



Global Health Security

THE CHALLENGE

In our increasingly interconnected world, infectious disease outbreaks can spread across wide expanses in record time, as evidenced by the COVID-19 emergency and the 2022 mpox outbreak. Climate change and the rise of drug-resistant pathogens have increased the frequency and severity of infectious disease outbreaks, putting global health security in peril and underscoring the urgency of coordinated investment and action. Countries with fragile and underfunded health systems, many of which are endemic for viral hemorrhagic fevers and other deadly infectious diseases, are especially susceptible to growing public health threats.

The monitoring and evaluation framework for the World Health Organization's International Health Regulations (IHR, 2005) provides a roadmap for increasing global health security by systematically strengthening national capacities to prevent, detect, and respond to public health threats across the human, animal, and environmental health sectors.

Recent joint external evaluation (JEE) scores indicate that sub-Saharan Africa and Southeast Asia continue to lag other regions in IHR capacities. Country capacity to respond to global health threats is also influenced by contextual factors including political agendas, economic forces, and societal aptitude for behavior change as part of mitigation efforts. While the JEE is not a perfect measure of a country's ability to respond, the fact that most countries in Africa and many in Asia score between 21% and 60% on average¹ calls for continued investment and action to address areas of weakness.

ICAP's Capabilities-Based Approach to Global Health Security

ICAP's work in global health security started during the 2014–2016 Ebola outbreak in West Africa, with an evaluation of community care centers in Sierra Leone. Since then, ICAP has partnered with ministries of health, national public health institutes, and other local entities to strengthen IHR capacities to prevent, detect, and respond to infectious disease outbreaks.

ICAP's approach is informed by the One Health framework, which recognizes the complex interplay between human, animal, and environmental health and prioritizes

coordinated multisectoral planning and action. The ICAP conceptual framework for global health security (Fig. 1) grants attention to stages of the **public health emergency life cycle** that typically receive less attention, such as prediction, preparation, and calibration. Across every stage of public health emergencies, ICAP emphasizes engagement, learning, coordination, and cooperation as force multipliers that activate the full technical and operational potential of the public health workforce.

