

American International Health Alliance

Project Closeout Report

Strategic Health Partnership Initiative 2010-2012



USAID CA #118-A-00-10-00063-00

March 20, 2013



Preface

This closeout report provides an overview of the programs and activities carried out by the American International Health Alliance (AIHA) between the years 2010-2012 through the Strategic Health Partnership Initiative (SHPI) follow-on activities. The original SHPI program administered by AIHA from 2007 through September 2010 under USAID Cooperative Agreement 118-A-00-08-00002-00 was a direct result of the 2005 Bratislava Initiatives.

As such, SHPI was designed to harness US and Russian expertise to further bolster HIV/AIDS-related capacity in Russia, as well as in developing nations in Central Asia and Africa. SHPI programming represented a unique collaboration among the Russian Ministry of Health and Social Development, leading Russian medical education institutions, USAID, and AIHA.

The SHPI follow-on activities described in this report were made possible with the generous support of the American people through **USAID Cooperative Agreement 118-A-00-10-00063-00**. This second cooperative agreement was intended to fund SHPI activities through September 2015. Due to the Russian Government's decision to terminate all USAID-supported activities in country as of October 1, 2012, however, AIHA was unable complete many of the activities planned under the framework of this award.

This report describes the development and evolution of the SHPI, the main programmatic components funded from October 2010 through 2012, and the key outcomes of these components. It also includes summary results and brief success stories that highlight specific activities and accomplishments, as well as a discussion of key challenges and lessons learned.

AIHA is a 501(c)(3) nonprofit corporation created by the USAID and leading representatives of the US healthcare sector in 1992. AIHA's mission is to advance global health through volunteer-driven partnerships and initiatives that mobilize communities to better address healthcare priorities while improving productivity and quality of care. To date, AIHA has supported more than 170 capacity-building partnerships that link American volunteers with communities, institutions, and colleagues in 34 countries in a concerted effort to improve healthcare services and delivery.

Operating with funding from USAID; the Health Resources and Services Administration (HRSA) of the US Department of Health and Human Services; the US Library of Congress; the Global Fund to Fight AIDS, Tuberculosis and Malaria; and other donors, AIHA's partnerships and programs represent one of the US health sector's most coordinated responses to global health concerns.

AIHA wishes to express its sincerest gratitude to the countless professionals in the Russian Federation and the United States, as well as those in recipient countries in Africa and Central Asia, who gave so generously of themselves to the SHPI. AIHA's programs have been so successful because these individuals demonstrated the courage and commitment to change; the patience, dedication, and hard work to gain new knowledge and skills; and a generous spirit of trust and collaboration. Together they made significant contributions to improving healthcare services and delivery for people not only in Russia, but also in developing nations in sub-Saharan Africa and Central Asia. AIHA also thanks USAID and the Russian Ministry of Health and Social Development for the opportunity and privilege of working so closely with them and for their steadfast support of this unique multilateral initiative. Finally, AIHA gratefully acknowledges the contributions of our dedicated staff in Washington, DC, as well as our regional offices in Russia, Ethiopia, South Africa, and Tanzania whose work assured the successful management and implementation of the SHPI program and preparation of this closeout report.

The contents are the responsibility of AIHA and do not necessarily reflect the views of USAID, the United States Government, the Russian Ministry of Health and Social Development, or the Government of the Russian Federation.

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I. Background

As noted in the preface to this report, the Strategic Health Partnership Initiative (SHPI) launched by AIHA in 2007 with support from USAID has its roots in the 2005 Bratislava Initiatives, a joint Russian-American presidential agreement designed to strengthen cooperation on a number of cross-cutting issues, including the global fight against HIV/AIDS.

During the initial phase of the project from October 2007 through September 2010, AIHA and USAID worked closely with Russia's Ministry of Health and Social Development to implement this innovative three-year program, which was designed to facilitate Russia's changing role within the global assistance environment.

This was accomplished through the development of a new Russian overseas healthcare assistance agency that would enable more effective coordination with other international donor assistance efforts; rebuild connections with the countries of the developing world, primarily in Africa; and coordinate new assistance to CIS countries within the context of regional and national efforts to address HIV/AIDS and other infectious diseases.

A second component of SHPI during this timeframe focused on continuing efforts to strengthen Russian medical educational institutions, so that they could better fulfill their responsibilities to effectively train healthcare providers from Russia and many third countries that rely heavily on Russia for medical education.

"This Russian-American cooperation on healthcare projects is based on previous longstanding cooperation between our countries. Beginning with the Bratislava Accords, we've expanded our collaboration to include providing technical assistance to developing countries in Africa, the CIS, and other regions of the world.

The joint efforts of our two great nations are helping to solve critical healthcare problems that exist in these countries today and our experience shows that educating staff, as well as providing technical support, should be a priority for our work in the future."

— *Dr. Eugeny I. Slastnykh, Head of International Cooperation in Healthcare, Department of International Cooperation, Russian Ministry of Health and Social Development*

With unparalleled organizational strength and experience working not only in Russia and the CIS region, but also in sub-Saharan Africa, AIHA was able to leverage relationships and development models that have been honed over the past 20 years of successfully implementing health-related partnerships and programs. These include serving as the implementing partner for USAID's longstanding health partnerships programs in more than 20 countries spanning Central and Eastern Europe and Eurasia; spearheading WHO's Regional Knowledge Hub for Care and Treatment of HIV/AIDS in Eurasia; and managing the DHHS/PEPFAR-supported HIV/AIDS Twinning Center Program.

Key Accomplishments Achieved through the Strategic Health Partnership Initiative: 2011 - 2012

Number of new courses developed and approved for Russia	7
Number of person-days for Africa-based assignments	287
Number of person-days for CIS-based assignments	826
Number of faculty (trainers) trained to deliver the new courses through regional and local initiatives	316
Number of Russian medical universities, postgraduate academies, and research institutes planning to integrate the newly developed courses into their undergraduate and postgraduate programs	25
Number of CIS countries planning to adopt the new curricula	9
Number of “medinars” conducted	35
Number of individuals who have viewed the “medinars” online	4,500+
Number of abstracts presented at international conferences	5
Number of physicians trained in aspects of HIV/AIDS treatment and care by fellows of the Professional Development in HIV Medicine public-private partnerships	303
Copies of three preeminent HIV/AIDS textbooks and guidelines that were translated into Russian and distributed to healthcare providers in Russia and CIS countries.	7,000+
Number of unique site visitors using EAKN resources	50,000+
Number of evidence-based HIV/AIDS-related articles provided by Medmir for inclusion in EAKN’s online resource library	120

AIHA staff have extensive experience supporting the Russian health services and education sectors; in the prevention, care, and treatment of HIV, tuberculosis, and other infectious diseases; and in working in partnership with Russia’s Ministry of Health and Social Development, as well as key Russian health and educational institutions. This wealth of experience proved invaluable to SHPI’s mandate to strengthen Russia’s capacity to address HIV/AIDS and other infectious diseases at home and abroad, as did AIHA’s extensive network of collateral capacity-building relationships and programs that were highly synergistic with the project.

SHPI harnessed the expertise of US and Russian medical communities to bolster HIV/AIDS capacity in Russia by developing postgraduate level curricula and establishing AIDS Training and Education Centers, and to strengthen Russia’s capacity to provide professional assistance to developing and transitioning nations around the globe, particularly as relates to laboratory services for HIV, tuberculosis, and other infectious diseases.

“This is a very important program through which we can partner with Russian scientists and public health professionals working in other countries, especially in Africa. We are particularly proud that the program has supported a number of Russian scientists and medical science managers. We are very thankful to the Russian Ministry of Health and Social Development for its continuous support for the Strategic Health Partnership Initiative. From the US Government perspective, we think that this activity has been a huge success.

— *William Slater, Director, Office of Health, USAID/Russia*

AIHA brought together key stakeholders, including decision-makers from Russia’s Ministry of Health and Social Development, Ministry of Foreign Affairs, the Central Research Institute of Epidemiology, the I.M. Sechenov First Moscow State Medical University, Moscow State University of Medicine and Dentistry, USAID, and other strategic partners, to form an SHPI working group. This entity provided direction for the Russian postgraduate training component, as well as for the third country laboratory component, helping to guide and monitor all SHPI activities. Under the follow-on award, AIHA expanded this group to include other important stakeholders, such as the Central Tuberculosis Research Institute.

The many accomplishments achieved through SHPI in 2007-2010 laid a substantial foundation for the programs that were carried out under the follow-on award, which was granted to AIHA by USAID/Russia in September 2010 through Cooperative Agreement 118-A-00-10-00063-00.

Through this award, AIHA continued to facilitate the deployment of Russian health and allied professionals in third countries, worked to further modify and enhance medical education programs in Russia, and helped to introduce innovative approaches to TB and HIV care in Russia until instructed by the Government of Russia to cease operations effective October 1, 2012.

Specifically, key programmatic objectives of the SHPI follow-on award were to:

- Further strengthen Russia’s capacity to provide technical assistance related to infectious disease control and prevention in third countries;
- Improve the level of professionalism of Russian experts in TB, HIV, and other infectious diseases, along with their ability to work more effectively in generalized and concentrated HIV epidemics;
- Modernize postgraduate, and potentially undergraduate, medical education in the area of TB and other infectious diseases through the development of evidence-based curricula and training materials based on international standards and innovative methodologies; and
- Improve national capacity to detect, diagnose, treat, and monitor TB, HIV, and other infectious diseases in the Russian Federation and other countries.

During the project period covered in this report, AIHA continued to work closely with the Russian Ministry of Health and Social Development and our Russian partner organizations — including MedBusinessConsulting (MBC) — to recruit, select, and deploy Russian health

II. Third Country Capacity Building

professionals to countries in Sub-Saharan Africa and elsewhere in Eurasia to provide technical assistance in a broad range of health and allied disciplines. Cumulatively, these Russian experts provided 1,113 person days (over 37 months) of direct technical assistance and mentoring both in third countries and during trainings, seminars, and the development of curricula and other resources carried out in Russia for the benefit of the recipient countries.

In April 2011, AIHA coordinated a third-country needs and opportunities assessment that was carried out by representatives of Ministry of Health and Social Development, USAID/Russia, and AIHA's project management team. The purpose of this assessment was to determine the priorities for technical assistance in three of the target countries in sub-Saharan Africa, particularly in the fields of laboratory services, HIV/AIDS, TB, and other infectious diseases.

Working with staff at AIHA's field offices in Ethiopia, South Africa, and Tanzania, the assessment team met with key stakeholders, including decision-makers at host country ministries of health and local officials from USAID and CDC, to ensure the technical assistance provided through the SHPI placements was in line with national capacity building priorities and needs. The assessment helped identify key gaps in knowledge, education, and clinical training that could most effectively be addressed by Russian experts, as well as sites where these experts should be placed to maximize their impact on the local health systems.

As soon as a final approval of all deployments was issued by the Ministry of Health and Social Development and USAID/Russia, AIHA coordinated the placements and all related pre-travel orientation and travel and in-country logistical support.

"I am very impressed with the potential this program has to mobilize Russia's considerable expertise in the health sector and put it to use helping African countries facing the strains of growing HIV and TB epidemics."

— *Leon Waskin, former Mission Director, USAID/Russia*

Based on the lessons learned from deployments carried out under the previous cooperative agreement, AIHA developed a handbook for future Russian expert consultants in Africa. This handbook contained overviews of selected health indicators; status on the provision of care for patients with HIV, TB, and other infectious diseases; and placement sites in each country. It also provided useful information on health and safety; daily living concerns such as banking, shopping, and transportation; and local food, culture, customs, and points of interest. It was actively utilized in the orientation of new experts deployed to Africa in 2011 and 2012.

It is important to note that throughout Africa and many other developing regions of the world, inefficient, poorly equipped or maintained, and inadequately staffed medical laboratories represent a major barrier to the provision of high quality healthcare services. Because of this, many of the Russian experts placed in third countries focused on various aspects of laboratory capacity building as was the case under the previous cooperative agreement.

The World Health Organization's Regional Office for Africa has reported that most laboratories on that continent lack the institutional, material, and human resource capacity required to

achieve WHO accreditation and operate as an effective component of healthcare systems in these nations. Russian laboratory scientists possess a wealth of knowledge and technical expertise that was leveraged to help strengthen lab and overall health system capacity in Botswana, Ethiopia, Namibia, and Tanzania. Strengthening laboratory capacity was also a focus of Russian experts deployed to Central Asia under the SHPI follow-on award.

Through their work in these countries, the Russian experts increased their own professional qualifications and capability to provide technical assistance in the future, thereby furthering the SHPI objective of strengthening Russia's capacity to provide technical assistance in the area of public health on a more global level. During their deployments, the Russian specialists provided technical support and conducted educational rotations for local staff.

