



REPUBLIC OF KENYA

Ministry of Health

**Transforming Health System Universal Care Project
(THS UCP)**

Contingency Emergency Response Component (CERC)

**Environmental and Social Management Framework
(ESMF)**

May 31, 2020

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ABBREVIATIONS AND ACRONYMS

ACHPR	African Charter on Human and Peoples' Rights
ACM	Asbestos Containing Materials
AIDS	Acquired Immune Deficiency Syndrome
BAT	Best Available Technologies
BECS	Blood Establishment Equipment Computer Software
BMBL	Biosafety in Micro Biological and Biomedical Laboratories
BMW	Bio Medical Waste Management
BSC	Biological Safety Cabinets
BSL	Biosafety Level
CDC	Centre for Disease Control and Prevention
CDE	County Director of Environment
CERC	Contingency Emergency Response Component
CoK	Constitution of Kenya
COVID-19	Coronavirus Disease 2019
CPHO	County Public Health Officer
CPR	Comprehensive Project Report
DOSHS	Directorate of Occupational Safety and Health Services
DOSH	Director Occupation Safety and Health
EHSGs	Environmental, Health and Safety Guidelines
EMCA	Environmental Management and Coordination Act
EOC	Emergency Operating Centre
ERP	Emergency Response Plan
ESF	Environmental and Social Framework
ESHS	Environmental, Social, Health and Safety
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESSs	Environmental and Social Standards
FPIC	Free Prior Informed Consent
GBV	Gender Based Violence
GIIP	Good International Industry Practice
GoK	Government of Kenya
GRM	Grievance Redress Mechanism
HAIs	Healthcare Associated Infections
HCA	Health Care Administrator
HCF	Healthcare Facility
HCW	Healthcare Waste
HCWM	Healthcare Waste Management
HEPA	High Efficiency Particulate Air filter
HIV	Human Immunodeficiency Virus
HUTLCS	Historically underserved traditional local communities
HVAC	Heating, Ventilation and Air Conditioning
HWMS	Healthcare Waste Management System
IBRD	International Bank for Reconstruction and Development
ICT	Information and Communications Technology
ICU	Intensive Care Unit

ICWMP	Infection Control and Waste Management Plan
IEC	Information Education and Communication
IHR	International Health Regulations
ILOs	International Labor Organization
IPC	Infection and Prevention Control
LMP	Labor Management Procedures
MoH	Ministry of Health
NACOSH	National Council for Occupational Safety and Health
NAPHS	National Action Plan for Health Security
NEMA	National Environment Management Authority
NPHI	National Public Health Institute
NPHL	National Public Health Laboratories
OAU	Organization of African Unity
OSH	Occupational Safety and Health
PCR	Polymerase Chain Reaction
PHEOC	Public Health Emergency Operations Center
PMT	Project Management Team
POE	Point of Entry
POPs	Persistent Organic Pollutants
PPE	Personal Protective Equipment
PVC	Polyvinyl Chloride
PWDs	People With Disabilities
RAP	Resettlement Action Plan
SDB	Safe and Dignified Burials
SEA/SHEA	Sexual Exploitation and Abuse/Harassment
SEP	Stakeholder Engagement Plan
SERC	Standards and Enforcement Review Committee
SOP	Standard Operating Procedures
STDs	Sexually Transmitted Diseases
TB	Tuberculosis
THS-UCP	Transforming Health Systems for Universal Care Project
TTIs	Transfusion Transmissible Infections
VCT	Voluntary Counselling and Testing
VMGs	Vulnerable and Marginalized Groups
WASH	Water and Sanitation Hygiene
WB	World Bank
WHO	World Health Organization

1.0 INTRODUCTION

1. **The GoK received financing from the World Bank/IDA for the purposes of implementing the Transforming Health Systems for Universal Care Project (THS-UCP), whose development objective is “to improve utilization and quality of primary healthcare services with a focus on reproductive, maternal, new born, child and adolescent health services”.** The Project’s loan amount is US\$150 million, of which US\$10 million has been allocated to the Contingency Emergency Response Component (CERC), which will finance post-disaster emergency recovery eligible expenditures in support of the Government’s rapid emergency response efforts for preparedness for the COVID-19.

2. **Coronaviruses are a family of viruses that infect both animals and humans.** Human coronaviruses can cause mild disease similar to a common cold, while others cause more severe disease (such as MERS - Middle East Respiratory Syndrome and SARS – Severe Acute Respiratory Syndrome). Some coronaviruses that are found in animals can infect humans – these are known as zoonotic diseases. Human coronaviruses are usually spread through droplets (coughing) and close personal unprotected contact with an infected person (touching, shaking hands). The signs and symptoms are typically respiratory symptoms and include fever, cough, shortness of breath, and other cold-like symptoms.

3. **On 30th January, 2020 the WHO Director-General declared that the ongoing outbreak of COVID-19 constitutes a public health emergency of international concern (PHEIC).** The WHO defines a PHEIC as an “extraordinary event” that “constitute[s] a public health risk to other States through the international spread of disease” and “potentially require[s] a coordinated international response.” Kenya has been identified by WHO Africa Regional Office as a priority one country for preparedness for the COVID-19 as the situation is rapidly evolving.

4. **As of March 3, 2020, there was no known cases of COVID-19 in Kenya.** However, Kenya was considered at risk due to the following: i) brisk trade and business between Kenya and other countries experiencing outbreaks which involves movement of humans and goods; ii) Kenya is one of the major regional hubs for Africa hosting a number of global corporations and international agencies; iii) there are large immigrant populations from countries experiencing outbreaks such as China and Italy; iv) health system challenges such as poor health seeking behavior, weaknesses in disease surveillance and chronic underinvestment; v) socio-cultural practices which may encourage spread of highly infectious diseases such as handshaking and tendency towards large gatherings for social events; and vi) Mombasa has one of the largest sea ports in East Africa where goods and humans pass through daily.

5. **In response to these challenges, the Ministry of Health (MoH), in collaboration with other stakeholders, developed a National Response and Preparedness Plan.** The primary strategy in the control of COVID-19 includes high level advocacy with National and County leadership, strengthening intra and inter-sectoral coordination, engagement and partner participation, mobilizing internal and external resources, strengthening core capacities for early detection, response and early recovery and engaging community structures for response targeting the main source of potential transmission.

6. **The CERC component will focus on fourteen (14) high risk counties.** These counties host ports of entry (POE) (e.g. international airports, seaports or have a major land border crossing) or have a significant immigrant population from countries experiencing large outbreaks of COVID-19 e.g. China or Italy. The 14 counties are: Busia; Garissa; Kajiado; Kiambu; Kilifi; Kisumu; Machakos; Migori; Mombasa; Nairobi; Nakuru; Turkana; Uasin Gishu; and Wajir.¹

¹It is notable that counties of focus will be adjusted as the pandemic evolves.

1.1 Critical Actions for COVID-19 Preparedness and Response

7. **This document describes additional information on the environmental and social requirements for the implementation of the proposed activities** (Annex 1) to be carried out under the THS-UCP CERC. It evaluates the potential risks and the relevant mitigation measures associated with the emergency activities.

1.2 CERC Positive List

8. **In consultation with WHO and other critical stakeholders, the Government of Kenya (GoK) prioritized the following key activities to ensure effective preparedness and response:**

- i. Testing and contact tracing;
- ii. Sample collection, packaging and shipment to laboratories;
- iii. Safe provision of water within isolation/quarantine units;
- iv. Healthcare waste management (procurement of red/black & yellow bins, biohazard Bags, safety boxes for sharps, heavy duty gloves, etc.);
- v. Communication; and
- vi. Training of various cadre of staff.

