Infection Control and Waste Management Plan
Republic of Moldova
for
Moldova COVID-19 Emergency Response Project

April 2021

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Abbreviations and acronyms

BTC	Blood Transfusion Center
COVID-19	Corona Virus Disease-2019
EHS	Environmental Health and Safety
ESMF	Environment and Social Management Framework
GDP	Gross Domestic Product
HCF	HCF Healthcare facilities
HCW	Health Care Waste
HCWM	Health care Waste Management
ICU	Intensive Care Unit
ICWMP	Infection Control and Waste Management Plan
IDA	International Development Association
IPC	Infection Prevention and Control
MoH	Ministry of Health of Moldova
PCR	Polymerase Chain Reaction
PIU	Project Implementation Unit
PM	Project Manager
PoE	Port of Entry (airports, customs control zones)
PPE	PPE Personal Protective Equipment
RWMO	Rayon Waste Management Officer
SARS	Severe Acute Respiratory Syndrome
UN	UN United Nations
WBG	World Bank Group
WHO	World Health Organization

1. Introduction

Moldova is a lower-middle-income country with an estimated Gross Domestic Product (GDP) per capita of US$3,217 (IMF, 2018) and a population of approximately 2.62 million people (World Development Indicators, 2020). Its GDP per capita is significantly below the average for Europe and Central Asia, of US$7,272, however, recent socioeconomic progress has been sound, and Moldova graduated from International Development Association on June 30, 2020. Moldova has experienced strong economic growth, with an average annual growth rate of 4.6% since 2000. Despite heightened political instability in 2019, the economy grew by 4.5% in 2021 driven by strong investments and robust private consumption financed by remittances, pre-election tax cuts, and increases in public wages and transfers. Increased employment and disposable income growth for the bottom two quintiles as well as earnings in the agricultural sector have generally been trending upwards, contributing to recent reductions in poverty. However, 202119 saw an increase in the unemployment rate of 0.2 percentage-points on average compared to 2019 and a decrease of 3% compared to 2020, largely driven by increases in unemployment in rural areas.

Moldova has an approximate population of 2,620 million people. The population is declining in all regions, districts and localities. There is a concentration of population in Chisinau and central districts. Particularly noteworthy is the decrease in the last decade of the population in the districts of Basarabeasca, Cimișlia, Dondușeni, Soroca and Nisporeni, as well as in the municipality of Bălți, with population decrease rates of about 20%. Currently, about 5% of the country's population lives in very small (less than 1000 people) and relatively isolated rural communes, where a large part of households are abandoned, mainly due to migration, both external and internal. According to the 2014 census, about 18% of the houses and apartments in the country are not populated.

The basic indicator of economic development is gross domestic product (GDP). The evolution of this indicator has been extremely winding over the last two decades. From 1994 until now the average annual growth rate of GDP has been about 2.7%, so that in 2017 the level of GDP was 89.6% higher than the level corresponding to 1994. GDP / capita increased from US $ 400 in 1995 to about US $ 2291 in 201711. The Republic of Moldova has advanced from the group of low-income countries to the group of lower-middle-income countries.

The analysis of the structure of GDP by resources shows that the largest share is held by the category "other services", which, together with trade and construction services, in 2017, accounted for 57.3% of GDP. These are followed by net taxes on goods and services, whose share gradually decreased in the period 2010-2016 from 16.6% to 14.7% of GDP. This reflects some policy changes (e.g. the phasing out of customs duties on EU imports) but could also suggest a possible growth of the informal economy and difficulties in collecting tax revenue, respectively. The agricultural sector, which employs about a third of the workforce, has a disproportionately low share in GDP (12.2% in 2017), which indicates productivity and, respectively, extremely low competitiveness in this sector.

Before the pandemics, the Republic of Moldova was among the last countries in Europe in terms of the share of public spending in total health spending. Respectively, the country's population is forced to compensate for this deficit with its own resources to meet the need for medical goods and services. At the same time, the out-of-pocket payment indicator is around 48% of total health expenditures, with no prospects for improvement in the next period. The population considers that the compulsory health

insurance policy does not provide its holder with an adequate level of medical services. Informal payments are a major problem for the health sector, with 72% of the population believing that money, gifts and / or personal contacts are needed to solve problems in medical institutions. Accessibility of medical services remains an issue, including for insured persons - of the respondents who gave up the visit of the family doctor or specialist, 22% decided so on the grounds that they had no money or were not satisfied with the quality of services.

The best insured population received in 2016 about 28 percent of medical services compared to 17 percent in the case of the least insured population. The benefit of medical services is also determined by the level of well-being of the population. Given being the fact that 28.5% of the category of the least insured do not have medical insurance, it can be one of the reasons that this category of population sought medical help in proportion to 16.9%, while the rate of addressing of best insured people is 28.4%. However, in 2016, there is a higher growth rate in the case of the share of people who benefited from medical services in the category of the least insured - by 5.7 percentage points higher than since 2010, while in the category of the best insured, their share has increased by a slower pace, by 2.9 percentage points. Each rayon has a rayonal hospital, while in Chisinau municipality there are more than 15 hospitals. The project will include 69 HCFs and ICUs in activities of better managing the COVID-19 pandemics.

There are 3555 thousand m^3 of waste generated in Moldova in 2020 by the population, public institutions, and economic entities. Healthcare wastes are generated in health-care services among other human undertakings, either in rural or urban settings may inevitably pose serious risk to public health or have harmful environmental effects. Potentially infectious waste such as sharps, cultures from medical laboratories or infected blood, or infected wipes or masks from quarantine, isolation, and treatment centers, carry a higher risk of infection and injury than any other type of waste. Other wastes of significant importance include body fluids, all body parts, human tissues, placenta, and radioactive waste among others. The absence of proper health care waste management measures to prevent exposure from infectious health-care waste (HCW) results in adverse health risks to the public, the patients as well as the medical and supportive staff.

With the coronavirus disease (COVID-19) pandemic continuing to spread and its impacts upon human health and the economy intensifying day-by-day, there is urgent need to treat waste management including medical, household, and other infectious waste, as an urgent and essential public service in order to minimize possible secondary impacts upon public health and the environment. COVID-19 outbreak is associated with the generation of many types of infectious wastes, including infected masks, gloves and other protective equipment, together with a higher volume of general waste of the same nature. Unsound management of this waste could cause unforeseen “knock-on” effects on human health and the environment. The safe handling, treatment and final disposal of this waste is therefore a vital element in an effective emergency response.

Effective management of biomedical and healthcare waste associated with COVID-19 requires appropriate identification, segregation, collection, storage, treatment, transportation and disposal, as well as important associated standard precautions including hand hygiene, cleaning and disinfection, personal protection and training. Improper disposal of the infectious healthcare waste may result in masks, gloves, syringes and needles being scavenged and reused thus leading to spread of diseases. Even after the formulation of policies and laws on health care waste management, there are still lacks in the enforcement of legislation for handling, and disposal of health care waste, especially at the rural level. Furthermore, improper treatment or disposal of HCW such as open-air burning constitute a significant source of pollution to the

environment through the release of substances such as dioxins, furans or mercury coupled with the virus persistence for days in the environment deposited; this calls for the formulation of this Infection Control and Waste Management Plan in relation to COVID-19 pandemic.

2. Project context and components

The project development objective is to prevent, detect, and respond to the threat posed by the COVID-19 pandemic in the Republic of Moldova. The Project objectives are aligned to the results chain of the COVID-19 Strategic Preparedness and Response Program. Besides supporting COVID-19 preparedness and response in the health sector, the project also includes response in the social protection sector through mitigation measures to help the poor and vulnerable cope with the immediate impact of the pandemic. It consists of the two parts:

Part 1: Emergency COVID-19 Response. Providing immediate support to prevent COVID-19 from arriving or limiting local transmission through containment strategies, including the following:

1.1 Enhancing case confirmation through inter alia: (a) strengthening disease surveillance systems, selected public health laboratories, and epidemiological capacity for early detection and confirmation of cases; and (b) acquiring personal protective equipment, hygiene materials, COVID-19 test kits, laboratory reagents, polymerase chain reaction equipment, specimen transport kits and light vehicles for safe and rapid transportation of samples.

1.2 Strengthening the health system, strengthening the public health facilities to provide critical care to COVID-19 patients, and minimize the risk for patients and health staff becoming infected, all through, inter alia: (a) the acquisition of personal protective equipment and hygiene materials; (b) the provision of training on infection prevention and control practices; (c) the provision of equipment, drugs and medical supplies, including to ICU beds in designated hospitals; (d) the provision of training on COVID-19 treatment and intensive care to respond to the surge in patients requiring admission in ICUs; (e) the carrying out of interior minor refurbishment to remodel ICUs and increase the availability of isolation rooms; (f) the acquisition of ambulances to support urgent transportation of patients across the hospital network.

1.3 Supporting communication preparedness and activities to increase attention, knowledge and awareness of the government, the private sector, civil society and the population on the risk and potential impact of the pandemic through, inter alia: (a) the development and implementation of a national communication and outreach strategy, including social and behavioral communication change across multiple channels; and (b) the development and distribution of communication materials on COVID-19; and on general preventative measures for the general public.

1.4 Providing social and financial support to households through, inter alia: (a) supporting reforms to Help Social; and (b) financing Cash Transfers.

Part 2: Implementation Management and Monitoring and Evaluation. Carrying out project management activities including: (a) the carrying out of financial management, procurement, environmental and social requirements of the Project; and (b) monitoring and evaluating the project, including third-party monitoring.

The project design seeks to provide immediate support to respond to the COVID-19 outbreak, with a focus on strengthening the technical capacity of health facilities to protect staff and handle severe cases and mitigating the negative financial impact at the household level. Recognizing the importance of a well-balanced intervention mix, the project will provide support to increase case detection capacity, improve the safety of frontline staff at all levels, and to bolster the human and technical capacity of ICUs to handle a surge in severe cases. In addition, the project will support social assistance efforts to mitigate the effect of containment measures on the poor.

This project was selected for COVID-19 financing at the request of the Government of Moldova, on the basis of the country's financing gap and technical capacity constraints. The objectives, scope and components of this project are fully aligned with the FTCF. Activities have been carefully selected in discussion with the MoH, based on their own detailed needs assessment, with the technical assistance of WHO. Under the coordination of the UN representative for Moldova, and drawing on the list of eligible activities outlined in the COVID-19 Board Paper, the project design address key pillars of the Government response for which the need assessment identified gaps and that have not yet received sufficient financial and/or technical support from other development partners. The project was informed by the design of other COVID-19 projects within the ECA region and beyond.

Component 1: Emergency COVID-19 Response (EUR52 million)
Subcomponent 1.1: Case Confirmation (EUR0.5 million) will support strengthening diseases surveillance systems and the capacity of the selected public health laboratories to confirm cases by financing medical supplies and equipment. It will include personal protection equipment (PPE) and hygiene materials, COVID-19 test kits, laboratory reagents, polymerase chain reaction equipment, specimen transport kits, and light vehicles for safe and rapid transportation of samples.

Subcomponent 1.2: Health System Strengthening (EUR 29.2 million) will finance the strengthening of public health facilities to provide critical care to COVID-19 patients and minimize the risk of health care staff and other patients becoming infected. It will finance PPE and hygiene materials, as well as training on infection prevention and control (IPC) practices, with a focus on staff providing care to suspected and confirmed cases. It will also provide equipment, drugs and medical supplies, in particular ICU units and beds in designated hospitals, as well as training on COVID-19 treatment and intensive care to respond to the surge in patients requiring admission in ICUs. It will support interior minor refurbishment to remodel ICUs and increase the availability of isolation rooms. The project will also finance ambulances to support urgent transportation of patients across the hospital network to designated reference facilities as per the algorithm of the Government Preparedness and Response Plan.

Some of the aforementioned activities supporting the strengthening of the health system will depend on the availability of supplies, which is rapidly shifting. Recognizing this procurement challenge posed by the current global pandemic, these sub-components will remain flexible to support financing of alternative supplies, in line with the terms of the Fast-Track Facility and provided that products are acceptable to the World Bank.

Component 2: Implementation Management and Monitoring and Evaluation (EUR0.6 million)
This component will provide financing for project implementation, coordination, and management, including support for procurement, financial management (FM), environmental and social management requirements, monitoring and evaluation of prevention and preparedness including third-party monitoring of progress.

2.1 Design Requirement

The project will use existing laboratories with established standards that meet the Biosafety Level III (BSL III) design requirements. This is suitable for work involving agents that pose moderate hazards (COVID-19) to personnel and the environment. It entails:

• laboratory personnel have specific training in handling pathogenic agents and are supervised by scientists competent in handling infectious agents and associated procedures;

• access to the laboratory is restricted when work is being conducted;

• all procedures in which infectious aerosols or splashes may be created are conducted in Biological Safety Cabinets or other physical containment equipment; and

- the following standard design, special practices, safety equipment, and facility requirements shall be adhered to.

2.1.1 Laboratory Facilities

It is essential to ensure that medical health laboratories adhere to appropriate biosafety practices. Any testing for the presence of the virus responsible for COVID-19 or of clinical specimens from patients meeting the suspected case definition should be performed in appropriately equipped laboratories, by staff trained in the relevant technical and safety procedures. National guidelines on laboratory biosafety should be followed in all circumstances. The following shall be the minimum requirements for the beneficial laboratories under the Project:

- Ample space and a designated hand-washing basin must be provided, with appropriate restriction of access;
- Doors must be properly labelled, and laboratory walls, floors, and furniture must be smooth, easy to clean, impermeable to liquids and resistant to the chemicals and disinfectants normally used in the laboratory;
- Laboratory ventilation, where provided (including heating/cooling systems and especially fans/local cooling split-system air-conditioning units – specifically when retrofitted) should ensure airflows do not compromise safe working. Consideration must be made for resultant airflow speeds and directions, and turbulent airflows should be avoided; this applies also to natural ventilation;
- Laboratory space and facilities must be adequate and appropriate for safe handling and storage of infectious and other hazardous materials, such as chemicals and solvents;
- Facilities for eating and drinking must be provided outside the laboratory, and first-aid-facilities must be accessible;
- Appropriate methods for decontamination of waste, for example disinfectants and autoclaves, must be available and close to the laboratory;
- The management of waste must be considered in the laboratory design. Safety systems must cover fire, electrical emergencies, and emergency/incident response facilities, based on risk assessment;
- There must be a reliable and adequate electricity supply and lighting to permit safe exit;
- Emergency situations must be considered in the design of the existing labs, as indicated in the local risk assessment, and should include the geographical/meteorological context;
- Laboratory furniture must be capable of supporting anticipated loads and uses. Open spaces between benches, cabinets, and equipment should be accessible for cleaning:
  - ✓ Bench tops must be impervious to water and resistant to heat, organic solvents, acids, alkalis, and other chemicals;
  - ✓ Chairs used in laboratory work must be covered with a non-porous material that can be easily cleaned and decontaminated with appropriate disinfectant;

- ✓ Ample space must be provided for the safe conduct of laboratory work and for cleaning and maintenance.

- Safety systems should cover fire, electrical faults, emergency shower and eyewash facilities with First-aid areas or rooms suitably equipped and readily accessible should be made available. In-depth design requirement for the laboratories is elaborated in WHO Laboratory Biosafety Manual and WHO interim guidance for laboratory biosafety related to 2019 nCoV.

2.1.2 Quarantine / Isolation Rooms at Health Care Facilities

When an isolation room is being incorporated into an existing facility, it is rarely possible to create the ideal room. Physical and financial factors often constrain the construction. It is critical to create a room that is fit for its purpose; therefore, the design intent of this section should be adhered to as closely as possible in line with the WHO Interim Infection Prevention and Control Recommendations for Coronavirus Disease 2019 (COVID-19) in Health Care Settings. When converting existing accommodation into Class N rooms, the easiest and least expensive option is to adapt existing single rooms with ensuite facilities. It is recommended that a quarantine facility should be of:

• at least $3m^2$ of space per person for personal space at a quarantine site exclusive of space required for eating, recreation, offices or ancillary services.
• an isolated ensuite rooms with wash room facilities,
• a dormitory set-up with a maximum of 5 -10 beds per room or zone separated from one another by a curtain or wall with each bed separated by a minimum of 1meter from all sides.

The following requirements should be met in any conversion:

i) furnishing and fittings:
a) clinical hand wash basin with non-touch, fixed temperature mixer tap;
b) wall-mounted soap dispensers;
c) disinfectant hand rub dispensers;
d) disposable towel
e) holders;
f) glove dispensers;
g) storage for clean personal protective equipment;
h) clean waste bins. observation window in corridor wall with integral privacy blinds;
ii) Adequate ventilation either natural or mechanical.
iii) The door is kept closed at all times (preferably with a patient observation window so that the patient can be seen without the need to open the door),
iv) Hand washing station with running water and soap and alcohol-based hand rub. These should be placed near the point of care, at the entrance and exit of the isolation room.
v) Preferably should have toilet and bathroom so the patient does not leave the room. In case the room does not have one, a dedicated toilet and bathroom should be identified.
vi) Patient bedside locker or table for placing items
vii) Easy to clean surfaces (no carpets, preferably no curtains)
viii) Space for provision of PPE at the entrance to the room for HCWs
ix) A designated team of HCWs, to care for known or suspected COVID-19 patients. These HCWs care only for these patients during their shift.
x) Keep a roster of all staff working in the isolation areas including visitors, for possible outbreak investigation and contact tracing.

xi) investigate the use of a pressure stabilizer above the room door; and
xii) Provision of two-way intercommunication system between the patient's room and the nurses' station.

More guidance can be acquired in the WHO Interim Infection Prevention and Control Recommendations for Coronavirus Disease 2019 (COVID-19) in Health Care Settings.

2.1.3 Access to Water and Power Supply

The selected healthcare facilities are both the referral hospitals and Level IV and Level V hospitals, laboratories, PoE and isolation & quarantine areas are connected with clean water from the on-site boreholes or connected to country water and sanitation supply service providers. In cases where the selected HCFs have their own borehole (s), (upon complying with the National water quality standards for portable water), these will be used as the main source of water supply to the HCF as well as in the laboratory. In most cases, the municipal water is not reliable enough to be considered as a sole water supply source and shall need to be supplemented always such as through water harvesting. All the selected HCFs are connected to the National power supply operator Premier Energy (central and southern regions) and Red Nord (northern region), who also have power backup generators. The operational capacity and status including routine testing should be confirmed periodically for these emergency back-up generators.

