

KAZAKHSTAN End of Activity Report 2020-2021



LOCAL HEALTH SYSTEM SUSTAINABILITY PROJECT

Local Health System Sustainability Project

The Local Health System Sustainability Project (LHSS) under the USAID Integrated Health Systems IDIQ helps low- and middle-income countries transition to sustainable, self-financed health systems as a means to support universal health coverage. The project works with partner countries and local stakeholders to reduce financial barriers to care and treatment, ensure equitable access to essential health services for all people, and improve the quality of health services. Led by Abt Global, the five-year, \$209 million project will build local capacity to sustain strong health system performance, supporting countries on their journey to self-reliance and prosperity.

Submitted to: Scott Stewart, Task Order COR Office of Health Systems Bureau for Global Health

> Christian Fung COVID-19 Central Asia Response Lead USAID/Central Asia

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ACRONYMS

AMR	Antimicrobial Resistance
CAR	Central Asia Region
CDC	Centers for Disease Control and Prevention
со	Contracting Officer
COPD	Chronic Obstructive Pulmonary Disease
COR	Contracting Officer's Representative
DRCU	Disaster Risk Coordination Unit
ΕΤΙCΑ	Eliminating Tuberculosis in Central Asia
EUA	Emergency Use Authorization
GESI	Gender Equality and Social Inclusion
ICU	Intensive Care Unit
IFRC	International Federation of Red Cross and Red Crescent Societies
IPC	Infection Prevention and Control
LHSS	Local Health System Sustainability Project
мон	Ministry of Health
MOHSPP	Ministry of Health and Social Protection of the Population
PCR	Polymerase Chain Reaction
PPE	Personal Protective Equipment
PUI	Person Under Investigation
RFQ	Request for Quotation
SPRP	Strategic Preparedness and Response Plan
ТВ	Tuberculosis
UNDP	United Nations Development Program
WHO	World Health Organization

1. INTRODUCTION

I.I LHSS IN KAZAKHSTAN

The Local Health System Sustainability Project (LHSS) COVID-19 Emergency Response Activity addresses immediate epidemic prevention, detection, and response needs while building on the existing national health system and health system resilience strategies. The activity is being implemented in five countries in the Central Asia Region (CAR): Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan. LHSS interventions are aligned with emerging global best practices and USAID Central Asia priorities. LHSS is mobilizing the capacities of national stakeholders and leveraging existing platforms to rapidly implement jointly agreed upon and nationally approved plans for detecting and responding to the COVID-19 outbreak. Below outlines the activity's country-specific COVID-19 response for Kazakhstan.

I.I.I COVID-19 OUTBREAK AND EMERGENCY RESPONSE

Kazakhstan is the world's largest landlocked country, but with a population of 18.2 million people, has one of the lowest population densities globally. According to the 2017 Global Burden of Disease study, respiratory tract diseases are among the top causes of death in the country. Kazakhstan's health system continues to bear the weight of the Soviet legacy of underinvestment in primary health care and high rates of unnecessary hospitalization for conditions such as asthma and diabetes. The effectiveness and quality of service delivery in Kazakhstan is low, and the ability to deliver services is constrained by poor infrastructure and inadequate equipment. Cross-border infectious diseases, including emergent diseases such as COVID-19, pose a significant threat to Kazakhstan. The complex nature of the COVID-19 threat requires infrastructure, equipment, a skilled workforce, and coordination among government agencies, the private sector, and civil society in order to mount an effective prevention, detection, and response effort. These requirements were only partially in place in Kazakhstan at the start of the LHSS activity.

LHSS initiated work immediately upon USAID and Ministry of Health (MOH) approval of the original work plan. By June 12, 2020, LHSS had received a total of \$2.7 million for Kazakhstan activities; this included the original amount of \$400,000, two additional funding tranches of \$800,000, and \$1.5 million allocated in May 2020. The activities focused primarily on the procurement of COVID-19 related laboratory equipment and case detection supplies as prioritized by the USAID Mission in Kazakhstan and the government. In addition, the activities included investment in laboratory strengthening that served to reinforce national capacity for detection and management of other priority pathogens. In line with LHSS's overall technical approach of supporting local leadership, the commodities requested were collaboratively identified as part of the national Strategic Preparedness and Response Plan (SPRP) and coordination process. This ensured that LHSS's contribution to Kazakhstan's COVID-19 response would promote sustained testing interventions by government and stakeholders in the nine-month period to promote COVID-19 health system resiliency.