AIHA published a Mentor Handbook that provided important background information for Russian experts about to embark on deployments to African countries. This handbook contained sections on the SHPI program, the roles and responsibilities of program stakeholders, health and safety, living conditions and useful tips about host countries, and details about placement sites.



A. Country Overview: Botswana

Botswana's Ministry of Health and the Ministry of Local Government have joint responsibility for the provision of quality laboratory testing services in the country, with most related activities being overseen by the Ministry of Health's Department of Clinical Services. Although the Ministry of Health's medical laboratory services were established decades ago, documented guidance and performance standards for lab staff were not introduced until 2003, one year after the government launched Africa's first national ART program in an effort to provide free HIV treatment to its citizens.

The country has a healthcare referral system that starts from the health post, clinic, and primary levels up through district hospitals then to national referral hospitals. For lab services, however, referrals are more often governed by the availability of supplies and functionality of lab equipment at neighboring sites.

For example, ART tests, which primary and district hospitals cannot do, are frequently referred to the Botswana Harvard HIV Reference Laboratory (BHHRL) in Gaborone for facilities in the South or the Nyangagbwe HIV Reference Laboratory in Francistown for the facilities in the North. The most referred tests are mainly CD4, viral load and infant diagnostic DNA polymerase chain reaction (PCR). DNA PCR testing facilities are only available at the Nyangagbwe and BHHRL.

Human resource capacity for medical laboratories is a serious problem throughout Botswana, with existing staff spread thin among various departments. Opportunities for additional training and education that would support staff seeking to upgrade their skills or even to specialize in areas where the need is most evident are not readily available. Other challenges within the current laboratory system include inadequate logistics systems necessary to support the flow of reagents or other supplies; poor maintenance and service plans, which results in prolonged periods when equipment is not in use; lack of documented standard operating procedures to better ensure proper work flow, as well as quality of outcomes; and inadequate coordination among testing facilities of all levels.

Under the previous SHPI award, AIHA placed a total of five Russian laboratory experts in Botswana during 2009 - 2010. Collectively, these scientists provided more than 284 professional days of service (the equivalent of 9.5 months) and contributed greatly toward efforts to improve the quality and scope of laboratory services available in Botswana. Under the follow-on award, the National Health Laboratory in Gaborone requested further technical assistance in the field of mycology. Consequently, AIHA arranged for Dr. Olga Shurpitskaya — the Russian expert who spent two months in early 2010 working with staff at the National



Health Laboratory to reorganize the tiny mycology department, develop procedures and quality standards, and strengthen their knowledge of fungal infections and related diagnostic techniques — to develop a course titled, “Fundamentals of Laboratory Mycology.” This course was designed to be a national level training package for laboratory experts throughout Botswana. Dr. Shurpitskaya finalized the course and related materials in February 2012 and these were approved by the National Health Laboratory at that time.

AIHA deployed Dr. Shurpitskaya to Botswana on March 15, 2012 for a month-long technical assistance assignment. At this time, she presented the new course and conducted training of trainers sessions for seven staff members from the National Health Laboratory and 12 participants from the Nyangabgwe Referral Hospital Laboratory in Francistown.

Personnel of both laboratories demonstrated a high level of interest in learning more about laboratory mycology and, thanks to the course, learned about a vast range of fungi, taxonomy, morphology, and physiology, as well as the classification of fungi and fungal infections. These 19 participants also learned the principles of laboratory diagnosis of fungal infections and the basic stages and methods of mycological diagnosis. They received all course materials and related reference literature to ensure proper dissemination of the training curricula to others at their institutions.



“The medical professionals I’ve met in Botswana have been very interested in taking part in this program to improve diagnostic capacity. They want to move the health system forward. For me, it has been an interesting experience, too, because it is my first international experience and I’ve had a chance to work with specimens that I don’t routinely see in Russia.”

— *Dr. Olga Shurpitskaya,*
Medical Mycologist, St. Petersburg Medical Academy
for Postgraduate Education, Russia

“Some of our procedures are outdated and, with regard to mycology, very much neglected because of the general lack of capacity in that area, so we’ve been eager to learn the new methods and techniques that Dr. Shurpitskaya has been sharing with us.”

— *Irene Tsimako, Lab Technician, National Health*
Laboratory, Gaborone, Botswana

At the conclusion of her assignment in Botswana, Dr. Shurpitskaya conducted a debriefing with AIHA staff and local stakeholders. Based on feedback from officials at the National Health Laboratory, the course and training-of-trainers sessions were viewed as greatly needed and highly successful. Said officials stressed the importance of continued collaboration with AIHA and the SHPI experts, particularly with regard to the proposed development of a dedicated Mycology Unit at the National Health Laboratory. They also recommended future collaboration with the University of Botswana and the Institute of Health Sciences to support strengthening of existing laboratory education and training programs.

B. Country Overview: Ethiopia

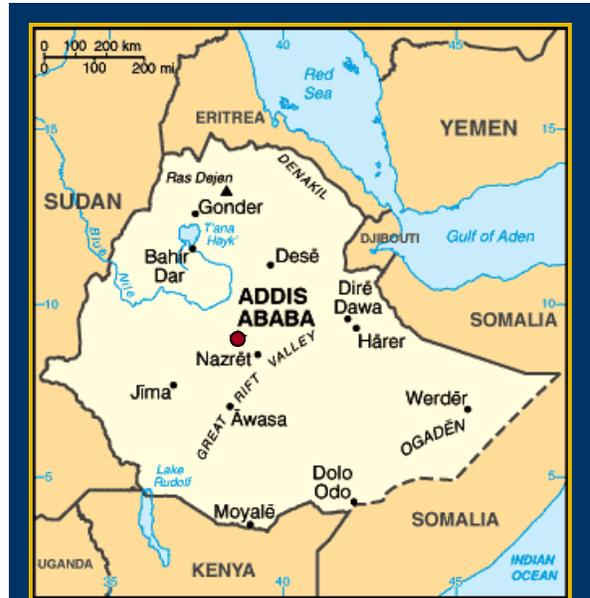
In Ethiopia, the Ethiopian Health and Nutrition Research Institute (EHNRI) oversees all medical laboratories in this East African nation of 74 million people. The Institute has developed the country's integrated national laboratory master plan (2009-2013) and has been mandated to coordinate efforts to strengthen the national lab systems.

The existing tiered laboratory structure has the national reference laboratories at the top, followed by regional/referral or specialized hospital laboratories, then district/zonal laboratories, and lastly health center laboratories.

Most of the country's laboratory technologists and technicians have been trained at state universities. Private colleges also contribute to the training of laboratory specialists. EHNRI-coordinated training programs — which include quality systems, ART monitoring, TB microscopy, laboratory management and leadership, HIV rapid testing, early infant diagnosis, SLMTA, accreditation preparedness, BED capture IgG assay, HIV-1 genotyping assay, and biosafety — occur throughout the year.

Under this award, as through the previous cooperative agreement, technical assistance provided by the Russian experts focused on the development of a comprehensive rabies control program, including building in-country capacity to produce a viable vaccine in accordance with international standards and best practices.

Rabies, although it is a preventable disease, represents a significant public health threat in Ethiopia for many reasons. The country has no framework for effective surveillance, data monitoring, or guidance. In addition, there is no census to ascertain canine population dynamics, nor any household survey data to determine the ratio of owned versus stray dogs in the



The Russian lab mentors stationed in Ethiopia provided technical assistance to the Ethiopian Health and Nutrition Research Institute in the nation's capital of Addis Ababa. The focus of their work was developing a national rabies control system and the capacity to locally produce a cell culture rabies vaccine.

"The Ethiopian Government recognizes that rabies is a serious problem and it is one of the strategic focus areas that emerged from the recent business process reengineering undertaken by the Ministry of Health. Our goal is to build the capacity to manufacture 10 vaccines and we're starting with rabies. It is critical that we develop this vaccine ... its impact will spread beyond rabies because the process can be applied to other vaccines.

We've invested a huge amount of money and the knowledge and skills the Russian mentors have transferred to staff at the Ethiopian Health and Nutrition Research Institute rabies lab is simply invaluable."

— *Dr. Medhin Zewdu Tsehau, Director General at the Office of the Minister of Health of Ethiopia*

country. Animal control is also an issue. This lack of data has long translated into rabies being relatively low on the agenda of health policymakers given their many competing priorities.

As a result, Ethiopia has long been one of just a handful of countries in the world that still use the outdated Fermi-type phenolized sheep brain tissue vaccine, which is very dangerous and, according to the World Health Organization, should not be used on humans. Known side effects include severe allergic reactions, encephalitis, partial paralysis, and even death. The treatment is also very painful — a course of 17 5-milliliter injections administered in the stomach area.

The original SHPI award afforded Ethiopia with a unique opportunity to develop a modern national anti-rabies program, including local production of rabies vaccine derived from cell cultures of seed rabies virus strains obtained from CDC/Atlanta. This local production of a rabies vaccine would, in turn, lay the groundwork for in-country manufacture of other much-needed vaccines.

Thanks to the SHPI follow-on award, Russian rabies experts Denis Bankovskiy and Artem Metlin returned to Addis Ababa for a six-week deployment in January and February of 2011.

Building upon the accomplishments they made in 2009 and 2010 through the previous cooperative agreement, they provided the technical assistance needed to:

- Install a new laboratory, as well as additional equipment for existing units;
- Resolved all problems and/or issues that occurred while local staff had been working with cell cultures in between mentor deployments;
- Introduced techniques to measure rabies neutralizing antibodies (FAVN/RFFIT) and provided both theoretical and practical trainings for lab staff;
- Introduced application of normal cattle serum for preparation of large amounts of cell culture medium;
- Developed detailed standard operation procedures (SOPs) to ensure independent work would be possible for local staff; and
- Developed a clinical trial protocol to test an experimental series of cell culture vaccine.

Between the 2010 and 2011 deployments, EHNRI staff experienced some temporary setbacks to their vaccine development efforts due to logistical problems and some technical mistakes.

"The lab staff have experience working with cells and are young and not set in their ways. They learn quickly and are eager to make changes here... there has been a lot of progress."

— *Dr. Denis Bankovskiy, a vaccine expert from the JSC Pokrov Biologicals Plant in Volginskiy, Russia*

"At first, we didn't have the virus, the equipment, or even the knowledge how to put them to use. Now, our hopes for the future are without limit."

— *Mr. Birhanu Hurisa, Assistant Researcher, Ethiopian Health and Nutrition Research Institute, Addis Ababa, Ethiopia*



Despite this, however, the Russian experts reported impressive overall progress, with many of the recommendations previously provided by them, as well as technical experts from the US Centers for Disease Control and Prevention (CDC). Specifically, suggestions on reconstruction of the laboratory building to ensure improved bio-safety levels and the relocation of the lab animal facility were fulfilled. Key outcomes of their work are highlighted in the table below.

In addition to Drs. Bankovskiy and Metlin, AIHA also deployed Russian epidemiology expert Professor Elena Simonova to Ethiopia for three weeks in December 2011. At this time, she began to collect information on the existing rabies control system with the objective of developing a set of recommendations for a national anti-rabies program. Her research findings were used to develop "Overview of Rabies in Ethiopia: Recommendations to Improve Rabies Surveillance Systems," a seminal document that was completed by Professor Simonova and submitted to EHNRI in February 2012.

Professor Simonova was redeployed to Ethiopia in March 2012 to continue her efforts to develop an integrated national rabies control and surveillance system. Some key results of her work are noted in the table on the following page.

One important outcome AIHA would like to highlight is her introduction of a national level knowledge, attitudes, and beliefs survey to ascertain the population's awareness of rabies, as well as her initial development of related recommendations, questionnaires, and tools necessary for implementing this evaluation. The lack of accurate data on rabies has long been a major obstacle for developing an effective national strategy for controlling the virus, according to all three Russian mentors placed here, as well as national stakeholders. Professor Simonova's work in this arena has gained the interest of both Ethiopian stakeholders and international organizations alike. WHO has expressed interest in moving this project forward, which would in turn enable the progress made through SHPI to have a lasting and substantial impact on the country.

