INTRODUCTION

In order to address the COVID-19 pandemic, countries and health institutions must have the capacity to respond with human resources that are sufficient in quantity and who possess the skills and capacities necessary to meet the needs of the population in a timely, relevant, efficient, and effective manner.

Effective management of human resources will allow health systems to respond in a timely manner, improve health care outcomes, rationalize the use of resources, and reduce the stress on staff.

The COVID-19 pandemic presents challenges to ensure the availability of health personnel in areas of high demand with the necessary capacities to respond adequately to the increased demand and expansion of services as well as the possible reduction in available personnel due to, among other things, illness, risk situations, and personal or family issues.

Planning and management of human resources is essential to ensure preparedness for response, enhance surge capacity, maintain essential health services, and ensure a sufficient and continual supply of health workers that are more efficient and productive, providing them with the training, protections, rights, recognition, and tools necessary to undertake their roles. The following actions should be prioritized:

1. Establish a process to forecast human resources’ staffing needs and the possible mobilization and reorganization of human resources;
2. Protect health personnel and support workers in health institutions, including consideration for their mental health, psychosocial, and personal and family needs;
3. Provide appropriate and up-to-date training and maintain communication with health workers;
4. Activate or strengthen the health services networks, communication, and community participation.

The purpose of this document is to facilitate quick access to available documentation, guidelines, and resources for some frequently asked questions pertaining to the management of human resources for health in response to COVID-19. It is intended for use by PAHO/WHO Health systems and services advisors, PAHO/WHO incident command members, national health authorities (including HRH directors and managers), and directors of health services and networks.

The list of questions is not exhaustive and more information will be added as the situation evolves. Some resources are repeated under more than one question, based on their relevance for responding to the question.
GENERAL INFORMATION FOR HEALTH WORKERS

The following sites contain general information as well as training materials that are useful for health workers. We suggest you review these sites frequently as information is constantly being updated as it is made available.

World Health Organization (WHO):
- EPI-WIN WHO information network for epidemics:
  - https://www.who.int/teams/risk-communication (main page)
  - https://www.who.int/teams/risk-communication/health-sector (health sector page)
  Note some of the information is the same as the WHO main page on COVID-19.
- Virtual courses (self-learning): https://openwho.org/channels/covid-19

Pan American Health Organization (PAHO):

United States Centers for Disease Control and Prevention (CDC):
- Information for healthcare professionals about SARS-CoV-2 (COVID-19). Note that, while some of this information may be valuable, it is specific to the United States and may not be applicable to the national or local context: https://www.cdc.gov/coronavirus/2019-ncov/hcp/index.html

1. HRH STAFFING, MOBILITY, SCALING UP (SURGE CAPACITY), AND REORGANIZATION

Q. How many and which categories of health personnel are needed to respond to the COVID-19 pandemic and for scaling up health services?
A. The number, profiles, and functions of health workers needed will vary according to the characteristics of the health situation and health system in each country.

PAHO and WHO have developed modeling tools for the general calculation of needs according to different COVID-19 scenarios in the country. They can be used to identify critical tasks and time expenditures, combined with epidemiological context and population data, to model health worker requirements.
Estimation tool for hospital beds and health human resources for the response to COVID-19

This tool was developed by PAHO and is available to all the PAHO Health systems and services advisors in the region. Training can be scheduled in its use as needed.

We also suggest consulting the following website, documents and learning modules from WHO:

WHO surge calculators

To gauge the need for supplies/equipment and health work force requirements during the COVID-19 pandemic, WHO has developed a suite of complimentary surge calculators – one for supplies and two for health workforce. All tools use the same base epidemiologic assumptions and classify health workforce using standardized International Labor Organization International Standard Classification of Occupations codes, but their outputs are intentionally different due to their primary focus. The first two tools described below will help countries to visualize and estimate the health workforce necessary for acute and intensive care over the course of the pandemic, and to project the timing and severity of the peak of the outbreak. All three tools are available at https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/covid-19-critical-items. It should be noted that the tools can be adapted to the local context; questions regarding this should be directed to the PAHO health systems and services (HSS) advisor in your country.

- Health Workforce Estimator
  The Health Workforce Estimator will assist countries in estimating the numbers of health workers needed based on projected numbers of moderate, severe, and critical patients per day. This understanding of the potential workload from COVID-19 will also allow countries to anticipate and better address the mental health-care needs of health workers. Additionally, it will help health service managers calculate the amounts of personal protective equipment and other resources required to safeguard the physical health of staff.
  https://euro.sharefile.com/share/view/s1df028894aa49abb

- Adaptt Surge Planning Support Tool
  The Adaptt Surge Planning Support Tool, intended for policymakers and senior planners, focuses on surge planning. It will help users to estimate the number of beds required for moderate, severe, and critical care; the dates of predicted bed shortages; and the detailed human resources needed.
  https://euro.sharefile.com/share/view/scef08a92a9d43b68

- Essential Supplies Forecasting Tool (ESFT)
  The Essential Supplies Forecasting Tool (ESFT) is designed to help governments, partners and other stakeholders to estimate potential requirements for essential supplies, including equipment, drugs, inpatient beds, and tests. While the focus is on supplies, the tool also provides some outputs on COVID-19 cases and health workforce requirements, including community health workers, in an aggregated format.
Tool: https://www.who.int/publications/m/item/covid-19-essential-supplies-forecasting-tool
FAQs: https://www.who.int/publications/i/item/10665-333299

- **Coronavirus disease (COVID-19) technical guidance: Country readiness**

- **Operational planning guidelines to support country preparedness and response** 22 May 2020
  This document provides a practical guide for the United Nations country teams and partners to develop a country preparedness and response plan (CPRP) to immediately support national governments to prepare for and respond to COVID-19. This guide outlines the priority steps and actions to be included in the CPRP across the major areas of the public health preparedness and response. While not specific to health workers, this guide addresses some of those issues. https://www.who.int/publications/i/item/draft-operational-planning-guidance-for-un-country-teams

- **National capacities review tool for a novel coronavirus (nCoV)** 10 January 2020
  The aim of the tool is to better understand existing capacities in the area of detection and response to a novel coronavirus (nCoV) that is zoonotic and causes respiratory disease. This information will help national authorities to: i) identify main gaps; ii) perform risk assessments; and iii) plan for additional investigations, response, and control actions. While not specific to health workers, the tool helps identify some of the needs related to the same. The tool was developed with other coronaviruses, such as SARS-CoV and MERS-CoV, in mind and in consultation with Member States. https://www.who.int/publications/i/item/national-capacities-review-tool-for-a-novelcoronavirus

