Annual Report

2024 - 2025

Adapting for Impact:
Building Resilience in Times of Change

> We do more than respond — we evolve, ensuring every intervention remains relevant, resilient, and rooted in impact.

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Who We Are

The Centre for Infectious Disease Research in Zambia (CIDRZ) is an independent non-governmental organisation committed to answering key research questions relevant to Zambia and the region. CIDRZ supports local ownership of high quality, complementary, and integrated healthcare research and services within the Zambian public health system and facilitates clinical, research, and professional development training.

CIDRZ has over twenty years of ongoing collaboration with the Government of the Republic of Zambia (GRZ) and its ministries. Our longevity and success are in great part attributed to our deep relationships with leading local and international universities, foundations, and partner organizations. CIDRZ ensures that the latest research methodologies are used to answer locally relevant questions to improve healthcare delivery. CIDRZ also supports fellowship programmes for Zambian scientists and researchers focused on building the knowledge and skills needed to drive evidence generation to support health policy development.

Over the past two decades, our focus areas have evolved organically, shifting from primarily an HIV (Human Immunodeficiency Virus) focus to encompass other infectious diseases such as enteric pathogens, which contribute significantly to morbidity and mortality particularly for children and the immunocompromised. At CIDRZ, we aim to serve diverse populations that are most vulnerable to illness or poor outcomes. We use our skills in social and behavioural change, health systems improvement, laboratory work, and supply chain management to enhance the delivery of health services. As we look ahead, we plan to expand our efforts to anticipate and tackle new global health threats, with a focus on monitoring Antimicrobial Resistance, fortifying our lab capabilities, and expanding our vaccine portfolio.

Our Vision

A Zambia, and a region, in which all people have access to quality healthcare and enjoy the best possible health.

Our Mission

To improve access to quality healthcare in Zambia through innovative capacity development, exceptional implementation science and research, and impactful and sustainable public health programmes.

Our Core Values

Accountability

Our staff members embody ownership and embrace accountability for their contributions and decisions.

Equality

CIDRZ fosters a culture of fairness and equal opportunity.

Honesty

Our staff members consistently uphold integrity and transparency in all their activities.

Productivity

Our team strives for excellence and consistently delivers high-quality results.

Respect

We nurture a workplace culture where all individuals, including partners and stakeholders, are valued and their differences are celebrated.

Transparency

Our organization embraces open communication and fosters an environment for constructive, open, and honest problem solving.

Mr Charles Mpundu
Board Chairman

Izukanji Sikazwe
Chief Executive Officer

Board Chair and CEO Statement

Adapting for Impact: Building Resilience in Times of Change

The year under review marked a period of profound transformation and renewed purpose for CIDRZ. Guided by our mission and a shared commitment to the health and well-being of Zambians, we adapted to emerging challenges while sustaining high-impact interventions across our program areas. Through close partnership with the Ministry of Health (MoH) and valued stakeholders, we delivered evidence-based solutions, advanced scientific discovery, and expanded lifesaving services in communities nationwide.

A major challenge this year was the suspension of U.S. Government funding, which has historically supported our core public health programs. This led to the suspension or reduction of several initiatives, particularly in HIV service delivery and community engagement, and necessitated difficult organisational restructuring, including job losses among valued staff. Swift coordination with partners, including the Ministry of Health, was essential to sustain critical services.

These challenges tested our resilience but also reaffirmed CIDRZ's institutional strength, agility, and commitment to safeguarding health services for the communities we serve.

In partnership with MoH, we sustained HIV care and treatment initiatives including targeted testing, viral load monitoring, and prevention programs such as PrEP. Through the US Government-sponsored CHEKUP I project, CIDRZ leveraged community structures to implement evidence-based high-impact HIV testing and treatment strategies in target districts through the Ward Development Committees (WDC) and the Neighbourhood Health Committees (NHCs). Further, our Adolescents intervention under the PROUDZ programme enhanced HIV testing in Lusaka urban facilities, reaching 17,692 adolescents and young people (AYP) with Sexual Reproductive Health (SRH) information. Under the cervical cancer programme, CIDRZ screened 50,031 women for cervical cancer, where 1,556 were Visual Inspection of the Cervix After Acetic Acid Application (VIA) positive and 1,412 received treatment for precancerous lesions (40% ablative and 60% excision).

In FY25, CIDRZ continued generating high-quality scientific evidence on HIV, TB, emerging pathogens, and vaccine responses. Through our HIV-HLA CLASS I study, CIDRZ is generating evidence to inform the development of vaccines that are effective in sub-Saharan Africa. Further, the Cholera Sanger study is aiming to strengthen Zambia's cholera response by profiling immune responses to cholera vaccination and natural infection, integrate microbiome insights, and strengthen Zambia's genomic surveillance capacity by collecting blood, stool, and clinical samples from cholera patients, conducting transcriptomic and microbiome analyses, and isolating and sequencing Vibrio cholerae to generate genomic data that inform public health strategies.

We are also proud that through the work of our Reproductive, Maternal, Newborn and Child Health (RMNCH) Department, CIDRZ, remained a strong partner in strengthening services for mothers, newborns, and children. Our research and interventions in this area were crucial in improving antenatal and postnatal care, including screening of STIs (Syphilis, Chlamydia trachomatis, Neisseria Gonorrhoeae, Trichomonas vaginalis, and Human papillomavirus (HPV), preeclampsia, and postpartum depression, early infant diagnosis of HIV, kangaroo mother care, and paediatric-related illness treatment, thereby addressing mother and child morbidity and mortality.

In 2025, CIDRZ continued to make critical contributions in social and behavioural health science by enhancing understanding of community needs, stigma, health-seeking behaviour, and service uptake to address for example, substance use, self-care antimicrobial resistance, and vaccine uptake. We are particularly proud of our work under the Behaviour Change Laboratory, where we are investigating the quality of weaning foods in peri-urban areas and the associated risk factors by combining ethnographic and laboratory work as a contribution to the scarce knowledge on household food hygiene. Notably, we serve as the training and analysis hub for 4 global studies supporting 5 partners in SSA and 2 others in the US. and Indonesia.

In immunisation, our Primary Care and Health Systems Strengthening Department, supported by Gavi, reached 180,460 girls with the HPV vaccine. Of these, 79% were reached through school-based outreach and 17% through community-based outreach activities. Through these and many other programmatic and research interventions, CIDRZ reaffirmed its position as a frontline local organisation in addressing public health challenges and improving access to quality healthcare services.

Our staff underpin the successes of FY25, demonstrating resilience and dedication in the face of adversity. CIDRZ is committed to continuously strengthening its capacity by investing in staff development, leadership, and talent retention; enhancing governance, financial management, and internal controls; diversifying funding sources for long-term sustainability; and improving operational efficiency across all programmes and functions.

> *“Adapting for impact in times of change requires resilience, innovation, and collaboration.”*

These efforts are central to ensuring that CIDRZ remains a trusted, high performing institution capable of delivering outstanding science, service delivery, and public health capacity and leadership.

As we navigate a rapidly evolving global health landscape, CIDRZ remains committed to innovation, resilience, and impact. The lessons learned this year reinforce our belief that adaptability is essential, and with strong partnerships, scientific excellence, and community engagement, we can continue to improve health outcomes for all Zambians.

Together, we will keep building a healthier, more resilient future.