Lab Mentor Placements and Key Outcomes: Ethiopia

Lab Mentor / Placement Details	Key Accomplishments
<p>Artem Metlin</p> <p>Date: 15 January – 26 February 2011</p> <p>Site: Ethiopian Health and Nutrition Research Institute, Addis Ababa</p> <p>Denis Bankovskiy</p> <p>Date: 15 January – 12 February 2011</p> <p>Site: Ethiopian Health and Nutrition Research Institute, Addis Ababa</p>	<ul style="list-style-type: none"> • Installed new lab, additional equipment • Resolved problems related to EHNRI staff work with cell cultures • Introduced techniques to measure rabies neutralizing antibodies (FAVN/RFFIT); provided theoretical and practical training • Introduced application of normal cattle serum for preparation of large amounts of cell culture medium • Developed detailed SOPs • Developed a clinical trial protocol to test an experimental series of cell culture vaccine
<p>Elena Simonova</p> <p>Dates: 6 December – 27 December 2012 1 March – 31 March 2012</p> <p>Site: Ethiopian Health and Nutrition Research Institute, Addis Ababa</p>	<ul style="list-style-type: none"> • Met with local stakeholders, including Ministry of Health officials and national experts, to discuss and develop epidemiological survey • Prepared materials and conducted targeted trainings on rabies PEP; epidemiology, diagnosis, treatment, and prevention of salmonella and typhoid fever; and rabies for local staff • Developed set of survey documents needed for study of human rabies cases; conducted training on the same • Developed comprehensive recommendations for national rabies surveillance system

C. *South Africa and Namibia*

In South Africa and Namibia, AIHA developed a mentorship opportunity that combined SHPI goals with the efforts of its PEPFAR-funded HIV/AIDS Twinning Center program in these, and other, countries.

In 2008, South Africa's National Department of Health launched a Clinical Associates Program at three universities to increase the number of well-qualified medical professionals, particularly in rural and underserved areas.

Similar to Physician Assistants in the United States and other countries, Clinical Associates are mid-level healthcare workers who provide treatment and care to people living with HIV and other patients thereby allowing doctors to focus on more complex cases.

The didactic program is designed to ensure that the bulk of education for Clinical Associates takes place in a clinical setting, rather than a university classroom. Because most rotations take place in rural district hospitals, both students and faculty need improved access to up-to-date evidence-based information resources to ensure optimal training and patient outcomes.

In response, AIHA recruited and deployed Russian information technology expert Alexander Shevyrev to South Africa, where he worked closely with AIHA's Regional Coordinator for Learning Resources based our Pretoria office.

Mr. Shevyrev was instrumental to the development and implementation of AIHA's efforts to promote the use of mobile devices by Clinical Associates students at Walter Sisulu University and the University of Pretoria as a way to improve access evidence-based medical information resources.

Over the course of his 2-month deployment in March and April 2012, Mr. Shevyrev compiled and tested a list of medical applications (apps); put together step-by-step guides on how to use the tablets, from identifying appropriate apps on the Android market to installation and updating of resources; and compiled a guide on how to share resources on the tablets using Bluetooth. These guides are now being used at both universities by students, as well as Clinical Associate graduates who are already working in hospitals throughout South Africa. The guides have also been incorporated into information literacy training programs that all students are required to take.

In addition, Mr. Shevyrev supported the University of Pretoria specifically by installing medical apps on 10 tablets that are used at Thembisa Hospital, which is a clinical rotation site for the University's Clinical Associate students.

Working directly with University of Pretoria Clinical Associate Program Coordinator Dr. Murray Louw, he helped identify videos of medical procedures most relevant for the program and uploaded them on the tablets for inclusion in the standard course materials. Mr. Shevyrev also conducted trainings on the use of the tablets and medical apps for students at Thembisa Hospital and supported the official launch of the Thembisa Hospital Clinical Learning Center, leading a demonstration of the devices for University officials and representatives from the South African Department of Health and the US Government team in country.

Another important component of Mr. Shevyrev's mentorship was supporting AIHA's regional Learning Resources Project, which champions the application of evidence-based medicine in clinical practice by expanding access to accurate, up-to-date, and effective information



In early 2012, AIHA placed a Russian information and communications technology specialist in South Africa, where he worked closely with AIHA's Regional Learning Resources Coordinator to support planning, implementation, and monitoring of a PEPFAR-supported project to introduce the use of Android-based tablet devices pre-loaded with free and low-cost applications providing access to databases, textbooks, and other automatically updated clinical reference materials.

“I think it is very exciting to be able to offer opportunities to public health managers and scientists not only to work in other countries, but also to bring the knowledge and skills they gain overseas back home to benefit the people of Russia.”

— William Slater, Director, Office of Health, USAID/Russia

resources at partner institutions throughout Africa. He served as one of the facilitators for the AIHA Learning Resource Center Coordinators meeting held in Lusaka, Zambia, March 13-14, 2012. This meeting brought together individuals who manage Learning Resource Centers established at partner institutions in Botswana, Ethiopia, Namibia, Nigeria, Tanzania, South Africa, and Zambia through AIHA's PEPFAR-supported HIV/AIDS Twinning Center program.

The Information Coordinators took part in a dynamic learning and sharing forum designed to encourage cross-partnership collaboration, identify lessons learned and challenges being faced, and strategize on future activities and ways of sustaining their programs in the coming years. During this event, Mr. Shevyrev facilitated a panel discussion on telemedicine, warmlines, and knowledge hubs. He shared with the participants his own experiences with increasing participation and nurturing more vibrant knowledge hubs — an activity with which none of our African Learning Resource Centers or institutional partners have had previous experience.

D. Tanzania

The quality of laboratory services in Tanzania has decreased dramatically over the past 20 years due, in large part, to the transition from a centralized to decentralized model. Two other factors that have contributed greatly to this deterioration in quality are the overall reduction in funding specifically allocated for laboratory services and limited availability of ongoing professional training and continuing education programs.

In addition, most Tanzanian medical laboratories today are operating with broken, outdated, or poorly maintained diagnostic equipment coupled with inadequate supplies of reagents and other necessary consumables. They also lack effective quality control and assurance programs, which greatly hinders their capacity to perform accurate clinical tests in a timely manner.

Against this backdrop, AIHA placed four Russian lab experts at medical laboratories in Dar es Salaam and Mwanza in the spring of 2009 under the initial SHPI award. Three of these specialists



Two Russian laboratory experts who served as mentors in Tanzania in 2009 were redeployed to the country in December 2011 to provide technical assistance and training at Kibong'oto National TB Hospital and Saint Benedict's Missionary Hospital laboratories. Their objective was to help prepare both labs for the process of earning WHO accreditation.



“Customer satisfaction was an important part of what we did as mentors and I believe the staff were very happy with what we were able to help them accomplish in such a short amount of time.”

— Dr. Alexander Semenov, Associate Professor, St. Petersburg Medical Academy for Postgraduate Studies, Department of Clinical Laboratory Diagnostics, St. Petersburg, Russia

focused primarily on key aspects of quality control in HIV diagnostics at their respective sites, while the fourth provided technical assistance and mentoring on forensic medicine, pathomorphology, and lab quality improvement.

In December 2011 under the SHPI follow-on award, AIHA redeployed two of the original four lab experts to Tanzania, where they provided onsite technical assistance and mentoring at Kibong’oto National TB Hospital in Moshi near Mount Kilimanjaro and at Saint Benedict’s Missionary Hospital near Mtwara on the country’s southeast coast close to the border with Mozambique.

Drs. Alexander Semenov and Vladimir Zinkin traveled to both sites to conduct in-depth assessments and provide recommendations for preparations necessary for these facilities to obtain accreditation from the World Health Organization (WHO).

The Russian team spent 10 days at Kibong’oto National TB Hospital’s laboratory, where they determined previous areas of non-compliance with international best practices for laboratories, including a Quality Management System that was at various stages of development and approval; no established system for review of the Quality Management System; sub-optimum staffing levels; no established client service procedures and guidance; and no Equipment Management System.

Other challenges stemmed from a lack of policies and procedures relating to information management, purchasing and inventory, and document control and retention; no standards for carrying out internal audits; and no evidence of technical verification of test and reporting documentation.

Similar problems were discovered at the Saint Benedict’s Missionary Hospital laboratory, where the team spent another

10 days assessing existing conditions and practices and working closely with local staff to build institutional and human resource capacity.

Saint Benedict's Missionary Hospital	Total Possible Score	Improvement Evidenced by Pre- and Post-tests	
Section		Pre-test	Post-test
1: Documents and Records	25	12	17
2: Management Reviews	12	01	03
3: Organization and Personnel	20	05	10
4: Client Management and Customer Service	8	01	02
5: Equipment Management	30	11	13
6: Internal Audit	10	0	02
7: Purchasing and Inventory	30	14	16
8: Information Management	14	06	08
9: Process Control, Internal/External Quality	43	03	14
10: Corrective Action	8	0	04
11: Incident Management/Process Improvement	10	0	04
12: Facilities and Safety	40	17	23
Total	250	70	116

Kibong'oto National TB Hospital	Total Possible Score	Improvement Evidenced by Pre- and Post-tests	
Section		Pre-test	Post-test
1: Documents and Records	25	12	18
2: Management Reviews	12	03	05
3: Organization and Personnel	20	14	15
4: Client Management and Customer Service	8	05	08
5: Equipment Management	30	18	23
6: Internal Audit	10	01	06
7: Purchasing and Inventory	30	12	22
8: Information Management	14	07	08
9: Process Control, Internal/External Quality	43	18	27
10: Corrective Action	8	01	05
11: Incident Management/Process Improvement	10	02	02
12: Facilities and Safety	40	25	29
Total	250	118	168

The Russian lab experts worked hand in hand with lab staff to develop needed standard operating procedures (SOPs) and other systems and documents. They also spent time with management at both hospitals to help ensure their recommendations would be supported within these institutions.

As shown in the before and after photos on page 17, a remarkable amount of organization and streamlining was accomplished in a short period of time. These joint efforts have really had a positive impact on the labs and the individuals who staff them. The work of the Russian experts has also helped bring the Tanzanian laboratories closer to their goal of obtaining WHO accreditation.

Based on a standard 12-section lab assessment score sheet with a total of 250 possible points, Kibong'oto went from an initial score of 118 to a final score of 168. At Saint Benedict's, their score went from 70 to 116 as a result of the technical assistance provided through SHPI.

For a more detailed breakdown of the improvements made at each site as a result of the targeted support provided by the Russian lab experts, please see the tables on the previous page.

E. *Uzbekistan*

Uzbekistan is home to one of the youngest HIV epidemics in the world, with more than 90 percent of new infections reported between 2001 and mid-2003, according to World Bank reports. These infections, which are estimated to be around 28,000, are driven largely by injecting drug use, with men accounting for some 85 percent of all people living with HIV.

The Uzbek Parliament has been working to stem the spread of HIV and passed a law in 2000 to ensure people have access to counseling centers where they can get advice from specialists and be tested, as well as receive free syringes, condoms, and information.



Under the previous SHPI award, AIHA organized two national training workshops on Polymerase Chain Reaction (PCR) equipment and testing for diagnosis of HIV and other infectious diseases, which were conducted by a Russian laboratory expert in December 2009 and April-May 2010. Each 10-day course brought together experienced laboratory technicians



“The Ministry of Health and other stakeholders in Uzbekistan, such as Ministry’s Reference Lab and the Virology Research Institute, were highly supportive of these trainings. Everyone involved, including training participants, said that similar workshops should be organized in the future.”

— *Dr. Alexander Semenov, Associate Professor, St. Petersburg Medical Academy for Postgraduate Studies, Department of Clinical Laboratory Diagnostics, St. Petersburg, Russia*

and clinicians who participate in the provision of care for people living with HIV or AIDS. More than 80 specialists from Uzbekistan received advanced training through these courses.

Under the SHPI follow-on activities, the Ministry of Health of Uzbekistan and the National Uzbek Institute of Virology requested AIHA’s support for additional training for lab staff throughout the country in PCR diagnostics for HIV and other infectious diseases. In the spring of 2012, AIHA deployed Russian laboratory expert Dr. Alexander Semenov to conduct this 10-day training for more than 50 lab personnel and infectious disease specialists. At this time, Dr. Semenov also facilitated a meeting with members of the Reference Laboratory Institute of Virology regarding workplace organization and proper preparation of reagents and consumables.

In November 2012, AIHA brought a group of 20 Uzbek infectious disease physicians and pediatricians to St. Petersburg for a 5-day training on “Advanced ART and Management of Opportunistic Infections.” This training — which was requested and funded by UNDP in support of its joint Global Fund project titled "Continuing Scale Up of the Response to HIV in Uzbekistan, with Particular Focus on Most At Risk Populations" — was conducted at the St. Petersburg City AIDS Center, one of the clinical sites affiliated with AIHA’s AIDS Training and Education Center in St. Petersburg.

F. Kazakhstan

As with Uzbekistan and other countries in Central Asia, Kazakhstan has a relatively young HIV epidemic that affects primarily the country’s most at risk populations. The latest World Bank and UNAIDS estimates that some 13,000 people over the age of 15 are living with HIV in Kazakhstan, making it the second largest epidemic in Central Asia.



Russian clinical and laboratory experts conducted three trainings for medical professionals from Kazakhstan through the USAID-supported Strategic Health Partnership Initiative in 2011-2012.

