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Development works here.

Health workers conduct a One Health simulation exercise at the Kenya-Tanzania border in June 2019. Photo Credit: HRH2030 Tanzania

Global Health Security: Strengthening Country Capacity to Prepare for Public Health Emergencies

The threat of infectious diseases continues to rise: Changes in our climate are contributing to changes in vector ecology, amplifying the risk of epidemics and pandemics from both endemic and emerging infectious disease agents. In addition, the threat of bioterrorism continues to pervade across the globe. In our increasingly interconnected world, preparing for and responding to public health emergencies require approaches that help countries strengthen their multidisciplinary responses and address coordination challenges among different sectors.

Global health security, however, cannot be achieved without the creation of equitable, resilient, and efficient health systems for all people. In countries at risk for public health emergencies, Chemonics helps government and donors better prepare for and respond to emerging global health security threats using cutting-edge capacity strengthening approaches and sophisticated data analytics tools. We effectively engage the private sector, local organizations, and communities and base our overall implementation of programs on global best practices.

Addressing Antimicrobial Resistance in Ethiopian Hospitals

USAID Global Health Supply Chain Program — Procurement and Supply Management (GHSC-PSM). Global, 2015 to 2023. Antimicrobial resistance (AMR) is a continually growing threat to the effective prevention and treatment of a wide range of infectious diseases. To combat this issue in Ethiopia, the project developed A Practical Guide to Antimicrobial Stewardship in Ethiopian Hospitals, which promotes evidence-based recommendations and effective stewardship practices to improve patient outcomes, reduce microbial resistance, and decrease the spread of infections caused by drug resistance. GHSC-PSM also

BY THE NUMBERS

90%

INCREASE IN ONE-DOSE COVID-19 VACCINATION RATES in Kaffrine district, Senegal in September 2021

27,000

travelers to Pakistan recorded and traced for possible COVID-19 transmission

100

ETHIOPIAN JOURNALISTS TRAINED IN ANTIMICROBIAL RESISTANCE to increase public awareness

A nurse in Malawi prepares a COVID-19 vaccination for a patient. Photo Credit: GHSC-PSM Malawi

supported the Ethiopian Ministry of Health and Food Medicine and Healthcare Administration and Control Authority to develop and cascade the AMR Prevention and Containment National Action Plan and Monitoring and Evaluation Framework, in addition to training 100 national journalists to increase public knowledge and awareness of AMR.

Supporting COVID-19 Immunization Through a Results-Based Financing Mechanism in Senegal

USAID Building Resilient Health Systems (BHRS). Senegal, 2021 to 2026. In Senegal, Chemonics provides targeted technical assistance, training, and capacity building to the Senegalese Ministry of Health and Social Action (MSAS) to strengthen national systems, policies, and tools to better respond to emerging public health threats and crises. In February 2022, the BRHS project developed, designed, and supported a COVID-19 vaccine acceleration initiative (CVAI) across nine of Senegal's 14 regions. BRHS worked with USAID and the MSAS to pilot the initiative in the Kaffrine region, starting with Kaffrine district. With several partners involved, the CVAI built the skills of health workers, addressed supply-and-demand factors affecting COVID-19 vaccination, and implemented a results-based financing mechanism based on a one-month vaccination campaign. As a result of the CVAI, one-dose COVID-19 vaccination rates in the Kaffrine district doubled in one month from 10% to 19%, and the coverage rate for full vaccination increased from 7.7% to 13%. BRHS continues to support these regions in implementing MSAS guidelines for vaccination against COVID-19, which include the integration of COVID-19 vaccination and mitigation into routine immunization practice and targeted outreach to vulnerable groups.

Building Real-Time Surveillance Systems for Data-Informed Decision Making in Pakistan and Côte D'Ivoire

GHSC-PSM. Global, 2015 to 2023. In response to the COVID-19 pandemic, GHSC-PSM and the government of Pakistan developed a robust suite of tools to rapidly respond to new and ongoing supply chain, technology, laboratory, and procurement needs. In under 48 hours, the project successfully developed and deployed the COVID-19 Travelers Surveillance Management Information System (TSMIS), which provides real-time data on persons coming into the country and leverages tools for tracing possible transmission. From February to March 2020, GHSC-PSM trained staff in four airports and one seaport, as well as nearly 120 Pakistani government officials, in using the TSMIS. Since its launch, different entry point users have entered TSMIS data from nearly 27,000 travelers on 910 flights into the system. The project also developed a TSMIS mobile application for supply chain managers to view real-time dashboards.