Board of Directors

Mr. Charles Mpundu
Chairperson

Mrs. Beatrice Grillo
Deputy Chairperson & Chair of Finance and Audit Committee

Prof. Micheal S. Saag
Director & Chair Research and Programme Committee

Eng. Basil Nundwe
Director & Chair of Investment & Business Development Committee

Mr. Bradford Machila
Director

Eng. Dr. Christopher Mubemba
Director and Chair of HR & Operations Committee

Dr. Lisa Kombe Mulenga
Alternate to Director Bradford Machila

Dr. Chewe Luo
Director

Dr. Charles Holmes
Director

Mr. Patrick Wanjelani
Director

Ms. Doris Tembwe
Director

Secretariat

Dr. Izukanji Sikazwe
Chief Executive Officer

Mr. Ronald Sinkala
Director Legal & Company Secretary

Profiles of the Board of Directors

Mr. Charles Mpundu

Title: Chairperson

Experience: 25+ years in private and public sectors, including leadership in profit and non-profit organizations.

Education: MBA (Durham University, UK), BSc Actuarial Science (Cass City University), Oxford University Leadership Program.

Affiliations: Actuarial Society of Zambia (President), Institute of Actuaries (Affiliate), Institute of Directors (Member).

Key Responsibilities: Provides strategic leadership and governance oversight

Mrs. Beatrice Grillo

Title: Deputy Chairperson & Chair of Finance and Audit Committee

Experience: 40+ years in economics and financial management, focusing on non-profits and human rights.

Education: BA Economics (University of Zambia), Advanced Diploma in Financial Management (Emily Woolf College, UK).

Affiliations: ACCA & ZICA Fellow, CIDRZ Vice Chair.

Key Responsibilities: Oversees financial governance and audit functions

Prof. Micheal S. Saag

Title: Director & Chair of Research and Programme Committee

Experience: 34+ years in infectious diseases, virology, and molecular biology.

Education: BSc Chemistry (Tulane University), MD (University of Louisville), Fellowship in Infectious Diseases (UAB).

Affiliations: Associate Dean at UAB, Director of UAB Center for AIDS Research.

Key Responsibilities: Leads research and program development initiatives

Eng. Basil Nundwe

Title: Director & Chair of Investment & Business Development Committee

Experience: CEO, senior partner, and portfolio manager with expertise in engineering, investment, and management consulting.

Education: BEng (Zambia), MSc Structural Engineering (Heriot-Watt), MBA (Golden Gate), Project Investment Appraisal (Harvard).

Key Responsibilities: Investment strategy, project management, operational leadership, and financial structuring for growth.

Mr. Bradford M. Machila

Title: Director

Experience: 30+ years in legal and governance roles, serving on various corporate boards.

Education: LLM & LLB (University of London), ZIALE Certificate.

Affiliations: Law Association of Zambia (LAZ), International Bar Association (IBA).

Key Responsibilities: Advises on governance and legal compliance.

Eng. Dr. Christopher Mubemba

Title: Director & Chair of HR & Operations Committee

Experience: 30 years in energy sector leadership.

Education: MSc Engineering (University of Manchester, UK), BEng (University of Zambia).

Affiliations: Engineering Institution of Zambia (Fellow), Institution of Engineering and Technology (UK).

Key Responsibilities: Oversees human resources and operational efficiency.

Dr. Lisa Kombe Mulenga

Title: Alternate to Director Bradford Machila

Experience: 20+ years in public health policy, program planning, and evaluation.

Education: MPH (University of the Witwatersrand), MBA (University of Pretoria), MBChB (Humboldt University, Germany).

Key Responsibilities: Supports strategic planning and health policy oversight

Dr. Chewe Luo

Title: Director

Experience: 38+ years in global health, epidemiology, and tropical medicine.

Education: PhD in Child Health & Epidemiology (University of Liverpool, UK), MMED in Pediatrics (University of Zambia).

Affiliations: Fellow of the Royal College of Physicians, Edinburgh.

Key Responsibilities: Provides leadership in global health strategy and research

Dr. Charles Holmes

Title: Director

Experience & Key Responsibilities: Medical doctor and global health leader with 25+ years of experience in research, clinical medicine, and infectious diseases. He specializes in health innovation, policy development, and program implementation. Currently serves as Co-Director of the Georgetown Center for Innovation in Global Health.

Education: MD (Medical Doctor), Associate Professor in Medicine.

Mr. Patrick Wanjelani

Title: Director

Experience: 30+ years in banking, finance, audit, and risk management.

Education: MBA (Oxford Brookes University, UK), ACCA (Thames Valley University, UK).

Affiliations: ACCA & ZICA Fellow, Former ZANACO Chair, CIDRZ Finance & Audit Committee Chair.

Key Responsibilities: Provides financial oversight and strategic risk management.

Ms. Doris C. Tembwe

Title: Director

Experience: 25+ years in commercial, corporate, and finance law.

Education: LLM in International Commercial Law (University of Salford, UK), LLB (University of Zambia).

Key Responsibilities: Advises CIDRZ on legal and regulatory compliance.

Dr. Izukanji Sikazwe

Title: Chief Executive Officer
Experience: Public health expert, global health leader, and Kofi Annan Foundation Fellow.

Education: MPH (Michigan State University, USA), MBChB & BSc.HB (University of Zambia).

Affiliations: Zambia Medical Association, International AIDS Society.

Key Responsibilities: Leads the strategic and operational management of CIDRZ.

Mr. Ronald Sinkala

Title: Director Legal & Company Secretary

Experience: 25+ years in finance, risk management, and corporate law.

Education: MSc Finance & Risk Management (London School of Business & Finance, UK), LLB (University of Zambia), ZICA Chartered Accountant.

Affiliations: ZICA Fellow, LAZ Member, ICSA (UK) Member.

Key Responsibilities: Ensures legal compliance, corporate governance, and risk management at CIDRZ.

Executive Committee

Dr. Izukanji Sikazwe
Chief Executive Officer

Nana Appiah Qua-Enoo
Deputy Chief Executive Officer

Ackim Sinkala
Chief Financial Officer

Dr. Carolyn Bolton-Moore
Chief Medical Officer

Dr Monde Muyoyeta
Chief Scientific Officer

Ronald Sinkala
Company Secretary

Mwansa Lombe
Human Resource Director

Leadership Team

Albert Manasyan

Dir. Reproductive, Maternal, Newborn, and Child Health

Dr. Anjali Sharma

Senior Research Technical Advisor

Bolarinde Joseph Lawal

Dir. Central Laboratory

Cheryl Rudd

Dir. Primary Care and Health Systems Strengthening

Clara Muyatwa Sakataka

Head - Procurement, Stores and Logistics

Emmanuel Lumbwe

Dir. Internal Audit

Jill Morse

Dir. Strategy and Business Development

Dr. Michael Hearce

Dir. Implementation Science

Mukwenya Banda

Dir. Information, Communication and Technology

Dr. Mwanza Wa Mwanza

Dir. Clinical Care

Dr. Mwangelwa Mubiana Mbewe

Dir. Child and Adolescent Health

Prof. Samuel Bosomprah

Senior Technical Advisor & Head of Analysis

Dr. Theodora Savory

Dir. Monitoring and Evaluation/COP ACHIEVE & PROUD-Z

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Large and Cross Cutting Projects

- Controlling HIV Epidemic for Key and Underserved Populations (CHEKUP I)
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  - Monitoring and Evaluation
  - Positive Infant Audit
  - Paediatrics
  - Smart Care Support
  - Technical Assistance
  - Voluntary Male Medical Circumcision
- Strengthening Zambia Defense Force HIV/AIDS Prevention Program (DHAPP)

Controlling HIV Epidemic for Key and Underserved Populations (CHEKUP I)

FUNDER:

US Government – Department of State

TIME PERIOD:

Oct 2021 - Oct 2026

During FY25, CHEKUP I continued to deliver lifesaving services in targeted districts. The project focused on community-based delivery of life-saving HIV testing and treatment services targeting at-risk populations and conducting referrals to government health facilities for other high-impact HIV services.

