

Kingdom of Cambodia

Nation Religion King

Ministry of Health

**National COVID-19 Technical Brief
for Maternal and Child Health Services**

2020

Contents

Preface	3
Background	5
Maintaining essential service	5
Triage and Risk Screening, Referral and PPE	7
.....	10
ANC service in the context of COVID-19	11
Intrapartum Care in context of COVID-19	20
III. Essential Early Newborn Care	22
IV. Breastfeeding	23
Postnatal Care in the context of COVID-19	25
Child Care and other SRH Service in the context of COVID-19.....	33
I. Child Care	33
Adolescent Care in the context of covid-19 pandemic globally	35
II. Family Planning.....	36
III. Comprehensive Abortion Care.....	38
IV. VAW/Gender-based violence in the context of covid-19 pandemic globally	38
V. HIV Care	41
Health and Safety of Health Workers	42
Annex	44

Preface

The overarching aim of the COVID-19 technical brief for maternal and child health services is to ensure maternity care providers can deliver respectful and individualized antenatal care, intrapartum care, postnatal care, childcare, adolescent care, family planning, safe abortion care, VAW/GBV, and HIV services that promote the safety of women, families and health professionals during the COVID-19 pandemic.

The technical brief provides as an interim resource for the MOH based on the UNFPA and WHO guidelines, which includes practice and new advice regarding to situation related to covid-19.

This technical brief can support service providers and managers to provide face-to-face and distance care through telephone, or internet as much as they can, however it is just an additional support to the implementation of national protocol on safe motherhood for health centers and referral hospitals during covid-19 pandemic.

Phnom Penh, September 30, 2020

Prof. Eng Hout
Secretary of State for Health

Acknowledgment

Ministry of Health (MoH) would like to express its appreciation to the officials of National Reproductive Health Program of National Maternal and Child Health Center (NMCHC) for their effort in preparing this National Covid-19 Technical Brief for Maternal and Child Health Services.

We would like to express our sincere thanks to Taskforce of National Reproductive Health Program of NMCHC, Hospital Services Department of MoH for closed collaboration with technical officials of health development partners including UNFPA, WHO, GIZ, USAID-EQHA, CHAI organization, as well as technical support on implementation and advised by experts based on final scientific research related with covid-19 so as to prevent maternal and child health in Cambodia.

We would like to express our special sincere thanks to UNFPA who assisted to revise in Khmer version, and supported budget for compiling, and publishing this technical brief.

Provisional translation

Background

Covid-19 is an emerge acute respiratory infection disease called SAR-CoV-2 outbreaks in Wuhan town, China, in December, 2019, and pandemics globally.

A key fact about COVID-19 is that the vast majority of infections will result in very mild or no symptoms and not everybody is at risk of this disease. Persons of advancing age and those with existing respiratory, cardiac and/or metabolic disorders and immunodeficiency are at higher risk of moderate to severe disease.

Limited data are available on COVID-19 in pregnancy, but the studies published to date do not show an increased risk of severe disease in pregnancy or substantial risk to the newborn. Congenital infection has not been found, and the virus has not been detected in expelled products of conception. These findings are reassuring, and are quite different from other recent pandemics, like the 2009 H1N1 influenza a pandemic which resulted in more severe disease in pregnant women, or Zika virus which is teratogenic. Information on the impact of COVID-19 on early pregnancy outcomes and information about low risks of severe disease of COVID 19 on reproductive women remains unavailable at the time of writing.

Maintaining essential service

The impact of covid-19 is more likely to be substantial on countries where have poor health systems. The decrease of receiving and accessing to MCH health service in context of covid-19 would result to increase the risk or death of maternal and child during pregnancy, delivery, and post-delivery. Therefore, health service managers have to consider carefully the possibility of service deliveries at their facilities and communities to ensure that essential MCH service has been received continuously.

All pregnant women, including those with confirmed or suspected COVID-19 infections, have the right to receive high quality care before, during and after childbirth. This includes newborn care, and mental health care.

Maternity services should continue to be prioritized as an essential core health service, and other sexual and reproductive health care such as family planning, emergency contraception, treatment of sexually transmitted diseases, post-abortion care and safe abortion services and where legal remain as core health services.

Maternity care providers including midwives and all other health care workers providing maternal and newborn care, whether based in health facilities or within the community, are essential health care workers and must be protected and prioritized to continue providing care to childbearing women and their babies.

This technical brief is to make plan for supporting and advance preparing to additional respond to the guideline on essential services during pandemic period, and complements the recently released Community-based health care, including outreach and campaigns, in the context of the COVID-19 pandemic by referring to WHO Operational Guidance for maintaining essential health services issued on 5th June 2020 expands on the content of the essential health services and the COVID-19 strategic preparedness and response plan. It supports country implementation

of targeted actions at the national, subnational and local levels to reorganize and maintain access to safe and high-quality essential health services. It outlines the adaptations needed to keep people safe and maintain continuity of essential health services during the response to the COVID-19 pandemic. It is intended for decision-makers and managers at the national and subnational levels. Below are recommendations that support health service managers ensure the continuity of essential health services.

Operational strategies for maintaining essential health services

- Adjust governance and coordination mechanisms to support timely action.
- Prioritize essential health services and adapt to changing contexts and needs.
- Optimize service delivery settings
- Establish safe and effective patient flow at all levels
- Rapidly optimize health workforce capacity
- Maintain the availability of essential medications, equipment and supplies
- Fund public health and remove financial barriers to access service
- Strengthen communication strategies to support the appropriate use
- Strengthen the supervising of essential health services
- Use digital platforms to support essential health service delivery

Triage and Risk Screening, Referral and PPE

I. TRIAGE AND RISK SCREENING FOR COVID-19

1. Triage and risk screening for COVID-19 exposure and symptoms needs to be undertaken for all women accessing to receive reproductive health according to supporting document, and MoH diagnosis and treatment protocol for covid-19 in Cambodia (version 2)
2. All women and accompanying persons need to be screened for infection by asking about general wellbeing, underlying medical conditions (e.g. history of heart disease, tuberculosis, diabetes, respiratory disease, or or metabolic conditions). Any person reporting fever and/or respiratory symptoms will be at risk of covid-19 infection. Pregnant women living in refugee camps, nomadic tribes, high density communities will be at particular risk of COVID-19 infection.
3. A referral pathway and mechanisms to provide emergency transport from lower to higher level of facilities needs to be in place for the potential transfer of pregnant women experiencing moderate/severe disease and requiring higher level acute care and intervention.

Where possible, maternity staff from the facilities who make referral should inform the facility where women will refer to about the transfer of the woman in advance of her departure to ensure that the woman is stabilized before departure. In case woman has not yet in laboured, prepare to transfer woman. In case women is in labour, see page 22.

a. When preparing for emergency transfer:

- Prepare ambulance and reserve drugs in anticipation of medical emergencies that may occur en-route, such as sudden cardiovascular collapse or hypotension.
- All ambulance staff should wear surgical mask. All transport staff has to have PPE prior to transport.
- Put on surgical mask for patient or woman during transport even though patient or woman has not done on facility admission.
- If a bag valve mask (BMV) is required during transport, provide only gently bagging to reduce aerosolization in the event of worsening hypoxia and difficult to breathing. Staff has to wear N95 mask and gloves.
- Avoid unnecessary breathing circuit disconnection during transport.

b. Ambulance for referral:

- Transport vehicle to be cleaned and disinfected internally by cleaning or transport staff in PPE prior to transfer from low level health facility to high level health facility.
- Once arrive high level facility, transport staff has to remove PPE and dispose of this by complying with guideline, and wash hands.
- Transport staff wears new PPE prior to the return journey in the same ambulance and remove it after mission completed.
- Equipment used during transportation to be cleaned and/or sterilized after transport as per facility protocol. Transport vehicle to be cleaned upon arrival when back at facility or transport depot. For further information, please refer to annex-1: How to clean ambulance and referral vehicle.

4. Women with suspected of COVID-19 need to be provided with a facemask and treated in a dedicated treatment area separate from other patients where possible. Medical equipment needs to stay in these dedicated treatment areas and not be shared among general patients. Through cleaning of equipment is required before it is used for other patients. All patient or woman need to receive education from the maternity care provider on proper hygiene practices as part of the admission procedure.

5. Personal Protective Equipment (PPE): Maternity care providers involved in the direct care of patients must have access to PPE properly by complying with operational guideline on standard infection, prevention and control of covid-19 in health facilities and treatment places of confirmed patient in Cambodia.

For maternity care providers delivering care to women with suspected cases of coronavirus in a health facility, the following PPE needs to be worn: a long sleeve gown, surgical mask for providing service to all patient interactions or face mask, N95/P2 mask (if the maternity care provider is directly involved in aerosol performing procedures such as suctioning airway secretions, administering nebulizing medication or CPR), eye protection goggles, and sterile gloves.

6. For maternity care providers delivering care to women without symptoms of coronavirus in a health facility, PPE needs to be used according to standard precautions and risk assessment. Wearing PPE for all patients' contact will be dependent on availability of PPE within individual facilities and individual judgement of the exposure risk by the maternity care providers. Please refer to operational guideline on standard infection, prevention and control of covid-19 at health facilities and treatment places of confirmed patient in Cambodia.

Gloves and a plastic apron need to be worn during the delivery of care that may involve exposure to blood, body fluids, secretions, excretions, urine, touching oral mucosa, taking blood or cervical swabs, and cleaning vaginal.

During second and third stage of labour, in addition to hand washing, a surgical mask, plastic apron, eye protection goggles, and gloves need to be worn.

See ANNEX-2 for further guidance regarding by whom, when and where PPE should be worn.

7. During any episode of patient contact, maternity care providers are recommended to use routine infection prevention and control practices, such as handwashing. Handwashing will substantially reduce the risk of infection from coronavirus.