- **E-learning: Operational planning guidelines and COVID-19 Partners Platform to support country preparedness and response**
  This 3-module learning package introduces the context for the need for a coordinated global response plan to the COVID-19 outbreak. It provides the required guidance to implement the Operational Planning Guidelines to Support Country Preparedness and Response. These planning guidelines describe priority steps and actions to be included in countries’ preparedness and response plans across the major areas of public health preparedness and response. This is aligned with the previously published COVID-19 Strategic Preparedness and Response Plan (SPRP). By the end of this course, the appointed UNCT lead planners and relevant partners should be able to assess and fill in capability gaps to respond to the COVID-19 outbreak. **Duration: 2 hours.**
2. Q. How can I develop a registry or list of health professionals to respond to the health care needs of COVID patients within the health services? (location, availability, profiles and areas of expertise)?

A. It is important to be able to map the health worker requirements and availability (including profile, level of care, critical tasks) in your country according to transmission scenarios, utilizing tools that are available from PAHO, WHO, and/or other reputable sources. To the extent possible, this information should be organized according to profile, specialty, training, current status (active, retired, etc.), demographics (sex, age), location, and potential availability. This will enable the identification of qualified candidates and potential recruitment of additional health workers. Potential sources of the above information are HRH databases, registration and certification records, professional associations, etc.

It would be useful to set up a centralized roster or database of all available health workforce according to level of care at the appropriate level (municipal/district/parish, provincial/state, regional, national) and designating a function/person for updating contact information and potential health care service capacity of all people willing and capable to serve.

3. Q. What issues should be considered in relation to the management of human resources during the COVID-19 pandemic?

A. The issues will vary according to the characteristics of the health situation and health system in each country. We suggest reviewing the following checklist which is intended for use by PAHO/WHO health systems and services advisors, PAHO/WHO incident command members, national health authorities (including HRH directors and managers), and directors of health services and networks in planning and managing human resources during the COVID-19 pandemic. You may also wish to review all the questions and answers in this document.

- Checklist for the Management of Human Resources for Health in Response to COVID-19, 6 May 2020 (currently under review to be updated)
  https://iris.paho.org/handle/10665.2/52100

4. Q. What options are available to address the need for covering health personnel posts due to absences or for scaling up human resources (increase of beds or services)?

A. National authorities should review the overall organization of care delivery to determine overall human resources for health needs and appropriately assign roles. Options that could be considered – depending on the health situation, health system, and country context – may include the following:

Recruitment of additional health workers: Countries may wish to consider the following sources for temporary health workforce surge capacity and other essential health care services.

- Strengthen human resources information systems to provide policymakers, planners, researchers, and others with valid, reliable, up-to-date and easily accessible information on the health workforce. Efforts should be made to align required data and definitions to coordinate data collection between government ministries, professional councils and training institutes.
- Institute regulatory measures to streamline deployment of additional workers.
• Establish agreements with the private sector for temporary deployment to public sector.
• Activate other provider networks such as national medical reserve corps, military and veteran health care providers - as appropriate to national and sub-national context - and medically certified EMTs from non-governmental organizations and the International Federation of the Red Cross and Red Crescent (IFRC).
• Where appropriate, consider establishing pathways for accelerated training and early licensing of medical and nursing graduates.
• Deploy recent graduates awaiting internship and students in their final undergraduate year (professional practice or social service) as support personnel in community activities, home visits, patient orientation, data collection, and general examinations.
• Call on retired health workers and/or health workers working outside the health sector for specific tasks. For example, intensivists or specialists could be used to provide virtual consultations to limit their exposure.
• Train and repurpose government and other workers from non-health sectors, and volunteers to undertake support tasks and functions in health facilities that may be compromised (e.g., administration, maintenance, facility security, data collection, hotline response, infection prevention and control, other support services for staff and patients, etc.).
• Establish economic and non-economic incentives and domestic support measures (e.g., travel, childcare, care of ill, disabled or elderly family members) that could enhance staff flexibility for shift work. Some incentives that have been implemented by some countries in the region include, but are not limited to: salary increases; bonuses; increased opportunities for professional development; protection measures for those with precarious or no contract; extended contracts; expanded opportunities for permanent employment; official declaration of COVID-19 as an occupational disease; life and disability insurance coverage; health insurance coverage for selves and family members; paid sick leave; health care; payment in case of disease or death; and provision of food, housing, transportation, feminine hygiene products.
• Provide indemnity for health workers conducting COVID-19 interventions based on available public health guidance.
• Consider establishing pathways for the licensing or certification of health professionals residing in the country that were trained abroad and are awaiting validation of their degrees. This can include temporary measures for the recognition of titles that allows these professionals to practice.
• Where appropriate, consider the establishment of agreements with other countries to bring in additional health workers.

Reorganization and role distribution of health workforce
Severe shortages of qualified health workers with competencies and experience to deliver ICU interventions requires managers to focus on overall organization of care delivery pathways to appropriately assign roles. Health workers with credentials, skills, and training for higher level care should be assigned to roles according to their capacity.
• Ensure that there is clear definition of the roles and functions for each professional (protocols and procedures).
• Re-distribute staff temporarily from non-affected or less-affected national and sub-national areas to other health services, districts, or areas of the country where they are most needed.
• Redistribute personnel from one area of the health facility to another area or to other functions where they are most needed.

• Consider training, repurposing and utilization of professionals in different capacities (task-sharing):
  o Enhance the capacities of pediatric intensivists and emergency care physicians for the management of adults to assist and support under the supervision of adult intensive care physicians.
  o Reorient certain specialties, such as internists, anesthesiologists, surgeons, nurses, and other health professionals to manage specific treatments for critical COVID-19 patients (intubation, ventilation, respiratory therapy, others).
  o Redistribute functions among health professionals and specialist doctors that are not on the first line of COVID-19 control (occupational therapists, otorhinolaryngologists, ophthalmologists, dermatologists, and other specialties) to the first level of care or second-level hospitals to boost capacity in these facilities for non-COVID-19 patients.
  o Ensure the existence of health professionals to care for people with chronic noncommunicable diseases (CNCD) and other non-COVID-19 conditions.

