and Control**

Risk is the probability that an undesired adverse event or hazard will occur, while a hazard is a situation, action or event that may cause harm or damage.

In infection prevention and control, risk is probability of acquiring an infection arising from activities within a healthcare facility

What are the risks for infection?

- ❖ Contaminated hands
- ❖ Direct contact with blood/body fluids
- ❖ Contaminated clinical equipment
- ❖ Dirty environment
- ❖ Soiled linen
- ❖ Medical waste
- ❖ Sharps
- ❖ Injection, indwelling devices
- ❖ Clients with communicable diseases
- ❖ Clients colonized/infected with resistant micro-organism

**What increases Risk?**

- Invasiveness of the procedure

- Sharing items

- Refilling containers

- Inadequate Facilities

- Duration of exposure

- Devices or procedures that enter a normally sterile area, Devices that have contact with mucous membranes
- Thermometers, Reuse of gloves, Same hands that touch clients without hand washing, Multi-dose vials, bedpans
- Disinfectants, Lotion, Cotton containers, Bleach bottles, Buckets for mopping floor, Thermometer holders
- Crowding, Long walk to sink, no soap or water, no isolation facility for clients with respiratory tract infections, understaffing, reuse of supplies that must be sterile
- The longer the exposure to a confirmed COVID-19 case, the higher the risk of exposure e.g. living in same house with a person with COVID-19 is riskier than a 2-minute encounter with a person with COVID-19

**Rational Use of PPE according to the Point of Care and Risk during COVID-19 pandemic**

❖ Risk assessment must be done at every client encounter

*Table 1: PPE recommendations for the care and management of suspected or confirmed*

| Area within the Health facility | Target personnel | Activity | Type of PPE or IPC precaution |
|---|---|---|---|
| Administrative areas | All staff, including clinical staff | Administrative tasks | No PPE required<br><br>Hand hygiene<br><br>Spatial distance |
| Other areas of client transit (e.g. wards, corridors) | All staff, including healthcare workers | Any activity that does not involve close contact with COVID-19 clients | No PPE required<br><br>Hand hygiene<br><br>Spatial distance |
| **Out-patient settings** | | | |
| **Triage** | Healthcare workers | Preliminary screening not involving direct contact | Maintain a spatial distance of at least 1metre<br><br>No PPE required<br><br>Hand hygiene |
| | Clients with respiratory symptoms | Any | Provide a medical mask for the client to use immediately. Maintain a spatial distance of >1metre. Client to perform hand hygiene if not seriously distressed |
| | Clients without respiratory symptoms | Any | No PPE required Hand hygiene Spatial distance |

*Table 2: PPE recommendations for the care and management of suspected or confirmed (Contd.)*

| Area within the Health facility | Target personnel | Activity | Type of PPE or IPC precaution |
|---|---|---|---|
| **Consultation room** | Health care workers | Physical examination of a client with respiratory symptoms | Medical mask Protective gown Gloves Eye protection (goggles/ face shields) |
| | Healthcare workers | Physical examination of clients without respiratory symptoms | PPE according to standard precautions and risk assessment |
| | Clients with respiratory symptoms | Any | Provide medical mask if tolerated |
| | Clients without respiratory symptoms | Any | No PPE required |
| | Cleaners | Cleaning processes after and between consultations with clients with respiratory symptoms Medical mask Cleaning uniform aprons Heavy-duty gloves Eye protection (if the risk of splash from organic material or chemicals is anticipated) Covered work shoes or boots | Medical mask Cleaning uniform aprons Heavy-duty gloves Eye protection (if the risk of splash from organic material or chemicals is anticipated) Covered work shoes or boots |

*Table 3: PPE recommendations for the care and management of suspected or confirmed (Contd.)*

| Area within the Health facility | Target personnel | Activity | Type of PPE or IPC precaution |
|---|---|---|---|
| **Waiting room/ area** | Clients with respiratory symptoms | Any | Provide a medical mask Immediately move the client to a separate area away from others; if this is not feasible, ensure the spatial distance of at least 2 metres from other clients Give priority attention |
| | Clients without respiratory symptoms | Any | No PPE required Hand hygiene should be encouraged |
| Laboratory | Lab technician | Lab technician Manipulation of respiratory samples | Medical mask Lab gown ± apron Gloves Eye protection (goggles or face shield) |
| | Lab technician | Collection of other samples | Lab coat/gown Gloves |
| Other service access points e.g. radiology, physiotherapy, etc | Service provider | Non-respiratory manipulation | Client to also put on a medical mask Gloves Medical mask Hand hygiene |

*Table 4: PPE recommendations for the care and management of suspected or confirmed (Contd.)*

| Area within the Health facility | Target personnel | Activity | Type of PPE or IPC precaution |
|---|---|---|---|
| In-patient settings | | | |
| Client room | Healthcare workers | Providing pre-referral care to suspected COVID-19 clients) | Coverall gowns / gowns and hair cover, gloves, eye protection, boots or shoe cover |
| | Cleaners | Entering the isolation room/area of suspected COVID-19 clients Cleaning toilets and shower rooms | Medical mask Gown Heavy-duty gloves Face shields (if the risk of splash from organic material or chemicals) Covered work shoes or boots |
| | Caregiver when necessary | Entering the isolation room/area of suspected COVID-19 clients | Medical mask, Gown, Gloves |
| | All other hospital staff, including healthcare providers | Any activity that does not involve contact with COVID-19 clients | No PPE required |

**Steps for donning and doffing of Personal Protective Equipment (PPE)**

When preparing to Don (wear) PPE, the following must be put into consideration:
- Ensure you have all the PPE laid out
- Always make sure you have the right size for you
- Plan where to Don and doff (different entry and exit)
- Plan for waste disposal
- Remember to perform Hand hygiene (see session 2.3 below)

| Types of PPE Used in Healthcare Delivery/Settings | |
|---|---|
| GLOVES | Protect hands |
| GOWNS/ APRONS | Protect skin and/or clothing |
| MASKS | Protect mouth/nose |
| RESPIRATORS | Protect respiratory tract from airborne infectious agents. |
| GOGGLES | Protect eye |
| FACE SHIELDS | Protect Face (mouth, nose, and eyes) |

1. **DONNING OF GOWN**

- Wear a scrub, remove every personal effects on you e.g bangles/bracelet, wrist watch
- It's important to note that an instructor is required and job aids on donning, to monitor and ensure its properly done
- Put arms in sleeves, pull gown towards shoulders to fully cover torso from neck to knees, arms to wrists and wrap to the back. Fasten at the back of the neck and tie around the waist,
- Tie the gown securely but in a manner that it can be easily untied when you begin the doffing process. Leave some length of the tie so that it can be pulled and untied without much effort
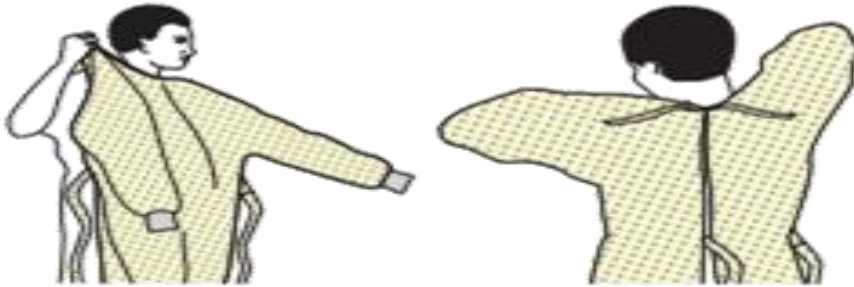
## 2. Donning the Mask

- Perform Hand hygiene, remove a mask from the box and make sure there are no obvious tears or holes in either side of the mask
- Identify the top - the side of the mask that has a stiff bendable edge is the top and is meant to mold to the shape of your nose.
- The colored side of the mask is usually the front and should face away from you, while the white side touches your face



**Types of masks and how to wear it**

- **Face Mask with Ear loops**: Hold the mask by the ear loops. Place a loop around each ear.
- **Face Mask with Ties**: Bring the mask to your nose level and place the ties over the crown of your head and secure with a bow.
- **Face Mask with Bands**: Hold the mask in your hand with the nosepiece or top of the mask at fingertips, allowing the headbands to hang freely below hands.  Pull the top strap over your head so that it rests over the crown of your head.  Pull the bottom strap over your head so that it rests at the nape of your neck
- Fit flexible band to nose bridge and snug to face & under chin

## 3. Donning a Respirator (N-95mask)
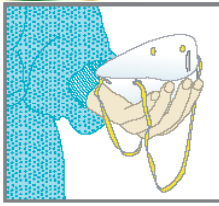
### Step 1

Cup the respirator in your hand with the nosepiece art your fingertips, allowing the headbands to hang freely below your head

### Step 2

Position the respirator under your chin with the nosepiece up

### Step 3

-Pull the top strap over your head, resting it high at the back of your head

-Pull the bottom strap over your head and position it around the neck below the ears

### Step 4

-Place fingertips of both hands at the top of the metal nosepiece

-Mould the nosepiece (USING TWO FINGERS OF EACH HAND) to the shape of your nose

 (Pinching the nosepiece with one hand may result in less performance)

### Step 5

Cover the front of the respiratory with both hands, being careful not to disturb the position of the respirator

### Step 5a: Positive seal check

Exhale sharply. Positive pressure inside the respirator = no leakage. If leakage, adjust the position and/or tension of the straps and retest

Repeat until the respirator is secured properly

### Step 5b: Negative seal check

-**Inhale deeply**. If no leakage, a negative pressure will make respirator cling to your face

 Leakage will result in air entering through gaps in seal

4. Putting on the Goggles or face Shield

Place over face and eyes and adjust strap to fit, anti-fog feature improves clarity



5. **Donning of Gloves**
- Gloves come in different sizes, so make sure you choose the right size    for a good fit.
- If the gloves are too big, it is hard to hold objects and easier for germs to     get inside your gloves, if too small more likely to tear.
- Start by identify the thumbs part and put on ensuring each finger fits in,      down gently and extend to cover wrist
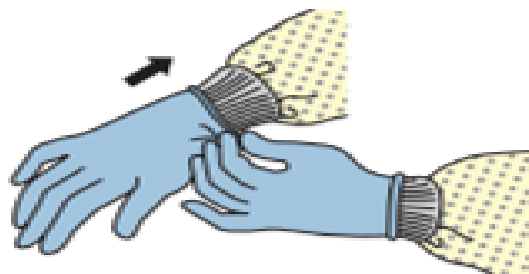


**Putting off/Doffing of PPE**
   **General Considerations (Doffing PPE)**
- Remove all PPE before exiting the patient room except a respirator, if worn.
- Perform Hand Hygiene between steps. If hands become contaminated and immediately after removing all PPE.

1. **Removing Gloves**

Outside of gloves are contaminated!
Using gloved hands, grasp below the palm area of the other gloved hand, pull over fingers and peel backwards to remove turning inside out, hold removed glove in other gloved hand. Slide

fingers of ungloved hand under remaining glove at wrist and peel off second glove over first glove Discard removed gloves in appropriate waste container. Perform Hand hygiene afterwards



2. **Removing a Medical mask**

- Perform Hand hygiene
- Avoid touching the front of the mask. The front of the mask is contaminated.
- Only touch the ear loops/ties/band.
- **Face Mask with Ear loops***:* Hold both of the ear loops and gently lift and remove the mask.
- **Face Mask with Ties***:* Untie the bottom bow first then untie the top bow and pull the mask away from you as the ties are loosened.
- *Face Mask with Bands:* Lift the bottom strap over your headfirst then pull the top strap over your head.
- Dispose the mask and perform hand hygiene

3. **How to remove a Gown**

With clean hands, untie or break ties at the back and neck
Touching only the inside of the gown, pull from neck and shoulders, then arms, turning inside out as gown is removed
Avoid contaminating yourself while doing this
Roll gown into bundle and discard in appropriate waste
Perform hand hygiene

### 4. Removing protective eye cover

- With clean hands, remove eyewear by handling sides or back only
- Reprocess and store appropriately
- Wash hands



### 5. How to remove a respirator

- It's important that you not touch the front of the respirator.
- First, tilt your head forward, gently remove the bottom strap first by slowly pulling it over the head.
- Then remove the top strap, being very careful not to touch the front of the mask
- Discard the mask safely and perform hand hygiene.

