A HEALTHIER WORLD THROUGH QUALITY LABORATORY SYSTEMS
2018 APHL Country Activities Update
The Association of Public Health Laboratories (APHL) is a nonprofit, nongovernmental organization with members representing US state and local public health, agricultural and environmental labs, US federal agencies, health partners and interested individuals. For more than 20 years, APHL has worked outside the US, collaborating with over 30 countries on five continents to strengthen laboratory systems. Through close partnerships, strategic planning facilitation, training for laboratory leaders and bench staff and technical assistance, APHL works to strengthen laboratory-based disease surveillance, early outbreak detection and disease prevention.

Much of this critical work has been possible through funding from the US President’s Emergency Plan for AIDS Relief (PEPFAR), which strives to control and reduce the spread of HIV, and the Global Health Security Agenda (GHSA), which aims to strengthen the capacity to prevent, detect and respond to public health emergencies of international concern.

This report covers APHL initiatives to support the goals of these cooperative agreements through December 2018.

On the Cover
Top: Staff at the Sierra Leone National Tuberculosis Reference Laboratory work in their BSL3 laboratory.
Bottom: Central receiving at Nampula Provincial Hospital Laboratory, Mozambique.
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**Informatics**

APHL supports countries in evaluation, design and implementation of LIS for more efficient management of laboratory processes and reporting of laboratory data from public health and clinical laboratories. Systems that facilitate the use and ability to share quality information—in both paper- and computer-based formats—are crucial to the effective functioning of laboratories.

**Quality Systems**

APHL, in collaboration with CDC, develops and implements effective, flexible quality improvement and quality assurance programs, including designing and implementing national EQA programs. APHL assists laboratories to maintain the most effective surveillance and evaluation practices. APHL members and consultants assess laboratory capacity, work flow and resource availability, enabling countries to close need-gaps. Assessments help laboratories understand what steps need to be taken to strengthen their laboratory.

**Strategic Planning**

APHL actively collaborates with governmental health agencies to convene key stakeholders and assist in the development of strategic plans, standard operating procedures, national policy guidelines for medical laboratory services, and blueprints for creating a national laboratory system.

**Testing Capacity**

APHL provides critical laboratory materials and instrumentation to increase laboratory testing capacity and capability. As a result, laboratories are able to expand their testing panels, implement new instrumentation, and decentralize testing to regional public health laboratories, increasing testing ability beyond the national public health laboratory.

**Evaluation/Accreditation**

- SLIPTA checklist evaluation
- SLMTA training

**Laboratory Safety & Equipment**

- Laboratory quality improvement
- Specimen management, collection, transport and sample preparation
- GeneXpert training
- Biosafety and biosecurity

**Topical**

- Tuberculosis
- HIV phlebotomy
- Antimicrobial resistance surveillance
- Biorisk management
- Bacteriology
- Influenza training

**Laboratory Workforce Development**

- Laboratory leadership and management

**Training & Mentorship**

**Transport**

APHL supports motorbike-based specimen transport networks at select VL laboratories, coordinating the flow of specimens to and from the laboratories to ensure specimens are transported in time for high-quality VL testing.

**Twinning**

APHL supports laboratory twinning relationships, which involves the development of a long-term linkage between a US public health laboratory and a partner laboratory, typically a national public health reference laboratory in a low-middle income country. Ideally, twinning benefits both organizations by sharing best practices and increasing the knowledge of both parties.
Sierra Leone: APHL’s Dr. Baboolal (right) speaks with the Sierra Leone Minister of Health, Dr. Alpha Wurie.

Kenya: The APHL Kenya team at the Laboratory Systems Strengthening Community of Practice meeting in Uganda.

Mozambique: Blood collection tubes for HIV serological testing.
**ANGOLA**

**PEPFAR**

**Informatics**
Supported critical upgrades, including barcoding capability, to the longitudinal health information system, enabling more efficient patient and sample tracking and monitoring

**Test Capacity**
Supported laboratories in Luanda by providing reagents and two GeneXpert machines for TB testing, as well as providing reagents and testing support for more than 10,000 HIV VL tests.

