



EMERGING INFECTIOUS DISEASES AND HEALTH SECURITY

Specimen Referral Systems (SRS)

Who We Are

EMERGING INFECTIOUS DISEASES & HEALTH SECURITY (EIDHS)

is an FHI 360 team with over 160 staff working in 30+ countries worldwide to ensure public health systems are ready to effectively prevent, detect, and respond to infectious diseases and outbreaks. We help build health security capacity and enable resilient health systems in partnership with local stakeholders and communities.

Specimen Referral Systems (SRS)

Our work helps build laboratory capacity in some of the world's most resource-limited settings to detect infectious diseases like COVID-19, Ebola virus disease, HIV/AIDS, malaria, and tuberculosis. As part of these efforts, we help establish and optimize specimen referral systems that increase access to testing services in partnership with governments, local health systems, and nongovernmental organizations. Critical results are returned to patients, public health officials, and clinicians to facilitate results-based treatment decisions through our efforts to rapidly and safely deliver specimens to diagnostic testing facilities. We collaborate with local private and public transportation systems to accelerate these services, including national postal services and commercial couriers in areas where transportation may be nascent or nonexistent.

Our Services

- Providing technical assistance and mentoring to pilot and customize entire SRS lifecycles from collection to transportation and delivery, followed by scaling, monitoring, and improving systems
- Optimizing specimen referral systems to improve turnaround time, using a digital application to determine the most efficient transportation routes and monitor specimens' geographic position and temperature
- Conducting baseline assessments that analyze health facility and laboratory capacity, including for emergency response through collaborative planning that integrates national and local systems
- Supporting the development of SRS national and regional plans, policies, and procedures that include proper biosafety and biosecurity measures
- Developing precise and secure methods for documenting specimen transport activities, including specimen tracking forms and assessment tools

Our Work

In **the Philippines**, our USAID Infectious Disease and Detection Surveillance and Tuberculosis Innovations and Health Systems Strengthening projects tailored COVID-19 and tuberculosis specimen referral systems to increase access to laboratory services. Transportation challenges were particularly notable in Mindanao as a conflict-affected area already impacted by poor access to health services. The country's landscape also includes flooding issues, geographically isolated and disadvantaged areas, and island municipalities. Collaborating with service providers, affected communities, and national, regional, and local governments resulted in:



1,267 trained within project sites on COVID-19 specimen collection, handling, packaging, and transport including 33 certified trainers



66,555 COVID-19 specimens transported among project sites



Turnaround time for specimen transport **reduced from a baseline of 72 hours to 25 hours** and in some sites an average of 23 minutes



Support for a local community-based organization to make the system more patient-centered and improved digital platforms through a local private sector provider

In **Guinea**, we helped to develop and roll out an integrated sample transport system across 33 health districts. In 2020, a national assessment identified a number of bottlenecks in Guinea's former SRS system. The fragmented system consisted of siloed programs, transportation was underfunded, and healthcare workers had to leave health facilities in order to accompany specimens. Lengthy turnaround times persisted from specimen collection to reception, including an over 10% rejection rate. Partnership with the Institut National de Santé Publique and the National Laboratory Directorate resulted in:



Reduced transportation cost per specimen from **\$58.50 to \$13.80**



Improved collection to delivery turnaround time from over **10 days to 48 hours**



Development of an electronic tool for **real time temperature and position monitoring**



Ministry of Health adaptation of the integrated SRS and revision of the National Specimen Referral Policy to incorporate and roll out the system

Our Impact



Rapid diagnosis that reduces the time for new case reporting, allowing us to quickly identify an emerging outbreak as part of early warning and disease surveillance systems



Improved safety and security of collection and transport systems that maintain higher levels of specimen integrity throughout remote, rural, and urban locations



Optimized specimen referral networks from collection to delivery, that increase testing capacity, integrate new technology, and use precise algorithms



Greater efficiencies with sample management



To discuss more about services or opportunities to partner contact: Janet Robinson, Director
Jrobinson@fhi360.org | (919) 638-7998 | 359 Blackwell Street, Suite 200, Durham, NC 27701, USA