3. Infection Control and Waste Management

3.1 Infection Control Measures

There is a possibility for infectious micro-organisms to be introduced into the environment if they are not contained within the PoE, laboratory or the quarantine, isolation and treatment or the blood services facilities due to accidents/ emergencies, such as a fire response or natural phenomena event (e.g. flood, land slide).
The expected healthcare infectious/hazardous waste also includes wastes generated during management of COVID-19 patients. In addition, medical wastes can include chemicals and other hazardous materials used in diagnosis and treatment of COVID-19. If the contamination is due to highly infectious agents, it may cause severe human disease, present a serious hazard to workers, and may present a risk of spreading COVID-19 to the community.
This section provides measures and background information for reference in the development of sub-project specific ICWMP. The ESMF provides general mitigation measures for similar risks and impacts as the ICWMP and both measures apply under this project.
WHO guidelines should be adopted in the acquisition of the medical supplies and equipment (reagents and pharmaceuticals), sample collection, packaging, transportation and laboratory practices, as well as blood collection, storage and transmission; to limit potential exposure of communities to COVID-19 infection.
IPC strategies to prevent or limit transmission in health care settings as per the WHO Infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected, include the following:

a) ensuring triage, early recognition, and source control (isolating patients with suspected COVID-19);
b) applying standard precautions for all patients;
c) implementing empiric additional precautions (droplet and contact and, whenever applicable, airborne precautions) for suspected cases of COVID-19;
d) implementing administrative controls;
e) using environmental and engineering controls.

Healthcare facilities should adopt IPC measures as stipulated in the Interim Infection Prevention and Control Recommendations for Coronavirus Disease 2019 (COVID-19) in HealthCare Settings and COVID-19 Quarantine Protocols to limit the COVID-19 infection to the healthcare workers and community members in general; including the acquisition of specialized medical equipment and supplies.

3.1.1 Management of the Healthcare Personnel

• Healthcare personnel should not report to work if they have a febrile respiratory illness.
• In communities where transmission is occurring, healthcare personnel who develop a febrile respiratory illness should be excluded from work and should be tested for COVID-19. If negative, then they should stay away from work until symptoms resolve. If positive, then they should proceed to isolation for 14 days; and
• Healthcare personnel, who develop a febrile respiratory illness and have been working in areas of the hospital where COVID-19 patients are present, should be excluded from work for 7 days or until symptoms have resolved, whichever is longer.

Stewardship of personal protective equipment, medical equipment and supplies:
Health Facilities should implement plans to ensure appropriate allocation of personal protective equipment, including gloves, masks and N95 respirators. Referral isolation centers should be adequately staffed, equipped with functional mechanical ventilators, oxygen, patient monitors and consumables.

Environmental and engineering infection control:
Routine cleaning and disinfection strategies should be applied to the environmental management of COVID-19. Management of laundry, utensils and medical waste should be performed in accordance with procedures for infectious waste management.

Implementation of Respiratory Hygiene/Cough Etiquette:
To prevent the transmission of all respiratory infections in healthcare settings, including COVID-19, respiratory hygiene/cough etiquette measures should be implemented.

Elements of Respiratory Hygiene/Cough Etiquette include:
i. Education of healthcare facility staff, patients, and visitors;
ii. Posted signs in language appropriate to the population served with instructions to patients and accompanying family members or friends;
iii. Source control measures (e.g., covering the mouth/nose with a tissue when coughing and disposing of used tissues, using surgical masks on the coughing person when tolerated and appropriate); and
iv. Hand hygiene after contact with respiratory secretions; and
v. Spatial separation, ideally > 1 meter (>3 feet), of persons with respiratory infections in common waiting areas when possible.

N.B. For detailed infection control measures refer to MoHLSP Guideline on prevention of nosocomial diseases.

3.1.2 Infection Control and Hand hygiene

WHO notes that management of healthcare waste as an integral part of health facility or hospital hygiene and infection control. Healthcare waste can be considered as a reservoir of pathogenic micro-organisms, which if someone is exposed could give rise to an avoidable infection. If waste is inadequately managed,

these micro-organisms can be transmitted by direct contact, by inhalation or by a variety of animal vectors (e.g. flies, rodents, roaches), which could come into contact with waste.
Standard precautions are the basic level of infection control precautions which are to be used, as a minimum, in the care of all patients. See **Annex 1** for a summary on infection prevention and control by use of standard precautions including hand hygiene.
Hand hygiene in both healthcare and non−healthcare settings is one of the most important measures that can be used to prevent transmission of COVID-19 infection. In healthcare settings, healthcare workers (HCWs) should apply the WHO's 5 Moments for Hand Hygiene approach before touching a patient, before any clean or aseptic procedure is performed, after exposure to body fluid, after touching a patient, and after touching a patient's surroundings. In homes, schools and crowded public spaces − such as markets, places of worship, truck stopovers, departures or destination points and train or bus stations, the WHO's 5 Moments for Hand Hygiene hand washing should apply as follows; before preparing food, before and after eating, after using the toilet or changing a child's diaper and after touching animals. Functioning hand washing facilities with water and soap should be available within 5 meters of toilets.
Treatment and handling requirements for excreta by implementing WASH practices, particularly hand washing with soap and clean running water, should be strictly applied and maintained because these provides an important additional barrier to COVID-19 virus transmission and other infections.
Consideration should be given to safe management of human excreta throughout the entire sanitation chain, starting with ensuring access to regularly cleaned, accessible and functioning toilets or latrines and to the safe containment, conveyance, treatment and eventual disposal of sewage.
When there are suspected or confirmed cases of COVID-19 in the home setting, immediate action must be taken to protect caregivers and other family members from the risk of contact with respiratory secretions that may contain the COVID-19 virus.
• Provision of PPE (boots, apron, long-sleeved gown, gloves, mask, and goggles or a face shield),
• Perform hand hygiene after removing PPE.

3.1.3 Medical supplies and Equipment

The project shall procure medical supplies (reagents, pharmaceuticals and equipment). The materials to be procured include:
• procurement of specialized equipment (i.e. PCR machines, sequencer etc.) to allow screening of multiple pathogens,
• procurement of personal protective equipment (PPE), pharmaceuticals and non-pharmaceutical commodities and supplies required for infection prevention control
All the procurements should be carried out according to the WB requirements.

3.1.3.1 Delivery of supplies and equipment

Each container should be carefully inspected for possible contamination, tampering and damage and any suspected containers or the entire delivery quarantines for further investigation,
• Each equipment should be having the service manual with specifications, schematics, operating instructions, troubleshooting, repair and maintenance procedures, cleaning and/or sterilization recommendations, and replacement parts list.
Sustainability of the equipment's (medical equipment/waste treatment facilities), should be taken into consideration, this will include technology transfer to the local technicians at the selected laboratories and the healthcare facilities used as isolation and quarantine areas. Clinical or Biomedical engineers shall be trained to undertake equipment calibration, maintenance, repair, user training, and decommissioning activities, and

• Environmental issues (e.g. types of material, special disposal requirements of hazardous consumables) shall be taken into account, because they will affect the longevity and acceptability of benefits delivered from the use of equipment.
Further information for servicing and maintenance of health care equipment should be accessed on: WHO Guidelines for Health Care Equipment Donations.

3.1.3.2 Delivery of Pharmaceuticals

• Pharmaceutical products should be handled and distributed according to Good management practices;
• 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; and
• Storage areas precautions must be taken to prevent unauthorized persons from entering storage areas, among other issues.
Detailed guidance for delivery of supplies, equipment and pharmaceuticals can be referred in the WHO Safe management of wastes from health-care activities.

3.1.3.3 Collecting and Handling Laboratory Specimens for COVID-19

All suspected COVID-19 specimens collected for laboratory investigations should be regarded as potentially infectious. Health Care Workers (HCWs) who collect, handle or transport any clinical specimens should adhere rigorously to the following standard precaution measures and biosafety practices to minimize the possibility of exposure to pathogens.
• Ensure that HCWs who collect COVID-19 specimens use appropriate PPE (i.e., eye protection, an N95 mask, a long-sleeved gown, gloves). If the specimen is collected with an aerosol-generating procedure, personnel should wear a particulate respirator at least as protective as a certified N95, an EU standard FFP2, or the equivalent;
• Ensure that all personnel who transport COVID-19 specimens are trained in safe handling practices and spill decontamination procedures in line with the International Best Practices for WHO Guidance on regulations for the transport of infectious substances 2019–2020.
• Place COVID-19 specimens for transport in leak-proof specimen bags (i.e., secondary containers) that have a separate sealable pocket for the specimen (i.e., a plastic bio-hazard specimen bag), with the patient's label on the specimen container (i.e., the primary container), and a clearly written laboratory request form;
• Ensure that COVID-19 laboratories in health care facilities adhere to appropriate biosafety practices and transport requirements, according to the type of organism being handled;
• Carry out risk assessment for the beneficiary laboratories using Risk Assessment Template for Laboratories handling COVID-19 Samples (refer to Annex 2),
• Deliver all COVID-19 specimens by hand whenever possible; and
• Document clearly each patient's full name, date of birth and suspected COVID-19 of potential concern on the laboratory request form. Notify the laboratory as soon as possible that the specimen is being transported.
Upon arrival at facility receiving, these COVID-19 sample containers should be examined for damage, logged in, and taken to the laboratory for removal of the external packaging material. Damaged packages should be handled in accordance with procedures for laboratories. The removed packaging should then be autoclaved and disposed as solid waste. The interior packing with the intact sample should be placed safely and securely in the respective laboratory under chain-of-custody procedure until the authorized personnel is ready to process the samples. The samples could also be immediately processed, in which case the materials should be placed directly into culture media (such as a liquid or semi-solid nutrient material or media).

3.1.3.4 Blood Collection, Storage and Transmission

The purpose of this section is to describe the simple procedures for the safe storage and transportation of blood and blood components that should be followed in every blood bank or transfusion service, whatever its size and the equipment and materials available. It focuses on the storage and transportation of blood and blood components that have been collected or prepared in plastic blood collection bags containing an anti-coagulant– preservative solution to ensure safe blood in line with the national legislation on blood transfusion and WHO Guidelines on safe blood transfusion.

The essential parts of the blood cold chain are:

• trained staff
• standard operating procedures
• suitable equipment for the safe storage and transportation of blood and blood products
• controlled environment, and
• monitoring of processes, equipment and the quality of the products.

Whole blood and red cells should be stored in a blood bank refrigerator: that is, one that is specifically designed for the storage of blood. Blood bank refrigerators have inbuilt temperature monitoring and alarm devices and a cooling fan to ensure the even distribution of cold air throughout the equipment.

NB: the whole blood and red cells must be stored at a temperature of +2°C to +6°C and must never be allowed to freeze.

An efficient system should be adopted to ensure that all blood and blood components are maintained in the correct storage conditions whenever they are moved from one location to another, including: from mobile collection sites to the processing laboratory, from the blood bank to a different facility (to a hospital, blood bank or clinic), from the hospital blood bank to wards and operating rooms. The maximum transit time for blood and blood components is 24 hours.

Blood Time Temperature Indicator (BTTI) should be adopted to monitor the temperature of whole blood and red cells in the following situations:

• storage in cold boxes in the case of a power failure;
• transportation in blood transport boxes from one blood bank to another;
• movement of blood from the blood bank to the patient's bed side; and
• return of unused blood from the point of potential use to the hospital blood bank;

Further information on the Safe Blood and blood Product and management, maintenance and use of blood cold chain equipment is available in WHO Guidelines and Principles for Safe Blood Transfusion Practice and WHO Manual on the management, maintenance and use of blood cold chain equipment respectively.

3.1.3.5 Bio -Safety Guidelines-Blood

The following bio-safety guidelines should be followed by all Blood Transfusion Centers with regard to safe handling of blood:

• Wash hands thoroughly with soap/ detergent and/or antiseptic solutions and water before and after every procedure or any contamination.
• Use protective barriers such as gloves, gowns or aprons, goggles and masks for direct contact with blood.
• Waste handlers should use pierce-proof gloves, aprons and protective shoes or boots.
• All BTC staff should be vaccinated against Hepatitis B.
• Disinfect work surfaces after the procedure and also at the end of each working day with 0.1% sodium hypochlorite solution.
• Place needles and other sharp materials into a puncture-resistant container containing 0.5% sodium hypochlorite solution.

• Safe collection and disposal of needles and sharps in puncture-and leakage-proof containers.
• Do not recap needles, but if unavoidable, use a one-handed technique.
• Cover all cuts and abrasions promptly with a waterproof dressing.
In case of any spillage, cover the area with 0.5% sodium hypochlorite solution and leave for 15-30 minutes and then wipe dry with disposable paper toweling. Discard soiled paper appropriately. Wipe the surface again with disinfectant.

3.2 Overview of Waste Management in the HCFs

Healthcare/Medical waste is defined as "all waste generated by healthcare establishments (human or veterinary), including research facilities and laboratories". It can include waste generated in the course of healthcare in homes. Hazardous healthcare waste is of primary concern, due to its potential to cause infections, disease or injury. Precise definitions of types of healthcare waste (HCW) must consider the associated hazards and should be incorporated into Moldova Infection Control and Healthcare Waste Management (HCWM) legal, regulatory, technical, and information documents. On the other hand, Infection prevention and control (IPC) is defined as the discipline concerned with preventing of the spread of infections within the healthcare setting and at community level.
IPC are evidence-based practices and procedures that are applied consistently in healthcare settings to prevent or reduce the risk of transmission of micro-organisms to healthcare providers, clients, residents and visitors. Therefore, either at healthcare or community setting, IPC is concerned with interventions relating to health and environment, which can be divided into 4 parts; Personal (staff) protection; Patient protection; Population (Community) Protection and Environment protection.
According to the WHO, about 15-25% of total healthcare waste could be infectious waste, and improper handling of health care waste can cause serious health problems for workers, community and environment. WHO reports showed that worldwide, about 5.2 million people (including 4 million children) die each year from waste related diseases. The hazards of exposure to healthcare waste can range from gastro-enteric, respiratory, and skin infections to more deadly diseases such as HIV/AIDS, and Hepatitis (Babanyara et. al 2013). WHO reported that globally, injections with contaminated syringes caused 21 million hepatitis B infections (32% of all new infections), 2 million hepatitis C infections (40% of all new infections) and 260,000 HIV infections (5% of all new infections). More specifically, medical waste has a high potential of carrying micro-organisms that can infect people who are exposed to it, as well as the community at large if it is not properly disposed of. Many of these infections were avoidable if the wastes had been disposed of safely (WHO 2004)[1].
Although treatment and proper disposal of healthcare waste reduces risks, indirect health risks may occur through the release of toxic pollutants into the environment through treatment or disposal. For instance, landfills can contaminate drinking water if they are not properly constructed. Occupational risks exist at disposal facilities that are not well designed, run, or maintained. Furthermore, incineration of waste has been widely practiced but inadequate incineration or the incineration of unsuitable materials results in the release of pollutants into the air and generate ash residue. Incinerated materials containing chlorine can generate dioxins and furans, which are human carcinogens and have been associated with a range of adverse health effects. Incineration of heavy metals or materials with high metal content (in particular lead, mercury and cadmium) can lead to the spread of toxic metals in the environment.
Dioxins, furans and metals are persistent and bio accumulate in the environment. Materials containing chlorine or metal should therefore not be incinerated.
The beneficiary healthcare activities in the laboratory, quarantine, isolation and treatment centers will protect and restore health and save lives however, the amount of infectious waste and by-products being

[1] https://www.who.int/water_sanitation_health/medicalwaste/en/hcwmpolicye.pdf

generated may cause adverse potential health and environmental impacts. The average distribution on types of medical waste for purposes of waste management planning is approximately 80% non-infectious and 20% infectious such as biological/pathological waste, chemical/pharmaceutical waste and sharp materials. The quantity of infectious wastes generated will increase due to infectious nature of COVID-19. **According to WHO guidelines, all the waste generated in and around the care of COVID-19 patients is treated as infectious waste.**

3.3 Liquid Waste Generated Treatment and Disposal

Liquid contaminated waste (e.g. pathological sample, blood, faeces, urine, other body fluids and contaminated fluid).

Healthcare facilities requires special handling, as it may pose risk to healthcare workers with contact or handle the waste. Typically, a system of sewer pipes linked to form a sewerage system should collect waste water from around a facility and carry it below ground to a central location for treatment at selected HCFs (quarantine/isolation/treatment/Blood centers) and Laboratories. The treatment plant should be located at a facility, and waste water collected from laboratory by pipe system and passed into different units of liquid waste treatment units in line with WHO Water, sanitation, hygiene and waste management for COVID-19 technical guidance. All infectious waste generated from healthcare facilities (including sample packaging materials, culture materials, petri dishes, PPE and associated process wastes) would leave the facility only after decontamination using the autoclave or after being chemically sterilized.

Chemical Treatment Methods: use disinfectants such as dissolved chlorine dioxide, bleach (sodium hypochlorite), peracetic acid, lime solution, ozone gas or dry inorganic chemicals (e.g. calcium oxide powder). Chemical processes often involve shredding, grinding or mixing to increase exposure of the waste to the chemical agent. In liquid systems, the waste may go through a de-watering section to remove and recycle the disinfectant.

The COVID-19 virus is an enveloped virus with a fragile outer membrane that can be destroyed by applying the following method of disinfection using 0.5% or 0.05% chlorine solution in accordance with the materials to be treated.

3.4 Classification of Health care Waste

The WHO guidelines on Safe management of wastes from Healthcare activities (2014) categorizes healthcare waste into two groups as hazardous and non-hazardous wastes, and the hazardous waste is also classified into 6 classes of solid waste and 1 liquid waste (effluent):

i. Infectious waste (clinical waste)

Infectious waste is material suspected to contain pathogens (bacteria, viruses, parasites or fungi) in sufficient concentration or quantity to cause disease in susceptible hosts. This category includes:

• Waste contaminated with blood or other body fluids;
• Cultures and stocks of infectious agents from laboratory work;
• Waste from infected patients in isolation wards, surgery and autopsies (e.g. excreta, tissue, and dressing from infected or surgical wounds, clothes soiled with human blood or other body fluid).