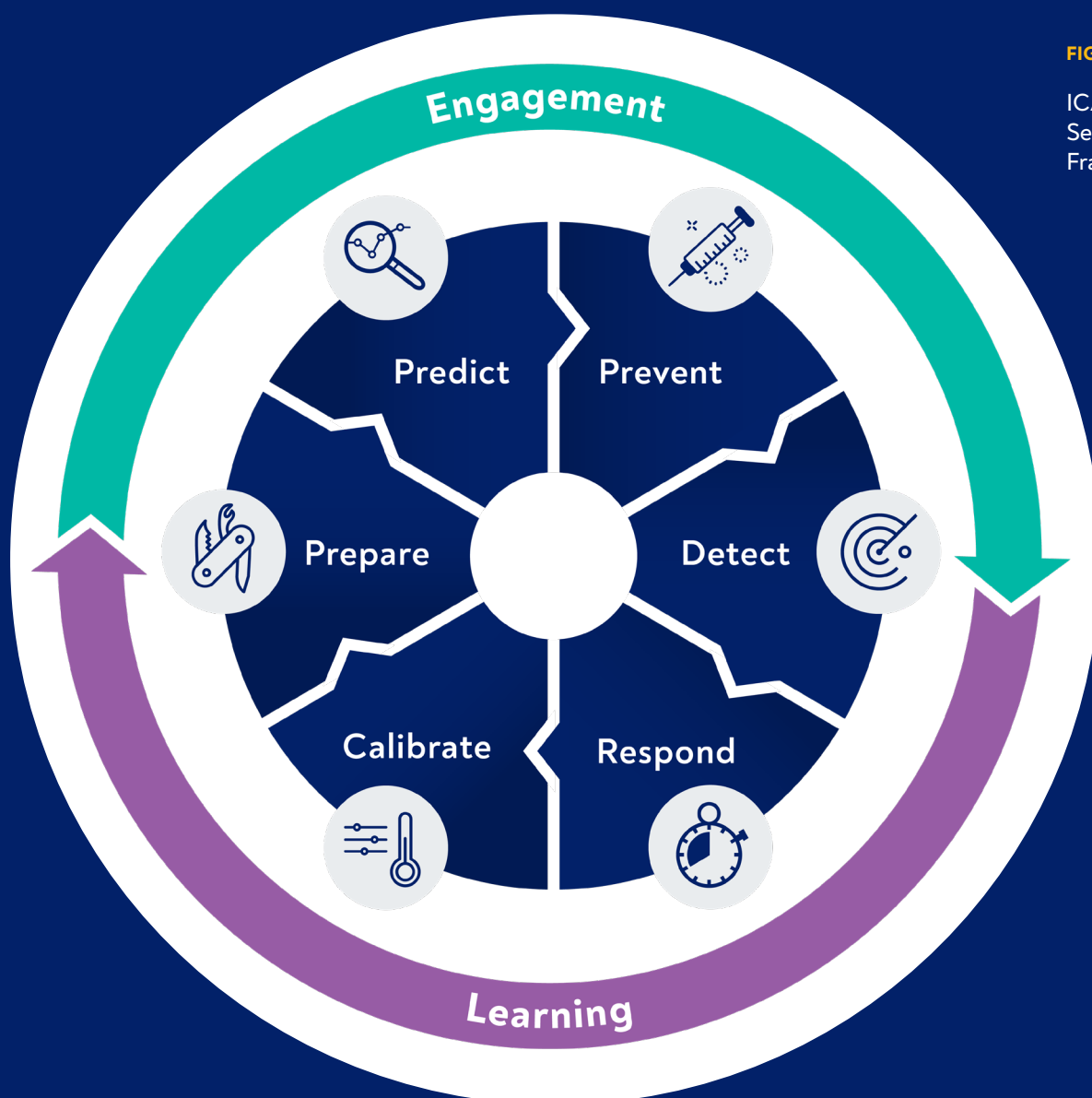


FIGURE 1

ICAP Global Health Security Conceptual Framework

ICAP specializes in 9 International Health Regulations (IHR) core capacity areas:



PREVENTION

- 1 — IHR Coordination
- 2 — Antimicrobial Resistance
- 3 — Immunization



DETECTION

- 4 — Surveillance
- 5 — Laboratory Strengthening & Quality assurance
- 6 — Human Resources



RESPONSE

- 7 — Health Emergency Management
- 8 — Infection Prevention & Control
- 9 — Risk Communication & Community Engagement



CORE AREA 1

IHR COORDINATION

ICAP supports national and subnational authorities with coordinated planning for and management of health emergencies, including by assisting in development of national preparedness and response plans for specific threats; supporting all-hazards planning; and providing team-focused training, mentorship, and simulation exercises to strengthen the coordination capacity of national public health institutes,

national incident management core teams, public health emergency operations centers (PHEOC), and other entities with leadership roles in emergency preparedness and response efforts. And, in cases of active health emergencies, ICAP supports development of scenario-based 72-hour response plans that align with the WHO model.

SELECT EXAMPLES OF ICAP'S IHR COORDINATION EXPERIENCE:

- To support coordinated planning and management of health emergencies, ICAP is advising emergency preparedness and response officials in South Sudan, including the Director General of Preventive Health Service, the Director General of International Health and Partners Coordination, the Director General of Primary Healthcare, and the Director General of National Public Health Laboratory. At the beginning of the 2022 EVD outbreak in Uganda, ICAP provided technical support to MoH to develop a national EVD Preparedness, Readiness, and Response Plan and a scenario-based 72-hour EVD Response Plan.
- ICAP has worked hand in hand with ministries of health in multiple countries to develop emergency management standard operating procedures, guidelines, and 'just in time' training for rapid response teams, call center staff, and other members of the health workforce involved in contact tracing and community engagement.
- ICAP plays a lead role in many national technical working groups across all pillars of pandemic preparedness and response.

CORE AREA 2

ANTIMICROBIAL RESISTANCE (AMR)

AMR is a One Health problem affecting humans, animals, and the environment, and AMR threats can emerge from any of these domains. Overuse, misuse, and inappropriate use of antibiotics and inadequate infection prevention in healthcare settings increase the chance that resistance will develop and spread, particularly among those with immunocompromised conditions.

