Country Context

The Southern African nation of Zambia is home to nearly 16 million people — 66 percent of whom are under the age of 25. The country’s health system faces many challenges, including a very high risk of infectious diseases. Although Zambia has made some impressive reductions in maternal and child mortality over the past two decades, rates are still high, with 280 women out of 1,000 dying as a result pregnancy complications and 262 out of 1,000 children dying before they reach the age of five.

Zambia has an HIV prevalence rate of 12.5 percent among people between the ages of 15 and 49, making it the seventh most affected country in the world, according to UNAIDS. Prevalence rates vary considerably within the country from a high of 18 percent in Copperbelt Province to a low of 6 percent in Muchinga. Infection rates are highest in cities and towns along major transportation routes, with young women, military personnel, commercial sex workers, truck drivers, and people who work in fisheries among the populations at greatest risk of contracting HIV.

The country’s health system is severely overstretched and has a physician density of just 0.17 per 1,000 people. Consequently, strengthening Zambia’s health system — in part by developing sustainable local capacity to train health workers and finding ways to streamline care and prevention services — are of critical importance.

With support from PEPFAR and the US Government team in country, AIHA currently manages four partnerships to strengthen health system capacity in Zambia through our HRSA-supported HIV/AIDS Twinning Center Program, having successfully graduated two long-standing partnerships — one focused on palliative care and another on HIV prevention through the mass media — from this technical assistance program in late 2014.

In addition, AIHA is part of the USAID-funded Zambia Rising consortium led by Save the Children. Under Zambia Rising, we are spearheading efforts to strengthen the country’s social welfare workforce by implementing a training program for community-based psychosocial caregivers known as Para Social Workers and by strengthening the institutional capacity of the national professional social work association.

Strengthening HIV/AIDS-related Capacity of Military Medical Personnel

AIHA has been collaborating with Zambian Defense Forces (ZDF) military medical personnel since 2005 with support from the US Department of Defense. We’ve been providing direct assistance since 2007 on a broad range of technical areas, including pre- and in-service training at the Defense School of Health Sciences in HIV care and treatment, injection safety, infection control, emergency medicine, and telemedicine, as well as targeted initiatives to improve rates of retention in care for PLHIV.

Supporting Telemedicine

ZDF oversees more than 50 clinical health sites across Zambia, many situated in rural areas far from referral hospitals where specialized care can be accessed, so it is well-positioned to take the lead on telemedicine and other technology-driven health initiatives. In underserved rural areas, telemedicine can greatly improve access to care, reduce morbidity and mortality rates, and improve quality of life for both the military and local civilian populations that ZDF clinics serve.
In 2014, AIHA and ZDF began collaborating with the Georgia-based Global Partnership for Telehealth on a groundbreaking locally-driven, locally-owned telemedicine program designed to improve access to quality care by linking clinics or care providers to central referral hospitals. Launched in September 2015, the ZDF telemedicine program links experts at Maina Soko Military Hospital in Lusaka with health staff at five sites across the country to improve the quality of diagnostics and treatment services at these military clinics.

Tracking Patients Lost to Follow-up and Reengaging Them in Care

In 2016, AIHA began working with ZDF’s HIV/AIDS Secretariat to implement another technology-driven project under PEPFAR’s Accelerated Childhood Treatment (ACT) Initiative. This intervention focuses on reducing loss to follow-up among children living with HIV and their mothers.

AIHA contracted US-based software company Zerion to assist with a needs assessment and create a mobile application to track patients. In September 2016, AIHA piloted the app — which enables health workers to input a patient’s national SmartCare identification number, address, demographic information, date of follow-up appointment, and name of the community health workers (CHW) assigned to the case — at ZDF sites in Kabwe, Lusaka, and Ndola.

CHWs receive an alert prior to a patient’s next appointment, so they can follow up with him or her as a reminder. The app also allows facility health workers to input the names and information of patients who are lost to follow-up (LTFU), so CHWs can redouble efforts to either bring them back into care or provide an explanation for why they are no longer on treatment.

Currently there is little data on loss to follow-up in Zambia. This mobile platform may help change that, while at the same time facilitating more effective monitoring, evaluation, and reporting. At present, health workers are manually linking patients tracked through the app to SmartCare, but in the coming months, AIHA and ZDF will work toward automated integration into the national SmartCare system.