1.2 RESULTS FRAMEWORK

The logic model below depicts the causal relationship between inputs, outputs, outcomes, and purpose within the LHSS Kazakhstan activity. The logic model was used to build team consensus on the activity's goals and objectives, develop performance indicators, and guide learning activities.

1. INTRODUCTION

Figure I: LHSS Kazakhstan Activity Logic Model

Context	Inputs	Outputs	Outcomes	Purpose
High rates of respiratory tract diseases High rates of unnecessary hospitalizations for chronic illnesses Quality of service delivery is lacking Poor infrastructure and inadequate equipment High risk of cross-border infections and emergent diseases	Procurement of laboratory equipment and consumable supplies Procurement of transport for equipment and consumable supplies Support for monitoring delivery lead time	Standardized list of testing supplies developed Laboratory equipment and consumable supplies procured Specimen testing and transport commodities provided Support to monitor delivery lead time provided	Safer collection and transportation of COVID-19 samples Improved laboratory capacity for RT-PCR processing Faster and more reliable detection of COVID-19 Early isolation and care through faster diagnosis	Increased capacity of national stakeholders to prevent, detect, respond to, and manage cases of COVID-19

2. ACTIVITY OVERVIEW

2.1 WORK PLAN PACKAGE

LHSS submitted a six-month draft work plan for Kazakhstan on March 9, 2020, in response to a request to assist with surge support to the region's COVID-19 response. The work plan was developed with each of USAID Central Asia's country offices and the U.S. Centers for Disease Control and Prevention (CDC) Regional Office. Through extensive discussions with CDC and USAID field offices throughout the region, key interventions were identified for each organization across laboratory capacity, infection prevention and control, surveillance and rapid detection, and risk communications. Discussions were held throughout mid-March and early April to finalize country concept notes and develop joint activity Gantt charts. In April 2020, a work plan was approved for Kazakhstan with a total budget of \$400,000. By June 2020 Kazakhstan received additional obligations of \$800,000 and \$1.5 million to expand procurement activities, bringing the total funding to \$2.7 million.

2.2 STRATEGIES AND PLANS

Monitoring, Evaluation, and Learning Plan

LHSS submitted a draft Activity Monitoring, Evaluation, and Learning Plan (AMELP) to USAID on April 10, 2020. The AMELP was approved on alongside the work plan.

Gender Equality and Social Inclusion Strategy

The approved LHSS Central Asia Region work plan and AMELP reflect and reinforce the LHSS Gender Equality and Social Inclusion (GESI) Strategy (2019). The strategy calls for addressing, where possible, the specific exposure risk factors and health care access constraints facing women, men, and other vulnerable groups, such as rural or disabled populations. In Kazakhstan, LHSS's major activity was procurement of consumables and fixed equipment. Where appropriate, a GESI lens was applied when documenting possible impacts of the procurements across key populations.

2.3 MANAGEMENT AND STAFFING

LHSS Kazakhstan interventions were primarily focused on procurement, and thus did not warrant a site office presence. Instead, an LHSS home office coordination team oversaw and guided the activity, with a regional manager, country manager, technical project officer, and technical subject matter experts providing procurement, operational, and technical support. The home office team also supported MEL, operations, finance, and communications.

