MEMORANDUM OF UNDERSTANDING
between
Office of the U.S. Global AIDS Coordinator
and
Mozambique Healthcare Consortium, Inc.
and
UnitedHealth Group
and
Laboratory Corporation of America

I. Purpose

The Office of the U.S. Global AIDS Coordinator ("OGAC"), Laboratory Corporation of America (LabCorp), the Mozambique Healthcare Consortium, and the UnitedHealth Group, share a common goal of addressing critical health needs and strengthening health systems around the world. For this reason, OGAC, LabCorp, the Mozambique Healthcare Consortium, and the UnitedHealth Group, (each a "Participant" and collectively the "Participants") seek to share their respective strengths, experience, technologies, methodologies, and resources (including human, in-kind, and financial, subject to the availability of funds) in order to improve the laboratory infrastructure, capacity and systems in countries highly impacted by HIV/AIDS. Participants intend to focus efforts in improving laboratory systems in Mozambique. If evidence deems the partnership successful, Participants may consider expanding the model to other PEPFAR-supported countries.

The purpose of this MOU is to set forth the understandings and intentions of the Participants with regard to collaboration in areas of mutual concern mentioned herein. The Participants are entering into this MOU while maintaining their own separate and unique missions and mandates, and their own responsibilities and funding framework. Nothing in this MOU shall be construed as superseding or interfering in any way with other agreements or contracts entered into between two or more of the Participants, either prior to or subsequent to the signing of the MOU. The Participants further specifically acknowledge that this MOU is not an obligation of funds, nor does it constitute a legally binding commitment by any Participant.

II. Background

Mozambique is located on Africa's east coast and is bordered by Tanzania to the north, Zambia and Zimbabwe to the east and South Africa to the south. The country is divided into 11 Provinces and has a population of 22 million people. More than ½ of the population live below the poverty level (~10 USD/month) and 33% of adult men and 63% of adult women are illiterate. Mozambique gained independence from Portuguese rule in 1975, but soon thereafter fell into a 17 year civil war. Critical infrastructure for a functioning society was the target of destruction during the civil war and as a result, most of the country's health facilities, schools, and transport routes were destroyed. Thus, more

than ½ (50-60%) of the population do not have access to health care; 63% of health facilities lack continuous access to water and 74% do not have electricity. Provision of healthcare to the population is further compromised by the limited numbers of trained health care personnel: per 100,000 population, Mozambique has three medical doctors, 21 nurses, 3 pharmacists and 5 laboratory personnel, ratios lower than for any of their African neighbors. Mozambique's efforts to rebuild their health system were further thwarted by the arrival of HIV in the mid eighties.

The latest population-based surveillance for HIV indicated a prevalence among adults 15-49 years of 11.5%. More than 1 million Mozambicans live with HIV/AIDS and half of the hospitalized patients have HIV or AIDS as an underlying illness. Despite these grave statistics, HIV is the second leading cause of death, with malaria responsible for the greatest number of deaths in Mozambique. The US Government, through the Global Health Initiative (including President's Emergency Plan for AIDS Relief, PEPFAR, and the President's Malaria Initiative, PMI) has invested significant financial and human resources in Mozambique to re-build and strengthen the health system. While the first five years of the response was an "emergency" response, the current strategy focuses on partnership with Government of Mozambique and sustainability of advancements made with USG funding.

A strategy to build sustainable laboratory capacity in Mozambique has been to strengthen the country's National Reference Laboratories and key regional referral laboratories, both through provision of adequate infrastructure (laboratory renovations, equipment, reagents, consumables, maintenance contracts) and through human capacity development (short and long-term training, mentorship and coaching, twinning with other institutions, and improvement of pre-service training institutes). The generosity of private companies, interested in supporting the re-building of Mozambique's health system, can fill an important gap in provision of specialized laboratory analyzers and relevant practical training for personnel who will use these equipments. However, the longer term impact and sustainability of such donations is grim if mechanisms to provide interim support for reagents, consumables and maintenance contracts are not in place and functional. This Public-Private Partnership has the objective to provide the mechanism to finance and manage the costs of ensuring equipment donations can be sustained in country and can provide the maximal benefit to the health of the host country's people.

