

Technical brief for adapting Infection Prevention Control (IPC) measures in health care facilities (HCF) in the context of Omicron

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Key messages

- Health care facilities (HCFs) are crossroads where patients, **health care workers (HCWs)** and visitors converge; thus, they play an amplifying role in the evolution of the epidemiological situation. Therefore, it is imperative to implement robust <u>infection prevention</u> and control (IPC) programmes in all HCFs.
- ▶ HCFs should not ease IPC measures but rather reinforce awareness of standard and transmission-based precautions and ensure universal use of masks within the facilities, triage and isolation, multimodal strategies for hand hygiene and availability of personal protective equipment (PPE) to improve compliance with IPC.
- Strengthen the capacity of **HCWs** in charge of triage activities at HCFs and support cascade training on COVID-19 WASH/IPC at subnational levels.
- Prioritize the protection of HCWs by setting up a national strategy for systematic early detection of SARS-Cov-2 infection and exposure in HCWs. HCFs should put in place safe return-to-work policies after isolation/quarantine.
- The Health Facility Scorecard used since the beginning of the epidemic is a valuable tool to improve IPC measures at facility level and must be implemented to routinely monitor progress.
- The priority actions for Members States are:
 - building a comprehensive national system to achieve the recommended minimum requirements at the national and facility levels
 - improving COVID-19 vaccination uptake by **HCWs** as priority targets
 - scaling up production, quantification, procurement and distribution of PPEs, including respirators and medical masks for use in health and care settings to ensure equitable access by all **HCWs** in all facilities including those in remote areas.

1. Introduction

Health care facilities (HCFs) play a significant role in mitigating the impact of disease outbreaks. Since 2020 when the first case of coronavirus disease 2019 (COVID-19) was confirmed in the African Region, Member States have adopted World Health Organization (WHO) guidelines to implement measures in HCFs to strengthen the capacity to respond to COVID-19 and continue offering essential services to other patients. However, due to the evolving nature of the virus, which has resulted in many variants (Alpha, Beta, Delta and most recently, Omicron), there has been a constant need to review the evidence and adjust recommendations accordingly. The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) variants have been mutating over the past two years, resulting in most African countries experiencing four waves coupled with an increased number of cases. Due to the protracted nature of the pandemic, governments, employers, and communities are eager to return to pre-COVID-19 normal living and do away with public health and social measures (PHSM). **HCWs** have not been spared the fatigue as they have been working tirelessly under difficult circumstances to provide care in the overwhelmed HCFs.

Inadvertently, this has resulted in reluctance and poor compliance with IPC measures within HCFs and communities, resulting in a high number of infections among this cohort. The goals of IPC in HCFs are to¹:



- reduce transmission of health care-associated infections and thereby enhance the safety of all persons present in a health care facility, including patients, **HCWs** and visitors;
- enhance the ability of a health care facility to respond to an outbreak;
- lower or eliminate the risk of the HCF itself amplifying the outbreak.

With these goals in mind and the different virological and epidemiological characteristics of the SARS-COV-2 virus, there is a need to review the measures implemented within HCFs and to continue to protect patients, visitors and **HCWs** within the facilities.

2. Context

The WHO COVID-19 daily situation update as of 8 March 2022 for the African Region, indicated that a cumulative total of 153 257 health worker infections (representation 2.0% of all cases) had been recorded in 46 countries since the beginning of the pandemic. HCWs, as the front-line service providers, have been and continue to be at increased risk of infection from SARS-CoV-2 and hence there is a need to continue improving IPC measures at health facilities. The current COVID-19 pandemic has exposed the suboptimal IPC programmes at national and facility levels. Although there has been significant progress in improving IPC practices in the African context, we still have a long way to go in improving IPC programmes and measures at HCFs. Some of the key lessons learnt from the COVID-19 pandemic as highlighted in the Building health systems resilience for universal health coverage and health security during the COVID-19 pandemic and beyond: WHO position paper are that prior to the COVID-19 pandemic, countries were only prepared for minor health emergencies and not emergencies that exceed their capacities, and the pandemic thus exposed gaps in health systems, including poor IPC.