• Assign health workers with more general skill sets, those repurposed from other health delivery settings, community health workers, community first aid responders, and recent medical graduates under appropriate supervision to: (1) address the needs of those with minor symptoms in health facilities, ambulatory or home-based settings or congregate care facilities designed to isolate all cases; and/or (2) address conditions other than COVID-19.

• Evaluate alternative models for delivery of care, including identification of simple high-impact clinical interventions for which rapid up-training would facilitate safe task sharing and expansion of scope of practice.

• Strengthen the functions of basic health teams and family health teams to identify vulnerable, at-risk populations and follow up infection containment and control through information, education, and promotion.

• Train and equip community health workers, including providing them with adequate infection prevention and control (IPC) skills and personal protective equipment (PPE) as needed, to support case identification; collect materials to be tested (as appropriate to context & regulatory environment); conduct home visits, including delivery of food, oxygen and medicines; conduct contact tracing; and provide public health promotion messaging and hygiene demonstrations to the public.

• Identify and train staff to support and maintain non-clinical (data management, record keeping, patient intake) and essential support (laundry, cleaning, waste management, dietary services, and security) services.

• Coordinate shifts of health workers to ensure adequate coverage and allow sufficient downtime for overworked personnel.

• Consider increasing the shifts of part-time staff to full-time or additional hours, balancing occupational safety and health to ensure quality care and prevent infection.

• Utilize a cohort methodology whereby staff teams are assigned to specific units (i.e.: cohort 1 works with patients who tested positive for COVID-19; cohort 2 works with those whose clinical assessments suggest COVID-19 but have not yet received definitive results; cohort 3 works with those who do not have clinical symptoms suggestive of COVID-19 and who tested negative).
• Explore the feasibility and potential effectiveness of developing a plan for the rotation of staff between COVID-19 and non-COVID-19 units to reduce burnout and ensure continuous coverage, taking care to ensure that all staff are properly trained, equipped, willing and committed to deal with COVID-19 patients.
• Consider the potential consequences of health professionals engaging in multiple employment (total hours worked, risk of transferring infection between institutions, etc.) and possible strategies for its reduction, such as inter-institutional agreements, etc.
• Consider the use of telemedicine, telehealth, and other web-based platforms to provide direct clinical services to patients and clinical decision support to service providers who address the needs of individuals who have mild COVID-19 symptoms.
• Consider the use of telemedicine, telehealth, digital apps, and other innovative technologies in order to maintain provision of essential health services (prescriptions, monitoring of chronic conditions, etc.) while reducing the need for in-person contact.
• Consider the implementation of pharmacist waivers to provide early and multi-month refills and apply therapeutic substitutions without provider consultation, in order to reduce burdens on physicians and other prescribers.
• Establish a call center and/or emergency hotline to respond to COVID-19. Personnel should be duly trained to provide direction and respond to community questions, concerns, and doubts. This function can be undertaken by university students in health careers, health professionals and specialists (active or retirees), among others.

5.
Q. What are some considerations to take into account for the options noted above?
A. Decisions will be based on the situation, context, and experience of each country as well as the characteristics of its health system. In reviewing options, the country may wish to consider the following questions:
• What profiles of health workers are most needed?
• Which categories of health workers are best targeted for the measures under consideration?
• Has the country had previous experience with the above measures and what was the outcome of the same?
• What legal frameworks, norms, agreements or mechanisms exist in relation to the various options? Are they likely to facilitate or hinder the option(s) under consideration? Can they be adapted if necessary?
• What administrative procedures and contractual mechanisms are currently available or can be adapted as necessary to facilitate the hiring and/or mobilization of personnel, and/or changes in the worker profile (task sharing, role expansion)?
• What policies and regulations must be in place to allow health workers to deliver COVID-19 interventions and for liability coverage?
• What are the legal implications of the different contractual mechanisms under consideration (both for the institution and for the health worker)?
• What are the requirements in terms of licensure and certification of professionals? For specialized/non-specialized personnel?
• Are there norms regarding the scope of practice permitted according to different professions?
2. PROTECT HEALTH PERSONNEL AND SUPPORT WORKERS

6. Q. What care (self-care) and protection measures are recommended for protecting health workers?
A. The World Health Organization (WHO) and the Pan American Health Organization (PAHO) have published numerous guidelines that are relevant for the protection and care of health workers. Many of these guidelines can be found on the following webpages:

- **WHO COVID-19 technical guidance on infection prevention and control / WASH**
  Includes general technical guidance on infection prevention and control (IPC) and water, sanitation, hygiene and waste management. Information useful for health workers and health services in general.
• **EPI-WIN WHO information network for epidemics: Information for the health sector**
  This site includes essential advice and guidance for the health sector in critical areas including infection prevention and control, clinical management, health workers rights and protection, and mental health. [https://www.who.int/teams/risk-communication/health-sector](https://www.who.int/teams/risk-communication/health-sector)

• **WHO COVID-19: Occupational health**
  Includes key guidance documents pertaining to occupational health. [https://www.who.int/news-room/detail/09-03-2020-covid-19-for-health-workers](https://www.who.int/news-room/detail/09-03-2020-covid-19-for-health-workers)

• **PAHO Technical Documents – Coronavirus Disease (COVID-19)**

We have highlighted the following technical guidance for health workers from WHO and PAHO. However, we suggest you review all guidance deemed relevant for your particular situation or context.

• **World Health Organization**
  
  o **Infection prevention and control during health care when coronavirus disease (COVID-19) is suspected or confirmed**. Interim guidance 29 June 2020.
    This document provides interim guidance on infection prevention and control (IPC) strategies during health care when coronavirus disease (COVID-19) is suspected or confirmed. It is intended for health workers, including health-care managers and IPC teams at the facility level, but it is also relevant for the national and district/provincial levels. This is the third edition. In this updated version, the scope and structure of the earlier guidance have been expanded with several new or revised sections, bringing together other interim recommendations as well as considerations and advice from international experts. WHO will continue to update these recommendations as more information becomes available. [https://www.who.int/publications/i/item/WHO-2019-nCoV-IPC-2020.4](https://www.who.int/publications/i/item/WHO-2019-nCoV-IPC-2020.4)

  o **Rational use of personal protective equipment for coronavirus disease (COVID-19) and considerations during severe shortages**. Interim guidance 6 April 2020.
    This document summarizes WHO recommendations for the rational use of personal protective equipment (PPE) in health care and home care settings, as well as during the handling of cargo. It also assesses the current disruption of the global supply chain and considerations for decision making during severe shortages of PPE. [https://www.who.int/publications/i/item/rational-use-of-personal-protective-equipment-for-coronavirus-disease-(covid-19)-and-considerations-during-severe-shortages](https://www.who.int/publications/i/item/rational-use-of-personal-protective-equipment-for-coronavirus-disease-(covid-19)-and-considerations-during-severe-shortages)

    This document provides advice on the use of masks in communities, during home care and in health settings in areas that have reported cases of COVID-19. It is intended for
individuals in the community, public health and infection prevention and control (IPC) professionals, health care managers, health care workers (HCW), and community health workers. This updated version includes a section on Advice to decision makers on the use of masks for healthy people in community settings.