## SESSION 2.2 – TRANSMISSION BASED PRECAUTIONS

**Duration:** 60 minutes

**Objectives**

- To describe key elements of transmission-based precautions

**Outcome**

At the end of the session, participants should have:

- Good knowledge of transmission-based precautions

**Methodology**

- Lecture/presentation

**Training Materials and Technology**

- Training manual, Pictorials

**Introduction**

- Transmission based precautions is required to contain highly transmissible and/or epidemiologically important pathogens, based on the **mode of transmission** of the specific pathogen, which could be via contacts (direct or indirect), airborne and droplets, however a pathogen may have more than one route of transmission. Transmission-based precaution is always applied in addition to Standard Precautions.

**Standard precautions**

These are the minimum infection prevention practices that apply to all client care, regardless of suspected or confirmed infection status of the client, in any setting where health care is delivered and it's applied for any disease. It is also useful in the following scenarios:

- Infection prevention precautions apply whenever providing client care, irrespective of the client diagnosis

- In preventing unprotected contact with body fluids including blood, respiratory and other secretions/excretions

- Useful for all contact with body fluids regardless of the infection status

- Minimizing or preventing spread of infection to health care workers, other clients and visitors

**Contact Precautions:** This is the main route of transmission in a healthcare setting. Organisms that are transmitted can be through direct or indirect transmission.

| Direct transmission | Indirect Transmission |
|---|---|
| • Hands- contact<br>• Nasal-droplet<br>• Throat- droplet | • Bedpans/urinals<br>• Dressing trolleys<br>• Mattresses<br>• Drip stands<br>• Mops & buckets<br>• Hand disinfection equipment |
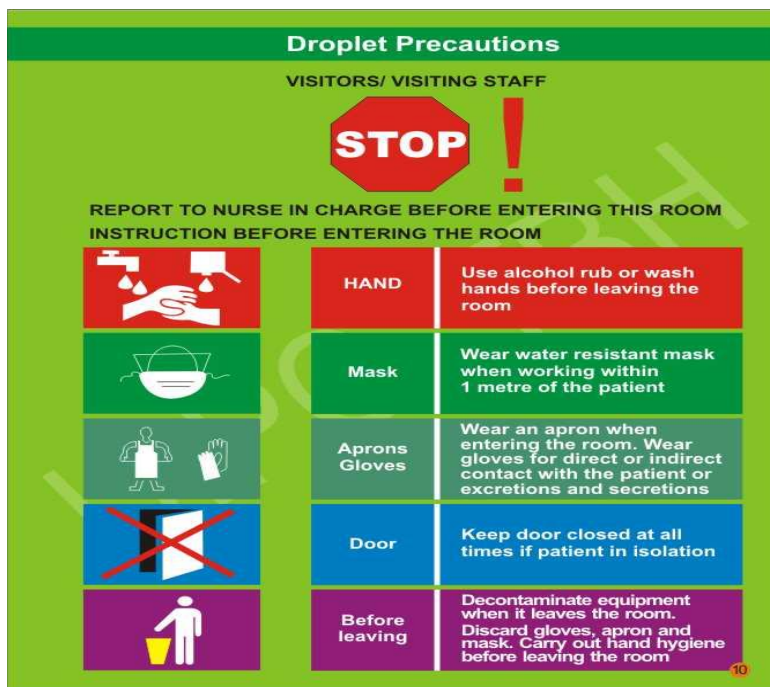




**Contact Isolation** is the corresponding precaution to contact transmission. It requires providing

- Private room or cohorting with signage indicating restricted access
- Dedicated toilet or commode
- Dedicated equipment or disinfected between client use
- Access to hand washing stations

**Droplet Precautions**

Respiratory pathogens are released via sneezing, coughing, or talking by an infected person, the pathogens are inhaled by a second person. Large particles (of $>5\mu m$) land in the upper respiratory tract, where they either cause infection or are swallowed. Droplets requires close contact between infected source and recipient for transmission to occur, it also contaminates the surrounding environment, including people's hands. **Smaller particles** land in the trachea, bronchi or bronchioles and alveoli and the outcome is they cause infection or are brought to the upper respiratory tract by ciliated epithelium and then swallowed or are removed by macrophages



Droplets isolation requires providing:

- ❖ Private room or cohorting with signage indicating isolation requirements
- ❖ Dedicated toilet or commode
- ❖ Dedicated equipment or disinfected between client use
- ❖ Access to hand washing stations

When a client is on **Droplet Isolation** precautions, staff and visitors should
- o Perform hand hygiene upon entry into the client room
- o Wear a surgical mask for client care
- o Perform hand hygiene after tasks involving direct care of client and when exiting room

Examples of infections that requires droplet isolation: Seasonal influenza, bacterial meningitis

## Airborne Precautions

Pathogens that are transmitted from the respiratory tract of an infected person in aerosols <5µm in size. Aerosols are a suspension of particles (pathogens) in a gas (air). The aerosols remain suspended in the air for long periods – they have therefore a far greater potential for spreading disease than large droplets



### Airborne Isolation

- Private room or cohorting with signage indicating isolation requirements
- Special considerations for natural or mechanical ventilation
- Access to hand washing stations

**When a client is on airborne isolation precautions, staff and visitors should be limited to only those who have specific tasks to perform. They should ensure:**
- Perform hand hygiene upon entry into the client room
- Wear a high filtration mask upon entry to client room
- Perform hand hygiene after tasks involving direct care of client and when exiting room

## SESSION 2.3 – HAND WASHING (DEMONSTRATION)

**Duration:** 60 minutes

**Objective**

To demonstrate Proper Hand washing to the participants

**Outcome**

Participants should be able to carry out proper hand washing

**Methodology**

Lecture, Discussion, Demonstration (Participants first, then facilitator)

**Training Materials and Resources**

Training manual, Handwashing materials (Handwashing stand, bucket with clean water, liquid soap, paper towels) Pictorials

**Introduction**

Hand washing is easy, and it's one of the most effective ways to prevent the spread or reduces the transmission of microorganism. Clean hands can stop germs/virus from spreading from one person to another and throughout an entire community—from your home and workplace to childcare facilities and hospitals, increases the client's safety and decreases the hospital associated infections amongst staff.

| Why? | Who? |
|---|---|
| • Thousands of people die every day around the world from infections acquired while receiving health care.<br><br>• Hands are the main pathways of germ transmission during health care.<br><br>• Hand hygiene is therefore the most important measure to avoid the transmission of harmful germs and prevent health care-associated infections.<br><br>• This brochure explains how and when to practice hand hygiene. | Any health-care worker, caregiver or person involved in direct or indirect client care needs to be concerned about hand hygiene and should be able to perform it correctly and at the right time. |

**How?**
- Clean hands by washing with soap and water especially when visibly dirty or visibly soiled with blood or other body fluids or after using the toilet.
- Where soap and/or running water is not available, clean hands by rubbing with an alcohol-based hand sanitizer
- If exposure to potential spore-forming pathogens is strongly suspected or proven, hand washing with soap and water is the preferred means.

**Practical Demonstration**

The facilitator asks 2 or 3 participants to demonstrate proper hand washing observed by the class.

Thereafter participants are allowed to express their observations regarding the demonstration.

This is followed by facilitator's practical demonstration.

They all deliberates on the practical to highlight the areas of concern

**Follow these five steps every time.**

1. **Wet** your hands with clean, running water (warm or cold), turn off the tap, and apply soap.

2. **Lather** your hands by rubbing them together with the soap. Lather the backs of your hands, between your fingers, and under your nails.

3. **Scrub** your hands for **at least** 20 seconds. Need a timer? Hum the "Happy Birthday" song from beginning to end twice.

4. **Rinse** your hands well under clean, running water.
5. **Dry** your hands using a clean towel or air dry them.

**DON'T forget the five moments for hand hygiene**

They are:

1. Before client contact

2. Before aseptic task

3. After body fluid exposure task

4. After client contact

5. After contact with client surroundings

Duration of the entire procedure: 40-60 sec.

0. Wet hands with water
1. apply enough soap to cover all hand surfaces.
2. Rub hands palm to palm
3. right palm over left dorsum with interlaced fingers and vice versa
4. palm to palm with fingers interlaced
5. backs of fingers to opposing palms with fingers interlocked
6. rotational rubbing of left thumb clasped in right palm and vice versa
7. rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa.
8. Rinse hands with water
9. dry thoroughly with a single use towel
10. use towel to turn off faucet
11. ...and your hands are safe.



Your 5 moments for HAND HYGIENE

1 BEFORE PATIENT CONTACT
2 BEFORE ASEPTIC TASK
3 AFTER BODY FLUID EXPOSURE TASK
4 AFTER PATIENT CONTACT
5 AFTER CONTACT WITH PATIENT SURROUNDINGS

**It's important to note that:**

The use of gloves does not replace the need for cleaning your hands. Hand hygiene must be performed when appropriate regardless of the indications for glove use.

**Note**

## SESSION 2.4 SCREENING AND TRIAGE OF CLIENTS FOR COVID-19

**Duration:** 55 minutes

**Objectives**
- To describe the minimum requirements needed to achieve effective infection control
- To show the need for triage stations at the primary healthcare centers/ports of entry

**Methodology**
- Lecture/presentation/ Group work

**Training Materials and Resources**
- Training manual, Pictorials

**Introduction**

Clinical triage includes a system for assessing all clients at admission, these allows for early recognition of possible COVID-19 infection and the immediate isolation of clients with suspected COVID-19 infection in an area separate from other clients (source control).

**Triage/Screening area requirements**

A well-equipped triage station is to be established at the entrance of health care facility, having the following:

- Trained and competent staffs that have high level of clinical suspicion
- Well defined area
- Appropriate distance >1 meter
- Infrared thermometer
- Personal protective equipment (for staff and cases)
- Waste bins and access to cleaning/disinfection
- Algorithm for triage
- Protocol/flow charts
- Screening questionnaire
- Clear signage/job aids
- Documentation forms/books
- Important contacts; National and state toll-free numbers or hot lines

**What should be Done When Clients Arrives at The Health Facility?**

- A health worker should always be stationed at the entrance of the Health Facility, to ask clients about their symptoms. Community Volunteers linked to the Primary Health facility should also be available to assist especially in crowd control.

- The health workers/volunteers must put on the appropriate personal protective equipment before attending to any client.

- Maintain at least an arm's length distance from clients. Ensure that other clients waiting to be assessed do the same.

- If an infrared thermometer is available check the temperature of every client.

- Triage to identify clients with fever, cough or shortness of breath.

- Prioritize any client with any of these symptoms for further assessment.

**What is Triage?**

This is the process of rapidly examining sick individuals on arrival at the health facility in other to place them in defined categories.

Defined categories

1. Based on priority signs, the client is given priority in queue, rapid assessment is done to determine if the client will be treated/moved/isolated without further delay.
2. Based on emergency signs, the client requires immediate and urgent treatment
3. Based on non-urgent cases- this forms majority of clients; they are non-priority neither do they require emergency treatment

**Hierarchy of control of hazards**

Infection Prevention and control strategies to limit transmission in healthcare settings, rest on the following:

1. Implementation of administrative controls
   a. Provides adequate training for Healthcare workers (HCW)
   b. Monitor HCW compliance with standard precautions and provide mechanisms for improvement needed
   c. Surveillance process for ARI potentially causing COVID-19 is established
2. Engineering/Environmental control
   a. Looks into the basic infrastructure of the healthcare facility
   b. Adequate ventilation
   c. Partial separation of at least 2 meters to be maintained by all clients
   d. Adequate WASH infrastructure and environmental cleaning
   e. Safe and effective laundry services
   f. Care of food service, preparation and utensils
   g. Safe medical waste management
3. Personal Protective Equipment (PPE)- **As discussed in session 2.1**



Administrative

Engineering

PPE

- Most important Administrative controls: Policies, Procedures
- Engineering/Environmental controls
- Personal Protective Equipment
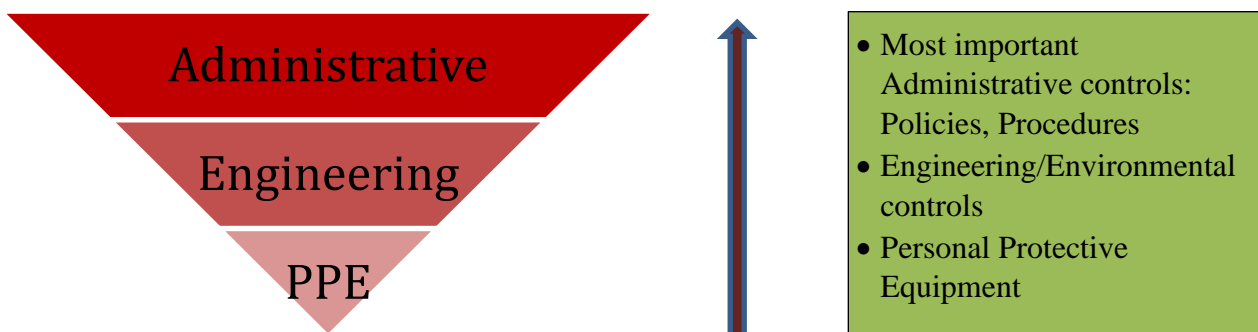
**GROUP WORK ON TRIAGING**

**Scenario 1**

You work with Port Health services in your country at the International airport; you are informed of some Chinese nationals who work in your countries National railways returning back to work after few weeks in China.

    a.   Will you set up a Triage station?

    b.   What equipment would you need at that station?

    c.   Based on risk assessment, What PPE would be relevant?

    d.   What other precautions would you require?