According to Moldovan classification of medical waste, this is also called hazardous medical waste.

ii. Sharps

Sharps are all objects and materials that pose a potential risk of injury and infection due to their puncture or cutting properties (e.g., syringes with needles, blades, broken glass). For this reason, sharps are considered one of the most hazardous categories of waste generated during medical activities.

iii. Pathological and anatomical wastes

• Pathological waste could be considered a sub-category of infectious waste, but is often classified separately – especially when special methods of handling, treatment and disposal are used.

• Pathological waste consists of tissues, organs, body parts, blood, body fluids and other waste from surgery and autopsies on patients with infectious diseases.

iv. Pharmaceutical and cytotoxic waste

Pharmaceutical waste includes: expired, unused, spilt and contaminated pharmaceutical products, such drugs, vaccines and sera (serum) that are no longer required. The category also includes discarded items used in the handling of pharmaceuticals, such as bottles or boxes with residues and drug vials. Cytotoxic waste is considered a sub-group of hazardous pharmaceutical waste, due to its high degree of toxicity.

v. Highly infectious waste

Highly infectious waste includes: all viable biological and pathological agents artificially cultivated in significant elevated numbers. Cultures and stocks, dishes and devices used to transfer, inoculate and mix cultures of infectious agents belong to this category of waste.

vi. Radioactive Waste

Radioactive waste includes liquids, gas and solids contaminated with radio nuclides whose ionizing radiations have genotoxic effects. These are found in the waste products from patients who are undergoing radiation treatment.

vii. Special hazardous waste (waste with high contents of heavy metals)

Special hazardous waste refers to chemical wastes that can pose health problems when they come in contact with people by accidental inhalation, skin contact and/or ingestion. This includes gaseous, liquid and solid chemicals, waste with a high content of heavy metals such as batteries, pressurized containers, broken thermometers, blood pressure gauges, photographic fixing and developing solutions in X-ray departments, and halogenated or non-halogenated solvents.

viii. Liquid Waste

Effluents are a non-chemical liquid wastes that comes out of laundry, kitchen, toilet, shower and laboratory rooms which may be contaminated by pathogenic micro-organisms. Effluents from isolation wards, treatment centers and medical diagnostic laboratories should be considered as hazardous liquid waste that should receive specific treatment (thermal, chemical and irradiation) before being discharged into the sewer/drainage system, if such a system exists.

3.5 Healthcare Waste Management System in the HCF

For Healthcare Waste Management System in the HCFs the following normative acts are used (refer to Annex 6) for establish the legal framework, government policies and measures necessary to protect the environment and public health by preventing or reducing the adverse effects of waste generation and management.

According to the Law on Waste no. 209/2016 (Art. 55), medical waste is classified as hazardous and non-hazardous for the environment and public health and handling, taking into account national regulations and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes.

The necessity to development of the infrastructure and services to adequately protect the global, national and local environment from the effects associated with waste generated by citizens, businesses and institutions, including HCFs, and to the alignment of European Union practices, are provided in the Waste Management Strategy for the years 2013-2027, approved by GD no. 248/2013. All HCFs reports to National Agency for Public Health and MoH respectively about the actions for implementation of the Strategy according to the terms of MoH order no. 652/2013.

Separate collection by type, packaging, labeling, temporary storage, transportation to production facilities, processing, delivery, disposal and disposal of medical waste is carried out in accordance with the Sanitary regulations for the management of medical waste, approved by GD no. 696/2018. The provisions of the Sanitary Regulations apply to the activities of all individuals / legal entities (medical institutions and related activities / research activities), regardless of the type of property and legal form, that generate waste as a result of medical activities. All waste result of medical activities, are classified into types by subcategory in accordance with the List of Wastes approved by GD no.99/2018.

At the same time, according to the GD no. 501/2018 for approval of the Instruction on keeping records and transmitting data and information on waste and their management, medical institutions monthly keep records of the amount, nature and origin of generated / received waste, completing a separate file for each waste category it generates/receives. To know the quantities of waste resulting from medical activity produced in a medical institution, the methodology developed and approved by the Ministry of Health in accordance with the Automated Information System "Waste Management" (SIAMD) (https://siamd.gov.md/portal/index.html) is applied. The information on waste resulting from medical activity and waste management is transmitted annually to the Environmental Agency, through the Automated Information System "Waste Management" (SIAMD), in accordance with art. 33 of Law no. 209/2016 on Waste. The Ministry of Health, through the National Agency for Public Health, shall carry out the departmental monitoring of waste management system resulting from medical activity in accordance with art. 31 para. (2) of Law no. 209/2016 on Waste.

The Ministry of Health and the Ministry of Environment shall be responsible for monitoring the implementation of the Regulation implementation.

According to the legislation in force, HCFs have institutional plans, which foresee the endowment measures with equipment and machinery necessary for the management of waste resulting from medical activity, with the designation of the responsible persons.

Awareness-raising activities were organized by National Agency for Public Health and carried out in 18 rayons regarding the consequences of unsafe waste management practices on public health, especially hazardous waste (districts: Anenii - Noi, Cahul, Cantemir, Causeni, Cimislia, Donduşeni, Drochia, Edineț, Floresti, Hincesti, Leova, Nisporeni, Orhei, Rezina, Soroca, Soldanesti, Stefan-Voda, Ungheni).

The issue of waste management resulting from medical activity was addressed during the meetings of the Rayon Councils of Public Health in 28 rayons (Chisinau and Balti municipalities, districts of Anenii Noi, Basarabeasca, Briceni, Cahul, Cantemir, Călăraşi, Căuşeni, Ceadâr - Lunga, Cimişlia, Comrat, Criuleni, Drochia, Dubăsari, Edineţ, Făleşti, Glodeni, Hînceşti, Leova, Nisporeni, Ocnita, Rascani, Soroca, Straşeni, Stefan-Voda, Telenesti, Ungheni).

In most of the rayons the creation of conditions and compliance with the separate collection of waste resulting from medical activity was reported as well as temporary storage in specially designated areas.

HCFs also reported the provision of consumables for the separate collection of waste by category (yellow high-density bags, ecoboxes; but also, the use of polyethylene bags for non-hazardous waste, etc.).

At the same time, there are reserves for transporting waste inside HCFs, most institutions transport waste manually, except for some hospitals in Chisinau, Balti municipalities and districts of Anenii Noi, Basarabeasca, Cahul, Cantemir, Ceadar-Lunga, Criuleni, Donduseni, Drochia, Dubasari, Edinet, Floresti, Hincesti, Leova, Rascani, Soroca and Ungheni, where the waste is transported by cart or mobile containers / Eurotombones (inside the medical institutions to the storage spaces). Insufficient resources for the implementation of waste management plans resulting from medical activity reported 15 rayons (Chisinau and Balti municipalities, districts of Cahul, Calarasi, Ceadar-Lunga, Comrat, Drochia, Nisporeni, Ocnita, Rezina, Straseni, Sangerei, Soldanesti, Vulcanesti, Ungheni).

The treatment of infectious waste in their own facilities was reported by: Călăraşi, Ceadâr - Lunga, Glodeni and Orhei rayons. Thus, in 33 rayons (91.6%) waste treatment services, including for infectious and stinging-cutting, are outsourced through licensed economic operators: SRL ECOSTAT, SRL UISPAC and SRL ENTUZIAST. The remaining 8.4% of the territory is mainly rural area that has no coverage of any private or public entity for waste treatment.

Currently, Uispac SRL has concluded over 400 contracts with budgetary medical institutions and private clinics regarding the services of transportation and neutralization by autoclaving and thermal sterilization of waste resulting from medical activity. 85% of these contracts are clients from Chisinau (Oncology Hospital, Republican Children's Hospital, Holy Trinity Hospital, 2 Covid-19 centers, etc.) and the suburbs of Chisinau municipality (Budesti, Ialoveni, Colonița, Vadul lui Voda, Straseni, etc.). Likewise, contracts are concluded regarding the transportation and neutralization of waste from medical activity with budgetary institutions and private clinics in the republic (Bălți municipality, Orhei, Hîncești, Comrat, Dubăsari, Cimișlia towns, etc.). The amount of neutralized waste at SRL Uispac varies on average from 24 to 25 tons per month.

At the same time, the method of treating infectious waste by burning it in the open air or improvised installations, persists in HCU in rural areas (Chisinau municipality, rayons of Basarabeasca, Calarasi, Causeni, Ceadar-Lunga, Comrat, Edinet, Falesti, Glodeni, Nisporeni, Ocniţa, Orhei, Soroca, Ştefan-Vodă, Soldanesti, Taraclia, Ungheni).

In this regard, a policy is currently being developed, and it is planned to create regional centers for the safe handling and neutralization of waste. At the same time, these components are included in the core components of infection prevention and control at the national and institutional level, which are in the process of being implemented to strengthen national and institutional capacity of IPC, including waste management. Centers are now encouraged to subcontract to larger health centers to ensure the safe collection, storage, transport and disposal of medical waste in accordance with legal provisions.

The anatomo-pathomorphological waste is eliminated by economic operators at some HCU in Chisinau municipality, Edinet, Hincesti, Orhei and Nisporeni rayons. Other HCU from 7 rayons eliminate anatomo-pathomorphological waste by burial in specially arranged places in cemeteries (districts of Criuleni, Falesti, Glodeni, Ocnita, Rezina, Telenesti, Soldanesti), and in HCU from 20 rayons compost waste in Bekkari pits (rayons of Anenii Noi, Basarabeasca, Briceni, Cahul, Cantemir, Călăraşi, Căuşeni, Ceadâr-Lunga, Cimişlia, Comrat, Donduşeni, Drochia, Floresti, Nisporeri, Rascani, Soroca, Stefan-Voda, Taraclia, Vulcanesti and Ungheni).

Chemical waste recycling was reported by 19 rayons (51.3%) which indicated contracting services with the economic operator SRL ENTUZIAST (Chisinau and Balti municipalities, rayons of Basarabeasca, Cahul, Cantemir, Calarasi, Causeni, Drochia, Edinet, Falesti, Nisporeni, Orhei, Soroca, Straseni, Taraclia,

Telenesti, Stefan-Voda, Soldanesti and Ungheni). Some categories of chemical waste remain deposited due to lack of authorized economic operators in this regard.

Municipal waste is transported by outsourcing services based on contracts concluded with Municipal Enterprise "AUTOSALUBRITATE" in Chisinau municipality and by specialized municipal services in other rayon centers, except for rural areas, where these enterprises are missing, and HCU transports waste on its own to the waste site.

For improper management of waste resulting from medical activity, territorial Centers of Public Heath issued 11 sanitary prescriptions (Drochia-4, Edinet-2, Hincesti-5).

It is important to mention, that the project needs to monitor the situation in all the HCFs included in the project, but also monitor the management of health care waste in the rural public health centers, which also generate COVID-19 health care waste. This needs to be reflected in the reports which will be issued by PIU and sent to the competent authorities such as National Center of Public Health, responsible to gather data on the implementation of the Sanitary Regulation nr.696/2018 and to the Environmental Agency, which gathers data on the management of medical waste in the country. The project will help to find gaps in managing health care waste and propose solutions to MoH to improve the capacity to manage health care waste according to the legislation in force. At the moment, HCFs request proper installations to eliminate infectious health care waste, because the service of health care elimination is a costly procedure for them, and the installment of proper equipment to eliminate infectious health care waste would optimize allocation of financial resources by the MoH into this activity and release financial resources for other important activities of managing COVID-19 pandemics and improving the medical system in country overall.

3.6 Health Care Waste Generation and Handling

3.6.1 Waste Management Guiding Principles

Improper management of health care waste can cause serious health problem for health workers andother workers along the waste management chain, community and the environment. Medical wastes have a high potential of carrying micro-organisms that can infect people who are exposed to it, as well as the community at large if it is not properly disposed of. Wastes that may be generated from labs, bloods services, quarantine, isolation and treatment facilities and screening posts to be supported by the COVID-19 readiness and response could include solid and liquid contaminated waste (e.g. blood, other body fluids and contaminated fluid) and infected materials (used water, lab solutions and reagents, syringes, bed sheets, majority of waste from labs and quarantine and isolation centres, etc.), which requires special handling and awareness, as it may pose an infectious risk to healthcare workers in contact or handle the waste. It is also important to ensure that sharps are properly disposed of.

During operation of the laboratory activities, all wastes generated in the laboratories of the facility (including sample packaging materials, culture materials, petri dishes, PPE, and associated process wastes) would leave the laboratories only after decontamination using the facility's autoclave, after being chemically sterilized or released effluent from the labs and isolation area directed to a pretreatment chamber before release to public sewers.
This sub-section provides background information for reference and basis for development of subproject specific ICWMP. This plan has taken into account the four internationally accepted principles that guide systems development and maintenance to safeguard public health and protect environment.

Precautionary Principle: Health facilities (blood service centres, laboratories, isolation, quarantine, treatment centers) administrators or managers are required to prepare and be responsible for the protection,

preservation and restoration of the environment. Medical practitioners should be cautious when handling medical waste to ensure that they protect themselves, those around them and the environment;
Polluter Pays Principle: Health facilities (blood service centers, laboratories, isolation, quarantine, treatment centers) administrators or managers shall be legally and financially responsible for safe handling of waste, environmentally sound disposal of waste and creating an incentive to produce less waste.
Duty of Care Principles: Health facilities (blood service centers, laboratories, isolation, quarantine, treatment centers) administrators or managers handling or managing substances or related equipment are ethically responsible for applying the utmost care, and
Proximity Principle: the treatment and disposal healthcare waste from the health facilities (blood service centers, laboratories, isolation, quarantine, treatment centers) should take place as near as possible to the point of production as is technically and environmentally possible to minimize risks involved in transportation.
Infectious waste if not managed properly has the potential to endanger the health of patients, healthcare workers, waste-handlers, waste-pickers and the general population.
In achieving sound management of waste, a hierarchy of waste management should always be applied. This is a ranking of waste management methods in terms of their "desirability". The hierarchy is based largely on the concept of the 3R's – reduce, reuse, recycle. The most preferable approach is that which produces as little waste as possible, thus minimizing the amount entering the waste stream, taking cautious and very careful attention the risks involved.
NB: Given the infectious nature of the novel coronavirus, some wastes that are traditionally classified as non-hazardous may be considered hazardous, the volume of waste will increase considerably given the number of admitted patients during COVID-19 outbreak. Special attention should be given to the identification, classification and quantification of the healthcare wastes.

3.6.2 Waste Minimization

The best practice is to ensure that all health facilities (blood service centers, laboratories, isolation, quarantine, treatment centers) should minimize their waste generation to the barest possible minimum amounts. Appropriate plans, strategies and actions should be established to ensure adequate medical waste minimization at source by implementing the following waste minimization strategies:
• Source reduction. Purchasing and supplying materials which are less wasteful and/or generate less medical waste.
• Stock management. Frequent auditing; use of the oldest stock first and checking the expiry date of products during receiving and issuing of commodities.
• Encouraging the use of recyclable products. Using materials that can be reused both off-site and on-site.
• Centralized purchasing, supply of medical goods to ensure the selection of less wasteful materials;
• Source suppliers who may deliver chemicals and pharmaceuticals in small quantities, this will encourage the hospital administration to make purchase in small manageable quantities,
• Ensure good management and control practices especially in the purchase and use of pharmaceuticals; and
• Enforcing a rigorous and careful segregation of the infectious waste at source.
• Segregation of waste at the point of generation. Sorting the waste into different categories helps to minimize the quantities of infectious waste generated.
• Reduction of unnecessary injections to reduce on sharps waste
• Training of relevant staff on waste minimization and benefits especially the medical staff to make changes towards less wasteful clinical practices.

3.6.3 Collection of infectious medical waste

Medical waste and household waste, generated by medical institutions in the process of diagnosis and treatment of patients with pneumonia and patients suspected of Covid-19, should be collected according to the classification of medical waste. In the Republic of Moldova, the classification of medical waste can be found in the annex to the Sanitary Regulation on the management of the resulting waste from medical activity. The collection of medical waste by categories minimizes the risk of infection and guarantees the safety of human health.

3.6.4 Packaging of infectious medical waste

3.6.4.1 Specifics of packaging for infectious medical waste

It is recommended that infectious medical waste be packaged in strict accordance with legal standards and provisions, using packaging bags, containers and warning symbols specific to medical waste and then placed in special packaging boxes or containers of single use. Infectious waste resulting from medical activity is packaged and labeled in compliance with the conditions of the Sanitary Regulation nr. 696 from the 11th July 2018 and in accordance with national legislation on classification, labeling and packaging of substances and mixtures and in accordance with international treaties to which the Republic of Moldova is a party. It should contain the following:

- degree of toxicity;
- full name of the waste;
- their state of aggregation;
- color, smell, flammable and explosive properties;
- type of packaging;
- the name of the technological process from which they resulted;
- special behavioral requirements in normal conditions and in exceptional situations;
- the address of the enterprise or organization where they were produced.

According to the Sanitary Regulation on the management of medical waste, the packaging in which the separate collection is made and which comes in direct contact with the infectious waste resulting from the medical activity is for single use and is disposed of with the contents. Cutting-edge, anatomopathological and infectious waste, identified respectively by codes 18 01 01, 18 01 02 and 18 01 03*[2] in the List of wastes and the Annex to this Sanitary Regulation shall be packed in yellow bags (see provisions of the Sanitary Regulations and waste codes in Annex 5). For separate collection of non-sharp infectious waste, cardboard boxes provided with yellow polyethylene bags or yellow-marked polyethylene bags shall be used. Bags for the storage of infectious medical waste must meet the following conditions:

a) be made of high-density plastic with high mechanical strength;
b) close easily and securely;
c) the thickness of plastic from which the bag is made should be between 50-70μm,
d) the heat seals should be continuous, resistant and not allow liquid to leak.

[2] *18 01 01-sharp objects and sharp cutting waste*
18 01 02 - human fragments and organs, including blood vessels and preserved blood;
18 01 03- waste, the collection and disposal of which are subject to special infection prevention measures;*

Pictures 1-2. Storage of COVID-19 health care waste in rayon hospitals.

