

Building capacity to provide critical care for COVID-19 patients in Kiribati

From June 2020 to June 2022, the USAID-funded Meeting Targets and Maintaining Epidemic Control (EpiC) project in partnership with the Pacific Community (SPC) provided technical assistance (TA) and capacity-strengthening support to ensure that health care workers and two target hospitals in Kiribati could use ventilators donated by the United States Government (USG) safely and effectively.

The USG, through the United States Agency for International Development (USAID), provided the Government of Kiribati with a donation of ten ventilators for intensive care units to assist in the country's fight against COVID-19. The donation delivers on the U.S. administration's pledge to provide these critically needed supplies and support Kiribati's ongoing efforts to mitigate the impacts of the COVID-19 pandemic in the country.

EpiC's support to prepare for management of COVID-19 patients began in Kiribati in June 2020, well in advance of detection of the first cases, helping to ensure that the primary hospitals and health care workers were prepared to care for COVID-19 patients once the virus reached the country. EpiC and SPC collaborated with the Kiribati Ministry of Health and Medical Services (MHMS) to provide trainings on management of COVID-19 patients, deliver continual clinical TA, and supply the hospital with additional health supplies to support severely ill patient care. Following consultations and preparatory discussions with the MHMS in June 2020, EpiC's partner SPC commenced implementation of the USAID-funded ventilator TA program with the goal of integrating their efforts into the government's overall COVID-19 response.

FACILITY-LEVEL ASSESSMENTS

SPC conducted facility-level assessments at two target hospitals to identify placement areas for the ventilators, determine the hospitals' capacity to maintain the ventilators and provide patient care, and assess technical assistance needs on COVID-19 patient management. The two target hospitals, Tungaru Central Hospital (TCH) and Ronton Hospital were pre-selected by the MHMS. TCH is the national referral hospital located on Tarawa Island. The 120-bed facility

EPIC'S KEY ACCOMPLISHMENTS

- Installed 10 mechanical ventilators in two public hospitals
- Conducted two facility-level assessments to confirm hospital capacity and identify needs
- Provided a series of training sessions for 79 providers on COVID-19 clinical case management
- Built capacity of 16 biomedical technicians and healthcare workers to set up, use, and maintain ventilators

receives referrals from the sub-divisional hospitals and health centres. Ronton Hospital is one of three district hospitals, located on Kiritimati Island. These two facilities were selected because they are the main hospitals on the selected islands and have basic critical care resources, equipment, and workforce to manage COVID-19 cases and critically ill patients that would need ventilator support.

Due to the travel and border restrictions, information for the assessments was collected virtually. Discussions were held with the Director of Hospital Services, clinicians, nursing directors, biomedical technicians, human resource officers, and additional healthcare staff to complete questionnaires and to assess areas in the hospitals where ventilators were proposed to be placed.

The assessments found that while Kiribati remained free of COVID-19 at the time, planning for future community transmission was critical. While the hospitals met the criteria to receive a donation of ten ventilators and had the technical expertise, ancillary support, and resources to manage additional mechanically ventilated patients, several needs remained. Following are the top three priority needs identified: 1) training on management of critically ill, mechanically ventilated patients, particularly among nurses, physicians, ancillary staff, and respiratory therapists; 2) additional supplies of consumables, such as ventilator circuits at Ronton Hospital; 3) development of standardised approaches to care for critically ill patients and standard operating procedures (SOPs).

DEVELOPING A TRAINING PACKAGE AND STANDARD OPERATING PROCEDURES

Based on the facility-level assessment, EpiC and partner University of California San Francisco developed a virtual training package for healthcare workers at the two target hospitals that demonstrated practical simulation scenarios, provided guidelines and SOPs and linked attendees to online resources for additional information and refresher trainings. The content of the training included appropriate handling and use of personal protective equipment (PPE), intubation and extubation of patients, and proning. SPC developed SOPs to provide guidance on cover doffing and donning of PPE, intubation and extubation, disconnection of the ventilator, and suctioning of suspected/confirmed COVID-19 patients. Due to COVID-19 related travel restrictions in place, the training was designed to be delivered virtually.

TRAINING ON COVID-19 CLINICAL MANAGEMENT

Trainings on ventilator installation and maintenance were delivered virtually in 2020 and 2021 by the manufacturer with facilitation from a biomedical specialist at SPC. The training package covered two areas: 1) the set up and installation of the ventilators by biomedical technicians and other health care staff, and 2) clinical training focused on management of COVID-19 critically ill patients for health care workers at TCH and Ronton Hospital.

Throughout 2021 and into 2022, 79 attendees participated in a series of training sessions, facilitated by international experts in COVID-19 critical care with additional support from SPC nursing, clinical services, and infection prevention control (IPC) advisors.

Following the trainings, the SPC biomedical specialist provided ongoing repair and maintenance to the ventilators, mentored the biomedical technicians and clinicians at TCH and Ronton Hospital, and organized annual servicing of the ventilators in Australia. EpiC also provided ventilator consumables and equipment for critical patient care to Ronton Hospital to support the use of the ventilators and treatment for COVID-19 patients.

Conclusions

Findings from the facility-level assessment at TCH and Ronton Hospital indicated that Kiribati needed more trained staff skilled in management of critically ill COVID-19 patients to address patient care needs once COVID-19 reached the country. In addition, the assessments identified the need for updated processes, protocols, and guidance on managing COVID-19 cases, as well as additional consumable supplies to support ventilator use.

The EpiC project responded to these identified needs and made significant contributions through design and delivery of training packages on COVID-19 case management and donation of health supplies. These efforts strengthened the capacity of the health care system to manage COVID-19 and critically ill patients in Kiribati. Additionally, specialized training and mentorship of facility staff have facilitated sustainable operation of the ten ventilators to provide life-saving support for COVID-19 patients, as well as other patients requiring breathing support.

Kiribati did not encounter community transmission of COVID-19 until the borders opened in January 2021. By this time, the EpiC project had helped to prepare the two primary hospitals in the country and associated healthcare workers for a strong response.

Meeting Targets and Maintaining Epidemic Control (EpiC), a five-year global project funded by the United States Agency for International Development (USAID), is dedicated to achieving and maintaining HIV epidemic control and supporting global COVID-19 response. EpiC is led by FHI 360 with core partners Right to Care (RTC), Palladium, and Population Services International (PSI). EpiC and its consortium members are implementing COVID-19 activities in more than 20 countries on three continents. In 13 of those countries, EpiC is providing technical assistance (TA) to governments and specific health facilities that received U.S. Government.



Virtual training sessions with on-site simulations taught staff to don and doff PPE.

Photo credit: Pacific Community

This report is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of the EpiC project and do not necessarily reflect the views of USAID or the United States Government.