November 2011 marked the first training conducted through SHPI in Kazakhstan. At the request the Kazakh National Medical University, AIHA deployed three Russian experts — Drs. Nikolai Briko, Nikolai Torchinskiy, and Roman Polibin — to Almaty, where they conducted an 8-day training on clinical epidemiology and evidence-based medicine. The training, which was funded by the Kazakh National Medical University, was attended by 60 Kazakh faculty members, clinical epidemiologists, interns, and medical students.

The following month, AIHA arranged for Dr. Larisa Afonina, a Russian expert from the Republican Infectious Disease Hospital and the National Center for Prevention and Treatment of HIV-infection in Pregnant Women and Children in St. Petersburg to provide a comprehensive review of the Kazakh National Clinical Protocol on Diagnosis and Treatment of HIV and Hepatitis B and/or C Co-infection in Children and Adolescents. This technical assistance was requested by the Global Fund’s Project Implementation Unit (PIU) in Kazakhstan, the Ministry of Health of Kazakhstan, and the Republican AIDS Center. Dr. Afonina later helped to develop the national clinical protocols adopted for use in Kazakhstan.

Through the SHPI follow-on project, AIHA also conducted in Kazakhstan was a 5-day training on Advanced Pediatric ART for Multidisciplinary Teams, which was held in April 2012 in Shymkent. This technical training is particularly relevant in Shymkent, where in 2006 more than 100 children were infected with HIV and hepatitis through unsafe clinical practices. The workshop was done at the request of the Global Fund’s PIU in country, the Ministry of Health, the Shymkent Regional Center “Mother and Child,” and the Republican AIDS Center. A total of 27 regional specialists who provide care and treatment for children living with HIV or AIDS were trained at this event.

G. *Turkmenistan*

Although there is limited data on HIV/AIDS in Turkmenistan, it is safe to assume that the nation shares a similar epidemiological profile with other Central Asian countries. In tacit acknowledgement that HIV is present, the Ministry of Health of Turkmenistan has requested support in the development of a set of national protocols regarding the care and treatment of people living with HIV.

In response, the WHO and UNFPA offices in country requested technical assistance from AIHA and co-funded a workshop to support the development of national HIV/AIDS guidelines. This event, which was held in November 2011 in Ashgabat, was led by Dr. Oleg Yurin, a expert from the Russian Federal AIDS Center in Moscow.

Participants included members of the working group that is assisting with the development of national HIV/AIDS clinical, diagnostic, and treatment guidelines.

Subsequently, experts from the Russian Federal AIDS Center were engaged in the development of six national protocols based on the latest HIV/AIDS Treatment and Care Clinical Protocols for WHO's European Region between July and September of 2012. These include the following guidelines:

- Patient Evaluation and Antiretroviral Treatment for Adults and Adolescents;
- Management of Hepatitis B and HIV Co-infection;
- Management of Opportunistic Infections and General Symptoms of HIV/AIDS;
- Palliative Care for People Living with HIV;
- Post-exposure Prophylaxis for HIV Infection; and
- Support for Sexual and Reproductive Health in People Living with HIV.

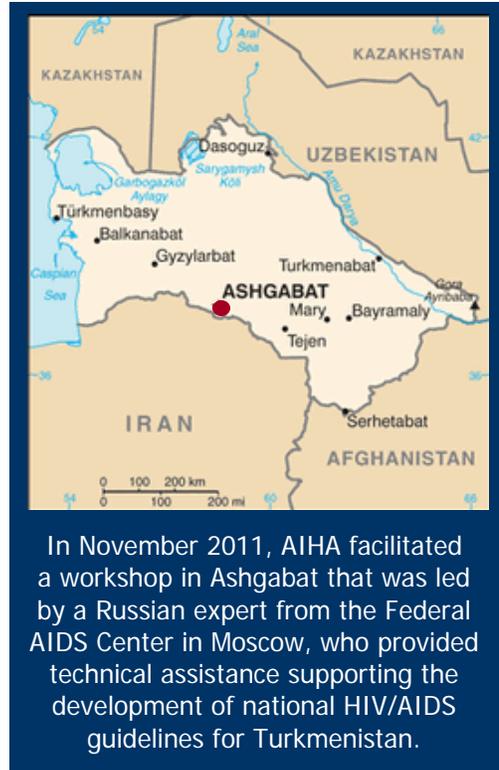
Through the SHPI follow-on activities and with additional financial support from the UNFPA in Turkmenistan, AIHA facilitated three workshops that brought the Russian HIV/AIDS experts — Dr. Oleg Yurin, Dr. Vassily Shakhgilyan, and Dr. Nadexhda Koziryna — together with key Turkmen national working groups.

These events were conducted in November 2011, and June and August 2012, in Ashgabat. At the same time, 24 Turkmen infectious disease physicians, epidemiologists, TB specialists, laboratory technologists, gynecologists, and faculty from the State Medical University were trained in diagnostics, treatment, and management of HIV infection by the Russian experts.

H. The Professional Development in HIV and TB Medicine Initiative for African Alumni of Russian Medical Schools

With support from the Russian Ministry of Health and Social Development, AIHA launched a new initiative targeting senior students and alumni of Russian medical schools from Botswana, Tanzania, and other African countries. The Professional Development in HIV and TB Medicine Initiative was designed to leverage and expand scientific exploration and dialogue about HIV, TB, hepatitis, and other infectious diseases, as well as tropical diseases and travel medicine, by helping students and alumni improve their knowledge of both diseases and promoting greater collaboration among medical communities in Russia and Africa. Other goals of the initiative were to:

- Support the network of Russian-speaking doctors in Africa;
- Enhance their linkages with clinical experts and academic institutions throughout Russia; and
- Explore opportunities for cooperation and knowledge exchange between clinicians from both regions.



AIHA was piloting this initiative in Botswana and Tanzania and had created a FaceBook group for Tanzanian alumnae with support from a graduate of the Kazan Medical School. At the time the SHPI was forced to close all activities, this page had more than 30 active members who had been asked to complete a questionnaire designed to help us to better understand their main clinical interests and ongoing educational needs. Based on this survey, AIHA had begun strategizing future activities, including engaging internationally recognized Russian experts in TB and other infectious diseases as mentors; providing access to regular Russian-language medical webinars implemented by AIHA on a monthly basis; and developing and conducting new conduct webinars on clinical topics noted in the questionnaires.

AIHA was also exploring opportunities to establish greater cooperation and exchange of experience between Russian medical professionals and Tanzanian experts on tropical diseases and travel medicine as a way to strengthen knowledge and capacity related to these fields in the Russian Federation.

I. Best Practices and Lessons Learned

Based on AIHA's experience with deploying Russian lab experts to third countries under the first SHPI project, many of the challenges previously encountered had already been dealt with effectively. AIHA and MBC presented these best practices and lessons learned to the Ministry of Health and Social Welfare and USAID at the SHPI project closeout event, which took place November 5, 2010 in Moscow. This experience helped tremendously during the SHPI follow-on activities and AIHA was very successful in meeting the important needs in each of the placement sites.

Some of the recommendations proposed to the SHPI Advisory Board at the conclusion of the first SHPI award included incorporating some key changes into the follow-on program. The ensuing discussion of lessons learned, coupled with the needs assessment conducted by AIHA and USAID staff in the spring of 2011, helped us to revise our strategy slightly. As a result, we were better able to respond to the fast-changing development environment, as well as to avoid the involvement of lengthy and complicated processes, such as obtaining certification for physicians to work directly with patients in the host countries.

One recommendation was to broaden the mentor group to include health experts in HIV, tuberculosis, and other infectious diseases, rather than the narrow group of experts in HIV lab diagnostics. All stakeholders in Russia and in the target countries, including US Government agencies, agreed with this course of action and it proved useful for meeting the needs of the host institutions and tapping into the existing pool of qualified Russian experts looking to work in a developing country.

Assignment duration was a challenge under the first award and remained a problem during the follow-on program, largely because leave requests for more than two months were difficult and, in some cases, impossible for Russian experts to obtain from their institutions. Several good candidates were not able to get permission to leave even though they had received official letters of support from the Ministry. As we discovered, such letters only proved useful if the expert was employed at the Federal level. Unfortunately, most candidates worked for municipal institutions. In the end, many of the experts had to use their own vacation time, rather than authorized leave without pay, to participate in the project.

At the same time, host country ministries continued to express preference for candidates who could spend at least four-to-six months in country and were initially reluctant to accept shorter term candidates. The shorter terms of stay were also a disincentive for country officials and placement site officials, who were not always willing or able to meet the unanticipated burden of developing detailed scopes of work.

In response, AIHA worked with host institutions and mentors to craft more flexible assignments that allowed for multiple shorter deployments by the same expert over a period of time. We also supported certain activities, such as curriculum or guideline development, that could be completed by the mentor in Russia before or in between deployments. This was particularly effective in Botswana and Central Asia, where the Russian experts were familiar enough with the existing conditions and needs to be able to prepare materials remotely thereby freeing up their shorter time in country for more targeted hands-on training and mentoring activities.

Another recommendation AIHA made at the conclusion of the first SHPI award was to identify key Russian institutions that could be engaged in an institution-to-institution twinning partnership. Through this capacity building relationship, the Russian institution would have deployed teaching faculty and various subject matter experts in what hopefully would have resulted in an ongoing bilateral exchange of personnel on both sides.

AIHA had initiated this process and had already signed a Memorandum of Understanding with the First Moscow State Medical University on cooperation in several areas, including the deployment of faculty to Africa and Central Asia and the establishment of a twinning relationship with interested universities. Unfortunately, the project had to be closed out before these partnerships could be fully realized.

As in the past, English fluency was found to be a challenge in identifying candidates. Under the first SHPI award, AIHA discovered that Russia's cadre of laboratory scientists is rapidly aging and the percentage of laboratory experts in their 30s, which is the group most likely to speak English and be interested in overseas assignments, is very small. In response, we were able to broaden the professional profile of the Russian experts we recruited to include other health and allied disciplines.

AIHA also increased deployment of experts to other countries in Eurasia where English language fluency, acculturation, and system "learning curve" is not an issue. Russian experts were effectively deployed to Central Asia for shorter technical assistance missions that proved

AIHA actively sought input, such as the comment that appears below, from Russian experts placed under the initial SHPI award. We used their feedback to strengthen this important component of the follow-on award.

"In the future, I think it would be very helpful if the Russian experts were provided more detailed information about their placement sites before being deployed. If, for example, I realized that mycology is such a new discipline in Botswana, I would have been better able to coordinate my efforts to prepare for my trip in advance, including knowing what supplies and equipment I should bring."

— *Dr. Olga Shurpitskaya,*
Medical Mycologist, St. Petersburg Medical
Academy for Postgraduate Education, Russia

extremely efficient and productive. For example, Russian experts placed through the SHPI follow-on provided targeted technical assistance and collaborated on the development of national protocols on HIV Diagnostics, treatment, and care (Turkmenistan) and treatment for children who are co-infected with HIV and hepatitis B or C (Kazakhstan).

As we learned during the initial SHPI award, the registration process for Russian experts to provide hands-on clinical and laboratory work in the African countries again proved to be more complex, lengthy, and costly than expected.

In addition to issues of translation, the medical education and related credentialing process for Russian professionals is not well understood in Africa. This resulted in lengthy and burdensome certification processes, which in some instances delayed or even prevented placements from going through. To meet this challenge, AIHA often worked with both the Russian experts and in-country laboratory leadership to change scopes of work to reflect mentoring or teaching functions rather than hands-on activities.

By far, the most difficult country to work with in terms of certifications was Tanzania. AIHA was able to overcome this challenge, however, by redeploying two of the same laboratory experts who worked there in 2009 and therefore did not have to go through this process again.

Identifying appropriate assignments overseas again consumed more time and resources than was expected, although this was largely mitigated by the thorough needs assessment conducted by AIHA and USAID staff in early 2011.

Developing sufficiently detailed and realistic scopes of work also remained a challenge in some instances, but past experience enabled us to streamline the process overall. Past experience also demonstrated that more resources and time were needed to manage logistics and administrative arrangements for the experts, so AIHA provided a higher resource commitment from our offices in Ethiopia, South Africa (which also handled assignments in Botswana and Namibia), and Tanzania.

Past difficulties with lodging and other logistical arrangements, particularly in Africa, were by and large dealt with during deployments under the initial SHPI award and this was not an issue for placements in 2011 and 2012. In addition, thanks to AIHA's enhanced orientation procedures and the fact that many of the mentors placed in Africa had previously worked there, no Russian experts became ill as a result of their assignments.

"Health is the most important thing for every person. The exchange of knowledge and information, as well as new approaches to treatment, is important for Russia, the United States, and every other country in the world. Particularly in the field of infectious disease, this collaboration is beneficial to everyone."