9. **Improved Health Systems:** The activities will positively impact on the health of the citizens through:

- i. Provision of improved healthcare and laboratory preparedness;
- ii. Trained human resources for health, such as the rapid response, contact tracing and other medical personnel;
- iii. Improved coordination and collaboration among different stakeholders;
- iv. Improved awareness creation and sensitization to the public on COVID-19;
- v. Improved case detection and strengthen surveillance;
- vi. Provision of necessary intensive care medical equipment and pharmaceutical supplies
- vii. Improved occupational health and safety and community health; and
- viii. Strengthened infection control and medical waste management;
- ix. Improved aesthetics and life of healthcare facility;
- x. Improved skills to respond to COVID-19; and
- xi. Training of health workers, which will equip them with skills to identify, manage and respond to COVID-19 cases effectively and efficiently. Training will also help to reduce health associated infections especially as the corona virus is highly infectious.

10. **This CERC will finance expenditures on a positive list of goods and/or specific works, goods, services and emergency operational costs required for emergency recovery as shown in Table 1.**

Table 1: Positive list of goods, services and works

Item
Goods
<ul style="list-style-type: none"> • Medical equipment and supplies, including ventilators, respiratory care equipment, IV pumps, isolation area equipment. • Medicines, rehydration fluids, antibiotics, and antivirals. • Cleaning supplies, including hand hygiene and disinfectants. • Personal Protective Equipment (PPE) stockpiles, including masks, gowns and gloves • Morgue Packs. • Non-perishable foods, bottled water and containers. • Tents for advanced medical posts, temporary housing, and classroom/daycare substitution. • Equipment and supplies for temporary housing/living (gas stoves, utensils, tents, beds, sleeping bags, mattresses, blankets, hammocks, mosquito nets, kit of personal and family hygiene, etc.) and school. • Gasoline and diesel (for air, land and sea transport) and engine lubricants. • Spare parts, equipment and supplies for engines, transport, construction vehicles. • Vehicles (Vans, trucks and SUVs) – (only eligible for import reimbursement). • Equipment, tools, materials and supplies for search and rescue (including light motorboats and engines for transport and rescue). • Tools and construction supplies (roofing, cement, iron, stone, blocks, etc.). • Equipment and supplies for communication and broadcasting (radios, antennas, batteries) • Water pumps and tanks for water storage. • Equipment, materials and supplies for disinfection of drinking water and repair/rehabilitate of black water collection systems. • Equipment, tools and supplies for agricultural, forestry, and fisheries. • Feed and veterinary inputs (vaccines, vitamin tablets, etc.).
Services
<ul style="list-style-type: none"> • Consulting services related to emergency response including, but not limited to, urgent studies necessary to determine the impact of the disaster and to serve as a baseline for the recovery and reconstruction process, and support to the implementation of emergency response activities. • Non-consultant services including, but not limited to: drilling; aerial photographs; satellite images; maps and other similar operations; information and awareness campaigns.
Works
<ul style="list-style-type: none"> • Repair of damaged infrastructure including, but not limited to: water supply systems; dams; reservoirs; canals; transportation systems; energy and power supply; and telecommunication. • Repair of damaged public buildings, including schools, hospitals and administrative buildings.
Emergency Operating Costs
<ul style="list-style-type: none"> • Incremental expenses by the Government for a defined period related to early recovery efforts arising as a result of the impact of an emergency. This includes, but is not limited to, costs of staff attending emergency response, operational costs and rental of equipment.

1.3 CERC Negative List

11. Interventions with any of the potential impacts listed below will be ineligible for support under the CERC component:

- I. Activities concerning significant **conversion or degradation of critical natural habitats**, including, but not limited to, any activity within:

- Wildlife reserves;
 - Ecologically sensitive marine and terrestrial ecosystems;
 - Parks or sanctuaries;
 - Protected areas, natural habitat areas;
 - Forests and forest reserves;
 - Wetlands;
 - National parks or game reserves;
 - Any other environmentally sensitive areas;
 - Any areas near disposal sites or requiring significant expansion into an existing disposal site; and
 - Use of pesticides that fall in WHO classes IA, IB, or II.
- II. Activities that could affect sites such as archeological, paleontological, historical, religious or unique natural values.
 - III. Activities requiring land acquisition or resulting in involuntary resettlement and/or permanent or temporary loss of access to assets or loss of assets for the project affected populations.
 - IV. Use of goods or equipment involving forced labor, child labor or other harmful or exploitative forms of labor.
 - V. Activities that would adversely affect the vulnerable and marginalized communities (VMGs) and historically underserved traditional local communities (HUTLCs).
 - VI. Activities that have high probability of causing serious adverse effects to human health and/or the environment not related to treatment of COVID 19 cases.
 - VII. Activities that may have significant adverse social impacts and may give rise to significant social conflict.
 - VIII. Activities which would require Free Prior Informed Consent (FPIC).
 - IX. Activities that may affect lands or rights of VMGs or other vulnerable minorities.
 - X. Activities that may involve permanent resettlement or land acquisition or adverse impacts on cultural heritage.

2.0 ENVIRONMENTAL AND SOCIAL SAFEGUARDS COMPLIANCE

12. In accordance with the World Bank safeguards requirements, the THS-UCP is classified as Category B because the anticipated environmental impacts are not major, mostly site specific and can easily be avoided and/or managed. All the activities financed through CERC are subject to the World Bank safeguard policies.

13. This CERC ESMF is prepared to supplement the healthcare waste management plan (HCWMP) prepared as an OP4.01 instrument to guide risks related to healthcare waste generation, storage, collection, transportation and final disposal practices as a result of project activities; a social assessment, VMGF and an ESMP checklist to provide guidance and mitigation measures for low risk activities such as rehabilitation of healthcare facilities and other small-scale works. Impacts from the CERC activities are well covered by adoption of the parent project safeguard documents and this ESMF.

14. Land acquisition leading to involuntary resettlement is not anticipated. It is unlikely that the emergency works will trigger new safeguard policies, however, if required new safeguard instruments will be prepared, consulted upon and disclosed as per the requirements of the investment project financing policy, a restructuring of the project would be required.

2.1 Environmental and Social Impacts

Environmental impacts

15. The CERC may involve risks to people visiting hospitals and residing in the neighborhood especially due to poorly ventilated public places and laboratories. In addition, there may be a risks of healthcare associated infections due to inadequate adherence to occupational health and safety standards. The high-risk zones include the locations for collection, transportation, storage and testing of infectious samples, isolation, quarantine and treatment centers; as well as places for disposal of contaminated medical waste and infected dead bodies with COVID-19. Procurement of medical equipment and supplies could also contribute to environment and public health risk since transportation vehicles as well as the surfaces of the supplies may be contaminated and result in the spread of the disease, expiry of the pharmaceutical products could present challenges in storage and disposal. Another set of risks may include inappropriate procurement of disinfectants to be used in cleaning of health facilities, patient linen, public places, fumigation, and decontamination of burial sites as well as in provision of adequate potable water in health facilities, quarantine and isolation facilities.

16. All training modules to be developed under CERC should include a mandatory module for safe management of healthcare waste, infection prevention and control (use of PPE, occupational safety and health). Other training modules include: training of lab staff on testing; gene sequencing; biosafety and biosecurity measures; sample collection and packaging; training of CHMT/sub-CHMT on detection, reporting investigation, contact tracing; sample collection and shipment of samples as well as on infection prevention and control.

Social impacts

17. The anticipated social risks of the CERC activities relate to inadequate consultations and feedback, inadequate inclusion of VMGs/HUTLCs in communication or project services; and lack of protection of individuals and communities from the risk and potential abuse of people by workers. For people in quarantine and isolation centers, it is critical that they are protected from gender based violence/sexual exploitation and abuse/sexual harassment (GBV/SEA/SH) and provided with sufficient material, dignity and psychological support to minimize stress and psychological damage. Stigma is a key issue that should be addressed through sharing accurate information on the disease, illness and death, preventing rumors and the spread of misinformation, and ensuring that all people directly affected by the virus are treated with dignity. Details are presented in Table 2.