Numerous challenges affect the effective implementation of IPC, including the lack of sustainable programmes with dedicated personnel and budgets, lack of strategic documents and guidelines, poor infrastructure (water, sanitation and hygiene, "WASH" facilities), staff shortages and huge IPC knowledge gaps. An emergency initiative to improve IPC in primary facilities in a total of 8444 health facilities in 22 African countries recommended advocating for Member States to develop national IPC policies, guidelines, training curricula, undertake supportive supervision and set up monitoring and evaluation systems to improve the sustainability of IPC.⁴

Furthermore, to strengthen IPC in HCFs, the WHO Regional Office for Africa (AFRO) developed a facility scorecard tool for rapid assessments of IPC within facilities and to guide improvements at the facility level. The tool assesses the following components: availability of IPC programmes at the facility level, triage, isolation, hand washing facilities, PPE, waste segregation, waste disposal, training, intrahospital alert, sterilization, bio cleaning, **HCW** exposure, water supply and sanitation. The average score from 16 countries that have shared results of assessments on the 14 components (Figure 1) was 65% after the first round of assessments, improving to 75% with the implementation of IPC interventions.

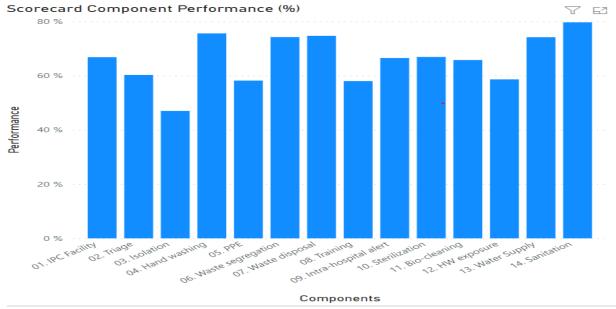


Figure 1. Results from the facility scorecard assessments for 16 countries

Omicron variant

The SARS-CoV-2 virus has been mutating and the most recent variant, Omicron, was classified as a variant of concern (VOC) due to its high transmissibility and potential to escape immunity. The current evidence suggests that there is a risk for reinfection with the Omicron variant but with less disease severity as reported in South Africa, the United Kingdom, Denmark and Israel. Furthermore, the Omicron variant has sublineages which include BA.1, BA.1.1 and BA.2, all in circulation globally. They are being closely monitored and WHO and partners are urging countries to monitor sequencing, transmissibility and disease severity. However, despite the suggestive evidence of reduced disease severity, there is no assurance that future variants will not be more virulent and hence it is recommended that facilities have a functional IPC programme with a dedicated focal person to support IPC measures within the facility to protect HCWs and vulnerable patients.

3. Considerations for facilities

a) Screening and triage

Despite the decline in the number of cases, WHO strongly recommends continuing active screening at the first point of contact with the **HCF** and triage for early recognition of patients with suspected COVID-19.⁷ The rapid implementation of source control measures should continue to be conducted⁷ so as to break the chain of infection.

Triage

Patients who have symptoms of respiratory distress and are suspected of having COVID-19 and severe underlying conditions should be prioritized for medical evaluation after screening and isolation. The standardized and validated triage tools (including the WHO/ICRC/MSF/IFRC Interagency Integrated Triage Tool)⁷ should be used to identify individuals in need of immediate care and those who can safely wait.



Isolation or designated waiting area

Well-ventilated isolation rooms with benches, stalls or chairs placed at least 1 meter apart in the emergency departments should be maintained where patients with suspected COVID-19 can wait to be assessed. Additionally, in the waiting area there should be masks to encourage universal masking for patients, staff and visitors, dedicated toilets, hand hygiene stations and trash bins with lids for disposal of paper tissues used for respiratory hygiene or after hand washing.⁷

Inpatient screening

HCWs should continue performing regular patient assessments through screening of inpatients and outpatients in order to identify individuals who have suspected or confirmed COVID-19, as this will help to reduce the risk of transmission of SARS-CoV-2 in health care facilities.⁷

b) Standard and transmission-based precautions

Standard precautions are the basic precautions which should be observed at all times by all HCWs, while transmission-based precautions should be followed in addition to the standard precautions for patients with known or suspected infections.