AMR infections can be more difficult to treat, leading to longer hospital stays and increased mortality. ICAP strengthens national capacity to combat AMR through support for antimicrobial stewardship, diagnostic laboratory strengthening, and AMR surveillance.

ANTIMICROBIAL STEWARDSHIP (AMS)

ICAP's in-country and program specialists collaborate with ministries of health to promote optimized antibiotic prescribing and dispensing practices. By training and mentoring clinical providers, ICAP supports improved quality of care and patient outcomes and helps reduce the risk of further emergence, selection, and spread of AMR. ICAP also promotes sharing of best practices within and across countries to capacitate healthcare professionals

regarding the rational use of antibiotics. To help institutionalize AMS, ICAP advocates for increased funding for antimicrobial stewardship initiatives and supports AMS advisory committees and multidisciplinary clinical AMS teams. Finally, ICAP's infectious disease specialists, microbiologists, and pharmacists can provide on-demand TA to identify gaps in AMS practices and/or to design and implement remedial AMS measures for specific settings and contexts.

STRENGTHENING DIAGNOSTIC CAPACITY

ICAP has supported national reference laboratories to expand diagnostics of microbial agents including *Staphylococcus aureus*, *Neisseria gonorrhoeae*, *Escherichia coli*, *Klebsiella*, *Pseudomonas aeruginosa* and *Acinetobacter spp* and to monitor methicillin-resistant *Staphylococcus aureus* (MRSA), extended-spectrum B-lactamase (ESBL) and metallo-B-lactamase (MBL) producing gram-negative bacteria.

In addition, ICAP provides TA for design and adaptation of AMR policies, guidelines, and standard operating procedures (SOPs) based on ISO15189 accreditation standards, upgrades physical laboratory infrastructure to accommodate AMR testing, and delivers training in bacteriology and antibacterial susceptibility testing.

AMR SURVEILLANCE

ICAP's approach to laboratory-based surveillance of AMR utilizes a phased approach that starts with a focus on a few select pathogens, such as bacterial meningitis and enteric diseases. Specific areas of focus include strengthening biorepository systems to ensure safe transport of isolates of enteric pathogens from facilities to national reference laboratories, designing

AMR surveillance dashboards, facilitating enrollment in the WHO Global AMR Surveillance and Use Surveillance System (GLASS), and providing guidance and TA to national One Health Committees to harmonize AMR data collection, analysis, and quality across sectors, including through connected tools that track and map the emergence of resistance.

SELECT EXAMPLES OF ICAP'S AMR EXPERIENCE:

- **In Eswatini**, ICAP is utilizing a One Health approach to improve antimicrobial use and consumption in both human and animal sectors. In addition to strengthening the governance and leadership of Eswatini's AMR Containment Committee, ICAP helped establish and renovate six AMR surveillance sites within the human and animal health sectors, equipped and supplied laboratory reagents and consumables, and strengthened capacity of human and animal health workers in detection, response, containment, and prevention of AMR pathogens. Additionally, ICAP developed a variety of materials to be used at the intersection of animal, human, and environmental care, including SOPs and protocols, job aids, procurement needs assessments, and national data flow systems in compliance with GLASS.
- **In Kenya**, ICAP is collaborating with MOH and CDC to implement an IPC project with a significant AMR focus at two large hospitals in Nairobi. ICAP is supporting training in IPC; updating and strengthening policy documents, guidelines, and SOPs; strengthening Occupational Health and Safety implementation; supporting production of annual antibiograms; connecting the laboratory information system (LIS) to the national surveillance system; enhancing healthcare-associated infection (HAI) surveillance through design of an HAI curriculum; and strengthening AMS activities.
- **Quality Improvement (QI) toolkit to prevent AMR**: ICAP collaborated with the Division of Health Care Quality Promotion in the National Center for Emerging and Zoonotic ID (NCEZID) at CDC to develop a toolkit that supports healthcare workers in middle-income countries to develop and implement QI projects that improve IPC and mitigate the spread of carbapenem-resistant Enterobacteriaceae (CRE) and other HAIs. After developing the toolkit, ICAP supported its piloting in Thailand via a five-day training that resulted in the implementation of QI projects at all 12 participating health facilities.