- **Q&A on infection prevention and control for health care workers caring for patients with suspected or confirmed COVID-19** 31 March 2020.
  Answers to some common questions that health workers and institutions may have.

- **Clinical management of COVID-19.** 27 May 2020
  This guidance document is intended for clinicians caring for COVID-19 patients during all phases of their disease (i.e. screening to discharge). This update has been expanded to meet the needs of front-line clinicians and promotes a multi-disciplinary approach to care for patients with COVID-19, including those with mild, moderate, severe, and critical disease. The following sections are entirely new: COVID-19 care pathway, treatment of acute and chronic infections, management of neurological and mental manifestations, noncommunicable diseases, rehabilitation, palliative care, ethical principles, and reporting of death; while previous chapters have also been significantly expanded.

- **Operational considerations for case management of COVID-19 in health facility and community.** Interim guidance, 18 March 2020
  This document is intended for health ministers, health system administrators, and other decision-makers. It is meant to guide the care of COVID-19 patients as the response capacity of health systems is challenged; to ensure that COVID-19 patients can access life-saving treatment, without compromising public health objectives and safety of health workers.
  https://www.who.int/publications/i/item/10665-331492

- **Pan American Health Organization**
  
  - **Administrative controls to guarantee implementation of infection prevention and control measures in the context of COVID-19, 18 June 2020**
    This document focuses on administrative controls to aid in implementing infection prevention and control (IPC) measures during the COVID-19 pandemic to help guarantee worker and patient safety during health care provision. They further the use of other IPC measures and make the results of their use measurable.
Infection prevention and control practices for care of patients in nontraditional settings with focus to the novel coronavirus (COVID-19). Interim recommendations 18 May 2020. This document provides recommendations for infection prevention and control (IPC) practices to be applied during care in nontraditional settings in the context of the novel coronavirus (COVID-19). These recommendations are preliminary and subject to review as new evidence becomes available. https://iris.paho.org/handle/10665.2/52168

List of Priority Medical Devices in the context of COVID-19. Provisional recommendations, 13 August 2020. 5th Version. This document updates PAHO’s interim recommendations for case management of COVID-19 in health services. The list of priority medical devices in the context of COVID-19 provides technical descriptions and specifications for the medical devices recommended for the management of patients with suspected and/or confirmed COVID-19 infection at different levels of health care. https://iris.paho.org/handle/10665.2/52580

Guidelines for Critical Care of Seriously Ill Adult Patients with Coronavirus (COVID-19) in the Americas (Short Version), 3 April 2020 This clinical practice guideline was developed in order to provide recommendations for the management of critically ill adult patients with COVID-19 in intensive care units (ICUs). https://iris.paho.org/handle/10665.2/52184

Initial care of persons with acute respiratory illness (ARI) in the context of coronavirus disease (COVID-19) in healthcare facilities: assess the risk, isolate, refer. Interim recommendations, version 1 (12 April 2020) This document provides recommendations on the initial care of persons with acute respiratory illness (ARI) in the context of coronavirus disease (COVID-19) in healthcare facilities based on a decision-making process flowchart. These recommendations are preliminary and subject to review as new evidence becomes available. The recommendations provided in this document apply for adults olden than 18 years old. Specific audiences, such as infants, children and pregnant women will be addressed on a separate document. https://iris.paho.org/handle/10665.2/52031

Open access courses through WHO:
OpenWHO is WHO’s new, interactive, web-based platform that offers free online courses to people preparing to work in epidemics, pandemics and health emergencies or already doing so. The COVID-19 channel provides learning resources for health professionals, decision-makers and the public for the outbreak of coronavirus disease (COVID-19). We have highlighted some of the most relevant courses for health workers available to date. However, courses and languages are updated frequently so we suggest
you check the channel often. You also may want to review all courses to determine what is most relevant for your particular situation or context.  
https://openwho.org/channels/covid-19

- **ePROTECT Respiratory Infections (EN)**
  This course provides a general introduction to Acute Respiratory Infections (ARIs) and basic hygiene measures to protect against infection. *Duration: 2 hours.*
  https://openwho.org/courses/eprotect-acute-respiratory-infections

- **Emerging Respiratory Viruses, Including COVID-19: Methods for Detection, Prevention, Response, and Control**
  This course provides a general introduction to emerging respiratory viruses, including novel coronaviruses. It includes the nature of emerging respiratory viruses, how to detect and assess an outbreak, strategies for preventing and controlling outbreaks due to novel respiratory viruses. The course includes a module on what strategies should be used to communicate risk and engage communities to detect, prevent and respond to the emergence of a novel respiratory virus. *Duration: 3 hours.*
  https://openwho.org/courses/introduction-to-ncov

- **Infection Prevention and Control (IPC) for Novel Coronavirus (COVID-19)**
  This course provides information on what facilities should be doing to be prepared to respond to a case of emerging respiratory virus such as the novel coronavirus, how to identify a case once it occurs, and how to properly implement IPC measures to ensure there is no further transmission to HCW, or to other patients and others in the healthcare facility. This training is intended for healthcare workers and public health professionals, as it is focused on infection prevention and control. *Duration: 1 hour.*
  https://openwho.org/courses/COVID-19-IPC-EN