Standard precautions

<u>Hand hygiene</u>: Perform hand hygiene according to WHO's *My 5 Moments for Hand Hygiene* approach. Use alcohol-based hand rub containing 60-80% alcohol or soap, water and disposable towels.⁸

Respiratory hygiene: Staff should perform and promote respiratory hygiene and help individuals who need assistance, such as providing patients with tissues, plastic bags for used tissues and hand hygiene facilities as necessary. Posters and graphic information on respiratory hygiene should be displayed in the health facility.⁹

<u>Use of personal protective equipment (PPE)</u>: The rational and correct use of PPE reduces exposure to and infection of SARS-CoV-2. Before contact with patients, **HCWs** should conduct risk assessments and select the appropriate PPE for use, such as clean non-sterile gloves, a clean non-sterile fluid-resistant gown, mask and eye protection or a face shield.⁹

Environmental cleaning and disinfection: All surfaces and equipment in health facilities, especially frequently touched surfaces and those visibly soiled or contaminated by body fluids, should be routinely cleaned and disinfected. The following checklists for cleaning equipment used in the care of COVID-19 patients can be accessed at these hyperlinks: Care, cleaning and disinfection of BiPAP/CPAP devices (who.int)¹¹; Care, cleaning and disinfection of oxygen concentrators (who.int)¹²; Care, cleaning and disinfection of invasive mechanical ventilators (who.int)¹³; Care, cleaning and disinfection of pulse oximeters and patient monitors devices (who.int)¹⁴; Care, cleaning and disinfection of high flow nasal cannula (who.int)¹⁵; and care-cleaning-and-disinfection-of-respiratory-equipment (1).pdf¹⁶.

<u>Waste management:</u> Most of the waste generated in health facilities is general, non-infectious waste (such as packaging, food waste, disposable hand drying towels).²⁷ General waste should be segregated from infectious waste in clearly marked bins, bagged and tied and disposed of as general municipal waste. Infectious waste produced during patient care, including waste from those with confirmed SARS-CoV-2 infection (such as sharps, bandages, pathological waste), should be collected safely in clearly marked lined containers and sharps boxes.⁹



Transmission-based precautions

<u>Universal and targeted continuous masking</u>: In any setting where care is provided to patients with suspected or confirmed COVID-19, including home care, long-term care facilities and community care settings, a respirator (FFP2, FFP3, NIOSH-approved N95, or equivalent or higher-level certified respirator) or a medical mask should be worn by HCWs along with other PPE – a gown, gloves and eye protection – before entering a room where there is a patient with suspected or confirmed COVID-19. Universal masking also applies to patients and visitors.¹⁷ WHO recommendations on mask use by HCWs, in light of the Omicron variant of concern: WHO interim guidelines, 22 December 2021¹⁷

<u>Isolation and cohorting of patients with suspected or confirmed COVID-19</u>: A dedicated team of **HCWs**, where possible, should provide care for patients with suspected or confirmed COVID-19, and the number **of HCWs** in contact with each COVID-19 patient should be restricted. Patients with suspected or confirmed COVID-19 should be isolated in single rooms or, if unavailable, cohorted in the same room, based on specific principles.⁷

<u>Contact and droplet precautions</u>: In addition to using standard precautions, all individuals should use contact and droplet precautions before entering a room where there is a patient with suspected or confirmed COVID.⁷ A respirator, gown, gloves and eye protection should be worn before entering a room where there is a patient with suspected or confirmed COVID ¹⁷

Airborne precautions: In addition to using standard precautions, all individuals should use contact, droplet and airborne precautions before entering a room where there is a patient with suspected or confirmed COVID-19. A respirator should always be worn along with other PPE by HCWs performing aerosol-generating procedures (AGPs) and by HCWs on duty in settings where AGPs are regularly performed on patients with suspected or confirmed COVID-19, such as intensive care units, semi-intensive care units or emergency departments.¹⁷ In the African context where reports of PPE shortages are rife, WHO encourages Member States to scale up production, quantification, procurement and distribution of PPEs that include respirators and medical masks for use in health and care settings to ensure equitable access by all health and care workers.¹⁷