**Training & Mentorship**

*Topical*
Provided training at Luanda’s TB Reference Laboratory at the Instituto Nacional de Saúde Pública in coordination with CDC Angola and a consultant, for 19 laboratory scientists from nine health centers on:
- Sample collection, storage and referral for TB specimens
- Biosafety in TB labs
- Processing TB samples with GeneXpert equipment

*Laboratory Safety and Equipment*
Collaborated with the African Epidemiology Network to support seven laboratory mentors, who provided training and technical support to nine HIV VL laboratories in Luanda, including:
- Technical assistance and training for laboratory quality improvement
- Rapid test quality improvement for HIV VL and TB testing
- GeneXpert testing techniques and VL specimen collection, transport and sample preparation

*Transport*
Arranged for an international sample transport expert to provide sample management training and conduct an assessment of the HIV VL cascade for staff from nine HIV VL sites in Luanda.

**DEMOCRATIC REPUBLIC OF THE CONGO**

**PEPFAR**

**Training & Mentorship**

*Evaluation, Accreditation & Advocacy*
Provided one week of mentorship for six laboratories in Kinshasa and an advocacy meeting with laboratory leadership, through collaboration with Global Health Systems Solutions (GHSS). A total of 55 laboratory personnel were trained and mentored on three sections of the SLIPTA checklist:
- Client management and customer service
- Equipment management
- Facilities and safety

The one-day advocacy meeting for MOH personnel and facility managers focused on the importance of accreditation, the SLIPTA process and the role of all stakeholders. The meeting allowed stakeholders to understand the accreditation activities and to express their support, demonstrated by signing of a letter of engagement.

Also worked with GHSS to conduct a two-week SLMTA training, attended by 45 laboratory personnel from 10 additional laboratories in Kinshasa and Lubumbashi. Trainings included modules on:
- Productivity management
- Quality assurance
- Documents management framework

*Topical*
Collaborated with Becton Dickinson (BD) to support an HIV Phlebotomy training, as part of the public-private partnership objectives in DRC. Trainings included:
- Good blood collection practices
- Safety procedures when dealing with blood samples
- Ordering and labelling of blood samples
- Capillary blood sampling
- Technical specifications of BD sampling tubes and needles
ETHIOPIA
GHSA

Training & Mentorship

Topical
Collaborated with the Ethiopia Public Health Institute (EPHI) and Eagleson Institute as part of a multi-year effort to institute a National BSC Certification Program. Seven engineers from EPHI have been trained to test and certify BSCs; this year, APHL supported training and ongoing mentorship to help prepare the engineers to take the certification exam.

Laboratory Workforce Development
Hosted two five-day Foundations of Laboratory Leadership and Management workshops in Addis Ababa in collaboration with EPHI and CDC. Each workshop consisted of 30 participants from national and regional Ethiopian labs. This workshop was comprised of eight modules:

- Organizational structure
- Human resources
- Communication and conflict resolution
- Leading a successful team
- Financial planning
- Problem solving and decision making
- Monitoring and evaluation
- Ethics

GHANA
PEPFAR

Informatics
Began development of a VL specimen referral system and results transmission module with an online interactive GIS mapping tool, which will assist with shipping specimens to VL laboratories and results transmission back to clinicians and healthcare providers.

Strategic Planning
Hosted a specimen transport strategic meeting, which brought together relevant stakeholders including Ghana Health Service, CDC and the Ghana Postal Service to:

- Revise the sample referral contract
- Determine implementation plan and training implementation
- Create quality indicators
- Revise a monitoring and evaluation plan

Training & Mentorship
Laboratory Safety & Equipment
Hosted a training workshop for sample referral trainers, with representatives from the VL laboratories and the Ghana Postal Service. Participants were introduced to the sample referral system of all the VL laboratories in their district.

Testing Capacity
Provided:

- Security seals for specimen transport to support the specimen referral system
- Laboratory request forms
- Specimen and report transfer log books
- Laboratory consumables and equipment to support HIV VL testing

GHSA
Strategic Planning
Collaborated with the Centre for Health Systems Strengthening (CfHSS) and CDC to revise 12 existing SOPs and develop two more, and create six testing algorithm flow charts for priority disease bacterial testing.

Hosted a meeting and provided facilitators to help the Ghana Health Service and the National Laboratory to develop a framework for Ghana National Biorisk and Biosecurity during a three-day Biorisk Management Stakeholder Workshop and Framework Development.
The stakeholders from the National Laboratory and Ghana Health Services created a draft framework for national biorisk and biosecurity for Ghana and a draft timeline for implementation.

Quality Systems
Assessed three zonal public health laboratories for readiness to participate in an EQA program. Enrolled all three, along with the national public health laboratory, in a bacteriology EQA program through OneWorld Accuracy. Labs were sent the BACT 435 Extent 5 panel three times a year to allow them to demonstrate proficiency testing and priority disease pathogen testing.