During the reporting period, the project provided HIV testing in thirty-seven (37) sites across nine (9) districts, and antiretroviral therapy (ART) in community Drop-In Centres across seven (7) districts. A total of 32,215 individuals were tested for HIV, with 11,781 reached through index testing. From the total tested, 2,300 individuals tested positive for HIV and were either referred for treatment or initiated on ART in the Community Drop-In Centres. Further, 764 new individuals were initiated on lifesaving ART, bringing the total to 2,620 across the supported seven districts by the close of FY25.

CHEKUP I Leveraged community structures to implement evidence-based high-impact HIV testing and treatment strategies in target districts through the Ward Development Committees (WDC) and the Neighbourhood Health Committees (NHCs). To ensure sustainability beyond the life of the project, CHEKUP I continued collaborating with the government and local structures to lead HIV service delivery, thereby facilitating ownership of the HIV response.

USAID Empowered Children & Adolescents Program III

FUNDER:

US Government – Department of State

TIME PERIOD:

Sep 2020 - Sep 2025

Empowered Children and Adolescent Program III (ECAP III) aims to mitigate the impact of HIV and improve the health and well-being of Vulnerable Children and Adolescents (VCA) through the delivery of high-impact, evidence-informed, and age-appropriate interventions customized for each VCA sub-population using a family-centered approach. At close of FY2024, ECAP III supported 94 health facilities in four Lusaka Province districts (Chilanga, Chongwe, Kafue & Lusaka), focusing on routine services such as case finding, treatment retention, and viral load (VL) monitoring for Children and Adolescents Living with HIV (C/ALHIV). Services across PEPFAR domains (Schooled, Healthy, Safe & Stable) were provided to both Vulnerable Children and Adolescents (VCAs) and caregivers at the community level, with caseworkers ensuring that individual case plans were regularly updated to reflect changing needs and circumstances.

In total, USAID ECAP III reached 91,408 beneficiaries through PEPFAR OVC programs, achieving 102% of its annual target. Of these, 87,584 beneficiaries participated in the comprehensive program (101% of the target), while 3,824 completed sessions in the HIV preventive model (135% of the target). To improve the proportion of VCAs with known HIV status, the program continued supporting MoH efforts towards Know Your Child Status Campaigns. This effort led to 1,931 index clients accepting index testing services and subsequently providing 4,947 eligible contacts aged below 20 years, with 29 testing positive and linked to care and treatment.

At the close of FY24, 10,228 CALHIV were enrolled on USAID ECAP III comprehensive program. Out of these HIV-positive VCAs, 88% were eligible for viral load testing, and 87% had documented VL results within the past year. Remarkably, of the C/ALHIV with documented VL results, 97% achieved viral suppression, highlighting the program's effectiveness in improving their health. During the FY24 reporting period, no COVID-19-related activities were conducted due to lack of direct funding

FUNDER:

CDC

TIME PERIOD:

Sep 2020 - Sep 2025

Provincial Ownership to Uplift Delivery of HIV Services in Zambia (PROUDZ)

Adolescents

CIDRZ, in partnership with LPHO, implemented social network testing in youth-friendly spaces, reaching 14,385 adolescents and young people (AYP) and identifying 601 new HIV cases. To strengthen adolescent services, CIDRZ enhanced HIV testing in Lusaka urban facilities, achieving key outcomes: 17,692 AYP reached with SRH information, 918 tested for HIV (with 14 new diagnoses all linked to care), 22 initiated on PrEP, 140 girls vaccinated for HPV, 58 screened for cervical cancer, and 128 referred for male circumcision.

CIDRZ supported LPHO to strengthen systems by integrating mentorship with robust data systems, enhanced non-incentivised sustainability and scalability of SNS, empowering providers to deliver tailored HIV services and case finding amongst AYP. We built capacity among 497 HCWs and 938 CHWs through on-site orientations in SNT, provided mentorship and on-site support, and ensured providers could engage AYP through peer-driven networks. 14,385 AYP were tested through SNS, 13,784 being negative and 601 identified as HIV positive and linked to treatment. In addition, weekend drives to reach AYPs at universities and in communities were very successful.

CIDRZ also supported infrastructure expansion by refurbishing four additional adolescent-friendly health services (AYFS) and building on nine existing centres. These 13 hubs, across 36 facilities, provide integrated services including health education, HIV testing and treatment, PrEP/PEP, and post-violence. We also revised the adolescent ART training package for healthcare workers, building capacity through orientation and mentorship.

Furthermore, CIDRZ integrated adolescent health into maternal-child settings, creating dedicated antenatal days for pregnant adolescents, promoting support groups, and fast-tracking services to reduce stigma. This included establishing 11 centres of excellence to strengthen AYFS across Lusaka Province.

Cervical Cancer (CaCx)

Zambia has the second-highest age-standardised incidence rate for cervical cancer in the world at 71.5 per 100,000 (Globocan, 2022). Cervical cancer remains the main cause of cancer illness and death among women, with 3,640 cases and 2,285 deaths reported in 2022. Because the disease is highly preventable and screenable, the cervical cancer prevention programme at CIDRZ has supported the MoH from inception (2006) in implementing and scaling up quality cervical cancer (cacx) screening services countrywide.

In FY25, 46 Ministry of Health staff from various facilities across Lusaka province were trained in basic cervical cancer screening using HPV and visual inspection with acetic acid (VIA), enhanced with digital cervicography. The training included the treatment of precancerous lesions using ablative and excisional methods.

Through continued collaborative efforts, a total of 50,031 women were screened for cervical cancer, where 1,556 were VIA positive and 1,412 received treatment for precancerous lesions (40% ablative and 60% excision). A total of 281 women had advanced lesions suspected to be invasive cervical lesions and were referred for diagnosis and treatment.

The programme procured 13 LEEP machines and supplies, including cameras (35) and accessories, thermal ablators (25) and HPV collection and testing kits (56,200) that were distributed to the four provinces for the continuity and standardisation of screening.

Unfortunately, due to the USG reorganisation and reduced funding, CIDRZ's support to the life-saving Cervical Cancer has been suspended.

Data Governance

CIDRZ is also supporting the country to strengthen health data governance so that data is managed safely, responsibly and in line with Zambia's Data Protection Act. This includes contributing to the development of a legally binding framework for health data governance, reviewing and updating national data sharing guidelines and supporting the Ministry of Health to build systems that allow secure and ethical data access.

Elimination of Mother to Child Transmission

In FY25, CIDRZ supported LPHO by providing technical assistance and capacity-building for 361 health care workers to achieve the Ministry of Health's agenda for the triple elimination of HIV/Syphilis, and Hepatitis B in infants by 2030. This was achieved by contributing to the development and final validation of the national triple elimination operational plan, guidelines, and training manuals, yet to be launched, for both community health care workers and in-service healthcare workers.

In response to persistent gaps in access to quality health care and low retention among pregnant and breastfeeding adolescent girls and young women (PBF AGYW), CIDRZ supported health facilities across Lusaka province to establish differentiated service delivery models for this priority population. As a result of these interventions, retention in care of mother-infant pairs improved to above 90%.

By the end of FY25, these efforts helped LPHO achieve 95% of the annual HTS targets, 97% viral suppression among pregnant and breastfeeding women, and increased coverage in Syphilis and Hepatitis B testing and treatment. Ultimately, these gains contributed to a vertical transmission rate of less than 2%.