Dead body management: People who have died from COVID-19 can be buried or cremated according to local standards and family preferences while observing IPC practices. There is no evidence to support the claim that dead bodies are highly infectious and therefore, the recommendations are for handlers to practice standard precautions. **HCWs** should do a preliminary evaluation and risk assessment before undertaking any activity related to the management of a suspected or confirmed COVID-19 fatality and follow WHO's infection prevention and control guidance for the safe management of a dead body in the context of COVID-19.¹⁸

c) Implementing administrative controls

Policies for the prevention and control of transmission of SARS-CoV-2 within the health facility should be put in place. These include strategies to minimize the transmission of infection such as: prevention, identification and management of COVID-19 among HCWs; administrative measures to



manage visitors; and environmental and engineering controls, with special emphasis on the need for good ventilation.⁷

A multidisciplinary and integrated approach that includes IPC, surveillance and occupational health and safety (OSH) measures, is required to prevent SARS-CoV- 2 infections among **HCWs**, visitors and patients.¹⁴

Prevention, identification and management of COVID-19 among HCWs

National and subnational testing strategies for the detection of SARS-CoV-2 infections in **HCWs**, including in long-term care facilities, should be strengthened. Guidance should continue to be provided on the management of **HCWs** who are exposed to or infected with SARS CoV-2, including their safe return to work. Syndromic surveillance that includes passive and active surveillance and national testing strategies that include routine testing among **HCWs** and testing of **HCWs** following exposure to SARS-CoV-2 are recommended as indicated in the following guidance: <u>WHO-2019-nCoV-IPC long term care-2020.1-eng.pdf.</u>²⁰ The risk assessment tool (Tool 2) which is part of the WHO AFRO HCW toolkit which was adapted and contextualized from the interim guidance: <u>WHO-2019-nCov-HCW risk assessment-2020.2-eng.pdf.</u>²¹ should continue to be used to help determine the risk of COVID-19 infection among **HCWs** and to reduce the risk of spread of the infection within the facility and from the facility to the community.

Administrative and organizational measures must be put in place in conjunction with the occupational medicine services to ensure the safety of the working environment in places where staff tend to congregate (rest areas, cafeterias, changing rooms, etc.). Additionally, strong collaboration with the human resources and logistics departments must ensure the availability of staff and PPE in sufficient numbers and quantities respectively.

Table 1. Examples of syndromic surveillance approaches (adapted from Prevention, identification and management of health worker infection in the context of COVID-19 (who.int))¹⁹

COVID-19 transmission scenario	Type of syndromic surveillance for HCWs	Possible approach
No cases or sporadic cases	Implement passive syndromic surveillance	Staff self-report to occupational health or other designated officer if they experience any symptoms including fever.
Clusters of cases	Implement passive syndromic surveillance, consider active surveillance if resources are available	Staff self-report to occupational health or other designated officer if they experience any symptoms including fever. If resources are available, consider a process to actively monitor staff for symptoms including fever.
Community transmission	Implement active syndromic surveillance	A process is put in place in which staff temperatures are monitored and staff are assessed actively (screened) for symptoms at the beginning of each shift at a minimum.

HCFs should have in place a clear return-to-work policy guided by the WHO recommendations for discontinuing isolation following COVID-19 infection and a system to manage suspected COVID-19



infections and measures for **HCWs** who test positive for SARS-CoV-2 and those who are symptomatic and test negative.¹⁹ In high transmission scenarios, changes to a 14-day quarantine can be considered following a negative SARS-CoV-2 PCR or Ag-RDT test administered by trained, qualified personnel, while the HCW concerned should continue adhering to standard and transmission-based precautions.²² Furthermore, COVID-19 self-testing using a SARS-CoV-2 Ag-RDT test is also recommended in the WHO-2019-nCoV-Ag-RDTs-Self-testing-2022.1-eng.pdf²⁸ guidance as a feasible testing approach among HCWs which can help to improve early, timely diagnosis and prompt HCW to take the appropriate IPC measures to protect themselves, their patients and co-workers. The COVID-19 self-testing approach also reduces HCW quarantine and absenteeism from work.²⁸

Measures to manage visitors

The health facility management should consider safe visiting policies following an evaluation of the transmission scenarios and the importance of visits for patients' well-being. The visits should be scheduled to allow enough time for visitor screening, education, and training. In the context of community transmission, health facilities need to implement policies to limit access to visitors to protect them from getting infected and reduce their potential to introduce SARS-CoV-2 into the health facility. ⁷

d) Environmental and engineering controls

The standards for sufficient ventilation of specific areas in HCFs, appropriate structural design, spatial separation and adequate environmental cleaning are critical IPC elements that should be improved in the health facilities.