Example of AMR trend analysis developed with ICAP support

Trend of Bacterial species isolated by month, April-Nov2021

Bacterial category	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Grand Total	Proportion of Resistance to any antibiotic
<i>Staphylococcus aureus</i>	0	4	9	16	10	21	13	24	97	97%
<i>Escherichia coli</i>	1	7	18	7	11	8	6	10	68	100%
Other <i>Staphylococcus</i> spps	0	3	4	12	6	13	14	9	61	83%
Other gram negative bacteria	1	3	4	14	2	8	16	13	61	90%
<i>Enterococcus</i> species	1	5	5	3	6	6	1	2	29	86%
Other gram positive bacteria	0	0	1	3	2	2	5	6	19	89%
<i>Klebsiella pneumoniae</i>	1	2	1	4	1	2	2	2	15	100%
<i>Pseudomonas aeruginosa</i>		2	4	3	2	1		3	15	100%
<i>Streptococcus</i> species	0	1	4	2	1	2	3	0	13	92%
<i>Enterobacter</i> species	0	0	3	2	2	1	0	4	12	88%
<i>E.coli</i> O157:H7						1	7		8	100%
<i>Acinetobacter</i> species	0	2	1	1	1	1	0	1	7	100%
<i>Haemophilus influenzae</i>								2	2	100%
Grand Total	4	29	54	67	44	66	67	76	407	96%

CORE AREA 3

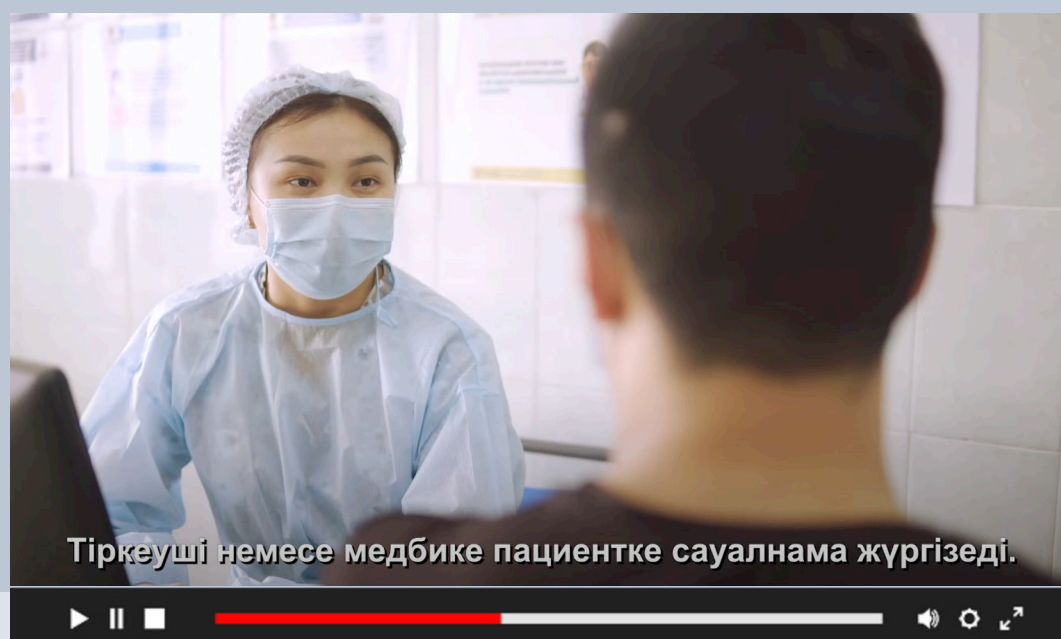
IMMUNIZATION

During the emergency phase of the COVID-19 pandemic, ICAP provided multifaceted support to ministries of health to plan and implement COVID-19 vaccine programs. ICAP's support included assisting in development of vaccination strategies and guidelines, designing and delivering

training packages for healthcare workers administering vaccines, deploying demand creation campaigns using population-tailored risk communication messages, and putting in place data systems to track vaccine rollout and monitor adverse events following immunization (AEFI).