When choosing the size of the bag, the amount of waste produced is taken into account in the interval between two successive waste disposals. The height of the bag for the storage of hazardous / infectious waste identified by code 18 01 03* in the List of wastes and the Annex to the Sanitary Regulation in question must exceed the height of the bin, so that the part of the bag passing over its upper edge can allow the bag to be closed and transported safely. The degree of filling of the bag for the storage of hazardous / infectious waste must not exceed three quarters of its volume. For the packaging of waste resulting from medical activity is prohibited the use of other categories of packaging that do not present documents confirming the suitability of the product for use (certificates, reports), including the chemical composition of the material from which the packaging is made in accordance with Law no. 209 of July 29, 2016 and the Sanitary Regulations. Therefore, it is allowed only the use of packaging that meets the requirements of art. 55 para. (3) of Law no.09 of July 29, 2016 on waste and the sanitary regulation.

3.6.4.2 Labelling of packaging for infectious medical waste

Both the boxes provided inside with polyethylene bags and the bags in question are to be marked and labeled in Romanian with the following information:

- the category of waste collected;
- the “Biological hazard” icon;

- capacity of the container (l or kg);
- how to use it;
- the marking line of the maximum filling level;
- the date of starting the use of the container in the section / subdivision;
- the name of the institution and the section / subdivision that used the container;
- the person responsible for their management / use;
- date of final filling.

When the bag is not placed in a cardboard box to ensure mechanical strength, for the storage of hazardous / infectious waste identified by code 18 01 03* in the List of wastes and the annex to the Sanitary Regulation, the bag must be placed in the bin with lid and pedal or in bag holder, equipped with lid. The bins, also fitted with a pedal and lid, must be marked with the "Biological hazard" icon.

3.6.5 Temporary storage of infectious medical waste

In each medical institution is organized a central space for temporary storage of waste resulting from medical activity. Hazardous/infectious waste produced in the subdivisions of medical institutions, prior to transportation to the central temporary storage space, may be placed in a space intended for storing cleaning equipment / dirty linen.

3.6.5.1 Properties of containers for storage of dangerous medical waste

Temporary storage of infectious, stinging and pathological waste identified by code 18 01 01, 18 01 02, 10 01 03 * in the list of wastes and in the Annex to the Sanitary Regulation takes place in mobile containers with rigid walls. According to the law of the Republic of Moldova, mobile containers intended for the temporary storage of hazardous medical waste must be:

a) marked with yellow, on which the icon "Biological hazard" is fixed and inscribed with the specification "Pathological waste" (where relevant);
b) made of materials resistant to mechanical actions, easily washable and resistant to the action of disinfectant solutions;
c) secured, with the possibility of being sealed, provided with a fastening system adapted to the automatic collection system by the transport vehicle or adapted to the emptying system in the waste treatment installation;
d) the size of the containers ensures the taking over of the entire quantity of waste produced in the interval between two successive disposals. These containers do not contain unpackaged hazardous waste (bulk) or waste assimilated to municipal waste.

3.6.5.2 Timeline of temporary storage of infectious medical waste

The duration of temporary storage of hazardous waste resulting from medical activity must be as short as possible, and during the temporary storage the hygiene rules in force must be observed. For sharp, anatomopathological and infectious waste identified by codes 18 01 01, 18 01 02 and 18 01 03 * in the list of wastes and in the Annex to the Sanitary Regulation, the duration of temporary storage in the medical institution shall not exceed 48 hours, except the situation in which the waste is stored in a location provided with a cooling system that constantly ensures a temperature of + 4ºC - + 8ºC, in which case the storage duration is a maximum of 7 days. Unlike the legal provisions of the Republic of Moldova, Safe management of waste from health care activities of WHO stipulates that medical and health institutions may implement

temporary storage of infectious medical waste for a period not exceeding 24 hours in the warm climate, and no more than 48 hours in the cold climate. At the same time, the Guide stipulates the obligation to disinfect the storage space according to the method and frequency indicated by the competent health service, and the washing liquid from the storage space must be discharged into the medical disinfection and wastewater treatment system of medical and health institutions for treatment.

3.6.5.3 Characteristics of storage placement for infectious medical waste

The temporary storage site must have an automatic temperature monitoring and recording system, which is checked periodically. Cardboard boxes intended for the collection of hazardous medical waste are to be stored temporarily on dry surfaces, protected from rainwater and must be transported without leakage. Requirements for the central storage space for temporary storage of medical waste include:

1. the floor with a surface resistant to mechanical action, waterproof, smooth and intact, easy to sanitize;
2. adequate drainage system / floor drain for the discharge into the sewerage network of wastewater resulting from sanitation. In the absence of the floor siphon, the sanitation is performed with minimal amounts of water, with disposable cleaning utilities, considered, in the end, infectious waste;
3. conditions restricting the access of insects, rodents, animals and birds;
4. screens for protection from the action of the sun's rays;
5. water supply source;
6. appropriate lighting systems and ventilation installations (at least passive ventilation) to ensure optimum temperatures (prevention of decomposition of organic matter, accidents caused by other hazardous waste);
7. controlled access for authorized personnel;
8. access for units / vehicles that ensure the transport / disposal of waste;
9. conditions for hand hygiene and sanitation of containers for transporting waste and surfaces;
10. technological equipment, furniture, personal protective equipment, specific equipment for leak management,
11. quantities and assortment of sanitary and disinfection products required;
12. autonomous signaling and fire-fighting systems.

It is forbidden to operate the central storage facilities for temporary storage of waste resulting from medical activity on sites located outside medical institutions, or which do not belong to economic operators who carry out operations of treatment or disposal of waste resulting from medical activity.

3.6.6 Transportation of infectious medical waste

The transportation of waste resulting from medical activity, including hazardous waste, to the place of treatment or disposal is carried out in compliance with the provisions on environmental protection and public health stipulated in Article 4 of Law no. 209 of July 29, 2016 on waste.

3.6.6.1 Transportation of infectious medical waste inside the sanitary-medical institutions

The transport of infectious waste inside medical institutions is carried out on a separate circuit from that of patients and visitors. Infectious/hazardous and non-infectious waste is transported separately. The waste resulting from the medical activity is transported inside the medical-sanitary institution with the help of special carts and mobile containers. Mobile trolleys and containers used in medical institutions are cleaned and disinfected after each use, in the place where they are unloaded, using biocidal products registered in the Republic of Moldova.

3.6.6.2 Transportation of infectious medical waste outside the sanitary-medical institutions

Infectious and non-infectious waste from medical activity is handed over by the producing institution to the authorized economic operators, in accordance with art. 25 of Law no. 209 of July 29, 2016 On Waste by the authorities empowered by art. 24 of the mentioned law on the basis of a contract. In the situation where a medical institution is located in several buildings situated in different places, the transportation of waste resulting from medical activity is done through economic operators providing services, contracted by the medical institution. The transport of infectious waste, resulting from medical activity, on public roads to the place of treatment or disposal and their transfer for final disposal abroad, is carried out in accordance with the requirements established in art. 44 and 64 of Law no. 209 of July 29, 2016 On Waste, the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), to which the Republic of Moldova acceded by Parliament Decision no. 44-XIV of 4 June 1998, and the Regulation on Road Transport of Dangerous Goods, approved by Government Decision no. 589 of July 24, 2017.
From the above, we can emphasize that the rules for the transport of hazardous / infectious waste are of a general nature. However, given that the situation created by the spread of coronavirus is a specific one, these rules need to be adapted to the new conditions in order to increase their efficiency. When referring to WHO Safe management of wastes from health-care activities., it is seen that transportation rules are much stricter and more complex. Thus, it stipulates that for the transport of infectious medical waste generated in the process of prevention and control of COVID-2019, vehicles specially designed only for the given category of waste will be used. In the process of medical waste transfer, the electronic transfer form should be used depending on the real local situation. Prior to the transfer, the route and requirements for the transfer are established. Transport routes should avoid densely populated areas as much as possible, and rush hours should be avoided for transport. Medical waste must be transferred to disposal facilities within 48 hours. Transport vehicles shall be disinfected in accordance with the method and frequency indicated by the competent health service after each unloading.

3.6.7 Elimination of infectious medical waste

The processes and methods used for the treatment and disposal of waste resulting from medical activity must not endanger public health and the environment and must comply with the following requirements:

a) They must not present a danger to water, air, soil, fauna or vegetation;
b) does not have a negative impact on the health of the population in the neighboring residential areas;
c) does not produce noise pollution and unpleasant odor;
d) does not affect landscapes or protected areas.

When choosing the treatment method, the type of waste, environmental and safety factors, technological capabilities and the provisions of Law no. 209 of July 29, 2016 On Waste and of the present Sanitary Regulation on waste management resulting from medical activity are taken into account.

3.6.7.1 Treatment of infectious medical waste depending on technological capacities of medical institution

The treatment of hazardous/infectious waste depending on the technological capacities of medical institutions can be:

a) outsourced treatment - by handing over, based on the service contract, to authorized economic operators, in accordance with art. 25 of Law no. 209 of July 29, 2016 On Waste, by the authorities empowered by art. 24 of the mentioned law for the treatment of waste resulting from medical activity by types of waste. Exceptions are waste, the collection and disposal of which are subject to special measures for the prevention of infections identified by code 18 01 03 * in the Annex to the Sanitary Regulation, produced in microbiological laboratories and / or from patients with highly contagious communicable diseases, which require treatment at the source of generation.
b) Internal treatment - medical institutions equipped with waste shredding equipment and their own thermal decontamination installations, can treat the cutting-stinging and infectious waste identified with codes 18 01 01 and 18 01 03 * in the List of wastes and in the annexes of the Sanitary Regulations.

3.6.7.2 Specifics and methods of elimination of infectious medical waste

For the treatment of cutting, stinging and infectious waste identified with codes 18 01 01 and 18 01 03 * in the List of wastes and in the annex to the Sanitary Regulation, autoclaves with the following activity principles are used: • Gravitational; • pre-vacuum or autoclave; • other advanced technologies. The validation of the autoclaving process of cutting-stinging and infectious waste is performed each time by applying chemical and periodic indicators (weekly or every 40 hours of use) biologically, but not limited to those listed. At the same time, the treatment of sharp-stinging and infectious waste ensures the reduction of the level of microbial inactivation. Chemical disinfection of infectious waste is allowed only for liquid waste (blood, urine, faeces and vomit, etc.).

3.6.8 Disposal of medical infectious waste

The disposal of hazardous waste resulting from medical activity is carried out in accordance with the regulations specific to each category of waste, in accordance with the disposal operations stipulated in Annex no. 1 to Law no. 209 of July 29, 2016 On Waste. The disposal methods used must ensure the rapid and complete destruction of factors potentially harmful to the environment and the health of the population.

3.6.8.1 Methods of disposal of infectious medical waste

The legislation of the Republic of Moldova provides several ways of final disposal of hazardous / infectious waste, resulting from medical activity, depending on the category of waste:

a. Incineration - anatomopathological waste (fragments and human organs, including blood vessels and preserved blood); chemical wastes consisting of or containing dangerous substances; cytotoxic and cytostatic drugs.
   Emissions to air and water from waste incineration plants resulting from medical activity shall not exceed the emission limit values established by environmental legislation and international treaties to which the Republic of Moldova is a party. Sedimentary residues from the cleaning of boilers, filters, ducts and chimneys of incineration plants, being very dangerous, need to be disposed of in special places intended for the burial of hazardous waste.

b. Storage - waste whose collection and disposal are subject to special measures to prevent infections; cutting waste. They are stored in the authorized hazardous waste landfill after mandatory treatment.

3.7 Occupational Health & Safety

Personal Protective Equipment: Awareness of the danger of disease transmission from infectious waste among health workers in most health facilities raised demand for provision of personal protective equipment (PPEs) to waste handlers. Use of gumboots for protection of waste handlers feet, and possession of heavy-duty gloves for hand protection is common. The provision of respirators or face masks, overalls, helmets, and plastic goggles for eyes protection was not sufficient. The use of the PPEs is what has not been internalized among expected users.

Overall, adherence to occupational health and safety measures, which include occupational health and safety provisions, employer responsibility, use of PPEs and workers protection and coordination of OHS activities in the management of health care waste is still insufficient in Moldova.

3.8 Capacity Building

Training plans on HCWM: Best practices in Health Care Waste Management require that all healthcare staff receive introduction and repeated training on health care waste management. All technical staff had received training on the management of healthcare waste. However, most staff members deployed to handle waste were engaged in doing other chores apart from waste management.

The key training for medical and non-medical professionals are related to: training on infection prevention and control (IPC) practices to mitigate potential shortages of staff who are able to provide care to suspected and confirmed cases. The training will be with a focus on staff providing care to suspected and confirmed cases. The training on IPC will improve the capacity of the system to limit spread in health facilities of the current infection and possible future outbreaks;

- training medical and non-medical workers on relevant protocols, and bolstering routine medical care and emergency treatment capabilities;
- training on COVID-19 treatment and intensive care to respond to the surge in patients requiring admission in ICUs;
- training in critical care to ensure the capacity of staff to use equipment for severe COVID patients and other patients requiring intensive care.

Training topics also include:

- Training as per the WHO Country & Technical Guidance - Coronavirus disease (COVID-19) https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance including but not limited to:
    - COVID-19 Infection Prevention and Control Recommendations
    - Laboratory biosafety guidance related to the COVID-19
    - Specimen collection and shipment
    - Standard precautions for COVID-19 patients
    - Risk communication and community engagement
    - Establishment of quarantine
- Training topics as per the WHO Guidelines on Safe Management of Wastes from Health-Care Activities https://apps.who.int/iris/bitstream/handle/10665/85349/9789241548564_eng.pdf;jsessionid=EE45FF4B510A5297A7DFF6030A3BED25?sequence=1
- Entity Sanitary Regulations and Norms

Additional capacity building activities during the project implementation may include:

- Capacity building for relevant staff in local public administrations: training on how to facilitate community-level outreach to vulnerable groups.
- Capacity building for designated staff in the MoH: training on how to assist the grievance applicant at all stages of his grievance and ensure that his/her grievance is properly handled, as well as training on outreach, non-discriminatory services delivery, etc.
- Capacity building of all relevant staff (including staff of social care centers) involved in GRM: training and provision of relevant information and expertise to provide phone consultations and receive feedback
- Capacity building of social assistants engaged in providing support through the Ajutorul Social Program
- Capacity building of medical waste collection and disposal workers: training on OHS measures, training on health and safety and practical aspects of health care waste management including waste prevention, separate collection, handling and disposal, PPE, waste management plans, safe waste transfer vehicles for rural health facilities;
- Capacity building of traditional media and journalists: training and communication to improve knowledge and techniques to arrange for media coverage of COVID-19 related emergency response procedures.

In screening for E&S risks associated with quarantine and isolation, the following may be considered:

- contextual risks such as conflicts and presence or influx of refugees;
- construction and decommissioning related risks;
- land or asset acquisition;
- use of security personnel or military forces;
- availability of minimum requirements of food, fuel, water, hygiene;
- whether infection prevention and control and monitoring of quarantined persons can be carried out effectively; and whether adequate systems are in place for waste and wastewater management.

Development of Infection Control and Waste Management Plans (ICWMP): From previous assessments, all the HCFs in municipalities and the rayon centers had health care waste management plans. A good waste

management plan is a good basis for implementing waste management plans that has allocation of roles, responsibilities and resources. A well-thought-out plan describes the actions to be implemented by authorities, health-care personnel and waste management workers. At the national level, a plan is critical for government to define its intentions to make improvements, and the resources required across the country for successful implementation of environmental safeguards. The HCF in rural areas do not have waste management plans, these need to be connected to the rayon HCF and cooperate on the development and implementation of the waste management plan.
Site specific ICWMPs which will be developed for each HCF involved in the Project, will be aligned to the WHO regulations on health care waste management including in the context of COVID-19 and will be regularly updated with the Project PIU.
Under the fundamental principle of duty of care that any person or organization generating or handling HCW is morally responsible to take care of the waste while under their responsibility; all persons associated with financing and supporting health-care activities should provide for the costs of managing health-care waste; this is the duty of care. Manufactures also share a responsibility to take waste management into account in the development and sale of their products and services. The Rayon governments and the respective health facilities in rayons are expected to deploy the right personnel to manage health care waste, develop their health care waste management plans and allocate resources for their operationalization in accordance with the relevant strategic objectives.

3.9 Finance and Resources

Most health care facilities do not have the direct vote for the costs involved in managing healthcare waste. In most cases, it is difficult to separate the cost of managing waste; currently the cost is lumped up with other operational costs. Obtaining resources to purchase bins, bin-liners, funds for personnel deployment and maintenance of health care waste treatment equipment has been difficult. Waste disposal services are paid from the state budget, still HCUs prefer to have their own facilities t eliminate waste rather than work with the economic entities on the elimination of infectious medical waste, because they complain that the service is costly.

4. Emergency Preparedness and Response (EPR)

The purpose of this section is to provide emergency response for the healthcare facilities (hospitals, PoE, isolation & quarantine centers and laboratories) with regard to the potential threat associated with both novel pathogen identified (COVID-19) and other non-COVID-19 risks that could affect Health Care Facilities operations (including risks to workers and patients and on operation of waste treatment and disposal options) in line with the requirements of ESS4. Emergency incidents occurring in a HCF may include spillage, occupational exposure to infectious materials or radiation, accidental releases of infectious or hazardous substances to the environment, medical equipment failure, failure of solid waste and waste water treatment facilities, and fire. These emergency events are likely to seriously affect medical workers, communities, the HCF's operation and the environment.
Most of the selected HCF (PoE, isolation / quarantine areas and the laboratories) have been in operational offering community health care services and handling infectious diseases but there if no such event has occurred; the probability of negative event is very low although Moldova has not handled infectious pandemic of the scale of COVID-19.