**Evaluation**

1. Briefly describe factors that increases the risk of healthcare workers contacting COVID-19
2. List the personal protective equipment required for triaging at the Primary healthcare facility
3. Enumerate the 3 types of transmission, the corresponding precautions and requirements for each
4. What is triage and why is it an important component of COVID-19 infection prevention and control strategies
5. Describe in detail, the steps in proper hand washing

# MODULE 3: PROVISION OF SERVICES DURING COVID-19 OUTBREAK

**Duration:** 420 minutes

**Introduction to the module**

This module provides information and activities necessary for PHC workers to strengthen and augment the routine services they provide within the facility to people in the community within the constraints imposed by the COVID-19 pandemic.

**Module objectives**

- To outline the recommended steps for conduct of general clinic sessions during COVID-19 pandemic
- To explore the mechanisms for minimizing disease transmission during ANC during COVID-19 outbreak
- To examine the key requirements and explore considerations for minimizing infection for women and newborn during COVID-19 outbreak
- To explore the mechanism for running CMAM during COVID-19 outbreak
- To examine the key guidelines for maintain effective routine immunization program during COVID-19 outbreak

**Module outcomes**

At the end of this module, participants should know:

- Acquired the skills needed to operationalize the guidelines for maintaining effective routine immunization program during COVID-19 outbreak
- Know the recommended steps for setting up a general clinic in a PHC during COVID-19 pandemic
- Possess the skills to replicate and maintain the recommended setup for general clinics
- Improved knowledge of the mechanisms required to minimize transmission of infection in antenatal clinics
- Improved knowledge of the requirements for safe delivery and immediate postpartum care
- Possess the required skills to provide labour, delivery and postnatal services safely during COVID-19 outbreak
- At the end of this session, participants should have improved knowledge for running CMAM during COVID-19 outbreak

**Methodology**

- Lectures, Video, Presentation, Discussion, Role play, Group work, Simulation of clinic settings, Demonstration

**Training materials and Resources**

- Training manual, Flip chart and stand, Markers

## SESSION 3.1 – CONDUCT OF GENERAL CLINIC SESSIONS

**Duration:** 60 minutes

**Objectives**

- To outline the recommended steps for conduct of general clinic sessions during COVID-19 pandemic

**Outcome**

At the end of this session, participants will:

- Know the recommended steps for setting up a general clinic in a PHC during COVID-19 pandemic
- Possess the skills to replicate and maintain the recommended setup for general clinics

**Methodology**

- Video, Presentation, Discussion, Simulation of clinic settings, Demonstration

**Training materials and Resources**

- Training manual, Flip chart, Marker

**Introduction**

Primary Health Care workers are the closest health care providers to the community and as such, play a critical role in curtailing community transmission. Primary Health care Facilities should at all times, be prepared with the right number and mix of health workers, the right commodities and supply as well as the right clinic setting to provide services as required by clients while adhering to measures that will guarantee;

1. Health worker safety and protection

2. Active detection of suspected cases of COVID-19

3. Timely response to suspected cases

4. Prevention of spread amongst clients

**Video on conducting clinic sessions**

Facilitator engages the class by showing a video on conducting clinic sessions during COVID-19 pandemic. The video shows what HCW should do before the client arrives, what to do when clients arrive and what to do after the client leaves.

Participants are encouraged to note their observations, questions and concerns for discussion thereafter.

**What to do before clients arrive**

### Step One - Prepare the Clinic

- Know the COVID-19 helpline numbers for Your State
- Know alternative numbers to call – LGA DSNO, the State epidemiologist, the LGA PHC director
- Stay connected with information platforms in your state/LGA/ward to know the current COVID situation in your community
- Be extra vigilant if you hear of cases from your state/LGA/ward
- Obtain and maintain a stock of IEC materials and basic supplies from your LGAHMT - Local Government Health Management Team
- Know where to get and restock your supplies from

### Step Two - Prepare yourself

- Know about COVID-19, read widely, be familiar with the contents of all IEC
- Ensure you have protective gear such as gloves and face masks (refer to list of equipment and commodities below)
- Use protective gear while you are at work, especially when attending to clients
- Always maintain at least an arm's length distance between yourself and your client.
- Read widely from credible sources such as WHO, NCDC, NPHCDA etc.

### Step Three - Communicate with Clients

- Post signs at entrances and in waiting areas about preventive measures.

### Step Four - Prepare the Waiting Area and Consulting Rooms

- Provide supplies: hand sanitizers, dust bins, hand washing posts (Veronica's bucket or running tap) refer to list of commodities and equipment below.
- Place chairs 3-6 feet apart (approximately 2 empty chairs in between)
- For benches, ensure people sit apart, approximately two sitting places in between
- Ensure rooms are well ventilated, open all windows and doors

### Step Five - Prepare an Isolation Room/Area

- Identify a room where all suspected cases will be kept before an ambulance service is arranged for referral

Notes

--------------------------------------------------------------------------------

--------------------------------------------------------------------------------

--------------------------------------------------------------------------------

--------------------------------------------------------------------------------

--------------------------------------------------------------------------------

--------------------------------------------------------------------------------

**What to do when clients arrive**

- A health worker should always be stationed at the entrance of the Health Facility, to ask clients about their symptoms. Community Volunteers linked to the Primary Health facility should also be available to assist especially in crowd control.

- The health workers/volunteers must put on the appropriate personal protective equipment before attending to any client.

- Maintain at least an arm's length distance from clients. Ensure that other clients waiting to be assessed do the same.

- If an infrared thermometer is available check the temperature of every client.

- Triage to identify clients with fever, cough or shortness of breath.

- Prioritize any client with any of these symptoms for further assessment.

**What to do after clients leave**

It is important that the following steps are taken at the end of the clinic session in order to prepare for the next clinic session. This will help to further ensure that the risk of transmission of the virus through surface contamination is reduced.

STEP 1: Clean all surfaces

- Clean all surfaces in the waiting room and consulting rooms using disinfectants such as 50ml of bleaching agent diluted with 4 litres of water

- Clean and sterilize all instruments according to infection control guide

**STEP 2**: Clean Yourself

- Wash your hands thoroughly under a running tap or Veronica's bucket

- Change all protective gear

**STEP 3**: Clean and sterilize all instruments

**STEP 4:** Prepare for the next clinic session

- Request for replenishment of supplies, if stock is low, **Do Not Wait to Be Out of Stock**

42

**Group work**

Participants are divided into 3 groups to demonstrate general clinic settings in the era of COVID-19 based on the following situations

- What the healthcare workers will do before clients arrive
- What the healthcare workers will do after client arrives
- What the healthcare workers will do after the client leaves

Notes

------------------------------------------------------------------------------------------------

------------------------------------------------------------------------------------------------

------------------------------------------------------------------------------------------------

------------------------------------------------------------------------------------------------

------------------------------------------------------------------------------------------------

------------------------------------------------------------------------------------------------

------------------------------------------------------------------------------------------------

------------------------------------------------------------------------------------------------

**Duration:** 60 minutes

**Objective**

- To explore the mechanisms for minimizing transmission of infection in antenatal clinics during COVID-19 outbreak

**Outcomes**

At the end of the session, participants should have:

- Improved knowledge of the mechanisms required to minimize transmission of infection in antenatal clinics
- Acquired the skills needed to utilise the recommended mechanisms for transmission of infection

**Methodology**

- Video, Lecture, Discussion, Brainstorming

**Training materials and Resources**

- Training manual, Flip charts, Markers

**Introduction**

A core function of PHC during ANC sessions in the era of COVID-19 outbreak is to minimize the transmission of the disease.

**Video on provision of PHC services**

Facilitator engages the class by showing a video on provision of PHC services during COVID-19 pandemic.

The participants are informed that the contents of the video is applicable to sessions 3.2, 3.3, 3.4 and 3.5 of the training manual.

Participants are encouraged to note their observations, questions and concerns for discussion thereafter.

Notes

-------------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------

**Recommendations:** The PHC Centers should adhere to the following

1. Reduce Clinic waiting time:  This will limit contact time between health worker and clients, and between individuals in the clinic.

2. All ANC clients should be attended to, individually and as soon as they arrive to the PHC

3. The time duration for ANC clinic can be extended (depending on client volume) to allow for adequate spacing between clients

4. Provision of accurate information to pregnant women on infection preventions, potential risks and how to seek timely medical care

5. Screen all pregnant women to determine if they have been infected with or exposed to an infected case of COVID-19. Pregnancy brings physical changes that might make some pregnant women more susceptible to viral respiratory infections. Early identification and treatment is therefore, of important public health benefits.

6. Pregnant women with respiratory illnesses must be treated with the utmost priority due to increased risk of adverse outcomes.

7. Isolate and refer every suspected case of COVID-19.

**Group work**

The participants are divided into 7 groups to brainstorm on the steps/action needed to achieve the recommendations written above. Each group picks one of the recommendations by balloting. This is followed by group presentation.

Notes

---------------------------------------------------------------------------------

---------------------------------------------------------------------------------

---------------------------------------------------------------------------------

---------------------------------------------------------------------------------

---------------------------------------------------------------------------------

---------------------------------------------------------------------------------

## SESSION 3.3: LABOUR, DELIVERY AND POSTNATAL SERVICES

**Duration:** 120 minutes

**Objective**

- To examine the key requirements for a safe delivery and postpartum care during COVID-19 outbreak
- To review the conduct of immediate postnatal care and explore considerations for minimizing disease transmission

**Outcome**

At the end of the session, participants should have

- Improved knowledge of the requirements for safe delivery and immediate postpartum care
- Possess the required skills to provide labour, delivery and postnatal services safely during COVID-19 outbreak

**Methodology**

- Lecture, Discussion, Role play

**Training materials and Resources**

- Training manual, Flip charts, Markers

**Labour and Delivery**

**Introduction**

Key considerations for the provision of safe delivery and postnatal services in the context of the COVID-19 outbreak include:

1. Distribution of Clean and safe Delivery Kits and Newborn kits to all pregnant women and birth attendants. Women should be encouraged to have the kits immediately available with them whether they deliver in a health facility or at home, as health facility supplies may be disrupted and there could be a shortage of kits.

   a. An additional item to include in the clean delivery kit is misoprostol for the prevention of postpartum haemorrhage. It should be noted that the potential side effects of misoprostol include fever, chills, nausea. Therefore, before and after administration of misoprostol, women need to be closely monitored.

   b. **Close Contact with women exhibiting symptoms should be avoided, and all personal protective measures and hand washing with soap after contact applied until COVID-19 infection is ruled out.**

   c. The newborn kit should include 7.1 per cent chlorhexidine to be applied to the umbilical cord immediately after delivery to prevent neonatal infection. Daily chlorhexidine application to the umbilical cord stump during the first week of life is recommended for newborns who are born at home.

| | |
|---|---|
| 2. | A network of trained CHEWs and community health volunteers can conduct home visits for the postnatal care of the mother and baby during the first week after childbirth applying social distancing. (This means keeping a distance of at least 6 feet or 2m, between the health worker and the caregiver or the newborn). |
| 3. | Identify a referral facility to which obstetric and neonatal emergencies can be referred. In consultation with community leaders, set up a system for contacting the referral service and for transporting clients. |
| 4. | For health facility deliveries. All pregnant women should be encouraged to bring with them the clean and safe delivery kit received during pregnancy to health facilities as many of the facilities may suffer shortages of supplies and equipment. |
| 5. | All facility deliveries should be conducted by a skilled provider who follows the recommendations outlined to strengthen the COVID-19 response; this includes the use of Personal Protective Equipment (PPE) for all health workers, frequent hand washing with soap, use of disposable supplies and the decontamination of non-disposal instruments (bag and mask, suction device) and the labour ward after each delivery. |
| 6. | Health workers are to maintain social distancing with any woman who has signs of COVID-19 and immediately **refer her** to the nearest testing/treatment Centre with appropriate precautions. If immediate referral is not possible, the woman should be isolated from all other clients and health workers apply the use of full PPE and washing with soap after coming into contact with the woman until it is possible to transfer her. |
| 7. | If referral is not possible, conduct delivery after getting fully dressed with PPE and all steps are taken to avoid risk of infection for the health worker. |

Health workers are advised not to have a close contact with a newborn whose mother was diagnosed to have a COVID-19 infection. The newborn should be referred to a COVID-19 treatment Centre with appropriate precautions. Caretakers and health workers should wear PPE when providing care for the newborn.