— *Dr. Eugeniy I. Slastnykh, Head of International Cooperation in Healthcare, Department of International Cooperation, Russian Ministry of Health and Social Development*

III. Strengthening Medical Education & Training

The goal of this component of the SHPI follow-on program was to continue strengthening Russian medical educational institutions to help ensure that they can better fulfill their responsibilities to effectively train healthcare providers from Russia, as well as from many third countries that rely heavily on Russia for medical education.

Activities carried out under this component built on an ongoing postgraduate HIV/AIDS training initiative for Russian specialists and health professionals from Russia and other countries in Central and Eastern Europe and Eurasia that began in 2005 and was continued in 2008 through 2010 with USAID support of the initial SHPI award. HIV/AIDS-related topics continued to be a focus of AIHA's efforts in this arena and more work on developing capacity related to tuberculosis was also stressed during the SHPI follow-on activities carried out in 2011 and 2012.

These activities have resulted in many marked improvements in medical education and, consequently, the quality of healthcare services provided in the region. This is especially true in the field of HIV medicine and the treatment of TB in Russia thanks to the development of new evidence-based courses, the updating of existing curricula and resources, and the introduction of many innovative approaches to prevention, treatment, care, and social support for people living with HIV or tuberculosis.

The fact that many of these courses and materials have been adapted for use in other countries, particularly in Central Asia, is a testament to the success of the SHPI program and the capacity of Russian healthcare professionals to contribute to global technical assistance efforts in the field of public health. A significant amount of time was dedicated to curricula adaptation and training efforts targeting other countries in the region. Course developers and AIHA staff traveled throughout the CIS to work in close collaboration with national stakeholders to tailor existing courses to the local context and develop new programs targeting their unique needs. As a result, 28 new or adapted curricula were introduced.

These adapted courses were put through a rigorous cross-checking process, reviewed first by AIHA technical experts, then the Russian authors, before submission to the Ministry of Health in the recipient country. In Central Asia, in particular, AIHA's strategy was to work with the most preeminent medical universities to ensure the adapted curricula could readily be integrated at other institutions.

During 2011 and 2012, AIHA also strengthened and expanded its 20-year-long collaboration with the Ministry of Health and Social Development and leading Russian medical universities and academies for postgraduate education, and other strategic partners to better facilitate improved medical training and education.

A. *Curricula Development*

Working closely with Russia's Ministry of Health and Social Development, the Ministry of Foreign Affairs, the Central Research Institute of Epidemiology, the I.M. Sechenov First Moscow State Medical University, Moscow State University of Medicine and Dentistry, the Central Tuberculosis Research Institute, the St. Petersburg Medical Academy for Postgraduate

Studies (now known as I.I. Mechnikov North Western Medical University), Pavlov State Medical Academy, USAID, and other strategic partners, AIHA expanded its efforts to strengthen medical education through the development of new curricula and training materials.

The process commenced with high-level discussions among all key stakeholders on the prioritization of curricula topics, training approach, course outlines, and the development of resources and materials. From the very beginning, much attention was focused on the process and requirements to ensure each new course would be duly certified for national implementation. As mentioned above, HIV/AIDS and TB were confirmed as priority areas for this aspect of the SHPI follow-on program.

Based on the strategy approved by the Ministry of Health during the two operational project years, AIHA developed seven new postgraduate and undergraduate courses as detailed in the table below.

New Courses Developed through SHPI in 2011-2012

Course Title	Year Developed	Target Audience	Lead Developer
Issues of Specialized Medical Care for HIV and TB Co-infection	2011	Postgraduate (distance course)	I.I. Mechnikov North Western Medical University
Issues of Specialized Medical Care for Patients with HIV and Sexually Transmitted Diseases	2011	Postgraduate	Moscow University of Medicine and Dentistry; Bashkir State Medical University
TB Epidemiology and Prevention	2011	Undergraduate (elective course)	I.M. Sechenov First Moscow State Medical University
Current Issues of TB Diagnostics and Treatment	2012	Postgraduate	Northern State Medical University (Arkhangelsk)
Laboratory Diagnostics of Tuberculosis	2012	Postgraduate	Central TB Research Institute
MDR-TB Treatment and Diagnostics	2012	Postgraduate	Central TB Research Institute
Epidemiology, Prevention, and Clinical Overview of HIV and Sexually Transmitted Diseases	2012	Undergraduate (elective course)	I.M. Sechenov First Moscow State Medical University

Each new course was first presented for faculty comments and suggestions. After finalization and approval of the revised course content, the course curricula and related materials were disseminated to the appropriate postgraduate, graduate, and/or undergraduate schools of the health professions at working meetings or national level training of trainer workshops.

A particular focus of the SHPI follow-on activities in medical education involved the introduction of innovative approaches to TB and HIV care in Russia, hence the development of a distance education course on HIV and TB co-infection in 2011.

Working with the I.I. Mechnikov North Western Medical University (formerly known as the St. Petersburg Medical Academy of Postgraduate Studies), AIHA developed the first HIV/AIDS distance learning course for postgraduate medical education in Russia: “Issues of Specialized Medical Care for HIV and TB Co-infection.”

Widely recognized as one of the leading institutions providing postgraduate medical education in Russia and a pioneer of HIV and TB care, I.I. Mechnikov Northwestern Medical University was a natural choice for this task, particularly given AIHA’s longstanding collaboration with the school.

The course materials were then reviewed by two leading Russian experts in tuberculosis and HIV/AIDS, Professor Andrei Mariandyshev from Northern State Medical University and Professor Alexei Kravchenko from the Federal AIDS Center. Faculty from I.I. Mechnikov North Western Medical University then piloted the course in St. Petersburg in February and March 2012. A total of 27 infectious disease and TB specialists completed the course and provided feedback, which faculty used to make final modifications to the materials.

The course curricula was approved by the Educational and Methodological Commission of the Academy in April 2012 and by the Educational and Methodological Board of the Russian Federation in June 2012.

As with the courses developed under the initial SHPI award, AIHA spent a great deal of time and effort broadly disseminating both the new and existing curricula. AIHA published the course materials for all seven curricula developed through SHPI in 2011 and 2012 and distributed these to most of the medical schools in Russia and CIS countries at various national and international conferences and training events.

In addition to the courses implemented in 2009 and 2010, two courses developed in 2011 — Issues of Specialized Medical Care for Patients with HIV and Sexually Transmitted Diseases

AIHA and its SHPI partners developed five new courses during the award period covered in this report; three of these are shown below.



and TB Epidemiology and Prevention — were presented to infectious disease and tuberculosis specialists from Russia and other countries in the region at Suzdal in October 2011. These courses were soon adopted by three Russian medical universities and six universities in other Eurasian countries.

AIHA developed and/or finalized five other courses in 2012, which were presented at a Meeting of the Regional Expert Board on TB and Infectious Diseases conducted by AIHA with USAID support in September of that year. Titled, “New Training Courses and Innovative Teaching Methods for Undergraduate and Postgraduate Education in TB and Infectious Diseases in the CIS Region,” this high-level meeting took place in Yalta, Ukraine, and resulted in a total of 28 courses requested by 11 medical education institutions from Russia and CIS countries.

The two postgraduate TB courses developed in collaboration with the Central TB Research Institute were presented at a national dissemination conference conducted November 26-29, 2012, in Moscow, which was attended by faculty from some 35 medical universities, tuberculosis research institutions, and WHO TB Collaborating Centers from all over Russia. These were also showcased at the 23rd Meeting of the TB Training and Education Collaborative for the WHO European Region, which took place from December 5-6, 2012, in Copenhagen.

These were presented to faculty of leading medical schools in Russia and the CIS through two training of trainers workshops conducted by AIHA and its expert partners at Suzdal in 2011 and in Yalta in 2012. A total of 64 faculty from the phthisiopulmonology and infectious diseases departments at these schools, along with representatives from the TB Research Institutes and all WHO TB Collaborating Centers in Russia, were trained at these workshops.

Well received by those who attended the above-described events, the courses are being adapted for integration into the medical education programs at I.I. Mechnikov North Western Medical University and Novosibirsk State Medical University in Russia and the Almaty Medical Institute of Postgraduate Studies in Kazakhstan. AIHA has also received requests for course

“The AIHA course on TB epidemiology and prevention is extremely relevant for our institution because, prior to adopting it, we had no up-to-date courses on the subject.

The University arranged for the printing of the course materials in September 2012 and these have already been delivered to our library and disseminated to medical schools in Ferghana and Nukus. We conducted a training of trainers course for 30 faculty and other personnel from our epidemiology and pulmonology departments in November and began teaching the course to grade 6 students in January 2013.

Integration of this course into our educational programs is assuring that our students have access to the most recent data and guidelines on TB epidemiology and prevention issues.”

— *Professor Mirtazaev Amanturdi, Head of Epidemiology,
Tashkent Medical Academy, Tashkent, Uzbekistan*

adaptation from Azerbaijan, Moldova, and Uzbekistan.

In early 2012, AIHA secured contracts with medical schools in five countries in the region for the adaptation of selected undergraduate and postgraduate courses previously developed by AIHA in collaboration with leading Russian schools of medicine. A total of eight courses were adapted, translated, and officially approved and certified by May 2012, as detailed in the table below.

SHPI Courses Adapted for Use in Other CIS Countries in 2012	
Country	Selected Courses
Kazakhstan	<ul style="list-style-type: none"> • TB Epidemiology and Prevention (undergraduate)
Kyrgyzstan	<ul style="list-style-type: none"> • Issues of Specialized Medical Care for Patients with HIV and Sexually Transmitted Diseases (postgraduate)
Moldova	<ul style="list-style-type: none"> • TB Epidemiology and Prevention (undergraduate)
Tajikistan	<ul style="list-style-type: none"> • Palliative Care for PLWHIV (postgraduate) • HIV Prevention in Dentistry (postgraduate) • Issues of Specialized Medical Care for Patients with HIV and Sexually Transmitted Diseases (postgraduate) • TB Epidemiology and Prevention (undergraduate)
Uzbekistan	<ul style="list-style-type: none"> • TB Epidemiology and Prevention (undergraduate)

In support of the course roll-outs to other countries in the region, AIHA facilitated all associated sensitization, initial faculty development, and training activities and can report that a total of 104 medical professionals were trained on the three postgraduate courses adopted in Tajikistan, while five faculty members and 21 students were taught the undergraduate course on tuberculosis. In Kyrgyzstan, 15 faculty members were trained to deliver the postgraduate course on HIV and STIs. And, in Uzbekistan, 30 faculty members were trained to deliver the undergraduate TB course.

As of November 2012, only the Kyrgyz State Medical Academy and the Tashkent Medical University were able to fund the printing of the course materials. Nevertheless, all the courses were introduced to students in September 2012 and integrated into the educational plans for each school.

B. AIDS Training and Education Centers

The ongoing development of AIDS Training and Education Centers (ATECs) has proven to be a highly successful vehicle for promoting new evidence-based healthcare methods in Russia and the CIS. As such, the ATECs and their affiliated clinical sites improve Russia’s institutional

Locations of AIDS Training and Education Centers in Russia



and human resource capacity to provide care and treatment in accordance with evidence-based international and national standards and have been a cornerstone of the SHPI.

Tasked with developing a cadre of well-trained, knowledgeable, and skilled professionals who work in close collaboration with community-based organizations dedicated to providing care and social support to PLWHIV and TB patients, ATECs are designed to also support Russian technical assistance to countries throughout the CIS, as well as to effectively access and utilize grants available through other donor organizations.

ATECs provide certified training courses for physicians, nurses, and other professionals involved in the provision of care and treatment for PLWHIV, as well as TB patients. In addition, the ATECs evidence-based courses serve as a key element of ongoing efforts to integrate HIV/AIDS and TB care and treatment into Russia's continuing education system for medical professionals.

The ATECs currently offer more than 40 courses and other educational resources that were developed by AIHA in conjunction with technical experts from the WHO Regional Knowledge Hub for the Care and Treatment of HIV/AIDS in Eurasia. These courses utilize highly effective adult learning methodology, with a heavy focus on the acquisition of the hands-on clinical skills and multidisciplinary team approach required to provide high quality and comprehensive care to people living with HIV or AIDS.