SELECT EXAMPLES OF ICAP'S IMMUNIZATION EXPERIENCE:

- **In Sierra Leone**, ICAP was instrumental both in the development of the national COVID-19 vaccine rollout strategy and in training the health workforce to scale up vaccine delivery. This included leading the technical coordination of the COVID-19 technical working group, developing and validating the national COVID-19 vaccine deployment plan, mobilizing funding for vaccine rollout, and developing a vaccine monitoring system.
- **In Lesotho**, ICAP provided technical assistance to MOH to establish a robust COVID-19 vaccine data management system leveraging the existing national DHIS2 system. This involved adapting DHIS2 to incorporate vaccine-related data, training DHIS2 users at central, district, and health facility levels, developing DHIS2 dashboards that generate vaccine-related data visualizations, and supporting data cleaning and production of up-to-date COVID-19 vaccine statistics.
- **In Tanzania**, ICAP provided support for COVID-19 vaccine rollout through vaccine-related training for regional and county health management teams, deployment of the vaccine at health facilities providing services to people living with HIV, and vaccine-related community sensitization and demand creation.
- **In Kazakhstan**, ICAP supported MOH to develop and implement a strategy to ensure effective COVID-19 vaccine rollout, including production and diffusion of an instructional video for vaccine providers and development and implementation of a public health awareness campaign to facilitate vaccine roll-out to priority populations.





CORE AREA 4

SURVEILLANCE

ICAP partners with ministries of health to strengthen public health surveillance, including through design, implementation, evaluation, and enhancement of integrated disease surveillance systems for infectious diseases and other public health threats.

To date, ICAP has provided **surveillance support in 16 countries** to strengthen capacity to detect and quickly respond to leading public health threats.

SELECT EXAMPLES OF ICAP'S SURVEILLANCE EXPERIENCE:

- To support timely detection of Ebola virus disease (EVD) cases in South Sudan, ICAP printed and distributed updated EVD case definitions to health facilities and communities in eight high-risk areas. In South Sudan, ICAP advises the national epidemiology and surveillance working group and supports MoH surveillance officers to execute their roles in the national EVD preparedness, readiness, and response plan. In high-risk counties along the border with Uganda, ICAP provides operational support to rapid response teams (RRTs) for community-based surveillance, alert detection, investigation, and reporting.
- ICAP has supported development and implementation of national strategies for case-based surveillance of HIV in Eswatini, Ethiopia, and Zimbabwe. Technical assistance from ICAP was instrumental in the development of standard case definitions and the strengthening of local capacity, processes, and systems for routine capture of individual-level data on new HIV cases from multiple sources.

- As part of the Tracking with Recency Assays to Control the Epidemic (TRACE) project, ICAP has supported the introduction of recent HIV infection testing surveillance in 15 countries in sub-Saharan Africa, Asia, and Central America. In each country, ICAP conducts targeted trainings for healthcare workers at point-of-testing, laboratory staff, and senior ministry of health officials and provide TA to:
 - 1) rapidly set up or adapt existing electronic data capture, management, and visualization systems;
 - 2) establish efficient processes and systems to collect and analyze quality control and proficiency testing data to strengthen overall test performance;
 - 3) ensure laboratory quality control through screening and characterizing blood bank specimens for training panel preparation;
 - 4) monitor and interpret data to identify where suspected transmission occurs; and
 - 5) develop public health response strategies for recent infections; support MOH to incorporate recency testing into national HIV testing guidelines; and
- 6) compare HIV-positive yield among partners of clients whose infections were recent vs. long-standing and assess potential harms associated with recent infection disclosure.
- ICAP supports the development of processes to publish routine reports of epidemiological information. In Eswatini, ICAP supported the development of standard operating procedures for collecting, verifying, and compiling data related to under-five diarrheal diseases, nutritional deficiencies, perinatal mortality, and maternal mortality from four sentinel sites, and disseminating the data to key stakeholders via weekly and monthly epidemiological bulletins.
- ICAP has experience with cross-border and population-specific surveillance systems. In Lesotho, ICAP supported the development of a bi-national, cross-border TB case notification, referring, and tracking system for migrant mine workers.

CORE AREA 5

LABORATORY

ICAP currently provides technical and logistical support to more than 1,300 standalone laboratories and more than 2,400 point-of-care testing sites across 15 countries. ICAP's comprehensive, collaborative approach strengthens the

managerial and technical capabilities of laboratories, improving their ability to scale up point-of-care and laboratory-based diagnostics, optimize use of existing laboratory platforms and equipment, and implement quality management systems.