Bolstering In-service Training Capacity

Over the course of our partnership with ZDF, AIHA has been working closely with the Defense School of Health Sciences and Zambia’s Ministry of Health on the development of training packages for a number of clinical disciplines, including developing a National Curriculum for Emergency Services, which is already being used. Similarly, AIHA supported the school’s efforts to draft curricula for injection safety and infection prevention, which are currently being implemented by faculty.

Strengthening Knowledge Management to Support Improved Health Outcomes

AIHA’s earliest collaboration with ZDF focused on establishing Knowledge Management Centers (KMCs) at clinical sites to empower healthcare personnel through access to a wealth of up-to-date clinical research, texts, case studies, protocols, and other evidenced-based resources that can guide their practice and improve quality of HIV-related care and treatment outcomes.

AIHA supported effective use and scale up of the 21 KMCs we established at ZDF sites by providing targeted training on evidence-based medicine, emergency medicine, proper research protocols, online resources, and other relevant topics both through workshops and distance learning courses.

In alignment with PEPFAR 3.0 goals and objectives, AIHA is currently transitioning many KMCs into Monitoring and Evaluation Hubs to better support data-driven interventions and outcomes. This strategic shift is helping ensure effective use of resources for data management to enhance quality improvement in HIV service delivery at the facility level. AIHA is providing focused training in data analysis, interpretation, and use to meet the daily needs of ZDF end-users, which addresses a serious gap in capacity to interpret and act on data to drive program surveillance and quality assurance processes. Other KMCs are being transitioned to adolescent-focused centers to support adherence and healthy lifestyles based on community needs.

Since 2005, AIHA has supported the Zambian Defense Force Medical Services HIV/AIDS Secretariat’s efforts to extend high quality HIV-related prevention, treatment, care, and support services to all military sites throughout the country as a way to ensure access for all service men and women, their families, and their surrounding communities.
Strengthening Clinical Pharmacy Practice to Improve ART

With support from CDC/Zambia, AIHA began working with the University Teaching Hospital (UTH) in Lusaka and Livingstone Central Hospital (LCH) in 2006, linking them with the Milwaukee-based Center for International Health (CIH) to improve the quality of services provided by pharmacists at the Pediatric ART Centers of Excellence at both Zambian institutions. In 2014, AIHA graduated CIH upon successful completion of their technical assistance objectives and has since been providing direct support to UTH and LCH through our HIV/AIDS Twinning Center Program.

From day one, a key objective of this project has been to develop in-country training capacity that enables pharmacists to more effectively organize and manage pharmacy services as a way to better ensure high quality HIV-related treatment and care to mothers, infants, and children.

In support of this objective, partners have been continually working to better integrate pharmacists into multidisciplinary HIV/AIDS care teams at both hospitals. To this end, partners have established six satellite pharmacies — including a Pediatric ART Satellite Pharmacy at UTH — to improve access to both medications and expert advice in selected wards.

AIHA established Knowledge Management Centers (KMCs) at both institutions and facilitated training for pharmacists on evidence-based medicine, online resources, and searching techniques. We’ve also provided targeted training on the use of Lexicomp, an online database that provides clinical information, including drug usage guidelines that help health professionals make safer, faster care decisions.

In 2016, AIHA supported UTH and LCH as they shifted their focus to clinical mentorship, with both institutions serving as centers of excellence in delivering HIV/AIDS pharmaceutical care. Local experts trained in partnership with CIH continued to roll out training and mentorship activities for pharmacists and pharmacy assistants working at provincial level health sites throughout Zambia. Currently, partners are working to launch an adolescent disclosure project, as well as a therapeutic drug monitoring project with both pharmacies.

In response to local needs, LCH’s pharmacy team is also providing clinical pharmacy training and mentorships in all correctional facilities situated in Southern Province as a way to ensure the high-risk inmate populations have access to quality HIV and TB care and treatment. In particular, partners are working to develop the capacity of selected prison wardens and CHWs to act as trainers and mentors fully capable of assisting others with uptake of the system. They are also training a peer support network among specific inmate patient groups to strengthen treatment uptake and adherence, as well as working to assure continuity of care for prisoners who are on treatment and released.