4.1 EPR for Laboratories

The laboratories used in COVID-19 testing would adhere to the application of the WHO laboratory biosafety manual and WBG EHS requirements and have well established system for emergency

preparedness and response. The operation of the laboratory shall adhere to the WHO Guidelines for laboratory biosafety guidance related to coronavirus disease (COVID-19). At minimum the following shall be adhered to:

• All procedures must be performed based on risk assessment (refer to Annex 2) and only by personnel with demonstrated capability, in strict observance of any relevant protocols at all times.
• Initial processing (before inactivation) of all specimens shall take place in a validated Biological Safety Cabinet,
• Propagative work (for example, virus culture, isolation or neutralization assays) shall be conducted at a containment laboratory with inward directional airflow.
• Appropriate disinfectants with proven activity against enveloped viruses shall be used e.g. hypochlorite, alcohol, hydrogen peroxide, quaternary ammonium & phenolic compounds).
• Patient specimens from suspected or confirmed cases should be transported as UN3373, "Biological Substance Category B". Viral cultures or isolates should be transported as Category A, UN2814, "infectious substance, affecting humans".
• Instil administration control measures namely: policy, purpose, distribution, definitions, etc.
• Organization of emergency areas (command centres, medical stations, Assembly Point etc.)
• Spell out clear roles and responsibilities for staff at the facility in line with Good Microbiological Practices and Procedures,
• Institute clear communication systems to be followed at the facilities,
• Ensure that PPE (gown with long-sleeves, waterproof apron, non-sterile gloves (over the cuffs of the gown), mask, eyes protection (preferable face-shield, or goggle), rubber gloves and rubber boots) are used at all times.
• Emergency Equipment: Procedures would be prepared for using, inspecting, testing, and maintaining the emergency response equipment.
• First-aid kits: including medical supplies such as bottled eye washes and bandages, should be available and easily accessible to personnel.
• Reporting of all Incidents at the laboratory and route cause undertaken,
• Spill kits: A spill kit including disinfectant, should be easily accessible to personnel.

Refer to WHO Laboratory Biosafety Manual, 3rd edition for additional information.

4.2 EPR for Hospitals, Isolation & Quarantine Areas PoE

In order to reduce the likelihood of exposure to/release of a biological agent to environment, or to reduce the consequences of such incidents, a site-specific contingency plan should be developed that provides specific standard operating procedures to be followed in possible emergency scenarios that apply to the work and local environment. All Healthcare personnel at hospitals, PoE, quarantine and isolation areas must be trained on highly infectious disease case management, with a focus on COVID-19 and have periodic refresher training to maintain competency.

Adequate funding to procure and distribute IPC materials, drugs, supplies and medical equipment for prevention, investigation and management of the novel corona virus should be at disposal all the time.

Rapid response teams at HCFs (hospitals, isolation & quarantine centers, and PoE) will be trained/oriented and mobilized with necessary logistics, particularly to:

• coordinate response activities at the respective level,
• communicate and convene meeting with key stakeholders,
• assess critical needs to develop quick response plan based on the critical needs,
• ensure effective supply chain management, and
• collect information and report to relevant authorities.

Health facilities should adopt appropriate crowd management and triage system to limit infection within the Healthcare Facility (refer to Form on Annex 3: This form is to be completed for all health workers who have been exposed to a confirmed COVID-19 patient in a health care facility). Measures will be taken to minimize hospital visits by people for minor health problems to avoid crowd and reduce over pressure to health facilities.
A mechanism will be developed to run telemedicine service targeting the general population, health care providers and expert communities to improve health service delivery in the context of COVID-19 ensuring necessary network connectivity for smooth functioning of telemedicine service.
A mechanism will be developed to monitor continuity of health service and response to other health emergencies like cholera outbreaks or any other infectious disease.
Appropriate PPEs should be provided to HC workers and ensure they are trained on use: disposable gown with long-sleeves, waterproof apron, non-sterile gloves, surgical mask (N95), eyes protection (preferable face-shield), and rubber boots. Prevention and protection messages will be disseminated at scale using means and media including Call Centres with a focus on reaching vulnerable population groups and addressing stigma and discrimination as well as continuation of appropriate and healthy behaviors and practices (e.g. for pregnant women on danger signs and birth preparedness, breastfeeding, early child cares.
A designated trained team will be assigned for health care facilities, waste management and decontamination for each hospital, isolation & quarantine areas, and PoE, essential transport such as ambulance and quarantine stations.
Dead body management: The deceased will be handed to the family and relatives in line with MOH guidelines on management of COVID 19 dead bodies with clear instruction as mentioned in the WHO Infection Prevention and Control for the safe management of a dead body in the context of COVID-19.
Mental health services and psychosocial counselling: This services and support will be provided to the patients, families and health care workers through appropriate medium such as group counselling Apps.

4.3 Emergency Response Plan for Waste Treatment Facility

In the event that an emergency situation occurs in which the activities at the waste treatment facility poses a threat to the public's health as well as environmental contamination, the following need to be addressed immediately:
• Identify the cause of emergency
• Call for the external support from the County Emergency Departments / Police
• Notifying the workers and surrounding residents to take necessary protective measures according to the nature of the incident
• Liaise with the county disaster department to organize the evacuation of the residents to safety, and determining the means of evacuation according to the weather and geographical conditions and the population density
• Set up the emergency shelter outside the safety boundary of the incident site
• The responsible entity in the emergency environmental incidents should take immediate actions to control or cut-off the source of pollution, taking all possible measures to control the situation, in order to prevent the secondary pollution and the derivative incidents
• The field rescue team should be organized immediately if necessary to reduce the casualty and property loss; and
• Individuals in the contaminated area should be evacuated to safety, and irrelevant individuals should be barred from the area.

Termination of emergency situation:
The emergency for the situations above that meet the following requirement is qualified to be terminated:

1) The scene of incident has been under control, and the conditions for the incident to occur are removed;
2) The leakage or release of pollution source has been limited within a stipulated scope;
3) The hazard caused by the incident has been thoroughly removed and cannot cause any new incident;
4) It is not necessary to continue to adopt professional emergency disposals at the incident site; and
5) Necessary measures have been taken for protecting the public from any secondary danger.
NB: If the existing waste disposal facility has the Emergency Response Plan, the plan will be updated to meet the minimum requirement for handling potential infectious healthcare waste and the workers trained on the emergency response plan of the HCF.

5. Institutional Arrangement and Capacity Building

The MoH is the main implementing agency for the Project and has designated Environment specialists as part of the team to oversee the implementation of the project activities and ensure compliance with safeguard instruments (including ICWMP) and World Bank ESF requirements.
The ICWMP will be disseminated and implemented by the PIU, MoH and the HCFs from rayons (healthcare facilities, quarantine, isolation and treatment centers) implementing components of this project. At the National level institutional responsibility for implementation of safeguard instruments will rest with the PIU. The PIU has environment safeguards specialist who will support the project implementation and monitoring of project activities as well as adherence to the environment and social due diligence requirements. At rayon level it will be assured by the additional waste management expert hired by PIU.
Capacity on the content and application of the ICWMP will be built at all levels and be applied to all rayons and referral laboratories targeted by the Project. The respective project beneficiary facilities will be required to prepare site specific ICWMP following the template provided in Annex 4 and will be responsible for day-to-day supervision on implementation of the mitigation measures as discussed extensively in Table 1.
Monitoring and reporting of activities by the PIU will be continuous to ensure adherence to set specifications and safety to people and the environment. The Bank will provide project implementation support and would base environmental supervision on the Environment and Social Commitment Plan and other safeguard instruments developed to support the environment and social due diligence for activities financed under the project.

5.1 Roles for Infection Control and Waste Management

5.1.1 Project Implementation Unit

The PIU will be responsible for overall Project management and coordination. To ensure success of the Project, the MoH:
i. Established a dedicated PIU located under the State Secretary of the Ministry with the Project Manager having a direct reporting line to the SS-MoH.
ii. Designate staff with appropriate skills and/or recruit on exceptional basis to fill skills gaps including the PIU's dedicated Project Manager (PM) with overall responsibility for the effective functioning of the Project and supported by designated coordinators, including Environment safeguards officer and social safeguards officer.
iii. Build staff capacity to support project implementation of the ICWMP.
iv. Review, as needed, technical specifications for ICWMP for COVID-19 preparedness and response commodities, including other essential commodities to be procured.

5.1.1.1 Project Manager

The PM is responsible for overall management and implementation of the project and management of PIU including financial, procurement, safeguards, resources and communications management in relation to the

Project. She/he provides leadership on project planning and the day-to-day management of all Project operations; monitors all project activities to ensure timely implementation and compliance with all reporting and documentation requirements of the project; and disseminates information related to the project to stakeholders and other interested parties. She/he functions under the overall guidance and supervision of the State Secretary at the MoH.

Specific responsibilities

• Ensure the environmental and social safeguards specialist develop the appropriate plans and monitor their implementation,
• Taking action to ensure any deterioration in performance is rectified timely and performance put on track,
• Providing sufficient resources (people, training, funds, equipment, etc.),
• Establish a strong PIU coordination mechanism,
• Ensure the Environmental Safeguards specialist gets needed support from components leaders on matters infection control and waste management, and
• Ensure timely reporting on waste management, which includes; key performance indicators (quantities of waste, timing of collection/disposal, training, financial outgoings and income).

5.1.1.2 Environmental Safeguards Specialist

The Project Environment Safeguards Specialist will provide support and technical assistance to the MoH in the implementation of the Project to ensure Environment, Health and Safety management issues are effectively and efficiently handled in line with the applicable national legislation and regulations and in compliance with the World Bank Environment and Social Management Framework (ESMF) requirements. The Environmental Specialist will be required to carry out the outlined responsibilities in implementation of the ICWMP:

• Monitor and report on implementation of Environmental and Social Management Framework, Environmental and Social Commitment Plan and Infection Control and Waste Management Plan (ICWMP),
• Approval and monitoring of sub-project specific ICWMPs of the project beneficiary laboratories and HCFs
• Conduct regular field visits to assess and monitor and report on issues related to Healthcare waste management in the health facilities/quarantine/isolation centers, waste disposal facilities and laboratories;
• Carry out regular trainings on infection control and waste management to the relevant stakeholders, and
• Review and file the records of waste transfer notes, for different wastes stream from HCFs.

5.1.1.3 Project Waste Management Expert

In consultation with the environmental safeguard coordinator respective expert, shall;

▪ Ensure that his or her component comply with the infection control and waste management minimum standards through developing a sub project specific ICWMP (goal, budget, personnel, roles, supervision, training, reporting) and share the same with the safeguard team as regularly as required,
▪ In line with the polluter pay principle and whenever required should ensure prudent use of both the financial and human resources available to implement the component's ICWMP including up to final disposal.
▪ Ensure the facilities where the component target have adequate supply of healthcare waste management commodities such as: safety boxes, bins, bin liners etc.
▪ Provide supportive supervision in HCWM and IPC as prescribed in the project's operational manual.
manual.

5.1.1.4 Infection Control and Waste Management Coordination at the National and Rayon levels

The project will work through existing infection control, waste management, environmental and safety safeguards coordination mechanisms in order to strengthen intra and inter sectoral actions, partnerships and collaborations on infection control and waste management as well as on Occupational safety and health including biosafety and biosecurity. This will help in building a common strategy, allow the various technical areas draw on the expertise of each other as well as other agencies and avoid duplication of efforts and investments for infection control and waste management. The role of coordination mechanisms includes, among others:

- To work with PIU in developing more specific guidance, direction and review for sub-project ICWMP. This would help provide technical input to the PIU and help develop practical and operational plans.
- To run the PIU on infection control and health care waste management at the Ministry of Health and respective rayon Departments of Health.
- To harmonize and coordinate actions in liaison with the head of the divisions in HCF responsible for infection control, waste management as well as biosecurity and safety and occupational health and safety.
- To convene quarterly meetings in liaison with the relevant departments, development partners and other stakeholders on the implementation of ICWMPs.
- To support and coordinate the preparation of annual plans on the component of infection control and infectious waste management and compile a national budget.
- To coordinate monitoring and evaluation of activities of infection control and health care waste management.
- Consolidate gaps identified by specific national and rayon level facilities and mobilize for resource to support rayons.
- The municipal and rayon HCF will be responsible for the implementation of the ICWMP.

This will strengthen and enhance coordination and sustained implementation of ICWMP across the national level and rayons.

5.2 Staffing and Capacity Building in HCF

Effective infection control and waste management will have both professional and auxiliary staffs that are required for the continuous and proper operation of the respective facilities. The HCFs will designate on a full-time or on surge basis necessary personnel, which will operate in line with the relevant Health Norms and Standards Guidelines.

However, its noted that all critical staff right from the head of the respective facility, the heads of departments or sections and all staff working in the quarantine centers in the target rayons, isolation and treatment centers, the laboratories and blood services as well as in all other facility service areas, will be responsible for the waste they produce and ensure that appropriate standard precautions are adhered to. The Environmental Specialist will permanently be in touch with the Heads of the Hospitals and with the Rayon Public Health Officers in order to assure an efficient development and implementation of the site specific ICWMPs. Among the critical staff from the HCFs and other competent structures at the local level, not mentioned earlier, it is to mention:

▪ Head of Hospital
▪ Heads of Hospital Departments
▪ Chief Pharmacist

▪ Radiation Officer
▪ Senior Nursing Officer
▪ Housekeeping in-charge
▪ Hospital Manager
▪ Hospital Engineer
▪ Supplies officer: supply chain management
▪ Rayon Public Health officer
▪ Isolation / Quarantine Centers Manager
▪ Waste Handlers, and
▪ Incinerator Operator

5.2.1 Head of Healthcare facilities

Head of Hospital (Medical superintendents /health facility in-charge/ Healthcare Administrator) do supervise the everyday operations of healthcare facilities. They focus on improving the quality of patient care by ensuring the facilities are well-staffed, finance well-managed and general management of the facility. Some of the specific roles include:

• Establish a waste-management team to oversee the preparation of specific HCF ICWMP and monitor its implementation,
• Ensuring adequate financial resources allocated to fully implement specific ICWMP,
• Designate a waste-management officer to supervise and implement the ICWMP in the HCF
• Obtain and be familiar with national waste management policies and set regular (e.g. annual) review dates for the facility HCWM policy.
• Ensure adequate training for staff and designate the staff responsible for coordinating and implementing training courses on IPC and Healthcare waste management and emergency response procedures,
• Provide measures in place to prevent health-care waste from causing environmental pollution or adverse effects on human health;
• Ensure health care waste management system in the HCF is managed according to the national regulations; ensuring that health-care waste is adequately segregated and safely packed, especially in the case of sharps which should be packed in puncture-proof containers; and ensure that bags or containers of health-care waste are handled only by those officially licensed to transport and/or dispose of such waste.

5.2.2 Departmental Managers

The departmental managers should:

• Develop a site specific ICWMP (goal, budget, personnel, roles, supervision, training, reporting). Allocate adequate financial and human resources to implement the plan including up to final disposal.
• Ensure adequate supply of safety boxes, bins, bin liners and PPE.
• Develop a protocol for management of needle-stick injury.
• Advocate for health worker safety.
• Provide supportive supervision in site specific ICWMP.

5.2.3 Rayon Waste Management Officer (RWMO)

All Rayon Public Health Officers (RPHO) should designate a rayon waste management officer in charge of rayon waste management; to map out and document all health care facilities in the rayon indicating waste management gaps, recommend actions as well implementations of the actions.

The RPHO will be responsible for monitoring of the healthcare waste management system at respective rayons. It is therefore essential that the RPHO has direct access to the implementing facilities and reports

directly to the PIU. He or she is responsible for the rayon hospitals waste management officers stationed in health facilities.
At service level, the Rayon Waste Management Officer based at the facilities should:
▪ Ensure the day-to-day operation and monitoring of the waste-management system
▪ Supervise waste handlers and waste management staff;
▪ Liaise with the department heads to make sure that their staff are carrying out waste-related tasks properly;
▪ Ensure availability of waste management equipment;
▪ Monitor performance indicators and ensure reports are developed on the implementation of ICWMP.
▪ Manage healthcare waste management budget;
▪ Organize staff training and information.
▪ Document, report and review any reported incidents concerning the handling of health-care waste in liaison with the infection-control department.
• Liaise with the Supplies Department to ensure that an appropriate range of coded bags and containers for health-care waste, protective clothing, and collection trolleys are available at all times;
• Be responsible for installing and maintaining waste treatment and storage facilities and handling equipment to comply with the specifications of environmental standards;
• Be responsible for coordinating maintenance and repair of waste treatment facilities; and
• Develop maintenance standards for waste management equipment. It is normal that most equipment requires preventive maintenance especially the incinerator, autoclave or the microwave.

5.2.4 Infection Control Officer

The responsibilities for the Infectious Control Officer include:
▪ Liaise with the waste-management officer
▪ Provide advice about the control of infection, and the standards of the waste treatment and disposal system.
▪ Identify training requirements according to staff grade and occupation
▪ Organize and supervise staff training courses on the infection risks from poor waste management
▪ Liaise with the department heads and the hospital manager to coordinate training.
▪ May also have overall responsibility for chemical disinfection, the safe management of chemical stores, and minimizing chemical waste creation.

5.2.5 Chief Pharmacist/Radiation Officer

The responsibilities include:

- Minimisation/management of wastes from their departments, including:
- Advise on pharmaceutical/radioactive waste treatment and disposal;
- Stay up to date on minimisation, proper treatment and safe disposal of pharmaceutical/radioactive wastes,
- Coordinate monitoring of pharmaceutical/radioactive waste,
- Ensure personnel in their departments receive adequate training,

The chief pharmacist also has the special responsibility of ensuring that genotoxic products are used safely, and that genotoxic waste is managed safely according to the regulations.
The radiation officer must also ensure that additional regulations on the storage and safeguarding of radioactive wastes are followed strictly.

5.2.6 Hospital Engineer

Installing and maintaining waste-storage facilities and handling equipment.

▪ Accountable for adequate operation and maintenance of any on-site waste treatment equipment (including plastic bags and containers of the right quality, spare parts for onsite health-care waste-treatment equipment)
▪ Responsible for ensuring that the staff operating on-site waste-treatment facilities are trained in their operation and maintenance.

5.2.7 Waste Handlers

Waste handlers have principal duties and responsibilities: the waste handler is responsible for collecting, segregating, labelling, temporal storage, transporting, infectious waste and other medical waste in accordance with relevant healthcare facilities, isolation / quarantine areas, and blood transfusion centers approve procedures and regulatory requirements. Specific roles include:
• Collects, separates, contains, labels and transports solid waste, medical waste & recyclable goods from generation points to specified collection location and incinerator
• Tracking and maintaining records of wastes generated from each health facilities/quarantine/isolation centers and laboratories
• Empties, relines, & cleans solid & medical waste containers according to procedures
• Segregates waste for containment prior to transporting off-site for incineration
• Separates, contains, seals, labels, weighs, & stores high-risk infectious (red bag) waste to be incinerated
• Cleans and disinfects medical waste carts
• Maintains waste area facility in a clean and orderly condition; sweeps and cleans area at the end of each shift,
• Always assures safe working conditions as designated by the SOP; utilizes safety equipment and/or protective equipment as directed (i.e. safety gloves and eye protection), follows defined safety procedures, and
• Follow waste management procedure during waste handling transportation, storage, treatment and disposal including infection control.