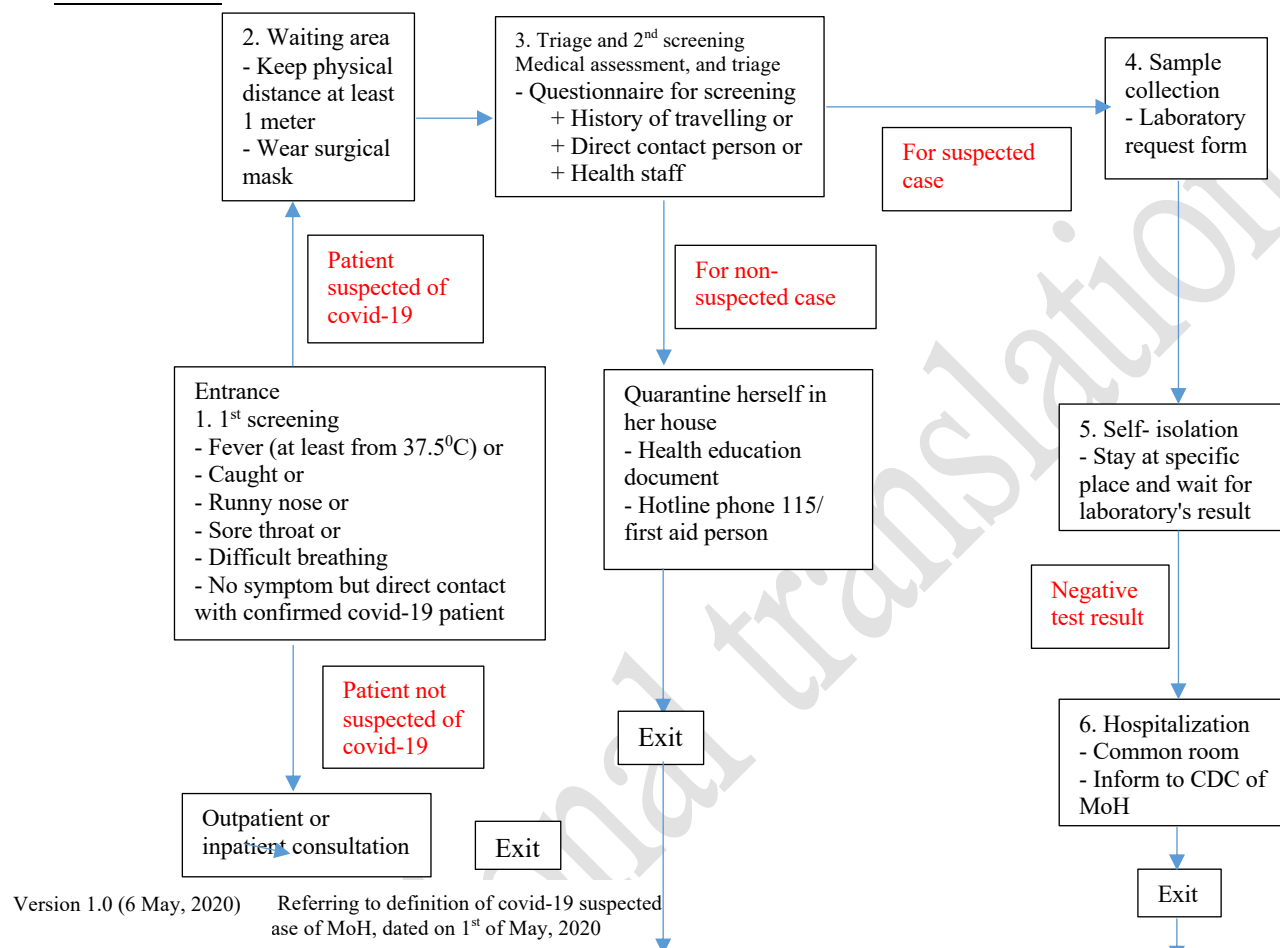
8. Cleaning surfaces with a cleaning product (i.e.: 5% sodium hypochlorite (bleach)) and wiping surfaces down with a paper towel or clean cloth in between patients and then washing hand is recommended. See annex-3 Cleaning practice.

9. In addition to routine infection control practices, maternity care providers need to maintain a physical distance of at least 1.5 meters during any clinical encounter to reduce the risk of infections. However, physical examination of service provider should be maintained, with hand washing before and after woman contact.

10. Maternity care providers and other staff also need to maintain a distance of 2 meters lengths from one another as much as possible, even when no patients are presented.

II. Flowchart of Triage and Risk Assessment of suspected or confirmed COVID-19 woman

Screen woman before arrival where possible (e.g. by phone). Triage in location separate from usual admission route. Recommended to provide surgical face mask at face-to-face assessment with woman



Woman self-quarantine

Advise to return home using personal transport, if possible (do not use public transport or ride sharing options)

➤ Ongoing ANC

- Resume usual ANC after 14 days symptom for free and negative test result.
- Arrange alternative mode of ANC while self-quarantined if ANC care cannot be delayed.

- Advise to telephone hospital if concerned

➤ Covid-19

- Advise about standard hygiene precautions and infection control.
- Provide information about covid-19

➤ Do not do

- Go out to school/work/public areas or use public transport
- Do not communicate with member and outsiders

Notify maternity ASAP

➤ On admission, universal care

- Isolate woman
- Follow standard infection prevention and control
- Alert midwifery/obstetric/neonatal teams
- Consult with infectious disease team
- Limit visitors
- Symptomatic treatment as indicated

➤ Referral

- Covid-19 positive along with other symptoms

➤ Before delivery

- Perform necessary medical imaging
- Fetal surveillance as clinically indicated

➤ Birth

- Room with air blowing in and out
- Mode of birth not influenced by covid-19 unless cesarean section delivery indicated

➤ Col-location of mother and newborn

- Mother and newborn stay in one room
- Discuss risk/ benefit with parents
- Determine the needs of woman based on disease condition, woman's option, woman's mental health, test result, and ability of healthcare workers

➤ Breastfeeding or alternative product

- Support breastfeeding choice

➤ **Do**

- Stay indoors at home
- Ventilate rooms by opening windows

➤ **Testing criteria as of latest update date**

- Fever over 38°C or history of fever or acute respiratory infection (shortness of breath, cough, sore throat)
- Family members who suspected of covid-19
- International travel within previous 14 days
- Close contact with suspected of covid-19
- Healthcare worker with direct patient contact
- Cruise ship passenger or crew who have travelled in the 14 days prior to illness onset
- Hospitalized patient
- Other circumstances with public health implications

➤ **Risk minimization strategies**

- inform about hand hygiene, using face mask during conversation, keeping social distancing, sneeze prevention, and precaution during touching newborn

➤ **Close contact with suspected case of covid-19**

- Direct contact more than 15 minutes
- Contact in close room more than 2 hours

Provisional translation

ANC service in the context of COVID-19

I. Objective

The overarching aim of this guidance is to ensure maternity care providers can deliver respectful and individualized antenatal care services that promote the safety of women, families and health professionals during the COVID-19 pandemic.

In the context of pandemic, maternity care providers will try to minimize direct patient contact in non-urgent situations in an attempt to minimize the spread of COVID-19 as some antenatal appointments are conducted using telehealth that is virtually by phone or video chat (remote contact), to ensure that there is no disruption in service or breakdown in women's maternity care.

Service providers of antenatal care will need to use clinical judgement in deciding which women may be suitable for an alternate schedule of face-to-face care (contacts) that includes remote ANC contacts. Primarily this will be women who have reliable mobile phone access are deemed low-risk – bearing in mind that risk status may change as pregnancy progresses so risk assessment must occur at every ANC contact.

When it is necessary to physically examine women at an ANC contact, the physical part of the examination will be undertaken respectfully and quickly to minimize time spent within the recommended 1.5 meters distancing.

II. ORGANIZATION OF ANC SERVICES

- Triage and screen all women for symptoms of COVID-19 before entering the facility
- Limit the number of women attending health facility
- Change scheduled ANC contacts (after risk-assessment)
- Can change ANC contact from health facility to be done at community or at any possible places (providing outreach service)
- Undertake non-physical assessments in open environments (outside)
- Limit attendance of support people such as partners/children (at ANC contacts)
- Separate physical assessment from discussion/enquiry part of ANC contact
- Provide a 'one-stop' contact meaning combining services such as ultrasound service (USS) medication administration, blood and other tests at the same contact to prevent women having to return as frequently
- Wherever possible, provide ANC away from general patients even though for emergency/other outpatient care. Encourage women to have standard care continuously throughout pregnancy, birth and postnatal to reduce the number of caregivers in contact

with the woman and her birth partner and decrease the chances of COVID-19 spread in health facility.

- The health information/counselling session provided by the midwife or other maternity care provider at the beginning of an antenatal clinic should include social distancing (i.e.: sitting at least 1.5 meter apart from each other) and symptoms, procedures for home isolation, emergency signs etc
- This information session can be used as an opportunity to minimize women's fear about the impact of COVID-19 on pregnant women and newborns and encourage ongoing contact with the health service. Specific precautions/guidance regarding COVID-19 for pregnant women remain the same as for the general population.
- Provide ANC and obstetric care for women with asymptomatic COVID 19 and wherever possible, children, other family members and other companions should not accompany the women into the clinic visit.
- Continue physical contact and clinical examination as normal during ANC visits but pay extra attention to infection control measures. All women need to wash their hands upon arrival to waiting area, upon entering clinical rooms, upon leaving clinical rooms and health facility.
- Maternity care providers need to wash their hands before and after giving services and again before physical examination of women. Wash hands after cleaning surfaces, and after coughing or sneezing.
- A reduced schedule of antenatal care visits at the facility is appropriate to minimize the risk of virus transmission. ANC that is not provided in person at the facility, can be undertaken on the phone, via whatsapp, sykpe, facetime (where available) and is best utilized for occasions when the woman does not require physical clinical assessments and/or tests/investigations. The modified schedule of visits and content of phone-based ANC/PNC is currently being developed as mentioned below. When women come for ANC, consider supply women with enough iron, folic acid, Ultrasonography, OGT (Oral Glucose Tolerance) and vaccination to help avoid facility visits just to obtain supplies.
- The specific content of ANC remains unchanged in the context of COVID-19. However, maternity care providers need to be aware of the increased risk of antenatal anxiety and depression and domestic violence due to the economic and social impacts of the COVID-19 pandemic. These issues add to the normal stresses of pregnant women and pregnancy and maternity care providers that need to have guidance/referral mechanisms in place to support these women.

FOR WOMEN WITH SYMPTOMS OF COVID-19

- **If the woman needs to stay at home**, the ANC appointment should be rebooked for after the isolation period ends.

The woman can stop home isolation under the following 3 conditions: She has had 3 full days of no fever without the use of medicine that reduces fever and, other symptoms have

improved (i.e.: shortness of breath or cough) and, at least 7 days have passed since her symptoms first appeared. Women need to be advised to seek medical help if the condition is worsening or if symptoms are not improving after 7 days.