High Viral Load Evaluation

Optimising management of HIV recipients of care with viremia to improve viral suppression in Zambia: A process and outcome evaluation

As part of the notice-of-award requirement, CIDRZ conducted a mid-term evaluation of the viremic clinic (VC) model. This model is an intervention that aims to improve and provide differentiated service delivery to recipients of care (ROCs) with unsuppressed viral load. The evaluation assessed the VC model's impact on clinical outcomes for ROCs with unsuppressed viral loads. This comparison used pre-VC (Oct 2018-Sept 2020) and post-VC (Oct 2020-Sept 2022) cohorts across 20 health facilities. Routinely collected demographic, clinical, laboratory, and pharmacy data were

extracted from Zambia's electronic HIV medical record (SmartCare). The evaluation also used EAC data from post-VC unsuppressed VL registers. The main goal was to determine if the VC model improved viral suppression and adherence-related outcomes over 12 months.

Rigorous data quality procedures ensured accuracy and reliability during quantitative analysis. These procedures included benchmark validation, manual review of 25% of records, and cross-checking against paper files. The qualitative component explored lived experiences, barriers, and facilitators influencing ART adherence and viral suppression among ROCs. By gathering perspectives from both suppressed and unsuppressed clients, as well as healthcare workers, the evaluation aimed to understand how individual, social, and health-system factors shaped treatment behaviours and outcomes. It also sought to identify elements of the VC model that supported or hindered adherence in real-world settings. The introduction of viremic clinics improved management of ROCs and increased viral suppression from 36.9% to 62.3%. The median time to viral suppression reduced from 10.9 to 8.2 months.

HIV Surveillance

Since 2020, the Centre for Infectious Disease Research in Zambia (CIDRZ) has supported the Ministry of Health with HIV surveillance through case-based, recent infection (recency), and mortality surveillance programs. Before the January 2025 stop-work order, the recency program covered 783 facilities across 8 provinces (81% coverage), contributing to targeted public health interventions, improved data quality, capacity-building for MoH staff, and strengthened stakeholder collaboration with partners such as Right to Care and ICAP. The team also produced eight abstracts presented locally and internationally.

After June 2025, a series of evaluations were conducted to assess the impact of the recency testing program on laboratory and broader ART service delivery. These assessments focused on understanding the program's contribution to diagnostic workflows and data utilization within supported facilities. With the termination of the routine baseline viral load program in September 2025, the program formally concluded and the recency testing variable was formally retired from the laboratory information systems. CIDRZ then began transitioning the surveillance dashboards, website and data systems to MoH, although updates continued under CIDRZ due to changes on the MoH website.

HIV Prevention

CIDRZ supported the Lusaka Provincial Health Office (LPHO) in scaling up PrEP services across all 7 districts in Lusaka province. PrEP coverage, including PrEP CT (Continuation), improved and met annual targets. A total of 168 HCWs and 11 CHWs received off-site training in PrEP. Additionally, CIDRZ conducted 97 onsite orientations and TSS at 97 sites. These sessions targeted 1,164 facility staff to help scale up PrEP for people at higher risk of HIV acquisition. Ninety-nine per cent of sites used the PrEP screening tool for all HIV negative people at greater risk of HIV.

To enhance continuation on PrEP, CIDRZ supported LPHO in setting up systems to monitor and track PrEP clients' appointments. LPHO and CIDRZ set targets for all sites in supported districts except Chirundu and facilitated two virtual orientations of 363 monitoring and evaluation (M&E) officers and clinical staff on PrEP

indicators and PrEP reporting tools (546 PrEP tools distributed). CIDRZ actively participated in policy development for long-acting injectable PrEP and introduced CAB-LA through community wellness centres. In addition, training in Injectable PrEP was conducted for district and provincial managers, facility staff, M&E staff and community health workers.

Infection Prevention and Control

With support from CDC CARES Funding and as part of the health system strengthening support, CIDRZ successfully supported the Ministry of Health in developing and finalising the infection prevention and control (IPC) technical guidelines. This marks a benchmark for national public health security. Building on this, CIDRZ also collaborated with the World Health Organisation (WHO) to support the development and launch of the national strategic plan for Infection Prevention and Control 2022-2032. Together, these documents empower healthcare providers to uphold standards promoting IPC compliance at all levels.

Following these developments, we supported validation, printing, and dissemination of the two documents to all ten provinces and conducted trainers-of-trainers training with at least five participants from each province. Moving forward, CIDRZ efforts will now focus on building capacity for all healthcare providers to reduce and eliminate hospital-acquired infections.

Key Population Investment Fund

In 2025, CIDRZ continued delivering HIV services to high-risk populations through seven safe spaces/wellness centres in Lusaka Province. Between October 2024 and September 2025, 28,108 individuals were reached and offered HIV testing, of whom 20,400 accepted testing. Of those tested, 4,734 (23%) were HIV positive; all were initiated on ART, achieving 96% viral load suppression.

Service disruptions during a stop-work-order period (January–March 2025) temporarily affected client follow-up and viral load testing, but targeted campaigns were implemented to restore trust and continuity of care. CIDRZ also collaborated with the Drug Enforcement Commission, the National AIDS Council, and the Ministry of Health to develop and pretest 13 IEC materials for high-risk populations.

Due to programme reorganisation and reduced funding, CIDRZ transitioned drop-in centre services to CIHEB in September 2025, successfully transferring 8,832 ART clients. All centres were also migrated to the SmartCare Pro electronic health record system in line with CDC and Ministry of Health guidance.

Men's Clinic and Health Promotion

CIDRZ, in collaboration with the Lusaka Provincial Health Office and Teledoctor, delivered extensive men's health sensitisation through 17 radio and TV programmes aired on Radio Phoenix, Millennium Radio, and Diamond TV. These programmes addressed a wide range of topics, including prostate health, TB, STIs, HIV prevention (PrEP and PEP), sexual and reproductive health, mental health, nutrition, male involvement in maternal and child health, and stigma around men's health.

We further partnered with LPHO to air 13 men's health programmes on ZNBC TV1 and Radio 4 and launched a WhatsApp-based virtual intervention offering self-screening, HIV prevention messaging, and referrals to nearby men's clinics. Outreach activities reached over 400 men at a gold mine in Rufunsa and a national church camp, alongside the production of 5,000 health promotion materials.

Through the Men's Clinic Initiative, CIDRZ conducted 17 community engagement activities and supported the establishment of 66 men's clinics across Lusaka Province. Capacity building included mentoring 915 Ministry of Health staff, training 407 healthcare workers in male-friendly services, and training 530 clinicians in advanced HIV disease management and NCD integration. CIDRZ also actively contributed to national Social and Behavioural Change Communication technical working groups under the National AIDS Council, including condom programming, HIV testing services, and stigma and discrimination.

Mental Health Services for PLHIV

In FY25, the CETA and Mental Health programme reached full maturity through the demonstration of measurable client outcomes and the expansion to 51 fully operational sites across the four targeted CDC-supported provinces, including Lusaka, Western, Eastern, and Southern provinces. A total of 52 counsellors were trained, bringing the overall workforce to 92 trained providers. Quarterly mentorship was sustained across all provinces, strengthening integration of CETA or mental health into ART services, supervision, complex case management, and DHIS2 reporting.
Client outputs remained strong, with 1,883 screened and completed 1,062 sessions in FY25. Among high-viral-load clients, 69% achieved viral suppression in FY25, while 87% of late pharmacy clients restarted ART after CETA. Key national progress included the co-development and validation review of the National Mental Health Package, positioning the programme for sustainable national scale-up.