Participants

Office of the US Global AIDS Coordinator

OGAC works with the relevant United States government (USG) agencies, including the Centers for Disease Control and Prevention (CDC), to coordinate the President's Emergency Plan for AIDS Relief (PEPFAR). In 2003, the United States launched PEPFAR to combat global HIV/AIDS - the largest commitment by any nation to combat a single disease in human history. New legislation in 2008 authorized an increased U.S. financial commitment to the fight against global HIV/AIDS, tuberculosis (TB), and malaria, around the world. OGAC seeks to develop PPPs with diverse private sector entities to advance PEPFAR's HIV prevention, care and treatment goals. In establishing this public-private partnership, OGAC will coordinate activities with the CDC Division of Global HIV/AIDS (DGHA) laboratory branch, and CDC Mozambique.

Centers for Disease Control and Prevention

Global Health is one of the Center for Disease Control and Prevention's top five priorities, and is led by its Center for Global Health (CGH). Within CGH the Division of Global HIV/AIDS (DGHA), through the President's Emergency Plan for AIDS Relief (PEPFAR), supports over 70 countries, bringing to bear the technical expertise gained from CDC's more than 60 year history in disease control and prevention. CDC/DGHA's International Laboratory Branch (ILB) was established in 2006 to take the leadership role in developing sustainable, integrated quality laboratory services for all PEPFAR supported countries by working closely with OGAC, Ministries of Health, international organizations and private companies.

Mozambique Healthcare Consortium

The Mozambique Healthcare Consortium was founded in November of 2007 to address critical and compelling challenges confronting the health and survival of the Mozambique people and to take advantage of real opportunities for meaningful and successful interventions. All members of the MHC Board of Directors have been active contributors to improvement of healthcare and related services in Mozambique and formed the Consortium to facilitate their interests.

UnitedHealth Group

UnitedHealth Group is a diversified health and well-being company dedicated to helping people live healthier lives and making health care work better.

Laboratory Corporation of America (LabCorp)

LabCorp is the nation's second largest laboratory service provider. LabCorp operates a sophisticated laboratory network and logistics infrastructure, with more than 28,000 employees worldwide and 220,000 clients including physician offices, hospitals, managed care organizations, and biotechnology and pharmaceutical companies. LabCorp accessions

more than 400,000 samples per day and annually examines in excess of 10 million cytology and 2 million surgical pathology samples.

III. Goals and Objectives

The Participants support achievement of the goals and objectives enumerated below to improve laboratory infrastructure, build human capacity and thereby strengthen health systems, beginning in Mozambique. Participants will work in close consultation with the Government of Mozambique, through the Ministry of Health to achieve such objectives.

Goal 1: Improve laboratory infrastructure critical for HIV diagnosis and monitoring HIV patients enrolled in care and treatment. Infrastructure improvements must be integrated into the existing laboratory system and sustainable.

Key Objectives:

- Identify key equipment and instruments gaps critical to functioning lab systems;
- Plan and implement shipment and installation of critical lab equipment in 4 sites; in partnership with the Ministry of Health in Mozambique;
- Ensure proper installation of all needed equipment;
- Determine the mechanisms for the sustainable procurement of needed reagents;
- Ensure appropriate yearly maintenance agreements for all equipment are in place with local vendors and appropriately resourced.

Goal 2: Strengthen capacity of laboratory technicians in proper and efficient use of laboratory equipment.