5.2.8 Incinerator Operator

An incinerator operator is a skilled attendant assigned the duties of ensuring that the waste has been properly treated through incineration and the ash properly disposed. The operator should always be provided with the minimum required personal protective equipment (PPE) and ensure appropriate use, the equipment is maintained and kept clean. The PPE should be properly maintained, kept clean and not taken home; it must remain at the health facility to avoid possible spread of infection to the community.
The incinerator operator should:
1. Follow the incinerator operations procedure.
2. Use protective equipment when handling waste.
3. Ensure an adequate supply of fuel is available.
4. Record the weight and type of waste received.
5. Follow the regular maintenance schedule for incinerator operation.
The operator should at minimum have the following PPEs for use:
i. Gloves: Always wear gloves when handling health care waste.
ii. Boots: Safety boots or leather shoes provide extra protection to the feet from injury by sharps or heavy items that may accidentally fall. Boots must be kept clean.
iii. Overalls: Overalls should be worn at all times.
iv. Aprons: Heat-resistant aprons should be worn when operating the incinerator.
v. Goggles: Clear, heat-resistant goggles can protect the eyes from accidental splashes or other injury.
vi. Nose and Mouth respirators / mask (N95), and

vii. Helmet: Helmets protect the head from injury and should be worn at all times during the incineration process.

5.2.9 Laboratory Manager

The laboratory manager is responsible for ensuring appropriate laboratory techniques, safety procedures, and hazards associated with handling biohazards and associated wastes are appropriately implemented.
Responsibilities of the Laboratory Manager in regard to health care waste include:
• Accept direct responsibility for the health and safety of those working with bio-hazardous materials and/or select agents and toxins associated with COVID 19,
• Adhere to approved emergency plans for handling accidental spills and personnel contamination,
• Ensure compliance by laboratory personnel with relevant regulations, guidelines, and policies,
• Ensure all appropriate personal protective equipment is provided and used. Ensure proper training, including refresher training, and instruction for laboratory personnel in safe practices and protocols, including, at a minimum, training in aseptic techniques and characteristics of the material(s) used.
• Tracking and maintaining records of wastes generated from laboratory.
• Ensuring that individuals working in the facility are experienced and proficient in handling the biological agents at the appropriate level of containment.
• Ensure compliance by waste handler, waste water treatment and incinerator personnel with relevant regulations, guidelines, and policies of infection control and waste management.
• Ensure that all the relevant staff including; waste handler, waste water treatment plant and incinerator personnel are adequately trained in waste management and risk management in waste water treatment plant and incinerator facility respectively.

5.2.10 Medical Waste Autoclave / Microwave Operators

- Follow the equipment's operations procedure.
- Use protective equipment when handling waste.
- Monitoring and timely report on fuel use and supply status.
- Record the weight and type of waste received.
- Follow a regular maintenance schedule and quality assurance testing procedures.
- Ensure treated waste is safely transported to a collection point for final disposal.

5.2.11 Healthcare Facility cleaners

Under the supervision of the facility waste management and environmental / IPC officer, these individuals perform different washing and cleaning activities within and outside the main Quarantine, Isolation and Treatment centers, Blood services and Laboratories. These includes:
• Cleans laboratory equipment, such as glassware, metal instruments, sinks, tables, and test panels, using solvents, brushes, and rags:
• Mixes water and detergents or acids in container to prepare cleaning solution according to specifications.
• Washes, rinses, and dries glassware and instruments, using water, acetone bath, and cloth or hot-air drier.
• Scrubs walls, floors, shelves, tables, and sinks, using cleaning solution and brush.
• May sterilize glassware and instruments, using autoclave.
• The HCF cleaners should be provided with the minimum required PPE (medical mask, gown, heavy duty gloves, boots or closed shoes) according to the WHO guidelines on Covid-19 Personal Protective Equipment (PPE) for Healthcare Workers.

5.2.12 Other COVID-19 Healthcare Service Providers

When a hotel, institution, stadium, PoE is selected as a quarantine / isolation area for COVID -19 cases, the in charge of the facility becomes the manager to ensure compliance with health and safety legislation and licensing laws. At the same time the facility is assigned a qualified medical doctor who will be monitoring of the implementation of the infection preventive measures for the people in the quarantine centers. He/she takes the overall responsibility, leads an intra-departmental team and regularly reviews issues and performance of the infection control and waste management practices at the facility including but not limited to:

▪ Follow and implement waste management policies;
▪ Follow the colour-coded waste segregation system while carrying out waste segregation;
▪ Safely contain sharps in a safety box;
▪ Provide on-the-job training for new staff with regard to ICWMP; and
▪ Ensure sound treatment and disposal of waste generated in the facility.

5.2.13 Health Care Waste Treatment and Disposal Facilities staff

Healthcare waste treatment and disposal Facilities (those separate from a HCF but providing services to HCF) are essential in the managing healthcare waste for the healthcare facilities without waste treatment and disposal options. Key elements in improving health-care waste management are:

- Timely waste collection, treatment and disposal of the generated healthcare waste,
- Raising awareness of the risks related to healthcare waste, and of safe practices including safety and health hazards (ii) aesthetic damage (iii) environmental issues and pollution;
- Train their respective clients (health facilities) in appropriate healthcare waste segregation, collection and storage practices;
- Developing strategies and systems along with strong oversight and regulation to incrementally improve waste segregation, transportation, destruction and disposal practices with the ultimate aim of complying with Waste Management Regulations and international standards (WHO guidelines on healthcare waste management);
- Where feasible, favoring the safe and environmentally sound treatment of hazardous health care wastes (e.g. by autoclaving, microwaving, steam treatment integrated with internal mixing, and chemical treatment) over medical waste incineration;
- Building a comprehensive system, addressing responsibilities, resource allocation, handling and disposal;
- Selecting safe and environmentally-friendly management options, to protect workers at the waste treatment facilities involved in the treating or disposing of waste.

5.3 External Supervision and Support Implementation

5.3.1 The Role of Environmental Agency

Environmental Agency is subordinated to the Ministry of Environment of the Republic of Moldova. Responsibilities in the field of waste management include:

a) ensures the implementation of the national legislation in the field of waste, monitors and periodically reports to the Ministry about the stage of its realization, presents proposals for modification and completion of the respective legislation;
b) participates in the process of harmonization of the national legislation with the community environmental legislation in the field of waste, subsequently ensuring the implementation of the adopted legislation;

c) participates in the elaboration of waste management plans, special programs for the prevention and forecasting of waste formation, as well as for combating and liquidating the outbreaks of hazardous waste stocks and ensures their implementation;
d) implements the provisions of the international environmental treaties to which the Republic of Moldova is a party in the field of waste and their transboundary transport, elaborates and presents to the Ministry information on their implementation;
e) ensures the implementation of the integrated waste management system;
f) ensures the setting of separate collection and recycling targets for waste products subject to extended producer responsibility regulations and monitors the level of their achievement;
g) ensures the inventory, investigation, risk assessment and remediation of areas where the soil and subsoil are contaminated with waste;
h) regulates waste management and transportation activities;
i) issues to the natural and legal persons the environmental authorization for waste management, including for the endowment and permanent availability of the port facilities, suspends, withdraws or prolongs its validity;
j) issues the authorization for the export / transit of waste, suspends, withdraws or prolongs its validity;
k) issues notification documents for the transboundary transport of waste;
l) creates and ensures the operation of the waste monitoring system;
m) ensures the functioning of the Waste Laboratory and of the Soil Quality Laboratory, performs ecological measurements, analyzes and investigations regarding the waste composition and regarding the soil quality;
n) performs the collection, centralization, validation and processing of data and information in the field of waste management and ensures the maintenance of the Information System on waste management and the List of waste;

5.3.2 Project Implementation Support by World Bank

The Bank will conduct regular support implementation mission and ensure that compliance is achieved as per the requirements of the ICWMP.
The World Bank's Task Team will also provide regular Project implementation support to the PIU and other relevant implementing partners as follows:
a) Monitor progress in all substantive aspects of the Project implementation against the targets, development objectives, and performance monitoring indicators/targets for the ICWMP,
b) Monitor procurement implementation and disbursement, recommending ways to ensure that procurement activities and financing disbursements for components Waste management proceed smoothly in line with the planned schedule; and
c) Ascertain the extent of compliance with financing covenants, including those related to environmental and social due diligence compliance commitments in the ICWMP.

Annex 1. 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. 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.

Table 1: Guideline for COVID-19 Personal Protective Equipment (PPE) for Healthcare Workers

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
			Medical mask

	Visitors (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.)	Entering the room of a COVID-19 patient	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
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 is tolerated by patient.
	Patients without respiratory Symptoms.	Any	No PPE required
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
Outpatient facilities			
	Healthcare workers		Medical mask

Consultation room		Physical examination of patient with respiratory Symptoms.	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.
	Patients without respiratory Symptoms.	Any	No PPE required
	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
Administrative areas	All staff, including healthcare workers.	Administrative tasks	No PPE required
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 1m.

			Provide medical mask if tolerated.
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	Medical mask
			Gloves

		COVID-19 disease and travel history).	
	Cleaners	Cleaning the area where passengers with fever are being screened.	Medical mask
			Gown
			Heavy duty gloves
			Eye protection (if risk of splash from organic materials 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
			Eye protection
	Cleaners	Cleaning isolation area	Medical mask
			Gown
			Heavy duty gloves
			Eye protection (if risk of splash from organic material or chemicals).
			Boots or closed work shoes
Ambulance or transfer Vehicle	Healthcare workers	Transporting suspected COVID-19 patients to the Referral healthcare facility.	Medical mask
			Gowns
			Gloves
			Eye protection
	Driver	Involved only in driving the patient with suspected COVID-19 disease and the driver's compartment is separated from the COVID-19 patient.	Maintain spatial distance of at least 1 m.
			No PPE required

		Assisting with loading or unloading patient with suspected COVID-19 disease.	Medical mask
			Gowns
			Gloves
			Eye protection
		No direct contact with patient with suspected COVID-19, but no separation between driver ' s and patients Compartments.	Medical mask
	Patient with suspected COVID-19 disease. Cleaners	Transport to the referral Health care facility.	Medical mask if tolerated
		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 in Table 2:

Table 2: Special considerations for rapid response teams assisting with public health investigations

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.
			The interview should be conducted outside the house or outdoors, and confirmed or suspected COVID-19 patients should wear a medical mask if tolerated.
		In-person interview with asymptomatic contacts of COVID-19 patients.	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 2: Risk Assessment Template for Laboratories handling COVID-19 Samples

This risk assessment template has been provided using a qualitative approach of combining likelihood and severity parameters in a risk matrix is provided as a method for risk evaluation here, it is important to note that quantitative (for example, from simple numerical scoring schemes to complex mathematical models) and hybrid (semi-quantitative) methods can also be used for risk evaluation. Laboratories should use a risk-evaluation / assessment method that best meets their unique needs, without excluding the possibility of developing customized evaluation approaches, scoring methods, and definitions of the parameters. Although this template was primarily developed for biosafety risk assessment, it can also be used for general safety risk assessment of laboratory activities, especially when the biosafety and general safety risks are interlinked, for example, sample collection and transport, Preparation of sub- specific ICWMP for HCF where appropriate and applicable.

Institution/Facility name	
Laboratory name	
Laboratory manager/Supervisor	
Project titles/Relevant standard operating procedures (SOPs)	
Date	

If using this template, complete all sections following the instructions in the grey boxes. The instructions and bullet points in the grey boxes can be copied into the text boxes beneath the instructions and used as prompts to gather and record the necessary site-specific information. The grey instruction boxes can then be deleted, and the text remaining will form a risk assessment draft. This draft must be carefully reviewed, edited as necessary, and approved by the members of the risk assessment team.

STEP 1. Gather information (hazard identification)

Instructions: Provide a brief overview of the laboratory work and summarize the laboratory activities to be conducted that are included in the scope of this risk assessment.	
Describe the biological agents and other potential hazards (for example, transmission, infectious dose, treatment/preventive measures, pathogenicity).	
Describe the laboratory procedures to be used (for example, culturing, centrifugation, work with sharps, waste handling, and frequency of performing the laboratory activity).	
Describe the types of equipment to be used (personal protective equipment [PPE], centrifuges, autoclaves, biological safety cabinets [BSCs]).	
Describe the type and condition of the facility where work is conducted.	
Describe relevant human factors (for example, competency, training, experience and attitude of personnel).	
Describe any other factors that may affect laboratory operations (for example, legal, cultural, socioeconomic).	

STEP 2. Evaluate the risks

Instructions: Describe how exposure and/or release could occur.	
What potential situations are there in which exposure or release could occur?	
What is the likelihood of an exposure/release occurring? • Unlikely: not very possible to occur in the near future. • Possible: feasible to occur in the near future • Likely: very possible to occur in the near future.	
What is the severity of the consequences of an exposure/release (negligible, moderate, severe)?	

Instructions: Evaluate the risk and prioritize the implementation of risk control measures. Circle the initial (inherent) risk of the laboratory activities before additional risk control measures have been put in place.

Note:

• When assigning priority, other factors may need to be considered, for example, urgency, feasibility /sustainability of risk control measures, delivery and installation time and training availability.

• To estimate the overall risk, take into consideration the risk ratings for the individual laboratory activities/procedures, separately or collectively as appropriate for the laboratory.

	Likelihood of exposure/release		
	Unlikely	Possible	Likely

Consequence of exposure / release	Severe	Medium	High	Very high
	Moderate	Low	Medium	High
	Negligible	Very low	Low	Medium
Laboratory activity/procedure		Initial risk (very low, low, medium, high, very high)	Is the initial risk above the tolerance level? (yes/no)	Priority (high/medium / low)
Select the overall initial risk.		☐ Very low	☐ Low	☐ Medium	☐ High	☐ Very high
Should work proceed without additional risk control measures?		☐ Yes ☐ No		

STEP 3. Develop a risk control strategy

Instructions: List any requirements that have been prescribed by international and national regulations, legislation, guidelines, policies, and strategies on biosafety and biosecurity.	
Describe the measures required by national legislation or regulations (if any).	
Describe the measures advised by guidelines, policies and strategies (if any).	

Instructions: Describe the resources available for risk control and consider their applicability, availability, and sustainability in the local context, including management support.	
Are resources sufficient to secure and maintain potential risk control measures?	
What factors exist that may limit or restrict any of the risk control measures?	
Will work be able to proceed without any of the risk control measures; are there alternatives?	

STEP 4. Select and implement risk control measures

Instructions: Describe where and when risk control measures are needed, the level of residual (remaining) risk when these risk control measures are in place, and an assessment of the availability, effectiveness, and sustainability of the risk control measures.				
Laboratory activity/procedure	Selected risk control measure(s)	Residual risk (very low, low, medium, high, very high)	Is the residual risk above the tolerance level? (yes/no)	Are risk control measures available, effective, and sustainable? (yes/no)

Instructions: Evaluate the residual risk that remains after risk control measures have been selected, to determine whether that level of risk is now below the tolerance level and whether work should proceed. Circle the residual risk of the laboratory activities after risk control measures are in place.						
		Likelihood of exposure/release				
		Unlikely	Possible	Likely		
Consequence of exposure / release	Severe	Medium	High	Very high		
	Moderate	Low	Medium	High		
	Negligible	Very low	Low	Medium		
Overall residual risk:		☐ Very low	☐ Low	☐ Medium	☐ High	☐ Very high
If the residual risk is still above the risk tolerance level, further action is necessary, such as additional risk control measures, based on the initial risk evaluated in STEP 2, redefining the scope						

of work such that it falls below the risk tolerance level with existing risk control measures in place, or identifying an alternative laboratory with appropriate risk control strategies already in place that is capable of conducting the work as planned.	
Should work proceed without additional risk control measures?	☐ Yes ☐ No
Approved by (name and title)	
Approved by (signature)	
Date	

Instructions: Describe how to communicate risks and risk mitigation strategies to personnel. Provide a mechanism of communication within the laboratory. Describe the process and timeline for ensuring all identified risk control measures and that associated SOPs and training have been completed before starting the laboratory work.	
Communication of the hazards, risks, and risk control measures	
Purchase (and budgeting) of risk control measures	
Operational and maintenance procedures	
Training of personnel	

STEP 5. Review risks and risk control measures

Instructions: Establish a periodic review cycle to identify: changes in laboratory activities, biological agents, personnel, equipment or facilities; changes in knowledge of biological agents or processes; and lessons learnt from audits/inspections, personnel feedback, incidents, or near misses.	
Frequency of the review	
Person to conduct the review	
Describe updates/changes	
Personnel/procedures to implement the changes	
Reviewed by (name and title)	
Reviewed by (signature)	
Date	

Annex 3: Health workers exposure risk assessment and management in the context of COVID-19 virus

WHO Health workers exposure risk assessment and management in the context of COVID-19 virus, Interim guidance 4 March 2020 asserts that, the available evidence is that the COVID-19 virus is transmitted between people through close contact and droplets. People most at risk of infection are those who are in contact with a COVID-19 patient and/or who care for COVID-19 patients. This inevitably places health workers at a high risk of infection. Target audience: This tool is to be used by health care facilities that have either cared for or admitted COVID-19 patients. This form is to be completed for all health workers who have been exposed to a confirmed COVID-19 patient in a health care facility. It is intended to be an operational tool used by health care facilities once a COVID-19 patient has been identified within the facility. This tool will help determine the risk of COVID-19 virus infection of all HCWs who have been exposed to a COVID-19 patient and then provides recommendations for appropriate management of these HCWs, according to their infection risk.

Objectives:

1. To determine the risk categorization of each HCW after exposure to a COVID-19 patient (see below Part 1: COVID-19 virus exposure risk assessment form for HCWs);

2. To inform the management of the exposed HCWs based on risk (see below Part 2: Management of health worker exposed to COVID-19 virus).