MORE-ZM DHIS2

In FY25, the MORE-ZM project made several improvements to strengthen system performance and partner support. We started by moving all MORE-ZM DHIS2 systems from Windows to Linux. This change made the systems faster, more stable, and more secure, and it also prepares us for long-term growth. After the migration, all systems were upgraded to DHIS2 version 2.39, which brought better speed, stronger security, improved data visuals, easier connection with other systems, and new tools for data quality checks and reporting. These changes followed careful assessments, planning with partners, and thorough testing to avoid disruptions.

A new MORE-ZM DHIS2 instance was set up for the Northwestern Provincial Health Office (NWPHO), including customized processes for generating BOB reports and loading data into the Data Analytics Platform (DAP). CIDRZ worked closely with LPHO, ICAP, and NWPHO to train M&E teams and support their preparation for FY25 DATIM reporting. Circle of Hope (COH) was also added to the MORE-ZM reporting platform, making their BOB reporting automated and easier.

All MORE-ZM systems were updated to follow the latest PEPFAR MER 2.8.2 guidance. CIDRZ also tested the MER Parser at Kabwata Clinic, which helped improve the accuracy of MER indicators coming from SmartCare. During the FY25 Partners Bootcamp, CIDRZ demonstrated how the MER Parser and the DHIS2–Power BI connector work, helping partners get ready for FY26 rollout. Additional improvements were also made to the Action Tracker and the DAP tools to give partners better analytics and reporting support.

Monitoring and Evaluation

CIDRZ made significant strides in strengthening Monitoring, Evaluation, and Learning (MEL) systems supporting the Lusaka Provincial Health Office (PHO) in 2024-2025. Through harmonized workplans, efforts focused on improving data completeness and utilization within SmartCare, the national electronic healthcare system. Patient-level analyses were delayed due to access limitations, however aggregated data monitoring continued and three key registers; antenatal, postnatal, and immunization were successfully integrated into SmartCare MCH module. Additionally, 76 Continuous Quality Improvement (CQI) initiatives and 13 provincial data review meetings were conducted to enhance program performance.

Data quality remained a priority, with 37 audits completed across PMTCT, HIV prevention, and paediatric HIV services. CIDRZ also carried out 32 data verification exercises and provided QI support visits to several facilities, reinforcing accuracy and integrity in reporting.

On data analysis and use, CIDRZ advanced digital integration through the MER PARSER tool, automating SmartCare data imports into MORE-ZM. Clinical teams were oriented on the MORE-ZM analytics platform, resulting in improved utilization and stabilization of reporting post-February stop-work order, with over 70% of program activities captured through the system. Strategic Information (SI) integration within clinical teams further strengthened data-driven decision-making to improve overall program outcomes.

Positive Infant Audit

In FY25, the Positive Infant Audit study focused on providing technical and supervisory support to facilities within Lusaka province to ensure timely, consistent and correct reporting into a centralized electronic database. This was building on the foundation from the previous year in which data was collected across four CDC supported provinces (Eastern, Western, Southern and Lusaka). By the end of FY25, data on 1,130 infants living with HIV was collected from the start of the project. Data analysis was completed and preliminary findings suggest that many infants are infected during the breastfeeding period and that a substantial portion of mothers knew their HIV status before the pregnancy. A study report was submitted to the funder and next steps will be dissemination of findings after approval as these findings will contribute to the elimination of vertical transmission of HIV.

Paediatrics

CIDRZ's focus in FY25 was to accelerate HIV prevention, testing, and treatment for children and adolescents as part of the commitment to the global alliance to end AIDS in children by 2030. In line with this commitment, CIDRZ supported the implementation of caregiver-assisted HIV Self-Test (HIVST) by orienting health care workers (HCWs) and lay staff. We also supported case finding through mentorship of 413 HCWs across 174 facilities and a continuous quality improvement (CQI) project, which improved paediatric case finding in 84% of the identified underperforming facilities.

The paediatric programme collaborated with the high-risk client programme to scale up know your child status (KYCS+) by ensuring all women with both biological and non-biological children living in their household were tested for HIV. In addition, 48 facility staff were trained in phlebotomy and DBS collection at 9 health centres in Chongwe district.

Further, CIDRZ supported Enhanced ART adherence services and direct observed therapy (DOT) in children with unsuppressed VLs. These combined efforts contributed to achieving 95% VL suppression by the end of Q4 in Lusaka province.

Smart Care Support

CIDRZ is supporting the Ministry of Health to strengthen SmartCare, the national electronic health record system used in health facilities across Zambia. The work focuses on helping provinces improve how patient information is captured, monitored and used in routine care. CIDRZ teams provide technical assistance to resolve SmartCare system challenges, improve reporting tools, assess facility needs and train health workers to use SmartCare Pro more effectively. They also help provincial teams monitor key indicators such as adherence, treatment continuity, maternal and child health reporting and viral load monitoring.

Technical Assistance

Leveraging CDC funding for specialised Technical Assistance, CIDRZ partnered with the Lusaka Provincial Health Office (LPHO) to advance the integration of non-communicable disease (NCD) services across all ART clinics. By September 2025, 343 healthcare workers had been trained in NCD integration, and job aids along with educational materials were distributed to all supported facilities. As a result, 567,436 people living with HIV (PLHIV) were screened for hypertension, with 7% found to have elevated blood pressure, and 7,162 were screened for diabetes, of whom 13% were diagnosed.

To strengthen advanced HIV disease (AHD) services and improve data accuracy, CIDRZ provided training, mentorship, and supervision to 2,112 clinical staff and 139 M&E officers. This support enabled the screening of 12,129 eligible clients, with AHD confirmed in 36% of those screened. Additionally, CIDRZ worked with LPHO to enhance client retention by training healthcare workers in retention strategies, appointment management, peer support, customer care, and patient-centred approaches.

Voluntary Male Medical Circumcision

During FY25, the CIDRZ male circumcision (MC) programme supported and built capacity within Provincial Health Office (PHO) teams to use effective, evidence-based demand-generation approaches and strategies. Collaboratively, we ensured quality information, education, and communication (IEC) to help enhance programme visibility across the four supported provinces in Zambia. Furthermore, we collaborated effectively with the Ministry of Health to organise and transition soccer galas and road shows to LPHO.

CIDRZ additionally facilitated training for 400 staff in the ShangRing method and established two new Centres of Excellence, increasing the total to four. In FY25, with CIDRZ support, LPHO successfully circumcised 76,004 males aged 15 and above.

Over the past six months, the CIDRZ MC team supported the Ministry of Health in implementing transition and sustainability plans, beginning with leadership teams and extending to district teams and service providers. However, by the end of September, due to reduced funding and changes in the US government direction, CIDRZ discontinued its support for VMMC.

Strengthening Zambia Defense Force HIV/AIDS Prevention Program (DHAPP)

FUNDER:

US Department of Defence HIV/AIDS Prevention Program

TIME PERIOD:

Sep 2023 - Sep 2027

The goal of the Defence Force HIV/AIDS prevention programme is to support the Defence Force of Zambia (DFZ) to reach sustainable control of the HIV epidemic through strengthening health systems and technical capacity to implement a person-centred HIV prevention, care and treatment program aligned with national guidelines and PEPFAR. Despite nearly 50% staff reductions following the United States Government (USG) Stop Work Order, the project ended on a positive note, achieving above 90% performance across most indicators. HIV testing services reached 111,218 individuals, identifying 3,890 HIV-positive clients and linking 96% to treatment. Viral load suppression was consistently high at 97%, marking a significant achievement in HIV epidemic control. Viral load coverage reached 88%, despite challenges posed by intermittent reagent stockouts and equipment downtime. By year-end, 43,092 recipients of care were receiving antiretroviral therapy on the programme, achieving 91% of treatment targets. Additionally, the programme provided cervical cancer screening to 13,240 women, tuberculosis prevention services to 11,827 individuals, and Pre-exposure Prophylaxis (PrEP) to 3,603 pregnant and breastfeeding women.