If the woman can access to testing facilities, she may leave home after home isolation under the following 3 conditions: The woman no longer has fever and other symptoms have improved and she has had two negative tests in a row, 24 hours apart.

• **Women who have symptoms of COVID-19 and are experiencing any pregnancy related complications** need to be seen separately from others in an isolated room if possible or at the beginning to end of clinic when no other patients remain, to lower the chance of transmission to the maternity care provider and other women attending for care. Women with symptoms need to wear a surgical mask and maternity care providers should wear PPE as per MOH recommendations.

The following document provides practical guidance on antenatal contacts undertaken remotely (phone/messaging application/telehealth). This guidance provides direction for services to continue to provide respectful antenatal care during the COVID-19 pandemic. It is intended to support services in adjusting to a different way of delivering antenatal care but does not replace usual policies and protocols. ANC service shall comply with guideline of MoH on ANC when covid-19 pandemic has been completed.

Prior to commencing telehealth services:

- Develop a facility or health system strategy such as a health information management system, to introduce and monitor changes in ANC contacts
- Provide training with technology to staff to provide remote ANC contacts including sufficient resources for health providers to undertake phone contacts (access to mobile phone, charger, pre-paid phone credit and sim card or money for purchasing phone credit)
- Obtain and document informed consent from the woman for remote ANC contact

III. Specific Period of Antenatal Contacts in the context of covid-19

Wherever possible the current MOH schedule of ANC visit should be provided and maintained. Where technology and phone services are available, some of these contacts may be a remote ANC contact. The schedule below offers guidance on which contacts might best be undertaken face-to-face and which might suit a remote contact.

Specific period of ANC contact;

- ❖ **1st ANC visit:** when gestational age is less than 12 weeks, need to do face-to-face ANC contact.

- ❖ **2nd ANC visit:** when gestational age is from 20-24 weeks, need to do remote ANC contact.
- ❖ **3rd ANC visit:** when gestational age is from 30-32 weeks, need to do remote ANC contact.
- ❖ **4th ANC visit:** when gestational age is from 36-38 weeks, need to do face-to-face ANC contact.

Regardless of type of contact all women need to have:

- Assessment for, and information on, COVID-19 symptoms such as fever, cough, runny nose, sore throat, and difficult breathing. If women report symptoms or contact with suspected COVID, provide country-specific information on mandatory self-isolation and advise phone contact or rescheduling where possible (if urgent need, follow Facility/Country recommendations for seeking care)
- Information on Danger Signs in pregnancy and Birth Preparedness such as vaginal bleeding, convulsion, severe headache, dizziness, fever, severe exhausted, severe abdominal pain, fast or difficult breathing
- Ongoing pregnancy risk assessment – including emotional wellbeing and personal safety. If risk assessment identifies potential or actual complications more frequent contacts need to occur and these may need to be face-to-face
- Adequate documentation of care provision to ensure appropriate care planning

All services to be provided must develop a process for integrating remote contact documentation in women's hand-held records.

Procedures for follow-up interventions, provision of supplies, and, compliance monitoring will need to be considered. Clear procedures are also required for documentation/record keeping and emergency referral processes.

IV. Remote ANC Contact

The following guidance is for women who need remote ANC contact. Standard face-to-face practice should be continued. This is not a complete guidance for accessing to ANC service, somehow it is a guidance for women who need remote ANC contact.

Activities to be provided to women who need remote ANC contact (without technical thinking) are;

- 📌 Respectful maternity care includes;
 - Provide service to pregnant woman with dignity and respectfulness
 - Keep confidence and privacy
 - No discrimination
- 📌 Activities should do to communicate with all women are;
 - Self-introduction, and friendly greeting her
 - Assessment of covid-19 symptom (both woman and concerned person) and proper respond if the symptom has been found

- Ask and pay attentionon to physical wellbeing, social, feeling and culture
- Ask woman about progress of her pregnancy
- Follow-up and access regularly
- Explain the way to do sample test and acceptance
- Ask history of disease, and continue to assess risk factor
- Discuss danger sign;
 - Vaginal bleeding
 - Convulsions
 - Severe headache and dazzle
 - Fever and severe exhausted
 - Severe abdominal pain
 - Fast and difficult breathing
- Provide appropriate time to ask question and answer
- Provide specific information about pregnancy and education
- Provide consultation and referral to proper place
- Discuss the plan of emergency referral from woman's house to health facility in case of necessary
- Make appointment date to do ANC contact continuously.

ANC contact	
The 1 st ANC contact (face-to-face)	
<p>The 1st ANC visit: when gestational age is less than 12 weeks</p>	<ul style="list-style-type: none"> - Weighing, and measuring height - If possible, calculate BMI BMI=Weight (Kilogram)/height * height (meter) - Take vital sign (Blood pressure, pulse, fever, breathing rate) - Examine paleness - Examine swelling, goiter at neck and breasts - Take urine test to confirm her pregnancy in case clinical examination is not confirmed clearly. - Measure fundus height (if it can't be measured, do vaginal examination, or echography) - Calculate expected delivery date - Look for previous c-section scar and other abdominal operation scars - Take blood test: blood group, Rh, hemoglobin/hematocrit, virus which can be transmitted from mother to child (HIV/AIDS-syphilis), malaria, if necessary - Provide tetanus vaccination if woman has not yet received this medicine or provide continuum vaccination as recorded in tetanus vaccination card - If necessary, do full blood count testing to confirm number of red blood cell - Take urine test for protein and glucose - Provide consultation to eat healthy food, do normal activity to avoid raising too much weight more than standardized one. - Check for any signs suffered from violent which could cause complicated during pregnancy and delivery so as to resuer and counselling and recording. - Educate for birth preparedness - Make appointment for the 2nd ANC visit

	<ul style="list-style-type: none"> - Provide information regarding safety through phone, and service schedule of ANC, and the acceptance of service delivery by woman. Confirm telephone number and reserve phone number of woman clearly. - Ensure that woman has phone number of service provider or phone of health facility.
The 2nd distance ANC contact through phone	
The 2 nd ANC: when gestational age is from 20-24 weeks	<p>Service provider should implement the following;</p> <ul style="list-style-type: none"> - Self-introduction and friendly greeting woman - Assess covid-19 symptom (both woman and concerned persons), and refer or instruct her to find another service if covid-19 symptom is confirmed - Ask her about general health and welfare including constipation, urinary tract infection, sleeping problem or violence - Ask and pay attention on social physical welfare, emotion and culture with support from concerned and safety planning preparation - Ask her about progress of pregnancy - Follow-up and assess regularly - Explain her how to do sample test and approval - Ask her about disease history, and continue to assess the risk by asking her about any problems had been found in the 1st ANC - Discuss about danger sign; <ul style="list-style-type: none"> + Vaginal bleeding + Convulsions + Severe headache, dizziness + Fever and severe exhausted + Severe abdominal pain + Fast and difficult breathing - Educate about birth preparedness

	<ul style="list-style-type: none"> - Provide specific information about pregnancy by calculating gestational age and expected delivery date - Ask woman about progress of fetus such as fetus movement, and pregnancy side is bigger than before - Ask and educate about meal - Ask about current using medicine (iron supplement, mebendazole, etc.) - Educate health promotion such as breastfeeding, skin-to-skin contact, vaccination, and family planning - Provide consultation, and referral her to a proper place - Discuss the plan regarding referral from woman's house to health facility, if necessary - Provide appropriate time to ask question and answer - Make appointment date from the next ANC contact - Remind woman the benefit of ANC, continue ANC contact, and what woman should do, when she has any worries about her pregnancy or danger.
The 3 rd ANC contact when gestational age is from 30-32 weeks	<p>Implement as same as the 2nd ANC visit through telephone, and adding some following information;</p> <ul style="list-style-type: none"> - Continue to assess the risk such as bleeding, diabetes, high blood pressure, etc. - Ask about increasing her weight - Discuss the sign of pre-mature labor, and what woman should do when she starts labor - Discuss about rupture of membrane and how to seek for support - Discuss the benefit of attendance who will with woman during labor.

The 4th ANC contact (face-to-face)	
The 4 th ANC contact: when gestational age is from 36-38 weeks	<ul style="list-style-type: none"> - Weighing, compare this time and previous time weights to find out nutrition problem - Take vital sign (take blood pressure, pulse, fever, respiratory rate) and compare with previous record - Check for any risk signs during pregnancy and complication management - Check and access anemia, if the anemia still remains, referral woman - Check for swelling, neck and breast goiters - Measure fundus height, check for twin fetus or many fetus - Check for fetus is transverse or abnormal presentations, and fetus movement - Check fetus heart rate - Echo if necessary - Take blood test to find out blood's group, rhesus (RH), hemoglobin/hematocrit (if they have been not yet done) - Remind pregnant woman with HIV/AIDS confirmed to deliver baby at referral hospital where has anti-retrieval HIV/AIDS. - Malaria test, if necessary - Continue providing tetanus vaccination, if necessary - If necessary, do full blood consulting test to confirm numbers of blood cells - Urine test to check for protein, glucose (if necessary) - Check for any sign suffered from violent which could be complicated in pregnancy and delivery so as to rescuer, consult and record - Remind mother to bring along with her for delivery like mother health record and tetanus vaccination card.

Intrapartum Care in context of COVID-19

I. Preparedness of intrapartum care at health facility

To cooperate with MoH to combat covid-19 pandemic, each health facility should consider the following measures;

1. Triage and screening need to take place for all women and their birth companion before entering the health facility as outlined in previous sections.
2. Routine infection control precautions need to be instituted for care during every labour and birth. It is important to remember in lower risk groups; corona virus (SAR-CoV-2) leads to mild infection whereas acute complications unrelated to COVID-19 that can occur during pregnancy and childbirth, can carry high mortality for the mother and newborn. In the case of obstetric and newborn emergencies, care to the mother or newborn should not be delayed.

Labor Room Preparedness

The majority of women presenting in labour with no respiratory symptoms, continue to provide services as usual in delivery room. However, the attention to infection prevention practices should be higher:

- Have sufficient supplies of all PPE supplies (face shield, masks, gloves, goggles, gowns, hand sanitizer, soap and water, cleaning supplies) in the labour room.
- All surfaces should be cleaned thoroughly with spray and a clean cloth after any contact by woman or staff
- Staff should follow regular hand hygiene practices – handwashing before and after examining each patient.