ATECs have access to Knowledge Hub courses on the following key topical areas:

- HIV Medicine
- Adult Care and Treatment
- Pediatric Care and Treatment
- HIV/AIDS Nursing

- HIV/AIDS Palliative Care
- Treatment of Patients Co-infected with HIV, TB, and Hepatitis B and/or C
- ART for Injecting Drug Users
- Prevention of Mother-to-Child Transmission (PMTCT)
- Case Management
- Organization of Care
- HIV/AIDS Laboratory Services
- Faculty Development & Training-of-Trainers

Some highlights of ATEC activities in Russia that were implemented by AIHA with PEPFAR support during this reporting period include:

- The Moscow ATEC began offering the elective course on HIV for international and Russian students in 2011. It also developed an elective course on HIV and STIs that is now included in I.M. Sechenov First Moscow State Medical University's educational program;
- The Orenburg ATEC trained a total of 61 specialists through two 3-day postgraduate courses on HIV and Hepatitis B and C Co-infection and Diagnostics, Treatment, and Care for PLWHIV. In addition, 81 students completed the elective course on HIV during the 2010-2011 and 2011-2012 academic years;
- The Baltic ATEC trained 306 specialists through its HIV Medicine Continuing Education Program in 2011;
- The St. Petersburg ATEC developed and piloted the distance learning course on HIV and TB co-infection, which has been approved and included in the training program at I.I. Mechnikov North Western State Medical University.

Additionally, AIHA provided technical assistance to the Baltic ATEC for trainings that targeted HIV specialists and faculty from Central Asia — a 5-day training on Advanced ART and Management of Opportunistic Infections for a group of 20 infectious disease physicians and pediatricians from Uzbekistan that was requested in support of the UNDP/GF Project "Continuing Scale Up of the Response to HIV in Uzbekistan, with Particular Focus on Most at Risk Populations" and a study tour for 17 faculty from leading state medical institutions in Kyrgyzstan and Tajikistan, which was requested by the WHO offices in these countries to provide a comprehensive introduction to the integration of HIV/AIDS into existing medical education programs. Both activities were conducted by Russian experts at key St. Petersburg partner institutions, including the City AIDS Center, and facilitated by AIHA staff.

"About 170 of Tajikistan's 1,853 reported HIV patients are co-infected with tuberculosis. These individuals live in almost all regions of the country, yet undergraduate and postgraduate medical education about both these infectious diseases remains very poor.

AIHA's undergraduate course on the Epidemiology and Prevention of TB is therefore unique in the country and it's become quite popular since its adaptation in the summer of 2012. Five faculty attended the training of trainers course and the University began offering the program to the first cohort of 21 students that September"

— Professor Khamid Rafiev, Head of Epidemiology,
Tajik State Medical University, Dushanbe, Tajikistan

C. *School for Scientists*

Under the SHPI follow-on award, AIHA launched in October 2011 an exciting new project designed to support professional development opportunities for promising scientists working at Russian research institutes, faculty teaching at medical universities and academies for postgraduate education, and the most prominent clinicians working in the field of infectious diseases.

The School for Scientists promoted modern methods and approaches to clinical trials and operations research and supported analytical reviews of scientific publications with a strong focus on creating a model of continuous education in TB and HIV medicine through ongoing collaboration with leading Russian and international experts. AIHA worked closely with the Ministry of Health and Social Development to identify sites for inclusion in the first year implementation of the project, which are listed below.

School for Scientists 2011 Implementation Sites

- Central Scientific Research Institute of Tuberculosis
- I. M. Sechenov First Moscow State Medical University
- Moscow State University of Medicine and Dentistry
- Ministry of Health and Social Development National Scientific Center for Addiction
- I. I. Mechnikov North Western Medical University
- St. Petersburg City AIDS Center

In consultation with key partner institutions, AIHA developed a 144-hour curriculum for participants from St. Petersburg and a 72-hour curriculum for the group from Moscow. Each curriculum included in-person training activities and distance learning modules that effectively combined theory and hands-on clinical practice. They also provided opportunities for additional independent study and further professional development upon completion of the course.

During the 2011-2012 launch year, the cohort included a combined total of 52 individuals from Moscow and St. Petersburg. The overarching goal of the initial course of study was to develop in these professionals a strong foundation in the organization and implementation of sound operational research in medicine. Out of the original 52 participants, 42 completed the course.

The first component of the educational program was an 8-week distance course that provided strategies and guidance for finding and effectively utilizing the latest web-based medical research and information resources. It consisted of the following modules:

1. Online Information Facilitating Research: Quality of Medical Information on the Internet
2. Web-based Services Supporting Research: The Latest Professional Information Resources
3. Searching the Internet for Medical Information: Tools and Strategies
4. PubMed Medline Searches

All 52 participants subscribed to the course and — for the majority — all or most of the material was new. Results of a post-test administered at the conclusion of the course, all participants

indicated that the material presented was interesting and useful. Most said they believed that they received more or the same amount of information they would through a full-time course, but in a much more convenient format. Most indicated that they would recommend the course to their colleagues. Of the 52 people enrolled, 30 were highly active in their participation.

The second component of the program was also distance-based and consisted of sets of webinars on topics including:

- Introduction to Evidence-based Medicine (three webinars conducted in February 2012)
- Introduction to Scientific Research Methods (five webinars in March-April 2012)
- Introduction to Organization of Operational Research (three webinars in May-June 2012)

Webinars for the first two topics mentioned above were conducted in Russian; for the third topic, these were given in English but included presentations in Russian and an interpreter assisted with translation of a Question and Answer session. The webinars were all available for each person who registered for the event and session files are currently available online through VKontakte, Facebook, YouTube, and the EurasiaHealth Knowledge Network web site.

Practical operational research training based on the distance learning activities described above comprised the third component of the program. In June 2012, AIHA conducted two workshops, one in St. Petersburg (June 25-26) and one in Moscow (June 28-29).

Russian and American faculty presented several detailed descriptions of effective operational research studies, focusing on MDR-TB, addiction in HIV patients, and HIV incidence among PWID and honing in on key strategies such as how to identify research topic; research strategies, including setting goals and objectives and finding funding to support the study; and concept development for research. They also stressed the basic steps of scientific research, namely problem identification; formulation; definition of optimal solutions; model validation; and implementation.



The School for Scientists implemented by AIHA through the SHPI follow-on award provided practical training in sound, evidence-based clinical research. The course was taught through distance learning and interactive workshops.

Under the guidance of the expert faculty, participants then took part in dynamic discussions on appropriate design of operational research projects and collaborated on small group assignments. The atmosphere during these sessions was charged with creativity as participants actively brainstormed possible topics and the corresponding design of the study, listened to the opinions of faculty, and finally agreed on their projects. At the conclusion of the workshop, the groups presented their operational studies and received recommendations from both faculty and their peers.

These two workshops were the first trainings on operational research methodology in the fields of HIV and TB to be conducted in Russia and — as such — attracted a significant amount of attention from other international organizations working in the country. AIHA received several requests for invitations to attend the trainings, which were conducted three leading international experts in evidence-based practice and medical research.

Based on surveys completed by the participants surveys at the end of the seminar, most found it interesting, unusual and, very useful for their research activities. Much appreciation was given to the systematic and structured approach to scientific research that was taught during the training. The practical applications and approaches were cited as being greatly beneficial lessons and the interactive teaching methodology used by the faculty was also given high marks.

In June 2012, at the conclusion of the first year of the School for Scientists, AIHA issued a request for proposals for operational research projects related to TB, HIV, infectious diseases, or epidemiology to participants who completed the course of study during the pilot year.

A team of five experts recommended by key SHPI partners was engaged to serve as the review panel for the competition. Successful proposals were determined through blind reviews of the submissions conducted by three independent experts from the panel: one who was an expert in research topic; one who was an expert on evidence-based medicine; and one who was a technical expert. A total of 12 proposals were submitted and three were selected for funding and were presented during an awards ceremony conducted at the Central Scientific Research Institute of Tuberculosis in Moscow on October 2.

The three successful authors presented their projects again on October 9 in St. Petersburg during the 2012 International Congress on Women, Children, and HIV, which was supported by AIHA's Baltic ATEC and other strategic partners. A School for Scientists session focusing on planning and executing medical research using evidence-based approaches and the latest information and communications resources was conducted for the first time at this event.

From the onset of this unique professional development project, AIHA made every effort to share information about the pilot activities with interested parties throughout the region.

In June 2012, two Russian experts, Dr. Vasilii Vlasov and Dr. Svyatoslav Plavinskiy, along with the AIHA Program Coordinator conducted a series of trainings requested by medical universities in Kazakhstan. These included a workshop on distance learning via webinars for faculty at the Almaty State Institute of Advanced Medical Education, which was attended by 37 participants, and a similar training conducted for 35 faculty at the Shymkent International Hoca Ahmet Yesevi Turkish-Kazakh University. Shymkent was also the recipient of a second workshop on practical methods of evidence-based medicine that was attended by 35 participants. Each of these trainings were well-received and the Rector and Vice Rector of the Almaty State

Institute of Advanced Medical Education requested that AIHA develop a training of trainers course on distance learning methodology for faculty there.

Russian institutions also expressed interest in the School for Scientists. One example is the St. Petersburg Research Institute of Phtisiopulmonology where, in the autumn of 2012, AIHA developed a curriculum at the faculty's request and conducted a 2-hour session at the First Congress of Russian TB Specialists held at the Institute. Dr. Plavinskiy delivered the session to a room filled with young TB doctors and other clinicians interested in learning more about this innovative professional development opportunity.

As with other components of the SHPI follow-on, AIHA actively disseminated information about the School for Scientists — including course descriptions, best practices, and lessons learned — as a way of engaging more professionals in opportunities for expanding their knowledge of evidence-based medicine and effective research and reporting strategies. Staff distributed more than 500 DVDs loaded with project materials at conferences and congresses in Russia, Ukraine, and the United States.

In addition to what has been reported above, AIHA has received inquiries regarding the School for Scientists project from some 50 medical universities and research institutes in Russia and other countries in the region; staff

AIHA's School for Scientists project materials are all available online free of charge at the following AIHA sites and social media networks:

- <http://www.aiha.ru/node/13>
- <http://www.eurasiahealth.org/health/>
- <http://vkontakte.ru/medinary> (VKontakte)
- <http://www.facebook.com/medinars> (Facebook)
- <http://www.youtube.com/user/AIHAMedinary> (YouTube)

have provided these institutions with the complete set of project materials. Two universities have already created new professional development courses based on these materials.

D. Association of Educators in the Field of Socially Significant Diseases

Continuing education and training is a crucial element of lifelong professional development that is complemented by the availability to routinely network, share information with peers, and engage in active, dynamic discourse in one's chosen discipline. In the rapidly evolving field of infectious diseases — particularly HIV/AIDS and tuberculosis — the ability to learn from other professionals on both a national and international level is critical.

In recognition of the important role professional associations play in ensuring the quality of medical education at the pre-service and in-service levels, AIHA supported the creation and official registration of the Association of Educators in Infectious Diseases, TB, and Antimicrobial Therapy in 2012. The principle mission of this organization is to support professional development activities for faculty in these disciplines who work in schools of health professions education in Russia and elsewhere in Eastern Europe and Central Asia. It is the first — and currently the only — Russian union of faculty and its Board of Directors is drawn from leading medical schools throughout the Russian Federation.

“The current situation in healthcare in Russia implies significant change in the field of human capacity development. The introduction of new state education standards and national accreditation of experts determines not only the common educational ‘space’ but also a unique level of requirements for undergraduate and postgraduate education.

As a professional association, our main objective is to promote cooperation among schools, faculty, and practicing professionals in Russia and the CIS. Our focus is also on assuring the quality of the educational process, including harmonization of training programs and accreditation and certification of faculty.”

— *Professor Vladimir Shoukhov, Director of the Russian Association of Educators in Infectious Diseases, TB, and Antimicrobial Therapy*

The Russian Government has repeatedly stressed the importance of strengthening continuing medical education and the application of innovative technologies to help ensure a strong public health system. In fact, a Presidential Decree (No. 598) was issued on May 7, 2012, calling for the prompt development of a program of continuing medical education. Because of this, AIHA and its strategic partners recognized the leading role such an association could play in moving toward this and other related goals.

E. Best Practices and Lessons Learned

AIHA cooperated closely with the Russian Ministry of Health and Social Development, USAID, and strategic partner institutions throughout the Russian Federation and CIS to achieve this objective, largely through ongoing curricula development and adaptation in selected fundamental topics related to HIV/AIDS and tuberculosis treatment and care. A significant amount of effort was also devoted to the dissemination of these resources to medical schools throughout the region.

AIHA’s long history of successful partnerships and initiatives in the Russian Federation, as well as its strong working relationships with the Ministry of Health and Social Development and USAID/Russia, were invaluable to the continued success of SHPI during the follow-on award. This went a long way toward strengthening existing working alliances — and forging new ones — needed to make the complex medical education and curriculum development process work. Indeed, the Ministry’s collaboration ensured the best possible selections of collaborating medical institutions were made thus facilitating the process.

As with any effective partnership, it takes quite some time to build a solid foundation for collaborative endeavors, particularly when working to establish relationships with new partner institutions. Because of our long and successful history of working in Eurasia (and particularly the experience gleaned from 2007 to 2010 under the previous SHPI award), AIHA continued to expand and build on our solid foundation of professional relations with well-established institutions, including leading medical universities in Russia and the CIS.