Notes

-----------------------------------------------------------------------------------------------------

-----------------------------------------------------------------------------------------------------

-----------------------------------------------------------------------------------------------------

-----------------------------------------------------------------------------------------------------

-----------------------------------------------------------------------------------------------------

**Immediate Postnatal Period**

**Introduction**

All women and newborns should receive a postnatal care check as soon as possible and at the latest within 48 hours of delivery either at a health facility or through a home visit from a trained health worker (a CHEW or midwife). The check is to assess complications and to provide advice and education on essential newborn care including thermal control, cord care, early initiation of exclusive breastfeeding and family planning.

Caution for HCW:

All healthcare workers are advised not to touch mother or baby without the use of protective gear.

Anyone who has been in contact with a COVID-19 client should refrain from caring for the mother and the newborn baby until these caregivers are certified free from COVID-19.

**Recommendations**

- Health workers are advised to apply 'social distancing' approach when they conduct home visits for postnatal care of any mother or baby with signs and symptoms of COVID-19.

- While waiting, the woman with signs and symptoms of COVID-19 should be isolated, and all health care workers and caregivers should use the full PPE and hand washing with soap until she is transferred.

- Mothers and newborns with postnatal danger signs should be counselled and referred to the nearest functioning health facility.

- Women should be encouraged to hold their baby skin-to-skin and breastfeed on demand.

- Babies who are born preterm or with low birth weight should be assessed and referred to a secondary health facility for extra care.

- Mothers of small babies can be supported to practice Kangaroo Mother Care which involves continuous, prolonged skin-to-skin contact with the baby on the mother's chest. Kangaroo care prevents infections; promotes breastfeeding; regulates the baby's temperature, breathing and brain activity; and encourages mother and baby bonding. Initiate Kangaroo care as soon as possible after birth, particularly in the absence of intensive neonatal care. Breastfeeding or cup feeding with expressed breast milk should be provided on schedule rather than on demand, as many premature babies have not yet developed the sucking reflex and may not wake up when they need to be fed.

- Target vulnerable groups and individuals for additional postnatal support (e.g. women with complicated pregnancies or deliveries, unaccompanied women and adolescent girls).

**At all times care should be taken to protect the mother and the newborn baby from COVID-19: the mother and the newborn baby are particularly vulnerable to COVID-19 because of the potential for infection through increased surfaces of exposed mucous membranes.**

**Group work**

The participants stimulate a clinic scenario demonstrating how to handle a mother in the postpartum period with suspected COVID-19 (two people will play the role of healthcare worker, one person - the mother of the newborn with suspected COVID-19; two people - her relatives; six people - clients attending clinic)

## SESSION 3.4: COMMUNITY MANAGEMENT OF ACUTE MALNUTRITION

Duration: 60 minutes

**Objective**
- To explore the mechanism for running CMAM during COVID-19 outbreak
- To train healthcare workers on the 2019 revised CMAM guidelines

**Outcome**
- At the end of this session, participants should have improved knowledge for running CMAM during COVID-19 outbreak

**Methodology**
- Reading, Discussions, Demonstration, Q&A

**Training materials**
- Training manual, Flip charts and stand, Markers, Laptop, Projector

**Introduction**

Community-Based Management of Acute Malnutrition (CMAM) approach is critical, as it enables community volunteers to identify and initiate treatment for children with acute malnutrition before they become seriously ill.

The lockdown due to COVID-19 has resulted to loss of purchasing power, food price hikes, inadequate food, inappropriate diet, poor dietary habit and unhealthy lifestyle, this can lead to acute malnutrition in children under five years hence intensifying community management of acute malnutrition is crucial at this period. There is need to find children before they get seriously ill with and medical complications.

> During COVID-19 pandemic, CMAM clinics should remain open; monitor children's progress through the out-patient care. Clinic working time should be expanded to make provision for adequate spacing of clients. SMS should be used to book appointments and track clients.

**Group work**

Participants are divided into groups to brainstorm on the challenges and steps they will carry out in their facility to fulfil the recommendations above taking into consideration social distancing and the other public health prevention strategies for COVID-19

Notes

-------------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------

## SESSION 3.5: IMMUNIZATION

**Duration:** 90 minutes

**Objective**
- To examine the operational guidelines for maintaining effective routine immunization program during COVID-19 outbreak

**Outcome**
At the end of the session, participants should
- Possess the skills required to operationalize the guidelines for maintaining effective routine immunization program during COVID-19 outbreak

**Methodology**
- Lecture, Discussion, Group work

**Training materials and Resources**
- Training manual, Flip charts, Markers

---

### Introduction

With increasing case load of COVID – 19, the capacity of the primary health care system will be stretched. Despite this, the provision of immunization services is a critical function of the primary health system that must be prioritized. There is a risk of disruption to routine immunization activities due to the impact of the COVID -19 on the health system. The likelihood of this disruption further supports a high potential for vaccine preventable disease outbreaks which should be avoided.

Key guidelines in maintaining an effective routine immunization program in the midst of the COVID – 19 pandemic includes:

---

**Operational Guidelines**

a. **Align with COVID-19 response mechanisms of NPHCDA and the SPHCBs, to ensure routine immunization governance and coordination is maintained:**
   i. Identify a designated focal person for routine immunization that should also be a member of the State COVID – 19 command center. Key actions include:
      - Establish (or adapt) simplified protocols for routine immunization in line with developed response protocols
      - Establish triggers/thresholds that activate a phased reallocation of health workforce capacity, resources towards provision of routine immunization services. Health workers for routine immunization must be prioritized in all primary health facilities
      - Assess and monitor ongoing routine immunization services to identify gaps and respond timely to bridge gaps. This includes identification of areas of potential low coverage and reallocation of immunization teams to support immunization activities in those areas.
      - Integrate routine immunization activities in the overall COVID-19 response plan by the state.

b. **Identify context-specific strategies for provision of routine immunization**. This includes management of immunization supply chains, provision of vaccines to health facilities and the prioritization of immunization delivery strategies.

   i. **Fixed post** – health care workers providing fixed post immunization services should be encouraged to continue to do so while maintaining safety precautions with strict adherence to infection, prevention and control guidelines.
   - Establishment of a triage point to identify and screen potential COVID–19 caregivers and carriers.
   - Maintenance of social distance in immunization waiting areas.
   - Establishment of handwashing, sanitizing areas for care – givers and all health users.
   - Health workers should be properly kitted in line with standardized guidelines.
   - HWs must ensure health talks are given with additional information on COVID-19 to caregivers on a one-on-one basis.

   ii. **Temporary fixed post and mobile outreaches** – All planned outreach services should be suspended in high burden COVID-19 areas. Temporary fixed posts should only be implemented in instances where there is the likelihood of outbreaks or evidence of low routine immunization coverage. In these instances, health workers must be properly kitted based on the standardized guidelines. Protection for care givers and health users must be enforced through strict compliance with social distancing, hand washing and minimal contact where applicable.

c. **Optimize routine immunization service delivery settings and platforms.** This requires modification of essential services where required. Key actions include:
   i. Conduct a mapping of health facilities (public and private)
   ii. Ensure public awareness of priority facilities for routine immunization services. With reallocation of staff and health facilities for the COVID – 19 response plan, certain health facilities may be designated specifically for COVID – 19.
   iii. Integrate routine immunization services with other PHC services. Minimizing hospital visits through ensuring one hospital visit is maximally utilized to also support provision of vaccinations where applicable.

d. **Establish effective client flow (screening, triage and targeted referrals) at all levels**. People with and without COVID – 19 will initially access the health system in the same way. Key actions include:
   i. Dissemination of information to prepare the public and guide safe care – seeking behavior
   ii. Establish screening of all clients at all sites using the most up to date COVID – 19 case definition
   iii. Identify and prioritize caregivers seeking immunization services from other health users.

e. **Rapidly re-distribute health workforce capacity, including by re-assignment and task sharing**
   i. Conduct health worker mapping for routine immunization. Identify critical staff in the four COVID -19 transmission scenarios, re-allocation of staff including mobilization of additional health workforce.

ii. Enforce occupational and safety measures for all staff – all staff should be supported with personal protective equipment.
iii. Create a roadmap for phased implementation of health workforce strategies.
iv. Allocate mechanisms for timely payment of salaries, overtime, hazard allowances etc.
v. Initiate rapid training mechanisms and job aids including online trainings to support routine immunization staff and response to identified challenges.

f. **Re – establishment of routine immunization services in instances where there is disruption**
   i. Reinstate routine immunization activities at the earliest opportunity to close immunity gaps.
   ii. Plan for catch up activities with priority given to areas that are prone to outbreaks. This includes the conduct of routine immunization intensification activities, local immunization days, outreaches etc.
   iii. Deploy community engagement strategies using effective messaging to allay fears and reestablish demand for immunization services.

**Group work**

**Participants are divided into six groups to brainstorm on the actions required to operationalize the guidelines above followed by group presentation.**

**Module Evaluation**
1. Enumerate ten activities you will carry out to prevent transmission of COVID-19 in a PHC facility
2. List five steps that can be carried out to protect pregnant women attending ANC clinic
3. State five recommendations for protecting women and newborn during delivery and in the immediate post-partum period in the era of COVID-19
4. Describe steps to prevent transmission of COVID-19 in CMAM clinics
5. List five key strategies to maintain effective routine immunization services during COVID-19 outbreak

## MODULE 4: EQUIPMENT AND COMMODITIES REQUIRED IN A PHC DURING COVID-19 PANDEMIC

**Duration:** 120 minutes

**Introduction to Module**

This module introduces participants to an overview of the list of equipment and commodities required to ensure safety of clients and PHC workers, mechanism for maintaining availability of supplies and commodities, as well as ensuring vaccine security during COVID-19 pandemic.