- **Clinical Care Severe Acute Respiratory Infection Training**
  Please note: The materials used in this course are currently being revised to reflect updates to the technical content.
  This course includes content on clinical management of patients with a severe acute respiratory infection. It is intended for clinicians who are working in intensive care units (ICUs) in low- and middle-income countries and managing adult and pediatric patients with severe forms of acute respiratory infection (SARI), including severe pneumonia, acute respiratory distress syndrome (ARDS), sepsis and septic shock. It is a hands-on practical guide to be used by health care professionals involved in critical care management during outbreaks of influenza virus (seasonal) human infection due to avian influenza virus (H5N1, H7N9), MERS-CoV, COVID-19 or other emerging respiratory viral epidemics. *Duration: 10 hours.*
  https://openwho.org/courses/severe-acute-respiratory-infection

- **COVID-19: How to put on and remove personal protective equipment (PPE)**
  This is a guide for healthcare workers involved in patient care activities in a healthcare setting. It aims to show the type of personal protective equipment or PPE needed to correctly protect
oneself, keeping in mind that PPE is part of a larger infection prevention and control bundle of measures and should be implemented as part of a multimodal strategy of management of COVID-19 patients. **Duration: 15 minutes.**
https://openwho.org/courses/IPC-PPE-EN

- **Standard precautions: Hand hygiene**
Most health care-associated infections are preventable through good hand hygiene – cleaning hands at the right times and in the right way. The WHO Guidelines on hand hygiene in health care support hand hygiene promotion and improvement in health care facilities worldwide and are complemented by the WHO multimodal hand hygiene improvement strategy, the guide to implementation, and implementation toolkit, which contain many ready-to-use practical tools. This module has been prepared to help summarize the WHO guidelines on hand hygiene, associated tools and ideas for effective implementation. **Duration: 1 hour.**
https://openwho.org/courses/IPC-HH-en

- **COVID-19: Operational Planning Guidelines and COVID-19 Partners Platform to support country preparedness and response**
This 3-module learning package introduces the context for the need for a coordinated global response plan to the COVID-19 outbreak. It provides the required guidance to implement the Operational Planning Guidelines to Support Country Preparedness and Response. These planning guidelines describe priority steps and actions to be included in countries’ preparedness and response plans across the major areas of public health preparedness and response. This is aligned with the previously published COVID-19 Strategic Preparedness and Response Plan (SPRP). By the end of this course, the appointed UNCT lead planners and relevant partners should be able to assess and fill in capability gaps to respond to the COVID-19 outbreak. **Duration: 2 hours.**

7. Q. What care (self-care) and protection measures are recommended for other human resources involved in the response to COVID-19 (administrative personnel, cleaning crew, orderlies, drivers, etc.)?
A. Depending on the roles that support personnel carry out and their level of exposure, they should possess the knowledge and competencies for self-care and care of those around them. They should refer to the technical guidelines that include general recommendations for self-care which can be found on these WHO and PAHO webpages:

- Publications hub of WHO’s country and technical guidance on COVID-19:

They may also wish to review the free online courses available through WHO’s OpenWHO COVID-19 channel: https://openwho.org/channels/covid-19
8. Q. What are the recommendations regarding personal protective equipment (PPE)?
A. The following resources are available:

- **Rational use of personal protective equipment for coronavirus disease (COVID-19) and considerations during severe shortages.** Interim guidance 6 April 2020
  This document summarizes WHO recommendations for the rational use of personal protective equipment (PPE) in health care and community settings, including the handling of cargo. It is intended for those involved in the distribution and management of PPE, as well as public health authorities and individuals in health care and community settings to understand when PPE use is most appropriate.

  This document provides advice on the use of masks in communities, during home care, and in health settings in areas that have reported cases of COVID-19. It is intended for individuals in the community, public health and infection prevention and control (IPC) professionals, health care managers, health care workers (HCW), and community health workers. This updated version includes a section on Advice to decision makers on the use of masks for healthy people in community settings.

  N95 or equivalent respirators are single-use personal protective equipment (PPE) designed for use by health workers that provide direct care to patients with diseases transmitted by aerosols or during aerosol generating procedures (AGP) for patients with acute respiratory disease, as is the case of COVID-19. Given the current shortage of N95 and equivalent respirators, the WHO has suggested the possibility of their extended use by the same individual for up to 6 hours or the reprocessing of respirators when necessary. During shortages of N95 and equivalent respirators, stopgap measures for optimizing their use may be considered, among them extended use and reuse. Since risks are associated with these measures, special criteria and precautions should be used when adopting them, confining their use to situations where they are indispensable. This document presents issues related to the extended use, reuse, and reprocessing of N95 and equivalent respirators by health services during shortages of this PPE. It summarizes the available evidence on existing methods for reprocessing N95 and equivalent respirators. Its audience is health facility managers, health authorities, and others involved in decision-making on the use. These are interim recommendations subject to review as new evidence becomes available.
  [https://iris.paho.org/handle/10665.2/52431](https://iris.paho.org/handle/10665.2/52431)

- **List of Priority Medical Devices in the context of COVID-19.** Provisional recommendations, 13 August 2020. 5th Version.
This document updates PAHO's interim recommendations for case management of COVID-19 in health services. The list of priority medical devices in the context of COVID-19 provides technical descriptions and specifications for the medical devices recommended for the management of patients with suspected and/or confirmed COVID-19 infection at different levels of health care. https://iris.paho.org/handle/10665.2/52580

- **COVID-19: How to put on and remove personal protective equipment (PPE)**
  This is a guide for healthcare workers involved in patient care activities in a healthcare setting. It aims to show the type of personal protective equipment or PPE needed to correctly protect oneself, keeping in mind that PPE is part of a larger infection prevention and control bundle of measures and should be implemented as part of a multimodal strategy of management of COVID-19 patients. **Duration: 15 minutes**
  https://openwho.org/courses/IPC-PPE-EN

9. **Q. What are the rights, roles and responsibilities of health workers?**
   **A.** These are addressed in the following documents:
   - **Coronavirus Disease (COVID-19) Outbreak: Rights, roles and responsibilities of health workers, including key considerations for occupational safety and health**
     This document highlights the rights and responsibilities of health workers, including specific measures needed to protect occupational safety and health.
   - **Guidance for managing ethical issues in infectious disease outbreaks**
     The rights and obligations of frontline response workers during an emergency are also outlined in this document, which highlights (in chapter 13) the duties of health workers and the limits to those duties, along with society’s reciprocal obligations to health workers in the context of an emergency.
     https://apps.who.int/iris/bitstream/handle/10665/250580/9789241549837-eng.pdf?sequence=1&isAllowed=y

10. **Q. What information exists for addressing mental health and psychosocial concerns (stress, burnout and other considerations) among those responding to the epidemic (health workers and non-health workers)?**
    **A.** The following resources are available:
    - **Interim Briefing Note Addressing Mental Health and Psychosocial Aspects of COVID-19 Outbreak**
      Interagency Standing Committee – IASC Reference group for mental health and psychosocial support in emergency settings. This briefing note addresses key mental health and psychosocial support considerations in relation to the 2019 novel coronavirus (COVID-19) outbreak.
      https://interagencystandingcommittee.org/iasc-reference-group-mental-health-and-psychosocial-support-emergency-settings/interim-briefing
• **Mental Health and Psychosocial Considerations during the COVID-19 Outbreak** 18 March 2020

The considerations presented in this document were developed by the WHO Mental Health and Substance Abuse Department as a series of messages that can be used in communications to support for mental and psychological well-being in different target groups during the COVID-19 outbreak.