Key Objectives:

- Conduct on-site training of appropriate laboratory staff on use of laboratory equipment;
- Train at least four specialized laboratory technicians per year over three years, for a
 total of at least 12 laboratory technicians, at the LabCorps headquarters in North
 Carolina. Training will focus on infectious disease, including HIV and associated
 opportunistic infections, over a six week period. Trainees will rotate between two
 LabCorp laboratories;
- Establish on-going mentoring of specialized laboratory technicians and technical experts within LabCorps.

If goals and objectives are met and demonstrated against benchmarks defined by all Participants, Participants will explore expanding the partnership model to other PEPFAR-supported countries with critical laboratory needs.

IV. Relationship of the Participants, Funding and Support

Participants will collaborate together to strengthen laboratory systems and human capital in Mozambique, as described in Section III. Each organization plays a critical and complementary role in working towards this common goal.

OGAC:

OGAC will work with CDC laboratory experts and CDC Mozambique to coordinate the US Government contribution to the partnership. OGAC will help develop the public-private partnership model, including defining resource inputs, tracking resource inputs, and documenting processes and outcomes. Subject to the availability of funds, and completion of its relevant internal approval processes, OGAC expects to provide cash support of \$607,444 from its central budget to cover duties, clearing fees, start up costs associated with Lab Corp's equipment donation, and to cover the training costs for the first year for laboratory technicians to travel to LabCorp.

CDC Mozambique: (\$250,000 per year)

- Liaise with MOH for the duration of the partnership
- Partner with MOH on the staging, distribution and installation of equipment
- Liaise with MOH in identification of trainees
- Partner with Government of Mozambique to waive duties on donated lab equipment
- Fund MOH through a cooperative agreement to procure maintenance contracts, maintain specimen referral networks, and implement quality management systems to ensure the donated equipment provides quality laboratory test results.

LabCorp:

- Donate medical laboratory instruments, equipment, and supplies valued at over \$1.4 million (list price)
- Provide appropriate on site instrument training at or near time of instrument installation for non-INS instruments
- Provide hands on laboratory training for key laboratory personnel in the area of molecular infectious diseases at LabCorp facilities located in North Carolina, USA

Mozambique Healthcare Consortium

- Project coordination and technical guidance
- In collaboration with other partners:
 - o Develop program management plan
 - o Define milestones
 - Track partnership progress against defined benchmarks

UnitedHealth Group

 Has contributed the necessary funds (\$80,000 USD) required to transport the equipment to Mozambique.

CDC's International Laboratory Branch, Atlanta

- Play a coordination role between OGAC and CDC Mozambique for:
 - Technical support

- o Management guidance
- o Partner coordination

V. General Provisions

Section 5.1 <u>Information</u>. Participants shall provide each other such information as may be needed to facilitate the activities provided for under this agreement.

Section 5.2. This MOU is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, the Department of State, its officers, employees, or agents, or any other person.

Section 5.3. <u>Amendment and Modification</u>. This MOU may be amended or modified by written agreement of the Participants.

Section 5.4. <u>Term.</u> This MOU shall take effect upon the signature of all three (3) Participants effective as of the date signed by the last of the three Participants to sign and shall have an initial duration of three years from that date. The duration of this MOU may be extended by agreement of the Participants in writing.

Section 5.5. <u>Termination</u>. Any Participant may terminate this MOU at any time upon at least 30 days written notice to the other Participants with such termination becoming effective upon the date set forth in such written notice.

OGAC	? @
By:	bolo.
	(Signature)

Name: Ambassador Eric Goosby Title: U.S. Global AIDS Coordinator

Date: 11- Jun 2013 2013

Mozambique Healthcare Consortium

By: Wooden a May of no

Woodrow A. Myers Jr. MD Chairman; Board of Directors

Date: MAY 23 , 2013

By:

(Signature)

Name: Reed V. Tuckson, MD

Title: Executive Vice President and Chief of Medical Affairs

Laboratory Corporation of America

Name: David P. King

Title: President and Chief Executive Officer

Date: 7/04 23, 2013, 2013