Improving Access to Patient-centered Care among Key Populations

According to UNAIDS, between 40-50 percent of all new HIV infections among adults worldwide occurred among key populations, including men who have sex with men (MSM), commercial sex workers (CSWs), people who inject drugs (PWID), and lesbian, gay, bisexual, and transgender (LGBT) individuals and their immediate partners.

In low-income countries, these key populations often face the additional burden of widespread stigma and discrimination in healthcare settings and criminalization of substance use, sex work, and same-sex sexual behaviors.

These social and structural realities create high-risk environments that undermine public health goals, violate human rights, and limit safe and effective provision of HIV prevention, care, and treatment services. With support from CDC/Zambia, AIHA launched a that linked Chreso Ministries with University of South Carolina to assess barriers to care and help mitigate them.
Together, partners met with members of key populations support groups and communities to gain a better understanding of their needs, as well as critical gaps in services they face on a day-to-day basis. They then conducted sensitivity training workshops for Chreso healthcare workers to strengthen their capacity to provide client-centered medical and psycho-social support services to these high-risk individuals.

A Chreso Ministries team traveled to South Carolina, where they learned about model psycho-social support services and HIV prevention, care, and treatment interventions their partners and other community-base organizations had in place to meet the unique needs of key populations. In 2016, partners developed a sensitivity training package adapted to the Zambian context and implemented a comprehensive schedule of training sessions based on Chreso’s needs. They also conducted onsite mentoring on the provision of quality, comprehensive, and client-centered care for key populations and worked to enhance responsiveness to their needs at Chreso Ministries sites through the creation and support of consumer advisory boards.

**Strengthening Laboratory Leadership and Management**

In Zambia and many other low-resource countries around the world, insufficient leadership skills and lack of effective management practices among clinical and public health laboratory managers and directors represent major barriers to the effective provision of high-quality laboratory services. These critical health services underpin timely detection, surveillance, and response to infectious diseases, such as HIV and TB.

AIHA began collaborating with the International Training and Education Center for Health (I-TECH) and the University of Washington in 2016 on a project to strengthen the leadership and management skills of Zambian lab staff currently in management positions as a way to empower them to make meaningful improvements to their laboratory’s operations.

The 16 individuals who each earned a Certificate in Laboratory Leadership and Management from the University of Washington in November 2016 were drawn from Ministry of Health public health laboratories earmarked for international accreditation. They enrolled in the course in March 2016 and spent nine months strengthening their skills in quality assurance practices; application of diagnostic technologies; data analysis and interpretation; and communication of results and impacts. Developed and conducted by I-TECH, this program features a blend of distance learning and face-to-face training activities, along with targeted mentorship to foster professional growth. In the coming year, AIHA and I-TECH will implement another round of training targeting other lab workers from the same public health laboratories, with the 16 lab managers trained last year serving as mentors.

**Building Capacity in Biomedical Technology to Improve Quality of Care**

Drawing on our experience implementing projects designed to strengthen local capacity in biomedical engineering and technology in Ethiopia, Kenya, and Uganda, AIHA began supporting efforts to ensure Zambia’s public health laboratories achieve accreditation in 2016.

In collaboration with the Kenyan company, Biologics, we implemented a preliminary training on routine maintenance, repair, and calibration of non-automated laboratory equipment for 26 biomeds. AIHA procured and distributed toolkits to the 17 Ministry of Health labs seeking accreditation and conducted a study tour that brought three key biomedical personnel to our partner sites in Ethiopia as a way to expose them to more advanced biomedical engineering programs.

This was an important learning experience that is supporting the development of strategies that will move the project forward. In the coming year, partners will continue training activities and work to create two calibration centers with the overarching goal of increasing the Ministry’s capacity to maintain and repair laboratory equipment critical for HIV testing, diagnosis, and treatment as the country works to attain global 90-90-90 targets. CDC/Zambia supports this project.
Strengthening the Social Welfare Workforce through USAID’s Zambia Rising Project

AIHA was part of the USAID-supported Zambia Rising Project led by Save the Children. Zambia Rising worked in coordination with two other USAID projects (Data Rising and Community Rising); all three were designed to strengthen local systems and capacity to improve the quality of life for orphans and vulnerable children (OVC) living in Zambia.