3. All women need to be encouraged to call on phone the health facility (where possible) for advice in early labour and to inform the maternity care provider of any respiratory or other COVID-19 related symptoms, which can then assist in planning further care or potential referral.
4. All women maintain their right to be treated with compassion, dignity and respect. Every woman has the right to receive information, provide consent, refuse consent and to have her choices and decisions respected and upheld, and this includes mobility during labour and birth position of choice.

5. One asymptomatic birth partner should be allowed to stay with the woman, through labour and birth. Continuous support by a known birth partner increases spontaneous vaginal birth, shortens labour and decreases caesarean births and other medical interventions. If birth partners are symptomatic, they should remain in self-isolation and not attend the birth. Women should be advised when making plans about their birth to identify potential alternative birth support if needed.

II. FOR WOMEN WITH SYMPTOMS CONSISTENT WITH COVID-19 INFECTION:

1. Health Center

- Referral suspected woman of covid-19 to RH where has covid-19 treatment function.
- If woman is in laboring and cannot refer her to health facility where has covid-19 treatment function timely, health service provider has to;
 - Provide normal delivery by complying with IPC guideline
 - Consult with rapid respond team of PHD to test covid-19 and prepare for referral woman from health facility to quarantine health facility where has covid-19 treatment function when woman is stable.

2. Referral Hospital

1. After triage and assessment, women identified as having symptoms consistent with the coronavirus (SAR-CoV-2) and requiring admission to the facility, need to be cared for in a single room where possible until she discharges from health facility. Minimize the number of staff members entering the room by complying with principle of MoH.
2. Women with an acute respiratory illness should be given surgical masks and staff should be provided with PPE for the duration of care.
3. Where women do not have access to a single room, it is still essential to find a way of separating sick women from well women to reduce the risk of virus transmission – this also applies for any admission throughout pregnancy and the postpartum period.
4. Mode of birth needs to be individualized based on obstetric indications and the woman's preferences. These decisions should not be influenced by the presence of COVID-19, unless there are maternal or fetal emergency indications as in usual practice.
5. Care during labour should not differ from usual, however given the association of COVID-19 with acute respiratory distress syndrome, women with moderate-severe symptoms of COVID-19 should be monitored hourly fluid balance in labour, in order to avoid the risk of fluid overload.
6. If an infected woman requires a caesarean section all staff in theatre should wear PPE. The greatest risk to theatre staff during the caesarean section relates to intubation whereby the virus load from aerosolization (the virus being airborne) is highest.

7. There is no evidence to suggest that steroids for fetal lung maturation, when they would usually be offered, cause any harm in the context of COVID-19. Steroids should therefore be given where indicated. As is always the case, urgent delivery should not be delayed for their administration.

III. Essential Early Newborn Care

The disruption of covid-19 on routine essential maternal and newborn health services during pandemic can lead to high mortality and morbidity among newborns pushing back the countries from achieving the SDG 2030 targets.

Following considerations are to adapt to continue routine (non-COVID) essential early newborn care services at health facilities and homes for infection prevention.

1. Key Actions – Essential Early Newborn Care during covid-19 pandemic

- Essential Early Newborn Care services need to be provided for all newborns (except resuscitation case is needed) as per national protocol on safe motherhood.
- Room-in the baby with the mother; all newborns need to be given skin-to-skin care by the mother, irrespective of their mother or their own status of COVID-19 infection. However, strict hygiene practices are required during breastfeeding like hand washing with soap or alcohol before and after touching newborn to reduce possibility of covid-19 infection through droplets from mother to newborn.
- For immediate newborns who may require resuscitation, the resuscitation should be provided in accordance with national clinical protocol on safe motherhood, but ensure attendance by a minimum number of personnel (one in low-risk cases or two if extensive resuscitation is to be undertaken), and wearing a full set of PPE.
- Strictly practice covid-19 infection control including hand washing every time before and after touching the neonate, wearing mask, and keeping safety distance.
- In the health facilities, restrict access to visitors.
- Essential care for all newborns and additional care of small premature or low birth weight babies, especially the Kangaroo Mother Care (KMC) for preterm/low birth weight babies, must continue and support post-delivery care service according to the guideline for 1000 days of service delivery package for mother and baby during pregnancy, intrapartum and post-delivery through teleconsultations by maternity worker / community health worker as usual.
- Initiate breastfeeding to early newborn, and start newborn within 1 hour after birth, and continue providing exclusive breastfeeding till child age is 6 months old although mother or newborn carried or infected by covid-19. A mother who is too sick to breastfeed should be supported with breast pumps and cup feeding of the neonate with breast milk.
- Ensure uninterrupted availability of oxygen along with oxygen delivery systems in neonatal wards.

- Strict attention should be given to IPC procedures in pandemic condition, and all visitors (except the mother) to the facility refused entry. Mothers must be trained in hand washing with water, soap and hand sanitizer.
- Disinfection of surfaces in neonatal care areas with the routine standard patients are not different from the units where suspected or confirmed Covid-19 infection cases are to be treated.

2. Care for newborns with symptoms of or confirmed COVID-19 infection (or positive test)

- Although much is yet unknown, neonates with COVID-19 may present with different clinical symptoms than adults.
- Neonates with symptoms of COVID-19 infection also need to be thoroughly investigated for other common neonatal diseases that may have similar clinical presentations.
- Health facilities need to have isolation facilities for sick newborns who may be suspected of COVID-19 infection and are having other co-morbidities that require inpatient care.
- Newborns with symptoms of COVID-19 infection and born to a mother with suspected or confirmed Covid-19 infection or with a known exposure to another patient, should stay with the mother in separate room, especially in negative pressure room, if available. Multiple exhaust fans may be used in the absence of negative pressure rooms.
- Maintain separate staff to work in isolation rooms from those working in regular newborn care units. Where staff needs to be shared between the two areas, strict IPC measures need to be practiced.
- Arrange adequate supplies of PPE and train staff on the rational use, as per the national protocols.
- Transfer of COVID-19 suspected babies if required should follow strict IPC adherence including in ambulances.

IV. Breastfeeding

Programs and services to protect, promote and support optimal breastfeeding (early and exclusive) and safe complementary foods with age appropriate should remain a critical component of the programming and response for young children in the context of COVID-19.

1. Key Actions – Infant and Young Child Nutrition during the covid-19 pandemic

- Breastfeeding counselling, basic psychosocial support and practical feeding support should be provided to all pregnant women and mothers with newborns, infants and young children. Mothers, newborns and infants should be enabled to remain together and practice skin-to-skin contact, kangaroo mother care and practice rooming-in throughout the day and night, especially immediately after birth during establishment of breastfeeding.

- Align and coordinate mitigation plans across nutrition, health, food security and livelihood, agriculture, WASH, social protection and mental health and psychosocial support to focus on reaching infants and young children.
- Systems of food, health, WASH, and social protection, should prioritize the delivery of preventive services to mitigate the impact of the pandemic on young children's diets and wellbeing with strong linkages to early detection and treatment of child wasting.
- Adhere fully to the national sub-decree 133 on promotion of foods for infants and young children.⁵⁶
- Donations, marketing and promotions of unhealthy foods - high in saturated fats, free sugar and/or salt - should not be sought or accepted.

2. Breastfeeding by mothers with symptoms of COVID-19 (Positive test)

Mothers with suspected or confirmed COVID-19 are isolated at hospital or home should be advised to continue recommended feeding practices with necessary hygiene precautions during feeding like;

- Breastfeeding is not contraindicated – breastmilk from infected mothers has not been shown to have SARS-CoV-2, the virus that causes COVID-19. Infants should be fed according to standard infant feeding guidelines including;
 - Wash hands with soap and water before and after contact with the infant.
 - Routinely clean surfaces, which the symptomatic mother has been in contact with, by using soap and water.
 - If the mother has respiratory symptoms, use of a face mask when caring for the infant is recommended.
 - Maintain physical distancing (at least 1.5 meters) with other people.
 - Avoid touching eyes, nose and mouth.
- All mothers should receive practical support to enable them to initiate and establish breastfeeding and manage common breastfeeding difficulties, including IPC measures. This support should be provided by appropriately trained health care professionals and community-based breastfeeding counsellors.
- In situations when severe illness in a mother with COVID-19 or other health complications, prevents her from caring for her infant or prevents her from continuing direct breastfeeding. Mothers should be encouraged and supported to express milk, and safely provide breastmilk to the infant, while applying appropriate hygiene measures.
- Mothers and health workers should be counselled to continue breastfeeding should the infant or young child become sick with suspected or confirmed COVID-19 or any other illness.

Postnatal Care in the context of COVID-19

I. Postnatal care preparedness

Maternity care providers will try to minimize inpatient length of stay and direct patient contact in non-urgent situations in an attempt to minimize the spread of COVID-19. As a result, health facility postnatal care routines and follow-up community contacts may change. Well women and their babies may be discharged from health services earlier depending on MoH guideline, and some postnatal contacts may be undertaken using telehealth, that is virtually by phone or video chat (remote contact), to ensure that there is no disruption in service or breakdown in women's maternity care. Some contacts with the health facility might be replaced by home visits by appropriately trained health care workers service providers of postnatal care will need to use clinical judgement in deciding which women may be suitable for an alternate care pathway involving early discharge and some remote contacts. Primarily this will be women who have reliable mobile phone access and are deemed to be at low-risk of complications

When it is necessary to physically examine women during a contact, the physical part of the examination will be undertaken respectfully but quickly to minimize time spent and keeping 1.5 meters safety distancing.

✚ Health services and clinics may:

- Triage and screen all women and companions for signs and symptoms of COVID-19 before entering or leaving the facility
- Restrict attendance for PNC visits to include only the women, an asymptomatic companion and the maternity care provider. Wherever possible, children, and family members should not allow to enter-in the clinic visit.
- Change delivery modality for scheduled postnatal contacts after risk-assessment
- Separate physical assessment from discussion/enquiry part of postnatal contact
- Many health facilities create a message "Visitors doesn't permit to entry." If it is allowed, that visitors are screened for acute respiratory symptoms or possible or contacting with COVID19 infection so as to exclude from the health facility.
- All outsider visitors need to follow infection control procedures and wash their hands with soap and water on entering and leaving the room where the woman and her newborn are being cared for. Hand washing should take place again upon leaving the health facility.

