

Building capacity for clinical management of COVID-19 cases in Haiti

Between June 2020 and February 2022, the Meeting Targets and Maintaining Epidemic Control (EpiC) project provided technical assistance (TA) and capacity-strengthening support to ensure that health providers and facilities in Haiti could use ventilators donated by the U.S. Government (USG) safely and effectively. The USG, through the United States Agency for International Development (USAID), provided the Government of Haiti with a donation of 37 ventilators for intensive care units to assist its fight against COVID-19. The donation delivers on the U.S. administration's pledge to provide these critically needed supplies and support Haiti's ongoing efforts to mitigate the impacts of the COVID-19 pandemic in the country.

EpiC collaborated closely with the Ministry of Health (MOH) to strengthen the capacity of the government to receive, install, and use the ventilators. EpiC then led an assessment of TA needs for the clinical management of COVID-19 and provided clinical TA.

Since August 2023, EpiC has used the remaining ventilator TA funds to support monthly community of practice webinars as well as training for health facility staff on clinical management of COVID-19 and other respiratory illnesses. This support will continue through January 2024.

Activities and Accomplishments

FACILITY-LEVEL ASSESSMENTS

Between March and May 2021, EpiC completed 10 facility level assessments (FLA) to determine general capacity to provide critical care services. EpiC identified TA needs across health facilities and split health facilities into three categories based on the FLA:

- Category 1: Facilities that need minimal (if any) TA. The facilities have trained human resources (HR), a steady supply of oxygen, and requisite experience to manage patients.

EPIC'S KEY ACCOMPLISHMENTS

- Supported installation of 37 mechanical ventilators at 10 hospitals
- Conducted 10 facility-level assessments to confirm hospital ability to provide critical care services and identify technical assistance needs
- Trained 101 health care providers (nurses and doctors) from 12 facilities on COVID-19 critical care and clinical case management
- Trained four biomedical technicians in operations and maintenance for ventilators and facilities
- Held monthly clinical community of practice webinars

- Category 2: Facilities that need moderate technical assistance support (e.g., minor renovations, retraining of staff, expanded oxygen availability). These facilities have some staff that may require additional training and additional infection prevention control support and strengthening.
- Category 3: Facilities that need substantial technical assistance to use the ventilators. These facilities have significant HR gaps and/or no oxygen supply.

The assessments found that most facilities required additional inputs (e.g., technical assistance, additional staff, equipment, and infrastructure) to provide invasive mechanical ventilation. Results were disseminated to USAID, FHI 360, and the MOH in July 2021. Recommendations were made to address gaps, such as insufficient ICU space, human resource needs, and critical care and biomedical training needs, based on observations at facilities.

TRAINING ON COVID-19 CLINICAL MANAGEMENT

EpiC developed tailored training modules based on the results of the facility-level assessments. The project held seven weeklong “boot camp” trainings on COVID-19 critical care over the course of five months. A total of 101 staff from 12 facilities participated, including representatives from the MOH. Interdisciplinary teams of health care workers participated, including nurses and physicians. EpiC also provided clinical trainings at the departmental level.

EpiC and partners established a community of practice (COP) virtually through a WhatsApp group to connect the 12 facilities receiving TA. This COP provides a platform for facility staff to share information, knowledge, resources, and best practices. In addition to providing a platform for health facility staff to stay connected and share information, the COP holds monthly webinars on the clinical management of COVID-19 and other respiratory illnesses. These webinars are another opportunity to disseminate best practices and ensure that health care workers have a platform where they can share knowledge, ask questions, and discuss the latest guidance on the care and management of COVID-19 and other respiratory illnesses.

CLINICAL TRAINING TOPICS

- Advanced cardiac life support (ACLS) — interdisciplinary
- COVID management and protocols — interdisciplinary
- Systematic approach to nursing practice: subjective, objective, assessment, plan, intervention, and evaluation (SOAPIE) — nurse
- Fluid management — physician
- Case study — interdisciplinary
- Triage — nurse
- Respiratory care arterial blood gas (ABG) and ventilation — nurse
- Physical examination — nurse
- Infusion — nurse
- Dilution and administration of critical care medications — nurse
- Vital sign parameters, sedation, and oxygenation — nurse
- Shock — interdisciplinary
- Management of patients with acute respiratory distress syndrome (ARDS) — physician
- Infection control — interdisciplinary
- Ventilator management — interdisciplinary
- Management of a patient with brain injury — physician

TRAINING ON NON-CLINICAL SUPPORT FOR COVID-19

During the bootcamps, EpiC also trained four biomedical technicians from four health facilities on operating and maintaining the ventilator equipment to ensure that it continues to operate at optimal capacity. In addition, these bootcamps provided an opportunity to give training on overall facility management and maintenance.

Conclusions

EpiC and partners developed a comprehensive, detailed, holistic curriculum for trainings that was adapted to the needs of health care workers and the facilities where the trainings took place. This work occurred amid many challenges, including an earthquake, gang violence, civil unrest, and an ongoing fuel shortage.

EpiC built on this curriculum to continue trainings into 2023 and 2024, and these trainings have been instrumental in supporting health facilities in patient care management, supply management, and facility maintenance.

NON-CLINICAL TRAINING TOPICS

Biomedical

- Ventilator/oxygen concentrator
- Cleaning
- Maintenance protocol

Facilities

- Supply management
- Use of cylinders
- Oxygen cylinder storage safety
- Warning signs

Meeting Targets and Maintaining Epidemic Control (EpiC), a five-year global project funded by the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) and the United States Agency for International Development (USAID), is dedicated to achieving and maintaining HIV epidemic control. EpiC is led by FHI 360 with core partners Right to Care (RTC), Palladium, and Population Services International (PSI). EpiC is providing technical assistance (TA) in 13 countries to governments and specific health facilities that received U.S. Government (USG)-donated ventilators and to health providers on COVID-19 clinical case management.

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