

MALAWI NATIONAL COVID-19 RESPONSE SUPPORT

When the first cases of COVID-19 were discovered in Malawi on 2 April 2020, the Public Health Institute of Malawi (PHIM), under the Malawi Ministry of Health (MOH), activated the Public Health Emergency Operations Center (PHEOC) to coordinate the national COVID-19 response. By 8 April 2020, a national COVID-19 Preparedness and Response Plan had been launched, then a COVID-19 Presidential Taskforce, co-chaired by MOH and the Ministry of Finance, was created.

The International Training and Education Center for Health (I-TECH), in collaboration with the Malawi MOH and the Centers for Disease Control and Prevention (CDC), has been supporting the national COVID-19 response since March 2020. I-TECH has been assisting with several aspects of emergency response activities at the central and district levels, including supporting the PHEOC; strengthening laboratory capacity; supporting quality COVID-19 surveillance, data management, and information dissemination; and supporting a PHIM-led COVID-19 population-based survey. In June 2020, I-TECH seconded a full-time Technical Advisor (TA) to the PHEOC, as well as other I-TECH TAs to also assist with COVID-19 response activities.

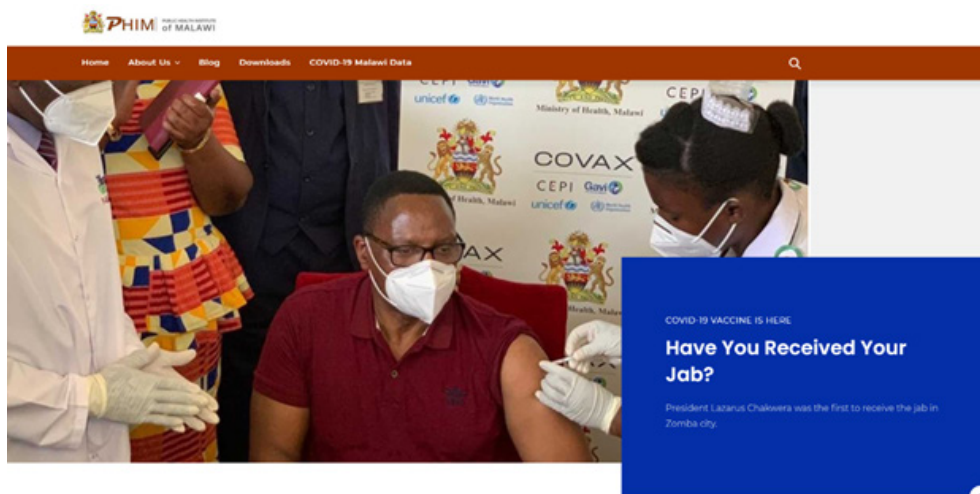


Figure 1. PHIM website showing President Lazarus Chakwera receiving a COVID-19 vaccine. As part of the pandemic response, the PHEOC has provided oversight of the vaccine rollout and I-TECH developed and disseminated informational materials about vaccines.

SURVEILLANCE AND DATA MANAGEMENT SUPPORT

Gaps in data collection, management, and reporting were identified quickly as the COVID-19 pandemic overwhelmed the Malawi health system in the spring of 2020. I-TECH promptly directed HIV Recency Surveillance Teams nationwide to shift efforts to support the PHEOC and the surveillance system at both the national and district levels. I-TECH Recency Surveillance Teams were deployed in the district health offices of four high-burden districts where they supported response and partner coordination; improved data collection, management, and reporting to the national level using district-organized mentorship; supported data review, cleaning, interpretation; and contributed to the geographic tracking of COVID-19 transmission on a daily and weekly basis. I-TECH Recency Surveillance Teams also supported case identification; tracking and monitoring; contacting confirmed cases tracing; screening and testing capacity issues; improvement of health data harmonization, flow, reporting and completeness; and alignment of all COVID-19 data sources and time frames for PHEOC staff to use at the national level.

PUBLIC HEALTH EMERGENCY OPERATIONS CENTER

The PHEOC uses an Incident Management System organizational model and serves as a hub for coordinating the preparation for, response to, and recovery from public health emergencies, such as the COVID-19 pandemic. This PHEOC coordination allows for multi-sectoral, transdisciplinary collaboration through a One Health approach.¹ PHEOC preparation activities include planning (e.g., risk and resource mapping); developing plans and procedures; and conducting training and field exercises. The PHEOC is also the hub for coordinating resources and information to support response activities during a public health emergency, which enhances communication and collaboration among relevant stakeholders. The PHEOC supports the data collection, management, and public dissemination that serves as the foundation for these activities.² PHEOC staff, including I-TECH TAs, receive data and information from various stakeholders for analysis and then coordinate field investigations, response activities, and resource allocation accordingly while providing feedback to all relevant stakeholders and the public. Staff at the national PHEOC provide supplemental assistance to districts and communities for strategic emergency response management as needs arise.