Key activities included completing the Starlink roll-out to provide internet connectivity in the 60 DFZ facilities and installing a firewall for network management. SmartCare Pro was also successfully implemented during this period. The project offered technical support to the DFZ Extension for Community Healthcare Outcomes (ECHO) programme, which delivers ongoing professional development. During the reporting period, the project supported 48 ECHO sessions with a monthly average attendance of 137 participants. Additionally, the project supported supply chain and laboratory services through technical assistance and collaboration with the Ministry of Health. Training was provided to 60 DFZ data personnel in data management and monitoring and evaluation, 119 healthcare providers in PrEP for pregnant and breastfeeding women (PBFW), 21 providers in Cabotegravir long-acting (Cab_LA) PrEP, 60 healthcare workers in pediatric HIV, 113 in quality improvement, and 27 in cervical cancer screening. CIDRZ also procured essential supplies, including autoclaves, cervical cancer cameras, and laptops, to support programme activities, and continued to provide site-level technical assistance in partnership with DFZ and our sub-partner Development Aid from People to People (DAPP).

02

Adult HIV Care, Treatment and Prevention

- HIV Control Working Group
- IedeA - International Epidemiologic Databases to Evaluate Aids
  - Dolutegravir (DTG) Resistance Study
  - Non-Communicable Diseases Study
  - SRN Sentinel Research Network
  - TB Study
  - TB Transmission
  - SHARP

HIV Control Working Group

FUNDER:
Gates Foundation

TIME PERIOD:
Nov 2022 - July 2025

The African-led HIV Control Working Group (HCWG), supported by the Bill & Melinda Gates Foundation through Centre for Infectious Disease Research in Zambia, aims to establish a unified African voice on HIV control and long-term sustainability in Sub-Saharan Africa. It promotes African ownership and leadership in the HIV response, reducing reliance on external donors.

In Phase I, the HCWG redefined HIV control from an African perspective through four thematic areas: HIV Control; Sustainability, Governance and Leadership; Health and Community Systems Strengthening; and Prevention. Key activities included refining its mission and vision, producing position papers, mapping major stakeholders (such as UNAIDS, World Health Organization, PEPFAR, Global Fund to Fight AIDS, Tuberculosis and Malaria, and Africa CDC), and conducting key informant interviews to shape post-2030 HIV strategies. The group advocated for integrating HIV services into primary health care and empowering civil society, youth, and women.

Major achievements include launching in Johannesburg in August 2023, recruiting 12 leaders from across Africa, hosting multiple regional and virtual meetings, and engaging global stakeholders. The HCWG presented at high-level forums including the World Health Assembly, AFRAVIH, IAS Berlin, UNGA side events, and UNAIDS Beyond 2030, and partnered with initiatives such as the HIV Leadership Forum and Africa REACH.

The group has published two papers, including one in BMJ Global Health, with four more in development. It has also launched a website and social media platforms. Phase II of the project is currently underway.

Iedea - International Epidemiologic Databases to Evaluate Aids

FUNDER:
National Institutes of Health

TIME PERIOD:
Mar 2022 - Aug 2024

Dolutegravir (DTG) Resistance Study

The Dolutegravir (DTG) Resistance Study is a multiregional, cross-sectional, non-interventional study investigating HIV-1 subtype-specific drug resistance among adults and adolescents (10 years and older) experiencing virologic failure (≥1000 copies/mL) while on DTG-based ART. It is conducted across six regions of the IeDEA cohort.

In Zambia, the study enrolled 250 participants (including paediatric patients) on first-, second-, and third-line ART from five sites: Kanyama First Level Hospital, Chawama First Level Hospital, Matero First Level Hospital, Kalingalinga Clinic, and the University Teaching Hospital HIV Centre of Excellence.
The study aims to determine the prevalence of integrase strand transfer inhibitor (InSTI) drug resistance mutations (DRMs) at virologic failure, compare resistance patterns across HIV-1 subtypes and treatment contexts, and identify risk factors for treatment failure and resistance development. It also evaluates the phenotypic impact of integrase gene mutations on DTG susceptibility, examines resistance in the 3' polypurine tract (PPT), and explores novel resistance pathways using advanced analyses such as genome-wide association studies and Bayesian network modelling.

Enrolment concluded in June 2025, and the study is currently in the data analysis phase.

Non-Communicable Diseases Study

This study explored the epidemiology of noncommunicable diseases (NCDs) and associated risk factors among HIV-infected adults, as well as a subset of HIV-uninfected individuals from the general population. The overarching goal was to enhance understanding of NCD risk factors among adults in Southern Africa. Specific objectives included assessing the association between HIV infection and metabolic syndrome, as well as individual cardiometabolic risk factors, in urban areas of Zambia and Zimbabwe. The study sought to describe the dynamics of cardiometabolic risk factors and determine the incidence of cardiovascular risk factors and events in HIV-suppressed individuals on antiretroviral therapy (ART).

Additionally, the study aimed to assess the prevalence of mental health disorders, liver disease, and kidney disease among ART-experienced HIV-infected adults receiving care at primary care clinics in Zambia and Zimbabwe. It also sought to understand the knowledge, perceptions, and beliefs regarding ageing and multimorbidity among both HIV-infected and HIV-uninfected adults, as well as the experiences and contexts of managing multimorbidity from the perspectives of healthcare providers and other key stakeholders in Zambia. The study has since enrolled 500 participants, including both HIV-infected and HIV-uninfected individuals, who underwent baseline assessments and are currently engaged in ongoing follow-up visits yearly over a five-year period.

SRN Sentinel Research Network

Using an established network of cohort studies in Southern Africa, this study aimed to address a significant research gap by conducting a prospective study focused on the epidemiology of noncommunicable diseases and risk factors among HIV-uninfected individuals from the general population. This observational cohort study took place at two primary care clinics in Zambia and Zimbabwe. The study enrolled 200 HIV-infected participants who underwent baseline assessments and are currently engaged in ongoing follow-up visits every year for five years. The cohort received funding to continue data collection up to April 2026.

TB Study

This ongoing prospective cohort study in Lusaka, Zambia, based at Chawama First Level Hospital and Kanyama First Level Hospital, investigates how HIV co-infection and other factors influence short- and long-term outcomes in patients with pulmonary tuberculosis (TB).

The study examines delays from symptom onset to diagnosis, treatment initiation, and completion, while also assessing access to preventive TB therapy for close contacts. It collects clinical and treatment data from TB patients with and without HIV to better understand prognosis, survival, quality of life, and treatment response. Particular attention is given to the effects of HIV and antiretroviral therapy (ART), as well as how integrated TB/HIV services impact outcomes.

Additionally, the study evaluates post-TB lung disease (PTLD) and its links to HIV, diabetes, chronic lung disease, and tobacco and alcohol use, measuring structural and functional lung impairment. It also validates a rapid point-of-care sequencing test for detecting TB drug resistance. In 2025, the protocol was expanded to assess cardiovascular complications and long-term quality of life and lung function among TB survivors in selected Zambian towns..

TB Transmission

The study was designed as an observational project, employing exposure assessment methods and implementing interventions to improve patient flow. Over a period of six weeks, we collected patient-related information (including anonymous tracking and clinical data) and environmental data (such as CO2 levels and particle concentrations) at Kanyama First Level Hospital in Lusaka, Zambia, for approximately six hours each day. Inclusion criteria comprised all clinical attendees who visited the clinic and were seated in the waiting room, with no exclusion criteria. The sample size was determined by the number of clinic attendees during the study period.