Developing courses in accordance with the recommendations provided in Russia’s standard

program of complementary professional education in HIV/AIDS was critical to these efforts. Additionally, AIHA's previous experience developing curricula under the first SHPI award, and through the Regional Knowledge Hub and ATEC St. Petersburg, continued to demonstrate that concurrent development of related slides, presentations, tests, case studies, and other materials is a crucial element of success.

We are extremely proud of the contributions SHPI has made to efforts to strengthen medical education at both the pre-service and in-service levels in Russia and elsewhere in the region. We are also happy to report that despite the premature closure of this 5-year initiative, we have clear indications that many of the projects AIHA has implemented with USAID support will now be sustained by our strategic partners in country.

For example, the First Moscow State Medical University has already developed the outline for a clinical epidemiology course based on the curriculum used for our School for Scientists project. In support of this effort, AIHA provided the University with 500 CDs loaded with School for Scientists course materials.

Thanks to discussions we facilitated with our long-time partners at ViiV Healthcare, they have expressed willingness to continue the work we initiated with the fledgling Association of Educators in Infectious Diseases, TB, and Antimicrobial Therapy and have agreed to support many of the training projects we had planned to execute in the future through SHPI.

Perhaps one of the most far-reaching accomplishments — and the one that has had the most significant impact on overall health systems strengthening — is the institutional and human resource capacity gained by our partners through process of developing medical curricula over the past six years. During this time, AIHA has worked closely with at least eight leading medical schools and postgraduate academies, and the Central TB Research Institute in Russia, engaging them in the development of evidence-based curricula and resources from conception through official approval, print production, and dissemination. As a result, they now possess the necessary knowledge and practical skills to manage this complex process on their own.

"The epidemiological situation in Turkmenistan requires more detailed investigation to determine, among other things, the key HIV transmission routes, risk groups, and age structure of the population of people living with HIV. There is an urgent need for a patient database that with track information on the total number of registered patients, patients receiving follow-up care, and data on CD4 counts and viral load — all of which would support an accurate determination of people in need of ART.

In my opinion, the national HIV guidelines and protocols for clinical care developed with support from AIHA are of the utmost importance for this country. The protocols, which are based on Russian and international guidelines, will provide a framework for shaping the national HIV strategy in the future."

— *Dr. Vasilii Shakgildyan, Senior Medical Advisor, Russian Federal AIDS Center, who helped adapt protocols on the management of HIV co-infection with hepatitis B and palliative care for people living with HIV for use in Turkmenistan*

IV. Web-based Professional Medical Education Resources

AIHA's programs in distance education have evolved through the years, keeping pace with modern trends in information and communications technology, as well as best practices in interactive adult learning methodologies.

For the past several years, distance education courses shifted toward a higher level of student involvement, namely real-time interaction through webinars. Another important change has been noted in the higher degree of difficulty of our distance learning courses. While longer term e-mail based courses remained effective and were sporadically used by AIHA staff, clinical case discussion forums became obsolete due to the widespread use of webinar technology.

We have noted a growing and near constant demand for Russian-language medical information related to our educational activities. Translated books; reviews; guidelines; new courses on HIV, along with co-infections with TB and hepatitis; and information about the School for Scientists and AIHA's other projects have all been posted online, printed in hard copies, and distributed on CDs at workshops, trainings, and conferences. In fact, we've distributed more than 10,000 hard-copy materials and over 5,000 electronic versions to end users in Russia and elsewhere in the region.

To better promote our Russian-language materials and to strengthen our outreach to the Russian-speaking audience, AIHA developed a web site customized to the needs of our office in Moscow. Local information, news, and new materials that would not be immediately visible on AIHA's main web site was highlighted and readily accessible on the Russian version. This greatly improved the visibility profile of the SHPI projects for partners and perspective donors. It also increased user access to the most up-to-date information available.

A. *Medinars and Other Web-based Lectures and Learning Opportunities*

AIHA's distance education program is rooted in our Learning Resources Project previously funded under a series of cooperative agreements with USAID during the 1990s through the mid-2000s. Building on this experience, AIHA further developed this methodology as a support tool for our programs, in particular the Public-Private Partnerships with ViiV Healthcare and the School for Scientists. More recently, AIHA has utilized these ever-changing technologies to offer continuing medical education opportunities through medical webinars (medinars) and distance education courses on topics such as HIV and TB co-infection.

AIHA's medinars took the form of online lectures on a broad range of clinical topics. They were led by Russian and international faculty and developed for wide range of healthcare professionals. AIHA promoted our medinars through our mailing lists, company and partner web sites, and at various trainings and conferences. Medinars were available to all users in real time online, via social networks VKontakte and Facebook, and through YouTube.

The project was launched in March 2011 and yielded a total of 37 medinars conducted in Russian and English. Our dedicated YouTube channel collected 18 subscribers and more than 4,300 original viewers. Medinar topics ranged from effective online searching strategies for

In an effort to expand distance learning opportunities in continuing medical education, AIHA conducted 35 webinars on a variety of topics in HIV and TB treatment. Participants hailed from Russia and 10 other countries in the region.

The screenshot shows a web browser window displaying a COMDI webinar. The main content is a presentation slide titled "Синдром восстановления иммунитета при туберкулезе (TB-IRIS)" with the subtitle "Определение случая TB-IRIS". The slide lists clinical criteria (Б. Клинические критерии) and states that the start of TB-IRIS should be within the first 3 months of starting or changing the HAART regimen. A video feed in the top right shows the presenter, Alexander Panteliev. A chat window in the bottom right contains several messages from participants, including questions about prophylaxis and treatment. The interface includes a navigation bar at the top, a search bar, and a progress bar at the bottom.

finding medical information to clinical treatment of HIV and other infections. Other sessions covered subjects such as evidence-based medicine and how to design clinical research studies. Because AIHA has paid for the webinar platform needed to conduct these medinars through the end of September 2013, we have provided selected Russian partner institutions with access so they may continue to deliver these informative web-based sessions.

Another key example of web-based continuing education opportunities developed through SHPI is the postgraduate distance learning course Issues in Specialized Medical Care for HIV and TB Co-infection developed by the faculty from I.I. Mechnikov North Western Medical University, which was piloted in 2012 and further modified based on student feedback.

Currently, five medical institutions from four countries — including the Novosibirsk TB Research Institute, the Belarus State Medical University, the Almaty State Institute of Advanced Medical Education, Moldova State Medical University, and I.I. Mechnikov North

Western Medical University — were given access and tools to modify and deliver this course to cohorts of 75 students per institution during the 2012-2013 academic year. The plan is to have these universities continue using the course in the future.

B. EurasiaHealth Knowledge Network

AIHA's EurasiaHealth family of web sites remains a preeminent clearinghouse for regionally-applicable medical information. Due to funding constraints, however, only selected sections focusing on priority topics such as HIV/AIDS, TB, grants and opportunities, and distance education were actively updated. During this time, more than 60 documents, including articles and article reviews, newly translated textbooks, and clinical guidelines were added to the online library.

Despite the closure of our programs in Russia, AIHA has committed to ensuring the EurasiaHealth sites remain online for several years to come, so they may continue to serve as an electronic library and information source for Russian-language medical resources.

Under the SHPI awards, AIHA has placed great emphasis on creating and disseminating information on CDs. Every project yielded a number of electronic resources, including disks with course data, EurasiaHealth website materials, webinars, Knowledge Hub courses, and other resources. Interactive disks were also a useful tool for promoting AIHA activities at the local, national, and international levels. These informational materials were provided free of charge to healthcare professionals and were among the most sought after items at events.

Other materials, including posters, booklets, tri-folds, and one-page overviews served to showcase AIHA programs, activities, and accomplishments. Developed and published in both English and Russian, these promotional materials were also distributed at conferences, official meetings, and other events.

C. aiha.ru Web Site

Launched in September 2012, the aiha.ru web site was created to be a guide to AIHA activities in the Russian Federation and elsewhere in the region. The site was tailored toward Russian-speaking users, with an English mirror site that utilized Google Translate to provide an reasonable approximation of the information contained on the Russian version.

Meant to be more informative than interactive, aiha.ru did not feature learning tools, such as forums or chat capabilities. It did, however, provide plenty of information on the wide array of resources and tools available on other AIHA web sites. The Russian site featured a modern design and advanced content management system. It will remain functional for several years, even though our activities in Russia have concluded.

It is important to point out that many of the distance learning activities described in this section enjoy significant overlap with similar activities conducted through AIHA's USAID-supported public-private partnerships with ViiV Healthcare and MSD Pharmaceuticals, which are detailed in the following section.

V. Public-Private Partnerships

AIHA launched its first public-private partnership with GlaxoSmithKline (now ViiV Healthcare) in 2007 and began collaborating with MSD Pharmaceuticals in 2010. The main objective of these alliances was to more effectively leverage US Government funding by tapping into the wealth of resources and tools of the private sector. The combination afforded opportunities to maximize our human resource capacity building efforts in a manner that benefits all parties involved.

Through the public-private partnership mechanism, AIHA and these two private companies worked together to strengthen the provision of HIV-related treatment, care, and support by improving access to continuing and specialized medical education and to the latest evidence-based research and resources.

A. *The Professional Development in HIV Medicine Program with ViiV Healthcare*

This public-private partnership was designed to be an education project for a select group of Russian HIV specialists, but gradually was modified to encompass a more robust distance education component that would allow healthcare providers and other interested parties to join lectures given by leading Russian and international experts.

For the program participants, professional development opportunities also included serving as junior faculty and regional HIV/AIDS experts at meetings organized in various Russian oblasts. In fact, 12 of these thought leaders served as junior faculty at 10 workshops conducted for HIV and TB specialists in eight cities across the country. Each participant lectured at least twice during these sessions, which trained more than 300 healthcare professionals using an interactive format that included lectures and clinical case discussions. Attendees were provided with print and electronic versions of supporting materials and were instructed to disseminate these to peers at their workplaces.

From 2009 to date, program participants attended five workshops conducted by leading Russian and international experts. Twelve participants Program materials were developed by key experts in HIV medicine and were freely distributed to Russian AIDS centers. They were also made available online to the broader community of health and allied professionals. With the medinars within the project, at least one of the faculty plans to continue lecturing to the audience, thus ensuring sustainability of the project.

B. *Resource Translation, Printing, and Dissemination Project with MSD Pharmaceuticals*

Beginning in March 2010, AIHA worked with MSD Pharmaceuticals on the translation, printing, and distribution of seminal guidelines, textbooks, and manuals from leading international HIV/AIDS experts as a way to improve access to the latest evidence-based clinical resources for the Russian-speaking audience.

Through this public-private partnership, two editions of *HIV Medicine* by Jürgen Rockstroch, two editions of *Medical Management of HIV Infection* and *The Pocket Guide to Adult HIV/AIDS*

Treatment by John Bartlett, and the US Department of Health and Human Services *Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents* were translated and more than 8,000 copies were printed for distribution to Russian-speaking professionals in the region.

Dr. Rockstroh and Dr. Bartlett joined representatives from ViiV Healthcare and MSD to present the latest editions of their respective texts at AIHA's exhibit at the XIX International AIDS Conference held in July 2012 in Washington, DC. These "meet the author" events were well received, particularly by HIV care providers and educators who traveled to the conference from Russia, Ukraine, and other Russian-speaking countries.

With support from MSD and ViiV Healthcare, AIHA again spearheaded the translation and dissemination of preeminent HIV care and treatment textbooks, as well as other key resources. Noted experts in the field of HIV medicine, Professors Jürgen Rockstroh and John Bartlett, presented Russian versions of their respective texts at AIHA's exhibit during the International AIDS Conference in Washington, DC, in July 2012.



AIDS 2012 Books at the Booth

The American International Health Alliance (AIHA) invites you to join us for the presentation of the Russian editions of two preeminent HIV/AIDS treatment and care textbooks that have been published through a USAID-supported public-private partnership between AIHA and pharmaceutical companies ViiV Healthcare and MSD Pharmaceuticals.

<p>Tuesday, July 24 15:15 - 15:45</p>  <p>Лечение ВИЧ-инфекция 2011 www.vivbook.com</p> <p>Москва, 2012</p> <p>Prof. Jürgen Rockstroh, editor of "HIV Medicine 2011," will speak</p>	<p>Wednesday, July 25 10:30 - 11:00</p>  <p>2012 КЛИНИЧЕСКИЕ АСПЕКТЫ ВИЧ-ИНФЕКЦИИ</p> <p>ДЖОН БАРТЛЕТТ ДЖОРДЖА ГАЛАНТАТ ПРОК-БАНК</p> <p>Медицинский центр Университета Дэлорса Холмвуда Москва, 2012</p> <p>Prof. John Bartlett, editor of "Medical Management of HIV Infection 2012," will speak</p>
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AIDS 2012, Booth 126, Main Exhibition Hall



C. Best Practices and Lessons Learned

The public-private partnerships supported by USAID through SHPI provided AIHA with many unique opportunities to expand educational opportunities, including open access to key national and international information resources, textbooks, articles, and protocols related to

HIV and other infectious diseases. These alliances also afforded us with some flexibility to allow the activities to evolve in an organic manner that was based on country needs, as well as the underlying development goals they were established to address.