SELECT EXAMPLES OF ICAP'S LABORATORY EXPERIENCE:

- ICAP has provided TA to ministries of health and national laboratories to develop and revise laboratory policies, strategies, guidelines, and operational manuals. **In Ethiopia**, ICAP supported development of a national laboratory policy, strategic plan, and external quality assurance guidelines for HIV and TB diagnosis. **In South Sudan**, ICAP worked with the Ministry of Health to strengthen national laboratory quality systems and to support international accreditation of the HIV Reference Laboratory, part of the National Public Health Laboratory, in viral load and early infant diagnosis testing.
- ICAP works with ministries of health and other local partners to decentralize laboratory testing capacity through establishment of regional laboratory hubs and use of point-of-care diagnostics, assuring wider access to essential diagnostic services and forging faster turnaround times for laboratory results.
- ICAP supports development and revision of training curricula, standard operating procedures, and job aids on laboratory processes and procedures and has provided laboratory training and mentorship to more than 9,722 staff in diverse disciplines (e.g., laboratory management, quality systems, advanced molecular and immunological test procedures, point-of-care diagnostics for HIV, and TB and malaria microscopy). **In Sierra Leone**, for example, ICAP has provided training and mentorship to laboratory staff to perform accurate microbiology and histopathology laboratory tests for the Child Health and Mortality Prevention Surveillance (CHAMPS) project.
- With funding from the Gates Foundation, ICAP provided TA to the African Society of Laboratory Medicine's Laboratory System Community of Practice (LabCoP) initiative, which supported 11 sub-Saharan African countries to strengthen their lab systems and scale up routine viral load testing for HIV. ICAP facilitated virtual learning and south-to-south visits, supported monitoring and evaluation, and developed key tools, including a viral load testing assessment scorecard and quick guides on topics such as viral load test result utilization and health care waste management.
- With funding from the Gates Foundation, ICAP provided TA to the African Society of Laboratory Medicine's Laboratory System Community of Practice (LabCoP) initiative, which supported 11 sub-Saharan African countries to strengthen their lab systems and scale up routine viral load testing for HIV. ICAP facilitated virtual learning and south-to-south visits, supported monitoring and evaluation, and developed key tools, including a viral load testing assessment scorecard and quick guides on topics such as viral load test result utilization and health care waste management.
- ICAP has supported multiple countries to implement comprehensive laboratory quality management systems, including providing technical support for laboratory accreditation, program assessments and evaluations, test method evaluations, test algorithm development, supervision, and advanced diagnostic technology transfer. For example, ICAP provided TA for national planning and rollout of quality management systems and scale-up of laboratory accreditation programs in **Côte d'Ivoire, Democratic Republic of Congo (DRC), Eswatini, Ethiopia, Mozambique, Nigeria, South Sudan, and Tanzania**.
- ICAP has provided technical assistance for the development of integrated and functional laboratory networks, supporting the optimization of specimen referral and transport networks and the optimal placement of point-of-care instruments, and has improved supply chain management systems along all tiers of national laboratory networks. For example, to improve turnaround time for test results, ICAP designed and implemented a specimen transportation system within the national laboratory networks of **Côte d'Ivoire, DRC, Ethiopia Kenya, Mozambique, and Tanzania**.
- ICAP has steadily built the capacity of clinical laboratories by pioneering reliable referral testing services, strengthening QI, supporting lab renovations, and procuring, installing, calibrating, and maintaining equipment. For example, ICAP has supported facility-level QI efforts through the establishment of laboratory-based data management systems and standardized quality assurance methods, with a focus on rapid HIV tests, CD4 enumeration, and monitoring toxicity of antiretrovirals in **Côte d'Ivoire, DRC, Ethiopia, Mozambique, Nigeria, Eswatini, Tanzania**.
- ICAP has improved the interface between laboratory and clinical services in numerous countries by supporting the implementation and roll-out of laboratory information systems that improve turnaround time for results and enhance data management. For example, in Mozambique, ICAP supported the expansion of OpenMRS to all 28 DISA Link sites, which reduced turnaround time for viral load test results by 40%.