Ventilation

There are three different methods that can be used to improve ventilation within HCFs, and these include natural, mechanical and hybrid ventilation.²³ The road map for implementation and improvements for the different ventilation methods in the context of COVID-19 can be accessed at: Roadmap to improve and ensure good indoor ventilation in the context of COVID-19 (who.int),²⁴ as guidance for HCF leaders and IPC committees.

IPC in home-based isolation care (HBIC)

The most up-to-date guidance for "Home care for patients with suspected or confirmed COVID-19 and management of their contacts (who.int)"²⁵ recommends that for HBIC, good community IPC is important not only to prevent the spread of infection from the patient to those around him or her, but to assist the caregiver in his or her task of caring for the patient. In this regard, HBIC guidelines should be made available in the community for staff working in treatment centres, community HCWs or any other staff working to prevent and control COVID-19.

4. Priority actions for Member States

- Member States should use evidence and analysis of their context, taking into consideration the epidemiological situation, HCF assessments and improvements (health system capacity), vulnerable patients and disease burden and health care worker surveillance to inform any adjustments to their HCFs and determine the needs of a resilient health system that can adequately respond to a health emergency and continue offering essential services before making any adjustments.
- Member States should ascertain and improve the implementation of the International Health Regulations (2005) by adopting and adapting the WHO recommendations on IPC minimum



- requirements at the national and facility levels to ensure that strong and sustainable IPC programmes are implemented at all facilities.
- A decline in cases or changes in community transmission should not derail the progress made in IPC. The COVID- 19 pandemic is a great opportunity to invest in building resilient systems through strengthening infection prevention programmes in all health facilities and at all tiers of the health system.
- Strengthen leadership, coordination and advocacy through establishing a multidisciplinary technical working group with defined terms of reference that can coordinate and monitor IPC needs and programmes.
- Prioritize the protection of HCWs by establishing a HCW protection strategy at the national level and setting up HCW surveillance systems that can help identify and mitigate contributors to HCW infections.
- Member States should scale up production, quantification, procurement and distribution of PPEs that include respirators and medical masks for use in health and care settings to ensure equitable access by all health and care workers in all facilities including those in remote areas.
- Strengthen IPC training in COVID-19 training and include practical and simulation exercises for all HCWs in facilities and cascade training to remote facilities. Integrate IPC in preservice and in-service curricula and capacitate community health care workers who have been instrumental in the COVID-19 response.
- Develop and strengthen monitoring frameworks and data systems in line with the WHO recommended indicators for IPC to guide in identifying gaps and informing improvements at the national and facility levels.
- Scale up vaccine uptake among HCWs.



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List of Contributors

Dr Landry Kabego Cihambanya – WHO Regional Office for Africa
Professor Babacar Ndoye – WHO Regional Office for Africa
Ms Tendai Makamure – WHO AFRO Emergencies Hub, Kenya
Dr Deborah Barasa – WHO AFRO Emergencies Hub, Kenya
Dr Okou-Bisso Hilde – WHO AFRO Emergencies Hub, Senegal
Dr Guy Ohirweo luhya Mulumeoderwa – WHO AFRO Emergencies Hub, Senegal
Dr Boniface Oyugi – WHO Regional Office for Africa
Dr Thierno Balde – WHO Regional Office for Africa.

For further information, please contact:

Dr. Landry Kabego Cihambaya – WHO AFRO Regional COVID-19 IMS IPC team lead, WHO Regional Office of Africa Contact: cihambanyal@who.int

Dr. Thierno Balde – WHO AFRO Regional COVID-19 IMS Incident Manager, WHO Regional Office of Africa Contact: <u>baldet@who.int</u>

Dr. Abdou Salam Gueye – Regional Emergency Director, Emergency Preparedness, and Response, WHO Regional Office of Africa Contact: gueyea@who.int