3. CURRENT AND CUMULATIVE PROGRESS

3.1 DELIVERABLES

The LHSS response in Kazakhstan focused heavily on procuring consumables and fixed equipment necessary to support the national response as the pandemic progressed. At each phase of the response, lists of needed materials were submitted to USAID and LHSS by the MOH. LHSS then worked with USAID to technically verify, prioritize, and procure materials urgently required to support national prevention, detection, and response objectives. Our procurement support focused purposefully on both consumable commodities required in the short-term and larger equipment that would strengthen aspects of health system resilience and benefit the health system long term. Procurements were made in three separate rounds, each containing several tranches of materials shipped to different oblasts and MOH units. Materials included items related to 1) SARS-nCOV-2 specimen collection, handling, and transport; 2) diagnostic analytics; and 3) oxygen therapy.

3.1.1 SPECIMEN COLLECTION, HANDLING, AND TRANSPORT

At the outset of the epidemic in Kazakhstan, at the request of USAID and the MOH, the LHSS procurements focused on securing CDC-approved oro- and naso-pharyngeal swab kits and specimen transport tubes to support the immediate scale-up of SARS-nCOV-2 specimen collection. Using the CDC Emergency Use Authorization (EUA) guidance as our quality benchmark, we procured and delivered 13,000 swab/viral medium transport kits to the MOH by early June 2020. This immediately reinforced the Government of Kazakhstan's ability to safely and securely collect, transport, and process specimens for SARS-nCOV-2 during the early phases of the epidemic response.

3.1.2 DIAGNOSTIC ANALYTICS

LHSS focused first on technically verifying and procuring appropriate PCR reagents for detection of SARS-nCOV-2. Again, using CDC EUAs as our quality benchmark, we supported USAID and the MOH in procuring 25,000 individual QIAGEN Viral Mini Kits for SARS-nCOV-2 detection. As the epidemic progressed, the MOH and USAID asked LHSS to emphasize investments in diagnostic capacity development for RT-PCR and other SARS-nCOV-2 related analytics.

Working closely with USAID, our team emphasized the procurement of both RT-PCR platforms (QIAGEN and GeneXpert) to help increase diagnostic capacity, as well as sufficient consumable materials to support the rapid increase in demand for RT-PCR processing. This included the procurement of PCR filter tips, volume dispensers, pipettes, and other PCR materials that became competitive and understocked on the international market. Subsequent rounds of procurement also focused on increasing other diagnostic capacities via the purchase of a MALDI-TOF mass spectrometer to support complex SARS-nCOV-2 investigation as well as the MOH's antimicrobial resistance (AMR) program. Other laboratory support included the purchase of ELISA analyzers, autoclaves, bactericidal air recirculators, laboratory freezers for reagent storage, microcentrifuges, and other equipment that would serve the laboratories long-term.

These diagnostic-focused procurements reinforced long-term, broader laboratory capacities that will assist during the COVID-19 pandemic and beyond. In addition to supporting the scale-up of RT-PCR platforms, ELISA analyzers, autoclaves, bactericidal air recirculators, and laboratory freezers are foundational types of laboratory equipment that enhance each facility's overall ability to provide safe, high-quality laboratory detection methods for SARS-nCOV-2 and other pathogens. The MALDI-TOF mass spectrometer was a significant investment that will immediately enhance the country's pathogen detection efforts and provide numerous applications for infectious disease research and clinical case management.

3.1.3 OXYGEN THERAPY

In addition to supporting specimen collection and diagnostic capacities, LHSS's final round of procurement included a tranche of oxygen therapy materials for North Kazakhstan Oblast. This included oxygen masks and tubing for adults and children, nasal cannula, ambu-bags, and other noninvasive supports for oxygen therapy.

3.1.4 LIST OF DELIVERABLES FOR THIS ACTIVITY:

- Developed standardized list of supplies required to test for SARS-nCOV-2 and support stocks.
 - **Progress:** Done. The mass spectrometer for Round 2 was delivered in October. Purchase orders for Rounds 3.1-3.4 were delivered in October through December.
 - **Problems Encountered:** None
- Provided MOH with a centralized delivery of locally or internationally procured transport medium vials, PCR kits, and Cepheid cartridges.
 - **Progress:** Done
 - Problems Encountered: N/A
- Monitored delivery of commodity tranches (as needed per supply and lead times).
 - **Progress:** Done. All Round I and 2 procurements were completed, including the special order of Cepheid cartridges through the STOP TB Global Drug Facility mechanism.
 - Problems Encountered: N/A