CORE AREA 6

HUMAN RESOURCES – PREPAREDNESS & SURGE CAPACITY

ICAP works with local, regional, and international stakeholders to train, mentor, recruit, place, retain, and manage the health workforce, with the goal of developing fully competent, coordinated multisectoral workforces. Cumulatively, ICAP has supported the training of more than 400,000 health workers, including more than 104,000

nurses and midwives and more than 52,000 physicians. ICAP assists ministries of health to bolster the preparedness and surge capacity of their health workforces through support for planning, resource alignment, and competency-based training and mentoring, including just-in-time initiatives.

SELECT EXAMPLES OF ICAP'S HUMAN RESOURCES EXPERIENCE:

- ICAP is a member of the USAID-funded *One Health Workforce: Next Generation* consortium, working to build the capacity of the Africa One Health University Network (AFROHUN) and Southeast Asia One Health University Network (SEAOHUN) and their member universities to deliver **interdisciplinary One Health education and training**, with a focus on preventing, detecting, and mitigating disease outbreaks, improving IPC, and minimizing the emergence of antimicrobial resistance.
- As part of the **Field Epidemiology Training Program (FETP)** in **Sierra Leone**, ICAP provided training to FETP intermediate program graduates on surveillance system evaluation and analysis, outbreak investigation and response, study methods, public health communications, QI, and mentorship. ICAP also partnered with the Ministry of Health and WHO to design, develop, and implement the country's first advanced IPC certificate course, which focuses on the prevention of healthcare-associated infections, antimicrobial resistance, outbreak investigation, and emergency management.
- **In South Sudan**, to fortify the size and capacity of the health emergency workforce, ICAP is providing monthly support for members of multidisciplinary rapid response teams (RRTs) in all 10 states and in 24 counties at high risk of seeing an EVD case. Each RRT comprises four key positions: a state or county surveillance officer (supported by MoH) and focal points for IPC, RCCE, and clinical oversight (supported by ICAP). At the subnational level, ICAP has trained more than 150 individuals—including healthcare workers, state health officials, and surveillance officers—across 10 states and three administrative areas in the WHO incident management system, helping them understand and prepare for their roles in any disease emergency response effort.
- ICAP supports ministries of health to roll out **just-in-time telementoring services** to rapidly build healthcare worker capacity to contend with emerging threats.
- **Learning networks and south-to-south exchange.** Through an AMR diagnostic network, south-to-south visits, and regional workshops, ICAP has supported cross-border exchange of experiences and best practices, diffusion of innovations, and workforce development to advance global health security. ICAP also has supported twinning of low- and middle-income country laboratories with high-income institutions for external quality assessment, equipment monitoring, and technical support.



CORE AREA 7

HEALTH EMERGENCY MANAGEMENT

Through strong presence from the national to community level in many countries, ICAP has developed expertise in preparing for and enacting emergency management procedures and systems. When working with public health emergency operations centers,

points of entry, and rapid response teams, ICAP leverages its on-the-ground knowledge and engagement with site-level staff to develop and implement emergency response measures that are practical and feasible.

SELECT EXAMPLES OF ICAP'S HEALTH EMERGENCY MANAGEMENT EXPERIENCE:

- During the 2014-2016 Ebola outbreak in West Africa, ICAP supported the government of Sierra Leone to **evaluate the community care center (CCC) model** utilized throughout West Africa during the 2014-2016 Ebola outbreak. The CCC model enables rapid isolation of and palliative care provision for people with suspected EVD pending availability of beds in Ebola treatment units, thereby reducing household exposure and community transmission. ICAP's experience evaluating the CCC model in Sierra Leone positions it to assist in the setup and operation of such facilities in other settings.
- In South Sudan, ICAP's senior epidemiologist serves as a member of the MoH-led **national incident management core team** and supports the public health emergency operations center data management unit to issue **daily updates and alerts on EVD and other public health hazards**. At the subnational level, ICAP has trained more than 150 individuals—including healthcare workers, state health officials, and surveillance officers—across 10 states and three administrative areas in the WHO incident management system, helping them understand and prepare for their roles in any disease emergency response effort. Additionally, ICAP supports basic Field Epidemiology Training Program (FETP) training for members of EVD rapid response teams.
- In Ethiopia, ICAP supported the creation of regional **emergency operation centers (EOCs)** in Addis Ababa, Oromia, and Amhara, as well as a national EOC at the Ethiopia Public Health Institute. All are currently operating as command posts for the COVID-19 response.
- To support **cross-border communication, information sharing, and coordination in the EVD preparedness, readiness, and response**, ICAP provided ongoing training for health workers and screeners at local points of entry and supported cross-border planning and information sharing between Uganda and South Sudan. Cross-border convenings are an essential forum for sharing the latest information on suspected or confirmed case alerts and harmonizing readiness and response measures across governments and jurisdictions.