**Objectives**

- To identify the list of equipment and commodities required to ensure safety of clients and PHC workers during COVID-19 pandemic
- To understand the mechanism for maintaining availability of essential medicines, vaccines and supplies
- To understand how to ensure vaccine security during COVID-19 pandemic

**Outcomes**

At the end of this module, the participants should

- Know the list of equipment and commodities required for safety of clients and PHC workers
- Understand the mechanism for maintaining availability of essential medicines, vaccines, equipment and supplies
- Know how to ensure vaccine security during COVID-19 pandemic

**Methodology**

Lecturette, Discussions, Group work

**Training Materials and Resources**

Training manual, job aid, Flip chart paper and stand, Markers, participants folder, course timetable and masking tape, PPEs

**SESSION 4.1 – LIST OF EQUIPMENT AND COMMODITIES REQUIRED IN A PHC DURING COVID-19 PANDEMIC**

**Duration:** 60 minutes

**Objective**

- To identify the list of equipment and commodities required to ensure safety of clients and PHC workers during COVID-19 pandemic

**Outcome**

At the end of this module, the participants should:

- Know the list of equipment and commodities required for safety of clients and PHC workers

**Methodology**

- Lecturette, Discussions, Group work

**Training Materials and Resources**

- Training manual, job aid, Flip chart paper and stand, Markers, participants folder, course timetable and masking tape, PPEs

The following list of equipment and commodities are required to ensure client and health worker safety in a PHC during covid-19 pandemic.

| Category | List |
|---|---|
| Health Workers Safety<br><br>Above: Coverall gowns<br><br>Below: Protective goggle & face shield | ➢ Personal Protective Equipment (PPE) Kits<br>    • Face mask (N95) and or surgical masks<br>    • Coverall gowns<br>    • Feet covers<br>    • Protective Goggles and face shields<br>These are to be worn when examining suspected clients and when in contact with body fluids.<br><br><span style="color:red">They can only be reused after they have been properly disinfected. (Refer section 5.2)</span><br><br>➢ **Soap and Running Water**: For washing hands regularly<br>➢ **Hand sanitizers**: Sanitizers should contain at least 70% alcohol and to be |

| | |
|---|---|
|  | used regularly especially after touching surfaces<br>➢ **Bleach**: Can also be used to clean floors, surfaces |
| Client Safety<br><br><br><br>Image of a thermometer | ➢ **Soap and Running Water**: For washing hands prior to gaining entrance into the facility<br>➢ **Hand sanitizers**: Sanitizers should contain at least 70% alcohol and to be used regularly especially after touching surfaces<br>➢ **Thermometer:** (Preferably infrared thermometer) For temperature check |
| Infection Prevention Control Kits<br><br>Sample of surgical face mask<br><br> | ❖ Face mask (N95) and or surgical masks<br>❖ Protective goggles and face shields<br>❖ Feet covers<br>❖ Coverall gowns<br>❖ Alcohol disinfectant<br>❖ Medical cotton wool<br>❖ Hand sanitizers<br>❖ Detergents/ Soap<br>❖ Bleach<br>❖ Waste bags/Waste Bins |
| PHC Facility Management | ➢ Adequately spaced and ventilated sitting area for client: Ensure chairs are at least at 2m away from each other<br>➢ Desks, tables and chairs for clinic area consultation<br>➢ Cleaning of facility and equipment at regular intervals with bleach and water<br>➢ Designate a screening area to screen clients before gaining area into the main facility |

| | |
|---|---|
| | ➢ Isolation room/area: For isolation of suspected cases before transfer to state isolation facilities |
| Essential medicines | ❖ **Pain and fever medicines**: Paracetamol tablet and injection, ibuprofen, acetaminophen<br>❖ **Antibiotics:** Amoxicillin, doxycycline, ampicillin, azithromycin, flagyl<br>❖ **Antimalaria drugs;** Artemisinin combination drugs, Hydroxycholoroquine<br>❖ **Anxiolytics:** Diazepam, magnesium sulfate<br>❖ **Anti allergics and Anaphylatics:** Hydrocortisone, dexamethasone<br>❖ **Antihelminthics:** Albendazole, mebendazole<br>❖ **Vitamins and mineral supplements:** Vitamin C, Vitamin B complex, Zinc tablets etc |
| Vaccines | Vaccines should be available for mothers and children who need immunization |
| Diagnostic Equipment<br> | Note: PHC facilities are not equipped nor supposed to be testing for COVID-19 or any other highly infectious disease. |
| Other commodities | ❖ **IEC Materials:** Such as signs, banners and posters on COVID-19 and infection prevention and control should be properly placed at the entrance of the facility and other strategic areas in the facility and in the community in languages appropriate to the population served, with instructions for clients with fever or symptoms of respiratory infections.<br>❖ **Job Aids** for health workers on covid-19 |

Notes

-----------------------------------------------------------------------------------------------------

-----------------------------------------------------------------------------------------------------

-----------------------------------------------------------------------------------------------------

-----------------------------------------------------------------------------------------------------

-----------------------------------------------------------------------------------------------------

## SESSION 4. 2 - MECHANISMS TO MAINTAIN AVAILABILITY OF ESSENTIAL MEDICATIONS, EQUIPMENT AND SUPPLIES DURING A PANDEMIC

**Duration:** 30 minutes

**Objective**

- To understand the mechanism for maintaining availability of essential medicines, vaccines and supplies

**Outcome**

At the end of this module, the participants should:

- Understand the mechanism for maintaining availability of essential medicines, vaccines, equipment and supplies

**Methodology**

- Lecturette, Discussions, Group work

**Training Materials and Resources**

- Training manual, job aid, Flip chart paper and stand, Markers, participants folder, course timetable and masking tape

**Introduction**

- ❑ To minimize the morbidity and mortality caused by a pandemic, it is crucial that essential medications, vaccines, equipment and supplies are kept functioning as long as possible.
- ❑ There is a likelihood of stock outs of resources needed to maintain essential services, due to the need to redirect supplies to the treatment of clients with COVID-19, compounded by general supply chain disruptions due to the effects of the outbreak on other sectors.
- ❑ Priority resource lists should be developed (or adapted from existing lists), and planning should be executed in coordination with the overall outbreak response.
- ❑ Suppliers and pharmacies (public and private) can be networked to allow dynamic inventory assessment and coordinated re-distribution.
- ❑ Access to effective medicines and vaccines requires a complex and coordinated system. It must encompass production that ensures good quality, selection, procurement, and distribution; correct prescription and dispensing and correct use by clients; adequate financing; and effective monitoring of the system.
- ❑ Multiple delivery systems involving public, private, and Non-Governmental Organization (NGO) sectors frequently coexist, and clients are very likely to use multiple systems to access these products.

❑ Several steps should be developed to ensure rational and optimal use of facilities and available pharmaceutical products. They include:

| | |
|---|---|
| 1. Assess the need and explore the options for stockpiling additional medical supplies, including personal protective equipment, and identify sources of additional supplies<br><br>2. Determine a range of essential medicines that will be useful for treatment.<br><br>3. Develop contingency plans for buying increased supplies of these medications | 4. Determine the level of care that will be provided at the PHCs and develop a contingency plan for providing the facilities, equipment, vaccines and supplies adequate for the level of care that will be provided.<br><br>5. Develop a means for distribution of stocked piles and medications |

Notes

-------------------------------------------------------------------------------------

-

-------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------

**Essential Medicines**

Ensuring essential medicines is based on three key objectives namely:

1. Increasing access,

2. Improving and ensuring quality and safety, affordability, and

3. Ensuring rational prescription and use by providers and clients

> ➢ Selection of a list of essential medicines that should always be available is necessary both for supply officials who work on procurement, storage, and distribution and for clinicians who aim to use medicines most effectively.
>
> ➢ Procurement of medicines should be based on consumption rate, treatment guidelines and morbidity patterns.

**Equipment and supplies** needed at the PHC during the covid-19 pandemic should be made available for health workers, and of appropriate technology, adequate and of assured quality.

Notes

-------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------

## SESSION 4.3 - VACCINE SECURITY DURING COVID-19 PANDEMIC

**Duration:** 30 minutes

**Objective**

- To understand how to ensure vaccine security during COVID-19 pandemic

**Outcome**

At the end of this module, the participants should:

- Know how to ensure vaccine security during covid-19 pandemic

**Methodology**

- Lecturette, Discussions, Group work

**Training Materials and Resources**

Training manual, job aid, Flip chart paper and stand, Marker, participants folder, course timetable and masking tape

**Introduction**

➢ Vaccines require active government financial participation to ensure that they are provided and used in adequate quantities.
➢ Vaccine management involves the use and distribution of vaccines, from the manufacturers to the end users.
➢ Vaccine management includes inventory and forecasting, stock control, in-country distribution, storage and handling, equipment replacement plans, procedures for the use of the vaccine, monitoring of vaccine storage, transport management, and operational management.

---

Vaccine security is the act of ensuring a sustained, uninterrupted supply of affordable vaccines

Objectives of vaccine security are:

1. Uninterrupted sustainable supply
2. Quality vaccines

---

Outbreaks of vaccine-preventable diseases could be catastrophic for communities and health systems already battling the impacts of COVID-19, and substantively increase sickness and fatalities.

Equipped LGAs and Health Facilities should maintain continuous monitoring of the Cold Chain system for vaccines during the COVID-19 outbreak. The twice daily temperature monitoring and charting must not stop, and the data from the charts must be used to

determine the functional status of the CCE and to determine their suitability for continued storage of vaccines.

**Key considerations**

- Government should prioritize routine immunization of children in essential service delivery, as well as some adult vaccinations such as influenza for groups most at risk.
- If immunization services must be suspended, urgent catch-up vaccinations as soon as possible, prioritising those most at risk is recommended.
- Enhance supply chain performance by improved planning, procurement, logistics, delivery and monitoring
- In line with physical distancing measures, WHO recommends temporarily postponing preventive immunization campaigns where there is no active outbreak of a vaccine-preventable disease.
- In the event of an outbreak, however, rapid vaccination campaigns may be essential after a careful risk assessment analysis. Where these are conducted, health workers and the public must be protected from COVID-19 through appropriate hygiene procedures.
- There should be improved access to marginalized and hard to reach areas, adequate, cold chain, ongoing quality control that is able to respond to new disease threats.
- All immunization services must consider the importance of both ensuring people are protected against preventable diseases, as well as the safety of communities and health workers.

**Notes**

-------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------

**Group work-Role play**

The participants simulate a clinic scenario where the healthcare workers demonstrate the right PPEs to handle a client with suspected COVID-19 and other clients who are attending the clinic for routine services. This exercise will focus on activities to ensure their healthcare worker and client's safety.

Two people will play the role of healthcare worker, one person plays the role of the patient with suspected COVID-19 while six people play the role of the other patients who came for routine services.

**Module Evaluation**

1. Enumerate the role of PPEs for health worker and client safety

2. List two equipment for PHC facility management

3. Enumerate the objectives of vaccine security

4. List 3 processes involved in the mechanism of ensuring availability of supplies and commodities

**Notes**

-------------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------

**Duration:** 120 minutes

**Introduction to Module**

This module provides detailed information and guidance on the recommended procedure for handling safe linen, segregation and handling of healthcare waste, decontamination and sterilization of healthcare equipment and environmental cleaning in PHCs.

**Objectives**

- Know the procedure for handling waste in the PHC
- Understand the procedure for sterilizing medical instruments during COVID-19
- Know environmental cleaning procedures

**Outcome**

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

- Dispose healthcare waste appropriately
- Understand the decontamination and sterilization procedure of medical instruments during COVID-19 outbreak
- Use appropriate environmental cleaning procedures

**Methodology**

- Lecturette, Discussion, Group work, Demonstration

**Training materials**

- Training manual, Flip chart, Markers, Cardboards

# SESSION 5.1: SEGREGATION AND HANDLING OF HEALTHCARE WASTE

**Duration:** 60 minutes

**Objectives**

- To know the procedure for handling waste in the PHC

**Outcome**

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

- Dispose healthcare waste appropriately

**Methodology**

- Lecturette, Discussion, Group work, Demonstration

**Training materials**

- Training manual, Flip chart, Markers, Cardboards

**Introduction**

- Health Care Waste (HCW) is defined as the total waste product from a health care facility that includes both potential infectious waste and non-infectious waste materials.
- Infectious waste includes infectious sharps and infectious non- sharp materials. Infectious sharps consist of syringe or other needles, blades, infusion sets, broken glass or other items that can cause direct injury.
- Infectious non-sharps include materials that have been in contact with human blood, or its derivatives, bandages, , linens, privacy curtains, and used healthcare products (such as soiled absorbent pads or dressings,  used diagnostic kits, used PPE [gowns, masks, gloves,  booties, etc.] or by-products of cleaning such as cotton wools, swabs or items soaked with blood, isolation wastes from highly infectious clients (including food residues), used and obsolete vaccine vials, bedding and other contaminated materials infected with human pathogens.  Liquid wastes include body fluids (blood, urine, vomitus and faeces)
- Non-infectious wastes may include materials that have not been in contact with clients such as paper and plastic packaging, metal, glass or other wastes which are like household wastes.
- The management of healthcare waste involves planning, implementation and monitoring of actions that aim to prevent exposure, ensure the safety of health care workers and clients, prevent the occurrence of environmental hazards while minimizing the generation of waste.
- During epidemic outbreaks, medical waste generation increases exponentially and if improperly collected and disposed, could accelerate disease spread and pose a significant risk on medical staff, clients and the public. For this reason, proper guidance on the waste management is of high importance to PHC staff who may be dealing with suspected or confirmed cases of COVID-19.