COVID-19 PHEOC Operations

The Malawi COVID-19 PHEOC members meet 3-7 times per week to discuss all pandemic response issues and activities. The PHEOC reviews data and information, discusses issues and incidents, and decides what recommendations and/or decisions should be made for all COVID-19 response pillars. The response pillars include coordination, planning and monitoring, risk communication and community engagement, surveillance, points of entry, rapid response, national laboratories, infection prevention and control (IPC), case management, operational support and logistics, maintaining essential health services and systems, and vaccines.

PHEOC Guidance and Communication

The I-TECH TA acts as the PHEOC meeting secretariat, facilitating communications among different response partners to improve coordination of the response. As a key member of the PHEOC and several technical working groups, the I-TECH TA regularly provides input while developing and/or revising standard operating procedures, guidelines, and risk communication materials under all response pillars and helps to improve access to these by ensuring they are available. I-TECH has also supported the development of COVID-19 response thresholds (level 1 to level 5) and corresponding public health measures, such as the strengthening of screening and testing at points of entry, as well as the mobilization of funds for the response.

To date, I-TECH has facilitated several workshops, including two focused on developing a Malawi-specific PHEOC handbook that outlines management and operational procedures, response structure, roles and responsibilities of core functions, information management, and communication mechanisms at all levels, as well as the coordination mechanism between the PHEOC and other coordination structures.

Malawi has recently initiated the process of institutionalizing the PHEOC as part of the MOH, to make it a permanent legal structure operating under watch mode to quickly and efficiently respond to any future public health emergency that arises.

PHEOC HIGHLIGHTS

- The PHEOC allows for the multi-sectoral, transdisciplinary collaboration to coordinate COVID-19 response efforts using a One Health approach.
- PHEOC members meet 3-7 times per week to discuss pandemic response concerns and activities.
- I-TECH has facilitated several workshops focused on developing a PHEOC handbook outlining management and operational procedures during the COVID-19 pandemic.

¹ CDC One Health: <https://www.cdc.gov/onehealth/index.html>

² WHO Handbook for Public Health Emergency Operations Center Operations and Management https://www.afro.who.int/sites/default/files/2021-03/AFRO_PHEOC-Handbook_.pdf

COVID-19 INTERACTIVE DASHBOARDS

The MOH, in collaboration with partners, has created an interactive website that supports the provision of up-to-date COVID-19 data to the public. The site presents data in a variety of ways to maximize its value for a broad range of stakeholders and the public. The site includes the COVID-19 National Information Dashboard, which has multiple dashboard views showing suspected cases, confirmed cases, deaths, recovered cases, active cases by district, cases per day, vaccination data, and other relevant statistics useful for both the public and entities playing an active role in the COVID-19 response. See Figure 2 below for a snapshot of the COVID-19 National Information Dashboard. In addition to the dashboards, the site includes situation reports that are posted regularly, as well as laboratory tracking data (e.g., samples received, samples tested, test results, weekly averages). Refer to the [COVID-19 Dashboard](#) for current information.

A PHEOC internal dashboard is also accessible to PHEOC members only through restricted access; it provides more detailed or additional data.