Training & Mentorship
Topical
Convened, with CfHSS, a three-day sheep blood workshop with three zonal public health laboratories to train technicians on collecting, packaging and transporting sheep blood to the laboratory. Because the labs use sheep’s blood for their blood and chocolate agar plates, APHL provided each zonal public health laboratory with two sheep, which now live and are cared for at near-by farms.

Hosted a five-day epidemiological surveillance workshop with laboratory scientists and disease surveillance teams, attended by 30 participants. The workshop investigated challenges and opportunities to facilitate appropriate sample collection and testing/confirmation by the public health laboratories.

Testing Capacity
Provided and distributed durable and reusable specimen transportation equipment that included coolers, specimen secondary containers, locks and labels to all regional and zonal public health laboratories, as well as two national hospital laboratories.

Supplied each of the four public health laboratories with the CLSI Microbiology Standards M02 Performance for Antimicrobial Disk Susceptibility Tests and M100 Performance Standards for Antimicrobial Susceptibility Testing.

GUINEA
GHSA

Quality Systems
Completed renovations to the Ignace Deen National Hospital Laboratory, which included:
- Installing improved lighting and climate control
- Upgrading laboratory bench space
- Creating a new laboratory layout to improve specimen workflow and biosafety

Training & Mentorship
Laboratory Safety & Equipment
Provided ongoing mentorship to improve quality testing practices, which included:
- Equipment management and calibration
- Reagent tracking
- Basics on data analysis
- Internal quality control

Testing Capacity
Initiated the decentralization of bacteriology testing from the national public health laboratory to three national and regional public hospital laboratories across Guinea (Ignace Deen National Hospital Laboratory in Conakry, and the Kankan and Labe Regional Hospital Laboratories) to expand bacteriology testing capacity beyond the capital.

Installed and/or certified four BSCs in national and regional laboratories in Conakry, Mamou, Kankan and Labe.

Provided Ignace Deen Laboratory with basic instruments and consumables such as microscopes, autoclaves, culture media and other laboratory reagents that will enable them to carry out quality bacteriology testing.
**INDIA**

**GHSA**

**Training & Mentorship**

**Topical**

Supported a workshop on building laboratory-based AMR surveillance capacity with CDC. The two-day workshop in New Delhi hosted 30 participants from the National Center for Disease Control (NCDC) as well as regional laboratories. This workshop provided hands-on training and covered the following topics:

- National AMR surveillance SOPs
- Improving internal quality control
- WHONET

**Testing Capacity**

Provided:

- Colistin starter kits to 39 laboratories around India
- CLSI guidelines (M100, M02 and M07) to 15 AMR Network sites
- Six ATTC strains to 11 NCDC sites to support continued AMR activities

**INDONESIA**

**GHSA**

**Strategic Planning**

Hosted a five-day strategic planning meeting for MOH officials, CDC, WHO and other various laboratory scientists to discuss:

- Policy development
- Monitoring and evaluation
- Operational planning for the local laboratory community

Hosted a one-day strategic planning launch meeting for stakeholders and a four-day operational planning meeting for the local laboratory community, which included MOH officials, CDC, WHO, FAO, USAID and a number of Indonesian laboratories.

**KAZAKHSTAN**

**GHSA**

**Training & Mentorship**

**Topical**

Supported an influenza training in Borovoye for investigation staff from Almaty and Astana.

Supported a two-day ISO 15189 training in Borovoye, with lab representatives from all 16 regions.

**Testing Capacity**

Provided:

- A PCR system for analysis of Zika NAT
- Laboratory supplies for the influenza program

**KENYA**

**PEPFAR**

**Quality Systems**

Completed final data collection for a laboratory capacity mapping project through the efforts of APHL-trained Kenyan partners. Since 2015, 1822 facilities have been mapped across Kenya’s 47 counties. APHL consultant Gilbert Aluoch presented referral networks, gap analyses and other uses of the data in a report shared with MOH, CDC, and the US Defense Threat Reduction Agency. It is expected that the next stage of the project is [creation of a database] to which facilities can self-report data in real time.

Collaborated with CDC Kenya and the National Public Health Laboratory (NPHL) to facilitate, strengthen and integrate the EQA Proficiency Testing program.

Supported continuous quality improvement for rapid HIV testing to improve the timely reporting and communication between NPHL and the sample referral sites.

Participated in inter-laboratory comparison activities to support the process toward ISO 17025 accreditation for the National Laboratory Equipment Calibration Center.