Notes

------------------------------------------------------------------------

------------------------------------------------------------------------

------------------------------------------------------------------------

------------------------------------------------------------------------

**Standards for colour coding of HCW containers**

- ❖ Coloured waste bins should be used to differentiate the segregated HCW.
- ❖ Standard colours recommended are Red for highly infectious, Yellow for infectious, Black or Blue for non-infectious
- ❖ Mixed waste will be considered as hazardous waste

**Procedures**

- ❖ Place the color-coded waste bins with appropriate bin liners at every functional unit
- ❖ Store each segregated waste in the container corresponding to its coded colour

**Table 1: Colour coding for various Health Care Waste categories**

| Waste category | Type of waste | Colour of waste containers and liner | |
|---|---|---|---|
| Non-infectious Waste | Paper, packaging materials, plastic bottles, food remains, boxes, cartons | Black or Blue | ■ or ■ |
| Infectious Waste | Used gloves, dressing materials, specimen containers, infusion packages, catheters, urinal bags | Yellow | ■ |
| Highly infectious waste | Anatomical waste, blood, body, fluids, pathological waste, culture materials, stocks, petri dishes, waste from isolation ward or camp. | Red | ■ |
| Sharps waste | Used Syringes and needles, surgical blades, scalpels, needles, blades, broken glass (e.g., pipettes, ampoules, vials) | Yellow Safety Boxes | ■ |

**Fig 1. Segregation of Healthcare waste**



## Segregation of healthcare waste

| Non-Infectious Waste | Infectious Waste | Highly Infectious Waste | Sharps Waste |
|---|---|---|---|
| • Paper/Packaging material<br>• Bottles/Cans<br>• Food | • Gauze/Dressing<br>• Blood/IV giving sets<br>• Gloves<br>• Pharmaceutical waste | Anatomical waste:<br>• Teeth<br>• Placenta<br>Pathological waste:<br>• Sputum containers<br>• Test tubes containing specimens | • Infusion needles<br>• Broken slides<br>• Broken vial<br>• Broken ampules | • Lancet<br>• Retractables<br>• Scalpels<br>• Blades<br>• Needles |

Black — Yellow — Red — Yellow

**Notes**

-------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------

**Fig 2: Safety Box**                                                    **Notes**

**Fig 3. International symbol of medical waste**

**Fig. 4 Waste bags** (Colour and markings: Red or Yellow with "Biohazard" or "Infectious waste" printed in black Marking should include the universal biohazard symbol)



**Procedure for handling Solid Medical Waste**.

- Line appropriate-sized waste containers with a leak-proof biohazard bag.
- Place non-sharps solid waste in the biohazard bag. Bags should not be filled beyond two thirds to allow safe closure.
- Close the bag using a method that will not tear or puncture the bag (e.g. tying the neck of bag with a goose-neck knot), ensure no leaks.
- Carefully place sharps in safety boxes and close the container when three quarter filled.
- After closure of bag and sharps container, prepare waste for onsite autoclaving/incineration.
  - ➤ Apply registered hospital cleaner/disinfectant/ bleach to the outside surface of the closed bag.
  - ➤ Place the wiped/sprayed closed bag into a second biohazard bag.
  - ➤ Close the bag with a method that will not tear or puncture the outer bag and will ensure no leaks (e.g., tying the neck of bag with a knot).
  - ➤ Apply registered hospital cleaner/disinfectant/bleach (wipe or spray) to the outside surface of the secondary bag.
- Store the disinfected closed bags in a designated area to await removal.
- Person responsible for moving the waste should only handle the outer container/transport cart and should never open.
- For on-site inactivation, safely transfer waste in a transport cart to dedicated waste autoclave room or on-site incinerator
- For off-site incineration provide secure transportation.

**Procedures for Handling Liquid Waste (Body Fluids Including Blood, Urine, Vomit, Faeces)**

- Primary handling of liquid waste should occur in the client's room and be performed by the healthcare workers (i.e., clinicians, Nurses, Chews etc.) wearing recommended PPE.
- Pour waste, avoiding splashing by pouring from a low level, into the toilet.
- Close the lid first, and then flush toilet.
- Clean and disinfect flush handles, toilet seat, and lid surfaces with approved disinfectants/bleach.
- Discard cleaning cloths in biohazard bags.
- Discard emesis and disposable toileting containers as solid waste.
- Recommended PPE should be worn by the clinicians, Nurses, CHEWs caring for the Covid-19 client (or suspected case) before handing spills

## SESSION 5.2: DECONTAMINATION AND STERILIZATION OF REUSABLE MEDICAL INSTRUMENTS AT PHC LEVEL

**Duration:** 30 minutes

**Objectives**

- Understand the procedure for sterilizing medical instruments during COVID-19

**Outcome**

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

- Understand the decontamination and sterilization procedure of medical instruments during COVID-19 outbreak

**Methodology**

- Presentation, Discussion, Group work, Demonstration

**Training materials**

- Training manual, Flip chart, Markers, Cardboards

**Introduction**

Certain medical instruments at the PHC level are reusable and require sterilization to avoid infection during reuse. The following steps must be taken to ensure proper decontamination and sterilization of such instruments:

---

- Step 1 - **Wear the right clothes**.

Before handling any contaminated instruments, workers should ensure that protective clothing is worn (PPE). This includes protective goggles, as the substance you are using to decontaminate the instruments may splatter

---

- Step 2 - **Move the instruments**.

Instruments that have been used need to be collected and removed from the area where they were used. They should be taken in covered carts, containers, or plastic bags to the area where decontamination takes place. This will help cut down on the chance of the contamination of the personal areas or other surfaces within the workspace.

---

- Step 3 - **Clean instruments immediately after use.**

Collected instruments must be cleaned immediately after use and before you attempt to sterilize them — cleaning the instruments is not the same as sterilizing them. The following steps should be taken to clean instruments:

  ➢ Remove inorganic and organic debris from the instruments with a soft plastic scrub brush and medically approved detergent.
  ➢ Scrub each instrument well to remove all residual matter, such as blood or organic tissue.

---

- If the instrument is hinged or opens, make sure you clean hinges along with inside and outside surfaces.
- After scrubbing, instruments should be run under pressured water to make sure any extra material is off. This helps clean areas unable to be reached by brushes, e.g. tubing.
- There are solutions approved for soaking instruments. Your facility will have them on hand with proper instructions for their use.
- There are automatic washers that you can use, but their use depends on the facility and location of the cleaning process.
  *If instruments are not cleaned beforehand, the process of sterilization, may not be successful and may compromise the instrument tray.*

- Step 4 - Sterilize equipment through autoclaving.

After cleaning the instruments, place them back in their wire tray for autoclaving which will sterilize them prior to being sent for repackaging. Sterilization will destroy all microorganisms on the surface of the instrument, preventing infection.

**Caution**

- **Be careful when handling sharp items like scissors, blades, and other sharp implements.**
- **If an instrument is disposable, you should dispose of it properly and do not try to wash and reuse it.**

Notes

-------------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------

## SESSION 5.3: GENERAL ENVIRONMENTAL CLEANING TECHNIQUES

**Duration:** 30 minutes

 **Objectives**

- To know environmental cleaning procedures

**Outcome**

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

- Use appropriate environmental cleaning procedures

**Methodology**

- Presentation, Discussion, Group work, Demonstration

**Training materials**

- Training manual, Flip chart, Markers, Cardboards

For all environmental cleaning procedures, always use the following general strategies:

### A. Conduct visual preliminary site assessment

Proceed only after a visual preliminary site assessment to determine if:

- ➢ the patient(s) status could pose a challenge to safe cleaning
- ➢ there is any need for additional PPE and/or supplies (e.g., if there are any spills of blood/body fluids or if the patient is on transmission-based precautions)
- ➢ there are any obstacles (e.g., clutter) or issues that could pose a challenge to safe cleaning
- ➢ there is any damaged or broken furniture or surfaces to be reported to supervisor/management

### B. Proceed from cleaner to dirtier

This is to avoid spreading dirt and microorganisms. Practical examples of this strategy include:

- ➢ During terminal cleaning, clean low touch surfaces before high-touch surfaces.
- ➢ Clean patient areas (e.g., patient zone(s)) before patient toilets.
- ➢ Within a specified patient room, terminal cleaning should start with shared equipment and common surfaces, then proceed to surfaces and items touched during patient care that are outside of the patient zone, and finally with surfaces and items directly touched by the patient inside the patient zone.
- ➢ In other words, high-touch surfaces outside the patient zone should be cleaned before the high-touch surfaces inside the patient zone.

Clean general patient areas not under transmission-based precautions before those areas under transmission-based precautions.

**C. Proceed from high to low (top to bottom)**

This is to prevent dirt and microorganisms from dripping/falling down and contaminating already cleaned areas. Practical examples of this strategy include:

- ➢ Cleaning bed rails before bed legs
- ➢ Cleaning environmental surfaces prior to cleaning floors
- ➢ Cleaning floors last to allow collection of dirt and microorganisms that may have fallen

**D. Proceed in a methodical, systematic manner** to avoid missing areas—for example, left to right or clockwise.

**Cleaning of blood or body fluids**

**Note - Clean immediately**

1. Wear appropriate PPE
2. Confine the spill and wipe it up immediately with absorbent (paper) towels, cloths, or absorbent granules (if available) that are spread over the spill to solidify the blood or body fluid (all should then be disposed as infectious waste).
3. Clean thoroughly, using neutral detergent and warm water solution.
4. Disinfect, using a facility-approved intermediate-level disinfectant.
5. Take care to allow the disinfectant to remain wet on the surface for the required contact time (e.g., 10 minutes), and then rinse the area with clean water to remove the disinfectant residue (if required).
6. Immediately send all reusable supplies and equipment (e.g., cleaning cloths, mops) for reprocessing (i.e., cleaning and disinfection) after the spill is cleaned up.


For all environmental cleaning procedures, these are the **best practices for environmental cleaning of surfaces:**

• Use fresh cleaning cloths at the start of each cleaning session.
• Change cleaning cloths for a new, wetted cloth when they are no longer saturated with solution (and soiled cloth should be stored for reprocessing).
 • For higher-risk areas, change cleaning cloths between each patient zone (i.e., use a new cleaning cloth for each patient bed). For example, a fresh cloth is required for every bed


This is the **general surface cleaning process**:

1. Thoroughly wet (soak) a fresh cleaning cloth in the environmental cleaning solution
2. Fold the cleaning cloth in half until it is about the size of your hand as this will ensure that you can use all of the surface area efficiently (generally, fold them in half, then in half again, and this will give 8 sides)

3. Wipe surfaces using the general strategies as above (e.g., clean to dirty, high to low, systematic manner), making sure to use mechanical action (for cleaning steps) and making sure that the surface is thoroughly wetted to allow required contact time (for disinfection steps)

4. Regularly rotate and unfold the cleaning cloth to use all of the sides

5. When all the sides of the cloth have been used or when it is no longer saturated with solution, dispose of the cleaning cloth or store it for reprocessing

6. Repeat process from step 1.

---

**DONTS**

• Never double-dip cleaning cloths into portable containers (e.g., bottles, small buckets) used for storing environmental cleaning products (or solutions).

• Never shake mop heads and cleaning cloths—it disperses dust or droplets that could contain microorganisms.