SHARP

CIDRZ provided technical assistance to the MoH, improving monitoring and evaluation for HIV self-test (HIVST) through the development of harmonised national reporting systems on paper-based and a web DHIS2 platform. This was done through capacity building, including onsite orientations and mentorship across sentinel. As a result, HIVST distribution increased nationally and improved linkages to both treatment and PrEP. Improved performance in sentinel sites is evident and attributed to this support.

Key activities included distributing HIVST kits to key and priority populations, such as adolescent girls and young women (AGYW), and pregnant and breastfeeding women (PBFW). Mentorship and supervision efforts focused on optimising HIVST distribution use cases and strengthening mechanisms for returning results. CIDRZ further supported capacity building for HIVST as Test A at the facility level.

Key milestones included the development of monitoring and evaluation tools for HIVST reporting, both paper-based and via DHIS2, as well as the creation of a national HIVST dashboard to track programme implementation. Stakeholder meetings facilitated the consolidation of reporting into a single facility report from all implementing partners accessing HIVST from reporting sites. All partners now use a harmonised HIVST reporting register. The project remains focused on integrating HIVST and PrEP.

03

Basic Science and Laboratory

- Arbovirus Surveillance Study
- Binding and Functional Serum Antibodies to Shigella Antigens and the Risk of Shigellosis in a Cohort of Zambian Children in the First 3 Years of Life (Bactishig)
- Cholera SANGER
- Defining the Spatial Transcriptomic Architecture of the Cervical Tissue Immune Microenvironment During HIV and HPV Coinfection to Local Immune Responses that Contribute to Rapid HPV Clearance (HPVCO)
- Enterotoxigenic E. coli (ETEC) Surveillance Study (ETVAX III)
- Epidemiology and Ecology of Cholera
- Gut Microbiome and Mucosal antibody Responses in Shigella Infection: Insights to inform implications for Vaccine Development (Gut Immune)
- Mapping Viral Reservoir Landscapes in Young People With HIV In Zambia (HIVPerZ)
- Phase 2B, Prospective, Randomised, Double-Blind, Placebo-Controlled, Four-Site Study of the Impact of Shigellosis and Recommended Treatment (Azithromycin) In Children (Treat NDSD)
- Plasma Proteomic Profiling to Gain Insights into Sex Differences in Immune Response Phenotypes and HIV-1C Persistence
- Safety and Immunogenicity of PanChol, a Novel Live Attenuated Oral Cholera Vaccine, in Zambia Adults (PanChol Study)
- SUNSHINE Project
- Viral Reservoir Study
- Transitioning and Integrating Laboratory Services (TRAILS)

Arbovirus Surveillance Study

FUNDER:

EngageZone

TIME PERIOD:

Oct 2024 - Dec 2026

The ARBOSURV project was initiated to strengthen Zambia's capacity for early detection and monitoring of arboviral infections, particularly dengue, through integrated febrile illness surveillance in high-risk areas. The project utilises rapid point-of-care diagnostics, systematic participant screening at sentinel sites, and entomological assessments to detect active dengue infections and guide vector-based public health interventions. By integrating laboratory-confirmed febrile illness testing with spatial entomological surveillance, ARBOSURV aims to fill a critical data gap, support national preparedness efforts, and lay the groundwork for potential vaccine evaluation and targeted public health strategies. The project's goal is to comprehensively investigate the epidemiology, ecological drivers, and associated risks of key arboviruses, specifically Dengue (DENV), in selected areas in Zambia to inform future control strategies.

Binding and Functional Serum Antibodies to Shigella Antigens and the Risk of Shigellosis in a Cohort of Zambian Children in the First 3 Years of Life (Bactishig)

FUNDER:

BactiVac Network

TIME PERIOD:

Feb 2025 - Jan 2026

This study aims to identify putative correlations in protection against Shigella that arise under natural exposure conditions. The research is nested within a longitudinal cohort of Zambian infants and young children, followed from 6 weeks to 3 years of age, and integrates serological and molecular detection approaches. The study specifically evaluates the dynamics, magnitude, and functionality of serum IgG and IgA antibodies, as well as seroconversion rates to Shigella sonnei, S. flexneri 2a, and S. flexneri 6 lipopolysaccharide (LPS) antigens, and the conserved protein antigen IpaB. Stool samples have been analysed using quantitative PCR (qPCR) to detect Shigella infections through the ipaH gene, while paired serological measurements are being used to identify infection- or exposure-related antibody responses.

Associations between baseline or pre-existing antibody levels, expressed as geometric mean titers (GMTs) or proportions above defined cutoffs, and subsequent Shigella infection risk are examined across three intervals: 6–12 weeks to 12 months, 12–24 months, and 24–36 months. Together, these analyses aim to define immunological correlates of natural protection against Shigella infection in early childhood.

Cholera SANGER

FUNDER:

Sanger Welcome Trust

TIME PERIOD:

Jun 2024 - Feb 2025

The 2023–2024 cholera outbreak in Zambia caused about 20,000 cases and 700 deaths, prompting a vaccination campaign with the oral cholera vaccine Shanchol™, though many people received only one dose due to limited supply. This study examines how partial vaccination and natural infection influence immune responses by analysing gene expression in blood immune cells from vaccinated and recovered patients, alongside gut microbiome data. It also includes genomic sequencing of Vibrio cholerae to inform public health action. By integrating immunological, microbiome, and pathogen genomic analyses, the study aims to improve understanding of vaccine effectiveness, guide antibiotic use, vaccination and sanitation strategies, enhance outbreak detection, and build national capacity through targeted training in cholera genomic surveillance.

Defining the Spatial Transcriptomic Architecture of the Cervical Tissue Immune Microenvironment During HIV and HPV Coinfection to Local Immune Responses that Contribute to Rapid HPV Clearance (HPVCO)

FUNDER:

Gates Foundation

TIME PERIOD:

Feb 2024 - Dec 2025

HPV infection is common in both people living with HIV (PLWHIV) and people without HIV. However, PLWHIV may have a higher risk of persistent infection and progression to cervical cancer. Therefore, this study aims to contribute to our understanding of the immunological underpinnings of HPV persistence, improve clinical management and prevention strategies, and advance our understanding of the immune system.

The study will aid our understanding of the natural history of HPV infection in PLWHIV in Zambia, including immunological factors that contribute to persistent infection and the likelihood of developing cancer. Further, understanding the factors contributing to HPV clearance in PLWHIV can help researchers develop effective treatment and disease management strategies. For instance, specific antiretroviral therapies or immune modulators inform the development of prevention strategies, such as vaccination and education programmes. If particular subtypes of HPV are more likely to persist in PLWHIV in Zambia, efforts could be focused on developing vaccines that are specifically targeted at these subtypes and specifically for populations in low to middle-income countries such as Zambia, for which HIV prevalence is high.

HPV clearance depends on the immune system's ability to recognise and eliminate the virus. Research on HPV clearance in PLWHIV can help us understand how HIV affects the immune system's ability to clear infections and develop new therapies that boost immune function.

For this study, we hypothesise that "Greater density of resident CD8+ T cells and lower densities of within FOXP3+ CD4+ T regs within intraepithelial cervical mucosa is associated with rapid HPV clearance".

Enterotoxigenic E. coli (ETEC) Surveillance Study (ETVAX III)

FUNDER:

EDCTP

TIME PERIOD:

Feb 2020 - Feb 2025

Enterotoxigenic E. coli (ETEC) is one of the major causes of moderate-to-severe diarrhoea (MSD) among children globally and in Zambia. The overall aim of this study is to document the burden of ETEC-associated diarrhoea in Zambian children under the age of three. This study seeks to determine the aetiology of diarrhoea, calculate the incidence of moderate-to-severe ETEC-associated diarrhoea, and describe the frequency of ETEC colonisation factors and enterotoxin types in children under three years old in Zambia.