II. POSTNATAL CARE IN INFECTED MOTHERS

1. There is currently no evidence that a woman with symptoms consistent with COVID-19 infection who has recently given birth, needs to be separated from her baby. The risk of

separating the mother and baby to reduce infection transmission, and potentially mild illness in the baby, may considerably outweigh the benefits of keeping mothers and babies together given the evidence supporting immediate skin to skin contact and early initiation of breastfeeding for thermal regulation, prevention of hypoglycemia and reduced sepsis and death in infants.

All mothers and babies regardless of their COVID-19 status need support to remain together to practice rooming-in, establish breastfeeding, practice skin to skin contact or kangaroo mother care.

2. Women with symptoms consistent with COVID-19 infection need to avoid contact with other mothers and babies, undertake hand washing before and after contact with the baby and consider wearing a mask when feeding, providing skin to skin or kangaroo mother care for her baby. Routine cleaning and disinfecting of all surfaces that the mother has had contact with, should also be undertaken at regular intervals.
3. Breastmilk from infected mothers has been shown to be negative for COVID-19 so breastfeeding is not contra-indicated. Maternity care providers need to support the mother's intention to breastfeed and where a woman is unwell, provide support for the woman to express breastmilk and feed this to her baby.
4. The few neonatal infections that have been reported were acquired in the postnatal period and the infants were not significantly unwell. Fetal distress and early neonatal complications when present, were considered due to maternal illness or prematurity. Newborns born prematurely or sick may require additional medical support in the health facility. However, every newborn has the right to access his or her mother or parent. No mother should be separated from her baby without her informed consent.

III. POSTNATAL CARE IN NON-INFECTED MOTHERS

Early discharge from a health facility should be considered after an uncomplicated vaginal birth for healthy mothers and newborns. During covid-19 pandemic in community, discharge may be considered after 6 hours for women with uncomplicated vaginal births and after 2 days for women with cesarean births depending on their status. This can be done provided the mother is well supported and there are systems in place for ongoing home based and/or telephone support by a maternity care provider.

IV. Consultation for all women

1. Breastfeeding needs to be encouraged and supported by maternity care providers.
2. Postnatal anxiety and depression is common for mothers and also fathers. This may be exacerbated by the social isolation and financial impact on the family and wider community,

resulting from the COVID-19 pandemic. New parents need to be encouraged to interact with other parents, friends and family via the phone or other online resources where available. They also need to be given appropriate advice, referral to specialist services and contact information for a known maternity care provider, community health worker and emergency services, to call if they are not coping.

3. Telephone and or/video follow up in the postnatal period may be considered to replace facility based postnatal care visits, where appropriate and if no tests, procedures or physical examinations are expected.

The following document provides practical guidance on postnatal contacts undertaken remotely (phone/messaging application/telehealth). This guidance provides direction for services to continue to provide respectful postnatal care during the COVID-19 pandemic. It is intended to support services in adjusting to a different way of delivering postnatal care but does not replace usual policies and protocols regarding postnatal care provision. Services should revert to the national protocol on postnatal care of the mother and newborn guidance once the pandemic status is lifted.

Prior to commencing telehealth services:

- Develop a facility or health system strategy such as a health information management system, to introduce and monitor changes in postnatal contacts
- Provide training to staff with technology to provide remote postnatal contacts including sufficient resources for service providers to undertake phone contacts (access to mobile phone, charger, pre-paid phone credit and sim card or money for purchasing phone credit)
- Obtain and compile document informed consent from the women for remote postnatal contacts.

V. Alternate Postnatal Contact during COVID-19

Postnatal care should be individualized in accordance with the woman and newborn needs. Remote contact can be suitable for women and newborn who are considered low risk. If women are suitable for remote contact, the maternity care provider needs to consider support available for the woman and her partner – for example a low-risk, multiparous woman who has a history of successful breastfeeding may be suited to more remote contacts than a primiparous woman with minimal home support.

Face-to-face contact should be prioritized for women and/or newborn who have:

- Known vulnerable including violence against woman, social and mental problems
- Complicated after birth or operative births
- Prematurity/low-birth weight

- Other maternal or newborn complexities. This may include issues with infant feeding that can't be adequately assessed remotely

Below is appointment schedule and how to provide PNC for mother and newborn recommended by NMCHC of MoH;

- ❖ **The 1st PNC contact:** 7 days after birth (check both mother and child health) by fact-to-face contact.
- ❖ **The 2nd PNC contact:** 14 days after birth (check both mother and child health) by distance contact.
- ❖ **The 3rd PNC contact:** 1.5 months after birth (check both mother and child health) by face-to-face contact.
- ❖ **The 4th PNC contact:** when baby's age is 2.5 months (check child health) by face-to-face contact.
- ❖ **The 5th PNC contact:** when baby's age is 3.5 months (check child health) by face-to-face contact.
- ❖ **The 6th PNC contact:** when baby's age is 6 months (check child health) by face-to-face contact.
- ❖ **The 7th PNC contact:** when baby's age is 9 months (check child health) by face-to-face)
- ❖ **The 8th PNC contact:** when baby's age is 12 months (check child health) by fac-to-face contact.
- ❖ **The 9th PNC contact:** when baby's age is 18 months (check child health) by face-to-face contact
- ❖ **The 10th PNC contact:** when baby's age is 24 months (check child health) by face-to-face contact

For distance and face-to-face contacts, mother and newborn will be checked as the following;

- Screening and information on covid-19 symptom like fever, cough, runny nose, sore throat, or difficult breathing. If woman reported symptom or had contacted with person suspected of covid-19 who confirmed country specific information of his/her self-quarantine, please advise her to contact through telephone or make new appointment date as much as possible (in case of urgent need, please follow MoH's instruction, country's advice to seek for caring)
- Information about danger sign after birth
 - Danger signs of newborn are not feeding well, convulsions, fast breathing ≥ 60 times/minutes, dyspnea, no movement, fever $\geq 37.5^{\circ}\text{C}$, body temperature $< 35.0^{\circ}\text{C}$, Jaundice within the 1st 24 hours or yellow on palm and soles
 - Danger signs of mother are post-partum hemorrhage, pre-eclampsia, eclampsia, infection and phlebitis.
- Assessment of risks after birth being occur are emotional welfare, and self-safety. If risk assessment found that complication might be occur or actual occur, it's necessary to meet woman several times or face-to-face.

- It must have enough service delivery document to ensure care plan has been done properly. Every service delivery should record information obtained from woman by distance contact.

VI. Remote Postnatal Contacts

The following guidance is for remote postnatal contacts – standard practice should continue for all face-to-face visits. This is not a comprehensive guide to content of postnatal visits – it is a guide to how remote visits might be structured.

Discuss support resources/network at home and any changes that may have occurred like family who can no longer travel to support the woman at home, childcare providers who are no longer available. Connect the woman to community support resources where available.

Discuss when and how the woman can contact their postpartum midwife or maternity care provider, especially in the case of an emergency.

Discuss family planning/birth spacing - all methods of contraception, including long acting reversible contraceptives, should be discussed in context of how provision of contraception may change within the limitations of decreased postpartum in-person visits. Discuss risks of failure of traditional methods of birth spacing. Discuss how and where to obtain contraceptive services if these have changed with COVID-19 and aim to provide contraceptive of choice prior to discharge from health facility where feasible, or otherwise during postnatal face to face visits. Actions to be provided to woman who needs PNC through distance contact by not considering of technique.

Maternity care with respectful including

- Provide treatment to all women with dignity and respectfulness
- Keep confidence and privacy
- No discrimination
- Support woman's right in obtaining information and autonomous decision making

Actions should do during service delivery

- Self-introduction and friendly greeting woman
- Screening covid-19 symptom (both woman and companion) by referring to country guideline and provide caring if the symptom is confirmed.
- Asking and paying attention on physical welfare, sociality, emotion, and culture
- Asking about baby health, nutrition, his/her growing and action
- Observe and routine assess woman and baby
- Explain how to do sample test and get acceptance from woman

- Ask about challenge and risk factor
- Discuss about sign and symptom of risk after birth;
 - Post-partum hemorrhage
 - Pre-eclampsia, eclampsia
 - Infection
 - Thromboembolism
 - Mastitis
- Discuss about contraceptive method
- Discuss about danger signs of newborn like;
 - Not feeding well
 - Convulsions
 - Fast breathing ≥ 60 times/minute
 - Dyspnea
 - No movement
 - Fever $\geq 37.5^{\circ}\text{C}$
 - Low body temperature $< 35.5^{\circ}\text{C}$
 - Jaundice within the first 24 hours or yellow palms and soles at all ages
- Provide enough time for question and answer
- Provide information and educate according woman needs
- Provide consultation and referral woman to a proper place
- Discuss about plan of referral for woman's house to health facility in case of necessary
- Make plan for PNC and continuation care
- Record all information such as estimation, discussion, and plan for continuum of care

Face-to-face PNC contact

- Face-to-face PNC contact is done in accordance with national protocol
- In addition to the 1st PNC contact, inform woman on PNC contact through phone, and next PNC contact schedule by getting agreement from woman for the next contact.
- Reconfirm woman's phone number and other reachable phone numbers
- Woman shall have service provider's phone number or other available phone numbers of health facility
- Make sure that woman has iron supplement, Folic acid, and other medicines to avoid woman comes to the health facility again for just receiving such medicines only.