Table 2: Potential Environmental and Social impacts associated with CERC Activities

No.	CERC Related Activity	Potential Risks and Impact	Mitigation measures
1.	Sample collection, packaging and shipment to labs	<ul style="list-style-type: none"> -Potential risks related to hazardous chemicals (lab reagents/chemical solutions) used in the laboratory -Possible risks of spread of infectious disease to medical workers during collection and transportation and lab testing of samples 	<ul style="list-style-type: none"> • Ensure workers are trained on appropriate specimen collection, storage, packaging and transport • Ensure all personnel who transport specimens are trained in safe handling practices and spill decontamination procedures • Laboratory staff should follow the infection prevention control protocols. • Hazardous waste from the chemical reagents used in the labs should be collected and stored in appropriately labelled containers and disposed of by a NEMA licensed waste handler in approved disposal sites • Collection and transport of samples from suspected case definition of COVID-19 should be performed in accordance with WHO interim guidance on <u>Laboratory biosafety guidance related to coronavirus disease 2019 (COVID-19)</u> • Laboratories undertaking the COVID-19 testing should adhere to the appropriate biosafety practices and WHO interim guidance on <u>Laboratory testing for COVID-19, including specimen collection and shipment</u>
2.	Safe provision of adequate water within isolation units and quarantine sites	<ul style="list-style-type: none"> -Potential risk of infections when there is lack of adequate water in the health facilities isolation and quarantine areas -COVID-19 virus is transmitted through inappropriate sanitation. Hand hygiene is essential in prevention against COVID-19 	<ul style="list-style-type: none"> • Provide alternative water sources to the health facilities to ensure regular adequate supply, • Water supply should be treated and periodically tested to ensure the physical, chemical and bacteriological characteristics of water meet the local regulations (Water Regulations, 2006 and Water Act, 2016) • The health facilities shall apply good practices in line with WHO guidelines on <u>Water, sanitation, hygiene and waste management for COVID-19</u>
3.	Personal Protective Equipment including: gowns, boots, goggles, face shields, gloves, face masks, aprons	<ul style="list-style-type: none"> -Poor quality of PPE could lead to spread of infections to health workers -Increase risk of health associated infections due to no/inadequate PPE provision 	<ul style="list-style-type: none"> • Health workers should be provided with the appropriate and minimum required PPE • Training on use of the PPE to avoid possible risks of infections • Proper disposal of PPE to prevent downstream recycling • Follow WHO interim guidance on <u>Rational use of personal protective equipment for coronavirus disease 2019 (COVID-19)</u>

No.	CERC Related Activity	Potential Risks and Impact	Mitigation measures
		-Poor disposal methods of PPEs could lead to recycling of used masks further exposing individuals to infection	
4.	Health Care Waste Management -Procurement of red, yellow & black bins 50L and 100L and bin liners -Biohazard Bags -Safety boxes for sharps -Heavy duty gloves	-Possible infections to the medical workers and community from the infectious medical waste contaminated with COVID-19 (all health care waste generated in care of COVID-19 patients is considered infectious waste)	<ul style="list-style-type: none"> • Train health workers on use of appropriate PPE, ensure necessary provision and encourage the practice of hand hygiene after removing PPE • Improve education, training and awareness raising on handling and disposal of infectious waste to all medical staff, medical waste handlers and others • Only trained staff, wearing the required minimal PPE shall be allowed to handle infectious waste from the health facilities • Sharp waste should be put in puncture proof plastic container, the lid closed and seal when 2/3 full • Waste should be segregated at source to the correct containers and maintain segregation during transport, storage, treatment and disposal • There should be stringent packaging protocols including decontaminating the waste container at the point of origin to reduce risk of exposure to COVID-19 • Collection of health care waste from the isolation/quarantine and laboratory facilities should be performed routinely and as often as possible to reduce risks of infections • Infectious waste should be treated soon after discarding and it should be temporarily stored in a secure and completely closed storage, • Transportation of hazardous and non-hazardous waste should be done separately to avoid cross contamination • Offsite transportation of waste to a designated disposal site should comply with the national regulations EMCA (Waste Management Regulations), 2006 • Follow WHO interim guidance on <u>Water, sanitation, hygiene and waste management for COVID-19</u> and WHO guidelines on <u>Safe management of wastes from health-care activities</u>
5.	Procurement of disinfectants and antiseptics	Risks related to management of the disinfectants	<ul style="list-style-type: none"> • Procure the recommended disinfectants for the health facilities, isolation and quarantine sites

No.	CERC Related Activity	Potential Risks and Impact	Mitigation measures
			<ul style="list-style-type: none"> • Provide training to staff on use of the disinfectants and the required PPE equipment
6.	Handling of dead bodies	Possible risk of infections on handling of dead bodies	<ul style="list-style-type: none"> • Discourage local cultural practices such as touching/being in contact with corpse by the community • Dead body/remains must not be sprayed, washed or embalmed • Provide the health staff with appropriate PPE (disposable gown with long sleeves, waterproof apron, disposable gloves, surgical mask, eye protection, rubber gloves and boots) • Put the corpse in impermeable body bag immediately and transfer to mortuary as soon as possible. • Disinfect surfaces in contact with the corpse • Surveillance staff who handle dead bodies need to check their temperatures twice a day and notify the head of unit in-case of any symptoms related to COVID-19 • Dispose used PPE appropriately
7	Training -Health care waste management -Infection prevention and control (use of PPE/occupational health and safety) -Detection, reporting, investigation, contact tracing, sample collection -Screening and detection -Training medical teams in management of severe acute respiratory infections/COVID 19 -Strengthen PoE/ community surveillance	-Information on COVID-19 guidance regularly changes as more is researched and known about the virus on how it is transmitted and treated	<ul style="list-style-type: none"> • All trainings must be well coordinated and structured and relevant trainings should follow up-to-date WHO guidelines on COVID-19 • There is need for regular trainings and information made available to health workers on key issues related to COVID-19 • Provide information that is easy to follow and apply to the health workers • Display key infection prevention control messages in the health facilities/ quarantine/isolation and public places. • Package and deliver key messages appropriately for specific target groups
8.	Pharmaceutical and non-pharmaceutical commodities	-Potential risk of expiry of the pharmaceutical commodities if purchased in large quantities	<ul style="list-style-type: none"> • Pharmaceutical products should be handled and distributed according to Good management practices

No.	CERC Related Activity	Potential Risks and Impact	Mitigation measures
			<ul style="list-style-type: none"> • Ensure proper records are kept for each delivery of commodities including goods description, supplier, date received and expiry date among other details • Storage and handling of pharmaceutical products should prevent contamination, mix-up and cross contamination • Storage areas should be clean, dry and maintained within acceptable temperature limits. Storage should be off the floor and suitable spaced areas to permit cleaning and inspection; precautions must be taken to prevent unauthorized persons from entering storage areas • Encourage good management and control measures in the purchase and use of pharmaceuticals in health facilities • Expired drugs should be kept out of public reach, awaiting disposal
9.	Patient Care Equipment (linen)	-Potential risks of infections when handling linen soiled with blood/bodily fluids	<ul style="list-style-type: none"> • Staff handling linens should be provided with appropriate PPE (gloves, surgical masks, impermeable aprons, rubber boots, safety glasses) • Use of disposable linen in isolation areas should be encouraged • Soiled patients' linen should be cleaned, disinfected and sterilized in the health facility laundry preferably using a washing machine • Soiled linen should be placed in clearly labeled leak proof containers and the outside part of container disinfected before being wheeled in a trolley to the laundry area
10	Medical Equipment: intensive care equipment for managing severe cases in the 14 high risk counties (intubation, oxygen concentrators, suction machines, respiratory support)	-Potential risk on misuse of the equipment	<ul style="list-style-type: none"> • Ensure the intensive care equipment purchased is of the required standard • Ensure good control measures in purchase of the medical equipment • The equipment's should be disinfected before use to minimize risk of infections • Training of the medical personnel on use of the intensive care equipment • Equipment's Manual should be made available to the medical workers to ensure proper use with safe routine procedures • MoH should plan for regular service and maintenance of the procured equipment • Develop policies on early recognition of acute respiratory infection potentially caused by COVID-19 virus