Lack of full access to health services, proper nutrition, and education, paired with high unemployment rates have threatened Zambia’s stability, putting far too many children at risk. UNAIDS estimated that there are 95,000 children in Zambia who are living with HIV.

AIHA supported institutionalization of the social work profession in Zambia by strengthening the Social Workers Association of Zambia (SWAZ). We worked closely with SWAZ staff to determine requirements for establishing a national office, engaging a Board of Directors, setting up a schedule of regular meetings, and other organizational capacity development activities. We also worked with SWAZ and the University of Zambia on educational requirements, continuing education, and other matters related to professional standards and accreditation. Collectively, these efforts supported SWAZ’s goal to build membership, advocate for the social work profession, and become a self-sufficient, self-sustaining association.

Preventing the Spread of HIV through Mass Media Training and Messaging

AIHA first started working with the Zambia Institute of Mass Communication Educational Trust (ZAMCOM) in 2005, piloting training courses to improve local media coverage of HIV/AIDS-related topics.

In 2008, we partnered ZAMCOM with the University of Kentucky School of Journalism and Telecommunications with the goal of strengthening its organizational capacity to train journalists on HIV/AIDS reporting, as well as on reporting techniques and print and broadcast production.

Partners worked to improve training programs based on ZAMCOM’s strategic goals, training some 200 Zambian journalists on accurate HIV/AIDS reporting. They conducted a series of workshops in Chipata, Kitwe, and Livingstone to train community members to produce radio programs on HIV and other critical public health issues and provided training for staff at community radio stations throughout the country, along with targeted prevention messages that were translated into local languages.

In October 2011, the partners launched the “Newspaper in Education” project in close cooperation with Zambia’s Ministry of Education and the Zambia Daily Mail to improve classroom access to reading material and teaching resources — in particular on health topics and gender-based violence.

This partnership, which graduated in 2014, worked closely with another AIHA twinning partnership that linked ZAMCOM with the Media Institute of Southern Africa (MISA) in Botswana to implement a pan-African public HIV/AIDS awareness campaign called “Hearts & Minds.”

Building Capacity of a Professional Association to Support Palliative Care

Partners at the Palliative Care Alliance of Zambia (PCAZ) have emerged as a leading advocate for promoting national palliative care standards and policies in Zambia, thanks in part to an AIHA Twinning Center partnership with the Uganda-based African Palliative Care Association (APCA) that was funded from 2005 to 2010.

In September of 2010, AIHA began providing direct funding to PCAZ to support their efforts to strengthen palliative care
Throughout Zambia. To this end, we established a Knowledge Management Center (KMC) at PCAZ in 2011 to provide staff and other parties with access to a wide range of evidence-based resources, research, and other material that can help strengthen palliative care throughout Zambia.

The main objectives of this highly successful twinning partnership were to develop the organizational and human resource capacity of PCAZ and its staff; promote best practices in palliative care; and create broader awareness through expanded advocacy and information dissemination efforts.

Over the years, PCAZ ushered in many positive changes in the country. Key accomplishments include the development of a morphine fact book for Zambia and resource material on morphine use, as well as a chapter on pain management for the NAC Care Treatment and Prevention guidelines.

PCAZ spearheaded the development of the Palliative Care National Strategic Plan and co-authored an article on palliative care that appeared in both the Zambia Daily Mail and Times of Zambia, which coincided with the 10th African Growth and Opportunity Act.

In addition, PCAZ developed the country’s first draft Pediatric Palliative Care Curriculum, which was piloted through a training-of-trainers course for 15 health professionals. They also developed data quality management tools to strengthen their services to hospices, facilitated palliative care sensitization workshops for hospice and clinic workers, and finalized the Palliative Care National Strategic Plan.

In the final years of their participation in AIHA’s technical assistance program, PCAZ focused on providing strategic planning and development trainings to enhance hospice capacities, as well as their own visibility through clearly documented plans. Another priority during their sustainability phase was economic strengthening through a pilot project that sought to ensure better recognition of palliative care providers, who are the unsung heroes of the health system.