3.2 STRENGTHENING GOVERNMENT STEWARDSHIP, LOCAL CAPACITY DEVELOPMENT, AND HEALTH SYSTEM STRENGTHENING

LHSS Kazakhstan COVID-19 response activities purposefully sought to strengthen the immediate emergency response while investing in a stronger Kazakhstan health system for the long term. Activities focused on strengthening local health infrastructure through targeted procurements; building human resource capacity through focused trainings; and fostering government stewardship and ownership of health system strengthening efforts that reinforced both surge and routine health system needs. By targeting our investments toward both short- and long-term needs, USAID support was able to improve the Government of Kazakhstan's ability to respond to COVID-19 swiftly and efficiently while preparing for future threats.

LHSS support focused most immediately on procuring SARS-nCOV-2 specimen collection and transport consumables, to strengthen the ability to rapidly detect the virus. Further, LHSS focused on procuring a broad range of RT-PCR related laboratory equipment and case detection consumables, laboratory IPC equipment, a mass spectrometer, and other diagnostic materials for both surge and long-term need as prioritized by the USAID Mission in Kazakhstan and the government. Procurements covered COVID-19 specific materials and multi-purpose laboratory equipment to strengthen national capacity for detection and management of other priority pathogens. LHSS collaborated with local leadership to identify these

needed materials as part of the national Strategic Preparedness and Response Plan and coordination process.

The procurement choices ensured that USAID's contribution to Kazakhstan's COVID-19 response promoted sustained SARS-nCoV-2 case detection capabilities within the government and enhanced longer-term preparedness capabilities for health threats (such as AMR) through strengthened health system resiliency in the diagnostic sector. Further, our procurements for North Kazakhstan Oblast focused on procuring oxygen therapy materials that immediately reinforced this rural oblast's ability to scale intensive care case management and oxygen therapy for moderate and severe COVID-19 cases.

3.3 GESI PROGRESS

The major output for the activity was delivery of essential procurements to the Government of Kazakhstan. There was no GESI implementation for LHSS's contribution.

3.4 WASTE, CLIMATE RISK MANAGEMENT

Kazakhstan was not required to submit a waste, climate risk assessment.

3.5 PROGRESS ON PERFORMANCE INDICATORS

The table in Annex I provides indicator details and disaggregated results data.

3.6 LESSONS LEARNED AND BEST PRACTICES

- Extensive needs for essential medical materials and equipment led the Government of Kazakhstan to submit multiple lists of requested procurements. Strategic selection of procurements in coordination with other international donors was integral in determining LHSS procurements.
- Given that the budget could not cover all possible procurement needs, strategic selection of procurements focused on creating a balance between consumables for immediate prevention, detection, and response on the one hand, and equipment that would serve the health system longer term on the other hand.
- Separating procurements into rounds and tranches by agency and type of material facilitated smooth procurement, monitoring, inspection, and placement of materials. With the LHSS tracker, it was possible to monitor each item, its delivery status, and final installation as materials arrived in various tranches in various oblasts.
- LHSS emphasized the purchase of extended warranties (at least three years) on large equipment and worked with the local supplier to clarify all installation, warranty, and preventive maintenance conditions in partnership with the MOH.

3.7 PROBLEMS ENCOUNTERED

- High global demand for RT-PCR equipment and consumables led to competitive procurement and unusually long lead times. Using a local supplier helped facilitate rapid access and timely customs clearance.
- Manufacturing of the mass spectrometer was delayed due to the unavailability of manufacturing components (due to global lockdown). Delivery was completed in October 2020.

3.8 COMPLETED REPORTS AND DELIVERABLES

- Developed a strategic procurement list of supplies and equipment required for specimen collection, handling, and detection of COVID-19.
- Developed a procurement tracker to identify and monitor all procurements.
- Provided the MOH with centralized and last-mile distribution of locally and internationally procured materials for diagnostics and oxygen therapy.
- Completed three rounds of procurement, including multiple tranches of goods to four oblasts.