No.	CERC Related Activity	Potential Risks and Impact	Mitigation measures
11.	Addressing stigma	<p>Stigma is rife where people are labelled, stereotyped, discriminated against because of their perceived link with a disease, which can contribute to a situation where the virus is more, not less, likely to spread</p> <p>Stigma drives people to hide the illness to avoid discrimination, prevents people from seeking healthcare immediately, discourages them from adopting healthy behaviours</p>	<ul style="list-style-type: none"> • Ensure the dissemination and updated accurate information on the disease, its spread, symptoms and outcomes to communities using channels that are accessible and that do not stigmatize any group • Community involvement and participation in prevention of transmission (WHO guide to preventing and addressing social stigma¹)
12.	Treating people with dignity and minimising psychological trauma	<p>If directly affected people and their relatives are not adequately informed or treated with dignity and accorded basic human rights, psychological trauma will be exacerbated</p>	<ul style="list-style-type: none"> • Handle all people directly affected with the disease with dignity (those in hospitals, quarantine/isolation centers and the dead) • Strengthen psychological support for ETCs (for confirmed, suspected, and discharged cases) and assistance with hygiene kits for all patients who are discharged and those cured of the disease • Support affected households to anticipate management of psychological problems, which can generate tensions and resistance in the community
13	Gender-based violence (GBV)/ sexual exploitation and abuse (SEA)/ sexual harassment (SH) during the entire project	<p>-There is a risk of GBV/SEA/SH between staff and against the public, especially during training or close working and living environments</p> <p>There is possible risk of GBV/SEA/SH during the renovation phase and also in the quarantine/isolation centres</p> <p>-If security personnel are deployed to guard isolation/quarantine centres the risk of abuse to women is higher</p> <p>-There is also a risk of GBV/SEA/SH by community workers and among co-workers including during training</p>	<ul style="list-style-type: none"> • Ensure that all staff are aware of the non-acceptance of GBV/SEA/SH and reporting and support protocols • Ensure isolation and quarantine centers are protected and staffed by health personnel • Limit admission of outsiders into the isolation and quarantine centers • Monitor and report on the behavior of security guards at the centers • Ensure the people in these facilities understand the GBV/SEA/SH referral pathway • Ensure the people at the center have access to the GRM toll free hotline • All workers should sign the code of conduct (see the LMP) • Provide separate facilities (bathrooms, toilets and wash areas) for men and women • Provide additional protection for children and youth

No.	CERC Related Activity	Potential Risks and Impact	Mitigation measures
14	Lack of or inadequate public participation and consultation	Public participation is a legal requirement for any development activity. However, given the emergency nature of this project component, this process may not be effectively done. Those at the periphery e.g. remote, rural populations, the urban poor, people living on the streets, disabled or other marginalised groups and VMGs/HUTLCs may be left out or discriminated against in this process	<ul style="list-style-type: none"> • Ensure that measures are put in place to identify and reach the VMGs/HUTLCs and other hard to reach groups with project information • Use communication channels that are accessible to marginal populations including use of community radios, translating information into local languages and working closely with local structures, religious stations for older people and encouraging passing on of good practices and intensify other methods for people who don't access radio e.g. posters and community mechanisms (Refer to WHO guidance on Risk communication and community engagement (RCCE) readiness and response to the 2019 novel coronavirus (2019-nCoV)) • Identify and equip local leaders with information for further dissemination in their communities • Develop other feedback mechanisms e.g. GEMS tools for trained county staff to feed in community concerns and feedback especially from VMGs/HUTLCs and their focal points and from county GRM focal points and local media including social media • Include community feedback on government services in all monitoring tools, reviews and evaluations
15	Safe and dignified burials	There are strong social and emotional sentiments associated with families being unable to bury their deceased family members or friends, when this role is taken over by healthcare teams In some cases, communities have complained about burial teams not respecting the dead before and during burials	<ul style="list-style-type: none"> • Ensure local communities are satisfactorily sensitized and aware of safe disposal of bodies (SDB) and its importance • Adhere to WHO Safe Burial Protocol • Train and pre-position a SDB Team in local communities, preferably adopting a member of the local community on this team • Ensure SDB teams are fully knowledgeable about WHO SDB protocols and associated activities including decontamination, community involvement and psychosocial support
16	Confrontation between the police and the public	This risk is high since the MoH has enlisted the intervention of the Ministry of Interior in enforcing curfew hours and in guarding some of the quarantine and	<ul style="list-style-type: none"> • Security personnel should follow strict rules of engagement and avoid any escalation of confrontations • Training and/or implementing strict guidelines for engagement of armed security personnel, in case this affects project funded facilities

No.	CERC Related Activity	Potential Risks and Impact	Mitigation measures
		<p>isolation centres, although the project is not funding security personnel but based on their location at the isolation and quarantine centres they become project interested parties.</p> <p>The National Youth Service (NYS) officer may be trained as community health workers (CHWs) and used to check on people in self isolation and carry out surveillance and contact tracing</p>	<ul style="list-style-type: none"> • Training of project funded staff in appropriate treatment of all people and no use of force • Monitoring of the behavior of the security personnel over the rules of engagement by MoH staff • Community members and staff should be encouraged to report any concerns through the instituted GRM <p>(See WB technical note: use of military forces to assist in covid-19 operations and suggestions on how to mitigate risks)</p>

3.0 IMPLEMENTATION ARRANGEMENT AND COORDINATION

3.1 Special Institutional Arrangements

Executive Oversight

18. Overall oversight for implementation of CERIP will be provided by the National Emergency Response Committee on Coronavirus chaired by the Cabinet Secretary of the MoH. This committee was established following Executive Order number 2 of 2020 dated 28th February 2020.

National COVID-19 Task Force

19. **The National COVID-19 Taskforce is established with membership drawn from the MoH, other relevant Government agencies, the UN, development partners, NGOs, CSOs among others.** The mandate of the Taskforce is to review the evolving threat from the COVID-19 outbreak situation in affected counties, regularly offer technical advice to the MoH and other line ministries on appropriate measures to secure the country, joint planning and monitoring of the response as well as information management. Similarly, County coordinating Committees will be constituted. The Taskforce shall have a Secretariat whose main functions will be:

- i. Convening COVID-19 Taskforce and outbreak coordination meetings;
- ii. Prepare and release daily and weekly SITREPS;
- iii. Prepare regular media updates that will be released by the CS MoH;
- iv. Conduct regular risk and needs assessment;
- v. Manage communication hotlines; and
- vi. Facilitate simulation exercises.

20. **The National COVID-19 Taskforce will have technical sub-committees.** These committees will develop their terms of reference (TORs) such as: i) coordination; ii) surveillance and laboratory; iii) case management and infection prevention and control; and iv) risk communication and logistics.

3.2 Coordination and Implementation Arrangements

21. The THS-UCP Implementing Agency, through its Project Management Team (PMT), is the lead agency within the GoK responsible for the implementation of emergency activities, including all aspects related to procurement, financial management, monitoring and evaluation (M&E) and safeguard compliance. The PMT has environment and social safeguard focal points who will be responsible for monitoring the implementation of safeguards. The THS PMT will work closely with the PMT for the Emergency Response Project (ERP) to implement the project activities.