AIHA was able to effectively tap into burgeoning social network use to promote activities implemented through the public-private partnerships, as well as other projects carried out through SHPI. In 2011, we launched social network groups on Facebook and VKontakte, which is one of the leading Russian social network sites. We also created a dedicated medinar channel on YouTube. Combined, these networks have more than 150 “friends” who are helping to spread information about AIHA’s activities and resource materials to ever widening audiences. Even more impressive is the fact that we have had more than 4,300 distinct viewers on YouTube, and that number is growing. The Russian doctors who are involved in these social networks are able to communicate with their international counterparts informally, which helps facilitate opportunities for ongoing cooperation.

Another key accomplishment achieved through the public-private partnerships is the personal professional growth of doctors who have been involved, thanks in part to the strong relationships that they have formed with regional and international colleagues and experts. Other professional development opportunities supported through the projects include presentations at conferences, public speaking engagements, and writing and publishing dissertations and articles.

In the years that AIHA has been bringing advanced education and international experience to Russian healthcare specialists, there has been a visible growth in their professional Knowledge and confidence. The public-private partnership with ViiV Healthcare, in particular, nurtured the development of a national network of HIV specialists who have emerged as thought leaders, experienced lecturers, and agents of change at their workplaces.

The inclusion of international experts as faculty promoted the growth of ties that can be significant for future scientific work. One example of this is the common interest in HIV and bone health shared by US HIV specialist Dr. Ben Young and Dr. Elena Romanchenko from the Yekaterinburg AIDS Center. Program participants were able to present their research at international conferences, including the XVIII International AIDS Conference held in July 2010 in Vienna. They were also able to share partnership successes and developments at the International Forum on MDG 6 held in October 2011 in Moscow. In addition, more than half of the program participants attended international conferences thanks to financial and programmatic support from ViiV and AIHA and three participants have earned an advanced degree.

As mentioned in the previous section, the development and implementation of modern methods of continuing medical education was also a priority (and necessity) for AIHA’s public-private partnership with ViiV Healthcare. The project allowed AIHA and its partners to create a dynamic system that can be replicated in other areas of continuous education in Russia.

This system, featuring a full range of face-to-face and online educational components and supported by appropriate translated materials in electronic and printed format yielded significant results in professional advancement for participants. Now that it has been developed and tested, it clearly has the capacity to be sustained indefinitely and with lower costs. At least one faculty member has voiced plans to continue lecturing to the medinar audience, thus further ensuring sustainability of the project.

VI. Special Events and Activities

Throughout the course of the abbreviated SHPI follow-on project, AIHA had several opportunities to showcase its activities and accomplishments at various high-level events in Russia and on an international level. These are briefly described below.

International Forum on MDG 6 (Moscow, October, 10-12, 2011)

AIHA showcased SHPI materials and disseminated materials developed through the project through presentations, as well as at an exhibit. Visitors at AIHA booth were given the opportunity to subscribe to one of AIHA's mailing lists and receive information on newly translated materials and updates on seminars, conferences, grant opportunities, and other activities.

Dr. Eric Goosby, US Ambassador at Large and Global AIDS Coordinator at the Department of State, was among those who visited the booth. As PEPFAR Coordinator, Dr. Goosby praised AIHA's efforts to develop international collaborations in infectious diseases education. Staff shared information about SHPI activities, including our medical education efforts and the deployment of Russian experts to Africa and Central Asia. AIHA's work on the proposed public health evaluation titled, Evaluation of Integration of Medication-assisted Treatment for Injection Drug Users into HIV Medical Care, was also discussed.

On October 11, AIHA hosted an affiliated event to highlight the unique Russian-American collaboration in global public health being carried out through SHPI.

Public Hearing on Issues of Medical Education and Improving Quality and Efficiency of Tuberculosis and HIV Control (Moscow, October 17, 2011)

In collaboration with the Moscow State University of Medicine and Dentistry and the Russian Federation Civic Chamber's Commission for Preservation of Health and Environment and Development of Sports, AIHA conducted this event, which was designed to raise public Awareness about the prevention and treatment of TB and HIV-infection in Russia and in CIS countries. Another goal of the hearing was to facilitate cooperation among universities and spearhead the development of recommendations for improving healthcare capacity through education. Some 100 participants from Russia, the CIS, and the international arena attended.

AIHA organized an exhibition of historic TB posters titled, "Illustrated History of the Disease." The featured materials were kindly provided by Global Business Coalition on HIV/AIDS, Tuberculosis and Malaria. The exhibited prints from around the world tell the story of man's struggle with tuberculosis. Posters for the show were provided for non-commercial use by the Russian State Library, Library of US Congress, National Library of Medicine, and the Wellcome Library (London, UK). The exhibit consisted of about 70 posters and was presented to our partners the Central TB Research Institute the following month.

A key outcome of the event was the push to create an efficient and sustainable mechanism for coordinating regional efforts aimed at controlling socially significant diseases. This and all other recommendations were summarized by the Civic Chamber in final resolutions and sent to the Presidential Administration for further consideration. "Medicinskaya Gazeta" released an article about the hearings and discussed main issues and recommendations.

Training of Trainers Workshop on New Educational courses and Innovative Methods of Education on the Epidemiology and Prevention of HIV and TB (Suzdal, October 18-21, 2011)

AIHA conducted this training for 49 health professionals from 17 Russian cities and nine CIS countries. Participants included the heads of infectious disease and TB and/or pulmonology departments. The workshop was led by a mixed team of faculty from Moscow State Medicine and Dentistry University, Bashkir State Medical University, and .I. Mechnikov North Western Medical University who developed the course. Each participant received a set of materials that included the undergraduate elective course on TB epidemiology and another on HIV (in English and Russian); postgraduate course on specialized medical care for patients with HIV and STDs; HIV Medicine Handbook; Medical Management of HIV Infection (John Bartlett, 2009-2010); a Knowledge Hub CD; and a medinars CD.

Participants also learned about AIHA's new innovations in distance learning and applicable technologies for medical education. Representatives of the NGOs Humanitarian Action and PSI joined faculty members on the final day to conduct a set of skills-building seminars on palliative care for people living with HIV and/or TB, and on specifics of HIV prevention in high risk groups.

The workshop also afforded participants from the CIS countries with the opportunity to make short presentations on local efforts to prevent and treat TB and HIV and some of the innovative methodologies used at their institutions. AIHA then discussed the importance of establishing a Regional Expert Board on TB and HIV Education, which was well received by all those present.

Workshop on New Training Courses and Innovative Teaching Methods for Undergraduate and Postgraduate Education in TB and Infectious Diseases in the CIS Region (Yalta, Ukraine, September 2012)

AIHA gathered the nascent Regional Expert Board in TB and Infectious Diseases at this event to present the newly developed courses to 27 experts from Russian and the CIS, as well as representatives from all WHO Collaborating Centers in Russia and representatives of the TB Research Institutes. Along with the course developers, AIHA presented curricula and overviews of the five courses, including the distance learning course on issues of specialized medical care for HIV infection and tuberculosis, which are described in greater detail in section III of this report.

Participants at this important event emphasized the benefit gained from the open sharing of information and exchange of ideas and experiences with colleagues from other universities and countries. They were also pleased to have learned so much and to be able to share this new knowledge.

Introduction of Innovative Approaches to TB and HIV Care in Russia: Chart Audit, Patient Satisfaction Surveys, and Other Tools to Improve Quality of Care

Over the course of both SHPI awards, and in fact through previous USAID and PEPFAR-supported HIV Treatment, Care, and Support partnership projects in Russia, AIHA has had numerous opportunities to adapt, pilot, and disseminate innovative best practices in quality improvement in HIV treatment and care. More recently, AIHA has shared these strategies and tools with key decision makers in the field of TB. These include the use of medical chart audits

and patient satisfaction surveys, which have been successfully developed and utilized during the implementation of the aforementioned HIV partnerships. Both have been endorsed by our Russian partners and successfully used to help evaluate medical practice, identify problem areas, and determine strategies for improvement. We are pleased to report that these tools are being considered for adaptation for TB providers.

In collaboration with the Russian Red Cross and International Federation of Red Cross and Red Crescent Societies (and with support from USAID) AIHA conducted a pilot TB patient survey in 10 Russian territories to assess their knowledge about tuberculosis, as well as their satisfaction with the TB care and treatment they had received.

Data from three territories were analyzed and the results were distributed at the press conference for the World TB Day 2012. AIHA analyzed the results of these surveys and found they indicated that in most patients tuberculosis was detected by chance. This result, in turn, showed a low coverage of risk groups and a low awareness about TB. The surveys also showed that while patients were motivated to successfully complete their treatment, the majority needed more information about TB and treatment options, as well as what they should do after treatment to ensure they stay healthy. Urban populations and patients co-infected with HIV, in particular, required special attention the surveys revealed, and roughly half of the respondents suggested specific steps to improve the quality of care and quality of life after treatment.

Researchers believe that improving the quality of information for patients and strengthening the patient feedback process will improve adherence to treatment, its successful conclusion, and improved health outcomes for TB patients in general.

Together with our collaborating partners, AIHA submitted an abstract on the surveys to the Congress of TB specialists of Russia. The abstract was selected for poster presentation.

Similar AIHA abstracts on the results of analysis of data of medical chart audits done at the St. Petersburg AIDS Center in 2011 (with funding from PEPFAR through AIHA's HIV/AIDS Twinning Center mechanism) were selected for poster presentations at the XIX International AIDS Conference in Washington, DC, in July 2012.

VII. Conclusions

AIHA is extremely proud of the collective activities and accomplishments of our USAID SHPI cooperative agreements, first between 2007 and 2010, and the follow-on program awarded to us in fall 2010. It goes without saying that we are deeply saddened that the follow on program had to be concluded less than half-way through the funding term. Nevertheless, we have witnessed first-hand the institutional and human resource capacity that has been developed through this innovative bilateral collaboration between Russian and American healthcare professionals and policymakers.

As during the initial SHPI award, the technical assistance provided by Russian experts has been commended by respective ministries of health, CDC, and host institutions in all of the recipient countries. The work done through the project has not only helped to expand Russia's role in the global assistance framework, but helped improve the level of professionalism of Russian experts in TB, HIV, and other infectious diseases, while at the same time modernizing postgraduate and undergraduate medical education in the fields of HIV and TB by developing curricula and training materials based on international standards and innovative methods.

We would like to stress is that as a whole the Strategic Health Partnership Initiative has been at the vanguard of international collaboration to improve public health, particularly the dual epidemics of HIV and TB. The seeds planted through SHPI have found fertile soil in the many healthcare professionals who have been involved in the projects in Russia, as well as those they have shared their expertise with in other CIS and African countries. It was the Russian experts who were the driving force behind all program components, especially in curricula development, which was essential to guarantee local buy-in from the beginning.

Our US partners served as faculty for the School for Scientists and the public-private partnership with ViiV Healthcare, while AIHA's staff in Moscow were actively involved not only in project management, but also in provision of technical assistance for our partners and Russian consultants. Indeed, they were instrumental to the success of all our projects, helping to navigate the many complex processes involved with this dynamic project, as well as providing quality control for all products produced.

The support we received from the Russian Ministry of Health and Social Development and the flexibility of USAID — particularly with agreeing to shift the focus of our third country technical assistance to CIS countries in 2012 and supporting new initiatives — were key to the success of SHPI. We are grateful for the opportunity to work on this unique collaboration.

Many of the successes and possibilities for sustainability of the programs initiated through SHPI have been discussed in great detail in their respective sections throughout this report, so they will not be reiterated here. However, it is important to point out that despite our best efforts to make these projects sustainable, the extremely limited 3-month timeframe for closing out all operations did not allow us to fully realize our plans for this. For example, we had planned to develop a full set of TB courses (diagnostics, treatment and care, non-pulmonary TB, pediatric care, etc.) along with guidelines for TB-related surgical care. Other planned projects included the development of a clinical epidemiology manual based on materials used in the School for Scientists; various operational research projects to determine the impact our new TB courses had on aspects of diagnostics and treatment; and the provision of more support to third countries. These projects would have done much more to ensure sustainability of SHPI programming well beyond the funding cycle.

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