3.9 PRESS RELEASES AND COMMUNICATIONS BRIEF

LHSS supported the preparation of two press releases and a communications brief. The full documents can be found in Annex II.

- Press release on June 22, 2020: "United States Supports the Procurement of COVID-19 Laboratory Supplies and Equipment in Kazakhstan,"
- Press release on November 3, 2020: "United States Procures over \$1 Million of Laboratory Supplies and Equipment to Combat COVID-19 in Kazakhstan."
- Communications brief on September 24, 2020: USAID Kazakhstan used this to brief the U.S. Ambassador in advance of a handover visit by the U.S. Consul General and senior USAID Central Asia staff to the Kazakhstan national facility that benefitted from the donated equipment and laboratory supplies.

3.10 RECOMMENDATIONS

- During an emergency response effort, use procurement funding to reinforce both short-term response needs and longer-term health system resiliency assets, such as diagnostic equipment and oxygen therapy materials.
- Prioritize the use of local suppliers during the emergency period to facilitate rapid customs clearance and placement of materials.

ANNEX I: PROGRESS ON PERFORMANCE INDICATORS

Indicator	Baseline	Target	Results		
			Year I	Y2QI	Y2Q2
Number of units or preparations of specimen transport materials, diagnostic	0	N/A*	Total: 45,363	Total: 226,278	Total: 1,015,010
equipment, consumable aboratory materials, and CU/case management materials procured and delivered			Specimen transport materials: 13,000 units Equipment for	Specimen transport materials: 61,000 units Equipment for	Specimen transport materials: 0 Equipment for
			diagnostic capacity: 113 units	diagnostic capacity: 48 units	diagnostic capacity: 10 units
			Consumables support for lab systems: 32,250 units ICU/case	Consumables support for lab systems: 158,605 units	Consumables support for lab systems: 1,015,000 units
			management materials: 0	ICU/case management materials: 6,625 units	ICU/case management materials: 0

ANNEX II: PRESS RELEASES AND COMMUNICATIONS BRIEF

PRESS RELEASE I: UNITED STATES SUPPORTS THE PROCUREMENT OF COVID-19 LABORATORY SUPPLIES AND EQUIPMENT IN KAZAKHSTAN

June 22, 2020, Almaty, Kazakhstan—The United States through its Agency for International Development (USAID) in Kazakhstan, announced the procurement of essential laboratory equipment and supplies to support the Government of Kazakhstan's response to the COVID-19 pandemic. The U.S. Government delivered supplies valued at \$300,000 to support the COVID-19 emergency response in Kazakhstan through USAID's Local Health System Sustainability Project.



Laboratory technicians at the National Center of Expertise in Almaty with COVID-19 test kits provided by USAID. (Photo: Hazel Correa for USAID).

"Access to accurate and rapid COVID-19 testing is critical in stopping the spread of the virus. We are working closely with the Government of Kazakhstan to protect the wellbeing and lives of everyone in Kazakhstan," said William Moser, the U.S. Ambassador to Kazakhstan.

Chief among the materials delivered to the Kazakhstan Ministry of Health were laboratory reagents to support real time (reverse transcription–polymerase chain reaction) tests, one of the most accurate laboratory methods for detecting, tracking, and studying the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) virus that causes COVID-19.

In partnership with the Government of Kazakhstan, USAID has identified priority areas for support and will continue procuring essential laboratory supplies through its Local

Health System Sustainability Project. Additional laboratory supplies valued at over \$2 million are expected to arrive throughout July - September 2020. USAID is collaborating with Kazakhstan health officials to identify the specific commodities needed, in accordance with Kazakhstan's National Strategic Preparedness and Response Plan.

The U.S. Government has provided more than \$5.7 million to assist with the COVID-19 response in Kazakhstan. This assistance addresses the immediate epidemic prevention, detection, and response needs in Kazakhstan while building on existing health system resilience strategies.