4.0 GRIEVANCE REDRESS MECHANISM

22. A grievance redress mechanism (GRM) is an important element of the CERC-ESMF and is outlined in the SEP for the ERP and should be jointly managed by the two projects. For CERC-related activities, it remains important that such a mechanism is available to address concerns and complaints promptly and transparently with no negative impacts (e.g. cost, discrimination) for any reports made by project affected people (PAPs). For the CERC-related complaints:

- i. Multiple channels will be put in place to receive complaints and grievances on the project. These channels include: a toll free line set up for the COVID-19 activities, for calls and SMSs, a dedicated email address (e.g. mohpandemicproject@gmail.com), and similar at county level, the capacity at national, county and key facility level to receive people in person and county level and support them to complete the complaints forms and log and follow the

- complaint resolution and provide feedback to the complainant. The MoH will also create a blog on it's website for COVID-19 related feedback.
- ii. The current county focal points and VMG focal points will also receive, log and refer complaints to national level in conjunction with the county staff responsible for COVID-19 response. GEMS monitoring tools will be developed to get county and community feedback on the COVID-19 project components.
 - iii. Health workers can raise their concerns through the chief nursing officer (in hospitals) or the County Director of Human Resources. However, they can also raise complaints with the national level COVID-19 complaints focal point confidentially if necessary, including GBV/SEA/SH complaints. These complaints will be handled sensitively and confidentially in conjunction with the Project Manager with the support of the World Bank team as necessary.
 - iv. GRM handlers will be trained using a protocol to be developed by the PMT and as detailed in the ERP SEP.
 - v. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project which have not been adequately addressed by the above mechanisms, may raise their concerns with the World Bank Kenya office at: Kenyainfo@worldbank.org.
 - vi. If grievances have been raised the World Bank's Kenya office and not been adequately addressed, they may raise their complaints with the World Bank's Grievance Redress Service (GRS). Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.
 - vii. Any serious incident that takes place as a result of the project should immediately be reported to the World Bank Task Team Leader. An "Incident" is defined as an accident, incident, or negative event resulting from failure to comply with identified safeguards measures OR conditions that occur as a result of unexpected or unforeseen risks or impacts during project implementation. Examples of safeguards incidents include: fatalities; serious accidents and injuries; social impacts from labor influx; SEA/SH or other forms of GBV; major environmental contamination; child labor; loss of biodiversity or critical habitat; loss of physical cultural resources; and loss of access to community resources.

5.0 STAKEHOLDER CONSULTATION AND DISCLOSURE PLAN

23. A stakeholder engagement plan (SEP) has been prepared for the implementation of the new COVID-19 ERP which shall also be used by the CERC. It has identified the key stakeholders for the project and their needs. It also contains an elaborate communication plan which is aimed at ensuring that the stakeholders include hard to reach communities are consulted and can provide feedback on the project activities that will be considered in project planning. They will also have access to information about the project and the general government response on a regular basis. In addition, it has defined the communication hierarchy with the highest point in the health system being the PS.

24. The ESMF, ESIA/ESMPs will be disclosed on the MoH and World Bank websites prior to the commencement of activities as shown in Table 2. The timing for disclosure of project documents is as indicated in Table 3.

Table 3: Disclosure of project documents			
Project stage	Target stakeholders	List of information to be disclosed	Responsible person
Quarterly	Implementing partners	Progress report including summaries of complaints and resolution	Environment and social safeguards officer
Before key activities	Key stakeholders for specific activities	ESIA or ESMP	Environment and social safeguards officer
Annual	General public	Annual report on progress and lessons learnt	PMT/MoH

ANNEXES

Annex 1: Implementation Plan, E&S risks and Activities to be funded under CERC

ACTIVITIES	SUB-ACTIVITIES	Description	E&S Requirements	Responsible officer for E&S requirements	Supervision
Multi-sectoral, inter-governmental coordination mechanisms	Convene National Public Emergency Steering Committee Meetings	Weekly meetings (Senior gov't leadership, CoG) - 30 pax @ 10,000 pm (teas/stationary)	Ensure key E&S concerns are considered and addressed	PS	PMT social and environmental officers
	Convene COVID-19 Task Force Meetings	Weekly meetings (GoK technical officials/partners) - 60 pax @ 20,000 pm (teas/stationary)	Ensure key E&S concerns are considered and addressed	PM/communication officer	
	Convene county stakeholder meetings	Monthly meetings (4 pc + 10) @ 4,000 (incl 1 driver)	Ensure key E&S concerns are considered and addressed	THS focal person	
		Half board (4 pc) @ 10,000; 2 nights; incl 1 driver)			
		Fuel @ 30,000 pc			
	Convene county task force meetings	Weekly meetings (30 pax) @ 10,000 pm (teas, stationary)	Ensure key E&S concerns are considered and addressed	THS focal person	
Training	Re-orientation of health promotion officers at sub national level on risk comm guidelines, key messages, key approaches and platforms to be used	Orient Health promotion officers from all the 302 sub-counties	Need for inclusion and appropriate communication channels and feedback mechanisms for VMGs/HUTLCs on all project components Ensure that the activities reach the communities and especially VMGs/HUTLCs and feedback is received	Health promotion officer	PMT social safeguards officer and communications officer
		Procurement of mobile phones for CHEWS			
		Airtime for CHEWs phones			
		Sensitization by means of Mobile Public Address Systems in 302 sub-counties in the 14 high risk counties			
Disseminate key messages	Design, print and distribute IEC materials (Posters, brochures, roll up banners, fact sheets)	To be distributed at POEs, all health facilities (public and private) and to the public	Ensure that the activities reach VMGs/HUTLCs in appropriate local languages	Communication officer/ social safeguards officers	PMT
	Publish electronic IEC materials through all media outlets including social and FM radio where needed	To be distributed to all communities including vulnerable and marginalized groups, illiterate and hard to reach groups including on the hotline and grievance line	Ensure that the activities reach VMGs/HUTLCs in appropriate local languages		
	Translation of messages into various	Consultancy to translate messages, and develop	Translate into local languages for communities not		

	vernacular languages	messaging for blind & deaf persons	conversant with Kiswahili and illiterate groups		
	Sensitization - media, opinion leaders, COTU, etc	Sensitize media - breakfast + stationary			
Conduct Simulations	Conduct National TTX simulation	Conduct a functional simulation exercises at National level and 14 high risk Counties	Ensure E&S considerations are considered and reflected upon	Social safeguards/ environment safeguards officers	PM
Support towards the management of COVID-19	Surge capacity to support surveillance and response	Temp hire 100@ 100,000 for 6 months	Ensure they sign code of conduct and are trained in it	Social safeguards/ environment safeguards officer	PM
		Print and distribute surveillance tools and SOPs	Ensure E&S considerations are properly considered	Social safeguards/ environment safeguards officer	PM
		Print and distribute IDSR guidelines/training modules	Ensure E&S considerations are properly considered	Social safeguards/ environment safeguards officer	PM
		Print and distribute MoH 502, 503, 505	Ensure E&S considerations are properly considered	Social safeguards/ environment safeguards officer	PM
		Procure 15 thermo scanners	Ensure instructions/orientation for use respects people's dignity and protects people and users from infection	Social safeguards/ environment safeguards officer	PM
		Procure 17 (one per site) thermo guns for surveillance at 17 POE (JKIA, Wilson, MIA, KIA, EIA, Wajir, Malindi, Namanga, Busia, Isibania, Malaba, Taveta, Mombasa ports - 2 and Kisumu port, Lunga Lunga, Lokichogio)	Ensure instructions/orientation for use respects people's dignity and protects people and users from infection	Social safeguards/ environment safeguards officer	PM
		Train CHMT, SCHMT on detection, reporting, investigation, contact tracing, sample collection, shipment for 14 high risk (1day*10*14)	Ensure they sign code of conduct and are trained in it, including treating people with dignity, none use of force and preventing stigma and psychological trauma	Clinical and Health promotion at MoH	Social /Environmental Safeguards Officers
		In service training IDSR/DHIS2 of 47 ToT to be cascaded to sub-c (3rd edition)	Include oriented on appropriate conduct		