Part 1: COVID-19 virus assessment of risk of exposure for health workers in health care facilities

Protecting HCWs is of paramount importance to WHO. Understanding HCW exposure to COVID-19 virus and how this translates into risk of infection is critical for informing infection prevention and control (IPC) recommendations. The data that will be captured using this data collection form and risk assessment tool can be used to identify IPC breaches and define policy to mitigate health worker and nosocomial infection. As such, health care facilities using the following risk assessment are encouraged to share deidentified data with WHO to inform discussions about WHO guidance related to IPC. That is, any data shared with WHO should not include any personably identifiable information (Questions 2A, 2B and 2G).

1. Interviewer information	
A. Interviewer name:	
B. Interviewer date (DD/MM/YYYY):	___/___/_____
C. Interviewer phone number:	
D. Does the health worker have a history of staying in the same household or classroom environment with a confirmed COVID-19 patient?	☐ Yes ☐ No
E. Does the HCW have history of traveling together in close proximity (within 1 meter) with a confirmed COVID-19 patient in any kind of conveyance?	☐ Yes ☐ No

If the HCW answers yes for questions 1 D – 1E it is considered a community exposure to COVID-19 virus and health workers should be managed as such. The management recommendations in Part 2: Management of health workers exposed to COVID-19 virus apply only to health care-related exposure.

2. Health worker information	
A. Last name:	
B. First name:	
C. Age	
D. Sex:	☐ Male ☐ Female ☐ Prefer not to answer
E. Health Care Facility:	
F. County:	
H. Type of health care personnel:	☐ Medical doctor ☐ Physician assistant ☐ Registered nurse (or equivalent)

	☐ Assistant nurse, nurse technician (or equivalent) ☐ Radiology /x-ray technician ☐ Phlebotomist ☐ Ophthalmologist ☐ Physical therapist ☐ Respiratory therapist ☐ Nutritionist/dietitian ☐ Midwife ☐ Pharmacist ☐ Pharmacy technician or dispenser
	☐ Laboratory personnel ☐ Admission/reception clerk ☐ Patient transporter ☐ Catering staff ☐ Cleaner ☐ Other (specify):
I. Health care facility unit type in which the health worker works?	Tick all that apply: ☐ Outpatient ☐ Emergency ☐ Medical unit ☐ Intensive care unit ☐ Cleaning services ☐ Laboratory

	☐ Pharmacy ☐ Other, specify:
3. Health worker interactions with COVID-19 patient information	
A. Date of health worker first exposure to confirmed COVID-19 patient:	Date (DD/MM/YYYY): ___/___/_____ ☐ Not known
B. Name of health care facility where case received care:	
C. Type of health care setting:	☐ Hospital ☐ Outpatient clinic ☐ Primary health centre ☐ Home care for mild cases ☐ Other
D. Health Care Facility :	
E. County:	
F. Multiple COVID-19 patients in health care facility	☐ Yes ☐ No ☐ Unknown Number of patients (approximate if exact number not known):

4. Health worker activities performed on COVID-19 patient	
A. Did you provide direct care to a confirmed COVID19 patient?	☐ Yes ☐ No ☐ Unknown

B. Did you have face-to-face contact (within 1 meter) with a confirmed COVID-19 patient in a health care facility?	☐ Yes ☐ No ☐ Unknown
C. Were you present when any aerosol generating procedures (AGP) was performed on the patient? See below for examples	☐ Yes ☐ No ☐ Unknown
- If yes, what type of AGP procedure?	☐ Tracheal intubation ☐ Nebulizer treatment ☐ Open airway suctioning ☐ Collection of sputum ☐ Tracheostomy ☐ Bronchoscopy ☐ Cardiopulmonary resuscitation (CPR) ☐ Other, specify:
D. Did you have direct contact with the environment where the confirmed COVID-19 patient was cared for? E.g. bed, linen, medical equipment, bathroom etc.	☐ Yes ☐ No ☐ Unknown
E. Were you involved with health care interaction(s) (paid or unpaid) in another health care facility during the period above?	☐ Other health care facility (public or private) ☐ Ambulance ☐ Home care ☐ No other health care facility

Exposure of health workers to COVID-19 virus

If the health worker responds ‘Yes’ to any of the Questions 4A – 4C, the health worker should be considered as being exposed to COVID-19 virus

5. Adherence to infection prevention and control (IPC) during health care interactions	
For the following questions, please quantify the frequency you wore PPE, as recommended: 'Always, as recommended' should be considered wearing the PPE when indicated more than 95% of the time; 'Most of the time' should be considered 50% or more but not 100%; 'occasionally' should be considered 20% to under 50% and 'Rarely' should be considered less than 20%.	
A. During the period of a health care interaction with a COVID-19 patient, did you wear personal protective equipment (PPE)?	☐ Yes ☐ No
If yes, for each item of PPE below, indicate how often you used it:	
1. Single gloves	☐ Always, as recommended ☐ Most of the time (50% or more but not 100%) ☐ Occasionally 20% to under 50%) ☐ Rarely (less than 20% of the time)
2. Medical mask	☐ Always, as recommended ☐ Most of the time ☐ Occasionally ☐ Rarely
3. Face shield or goggles/protective glasses	☐ Always, as recommended ☐ Most of the time ☐ Occasionally ☐ Rarely
4. Disposable gown	☐ Always, as recommended ☐ Most of the time ☐ Occasionally

	☐ Rarely
B. During the period of health care interaction with the COVID-19 patient, did you remove and replace your PPE according to protocol (e.g. when medical mask became wet, disposed the wet PPE in the waste bin, performed hand hygiene, etc)?	☐ Always, as recommended ☐ Most of the time ☐ Occasionally ☐ Rarely
C. During the period of health care interaction with the COVID-19 case, did you perform hand hygiene before and after touching the COVID-19 patient? NB: Irrespective of wearing gloves	☐ Always, as recommended ☐ Most of the time ☐ Occasionally ☐ Rarely
D. During the period of health care interaction with the COVID-19 case, did you perform hand hygiene	☐ Always, as recommended ☐ Most of the time
before and after any clean or aseptic procedure was performed (e.g. inserting: peripheric vascular catheter, urinary catheter, intubation, etc.)?	☐ Occasionally ☐ Rarely
E. During the period of health care interaction with the COVID-19 case, did you perform hand hygiene after exposure to body fluid?	☐ Always, as recommended ☐ Most of the time ☐ Occasionally ☐ Rarely
F. During the period of health care interaction with the COVID-19 case, did you perform hand hygiene after touching the COVID-19 patient's surroundings (bed, door handle, etc)? Note: this is irrespective of wearing gloves	☐ Always, as recommended ☐ Most of the time ☐ Occasionally ☐ Rarely
G. During the period of health care interaction with the COVID-19 case, were high touch	☐ Always, as recommended ☐ Most of the time

surfaces decontaminated frequently (at least three times daily)?	☐ Occasionally ☐ Rarely

6. Adherence to infection prevention and control (IPC) when performing aerosol generating procedures (e.g. Tracheal intubation, nebulizer treatment, open airway suctioning, collection of sputum, tracheostomy, bronchoscopy, cardiopulmonary resuscitation (CPR) etc.)	
For the following questions, please quantify the frequency you wore PPE, as recommended: 'Always, as recommended' should be considered wearing the PPE when indicated more than 95% of the time; 'Most of the time' should be considered 50% or more but not 100%; 'occasionally' should be considered 20% to under 50% and 'Rarely' should be considered less than 20%.	
A. During aerosol generating procedures on a COVID-19 patient, did you wear personal protective equipment (PPE)?	☐ Yes ☐ No
- If yes, for each item of PPE below, indicate how often you used it:	
1. Single gloves	☐ Always, as recommended ☐ Most of the time ☐ Occasionally ☐ Rarely
- 2. N95 mask (or equivalent respirator)	☐ Always, as recommended ☐ Most of the time ☐ Occasionally ☐ Rarely
- 3. Face shield or goggles/protective glasses	☐ Always, as recommended ☐ Most of the time

	☐ Occasionally ☐ Rarely
- 4. Disposable gown	☐ Always, as recommended ☐ Most of the time ☐ Occasionally ☐ Rarely
- 5. Waterproof apron	☐ Always, as recommended ☐ Most of the time ☐ Occasionally ☐ Rarely
B. During aerosol generating procedures on the COVID-19 patient, did you remove and replace your PPE according to protocol (e.g. when medical mask became wet, disposed the wet PPE in the waste bin, performed hand hygiene, etc)?	☐ Always, as recommended ☐ Most of the time ☐ Occasionally ☐ Rarely
C. During aerosol generating procedures on the COVID-19 case, did you perform hand hygiene before and after touching the COVID-19 patient? NB: Irrespective of wearing gloves	☐ Always, as recommended ☐ Most of the time ☐ Occasionally ☐ Rarely
D. During aerosol generating procedures on the COVID-19 case, did you perform hand hygiene before and after any clean or aseptic procedure was performed (e.g.inserting: peripheric vascular catheter, urinary catheter, intubation, etc.)?	☐ Always, as recommended ☐ Most of the time ☐ Occasionally ☐ Rarely
E. During aerosol generating procedures on the COVID- 19 case, did you perform hand hygiene after touching the COVID-19	☐ Always, as recommended ☐ Most of the time

patient's surroundings (bed, door handle, etc)? Note: This is irrespective of wearing gloves	☐ Occasionally ☐ Rarely
F. During aerosol generating procedures on the COVID- 19 case, were high touch surfaces decontaminated frequently (at least three times daily)?	☐ Always, as recommended ☐ Most of the time ☐ Occasionally ☐ Rarely

7. Accidents with biological material	
A. During the period of a health care interaction with a COVID-19 infected patient, did you have any episode of accident with biological fluid/respiratory secretions? See below for examples	☐ Yes ☐ No
- If yes, which type of accident?	☐Splash of biological fluid/respiratory secretions in the mucous membrane of eyes ☐Splash of biological fluid/respiratory secretions in the mucous membrane of mouth/nose ☐Splash of biological fluid/respiratory secretions on non-intact skin ☐Puncture/sharp accident with any material contaminated with biological fluid/respiratory secretions

Risk categorization of health workers exposed to COVID-19 virus

High risk for COVID-19 infection

The health worker did not respond ‘Always, as recommended’ to Questions:

• 5A1 – 5G, 6A – 6F

• AND/OR responded ‘Yes’ to 7A.

All other health workers should be considered low risk for COVID-19 virus infection.

Part 2: Management of health workers exposed to COVID-19 virus

The management of health workers exposed to COVID-19 virus will vary according to the Risk categorization of health workers exposed to COVID-19 virus, as determined in Part 1.

Recommendations for health workers with high risk for infection:

- Stop all health care interaction with patients for a period of 14 days after the last day of exposure to a confirmed COVID-19 patient;

- Be tested for COVID-19 virus infection;

- Quarantine for 14 days in a designated setting.

Health care facilities should:

- Provide psychosocial support to HCW during quarantine, or duration of illness if HCW ecomes a confirmed COVID-19 case;

- Provide compensation for the period of quarantine and for the duration of illness (if not on a monthly salary) or contract extension for duration of quarantine/illness;

- Refresher infection prevention and control training for the health care facility staff, including HCWs at high risk for infection once he/she returns to work at the end of the 14-day period.

Recommendations for health workers with low risk for COVID-19 infection:

- Self-monitor temperature and respiratory symptoms daily for 14 days after the last day of exposure to a COVID-19 patient. HCWs should be advised to call health care facility if he/ she develop any symptoms suggestive of COVID-19;

- Reinforce contact and droplet precautions when caring for all patients with acute respiratory illness and standard precautions to take care of all patients;

- Reinforce airborne precautions for aerosol generating procedures on all suspect and confirmed COVID-19 patients;

- Reinforce the rational, correct and consistent use of personal protective equipment when exposed to confirmed COVID-19 patients;

- Apply WHO's "My 5 Moments for Hand Hygiene" before touching a patient, before any clean or aseptic procedure, after exposure to body fluid, after touching a patient, and after touching patient's surroundings;

- Practice respiratory etiquette at all times.

Annex 4. Infection Control and Waste Management Plan (ICWMP) Template

1. Introduction

1.1 Describe the project context and components;

1.2 Describe the targeted healthcare facility (HCF):

- Type: E.g. general hospital, clinics, inpatient/outpatient facility, medical laboratory, quarantine or isolation centers;
- *Special type of HCF in response to COVID-19: E.g. existing assets may be acquired to hold yet-to-confirm cases for medical observation or isolation;*
- Functions and requirement for the level infection control, e.g. biosafety levels;
- Location and associated facilities, including access, water supply, power supply;
- Capacity: beds;

1.3 Describe the design requirements of the HCF, which may include specifications for general design and safety, separation of wards, heating, ventilation and air conditioning (HVAC), autoclave, and waste management facilities.

2. Infection Control and Waste Management

2.1 Overview of infection control and waste management in the HCF:

- Type, source and volume of healthcare waste (HCW) generated in the HCF, including solid, liquid and air emissions (if significant);
- Classify and quantify the HCW (infectious waste, pathological waste, sharps, liquid and non-hazardous) following WBG EHS Guidelines for Healthcare Facilities and pertaining GIIP;
- Given the infectious nature of the novel coronavirus, some wastes that are traditionally classified as non-hazardous may be considered hazardous. It's likely the volume of waste will increase considerably given the number of admitted patients during COVID-19 outbreak. Special attention should be given to the identification, classification and quantification of the healthcare wastes;
- Describe the healthcare waste management system in the HCF, including material delivery, waste generation, handling, disinfection and sterilization, collection, storage, transport, and disposal and treatment works;
- Provide a flow chart of waste streams in the HCF if available;

- Describe applicable performance levels and/or standards; and
- Describe institutional arrangement, roles and responsibilities in the HCF for infection control and waste management.

2.2 Management Measures

- Waste minimization, reuse and recycling: HCF should consider practices and procedures to minimize waste generation, without sacrificing patient hygiene and safety considerations.
- Delivery and storage of specimen, samples, reagents, pharmaceuticals and medical supplies: HCF should adopt practice and procedures to minimize risks associated with delivering, receiving and storage of hazardous medical goods.
- Waste segregation, packaging, color coding and labeling: HCF should strictly conduct waste segregation at the point of generation. Internationally adopted method for packaging, color coding and labeling the wastes should be followed.
- Onsite collection and transport: HCF should adopt practices and procedures to timely remove properly packaged and labelled wastes using designated trolleys/carts and routes. Disinfection of pertaining tools and spaces should be routinely conducted. Hygiene and safety of involved supporting medical workers such as cleaners should be ensured.
- Waste storage: an HCF should have multiple waste storage areas designed for different types of wastes. Their functions and sizes are determined at design stage. Proper maintenance and disinfection of the storage areas should be carried out. Existing reports suggest that during the COVID-19 outbreak, infectious wastes should be removed from HCF's storage area for disposal within 24 hours.
- Onsite waste treatment and disposal (e.g. an incinerator): Many HCFs have their own waste incineration facilities installed onsite. Due diligence of an existing incinerator should be conducted to examine its technical adequacy, process capacity, performance record, and operator's capacity. In case any gaps are discovered, corrective measures should be recommended. For new HCF financed by the project, waste disposal facilities should be integrated into the overall design and ESIA developed. Good design, operational practices and internationally adopted emission standards for healthcare waste incinerators can be found in pertaining EHS Guidelines and GIIP.
- Transportation and disposal at offsite waste management facilities: Not all HCF has adequate or well-performed incinerator onsite. Not all healthcare wastes are suitable for incineration. An onsite incinerator produces residuals after incineration. Hence offsite waste disposal facilities provided by local government or the private sector are probably

needed. These offsite waste management facilities may include incinerators, hazardous wastes landfill. In the same vein, due diligence of such external waste management facilities should be conducted to examine its technical adequacy, process capacity, performance record, and operator's capacity. In case any gaps are discovered, corrective measures should be recommended and agreed with the government or the private sector operators.

- Wastewater treatment: HCF wastewater is related to hazardous waste management practices. Proper waste segregation and handling as discussed above should be conducted to minimize entry of solid waste into the wastewater stream. In case wastewater is discharged into municipal sewer sewerage system, the HCF should ensure that wastewater effluent comply with all applicable permits and standards, and the municipal wastewater treatment plant (WWTP) is capable of handling the type of effluent discharged. In cases where municipal sewage system is not in place, HCF should build and properly operate onsite primary and secondary wastewater treatment works, including disinfection. Residuals of the onsite wastewater treatment works, such as sludge, should be properly disposed of as well. There're also cases where HCF wastewater is transported by trucks to a municipal wastewater treatment plant for treatment. Requirements on safe transportation, due diligence of WWTP in terms of its capacity and performance should be conducted.

More information on health care waste management in the Republic of Moldova is available in Annex 5.

3. Emergency Preparedness and Response

Emergency incidents occurring in a HCF may include spillage, occupational exposure to infectious materials or radiation, accidental releases of infectious or hazardous substances to the environment, medical equipment failure, failure of solid waste and wastewater treatment facilities, and fire. These emergency events are likely to seriously affect medical workers, communities, the HCF's operation and the environment.

Thus, an Emergency Response Plan (ERP) that is commensurate with the risk levels is recommended to be developed. The key elements of an ERP are defined in ESS 4 Community Health and Safety (para. 21).

4. Institutional Arrangement and Capacity Building

A clearly defined institutional arrangement, roles and responsibilities should be included. A training plan with recurring training programs should be developed. The following aspects are recommended:

- Define roles and responsibilities along each link of the chain along the cradle-to-crave infection control and waste management process;

- Ensure adequate and qualified staff are in place, including those in charge of infection control and biosafety and waste management facility operation;
- Stress the chief of a HCF takes overall responsibility for infection control and waste management;
- Involve all relevant departments in a HCF, and build an intra-departmental team to manage, coordinate and regularly review issues and performance;
- Establish an information management system to track and record the waste streams in HCF; and
- Capacity building and training should involve medical workers, waste management workers and cleaners. Third-party waste management service providers should be provided with relevant training as well.

5. Monitoring and Reporting

Many HCFs in developing countries face the challenge of inadequate monitoring and records of healthcare waste streams. HCF should establish an information management system to track and record the waste streams from the point of generation, segregation, packaging, temporary storage, transport carts/vehicles, to treatment facilities. The HCF is encouraged to develop an IT based information management system should their technical and financial capacity allow.