• Never leave soiled mop heads and cleaning cloths soaking in buckets

---

**Group work**

Participants are divided into groups:

❑ Group1 is provided with an array of mimicked healthcare waste. They are expected to segregate and put them in the appropriate bin for disposal

❑ Group 2 to demonstrate the procedure for handling solid waste generated in a PHC clinic

❑ Group 3 to demonstrate the procedure for handling liquid waste generated in a PHC clinic

❑ Group 4 to demonstrate the steps involved in decontamination and sterilization of medical equipment in a PHC clinic

Notes

----------------------------------------------------------------------------------------------------

----------------------------------------------------------------------------------------------------

----------------------------------------------------------------------------------------------------

----------------------------------------------------------------------------------------------------

----------------------------------------------------------------------------------------------------

**Module Evaluation**

1. List the various types of Health Care waste generated in the PHC, segregating the waste into Hazardous and Non hazardous
2. What are the major colours of the waste bins/bags and what do these colours represent?
3. Enumerate the steps for decontaminating and sterilizing medical equipment
4. Describe the procedure for cleaning blood and body fluids

## MODULE SIX: RISK COMMUNICATION FOR PHC WORKERS

**Duration:** 90 minutes

**Introduction to Module**

This module introduces participants to risk communication as an interactive (often real time) process of exchange of information and opinion among individuals, groups and institutions which includes discussion about risk types and levels and about methods for managing risks. It discusses four models that describe how risk information is processed; how risk perceptions are formed and how risk decisions are made. The module also introduces participants to how to design risk communication plan, with emphasis on methods of message development and message channelling. Due to the centrality of interpersonal communication (IPC) in risk communication, the module highlights the two-step flow interpersonal approach in implementing risk communication strategies. All discussions and examples are within the COVID-19 preparedness and response.

**Module objectives**

- To improve participants general knowledge of risk communication
- To acquaint participants with the various models that explains how risk perceptions are formed, how risk information are processed and what determines reaction to risk information
- To introduce participants to risk communication planning
- To improve participant's knowledge on the role of interpersonal approach in risk communication

**Module outcomes**

At the end of this module, trainees should:

- Know the general concept and significance of risk communication
- Know how risk communication differs from other forms of communication planning
- Understand the models that explain how risk perceptions are formed, how risk information is processed and the determinants of reactions to risk information
- Be able to design and develop risk communication plan

**Methodology**

- Presentation, Discussions, Group work

**Training materials and Resources**

- Markers, Training manual , Pen and Jotters

## What is Risk Communication?

Risk communication is an interactive (often real time) process of exchange of information and opinion among individuals, groups and institutions, which includes discussion about risk types and levels and about methods for managing risks.

Exchange of information here essentially involves the use of interpersonal and mass media channels. Discussion about risk types and levels includes identifying the specific risks and examining their capability to exist and the extent of their possible effects.

Methods of managing risks may include rejecting the risk sources, which in the context of COVID-19 is the purported vaccine itself, and some sources of information associated with it.

## Why do we need risk communication?

Outbreak of diseases are sometimes unpredictable. Even when they are predicted, some form of health preparedness and response strategies would need to be put in place.

These strategies essentially includes communicating with vulnerable people on the disease risk factors, how to prevent them from contracting and spreading and what to do in the wake of an outbreak.

Risk communication is central to the success of any health campaign, preparedness and response to outbreaks.

Notes

-------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------

**How does risk communication differ from other communication plans?**

- ❖ It is often real time.
- ❖ It is also most time's needs-based.
- ❖ It is often of short duration and goes away with emergencies.

**Models of risk Communication**

As the COVID-19 experience in Nigeria has shown, there is general public fears and panic over the dangers the disease poses to people's health.

However, there have also been concerns about overwhelming array of information, many of which are coming from unreliable sources with potentially believable claims.

Models for risk communication are based on the answer to these questions:

- ❖ How do people form their perceptions of risks?
- ❖ How do they process risk information?
- ❖ What are the key determinants of people's reaction to risk information?

❑ **The Risk Perception Model**

Various factors affect perception of risk

These factors play an important role in determining levels of concern, worry, anger, anxiety, fear, hostility and outrage, which in turn can significantly change attitudes and behaviour.

This model posits that levels of concern tend to be most intense when the risk is perceived to be:

a. Involuntary, inequitable, not beneficial and not under one's personal control
b. Associated with untrustworthy individuals or organizations, and associated with dreaded adverse irreversible outcomes.

❑ **The Mental Noise model**

Focuses on how people process information under stress and how changes in how information is processed affect their communication.

When people are in a state of high concern because they perceive a significant threat to what they value, they experience a wide range of emotions, ranging from anxiety to anger.

Such experience creates mental noise, which interferes with a person's ability to engage in rational discourse.

❑ **The Negative dominance model**

Negative dominance model explains the processing of negative and positive information in high-concern situations.

The model posits that the relationship between negative and positive information is asymmetrical, with negative information receiving significantly greater weight.

❑ **The Trust determination model**

Based on the central importance of trust in resolving risk controversies.
Emphasizes that trust must be established first before consensus building can be achieved.
Third party endorsement from trustworthy sources should ideally be undertaken,
The use of four trust determination factors, i.e. Caring and Empathy; dedication and commitment; competence and expertise; honesty and openness is essential

**Two-step interpersonal communication approach in risk communication is used in communicating with clients and linking services with communities**

- o Interpersonal communication refers to an interaction of conversational nature, involving an exchange of verbal and non-verbal information between two or more participants in a face-to-face setting.
- o Two step flow interpersonal communication approach emerged from studies that proved media have limited effect on people due to social and cultural factors that tend to have primacy in shaping the opinions, attitudes and behaviours.
- o This approach is commonly applied in community engagement.
- o The approach emphasizes the centrality of opinion leaders and influencers in planning and implementing behaviour change communications.
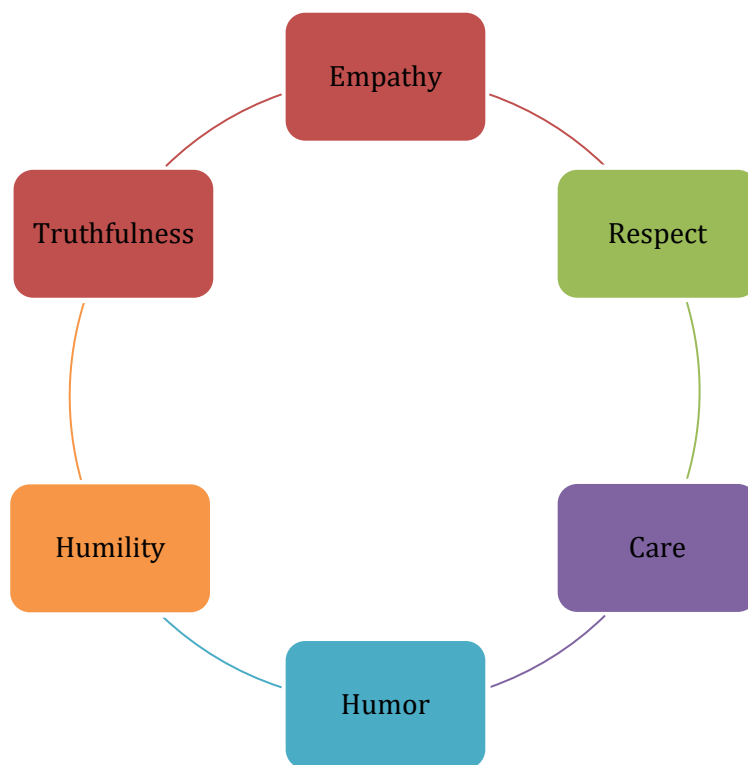
**Recommendations for healthcare workers when communicating with clients on COVID-19 related issues**

| |
|---|
| • Be respectful, polite and empathetic. |
| • Listen carefully to questions and concerns. |
| • Explain in local language and speak slowly while informing clients about COVID-19 |
| • Use simple non-technical words. Avoid use of language and words that can create panic. |
| • Assure the people of their safety. |
| • Sensitize the clients on the prevention measures for COVID-19 irrespective of your diagnosis |
| • Discuss rumours about COVID-19 (See Addressing Rumours About COVID-19) |
| • Answer any questions and provide correct information about COVID-19 - If you're not sure of the answer to any question, admit that and assure the client that you'll find out from your superiors. If possible, call up the client later to give the appropriate response after confirming from your superiors |
| • Share with the clients any available IEC materials on COVID-19 (Bluetooth sharing of audio-visual, fliers, handbills, posters, etc) |
| • Comfort suspected clients by touching when you are wearing appropriate PPEs |
| • Explain the healthcare facility's procedure for handling suspected COVID-19 cases such as available holding places, evacuations, isolation facilities & supportive care available |
| • Keep a detailed and accurate profile of clients - their name, date of birth, travel history, key household practices and hygiene practices |
| • Provide updates to visitors and family when possible |
| • Sensitize all non-health workers (Cleaners, Security Guards, messengers, etc.) on prevention measures and enforce compliance |

**Notes**

-----------------------------------------------------------------------------------------

-----------------------------------------------------------------------------------------

-----------------------------------------------------------------------------------------

-----------------------------------------------------------------------------------------

-----------------------------------------------------------------------------------------

-----------------------------------------------------------------------------------------

**Summary of recommendations for healthcare workers when communicating with clients on COVID-19 related issues**

**Recommended steps for linking services with the community during COVID-19 outbreak**

| | |
|---|---|
| **1**<br><br>Inform the traditional and religious leader(s) and other community stakeholders what COVID-19 diseases means [symptoms, how it is spread, those at risk and prevention measures in place]. Solicit for their support and agree on the most culturally appropriate way to screen patients at the point of entry into facility | **2**<br><br>Solicit for the support of traditional and religious leader(s) and other community stakeholders and agree on the most culturally appropriate way to screen patients at the point of entry into facility |
| **3**<br><br>Seek the guidance of community leaders on preferred channels for information dissemination in view of the current restrictions and lockdown in most states. | **4**<br><br>Share regular updates on COVID-19 situation with community leaders and other stakeholders – Ensure information is simple, accurate, consistent, credible and timely. Be transparent and share what is known and unknown about the COVID-19 situation in your state, LGA or local community. |
| **5**<br><br>Share prevention measures, IEC materials, updates and track defaulters by SMS, Bluetooth, WhatsApp and other social media channels and traditional channels. And periodically find out if clients and family are complying with prevention measures. | **6**<br><br> Keep the health facility open and provide routine services. If there is need to change the working hours, discuss with the community leaders to secure their endorsement and ensure clients are informed. |
| **7**<br><br>Display information, education and communication (IEC) materials at strategic places in the HF, the community and homes of traditional, religious and other influential community leaders. | **8**<br><br>If you feel sick, even with mild symptoms such as headache, fever and slight runny nose, self-isolate by staying at home, report to your immediate supervisor, and call the DSNO. Wear a mask to avoid infecting your family members and other people. |

**Managing rumours in the era of COVID-19 pandemic**

o   A vast array of information sources and claims could emerge in a public health emergency.
o   Important sources to deal with include rumours and claims emerging from known and unknown sources.
o   Health workers should not be involved in spreading rumours or unsubstantiated claims.
o   Health workers are under ethical obligation never to create or spread rumours or misinformation.
o   Every source of health information from websites, social media, etc. should be carefully managed to ensure that only reliable sources are used by the health workers to guide their services to clients.

**Developing risk communication plan**

Risk communication plan is a comprehensive design specifying:

    a.   The objectives of communication
    b.   The key messages,
    c.   Audience mapping
    d.   Message channelling.

Drawing on the COVID-19 emergency, the following steps are advisable for risk communication planning.

    1.   Identification and analysis of risks
    2.   Setting of communication goals and specific objectives
    3.   identification and mapping of audiences
    4.   Message development
    5.   Determination of (real time) channels for communicating messages
    6.   Message production

**Group work**

✓   Participants are divided into 4 groups
✓   Each group is given one of the recommended strategies for preventing COVID-19 to work on
✓   Each group will use the 6-step risk communication plan to produce a message aimed at improving acceptance of their prevention strategy
✓   Followed by group presentation

**Notes**

-------------------------------------------------------------------------------------
-------------------------------------------------------------------------------------
-------------------------------------------------------------------------------------
-------------------------------------------------------------------------------------
-------------------------------------------------------------------------------------
-------------------------------------------------------------------------------------

**Module Evaluation**

- Describe risk perception
- List the 3 questions that needs to be answered in risk perception
- Mention 3 risk communication models
- Enumerate the 6 steps needed to develop a risk communication plan

**FREQUENTLY ASKED QUESTIONS AND ANSWERS ABOUT COVID-19**
Q1: How likely am I to contract COVID-19?

A1: As a health care worker, you are one of the most likely persons to contract COVID-19 because you may be exposed to an infected person who is asymptomatic, or you may be caring for a confirmed case. However, you are protected if you comply with the preventive measures and the Infection protection and control SOPs/guidelines for managing suspected cases of COVID -19 and the general preventive measures.