Rapid Response Teams	Training	2 day training*5 team members*14 counties	Include oriented on appropriate conduct	Clinical team at MoH	PM/ Environment and social safeguards officers
	DSA	3 nights*5 team members*14 counties		Procurement	
	Airtime	1 leader*16 teams		Procurement	
	Service Outsourcing	Lease vehicles for RRT for one month	Ensure proper cleaning and orientation in road safety protocols and oriented on appropriate conduct	Environmental officer	
Contact Tracing/Active Case Searching Teams	Training	1-day training*3 team members*14 counties	Ensure they sign code of conduct and are trained in it and all people at training are oriented on non acceptability of SH/SEA	Health promotion team	PM/ Environment and social safeguards officers
	DSA	2 nights*3 team members*14 counties		Procurement	
	Service Outsourcing	Lease/Fuel vehicles for contact tracing teams for one year		Procurement	
	Airtime	1 leader*16 teams		Procurement	
	Service Outsourcing	Ambulance service outsourcing at 25k per ambulance for 12 weeks	Ensure proper cleaning and orientation in road safety protocols and Include oriented on appropriate conduct	Environmental officer	
Strengthen POE surveillance		Print and distribute travellers' forms	Ensure GRM is displayed in prominent places in all POEs	Procurement	PM/ Environment and social safeguards officers
		Train 200 POE health staff on screening and HCWM detection and IPC (1 day*200*4000)	Include oriented on appropriate conduct	Clinical and health promotion team at MoH	PM/ Environment and social safeguards officers
		Sensitize 600 non-health point of entry staff (JKIA, Kisumu, Mombasa, Wajir, Eldoret, Wilson)	Include oriented on appropriate conduct	Clinical and health promotion team at MoH	PM/ Environment and social safeguards officers
		Facilitators for 9 sessions*4 staff*2 days		Procurement	PM/ Environment and social safeguards officers
		DSA facilitators for 9 sessions*4 staff*3 nights		Procurement	
Procure sample collection and packaging supplies	Procure reagents	COVID-19 specific primers, probes, etc.	Ensure training on infection prevention and control during sample collection and packaging, transport and lab analysis	Procurement	Environment Safeguards officer
	Shipment of samples to NIC and other referral labs	Assumption @KES 1000 per sample for 50 samples per month for 6 months. All specimen will be delivered physically by a health worker to the testing lab	Ensure handling protocols are observed	Clinical staff at MoH	

		Testing			
		Liquid nitrogen			
		Lab PPE (lab PPE)			
		Training lab staff (testing, gene sequencing, biosafety and biosecurity measures) (7 labs*2pax*3days)	Ensure training on infection prevention and control during sample collection and packaging, transport and lab analysis, and are oriented on appropriate conduct		
		Training lab staff (sample collection, packaging) - 14*2pax*1 day	Ensure training on infection prevention and control during sample collection and packaging, transport and lab analysis and are oriented on appropriate conduct		
		Facilitators county training - 14*1 pax*1 day	Ensure training on infection prevention and control during sample collection and packaging, transport and lab analysis and oriented on appropriate conduct		
	Safe water provision within isolation units	Chlorine tanks (14 high risk/high vol hf + 1 Mbagathi) (incl plumbing) Provide water tanks and hand washing facilities	Ensure that the tanks reach include vulnerable and marginalised groups including VMGs/HULTCs and are used appropriately	Procurement	Environment and Social safeguards Officers
	PPE	Personal Protective Equipment for all frontline workers in the 14 priority counties (Gowns, boots, Goggles/Face shields, Gloves, Face masks-N95, aprons)	Ensure orientation on use and disposal following WHO guidelines on appropriate usage	Procurement	Environment safeguards officer
		N95 masks	Ensure orientation on use and disposal following WHO guidelines on appropriate usage	Procurement	Environment safeguards officer
	Waste management	Medical waste bins (50 L) - red, black, yellow	Training and awareness creation on HCWM related to COVID-19	Environment safeguards officer	PM
		Medical waste bins (100 L) - red, black, yellow/bin liners	Ensure orientation on and monitoring appropriate usage and disposal	Environment safeguards officer	
		Biohazard bags (50L) - 500 red, 1,000 black, 1,000 yellow	Ensure orientation on and monitoring appropriate usage and disposal	Environment safeguards officer	

		Biohazard bags (100 L) - red, black, yellow	Ensure orientation on and monitoring appropriate usage and disposal	Environment safeguards officer	
		Safety boxes for sharps etc	Ensure orientation on and monitoring appropriate usage and disposal	Environment safeguards officer	
		Body bags	Ensure orientation on and monitoring appropriate usage and disposal	Environment safeguards officer	
		Heavy duty gloves	Ensure orientation on and monitoring appropriate usage and disposal	Environment safeguards officer	
		Facilitator for training DSA (2 pax*2 days)			
Communication	Communication support for health workers checking on self-isolated patients	14 counties*2 pax*Airtime*12	Include oriented on appropriate conduct	Health promotion officers	Environment and social safeguards officers
Train medical teams in management of severe acute respiratory infections/COVID-19	Training in selected health facilities	14*5pax*(DSA + conference package)*5days	Include oriented on appropriate conduct	Clinical staff at the MoH	Social safeguards officer
	Thermoguns for 368 L4&5 health facilities	Each KES 8000	Include oriented on appropriate use and conduct		Environment safeguards officer
Comprehensive medical, nutritional and psychosocial care for those with COVID-19	Pharmaceutical and Non pharmaceutical commodities for 2019-nCoV	Using WHO list	Ensure the access is equitable especially for those who need support with communication (persons with disability)	Experts in the various issues at the MoH	Environment/Social safeguards officer
	Procure intensive care equipment for managing severe cases for the 14 high risk counties (Intubation, oxygen concentrators, suction machines respiratory support machines etc.)	14*ICU equipment for 2 bed per unit	Ensure orientation to staff using the equipment and maintenance		Environment safeguards officer
	Patient care equipment (linen, uniform etc)	600 patients* (1500sheets)*(2000 pack of 5)		Procurement	Environment safeguards Officer

Surge staff for case management	Temp hire		Ensure they sign code of conduct and are trained in it	Procurement	Social Safeguards Officer
Participate in clinical expert network to foster collaboration and learning	Teleconference facilities/services for Mbagathi, KNH, KUTTRH, MTRH & 14 county facilities	18 facilities*500k per facility		Procurement	PM
		Consultancy ICT expert for PHEOC			
National Call Centre at EOC		Procure and install ICT equipment	Ensure it is accessible to vulnerable and marginalised and hard to reach groups	Procurement	Social safeguards officer
Grievance hotline			Ensure that awareness is created at national and county level and grievance contacts are displayed in all funded centres and it is properly manned and grievances appropriately dealt with	Procurement	Social safeguards officer

Annex II: Waste Treatment and Management

The COVID-19 virus is an enveloped virus with a fragile outer membrane that can be destroyed by applying the following methods:

- Disinfection: Using 0.5% or 0.05% chlorine solution in accordance with the materials to be treated.