Distance PNC contact

- Self-introduction, and friendly greeting her
- Provide maternity care with respectful
- Ask woman's feeling

❖ **Screening symptom of covid-19 of both woman and newborn and attendance, and referral to another place for treatment if symptom has been confirmed**

- Confirm date and time of delivery and type of delivery
- Ask numbers of parities
- Ask about any problems happened during pregnancy or giving birth
- Continue to assess challenge

❖ **Mental health assessment**

- Ask about her feeling after labored and gave birth
- Ask about her sleeping
- Discuss about baby's sleep
- Ask about her worries
- Discuss about problem solving
- Ask about emotional change of woman
- Discuss the sign and symptom of emotional distress after giving birth and referral
- Assess violent on woman
- Ask about safety at her house
- Provide information regarding to services and available phone number should be contacted by woman when having violent
- Ask about supporter or person who can help woman, if she needs any assistance
- Support her emotion, physical, and safety plan

❖ **Physical assessment**

- Ask her about meal and give advice
- Ask her about using iron supplement, mebendazole, additional vitamin and daily use drug
- Ask about vaginal bleeding, quantity, color and smell
- Discuss the normal physical change after giving birth and lochia till 4-6 weeks after delivery baby
- Discuss about emergency treatment for abnormal vaginal bleeding after giving birth
- Discuss about any concerns and referral, if necessary
- Ask about defecation and urination
- Ask about vaginal tear or suture
- Ask about suture cleaning
- Ask about physical movement
- Ask about danger signs such as
 - Vaginal bleeding
 - Vaginal discharge with smell
 - Severe headache, dazzle, fever
 - Very exhausted
 - Fast or difficult breathing

- Influenza symptom
- Hurt or red breasts
- Hurt or swelling calf
- Any worries, please consult with service providers or refer woman
- ❖ **Breastfeeding assessment**
 - Inquire about breastfeeding and discuss the benefit of exclusive breastfeeding
 - Inquire about breasts condition, mastitis management, and express breastmilk
- ❖ **Newborn assessment**
 - Inquire about newborn health
 - Discuss about movement of newborn
 - Inquire about condition of umbilical cord and care
 - Discuss about benefit of hand washing and general hygiene to prevent the infection to newborn
 - Inquire danger signs of newborn like
 - Not feeding
 - The decrease of movement
 - Convulsions, stupor
 - Hyperthermia or hypothermia
 - Fast breathing or dyspnea
 - Jaundice
 - In case of having any danger sign, please refer newborn
- ❖ **Education and health promotion**
 - Family planning
 - Discussion about modern contraceptive method, and the choices of contraceptive method
 - Discuss about safe sexual intercourse
 - Provide information about nutrition
 - Make next appointment date
 - Provide enough time for question and answer

I. Child Care

Actions for Child Care;

All children, of all ages, and in all countries, are being affected, in particular by the socio-economic impacts and, in some cases, by mitigation measures that may inadvertently do more harm than good. Economic hardship experienced by families because of the global economic downturn could result in hundreds of thousands of additional child deaths in 2020, reversing the last 2 to 3 years of progress in reducing infant mortality within a single year.

Threats to survival and health of under-five children are directly due to disruption of routine but essential services including health and nutrition promotion, immunization, treatment of common illness (like pneumonia, diarrhea, vaccine-preventable diseases), management of severe acute malnutrition (SAM), moderate malnutrition, and treatment of chronic illnesses among children living with HIV.

Services for Nurturing care for early childhood development (ECD) should be strengthened and counseling and services for responsive caregiving, parenting prioritized along with feeding and child protection from abuse and violence.

Children face anxiety during isolation and lock down conditions and are also affected by the negative impact of the pandemic on their families. There are risks for child safety as well. Measures like lock down and containment camps are associated with heightened possibility of children witnessing or suffering violence and abuse. Such acts of violence are more likely to occur as the families are confined at home and experiencing intense stress and anxiety.

Excessive engagement of children and adolescents with online platforms for distance learning and entertainment has also increased their risk of exposure to inappropriate content and online predators.

Child Care during the pandemic

- Prioritize the continuity of child-centered services, with a focus on equity of access – particularly in relation to immunization, maternal, newborn and child health, nutrition , (micronutrient supplementation and supplementary meals), early childhood development (ECD) and child protection programmes as well as early schooling:
- Guidance on immunization and available places
- Transform service delivery approaches that currently fall short because of the COVID-19 pandemic.
- Consider replacing health promotion home visits for childcare and ECD by tele-consultation and counselling.
- Home visits for sick children should be prioritized with adequate IPC measures.

- Management of children with common diseases and ECD must continue through first-level health facilities and home visits by trained workers. Strict IPC including masking and hand hygiene practices are required when in contact with the child.
- Referral care at higher level facilities for children with severe sickness and severe acute malnutrition with free safe transport must be continued. Triaging, screening and strict IPC including appropriate masking and hand hygiene practices need to be ensured in health facilities.
- Allow COVID-19-negative mother or a family member to stay with the child to provide support during treatment.
- Ensure uninterrupted availability of oxygen (concentrators or oxygen cylinders or mix of both), along with oxygen delivery systems in pediatric wards for non-COVID-19 conditions and to manage COVID related respiratory complications.
- Disinfection of surfaces in childcare areas with the routine standard patients are not different from the units where suspected or confirmed Covid-19 infection cases are to be treated.
- Protect children from violence, abuse or exploitation, and classify core child-protection services as essential.
- Put in place specific protections for vulnerable children, including migrants, refugees, minorities, slum-dwellers, children living with disabilities, children living in urban slums, and children in institutions.
- Provide practical support to parents and caregivers, including how to talk about the pandemic with children, how to manage their own mental health and the mental health of their children, and tools to help support their children's learning.

Care for children with symptoms of COVID-19 infection (or positive test)

- Children with symptoms of COVID-19 infection also need to be thoroughly investigated for other common diseases that may have similar clinical presentations.
- Health facilities need to have isolation facilities for sick children who may be suspected of COVID-19 infection and are having other co-morbidities that require inpatient care.
- Allow mother or a family member to stay with the child to provide support during treatment.
- Children with symptoms of COVID-19 infection should be managed in a well-ventilated isolation room
- Ensure uninterrupted availability of oxygen (concentrators or oxygen cylinders or mix of both), along with oxygen delivery systems in pediatric wards to manage COVID-19 related respiratory complications.
- Maintain separate staff (doctors and nurses as well as other support staff) to work in isolation rooms from those working in regular newborn care units
- Arrange adequate supplies of PPE and train staff on appropriate use.

- Transfer of COVID-19 suspected children if the facility does not have ability to take care and treat the patients by following strict IPC adherence including in ambulances. For details on management of COVID-19 positive children, please refer to MoH document.

Adolescent Care in the context of covid-19 pandemic globally

Young people exposed to COVID-19 are as likely as old people to become infected and contagious. They should therefore strictly follow national guidelines around screening, testing covid-19, containment and treatment and practice of social distancing.

Young people's formal education, and social engagement with their peers and educators, has been impacted by the pandemic. Prolonged periods of closures and movement restrictions lead to additional stress within families, contributing to anxiety and depression. On account of such multiple factors, vulnerable girls might be exposed to unwanted or unprotected sex leading to risk of teenage pregnancy and sexually transmitted infections (STIs) and HIV.

If caregivers are infected, quarantined, or pass away, psychosocial and social support and protection for adolescents need to be done. Adolescents are keeping their mood up during COVID-19 quarantine or self-isolation through a range of ideas that must be supported by the society.

Parents and families need to be provided social support, mechanisms for education and access to health services for adolescents, especially in case of girls who are more vulnerable. Many vulnerable young people (e.g., young migrants, young refugees, homeless young people, those in detention, and young people living in crowded areas such as townships or slums) live in conditions that put them at greater risk of contracting COVID-19. They also have limited access to technology and alternate forms of education and information, including how to prevent COVID-19.

Young people represent a valuable resource and network during crises and public health emergencies. Young people can work with health authorities to help reduce the spread of infection and support community members who are more isolated, e.g. older people. They can play a critical role in disseminating accurate information on COVID-19 and support information sharing on risk reduction, national preparedness and response efforts. Despite digital inequalities, this generation of young people is more connected through technology, media and the internet. In this time of social distancing and lockdowns, many young people's ease with technology will be vital in keeping communication channels open, informed and supportive of each other and the larger community.

With prolonged stress on the health system to address COVID-19, a disruption of the normal delivery of SRH services and information to young people will need to be addressed. The need

for mental health services and counselling is paramount as young people are facing high levels of anxiety and stress related to COVID-19.

Delivery of Health Services to Adolescents Activities

- Given the disruption of schools establish new ways of providing information and support to adolescents and young people. Young people's need for SRH information and education does not diminish during confinement. To the extent possible, therefore, SRH education should be given digitally by ministry of health to reach learners at home.
- Uninterrupted supply of iron-folic acid supplementation, mebendazole, contraception including emergency contraception should be ensured.
- Adolescent-friendly health services should be available for adolescents who need care for various reasons. Additional IPC measures are required.
- Consider incorporating phone counselling into clinical services, particularly for mental health and wellbeing, for adolescents unable to reach the services during covid-19 pandemic.
- Incorporate young people into efforts to mitigate COVID-19 risks and for community outreach.
- Support young people in risk communication to help raise awareness of and protection from the virus, promote healthy behavior, and share correct information for prevention using multiple communication channels.
- Ensure measures are in place to prevent, protect and mitigate the consequences of violence, stigma and discrimination against adolescents and youth during quarantine and self-isolation.
- Promote social and behavioral change communication to encourage washing hands, social distancing.

II. Family Planning

What Needs to be Done: Ensuring family planning service provision

- It is critical to address the issues related to availability of trained human resources. Shortage of health care providers and/or workers in factories and in the health system, can happen because of physical distancing measures, and/or partial or complete lockdowns that hamper their ability to travel to their work places. These need to be tackled at the policy level.
- Promoting community-based distribution of contraceptives (Short Acting methods such as oral contraceptive pills and condoms) through Community Volunteers.
- Consider relaxing restrictions on the quantities (cycles) of short acting contraceptives dispensed to users so as to avoid frequent repeat visits.

- Consider promoting long acting reversible contraceptive methods, such as implants, IUD that do not require to come to get it frequently.
- Intra-uterine device insertions and tubal ligation may be provided to immediate postpartum women. However, it may not be advisable to support permanent methods, such as non-post-partum sterilization, under routine programming, to reduce contact of women with health facilities and health providers, and to reduce the workload on health facilities at the height of the COVID-19 pandemic. The removal of IUDs may be required if necessitated because of side effects and/or complications. In such cases, other modern methods should be made available for women to choose.

1. Solutions to Drug and Medical Equipment Supply Chain Challenges

- MoH may consider strengthening federal coordination among various agencies and departments to identify and address supply-chain issues and gaps, such as systemic bottlenecks to access to contraceptives.
- It is important for MOH to assessments of the health supply chain status and enforce remedial measures to address any identified weaknesses.
- Better coordination and data availability of stock balances for contraceptives can enable governments to promote sharing or inter-regional transfers of overstocked commodities in cases where one region has overstocks and other regions are facing a stockout, thereby reducing stockouts as well as unnecessary wastages.
- Shortage of commodities has multiple causes, including problems with the decreased manufacturing levels, reduced supplies of raw material and reduced transport options, and weakened global supply chains. While Governments can consider asking manufacturers to maximize production, they can also direct their suppliers and others to maximize the availability of raw materials. Promoting procurement of generic products may also be considered for maximizing cost efficiency.
- Ministries of Health may also explore the possibility of partnering with other ministries and departments such as ministry of agricultural forestry and fisheries, ministry of interior, etc, and the private logistics solutions providers for transportation and distribution of contraceptives and other commodities.