PRESS RELEASE 2: UNITED STATES PROCURES OVER \$1 MILLION OF LABORATORY SUPPLIES AND EQUIPMENT TO COMBAT COVID-19 IN KAZAKHSTAN

November 3, 2020, Nur-Sultan, Kazakhstan—The United States through its Agency for International Development (USAID) in Kazakhstan, announced the procurement of essential laboratory equipment and supplies to support the Government of Kazakhstan's response to the COVID-19 pandemic. The supplies were provided through USAID's Local Health System Sustainability Project. This second round of supplies is valued at \$1,113,907 and will support both the COVID-19 emergency response in Kazakhstan and longer-term pandemic preparedness capabilities.

With this specialized laboratory equipment, the Ministry of Health will now have stronger diagnostic capacity for the rapid detection of COVID-19 and preparedness for future yet unknown pandemics. In an epidemic, slowing and eventually stopping the spread of an infectious agent such as COVID-19 in a population depends on accurate diagnostic tests in a short amount of time. These items support the Government of Kazakhstan's ability to expand accurate testing, as well as to detect, research and understand viral threats such as COVID-19. This round of support also included over 50,000 viral transport kits and Cepheid SARS-COV-2 detection cartridges to support ongoing efforts at rapid case detection.

In partnership with the Government of Kazakhstan, USAID has identified priority areas for support and will continue procuring essential laboratory supplies through USAID's Local Health System Sustainability project. Additional laboratory supplies valued at over \$700,000 are expected to arrive throughout November 2020 and additional purchases have already been made as USAID continues to support Kazakhstan's National Strategic Preparedness and Response Plan.

The U.S. Government has provided more than \$5.7 million to assist with the COVID-19 response in Kazakhstan. This assistance addresses the immediate epidemic prevention, detection, and response needs in Kazakhstan while building on existing health system resilience strategies.

COVID-19 EMERGENCY RESPONSE ACTIVITY: KAZAKHSTAN COMMUNICATIONS BRIEF¹

The LHSS Project in the Central Asia Region

The Local Health System Sustainability Project (LHSS) is a five-year (2019-2024) global activity funded by USAID as Task Order I under the Integrated Health Systems Indefinite Delivery/Indefinite Quantity (IDIQ) contract. LHSS is led by Abt Global. LHSS supports low- and middle-income countries in transitioning to sustainable, self-financed health systems as a means to advance access to universal health coverage.

The LHSS COVID-19 Emergency Response Activity addresses immediate epidemic prevention, detection, and response needs while building on national health systems and health system resilience strategies in five countries in Central Asia: Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan. LHSS interventions are aligned with emerging global best practices and USAID Central Asia priorities. LHSS mobilizes the capacities of national stakeholders and leverages existing platforms to rapidly implement jointly agreed upon and nationally approved plans for detecting and responding to the COVID-19 outbreak.

The activity has two overarching objectives:

- 1. Objective 1: Provide surge support to the health system to strengthen COVID-19 prevention, detection, and response; and
- 2. *Objective* 2: Rapidly mobilize health systems and institutions to support an immediate frontline response.

Kazakhstan COVID-19 Response Activity

As of September 22, Kazakhstan reported 138,000 confirmed cases and 1,999 COVID-related deaths.²

The Ministry of Health (MoH) developed a list of emergency response activities, including forming a national working body with experts from USAID, the U.S. Centers for Disease Control and Prevention (CDC), and the World Health Organization (WHO) to strengthen infection prevention and control (IPC) systems and the provision of medical care.

LHSS has received \$2.7 million for Kazakhstan activities. Activities focus on procuring laboratory equipment and case detection supplies, as prioritized by the USAID Mission in Kazakhstan and the government. Procurements cover COVID-19 specific materials and multi-purpose laboratory equipment to strengthen national capacity for detection and management of other priority pathogens. LHSS collaborated with local leadership to identify these needed materials as part of the National Strategic Preparedness and Response Plan and coordination process. The procurement choices ensure that USAID's contribution to Kazakhstan's COVID-19 response will promote sustained testing interventions by government and stakeholders and strengthen health system resiliency.