Trained biomedical engineers and trainees, and assisted with assessments and routine servicing of BSCs at eight laboratory facilities.

**Indonesia:** Francie Downs presents core functions of public health laboratories at a stakeholders meeting in Jakarta.
**Informatics**

Implemented and supported LIS at 15 health facilities across Kenya. APHL will continue to transition responsibility for ongoing maintenance of all 15 LIS sites to the Kenya MOH.

Hosted a LIS stakeholders meeting in June that included representatives from all 15 laboratories with a LIS, the LIS vendor, NPHL and CDC to discuss ongoing needs and challenges and possible solutions.

Implemented an application that allows remote laboratories to digitally submit VL test requests and receive VL results from VL testing laboratories. By the end of 2018, 413 sites were equipped with this LIS application.

Developed web-based tools for certification of BSCs and conditioned chamber equipment. APHL trained biomedical engineers on the use of the tool, which can capture calibration data and generate calibration certificates.

Developed a web-based HIV Proficiency Testing (PT) application that enables individual testers to receive PT panels and provide the results of their testing via this application. 22,000 individuals who routinely use HIV rapid test kits participated in the first round of HIV PT.

Developed a web-based system for managing proficiency testing for microbiology and VL testing, which is now being used successfully after implementing several enhancements based on end-user feedback. This application also serves as a repository for data captured by various PT providers in Kenya.

Coordinated a training on the eProgesa Blood Establishment Computer System (BECs) for super-users and IT administrators. The administrators and super-users later rolled out the training to BECS users based at Kenya’s six Regional Blood Transfusion Centers.

![Kenya: Laboratory staff at Keruguya District use the LIMS remote login function to electronically refer samples to VL testing laboratories.](image)

**Training & Mentorship**

**Laboratory Safety & Equipment**

Collaborated with the American International Health Alliance to sponsor and supervise two ten-day equipment maintenance trainings for biomedical engineers at the National Laboratory Equipment Calibration Center.

Trained and provided in-service mentorship on GeneXpert maintenance for technicians and engineers based in four regions of Kenya.

Conducted nine supervisory mentorship visits to ensure biomedical engineers were correctly implementing the skills learned in APHL trainings to support maintenance of laboratory equipment.

**GHSA**

**Informatics**

Conducted a four-day laboratory informatics and data sharing regional workshop in Nairobi. The workshop was comprised of didactic sessions and group activities, and was attended by 20 participants from 10 countries.

**Testing Capacity**

Provided BSC certification equipment to be used by the NPHL, bolstering Kenya’s ability to service and certify BSCs in-country.

**MOZAMBIQUE**

**PEPFAR**

**Informatics**

Implemented LIS at four major VL laboratories (Carmello DREAM lab, Maputo DREAM lab, Maputo Military Hospital and Pemba Provincial Hospital) and at a small HIV VL laboratory at the University of Eduardo Mondlane in Maputo to support overflow testing.

Worked with PEPFAR implementing partners to rollout a remote test order entry application to over 70 additional sites in various provinces. To date, over 150 sites have been connected with the application and over 500 health facilities use this system for VL sample referral. The expansion of this system over the past year has drastically reduced the turnaround time between test request and receipt of test result, from an average of 74 days per specimen to 16 days.
Worked with PEPFAR partners to develop data visualization tools that will enable the MOH to use a dashboard to view data on VL testing from all laboratories with an LIS.

Met with the MOH and CDC to develop data sharing best practices, and continue to work with CDC and MOH to develop data sharing agreements and policies.

Training & Mentorship
Evaluation & Accreditation
Provided technical assistance for a SLMTA workshop for the central region of the country, completed by 27 laboratory technicians.

NIGERIA
PEPFAR
Strategic Planning
Collaborated with the Nigeria Centre for Disease Control to support a laboratory strategic plan retreat in Nasawara for 21 participants. This meeting was held to review and finalized the strategic plan for establishing the National Reference Laboratory in Abuja.

Testing Capacity
Provided an ELISA system and laboratory supplies to the National Reference Laboratory.

SENEGAL
GHSA
Strategic Planning
Collaborated with the national public health laboratory to finalize their biosafety manual and develop SOPs.

Quality Systems
Supported Albert Royer Hospital staff in their evaluation of a culture medium as a transport medium, which was also provided to pilot sites for evaluation.

Improved laboratory quality systems through a partnership with the Université Cheikh Anta Diop de Dakar (UCAD) to:

- Conduct laboratory equipment maintenance and calibration
- Support coaching visits to improve the quality management system

Met with CDC Atlanta to discuss continued support for AMR capacity strengthening and the need to implement future activities; the Director of Laboratories will develop a checklist to evaluate laboratory needs for pathogen identification and AMR susceptibility testing.