2. Promoting partnerships with the private sector

- It is important to promote public–private partnership, especially with individual health care providers in rural areas, to deliver contraceptives to their clients, where the reach of the health system is poor, or lack of health staff.
- Seek for advocating with faith-based organizations and civil society organizations for supporting physical distancing measures and for removing myths and misinformation against contraception as well as for promoting distribution of contraceptive supplies

- Setting up Helplines to provide information on the places where clients can go to obtain contraceptives, including emergency contraception and safe abortion services. Such helplines could also be used for counselling purposes to provide evidence-based information to clients. This can also be supplemented by web-based consultancy platforms and involve the private or NGO sectors.
- The possibility of partnering with IT and communications agencies should also be explored for promoting telemedicine and for developing free Apps mobile phones that can be popularized among young people and couples on contraceptive methods and availability places.

3. Other Recommendations

- All modern methods of contraception are safe to use, including during COVID-19. Mothers can also be educated on safe natural methods including breastfeeding.
- Consider family planning methods that are available without a prescription such as condoms, contraceptive pills at a nearby pharmacy
- Implement telemedicine using mobile phones and social media as an adjunct to improving information and access to contraception. Promote use of mobile app by health workers on MEC wheel and Post-partum compendium.
- During lock down conditions, expand postpartum family planning services, particularly long-acting reversible contraceptives such as IUDs, contraceptive implants, post-partum IUDs or injectables.
- Coordinate family planning revisits with other services to streamline and integrate them to ensure women receive the necessary services during each appointment.

III. Comprehensive Abortion Care

The provision of safe comprehensive abortion care is a time-sensitive, essential health service although in the context of covid-19 pandemic. Delay in access to abortion care can face with many complications, and may impact to health and welfare of women profoundly, and exposes our health care workers to additional risks. Post abortion care and obtaining contraceptive method should be done according to women needs because it is a lifesaving service for women.

IV. VAW/Gender-based violence in the context of covid-19 pandemic globally

Violence against girls and women remains a major global public health and women's health threat during emergencies. The health sector and individuals can do a lot to prevent and address violence against women during the COVID-19 pandemic. The health impacts of violence, particularly intimate partner/domestic violence, on women and their children, are significant. Violence against women can result in injuries and serious physical, mental, sexual and

reproductive health problems, including sexually transmitted infections, HIV, and unplanned pregnancies.

In times of crisis such as this outbreak, women and girls may be at higher risk of intimate partner violence and other forms of domestic violence due to increased tensions in the household. Adolescent and youth, especially adolescent girls and young women, who already tend to face high levels of domestic and intimate partner violence, may experience even higher levels of violence driven by quarantine and isolation.

Health service managers must ensure that health workers have the necessary skills and resources to deal with sensitive GBV related information, that disclosures of gender-based violence (GBV) be met with respect, and confidentiality, and that services are provided with a survivor-centered approach.

During the pandemic, any changes in GBV referral pathways to health facilities must be updated for key communities as well as service providers must inform about this. Any obstacles and barriers that prevent women and girls from accessing services must be addressed, including psychosocial support services, especially for those subject to violence or who may be at risk of violence. Consider providing toll free telephone help lines during lockdown conditions.

1. Health systems have an important role in ensuring that services for women who have experienced violence remain accessible during the COVID-19 outbreak

Although COVID-19 has placed an immense burden on the health systems and health workers, there are things that can help mitigate the impacts of violence on women and children during this time such as;

- All stakeholders involved in the COVID-19 response need to raise awareness of the potential effects to women and children that physical distancing, stay at home and other measures are likely to have during this pandemic.
- Health workers, the majority of whom are women in many settings, may be at risk for violence in their homes or in the workplace. The latter is a serious problem that may be exacerbated when health systems are under stress. Health managers or facility administrators need to have plans to address the safety of their health workers. Front-line providers dealing with COVID-19 might experience stigmatization, isolation, and being socially ostracized. MoH should provide psychosocial support, non-performance-based incentives, additional transport allowance, and child-care support to health staff

2. Respond to address violence against women during the COVID-19

Actions to reduce burden of health systems, including frontline health workers on violence on women and children during Covid-19 pandemic.

MoH and policy makers must include essential services to address violence against women in preparedness and response plans for violence during COVID-19, fund them, and identify ways to make them accessible in the context of physical distancing measures.

Health facilities should identify and provide information about services available locally such as hotlines, shelters, crisis centers, fund on laws for survivors including opening hours, contact details, and whether services can be offered remotely, and establish referral linkages.

Health providers need to be aware of the risks and health consequences of violence against women. They can help women who disclose by offering first-line support and medical treatment. First-line support includes: listening empathetically and without judgment, inquiring about needs and concerns, enhancing safety, recording women's feeling and experience and connecting survivors to support services. The use of Health and telemedicine in safely addressing violence against women should be explored.

Humanitarian response organizations need to include services for women subjected to violence and their children in their COVID-19 response plans and gather data on reported cases of violence against women.

Community members should be made aware of the increased risk of violence against women during this pandemic and the need to keep in touch and support women subjected to violence, and to have information about safe shelter that can help survivors. It is important to ensure that it is safe to connect with women when the abuser is present in the home.

Women who are experiencing violence may find it helpful to reach out to supportive family and friends, seek support from a hotline, or seek out local services for survivors. They must have a safety plan in case the violence escalates. This includes having a neighbor, friend, relative, or shelter identified to go to should they need to leave the house immediately for safety.

3. Activities of Delivery of SRH Services and Gender

- Ensure women's and girls' choices and rights to sexual and reproductive health (SRH) is free of charge regardless of their COVID-19 status, including access to family planning services, STI-HIV services, and safe comprehensive abortion care
- Ensure continuity of care for SRH services, as well as mental health and psychosocial support.
- Provide appropriate supportive care and messaging with the intention to enhance people's safety, dignity and rights.
- Ensure the response does not produce violence, discrimination and inequalities.

- As systems that protect women and girls may weaken or break down, measures should be implemented to protect women and girls from the risk of intimate partner violence.
- Prioritize women's participation in response decision making, designing and planning of interventions, security surveillance, detection, and prevention mechanisms.
- Support meaningful engagement of women and girls at the community level to ensure efforts and response are not further discriminating to those most at risk.
- Incorporate a gender analysis into preparedness and response efforts to improve the effectiveness of health interventions and promote gender equality and health equity.
- Prioritize the collection of accurate and complete age and sex-disaggregated data to understand how COVID-19 affects individuals differently like incidence, trends, etc.

V. HIV Care

It is important to assure continuous access to essential HIV prevention, testing and treatment services also where measurements of confinement are implemented within the public health response to the COVID-19 pandemic.

Young people with HIV are potentially at greater risk due to weak immune systems and regular use of antiretroviral medicine, which may not be prioritized during the pandemic. HIV services that are integrated with contraceptive services should be optimized and streamlined to avoid unnecessary patient visits to health facilities frequently.

HIV Services during global pandemic

- Consider options for timing and location of HIV testing that reduces exposure to COVID-19 such as community setting and staggered appointments. HIV-exposed infants should continue to receive an early infant diagnosis test and clinical assessment as close to the recommended timing as possible.
- Applying standard precautions for all patients according to MoH guidance.
- Ensuring triage, early recognition, and source control - isolating patients with suspected COVID-19 infection.
- Expanding phone/SMS support to mothers and infants to coordinate the provision of infant ARVs with dosing instructions to women who may not be able to return to the facility due to COVID-19 or provide mother-baby packs for the mother-infant pair together and follow up by phone.
- Services must supply children and adolescents living with HIV initiating and refilling Antiretroviral Therapy (ART) with a 6-month supply for those who weight 20+ kg.
- Ensure access to multi-month dispensing of ARVs, tuberculosis medication, medications for hypertension and diabetes at least for three months, ideally for six months to pregnant and breastfeeding women living with HIV.

Health and Safety of Health Workers

Your own health and safety of your family is very important. Before leaving the health facility, or before entering home: wash your hands, and change clothes and wash them with soap and water.

8. Management and assessment the risk of health care workers

- Health care workers, who provide direct care to suspected or confirmed covid-19 patients, should do self-monitor for signs of illness (e.g. fever, cough, runny nose, shortness of breath), and assess the risk if he/she involves in risk of virus.
- Health facility can use material to screen the risk related to covid-19 of WHO for health care worker to assess the level of risk.

If health care staff has been considered as high risk;

Actions to be taken by health staff	Actions to be taken by health facilities
<ul style="list-style-type: none">- Stop contacting with patients within 14 days after contacting with covid-19 patient- 14 days self-quarantine at prepared place.- Test covid-19	<ul style="list-style-type: none">- Provide refresher training on infection prevention, and control for health facility's staff including standard and isolate precaution and using PPE properly.- Provide psychological and social support during self-quarantine or sickness if he/she becoming a covid-19 patient.- Provide compensation to health staff for his/her self-quarantine or sick (if it is not including in monthly salary) or continue contracting during self-quarantine or sickness.

If health care staff has been considered as lower risk;

Action to be taken by health staff	Action to be taken by health facility
<ul style="list-style-type: none">- Record for 14 days starting from the last-day contacting with covid-19 patient: your temperature, and if you have cough, runny nose, or dyspnea- Contact to health facility if you have symptom could be considered as covid-19.	<ul style="list-style-type: none">- Strengthen standard precaution, and be careful on self-quarantine and proper use of PPE of all health facility staff.

Fatigue, burn out and stress related to the environmental, family and economic effects of COVID19 can all impact upon mental and physical health. Advise management and seek help if

you are feeling signs of undue stress or have mental health challenges that require supportive interventions.

Maternity care providers who have cardiac, respiratory or metabolic conditions, and possibly persons with immune deficiency including acquired immune deficiencies, need to avoid clinical contact with any patient or those suspected of having COVID-19 and consider non-clinical duties if at all possible.

Health care providers in their last trimester of pregnancy or with underlying health conditions such as heart or lung disease are recommended to avoid direct contact with patients.