As discussed above, the HCF chief takes overall responsibility, leads an intra-departmental team and regularly reviews issues and performance of the infection control and waste management practices in the HCF. Internal reporting and filing systems should be in place.

Externally, reporting should be conducted per government and World Bank requirements.

Table 3. ICWMP

Activities	Potential E&S Issues and Risks	Proposed Mitigation Measures	Responsibi-lities	Timeline	Budget (source)
General HCF operation – Environment	General wastes, wastewater and air emissions				
General HCF operation – OHS issues	- Physical hazards; - Electrical and explosive hazards; - Fire; - Chemical use; - Ergonomic hazard; - Radioactive hazard.				
HCF operation - Infection control and waste management plan					
Waste minimization, reuse and recycling					
Delivery and storage of specimen, samples, reagents, pharmaceuticals and medical supplies					

Activities	Potential E&S Issues and Risks	Proposed Mitigation Measures	Responsibi-lities	Timeline	Budget (source)
Storage and handling of specimen, samples, reagents, and infectious materials					
Waste segregation, packaging, color coding and labeling					
Onsite collection and transport					
Waste storage					
Onsite waste treatment and disposal					
Waste transportation to and disposal in offsite treatment and disposal facilities					
HCF operation – transboundary movement of specimen,					

Activities	Potential E&S Issues and Risks	Proposed Mitigation Measures	Responsibi-lities	Timeline	Budget (source)
samples, reagents, medical equipment, and infectious materials					
Emergency events	- Spillage; - Occupational exposure to infectious; - Exposure to radiation; - Accidental releases of infectious or hazardous substances to the environment; - Medical equipment failure; - Failure of solid waste and wastewater treatment facilities; - Fire; - Other emergent events.	Emergency response plan			
Operation of acquired assets for holding potential COVID-19 patients					
To be expanded					

Annex 5. Medical waste management in the Republic of Moldova

1. Collection of dangerous medical waste

Medical waste and household waste, generated by medical institutions in the process of diagnosis and treatment of patients with pneumonia and patients suspected of Covid-19, should be collected according to the classification of medical waste. In the Republic of Moldova, the classification of medical waste can be found in the annex to the Sanitary Regulation on the management of the resulting waste from medical activity. The collection of medical waste by categories minimizes the risk of infection and guarantees the safety of human health.

2. Packaging of dangerous medical waste

2.1 Specifics of packaging for dangerous medical waste

It is recommended that infectious medical waste be packaged in strict accordance with legal standards and provisions, using packaging bags, containers and warning symbols specific to medical waste and then placed in special packaging boxes or containers of single use. Hazardous waste resulting from medical activity is packaged and labeled in compliance with the conditions of the above mentioned Sanitary Regulation and in accordance with national legislation on classification, labeling and packaging of substances and mixtures and in accordance with international treaties to which the Republic of Moldova is a party. It should contain the following:

- degree of toxicity;
- full name of the waste;
- their state of aggregation;
- color, smell, flammable and explosive properties;
- type of packaging;
- the name of the technological process from which they resulted;
- special behavioral requirements in normal conditions and in exceptional situations;
- the address of the enterprise or organization where they were produced.

According to the Sanitary Regulation on the management of medical waste, the packaging in which the separate collection is made and which comes in direct contact with the hazardous waste resulting from the medical activity is for single use and is disposed of with the contents. Cutting-edge, anatomopathological and infectious waste, identified by codes 18 01 01, 18 01 02 and 18 01 03 * in the List of wastes and the Annex to this Sanitary Regulation shall be packed in yellow bags. For separate collection of non-sharp infectious waste, cardboard boxes provided with yellow polyethylene bags or yellow-marked polyethylene bags shall be used. Bags for the storage of hazardous / infectious medical waste must meet the following conditions:

a. be made of high density plastic with high mechanical strength;
b. close easily and securely;
c. the thickness of plastic from which the bag is made should be between 50-70μm,

d. the heat seals should be continuous, resistant and not allow liquid to leak.

When choosing the size of the bag, the amount of waste produced is taken into account in the interval between two successive waste disposals. The height of the bag for the storage of hazardous / infectious waste identified by code 18 01 03 * in the List of wastes and the Annex to the sanitary regulations in question must exceed the height of the bin, so that the part of the bag passing over its upper edge can allow the bag to be closed and transported safely. The degree of filling of the bag for the storage of hazardous / infectious waste must not exceed three quarters of its volume. For the packaging of waste resulting from medical activity is prohibited the use of other categories of packaging that do not present documents confirming the suitability of the product for use (certificates, reports), including the chemical composition of the material from which the packaging is made in accordance with Law no. 209 of July 29, 2016 and the Sanitary Regulations. Therefore, it is allowed only the use of packaging that meets the requirements of art. 55 para. (3) of Law no.09 of July 29, 2016 on waste and the sanitary regulation.

2.2 Labelling of packaging for dangerous medical waste

Both the boxes provided inside with polyethylene bags and the bags in question are to be marked and labeled in Romanian with the following information:

- the category of waste collected;
- the “Biological hazard” icon;
- capacity of the container (l or kg);
- how to use it;
- the marking line of the maximum filling level;
- the date of starting the use of the container in the section / subdivision;
- the name of the institution and the section / subdivision that used the container;
- the person responsible for their management / use;
- date of final filling.

When the bag is not placed in a cardboard box to ensure mechanical strength, for the storage of hazardous / infectious waste identified by code 18 01 03 * in the List of wastes and the annex to the Sanitary Regulation, the bag must be placed in the bin with lid and pedal or in bag holder, equipped with lid. The bins, also fitted with a pedal and lid, must be marked with the "Biological hazard" icon.

2.3 Temporary storage of dangerous medical waste

In each medical institution is organized a central space for temporary storage of waste resulting from medical activity. Hazardous waste produced in the subdivisions of medical institutions, prior to transportation to the central temporary storage space, may be placed in a space intended for storing cleaning equipment / dirty linen.

2.3.1 Properties of containers for storage of dangerous medical waste

Temporary storage of infectious, stinging and pathological waste identified by code 18 01 01, 18 01 02, 10 01 03 * in the list of wastes and in the Annex to the Sanitary Regulation takes place in mobile containers with rigid walls. According to the law of the Republic of Moldova, mobile containers intended for the temporary storage of hazardous medical waste must be:

e) marked with yellow, on which the icon "Biological hazard" is fixed and inscribed with the specification "Pathological waste" (where relevant);
f) made of materials resistant to mechanical actions, easily washable and resistant to the action of disinfectant solutions;
g) secured, with the possibility of being sealed, provided with a fastening system adapted to the automatic collection system by the transport vehicle or adapted to the emptying system in the waste treatment installation;
h) the size of the containers ensures the taking over of the entire quantity of waste produced in the interval between two successive disposals. These containers do not contain unpackaged hazardous waste (bulk) or waste assimilated to municipal waste.

2.3.2 Timeline of temporary storage of dangerous medical waste

The duration of temporary storage of hazardous waste resulting from medical activity must be as short as possible, and during the temporary storage the hygiene rules in force must be observed. For sharp, anatomopathological and infectious waste identified by codes 18 01 01, 18 01 02 and 18 01 03 * in the list of wastes and in the Annex to the Sanitary Regulation, the duration of temporary storage in the medical institution shall not exceed 48 hours, except the situation in which the waste is stored in a location provided with a cooling system that constantly ensures a temperature of + 4ºC - + 8ºC, in which case the storage duration is a maximum of 7 days. Unlike the legal provisions of the Republic of Moldova, China's Guide to Medical Waste Management Caused by COVID-19 stipulates that medical and health institutions may implement temporary storage of infectious medical waste generated by coronavirus for a period not exceeding 24 hours. At the same time, the Guide stipulates the obligation to disinfect the storage space according to the method and frequency indicated by the competent health service, and the washing liquid from the storage space must be discharged into the medical disinfection and wastewater treatment system of medical and health institutions for treatment.

2.3.3 Characteristics of storage placement for dangerous medical waste

The temporary storage site must have an automatic temperature monitoring and recording system, which is checked periodically. Cardboard boxes intended for the collection of hazardous medical waste are to be stored temporarily on dry surfaces, protected from rainwater and must be transported without leakage. Requirements for the central storage space for temporary storage of medical waste include:

13. the floor with a surface resistant to mechanical action, waterproof, smooth and intact, easy to sanitize;
14. adequate drainage system / floor drain for the discharge into the sewerage network of wastewater resulting from sanitation. In the absence of the floor siphon, the sanitation is performed with minimal amounts of water, with disposable cleaning utilities, considered, in the end, infectious waste;

15. conditions restricting the access of insects, rodents, animals and birds;
16. screens for protection from the action of the sun's rays;
17. water supply source;
18. appropriate lighting systems and ventilation installations (at least passive ventilation) to ensure optimum temperatures (prevention of decomposition of organic matter, accidents caused by other hazardous waste);
19. controlled access for authorized personnel;
20. access for units / vehicles that ensure the transport / disposal of waste;
21. conditions for hand hygiene and sanitation of containers for transporting waste and surfaces;
22. technological equipment, furniture, personal protective equipment, specific equipment for leak management,
23. quantities and assortment of sanitary and disinfection products required;
24. autonomous signaling and fire-fighting systems.

It is forbidden to operate the central storage facilities for temporary storage of waste resulting from medical activity on sites located outside medical institutions, or which do not belong to economic operators who carry out operations of treatment or disposal of waste resulting from medical activity.

2.4 Transportation of dangerous medical waste

The transportation of waste resulting from medical activity, including hazardous waste, to the place of treatment or disposal is carried out in compliance with the provisions on environmental protection and public health stipulated in Article 4 of Law no. 209 of July 29, 2016 on waste.

2.4.1 Transportation of dangerous medical waste inside the sanitary-medical institutions

The transport of hazardous waste inside medical institutions is carried out on a separate circuit from that of patients and visitors. Hazardous and non-hazardous waste is transported separately. The waste resulting from the medical activity is transported inside the medical-sanitary institution with the help of special carts and mobile containers. Mobile trolleys and containers used in medical institutions are cleaned and disinfected after each use, in the place where they are unloaded, using biocidal products registered in the Republic of Moldova.

2.4.2 Transportation of dangerous medical waste outside the sanitary-medical institutions

Hazardous and non-hazardous waste from medical activity is handed over by the producing institution to the authorized economic operators, in accordance with art. 25 of Law no. 209 of July 29, 2016 on waste by the authorities empowered by art. 24 of the mentioned law on the basis of a contract. In the situation where a medical institution is located in several buildings situated in different places, the transportation of waste resulting from medical activity is done through economic operators providing services, contracted by the medical institution. The transport of hazardous waste, resulting from medical activity, on public roads to the place of treatment or disposal and their transfer for final disposal abroad, is carried out in accordance with the requirements established in art. 44 and 64 of Law no. 209 of July 29, 2016 on Waste, the European Agreement concerning the International

Carriage of Dangerous Goods by Road (ADR), to which the Republic of Moldova acceded by Parliament Decision no. 44-XIV of 4 June 1998, and the Regulation on Road Transport of Dangerous Goods, approved by Government Decision no. 589 of July 24, 2017.
From the above, we can emphasize that the rules for the transport of hazardous / infectious waste are of a general nature. However, given that the situation created by the spread of coronavirus is a specific one, these rules need to be adapted to the new conditions in order to increase their efficiency. If we refer to China's Guide to Medical Waste Management Caused by COVID-19, we see that transportation rules are much stricter and more complex. Thus, it stipulates that for the transport of infectious medical waste generated in the process of prevention and control of COVID-2019, vehicles specially designed only for the given category of waste will be used. In the process of medical waste transfer, the electronic transfer form can be used depending on the real local situation. Prior to the transfer, the route and requirements for the transfer are established. Transport routes should avoid densely populated areas as much as possible, and rush hours should be avoided for transport. Medical waste must be transferred to disposal facilities within 48 hours. Transport vehicles shall be disinfected in accordance with the method and frequency indicated by the competent health service after each unloading.

2.5 Elimination of dangerous medical waste

The processes and methods used for the treatment and disposal of waste resulting from medical activity must not endanger public health and the environment and must comply with the following requirements:
a. They must not present a danger to water, air, soil, fauna or vegetation;
b. does not have a negative impact on the health of the population in the neighboring residential areas;
c. does not produce noise pollution and unpleasant odor; d. does not affect landscapes or protected areas. When choosing the treatment method, the type of waste, environmental and safety factors, technological capabilities and the provisions of Law no. 209 of July 29, 2016 on waste and of the present Sanitary Regulation on waste management resulting from medical activity are taken into account.

2.5.1 Treatment of infectious / dangerous medical waste depending on technological capacities of medical institution

The treatment of hazardous waste depending on the technological capacities of medical institutions can be:

a) outsourced treatment - by handing over, based on the service contract, to authorized economic operators, in accordance with art. 25 of Law no. 209 of July 29, 2016 on waste, by the authorities empowered by art. 24 of the mentioned law for the treatment of waste resulting from medical activity by types of waste. Exceptions are waste, the collection and disposal of which are subject to special measures for the prevention of infections identified by code 18 01 03 * in the Annex to the Sanitary Regulation, produced in microbiological laboratories and / or from patients with highly contagious communicable diseases, which require treatment at the source of generation.
b) Internal treatment - medical institutions equipped with waste shredding equipment and their own thermal decontamination installations, can treat the cutting-stinging and infectious waste identified with codes 18 01 01 and 18 01 03 * in the List of wastes and in the annexes of the Sanitary Regulations.

2.5.2 Specifics and methods of elimination of dangerous medical waste

For the treatment of cutting, stinging and infectious waste identified with codes 18 01 01 and 18 01 03 * in the List of wastes and in the annex to the Sanitary Regulation, autoclaves with the following activity principles are used: • Gravitational; • pre-vacuum or autoclave; • other advanced technologies. The validation of the autoclaving process of cutting-stinging and infectious waste is performed each time by applying chemical and periodic indicators (weekly or every 40 hours of use) biologically, but not limited to those listed. At the same time, the treatment of sharp-stinging and infectious waste ensures the reduction of the level of microbial inactivation. Chemical disinfection of infectious waste is allowed only for liquid waste (blood, urine, faeces and vomit, etc.).

2.6 Disposal of dangerous medical waste

The disposal of hazardous waste resulting from medical activity is carried out in accordance with the regulations specific to each category of waste, in accordance with the disposal operations stipulated in Annex no. 1 to Law no. 209 of July 29, 2016 on waste. The disposal methods used must ensure the rapid and complete destruction of factors potentially harmful to the environment and the health of the population.

2.6.1 Methods of disposal of dangerous medical waste

The legislation of the Republic of Moldova provides several ways of final disposal of hazardous / infectious waste, resulting from medical activity, depending on the category of waste:
a. Incineration - anatomopathological waste (fragments and human organs, including blood vessels and preserved blood); chemical wastes consisting of or containing dangerous substances; cytotoxic and cytostatic drugs.
Emissions to air and water from waste incineration plants resulting from medical activity shall not exceed the emission limit values established by environmental legislation and international treaties to which the Republic of Moldova is a party. Sedimentary residues from the cleaning of boilers, filters, ducts and chimneys of incineration plants, being very dangerous, need to be disposed of in special places intended for the burial of hazardous waste.
b. Storage - waste whose collection and disposal are subject to special measures to prevent infections; cutting waste. They are stored in the authorized hazardous waste landfill after mandatory treatment.

2.7 Waste code according to the GD no. 696 of 11.07.2018 for the approval of the Sanitary Regulation on the management of waste resulting from medical activity

18 01 01 - sharp objects and sharp cutting waste;
18 01 02 - human fragments and organs, including blood vessels and preserved blood;
18 01 03* - waste, the collection and disposal of which are subject to special infection prevention measures;
18 01 04 - waste, the collection and disposal of which are not subject to special measures to prevent contamination;
18.01.06* - chemicals consisting of or containing hazardous substances, acids, bases, halogenated solvents, other solvents, organic and inorganic chemicals, including products used for disinfection services, and clean;
18 01 07 - chemicals other than those mentioned in 18 01 06*;
18 01 08* - cytotoxic and cytostatic drugs;
18 01 09 - drugs other than those specified 18 01 08*;
18 01 10* - amalgam waste from dental treatments.

Annex 6. List of normative acts regarding the management of waste resulting from medical activity

1. Law no. 10-XVI of 03.02.2009 Regarding the state supervision of public health; http://lex.justice.md/md/331169/
2. Law no. 209 of 29.07.2016 on waste; https://www.legis.md/cautare/getResults?doc_id=125234&lang=ro#
3. Law no. 271 of 09.11.1994 on civil protection https://www.legis.md/cautare/getResults?doc_id=118980&lang=ro
4. Law no. 132 of 08.06.2012 on the safe conduct of nuclear and radiological activities https://www.legis.md/cautare/getResults?doc_id=106549&lang=ro#
5. GD no. 248 of 10.04.2013 regarding the approval of the Waste Management Strategy in the Republic of Moldova for the years 2013-2027; https://www.legis.md/cautare/getResults?doc_id=114412&lang=ro
6. GD no. 696 of 11.07.2018 for the approval of the Sanitary Regulation on the management of waste resulting from medical activity; https://www.legis.md/cautare/getResults?doc_id=108829&lang=ro
7. GD no. 99 of 30.01.2018, for the approval of the waste list. https://www.legis.md/cautare/getResults?doc_id=102107&lang=ro
8. GD no. 501 of 29.05.2018 for the approval of the Instruction on keeping records and transmitting data and information on waste and their management. https://www.legis.md/cautare/getResults?doc_id=108614&lang=ro
9. GD no. 663 of 23.07.2010 for the approval of the Sanitary Regulation on hygiene conditions for HCFs; https://www.legis.md/cautare/getResults?doc_id=110173&lang=ro#
10. Order of the Ministry of Health no. 51 of 16.02.2009 on the surveillance and control of nosocomial infections, "Guide for surveillance and control in nosocomial infections" edition I and II (2008, 2009); http://89.32.227.76/_files/3541-3485-Document2.pdf; http://www.ms.gov.md/sites/default/files/legislatie/ghidul_de_supraveghere_si_control_in_infectiile_nosocomiale1.pdf
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