Testing Capacity
Collaborated with CDC to:

- Provide reusable shipping containers and supplies for specimen collection, packaging and shipping within the national public health networks.
- Assist with the implementation of a new molecular diagnostic platform at Albert Royer Hospital, as well as supply and calibrate their PCR machines.
- Assist UCAD to set up a plan to purchase all needed equipment to perform BSC certification.

Mozambique: APHL staff join staff from the HIV testing laboratory at the Nampula Central Hospital in Mozambique.

Mozambique: Staff at the Nampula Central Hospital HIV laboratory use the LIS to track clinical samples.
SIERRA LEONE

PEPFAR

**Strategic Planning**
Enhanced the quality management systems at the National Tuberculosis Reference Laboratory (NTRL) by providing technical assistance to develop and review the quality manual, client handbook and 31 management SOPs.

**Quality Systems**
Supported the Central Public Health Reference Laboratory’s External and National Quality Assurance programs by implementing international EQA programs for regional laboratories, including the coordination of subscription and distribution of panels.

**Training & Mentorship**
Supported the improvement of quality management systems through ongoing mentorship and technical assistance, including monitoring results of improvement projects and documenting effectiveness of corrective and preventive actions.

**Testing Capacity**
Supported the activation of the NTRL and provided ongoing technical assistance to increase capacity to detect multi-drug resistant TB.

GHSA

**Strategic Planning**
Provided technical assistance to review and validate the National Laboratory Policy and laboratory safety guidelines.

**Quality Systems**
Provided technical assistance to set up a functional microbiology laboratory at two adjacent referral hospitals—Ola During Children’s Hospital and Princess Marina Maternity Hospital—to bolster AMR surveillance efforts. The site is now used as a referral facility for bacteriology culture analyses and supports outbreak response for epidemic-prone diseases, such as cholera and meningitis. Preliminary results of AMR surveillance project have informed adjustments of Empirical Treatment Regimes at ODCH/PCMH.

Supported the implementation of ongoing culture and QMS activities at the microbiology laboratory, such as full documentation of examinations procedures; availability of quality, biosafety and laboratory user and training manuals; and validation of QMS documents.

Provided technical support to assist these two laboratories to map staff capabilities and workload plans.

**Training & Mentorship**
Provided technical assistance and trainings during the foundation of the microbiology laboratory, which have resulted in:
- Full documentation of examination procedures
- Documentation of media/reagents preparation manual
- Implementation of media preparation
- Implementation of culture techniques
- Expansion of the scope of testing; average tests per month have increased from 90 to 700
- Implementation of AMR activities
- Support of V. cholerae and meningitis outbreak response
- Increase in SLIPTA baseline scores from 31/265 (11.7%) to 173/265 (65.3%)

**Testing Capacity**
Expanded the testing menu within the National Public Health Laboratory Network from eight detectable and diagnosable epidemic-prone diseases to ten.

Sierra Leone: APHL consultant, Dr. Baboolal, trains staff in the new NTRL laboratory.
TANZANIA

GHSA

☑ Quality Systems
Documented the status of microbiology laboratory results capture and reporting at select regional laboratories to guide the submission of laboratory data, including results, to the APHL-supported centralized laboratory data repository for surveillance purposes and national decision.

☑ Informatics
Hosted a stakeholder meeting with Tanzanian governmental health officials and CDC and WHO Tanzania representatives, among others, to discuss and select workflow and technology modifications to improve laboratory data management and allow case confirmations.

UKRAINE

PEPFAR

☑ Informatics
Conducted an informational workshop to provide participants and stakeholders with an understanding of various types of LIS and the capabilities within different products.

☑ Training & Mentorship

Topical
Hosted two workshops that covered:
- The implementation of Ukraine’s proposed HIV testing algorithm
- The role of HIV rapid testing in the algorithm
- Training and certification of testing personnel
- Integration within the healthcare setting
- Monitoring and evaluation of the HIV testing program
- Useful information and tools to guide the development of an operational plan matrix to assist with implementation of Ukraine’s National System of Public Health Laboratories Roadmap (2018-2022)

☑ Twinning
Facilitated a twinning relationship with Florida State’s Bureau of Public Health Laboratories, which delivered technical assistance on LIS utilization and quality management systems, specifically around HIV testing strategy and algorithm implementation.