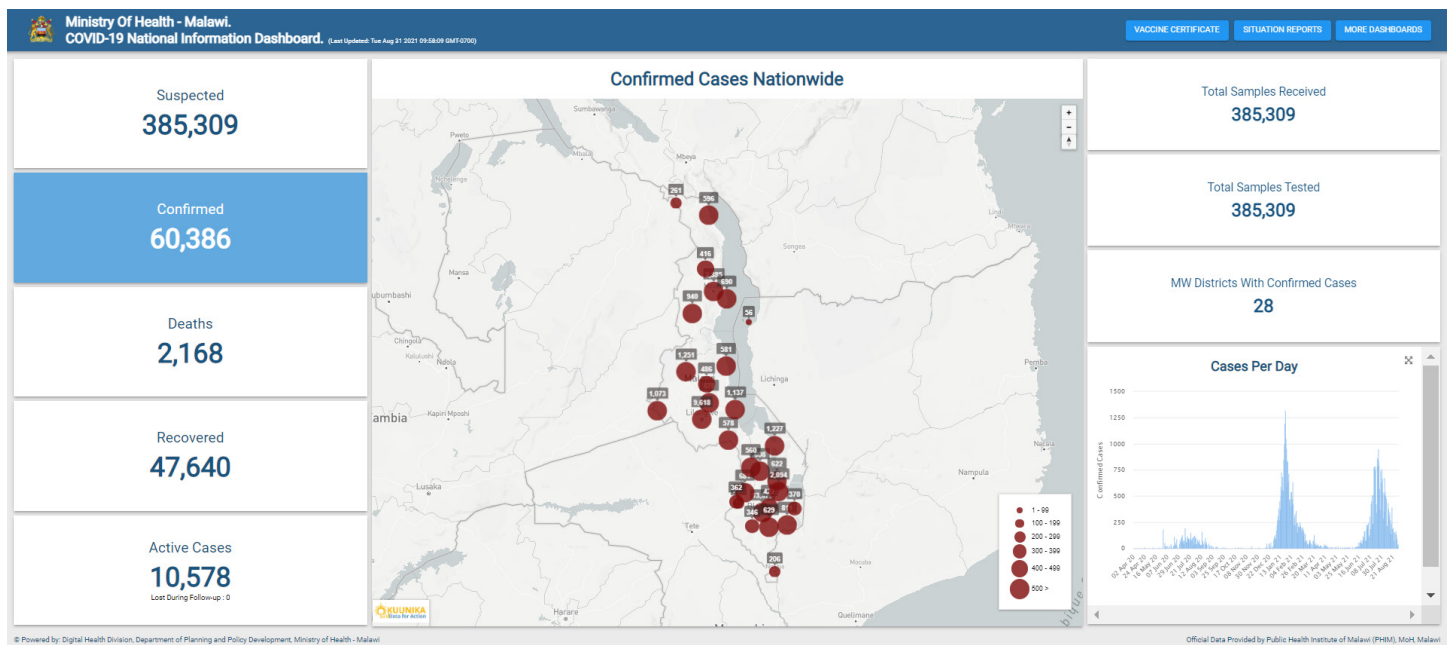


Figure 2. COVID-19 National Information Dashboard

LABORATORY CAPACITY BUILDING

In coordination with PHIM/PHEOC and CDC, I-TECH provides key COVID-19 support to the National Health Reference Laboratory (NHRL) to increase laboratory capacity, maintain quality assurance, and improve communication and coordination among laboratory stakeholders such as health workers, vendors, and transportation staff. Technical assistance placed at the NHRL supports strengthening of the COVID-19 testing unit by providing input on testing strategy and supporting training, assessment, and redistribution of laboratory staff. The I-TECH team has also assisted with the scale-up of laboratory activities and quality improvement by developing SOPs for external quality assessment procedures, updating internal management SOPs, and implementing sequencing processes. I-TECH has been able to leverage its existing platform for HIV laboratory activities to provide support for COVID-19 activities, including placement of staff and equipment where needed, quantification and procurement of lab supplies, and storage of lab samples. I-TECH is also supporting the capacity building of COVID-19 genomic sequencing in Malawi.

COVID-19 POPULATION-BASED SURVEY

I-TECH led implementation and coordination efforts of the PHIM COVID-19 survey titled, *Investigating the frequency, predictors, and distribution of SARS CoV-2 infection in selected districts in Malawi*. This survey evaluated the overall extent and spread of COVID-19 during the pandemic in five high-burden districts in Malawi by testing for active and past COVID-19 infections at the community-level and at the facility-level. The sample size for the survey was 5,518 and was conducted from October 2020 to December 2020. I-TECH finalized the protocol, developed the data collection tools and obtained all required Ethical Committee approvals.

I-TECH recruited and trained the survey enumerators, oversaw data biospecimen collection from staff and the supervisors, and coordinated sample transportation to district laboratories and NHRL for analysis. I-TECH also supported the COVID-19 District Rapid Response Teams to provide COVID-19 test results to survey participants. I-TECH, with strong stakeholder collaboration, is leading discussions on survey results dissemination and planning for a follow-up survey.

INTRA-ACTION REVIEW (IAR)

A COVID-19 country IAR is a country-led, facilitated review process conducted during the COVID-19 outbreak that brings together a small group of COVID-19 responders with knowledge of the public health response pillars. Its purpose is to assess the efficiency of the COVID-19 response so that the country does not miss critical opportunities for learning and improvement to better respond to the COVID-19 outbreak.³ I-TECH has been actively involved in the two Malawi IARs, along with government ministries/departments and development partners, such as the World Health Organization (WHO), and led the session on IPC in the first review exercise. I-TECH is supporting the implementation of some resulting key recommendations of the review. The IAR recommendations include, but are not limited to, building infrastructure capacity of points of entry to conduct routine screening, testing, and collecting data for all travellers; constructing and equipping additional emergency treatment centers in each district; and filling critical gaps in hospital staff for COVID-19 case management. An IAR will be conducted periodically to continue to assess the COVID-19 response in Malawi.

³ WHO Guidance for conducting a country COVID-19 IAR: https://www.who.int/publications/i/item/WHO-2019-nCoV-Country_IAR-2020.1



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