The following PAHO and WHO websites provide more information on this topic:

- **PAHO Mental Health webpage**
  See materials under COVID-19, including the following: Basic Psychosocial Skills: A guide for COVID-19 Responders; Operational considerations for multisectoral mental health and psychosocial support programs during the COVID-19 pandemic; and Handout: Managing the mental health of health workers during the COVID-19 pandemic.
  https://www.paho.org/en/topics/mental-health

- **PAHO Mental Health and COVID-19 webpage**
  While some of the materials are similar to the above, the site also contains additional documents specific to COVID-19, as well as links to courses and webinars

- **WHO Mental Health and Psychosocial Support in Emergencies webpage**
  This page includes guidance related to humanitarian and other emergencies.
  https://www.who.int/mental_health/emergencies/en/

• Free courses available on PAHO’s Virtual Campus for Public Health, including: Psychological first aid (PFA) in disaster management in the Caribbean - 2019

11.

Q. What procedures should be established in health institutions for the collection, follow up, control, and reporting of health workers exposed to COVID-19?

A. The institution should establish a system for collection, follow up, control, and reporting of workers exposed to COVID-19 and make sure workers are aware of the same. Data on health worker infections and fatalities should also be utilized for in-course IPC and PPE correction, contact tracing, and decision-making.

The following tools are available. It is important to review both tools as they cover different aspects regarding health worker exposure to the novel coronavirus.

- **Care for health workers exposed to the new coronavirus (COVID-19) in health facilities.** Interim recommendations, 13 April 2020
Developed by PAHO, this tool provides guidelines for caring for health workers exposed to the novel coronavirus (COVID-19) in health facilities, as well as management of occupational exposure to the virus. The tool will help determine the risk of infection in health professionals who have been exposed to a COVID-19 patient and will guide decisions on appropriate actions as well as provide recommendations for proper management of these health professionals, in accordance with risk of infection. 

https://iris.paho.org/handle/10665.2/52032

3. PROVIDE APPROPRIATE AND UP TO DATE TRAINING AND MAINTAIN COMMUNICATION

12. Q. What are some basic considerations regarding training and skills enhancement for health workers working with patients COVID-19?

A. Institutions should ensure the following as it relates to the training of health workers:

- Ensure that all of the health workforce in community and hospital-based services is provided with appropriate COVID-19 training (online, or in designated community training facilities).
- Develop and adopt a training plan to address COVID-19, including making provisions for ongoing training and updating skills and competencies as needed.
- Ensure that all of the health workforce is trained and up to date in WHO Basic Emergency Care.
- Provide information, instruction, and training on occupational safety and health, including infection prevention and control (IPC), and use, putting on, taking off, and disposal of personal protective equipment (PPE).
- Initiate rapid training mechanisms and job aids for key capacities, including diagnosis, triage, clinical management responsibilities, and essential infection prevention and control.
- Provide workers with access to existing web-based training courses on COVID-19, including on Open WHO and PAHO’s Virtual Campus for Public Health.
- Provide workers with access to digital apps such as the WHO Academy mobile learning app.
- Mobilize adequate supported supervision structures and capacity to reinforce and support rapidly acquired knowledge and skills.
• Establish systems to monitor and ensure the proper acquisition and application (practice) of the knowledge, skills, and competencies needed to respond to COVID-19.

13.
Q. What resources are available for appropriate and reliable training for health workers in relation to COVID-19?
A. We suggest you review the following resources from PAHO and WHO which include virtual, self-learning courses, learning apps, technical guidelines, and recorded webinars:

• Virtual, self-learning courses are available as open access free of charge through WHO and PAHO:
  o Open WHO: https://openwho.org/channels/covid-19

• WHO Academy mobile learning app. The WHO Academy’s mobile learning app was developed specifically for health workers and is designed to enable them to expand their life-saving skills to battle COVID-19. It delivers mobile access to a wealth of COVID-19 knowledge resources developed by WHO, including up-to-the-minute guidance, tools, training, and virtual workshops to support health workers in caring for patients infected by COVID-19 and in protecting themselves as they do their critical work. https://www.who.int/about/who-academy/the-who-academy-s-covid-19-mobile-learning-app

• Training can be based on the technical guidelines provided by PAHO and WHO and available through the following websites:
  o EPI-WIN WHO information network for epidemics (note some of the information is the same as the WHO main page on COVID-19):
    ▪ https://www.who.int/teams/risk-communication (main page)
    ▪ https://www.who.int/teams/risk-communication/health-sector (health sector page)

• PAHO and WHO sponsored Webinars
Many of the webinars held by WHO and PAHO contain valuable information on the management of human resources for health or can be used and adapted to provide training for health workers, managers and others.
  o EPI-WIN WHO information network for epidemics.
    We suggest paying particular attention to those webinars and webinar reports related to human resources for health, the health sector and hospital services. They can be accessed through https://www.who.int/teams/risk-communication/epi-win-webinars. Links to
webinars are also available at:
https://www.youtube.com/playlist?list=PL9S6xGsoqjBVehQEjfoBktwKe3zIlI8f

- PAHO’s Virtual Campus for Public Health (VCPH)
  We suggest going to https://www.campusvirtualsp.org/en/covid-19 and selecting those webinars related to human resources for health or health services from the dropdown box.
  In particular, the following webinars in English are recommended; however, information is continually being added so it is suggested to visit the site frequently:
4. ACTIVATE OR STRENGTHEN INTEGRATED HEALTH SERVICES NETWORKS, COMMUNICATION AND COMMUNITY ENGAGEMENT

14.
Q. Who should be responsible for the deployment (mobility and/or transfer) of health services personnel within the integrated health services network and/or among the different services, if needed, to ensure coverage and quality of care for COVID-19?
A. Each country should identify the team responsible for the response to COVID-19 at the national level. It is important that the director of the integrated health services network and the entity responsible for human resources for health at the country or institutional level work with this team to determine the best response as regards deployment/scaling up, mobility, and/or transfer of personnel.