Facilitated a twinning initiative with the State of California, through which a Ukrainian delegation visited three laboratories in California and attended the APHL Annual Meeting. The delegation, which included personnel from CDC Ukraine and MOH, gained insight into the functions of the California laboratory network and laboratory capabilities to inform their own decision-making as they reform the Ukrainian healthcare system.

TANZANIA

Ukraine:

(Uk) Delegates from the Ukraine MOH, CDC Ukraine, APHL and the All-Ukrainian Network of People Living with HIV/AIDS join colleagues from the Florida Department of Health Bureau of Public Health Laboratories on a laboratory visit in Jacksonville, Florida as part of a twinning initiative.

(Right) The California State Public Health Laboratory Director with the Ukrainian delegation after a successful twinning visit in Richmond, California.
VIETNAM
GHSA

🔗 Strategic Planning
Collaborated with CDC and other key partners to conduct a desk review to better understand the existing laboratory practices, strengths, weaknesses and limitations in Vietnam, and to recommend strategies and interventions for implementing best practices. Based on this review, APHL drafted a gap analysis report in preparation for the initial National Public Health Reference Laboratory (NPHRL) stakeholder meeting. Using the information from the gap analysis report, a technical working group meeting initiated, developed and conceptualized the formation of the Vietnam NPHRL. This meeting convened various local and international partners, including representatives from the MOH, US Embassy, USAID, CDC Foundation, US Defense Threat Reduction Agency, WHO, Japan International Cooperation Agency, Vietnam Department of Animal Health, Center for Animal Health Diagnosis, and various ministerial human and animal institutes and laboratories throughout the country.

🔗 Training & Mentorship

Laboratory Safety & Equipment
Collaborated with CDC and the Government of Vietnam to conduct two biosecurity workshops. These workshops had a total of 56 participants from 46 different facilities, and focused on:

- Risk assessment development
- Biosecurity plan development
- Biosafety regulations

Vietnam:
(Top row) Participants at one of the two biosecurity workshops. (Bottom) Participants of the NPHRL stakeholder meeting in Hanoi.
ZHIMBABWE

PEPFAR

Informatics
Facilitated software upgrades and troubleshooting for the LIS, with a focus on ensuring the capability to capture and report VL test results to clinicians.

Quality Systems
Supported the implementation of a continuous quality systems improvement plan through QMS support and a quality assurance system. Eight laboratories went through an African Society for Laboratory Medicine SLPTA audit in late October. Results are not yet finalized, but most audited sites did well and received anywhere between two to four stars.

Training & Mentorship
Embedded in-country staff “mentors” in eight laboratories, where they provided on-going mentorship, supported hands-on bench work, implemented quality management protocols and SOPs, and coordinated the integrated specimen transport network. The mentors conducted periodic exchange audits and visited each other’s sites to improve processes and outcomes.

Transport
Managed a robust integrated specimen transport network. Transport is conducted via motorbike; APHL currently supports 60 bikes and several more are supported by the MOH.

Testing Capacity
Continued efforts to expand VL testing and reached 115% of the target number of VL tests run in the fourth quarter.

ZAMBIA

PEPFAR

Strategic Planning
Supported the national VL strategic and operational plans which were finalized and compiled into a full document and presented to MOH.

Informatics
Supported the LIS system for VL test reporting, the creation of a central data repository for the MOH and several dashboards to compile and present data in visual forms.

Training & Mentorship
Embedded in-country staff “mentors” in four provincial laboratories, where they provided on-going mentorship at the lab, as well as broader support to the district hubs and testing facilities in the province. As laboratory scientists and subject matter experts, the mentors trained other technicians to improve overall quality and increase testing capacity and timeliness.

Transport
Procured 50 motorbikes for the MOH to support the specimen transport network at four supported provinces. US Ambassador to Zambia participated in a ceremony to handover these bikes to the MOH. Oversaw the specimen transport system in the Western Province, while the MOH oversaw the system in the other three provinces.

Testing Capacity
Continued efforts to expand VL testing and reached 115% of the target number of VL tests run in the fourth quarter.

Above: APHL supports LIS sites in many countries, such as the one above in Mozambique, which includes maintaining servers at the laboratories that feed data into national databases.
The Association of Public Health Laboratories (APHL) works to strengthen laboratory systems serving the public’s health in the US and globally. APHL’s member laboratories protect the public’s health by monitoring and detecting infectious and foodborne diseases, environmental contaminants, terrorist agents, genetic disorders in newborns and other diverse health threats.

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