Q2: Who is at risk of developing severe illness?

A2: Everyone is at risk of being infected and developing serious illness. However, older people and people with pre-existing medical conditions (such as high blood pressure, heart disease, lung disease, cancer or diabetes, etc.) appear to develop serious illness more often than others.

Q3: Are there any medicines or therapies that can prevent or cure COVID-19?

A3: No. There is no evidence that current medicine can prevent or cure COVID-19. However, research and clinical trials are ongoing under the supervision of WHO to find a drug for treating COVID-19. Those affected are being treated for the symptoms.

Q4: How long is the incubation period for COVID-19?

A4: Most estimates of the incubation period for COVID-19 range from 1-14 days, most commonly around five days and can be up to 21 days

Q5: How long does the virus survive on surfaces?

A5: It is not certain how long the coronavirus survives on surfaces. Studies suggest that

**ADDRESSING RUMOURS AND MISCONCEPTIONS ABOUT COVID-19**

Since Nigeria recorded its first case of coronavirus disease 2019 (COVID-19) in February, there has been increased tempo in the circulation of rumours on the infection, prevention and treatment. It is imperative that these rumours are addressed to reduce the risk of infection of staff and their family members.

**Rumour: COVID-19 affects only the rich and their families**

**Fact:** COVID-19 infects all human beings. It doesn't discriminate. Since December 2019 when it was first detected in Wuhan province in China, it has infected people of all social classes and races and countries all over the world. Whatever your social status, protect yourself and your family by frequently washing your hands with soap and running water, or cleaning with hand sanitizer, practicing physical distancing (maintain a distance at least 2 metre apart from the next person) and staying at home if you're not on essential service.

**Rumour: COVID-19 cannot be transmitted in areas with hot climates**

**Fact**: COVID-19 can be transmitted in all areas, including areas with hot weather. Regardless of climate, adopt protective measures. The best way to protect yourself against COVID-19 is by frequently cleaning your hands. By doing this you eliminate viruses and other germs that may be on your hands and avoid infection that could occur by then touching your eyes, mouth, and nose.

**Rumour: COVID-19 only affects older people**

**Fact:** People of all ages can be infected by the COVID-19. Older people, and people with pre-existing medical conditions (such as asthma, diabetes, high blood pressure and heart disease, etc) are more likely to develop serious illness. No age group is immune against COVID-19 as it is a pandemic affecting all ages. Protect yourself and your family by frequently washing your hands with soap and running water, or cleaning with sanitizer, practicing physical distancing and staying at home if you're not on essential service.

**Rumour: COVID-19 thrives in cold weather**

**Fact:** There is no reason to believe that the COVID-19 thrives in cold weather. The normal human body temperature is around 36.1°C to 37.2°C, regardless of the external temperature or weather. The best protection for you and your family is by frequently washing your hands with soap and running water, or cleaning with sanitizer, practicing physical distancing, avoiding large gatherings and staying at home if you're not on essential service.

**Rumour: Taking a hot bath prevents COVID-19**

**Fact:** Taking a hot bath will not prevent you from being infected with COVID-19. Your normal body temperature remains around 36.5°C to 37°C, regardless of the temperature of your bath or shower. Actually, taking a hot bath with extremely hot water can be harmful, as it can burn your skin. The best protection for you and your family is by frequently washing your hands with soap and running water, or cleaning with hand sanitizer, practicing physical distancing (maintain a distance at least 2 metres apart from the next person) and staying at home if you're not on essential service.

**Rumour: Hand dryers are effective in killing the new coronavirus**

**Fact:** Hand dryers are not effective in killing the new coronavirus. Protect yourself and your family by frequently washing your hands with soap and running water, or cleaning with hand sanitizer, practicing physical distancing (maintain a distance at least 2 metres apart from the next person) and staying at home if you're not on essential service. Once your hands are cleaned, you should dry them thoroughly by using paper towels.

**Rumour: Garlic helps to prevent infection with the new coronavirus**

**Fact:** There is no evidence from the current outbreak that eating garlic has protected people from the new coronavirus. While some traditional home remedies alleviate symptoms of COVID-19, there is no evidence such remedies can cure or prevent the disease. The best protection for you and your family is by frequently washing your hands with soap and running water, or cleaning with sanitizer, practicing physical distancing (maintain a distance at least 2 metres apart from the next person), avoiding large gatherings and staying at home if you're not on essential service.

**Rumour: Drinking warm water with lemon alone or with bicarbonate of soda protects against the new coronavirus.**

**Fact:** There is no proof that this is effective in preventing the disease, practicing good hygiene is the best way to stay healthy and safe. Protect yourself and your family by frequently washing your hands with soap and running water, or rubbing with hand sanitizer, practising physical distancing and staying at home if you're not on essential service.

**Rumour: Spraying alcohol or chlorine or bleach all over the body will kill the new coronavirus**

**Fact:** Spraying alcohol or chlorine or bleach all over your body will not kill viruses that have already entered your body. Spraying such substances can be harmful to skin, clothes or mucous membranes (i.e. eyes, mouth). Be aware that both alcohol, chlorine bleach can be useful to disinfect surfaces, but they need to be used under appropriate recommendations.

**Rumour: Vaccines against pneumonia protects against the new coronavirus**

**Fact:** Vaccines against pneumonia, such as pneumococcal vaccine and Haemophilus influenza type B (Hib) vaccine, do not provide protection against the new coronavirus. The virus is so new and different that it needs its own vaccine. Researchers are still trying to develop a vaccine against COVID-19. Protect yourself and your family by frequently washing your hands with soap and running water, or cleaning with hand sanitizer, practicing physical distancing and staying at home if you're not on essential service.

**Rumour: Regularly rinsing or irrigating your nose with saline help prevent infection with the new coronavirus**

**Fact:** No. There is no evidence that regularly rinsing the nose with saline has protected people from infection with the new coronavirus. There is some limited evidence that regularly rinsing or irrigation of the nose with saline can help people recover more quickly from the common cold. However, regularly rinsing the nose has not been shown to prevent any respiratory infections including coronavirus.

**Rumour: Holding your breath for more than 10 seconds is an effective test for the new coronavirus.**

**Fact:** The claim is false as there is no evidence to support it.

**Rumour: Chloroquine is used to treat the new coronavirus (COVID-19)**

**Fact**: There is no proven evidence that chloroquine is effective in the treatment of Covid-19. Trials are still ongoing on the efficacy of chloroquine. To date, there is no specific medicine recommended to prevent or treat the new coronavirus (COVID-19). Those infected with the virus receive appropriate care to relieve and treat symptoms. Prevention is better than cure! Protect yourself and your family by frequently washing your hands with soap and running water, or cleaning with hand sanitizer, practicing physical distancing and staying at home if you're not on essential service.

**Rumour: Antibiotics are effective in preventing and treating the new coronavirus**

**Fact:** Antibiotics do not work against viruses; they are only effective against bacterial infections. The new coronavirus (COVID-19) is a virus and, therefore, antibiotics should not be used as a means of prevention or treatment. To date, there is no specific medicine recommended to prevent or treat the new coronavirus (COVID-19). Those infected with the virus receive appropriate care to relieve and treat. Prevention is better than cure! Protect yourself and your family by frequently washing your hands with soap and running water, or cleaning with sanitizer, practicing physical distancing and staying at home if you're not on essential service.

**Rumour: Vitamin C prevents COVID-19 infection**
**Fact:** Taking vitamin C does not prevent COVID-19 infection. Although vitamin C boosts the immune system, it does not prevent infection against COVID-19. Excess vitamin C in the body is risky to patients with underlying medical conditions.

## REFERENCES

1. Centers for disease control and prevention, National Centre for Emerging and Zoonotic Infectious diseases: Best practices for environmental cleaning in healthcare facilities in resource- limited settings.
   Www. Cdc.gov/hai/pdfs/resource-limited/environmental-cleaning-508.pdf

2. National Primary Health Care Development Agency (NPHCDA): Preparedness and Response to coronavirus disease 2019 (COVID-19) at Primary Health Care and Community Level; 2020. Available at https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/guide_on_phc_preparedness_and_response-covid-19.pdf. Accessed 11/4/2020.

3. Foster S, Laing R, Melgaard B, Zaffran M. Ensuring supplies of appropriate drugs and vaccines. Disease control priorities in developing countries. 2006; 2nd Edition.

4. World Health Organization (WHO): Model List of Essential Medicines 21st List; 2019. Available at:
   https://www.who.int/medicines/publications/essentialmedicines/en/. Accessed 11/4/2020

5. World Health Organization (WHO): Access to medicines and vaccines; Seventy-Second World Health Assembly. 2019. Available at
   https://apps.who.int/gb/ebwha/pdf_files/WHA72/A72_17-en.pdf. Accessed 11/4/2020

6. United Nations Children's Fund (UNICEF): Development in UNICEF vaccine procurement; Global Immunization meeting-UNICEF supply division; 2020. Available at: https://www.who.int/immunization/newsroom/190209_R_Matthews.pdf. Accessed 11/4/2020

7. National Primary Health Care Development Agency (NPHCDA): Community Health Influencers, Promoters and Services (CHIPS) Programme Training Manual 2019.

8. Clara Ejembi. Corona Virus Disease. Presentation at Chapel of Redemption Zaria March 2020

9. World Health Organization. Coronavirus disease (COVID-19) advice for the public. Available at: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public. Accessed 11/04/2020

10. World Health Organization. Infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected. Available at https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125 Accessed 11/04/2020

11. Nigeria Centre for Disease Control (NCDC). Personal Protective Equipment Recommendations during Health Care Delivery for Patients with Suspected or Confirmed Covid-19 Infection. Available at https://ncdc.gov.ng/themes/common/docs/protocols/171_1583044010.pdf Accessed 11/04/2020

12. Africa CDC, AU and NCDC. COVID-19 Screening and triaging in health facilities and Port of entries. Available at: https://africacdc.org/news/africa-cdc-leads-

continental-response-to-covid-19-outbreak-in-africa-statement-by-the-director-of-africa-cdc/

13. Livingston E, Desai A, Berkwits M. Sourcing personal protective equipment during the COVID-19 pandemic. JAMA. 2020 Mar 28.

14. Nigeria Centre for Disease Control (NCDC). Updates on COVID-19 (Corona Virus Disease 2019). Available at https://covid19.ncdc.gov.ng/. Accessed 13/04/2020

15. World Health Organisation (WHO): WHO guidance for the public on basic protective measures against COVID-19: 2020. Available at https://www.who.in at/emergencies/diseases/novel-coronavirus-2019/advice-for-public. Accessed 11/4/2020

16. Centre for Disease Control and Prevention (CDC): CDC interim infection prevention and control recommendations for patients with confirmed COVID-19 or persons under investigation for nCoV in healthcare settings: 2020. Available at https://www.cdc.gov/coronav. Accessed 11/4/2020

17. Kartoglu U, Milstien J. Tools and approaches to ensure quality of vaccines throughout the cold chain. Expert review of vaccines. 2014 Jul 1; 13(7):843-54.

18. Federal Ministry of Health Nigeria. Ministry of health, community development, gender, elderly and Children- "National standard and procedures for Health Care waste management book". December, 2017

19. World Health Organization. Management of solid Health Care waste at Primary Health Care Centers: A decision making guide, NLM WA 790, WHO 2005. Available at https://www.who.int/water_sanitation_health/publications/manhcwm.pdf. Accessed 11/04/2020.

20. Ebenso B, Otu A. Can Nigeria contain the COVID-19 outbreak using lessons from recent epidemics? The Lancet Global Health. 2020 Mar 11.

21. Martinez-Alvarez M, Jarde A, Usuf E, Brotherton H, Bittaye M, Samateh AL, Antonio M, Vives-Tomas J, D'Alessandro U, Roca A. COVID-19 pandemic in west Africa. The Lancet Global Health. 2020 Apr 1.