15.
Q. What is the role of health workers at the first level of care during the COVID-19 pandemic?
A. Health workers at the first level of care play a critical role during the COVID-19 pandemic. This includes but is not limited to:

- WHO: Community-based health care, including outreach and campaigns, in the context of the COVID-19 pandemic
  Community-based health care is an essential part of primary care at all times; in the context of the COVID-19 pandemic, the distinct capacity of trusted community members for social engagement and delivering care where it is needed is ever more critical. This joint WHO, UNICEF and IFRC guidance addresses the role of community-based health care in the pandemic context. It includes practical recommendations for decision makers to help keep communities and health workers safe, to sustain essential services at the community level, and to ensure an effective response to COVID-19.

  This Note elaborates on Recommendation 1 of the document on the Reorganization and Expansion of Health Services as a frame of reference for reorganizing services at the first level of care and progressively structuring priority programs, as well as the set of activities that each country will identify as essential to ensure continuity of care for individuals, families, and communities during sustained community transmission of COVID-19 and in the context of each country.
  https://iris.paho.org/handle/10665.2/52225

- Framework for the response of Integrated Health Service Delivery Networks to COVID-19. 10 May 2020
  PAHO’s Department of Health Systems and Services (HSS) has defined these general guidelines for the response to the emergency of COVID-19 based on the Primary health care strategic approach and the transformation toward integrated health service delivery
  https://iris.paho.org/handle/10665.2/52269
• **Framework for the response of Integrated Health Service Delivery Networks to COVID-19: assessment matrix for consultants.** 20 March 2020
  This matrix is designed to accompany the Framework for the response of Integrated Health Service Delivery Networks to COVID-19 noted above.

  This document makes recommendations for implementing operational plans in health services networks, both at the first level of care (including home care) and in hospitals in order to reorganize health care delivery and seek efficiency in managing and expanding the supply of beds, considering the growing complexity of cases. These recommendations are focused on management of the health services to reorganize and expand their response according to the evolution of the epidemic.
  [https://iris.paho.org/handle/10665.2/52215](https://iris.paho.org/handle/10665.2/52215)

  This document makes recommendations for expanding hospital service capacity, including those related to human resources for health.
  [https://iris.paho.org/handle/10665.2/52244](https://iris.paho.org/handle/10665.2/52244)

16. **Q.** What is the role of family health teams in primary care settings in relation to COVID-19?
**A.** The family health team fulfills a fundamental role in identifying populations in conditions of vulnerability. Given their knowledge about the population in their assigned area of work, they have information that can assist in identifying and helping the population at risk. They will be responsible for following up the health of the population for containment and control of the infection through information, education, and promotion. The composition of the family health team should be evaluated depending on the needs to respond to COVID-19.

We also suggest reviewing the following document:

• **WHO: Community-based health care, including outreach and campaigns, in the context of the COVID-19 pandemic**
  Community-based health care is an essential part of primary care at all times; in the context of the COVID-19 pandemic, the distinct capacity of trusted community members for social engagement and delivering care where it is needed is ever more critical. This joint WHO, UNICEF and IFRC guidance addresses the role of community-based health care in the pandemic context. It includes practical recommendations for decision makers to help keep communities and health workers safe, to sustain essential services at the community level, and to ensure an effective response to COVID-19.
17. Q. What guidelines are available on the provision, maintenance or reopening of health services during the COVID-19 pandemic and the implications for health workers?
A. The following materials are available:

- **Maintaining essential health services: operational guidance for the COVID-19 context** Interim guidance 1 June 2020.
  Health systems around the world are being challenged by increasing demand for care of people with COVID-19, compounded by fear, stigma, misinformation and limitations on movement that disrupt the delivery of health care for all conditions. When health systems are overwhelmed and people fail to access needed care, both direct mortality from an outbreak and indirect mortality from preventable and treatable conditions increase dramatically. This document expands on the content of the essential health services and systems pillar of the COVID-19 strategic preparedness and response plan: operational planning guidelines to support country preparedness and response, supersedes the earlier Operational guidance for maintaining essential health services during an outbreak, and complements the recently released Community-based health care, including outreach and campaigns, in the context of the COVID-19 pandemic. It supports country implementation of targeted actions at the national, subnational and local levels to reorganize and maintain access to safe and high-quality essential health services. It outlines the adaptations needed to keep people safe and maintain continuity of essential health services during the response to the COVID-19 pandemic. It is intended for decision-makers and managers at the national and subnational levels. Specific recommendations for human resources appear in section 1.7 ‘Rapidly optimize health workforce capacity’; however, the issues related to health workers are included throughout the document.

Multiple guidelines are available through PAHO and WHO, many of which are specific to particular services. We suggest you review the following sites:

- **Publications Hub of WHO’s Country and Technical Guidance on COVID-19**
  Select ‘COVID-19: Essential health services’ from the ‘publication category’ drop-down box.

- **PAHO Technical Documents – Coronavirus Disease (COVID-19)**
  Select ‘health services’.

- **PAHO page on COVID-19**
  Select ‘COVID-19 and Health Topics’.
18. Q. Should an emergency call center/hotline be established to respond to COVID-19? If affirmative, who should manage the call center/hotline and what training is required to respond to the public?
A. It depends on the decision of each country. In case the country decides to establish a call center and/or emergency hotline to respond to COVID-19, personnel should be duly trained to provide direction and respond to community questions, concerns, and doubts. This function can be undertaken by university students in health careers, health professionals and specialists (active or retirees), among others.

19. Q. What information is available for the home care of persons with suspected novel coronavirus infection?
A. The following information is available from WHO and PAHO:

- **Home care for patients with suspected novel coronavirus (nCoV) infection presenting with mild symptoms and management of contacts**
  Interim guidance 17 March 2020
  This rapid advice has been updated with the latest information and is intended to guide public health and infection prevention and control (IPC) professionals, health care managers, and health care workers (HCWs) when addressing issues related to home care for patients with suspected COVID-19 who present with mild symptoms and when managing their contacts.