Recommended Chlorine Concentrations for Disinfection

Percentage	Dilution	Purpose or Use
2%	4 tablespoons of granular chlorine in 2 litres of water	Infectious stool, vomitus, cadavers
0.5%	4 tablespoons of granular chlorine in 8 litres of water	Cleaning floors, footbath, Bed mattresses contact tracing, toilets
0.05%	1 tablespoon of granular chlorine in 20 litres of water	Hand washing Washing of soiled clothes, dishes

- Heat: Through medical waste incineration, sterilization by autoclave or incineration.
- The strict application of universal precautions: Through good hand hygiene by regularly washing with soap and water or alcohol-based hand rub

In accordance with the different resources reviewed: Centres for Disease Control and Prevention (CDC), and World Health Organization (WHO) guidance on health care waste management, water sanitation and hygiene (WASH) and infection prevention and control guidelines, the following is recommended:

a) Solid medical waste

All used disposable PPE, non-sharps and other infectious medical waste needs to be collected in leak proof hazard waste bags and placed in covered waste bins. Pouring 0.5% chlorine solution on top of the waste bags prior to being securely sealed as pre-treatment disinfection is recommended. The procedure can create back-splash, so care should be taken to protect eyes. Pre-treated contaminated medical waste can be transported for incineration in accordance with these guidelines.

b) Sharps waste disposal

The recommendations from WHO and the application of universal precautions is to limit all invasive procedures to be performed on COVID-19 suspected/confirmed cases to a minimum, and where possible, to substitute these with oral alternatives. However, the use of sharp objects cannot be avoided in clinical management settings. All sharps (including syringes, needles, scalpel blades, cannulas and other sharps) are to be disposed of into puncture-resistant/leak-proof sealed disposable containers designed for sharp medical waste collection before incineration.

c) Biological infectious waste

Biological waste material such as placenta and biopsy samples are to be treated as above or incinerated.

d) Infectious excreta

All biological infectious liquid waste (i.e. faeces, vomit, urine, etc...) is to be disposed off in latrines or toilets used only by suspected or confirmed cases of COVID-19 and disinfected by pouring 2% chlorine solution. If the patient is unable to use a latrine, excreta should be collected in either a diaper or a clean bedpan and immediately and carefully be disposed in latrines or toilets used only by suspected or confirmed cases of COVID-19. Anyone handling excreta should follow contact and droplet precautions

and use PPE to prevent exposure, including long-sleeved gowns, gloves, boots, masks and goggles or a face shield.

e) Mattresses

Bed mattresses are to be sprayed with 0.5% chlorine solution. Mattress covers and linen are to be soaked twice in 0.5% chlorine solution for min. 30 minutes prior to being washed with the use of a mixture of soap and 0.5 % chlorine.

f) Patients Clothes

Used clothes from patients are to be collected and sealed in a bag for disinfection.

g) Reusable medical equipment and PPE (i.e. boots, goggles, aprons, etc.):

Used reusable medical and PPE items are to be sprayed with 0.5% chlorine solution and then soaked in 0.05% chlorine before washing them and leaving them hung out to dry while exposed to direct sunlight.

h) Outreach waste

All used outreach kit material (i.e. gloves, masks, surgical gowns etc...) is to be collected and contained in a waste bag. 0.5% chlorine solution should be poured over the top before being sealed. The outside of the bag is to be sprayed with 0.5% chlorine solution prior to disposal through incineration.

i) Cadaver and corpse burial

Dead bodies should not be sprayed, washed or embalmed. Discourage any local practice by health care workers or family of touching or being in contact with the corpse. Corpses need to be contained in sealed, leak-proof cadaver bags. After placing the corpse in the cadaver bag, they are to be sealed and surface sprayed with 0.5% chlorine before being moved for burial or cremation. Burials must not be done at night. Corpses must be kept in the morgue and buried at first opportunity (within 12 hours). PPE for safe handling of the body should include: waterproof apron, disposable gown with long sleeves, disposable non-sterile gloves, surgical mask, eyes protection, rubber gloves and boots.

Annex III: Guideline for Covid-19 Personal Protective Equipment (PPE) for Healthcare Workers

This guideline is informed by the World Health Organization interim technical guidance for Rational Use of Personal Protective Equipment for Coronavirus Disease 2019 (COVID-19) and the Guidance for wearing and removing personal protective equipment in healthcare settings for the care of patients with suspected or confirmed COVID-19 as summarized in the table below. In addition to using the appropriate PPE, frequent hand hygiene and respiratory hygiene should always be performed. PPE should be discarded in an appropriate waste container after use, and hand hygiene should be performed before putting on and after taking off PPE.

Setting	Target personnel or patients	Activity	Type of PPE or procedure
Healthcare facilities			
Inpatient facilities			
Patient room	Healthcare workers	Providing direct care to COVID-19 patients.	Respirator N95 or FFP2 standard, or equivalent
			Gown
			Gloves
			Eye protection (goggles or Face shield).
		Aerosol-generating procedures performed on COVID-19 patients.	Respirator FFP3 Standard, or equivalent.
			Gown
			Gloves
			Eye protection
			Apron
	Cleaners	Entering the room of COVID-19 patients.	Medical mask
			Gown
			Heavy duty gloves
			Eye protection (if risk of splash from organic material or chemicals).
			Boots or closed work shoes
	Visitors <i>(The number of visitors should be restricted. If visitors must enter a COVID-19 patient's room, they should be provided with clear instructions about how to put on and remove PPE and about performing hand hygiene before putting on and after removing PPE; this should be supervised by a healthcare worker.)</i>	Entering the room of a COVID-19 patient	Medical mask
			Gown
			Gloves
Other areas of patient transit (e.g. wards, corridors).	All staff, including healthcare workers.	Any activity that does not involve contact with COVID-19 patients.	No PPE required unless otherwise guided by government directive e.g mandatory use of masks.
Triage	Healthcare workers	Preliminary screening not involving direct contact i.e. the use of no-touch thermometers, thermal imaging cameras and limited observation and questioning, all while maintaining a spatial distance of at least 1m	Maintain spatial distance of at least 1 m.
			No PPE required unless otherwise guided by government directive e.g mandatory use of masks.
	Patients with respiratory Symptoms.	Any	Maintain spatial distance of at least 1 m. Provide medical mask if Tolerated by patient.

Setting	Target personnel or patients	Activity	Type of PPE or procedure
	Patients without respiratory Symptoms.	Any	No PPE required unless otherwise guided by government directive e.g mandatory use of masks.
Laboratory	Lab technician	Manipulation of respiratory Samples	Medical mask Gown Gloves Eye protection (if risk of splash)
Administrative areas	All staff, including healthcare workers.	Administrative tasks that do not involve contact with	No PPE required unless otherwise guided by government directive e.g mandatory use of masks.
Outpatient facilities			
Consultation room	Healthcare workers	Physical examination of patient with respiratory Symptoms	Medical mask
			Gown
			Gloves
			Eye protection
	Healthcare workers	Physical examination of patients without respiratory Symptoms	PPE according to standard precautions and risk assessment
	Patients with respiratory symptoms.	Any	Provide medical mask if Tolerated, unless otherwise guided by government directive e.g mandatory use of masks.
	Patients without respiratory Symptoms.	Any	No PPE required unless otherwise guided by government directive e.g mandatory use of masks.
	Cleaners	After and between consultations with patients with respiratory symptoms.	Medical mask
			Gown
			Heavy duty gloves
			Eye protection (if risk of splash from organic material or chemicals). Boots or closed work shoes
Waiting room	Patients with respiratory Symptoms.	Any	Provide medical mask if tolerated.
			Immediately move the patient to an isolation room or separate area away from others; if this is not feasible, ensure spatial distance of at least 1 m from other patients.
	Patients without respiratory symptoms.	Any	No PPE required unless otherwise guided by government directive e.g mandatory use of masks.