CORE AREA 8

INFECTION PREVENTION & CONTROL

ICAP has long-standing experience supporting ministries of health to implement and strengthen IPC programs, both as a standard component of its

support for HIV and TB services and as a global health security intervention to mitigate the spread of COVID-19, Ebola virus disease, and other infectious diseases.

SELECT EXAMPLES OF ICAP'S INFECTION PREVENTION & CONTROL EXPERIENCE:

- ICAP has experience leading assessments of IPC programs. For example, ICAP collaborated with the Georgian Ministry of Health, Labor, and Social Affairs to conduct a 2018 assessment of IPC activities at health facilities across Georgia to inform the development of a national IPC action plan. ICAP also partnered with the Ministry of Health and Sanitation in Sierra Leone to conduct a rapid evaluation of IPC strategies amid the Ebola outbreak, and a subsequent evaluation of the national IPC program and practices at health facilities nationwide.
- ICAP supported Botswana, Tanzania, and Zambia to overcome barriers to effective healthcare-associated bloodborne pathogen exposure reporting and case management by implementing multi-component interventions at the national and health facility level to increase awareness, strengthen health facility-level operational plans, and improve reporting practices among health workers. This included supporting the development of tools and job aids, including registers; standard operating procedures; and education, information, and communication materials focused on healthcare-associated bloodborne pathogen exposure.
- ICAP led a QI Collaborative at eight health facilities in Sierra Leone, training and empowering facility-level staff to identify IPC quality challenges, conduct root cause analyses, identify and prioritize context-tailored solutions, and conduct rapid, iterative tests of change to see which solutions worked. Within four months, the facilities improved compliance with IPC standards from 67% to 96%.
- ICAP has supported the development and implementation of certificate courses in IPC. For example, in Sierra Leone, ICAP partnered with the Ministry of Health and Sanitation to design, develop, and implement the country's first advanced IPC certificate course, which features innovative simulation-based learning and a skills laboratory.
- ICAP has provided TA to ministries of health to strengthen the monitoring and evaluation of IPC activities. In Sierra Leone, for example, ICAP provided intensive TA to the National IPC Unit to develop a national IPC M&E framework and tools, build local capacity to manage and analyze IPC-related data, and write IPC-related reports.





CORE AREA 9

RISK COMMUNICATION & COMMUNITY ENGAGEMENT (RCCE)

Health security requires strong community engagement and a willingness to change behavior when the need arises. To facilitate this, ICAP works with local leaders, traditional healers, community

organizations and ministries to craft and test risk communication strategies and messages through radio, television, social media, and print.

SELECT EXAMPLES OF ICAP'S RCCE EXPERIENCE:

- To promote effective EVD risk communications and community engagement and combat misinformation, ICAP has hosted talk shows on community radio, aired EVD messages, posted billboards in the capital city and other EVD high risk areas, and printed and distributed EVD RCCE materials to counties and health facilities. ICAP also advises the national RCCE technical working group and national steering committee on effective messaging strategies for EVD and other public health hazards.
- In South Sudan, ICAP has worked with local stakeholders to develop and produce radio jingles specific to COVID-19 and Ebola preparedness.

We partner with experts *globally* to drive health forward *locally*.

A major global health organization that has been improving public health in countries around the world for two decades, ICAP works to transform the health of populations through innovation, science, and global collaboration.

Based at Columbia Mailman School of Public Health, ICAP has projects in more than 40 countries, working side-by-side with ministries of health and local governmental, non-governmental, academic, and community partners to confront some of the world's greatest health challenges.






Through evidence-informed programs, meaningful research, tailored technical assistance, effective training and education programs, and rigorous surveillance to measure and evaluate the impact of public health interventions, ICAP aims to realize a global vision of healthy people, empowered communities, and thriving societies.

Online at icap.columbia.edu





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