- **Q&A on infection prevention and control for health care workers caring for patients with suspected or confirmed 2019-nCoV**
  This site offers answers to some frequently asked questions on this topic.

- **Infection prevention and control practices for care of patients in nontraditional settings with focus to the novel coronavirus (COVID-19).**
  Interim recommendations 18 May 2020.
  This document provides recommendations for infection prevention and control (IPC) practices to be applied during care in nontraditional settings (including homecare) in the context of the novel coronavirus (COVID-19). These recommendations are preliminary and subject to review as new evidence becomes available.
  [https://iris.paho.org/handle/10665.2/52168](https://iris.paho.org/handle/10665.2/52168)

20. Q. What guidance is available for managing ethical issues posed by the COVID-19 pandemic?
A. The COVID-19 pandemic presents us with situations that can be ethically challenging, e.g. because the system is overwhelmed and we lack the resources to provide the care that patients need. Bioethics is the discipline that seeks to elucidate and provide guidance to address ethical issues like this one. Along with ethics guidance documents for the challenges posed by the pandemic, it may be valuable to reach out to ethics advisory committees or ethics consultation services, which are available in many institutions and jurisdictions. Various guidance documents have been developed by PAHO and WHO, and are available through the following webpages:
PAHO: Ethics guidance on issues raised by the novel coronavirus disease (COVID-19) pandemic
https://iris.paho.org/handle/10665.2/52091

PAHO: Ethics guidance for the use of scarce resources in the delivery of critical care during the COVID-19 pandemic
https://iris.paho.org/handle/10665.2/52096

WHO: Ethics and COVID-19: resource allocation and priority setting

PAHO Technical Documents – Coronavirus Disease (COVID-19) – select category ‘Ethics’

WHO: Ethics and COVID-19
https://www.who.int/teams/research-for-health/covid-19

The following documents were developed by WHO in 2016 and 2009, respectively. The chapters that are specific to human resources for health are indicated below.

- Guidance for Managing Ethical Issues in Infectious Disease Outbreaks
  Most relevant are Chapter 2 (Involving the local community), 13 (Frontline response workers’ rights and obligations), and 14 (Ethical issues in deploying foreign humanitarian aid workers).
  https://apps.who.int/iris/bitstream/handle/10665/250580/9789241549837-eng.pdf?sequence=1

- Ethical considerations in developing a public health response to pandemic influenza
  Chapter 5 discusses the role and obligations of health-care workers during an outbreak of pandemic influenza
  https://apps.who.int/iris/bitstream/handle/10665/70006/WHO_CDS_EPR_GIP_2007.2_eng.pdf?sequence=1

- Public Health Emergency Preparedness and Response Ethics Network (PHEPREN)
  WHO launched Public Health Emergency Preparedness and Response Ethics Network (PHEPREN), a global community of bioethicists building on pre-existing expertise and resources to provide real-time, trusted, contextual support to communities, policy makers, researchers, and responders in relation to the ethical issues arising out of global health emergencies, with a current focus on the COVID-19 pandemic.
  https://epidemicethics.tghn.org/

This ethics guidance is the product of an expert working group, of which PAHO was a member, and is intended to help navigate response challenges that arise particularly where resources are significantly constrained, where core public health functions generally are weak, where there are high levels of economic, social, or political inequities, and where outside personnel are often brought in to aid in the response. Chapter 5, Supporting and Protecting Outbreak Responders, is of particular interest for health workers.


21. Q. Who should interact with the media? What training is available to them?
A. In some countries, there is an official spokesperson/entity for interacting with the media, particularly in relation to emergencies or epidemics (COVID-19). Other countries may have more than one person assigned to this function. Nonetheless, it is important to identify official spokespersons with technical knowledge to ensure authoritative information at all levels: national, state/provincial/district, institutional, etc.

The following materials and guidelines are available:

- **Guidelines for communicating about coronavirus disease 2019**
  Risk communication is an integral component of public health risk management and a core capacity under the International Health Regulations (IHR). These guidelines, developed by PAHO, include some suggestions, principles and templates for communicating about COVID-19.
  https://iris.paho.org/handle/10665.2/52391

- **Risk communication and community engagement (RCCE) 15 April 2020**
  The purposes of this template are to support PAHO Country Offices and national/subnational emergency management mechanisms to develop or update their risk communication and community engagement (RCCE) plans related to COVID-19. The COVID-19 pandemic is a rapidly evolving situation and takes on different patterns in countries and communities. It is therefore imperative that RCCE plans are adapted to the local context, reviewed frequently, and updated as needed.

  This tool is designed to support risk communication, community engagement staff and responders working with national health authorities, and other partners to develop, implement and monitor an effective action plan for communicating effectively with the public, engaging with communities, local partners and other stakeholders to help prepare and protect individuals, families and the public’s health during early response to COVID-19.
The COVID-19 risk communication package for healthcare facilities (WHO - WPRO)
This risk communication package was developed by WHO’s Western Pacific Regional Office (WPRO) in response to the COVID-19 outbreak. It is intended for healthcare facilities and provides healthcare workers (HCWs) and healthcare facility management with the information, procedures, and tools required to safely and effectively work.

https://iris.paho.org/handle/10665.2/52401

Virtual course. Risk communication essentials (English/Portuguese)
This course, developed by WHO, includes the core principles of risk communication and its application to disease outbreaks and health emergencies. *Duration 8 hours.*

https://openwho.org/courses/risk-communication

Virtual course. Risk communication for influenza events (English/Français/Español)
This course, developed by WHO, lists the core ideas and principles for emergency risk communication for an influenza event, explains why facts are not enough to communicate risk, and describes steps to take to prepare for risk communication.

https://openwho.org/courses/risk-communication-influenza

Virtual course. Emerging respiratory viruses, including COVID-19: methods for detection, prevention, response and control
This course provides a general introduction to emerging respiratory viruses, including novel coronaviruses. It includes the nature of emerging respiratory viruses, how to detect and assess an outbreak, and strategies for preventing and controlling outbreaks due to novel respiratory viruses. The course includes a module on what strategies should be used to communicate risk and engage communities to detect, prevent, and respond to the emergence of a novel respiratory virus.

*Duration: 3 hours*

https://openwho.org/courses/introduction-to-ncov