Provisional translation

Annex

ANNEX 1: Cleaning ambulance and referral patient transportation

b). Transportation: Ambulance or referral patient transportation

Health care workers	- Transporting suspected or confirmed covid-19 patients to the referral healthcare facility by wearing gloves, surgical mask, goggles, or face shield and gown.
Driver	- During transporting suspected or confirmed covid-19 patient from one health facility to another, PPE is not required if driver's compartment is separated from the patients, but need to maintain spatial distance of at least 1 meter. - Wear surgical mask during transporting patient if compartment is together with suspected or confirmed covid-19 patient. - When carrying suspected or confirmed covid-19 patient wears surgical mask, gloves, goggles, face shield and gown.
Cleaner	- When cleaning referral patient transportation wears thick gloves, surgical mask, goggles, or face shield, gown, boots or closed shoes.
Patient	- Every patient who has respiratory symptom has to wear surgical mask.

ANNEX-2: PPE for covid-19 patient

Recommended type of PPE to be used in the context of covid-19 according to the setting, personnel and type of activity

Setting	Target audience	Activity	Gloves	Surgical mask	N95 mask	Goggles or face shield	Gown	Waterproof Apron	Boots or closed shoes
Triage	Healthcare worker	First screening which is not related to direct care	PPE is not required but need to keep distance 1 meter. If it cannot keep distance, wear surgical mask and goggles or face shield.						
	Patient with respiratory symptom	All patients		x					
	Patient without respiratory symptom	All patients	No PPE required						
OPD	Healthcare worker	Physical screening patient with respiratory symptom	X	X		X	X		
		Physical screening patient without respiratory symptom	Standard precaution and screening the risk						
	Patient with respiratory infection	All patients		x					

	Patient without respiratory symptom		No PPE required					
Patient room	Healthcare worker	Providing direct care covid-19 patients	x	X		X	x	
		Aerosol-generating procedures performed on covid-19 patients **	x		x	x	x	
Laboratory	Healthcare worker	Manipulation of respiratory samples	X	X		X	X	

Setting	Target audience	Activity	Gloves	Surgical mask	N95 mask	Glass or shield	Gown	Waterproof apron	Boots or closed shoes
		Sample collection from respiratory way which could spread out droplet in the air	X		X	X	X	x	
Administrative areas	All staff	Administrative work that is not related to covid-19	No PPE required						
All places	Cleaner	Enter the room of suspected and confirmed covid-19	X*	X		X	X		X
Laboratory									
Laboratory	Laboratory technician	Molecular test, carrying and preparing sample for RT-PCR-testing	Practice following WHO guideline on safety of covid-19: gloves, gown, long-sleeves apron that can cover all arm, shoes cover, goggles or face shield. Risk can know about using mask for respiratory protection (e.g N95 mask)						
Transportation means									
Ambulance or transfer vehicle	Healthcare worker	Transporting suspected covid-19 patient to the referral health facility	X	X		X	X		
	Driver	During driving and driver's compartment is separated from suspected or confirmed covid-19 patient	No PPE required, but need to maintain spatial distance of at least 1 meter						

Setting	Target audience	Activity	Gloves	Surgical mask	N95 mask	Goggles or face shield	Gown	Waterproof apron	Boots or closed shoes
		During driving and driver's compartment is not separated from suspected or confirmed covid-19 patient		x					
		When assisting with loading or unloading patient with suspected covid-19 patient	X	X		x	X		
	Patient with suspected covid-19 disease	Transfer to the referral healthcare facility		X					
	Cleaner	Cleaning after and between transport of patients with suspected covid-19 patient	x	X		X	X		X
At community and at home									
Community	Repeat respond team	For direct interview with suspected or confirmed covid-19	Must wear surgical mask Maintain spatial distance of at least 1 meter						
		For direct interview with patient who no symptom of contacting with covid-19 patients	No PPE required Maintain spatial distance of at least 1 meter						
		Sample collection from respiratory	X	X		X	X		
8	Healthcare worker	Provide direct care to suspected or confirmed covid-19	X	X		X	X		

Setting	Target audience	Activity	Gloves	Surgical mask	N95 mask	Goggles or face shield	Gown	Water proof apron	Boots or closed shoes
Home	Patient with respiratory infection symptom	Other activities		X					

	Patient's attendance	Enter the room of patient suspected covid-19 but indirect care		X					
		Provide direct care to suspected covid-19 patient or when handling stool, urine or waste	X	X			(If at risk of splitting liquid of organ		

* Thick gloves

** Example of procedures that could create spreading of droplet in the air like tracheal intubation, non-invasive ventilation, tracheotomy, cardiopulmonary resuscitation, bronchoscopy.

Additional note:

- Table 1 represents minimum standard of PPE recommended by WHO. Assessment of risk must be done before starting clinical care procedure, laboratory or other procedures to make sure that all staff are safe and reduce improper utilization.
- Head cover, gown overall cover and plastic boots are not required while working with suspected or confirmed covid-19.

ANNEX-3: Cleaning practice

9. Cleaning practice

- Wash material with soap and water is just clean the substances (e.g. dust, blood, saliva, mucus, nose mucus, tear, etc), but it cannot kill virus caused by covid-19.
- Using disinfectant substance is necessary to kill virus caused by covid-19.
- Disinfectant substance effectives to combat covid-19 such as;

Disinfectant substance that effective with covid-19 virus like;

70% ethyl alcohol	To disinfect virus on surface or small material before and after using like recycle material (e.g. thermometer, stethoscope)
Sodium hypochlorite (bleach) at 0.5%	To kill virus on bleeding surface, and liquid
Sodium hypochlorite at 0.1%	To disinfect virus on surface and medical equipment
Chlorine at 0.5%	To disinfect virus on floor
Chlorine at 0.05%	To disinfect virus on goggles, face shield, or safety glasses (*Clean it with soap and water, then soak it in chlorine water with rate 0.05%)

- Wear face shield, goggles, gown, and thick-long gloves when mixing chlorine, because chlorine can inflame respiratory system and skin.
- Clean room at least once a day. After patient discharge from the hospital, the last clean must be done.
- Frequently clean place where most people touched like door handle, and chair.
- Basic principle of cleaning and sterilizing must be implemented at all patient care units.
- Make sure that equipment had been cleaned after used with patients.
- Supply enough cleaned materials to high risk places (e.g. in quarantine room, delivery room and operation room)
- Must maintain cleaned materials that has been supplied to quarantine room to be used for that room only.
- Clean starting from very clean place to very dirty place
- Clean from high place to lower place and from outside to inside
- Clean isolate room at last.
- Use wet cloth to clean dust.
- Use system with 3 containers for cleaning and sterilizing like;
 1. Cleaning (water with soap or detergent)
 2. Cleaning by using water only
 3. Disinfecting by using sodium hypochlorite at 0.5% or chlorine 0.5%
- For cleaning, water must be clean water.
- Some countries such China, Thailand, and Vietnam use disinfectant spray to kill virus in the air and at public places. But no evident show that spraying disinfectant to kill virus in the air is effective. Covid-19 virus can infect from one person to another through droplet from respiratory, and touching illness patient or contaminated things. Virus is possible to infect in the air in specific circumstance like aerosol generating procedures.

Annex-4: Frequently asked questions

1. Are pregnant women at higher risk of getting COVID-19? If they become infected, will they be more sick than other people?

Pregnancy alters a woman's immune system, making them more susceptible to infections. However, at present there is no evidence suggesting that pregnant women are more likely to be affected by COVID 19 than the general public nor whether they are more likely to have serious illness as a result.

Pregnant women experience changes in their bodies that may increase their risk of some infections. It is always important for pregnant women to protect themselves from illnesses, and report possible symptoms including fever, cough or difficulty breathing to their healthcare provider.

2. How can pregnant women protect themselves from getting COVID-19?

Pregnant women should do the same things as the general public to avoid infection. Pregnant women without any symptoms of cough or fever and no history of contact with a confirmed COVID-19 case should take following precautions to prevent any infection:

- Wash your hands frequently with soap and water
- Cover your mouth and nose with handkerchief or tissue or with your elbow while coughing or sneezing. If you use a handkerchief, wash it frequently. If use a tissue, dispose of the used tissue immediately.
- Keep social distancing – do not go to crowded places, avoid use of public transport
- Avoid contact with persons who are suffering from fever or cough, or sneezing
- Avoid touching your eyes, nose and mouth as much as possible.
- Clean/disinfect contaminated surfaces such as tables, door knobs/handles, mobile phones and other everyday objects.
- If you have cough, fever or breathlessness, contact following guidance of MoH.

3. Should pregnant women go for routine antenatal care or avoid going to hospitals?

Pregnant women should continue to go for their routine antenatal care visits. and go to health facility for birth.

Although at the time of pandemic, it is important that women have their antenatal visits and deliver in a health facility in order to have the best outcomes for themselves and their babies.

4. If a pregnant woman develops symptoms such as cough, fever or breathlessness, what should she do?

Pregnant women with symptoms of COVID-19 should visit the nearest health centre:

- They should avoid using public transport and call for an ambulance or private transport. Inform the ambulance driver immediately so that he can take appropriate preventive steps and inform the health facility in advance.
- They should use mask or cover their nose and mouth while interacting with ambulance driver or staff at health facility.
- They should avoid contact with other patients and their attendants and wait till the advice of health staff on where to wait/ or attend OPD/emergency person.
- If it is an emergency (they have labour pains/ any problem such as bleeding / convulsions etc.), they should immediately inform the health staff about it.

5. Can COVID-19 cause problems for a pregnancy?

The available evidence at this time does not suggest that COVID-19 would cause any additional problems during pregnancy.

6. Can COVID-19 be passed from a pregnant woman to the fetus or newborn?

To date, the virus has not been found in samples of amniotic fluid or breastmilk.

7. Do pregnant women with suspected or confirmed COVID-19 need to give birth by caesarean section?

WHO advice is that caesarean sections should only be performed when medically indicated. Having COVID 19 does not make any difference to the mode of delivery.

8. Can a Mother Confirmed or suspected for COVID-19 breastfeed her baby?

Breastfeeding women should not be separated from their newborns, as there is no evidence to show that respiratory viruses can be transmitted through breast milk. The mother can continue breastfeeding. Symptomatic mothers well enough to breastfeed should take the following precautions while breastfeeding:

- Wear a mask while handling the baby and breastfeeding the baby
- Wash her hands before touching and handling the baby
- Clean surfaces regularly

If a mother is too ill to breastfeed, she should be encouraged to express milk that can be given to the child using all the above precaution and use a clean cup and/or spoon to give expressed milk.

Provisional translation