Setting	Target personnel or patients	Activity	Type of PPE or procedure
Administrative areas	All staff, including healthcare workers.	Administrative tasks	No PPE required unless otherwise guided by government directive e.g mandatory use of masks.
Triage	Healthcare workers	Preliminary screening not involving direct contact i.e. the use of no-touch thermometers, thermal imaging cameras and limited observation and questioning, all while maintaining a spatial distance of at least 1m	Maintain spatial distance of at least 1 m.
			No PPE required
	Patients with respiratory Symptoms	Any	Maintain spatial distance of at least 1 m.
			Provide medical mask if Tolerated.
	Patients without respiratory Symptoms	Any	No PPE required
Community			
Home	Patients with respiratory Symptoms	Any	Maintain spatial distance of at least 1 m.
			Provide medical mask if tolerated, except when sleeping.
	Caregiver	Entering the patient’s room, but not providing direct care or assistance.	Medical mask
	Caregiver	Providing direct care or when handling stool, urine or waste from COVID-19 patient being cared for at home.	Gloves
			Medical mask
			Apron (if risk of splash)
	Healthcare workers	Providing direct care or assistance to a COVID-19 patient at home	Medical mask
			Gown
			Gloves
			Eye protection
Public areas (e.g., schools, shopping malls, train stations).	Individuals without respiratory symptoms	Any	No PPE required
Points of Entry			
Administrative areas	All staff	Any	No PPE required
Screening area	Staff	First screening (temperature measurement) not involving direct contact i.e. the use of no-touch thermometers, thermal imaging cameras and limited observation and questioning, all while maintaining a spatial distance of at least 1m	Maintain spatial distance of at least 1 m.
			No PPE required
	Staff	Second screening (i.e., interviewing passengers with fever for clinical symptoms suggestive of COVID-19 disease and travel history).	Medical mask
			Gloves
	Cleaners	Cleaning the area where passengers with fever are	Medical mask
Gown			

Setting	Target personnel or patients	Activity	Type of PPE or procedure
		being screened.	Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals). Boots or closed work shoes
Temporary isolation area	Staff	Entering the isolation area, but not providing direct Assistance.	Maintain spatial distance of at least 1 m.
			Medical mask
			Gloves
	Staff, healthcare workers	Assisting passenger being transported to a healthcare Facility.	Medical mask
			Gown
			Gloves
	Cleaners	Cleaning isolation area	Eye protection
			Medical mask
			Gown
Ambulance or transfer Vehicle	Healthcare workers	Transporting suspected COVID-19 patients to the Referral healthcare facility.	Heavy duty gloves
			Eye protection (if risk of splash from organic material or chemicals).
			Boots or closed work shoes
	Driver	Involved only in driving the patient with suspected COVID-19 disease and the driver's compartment is separated from the COVID-19 patient.	Medical mask
			Gowns
			Gloves
			Eye protection
		Assisting with loading or unloading patient with suspected COVID-19 disease.	Maintain spatial distance of at least 1 m.
			No PPE required
	Patient with suspected COVID-19 disease. Cleaners	Transport to the referral Health care facility.	Medical mask
		Cleaning after and between transport of patients with suspected COVID-19 disease to the referral healthcare Facility	Medical mask
			Gown
			Heavy duty gloves
			Eye protection (if risk of splash from organic material or chemicals).
			Boots or closed work shoes

All rapid response team members must be trained in performing hand hygiene and how to put on and remove PPE to avoid self-contamination. Special considerations for rapid response teams assisting with public health investigations are summarized below.

Setting	Target personnel or patients	Activity	Type of PPE or procedure
Anywhere	Rapid response team Investigators.	Interview suspected or confirmed COVID-19 Patients or their contacts.	No PPE if done remotely (e.g., by telephone or video conference).
			Remote interview is the preferred method.
		In-person interview of suspected or confirmed COVID-19 patients without Direct contact.	Medical mask
			Maintain spatial distance of at least 1 m.
		In-person interview with asymptomatic contacts of COVID-19 patients.	The interview should be conducted outside the house or outdoors, and confirmed or suspected COVID-19 patients should wear a medical mask if tolerated.
			Maintain spatial distance of at least 1 m.
			No PPE required
			The interview should be performed outside the house or outdoors. If it is necessary to enter the household environment, use a thermal imaging camera to confirm that the individual does not have a fever, maintain spatial distance of at least 1 m and do not touch anything in the household environment.

Annex III STEPS TO PUT ON PERSONAL PROTECTIVE EQUIPMENT

Before wearing the PPE for managing a suspected or confirmed COVID-19 case, proper hand hygiene should be performed (Figure 1).

Figure 1. Hand hygiene performed using alcohol-based solution

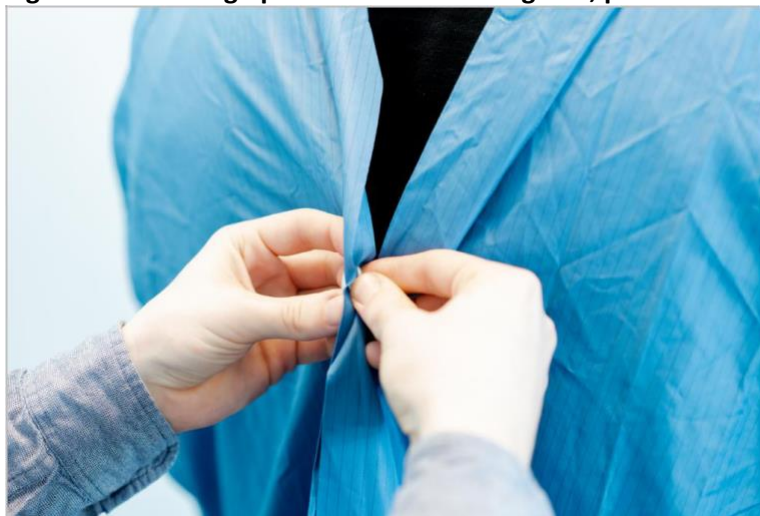


The first PPE to be donned (Figure 2) is the gown. There are different types of gowns (single use, reusable); this guidance presents a reusable long-sleeved water-resistant gown. When using a gown with back closure, as shown below, a second operator should assist in buttoning up the back (Figure 3).

Figure 2. Donning of a long-sleeved water-resistant gown



Figure 3. Buttoning up the backside of the gown; performed by an assistant



After wearing the gown, it is suggested to proceed with the respirator that protects from the inhalation of droplets and particles. It is important to perform a fitting test after the respirator has been put on, following the manufacturer's instructions.

Figure 4. Wearing of a FFP (class 2 or 3) respirator



The metal nose clip needs to be adjusted (Figure 5) and the straps have to be tightened to have a firm and comfortable fit. If you cannot achieve a proper fit, position the straps crosswise. However, this minor modification could imply a deviation from the recommendations in the manufacturer's product manual.

Figure 5. Fitting the respirator's metal nose clip



If a face mask (surgical mask) is worn as substitution for a respirator (Figure 6), it is important to correctly position it on the face and adjust it with the metal nose clip (Figure 7) in order to achieve a proper fit.

Figure 6. Wearing of a face mask (surgical mask)



Figure 7. Fitting the face mask's metal nose clip



Once the respirator has been properly positioned, put on the goggles for eye protection. Place the goggles over the mask's straps and ensure that the textile elastic strap fits snugly – but not too tightly (Figures 8 and 9).

Figure 8. Wearing of goggles with textile elastic strap



Figure 9. Side view of goggles with an elastic textile strap



If goggles with temples are used, make sure that they are properly positioned and fit well (Figure 10).

Figure 10. Wearing of goggles with temples



After the goggles, the gloves are next. When wearing gloves, it is important to extend the glove to cover the wrist over the gown's cuffs (Figure 11). For individuals allergic to latex gloves, an alternative option, for example nitrile gloves, should be available.

Figure 11. Wearing of gloves



Removing (doffing) the PPE

Wearing the PPE correctly will protect the healthcare worker from contamination. After the patient has been examined, the removal (doffing) of the PPE is a critical and important step that needs to be carefully carried out in order to avoid self-contamination because the PPE could by now be contaminated.

The gloves are removed first because they are considered a heavily contaminated item. Use of alcohol-based hand disinfectant should be considered before removing the gloves. The gloves should be removed following eight steps (Figure 12)

Start by (1) pinching and holding the glove (with the other gloved hand) between the palm and wrist area, (2) peeling the glove away from the wrist (3) until it turns inside out covering the fingers. With the now half-gloved hand, (4) pinch and hold the fully gloved hand between the palm and wrist, (5) peel the glove away from the wrist (6) until it turns inside out and covers the fingers. Now that both hands are half-gloved, (7) remove the glove from one hand completely by grabbing the inside part of the glove and peeling it away from the hand and do the same for the remaining half-gloved hand using the non-gloved hand, while always grabbing the inside part of the glove. Dispose of the gloves (8) in a biohazard bin.

Figure 12. Removal of gloves (steps 1 to 8)