USAID Human Resources for Health In 2030 (HRH2030) Program. Global, 2016 to 2022. In 2021, Côte D'Ivoire launched the National One Health Platform, a key component of the country's Global Health Security Agenda to prevent, detect, respond to, and recover from epidemic threats. In partnership with the Ministry of Health, HRH2030 developed the Surveillance Technical Working Group to coordinate district and regional disease surveillance activities in-country; trained focal points as part of these activities, strengthening linkages between the platform and the Emergency Operations Center; supported the platform's coordination with the Emergency Operations Center and the Pasteur Institute of Côte d'Ivoire on COVID-19 case management and infection control

and prevention; and worked with focal points and Ministry representatives to develop and finalize the National Action Plan for Health Security. With the One Health Platform established — representing a firm commitment to ongoing multisectoral collaboration and coordination between USAID and the government of Côte d'Ivoire's technical and financial partners — the country is now better positioned to tackle health emergencies.

An exercise facilitator shares information with participants at a One Health simulation exercise at the Kenya-Tanzania border in June 2019.
Photo Credit: HRH2030 Tanzania

Strengthening the Global Workforce to Effectively Respond to Future Pandemics

HRH2030 Program. Global, 2016 to 2022. A strong health workforce — with the right skills and in the right places — is critical to creating health systems that are more resilient and better prepared for emergencies. HRH2030 identified and addressed shortfalls in the health workforce to improve the quality and accessibility of health services in more than 20 countries. For instance, Indonesia's Ministry of Health needed to rapidly redeploy doctors to designated COVID hospitals. Thanks to HRH2030-facilitated digital data system investments, healthcare worker and epidemiological data could be seamlessly mapped and reviewed together. This allowed decision-makers to deploy doctors at lower-volume hospitals, ensuring that essential services could still be delivered. It also allowed COVID response teams to quickly determine the cost of their personal protective equipment needs for frontline healthcare workers for which Chemonics received a USAID Digi award in 2020.

USAID Global Health Supply Chain — Technical Assistance — Francophone Task Order (GHSC-TA Francophone TO). Francophone Africa and Haiti, 2017 to 2023. Through its supply chain work in Benin, Chemonics has facilitated a Young Logisticians Professional Program so that national workforces have an influx of more diverse, well-trained, and optimally distributed logisticians. During the height of the COVID-19 pandemic in 2020, seven young logistician professionals from this program provided technical assistance to the COVID Response Ministerial Logistics Committee. They assisted with the verification of incoming COVID-19 commodities as well as warehouse management and distribution to 36 target health facilities.

Improving the Preparedness and Management of Emergency Operations

HRH2030 Program. Global, 2016 to 2022. Simulation exercises play an important role in pandemic and emergency preparedness. Although many countries have emergency plans in place, they have not been tested and operationalized those plans. Through the One Health activity, HRH2030 conducted exercises in Ethiopia and Tanzania to reveal weaknesses in the countries' epidemic response systems and build action plans to address them. In Ethiopia, the simulation tested the effectiveness of the country's Highly Pathogenic Avian Influenza Preparedness and Response Plan. In Tanzania, the country needed to increase the preparedness of its border regions with the Democratic Republic of the Congo (DRC) against

In the Philippines, a health worker records vital COVID-19 data on her tablet.
Photo Credit: HRH2030 Philippines

a potential Ebola virus outbreak. These simulations used the One Health approach to facilitate multisectoral coordination and collaboration to help prevent, detect, and rapidly respond to epidemic threats, and they can be replicated and scaled in other countries.

GHSC-TA Francophone TO. Francophone Africa and Haiti, 2017 to 2023. Preparing for a novel virus, while never easy, is less challenging when there is a map or guidebook to help set up governments and health officials for success. The Emergency Supply Chain (ESC) Playbook, originally designed in 2018 to help governments prepare for resurgences of pandemics such as Ebola, has found a new application due to the rise of the COVID-19 pandemic. The GHSC-TA Francophone TO — which provides technical support across Benin, Burkina Faso, Côte d'Ivoire, the DRC, Mauritania, Niger, and Togo to strengthen their health supply chains — uses this tool to help governments customize their public health and supply chain protocols to facilitate emergency response and implementation efforts for COVID-19 and beyond. In Burkina Faso, for example, the government used the ESC Playbook to set up an Incident Management System for COVID-19, which developed a Preparedness and Response Plan to the COVID-19 outbreak and national guidelines for medical treatment. This plan led to higher resource usage and developed clear communication channels among stakeholders. Furthermore, the project has customized and scaled the ESC Playbook to meet the emergency preparedness and response needs of countries and regions under the GHSC-PSM project, including Botswana, Cameroon, Côte d'Ivoire, Ethiopia, Kenya, Liberia, Mozambique, Sierra Leone, and Latin America and the Caribbean.