Program Intervention Procurement

Results

As of September 22, 2020, LHSS has:

• Developed a standardized list of supplies required for testing COVID-19 and support for stocks

¹ Communications brief originally submitted on September 24, 2020, and updated for this final report.

² Johns Hopkins Coronavirus Map. Accessed at: <u>https://coronavirus.jhu.edu/map.html</u>



- Provided MoH with a centralized delivery of locally or internationally procured transport medium vials, PCR kits, and Cepheid Cartridges
- Planned three rounds of procurements

Overall Expected Outcomes

- Safer collection and transportation of COVID-19 patient samples
- Improved laboratory capacity (equipment/personnel) for RT-PCR processing
- Faster and more reliable detection of SARS-COV-2 (and other pathogens)
- Early isolation and care for patients through faster diagnosis

Details

ROUND I: ESSENTIAL LABORATORY SUPPLIES

DELIVERY DATE: June 22, 2020

VALUE: \$300,000

ITEMS: Laboratory reagents to support PCR testing, 13,000 nasal and oral swab viral medium kits to assist in the safe collection, handling, and transport of SARS-nCoV-2 specimens.

IMPACT: Immediately reinforced the Government of Kazakhstan's ability to safely and securely collect, transport, and process specimens for SARS-nCoV-2 during the early phases of the epidemic response. Both materials included in this tranche are foundational to case detection processes across the analytic chain, and the rapid delivery of these consumable items reinforced early case detection efforts.

ROUND 2: MASS SPECTROMETER AND RELATED MATERIALS

DELIVERY DATE: Mass Spectrometer anticipated delivery by October 2020; related materials were delivered on August 2020.

VALUE: \$880,000 (includes Mass Spectrometer and related materials)

ITEMS: MALDI-TOF Mass Spectrometer

Associated materials such as ELISA Analyzers; laboratory grade freezers; bactericidal air re-circulators; and autoclaves were delivered on August 2020. Special training by supplier is included for the Mass Spectrometer. Extended warranties for all materials were purchased.

IMPACT: Reinforced long term, broader laboratory capacities that will assist during the COVID-19 epidemic and beyond. ELISA analyzers, autoclaves, laboratory freezers, and bactericidal air recirculators are all foundational laboratory equipment that enhance each facilities' overall capabilities to provide safe and high-quality laboratory detection methods for SARS-nCOV-2 and other pathogens. Also emphasized the purchase of the MALDI-TOF Mass Spectrometer, an investment that will immediately enhance the country's pathogen detection efforts and provide numerous applications for infectious disease research and clinical case management.

ROUND 3: ADDITIONAL ESSENTIAL LABORATORY SUPPLIES

DELIVERY DATE: Delivered throughout November and December 2020, one tranche in February 2021.

VALUE: \$750,000

ITEMS: This Round of procurement featured four separate tranches sent to different government agencies and Oblasts. Materials required were determined by USAID and LHSS in close consultation



with the MOH and Ministry of Foreign Affairs. This Round featured a range of diagnostic materials and oxygen therapy support. For the RSE on REM and RSES we procured nasal and oral swab kits to support rapid specimen collection and transport, QIAGEN RNA mini-kits, as well as a vast range of RT-PCR related consumables such as PCR filter tips, volume dispensers, and Eppendorf tubes. For Zhambyl Oblast, we procured long-lasting diagnostic equipment for DNA/RNA extraction, a rapid RT-PCR platform, a shaker thermostat for test tubes, microcentrifuges, and other materials to scale RT-PCR capacity. In North Kazakhstan Oblast we emphasized oxygen therapy supports including consumable nasal cannula, oxygen bags, breathing filters, endoscope washing machines, and other components for adult and pediatric oxygen therapy. All deliveries were completed as of February 2021.

Impact: Strengthened specimen collection and case detection capabilities for RT-PCR at the central level through extended procurements to two additional Oblasts (regions). In Zhambyl Oblast, will rapidly enhance ability to perform on-site express RT-PCR and related case detection. In north Kazakhstan, supplies will enhance consumable supply of materials for the administration of supplemental oxygen.