This prospective, longitudinal, observational study was carried out at five clinical research sites: Chawama General Hospital, Matero General Hospital, Chainda South Clinic, George Clinic, and Kanyama General Hospital. The study began with a household census in the catchment areas of participating health facilities, surveying 4,065 households. This was followed by 12 months of passive diarrhoea surveillance at each site.

Surveillance activities concluded in October 2021, and analysis to determine the incidence of ETEC and other coinfections was completed in June 2022. Preparations are underway for a Phase III efficacy study evaluating the ETVAX vaccine in children.

Epidemiology and Ecology of Cholera

FUNDER:

National Institutes of Health

TIME PERIOD:

Jan 2025 - Dec 2026

This study is a collaborative immunology-focused investigation conducted in partnership with Johns Hopkins University (JHU), aimed at characterising factors that influence immune responses to Vibrio cholerae infection and oral cholera vaccination in a cholera-endemic setting. The study integrates immunological profiling with assessments of gut health to better understand variability in host responses following exposure to V. cholerae through natural infection or vaccination. The study enrols individuals with confirmed cholera infection as well as vaccinated individuals, with vaccinated participants serving as a key comparison group for contextualising immune response profiles. Biological samples, including blood-derived specimens and stool, are collected to support the measurement of cholera-specific antibody responses, cytokine levels, and memory B cell activity. In parallel, the study aims to examine bacteriophage assays for detecting the virus as an alternative to V. cholerae identification.

A central component of the study is the profiling and comparison of immune responses across exposure groups, with a particular focus on antibody response patterns. To support this objective, the study includes the validation and application of an agglutination-based assay for determining cholera antibody titers, enabling scalable assessment of humoral responses in naturally infected, unvaccinated individuals.

Gut Microbiome and Mucosal antibody Responses in Shigella Infection: Insights to inform implications for Vaccine Development (Gut Immune)

FUNDER:

BactiVac

TIME PERIOD:

Nov 2025 - Apr 2026

Shigella infection presents a significant global health challenge, particularly for young children in regions such as Zambia. It is a leading cause of severe diarrhoea, contributing substantially to childhood morbidity and mortality. Despite its impact, our understanding of the interactions between the gut microbiome and host immune responses in combating Shigella remains limited. This knowledge gap hinders the development of effective strategies for the prevention and treatment of Shigella-related infections.

This project will shed light on this complex relationship. Our preliminary data show that Shigella infection modulates a child's developing gut microbiome, and these changes, along with any existing microbiome imbalances, might make them more vulnerable to future infections. We have also identified higher levels of mucosal Shigella-specific antibodies in children who had less severe disease. The study is a nested case-control study that will leverage a cohort of children aged 6-59 months from a peri-urban Zambian setting. Stool samples were collected at multiple time visits (Baseline, during sick visits and post-infection). Children with Shigella diarrhoea (cases) will be compared with those without (controls), matched by age and sex, to analyse their gut microbiomes and assess antibody levels.

Advanced metagenomic sequencing will be used to generate a comprehensive profile of the gut microbiome in children, enabling identification of microbial signatures associated with Shigella infection and characterisation of the resistome to assess whether Shigella infection is linked to an increased burden of antimicrobial resistance genes. In parallel, mucosal antibody responses will be quantified using a multiplex high-throughput assay on the Meso Scale Discovery (MSD) platform, allowing simultaneous detection of antibodies against conserved Shigella antigens (IpaB, IpaC, IpaD, IpaH, and VirG) and lipopolysaccharide (LPS) antigens from predominant circulating serotypes, including S. flexneri 3a, S. flexneri 6, and S. sonnei. By connecting these antibody profiles with clinical information and the microbiome data, the study aims to identify antibody responses associated with protection against Shigella infection and severe disease. This study aims to understand the relationship between the gut microbiome composition, mucosal antibody responses (IgA and IgG), and susceptibility to Shigella infection in under-five Zambian children.

Mapping Viral Reservoir Landscapes in Young People With HIV In Zambia (HIVPerZ)

FUNDER:

AIDSFONDS

TIME PERIOD:

May 2023 - Mar 2026

Evolving insights into HIV-1 persistence and its underlying mechanisms continue to shape scientific efforts toward achieving an HIV-1 cure or ART-free viral control. There is a critical need for studies involving genetically diverse people living with HIV (PLWH) in highly burdened African settings, as such research remains limited. These studies are essential for informing the development of HIV-1 therapeutics tailored to African populations, where more than 60% of the global PLWH population resides. For example, a recent study of Ugandan PLWH observed a smaller but more genetically diverse peripheral inducible HIV-1 reservoir than that seen in a US PLWH cohort, potentially linked to viral factors (e.g., higher cytopathicity of non-B HIV strains) and/or host factors (e.g., higher rates of coinfection resulting in less clonal expansion).

A related study reported a reduced frequency of viral outgrowth among Ugandan women, potentially reflecting low inducibility, reduced viral gene expression, or intrinsic elimination of reactivated cells, mechanisms that require further investigation. Additionally, women exhibit a more robust type 1 interferon response during HIV infection than men, which contributes to lower initial plasma viremia and may result in smaller or more restricted viral reservoirs. These findings prompt critical questions regarding the response to latency reversal and immune-based curative strategies in women with HIV.

In this study, we aim to establish a novel HIV-1 reservoir assay adapted for resource-constrained settings. This will enable studies to gain fundamental insights into HIV-1 persistence in women and the impact of differences in immune responses on the viral reservoir. These virologic and immunologic profiling studies will be applied to samples collected from young adults living with HIV-1, on first-line suppressive ART, enrolled on a cross-sectional study at Chainda First Level Hospital in Lusaka, Zambia.

Phase 2B, Prospective, Randomised, Double-Blind, Placebo-Controlled, Four-Site Study of the Impact of Shigellosis and Recommended Treatment (Azithromycin) In Children (Treat NDSD)

FUNDER:

National Institutes of Health

TIME PERIOD:

Feb 2026 - Dec 2030

Restricting antibiotic treatment to children with dysenteric disease (bloody stool) may leave a significant burden of Shigella-associated morbidity and mortality unaddressed among children with non-dysentery Shigella-associated diarrhoea (NDSD). The absence of dysentery does not equate to a low risk of death, nor does it exclude Shigella as the etiological cause of diarrhoea, particularly among younger and malnourished children for whom timely diagnosis and intervention may be lifesaving. It may be hypothesised that NDSD cases, if identified quickly, should be treated with antibiotics or other therapeutics to improve survival and long-term developmental potential in children. Identification of such cases will require rapid testing to document these infections, enabling prompt treatment. Thus, rational treatment of shigellosis requires a simple, rapid, sensitive, specific, low-cost cost and easy-to-deploy diagnostic test.

This study aims to determine whether antibiotic treatment of NDSD reduces the duration of diarrhoea and improves nutritional outcomes, including changes in weight-for-age and length-for-age Z scores, over a three-month follow-up period. Additionally, the study will generate new insights into the clinical impact of NDSD, evaluate the feasibility and acceptability of implementing rapid diagnostic testing and antibiotic therapy in routine care, and examine provider, patient, and health system factors influencing uptake. Collectively, these findings will inform potential policy changes and provide evidence to support the development and deployment of rapid diagnostic tests to identify children with NDSD who are most likely to benefit from antibiotic treatment.

Plasma Proteomic Profiling to Gain Insights into Sex Differences in Immune Response Phenotypes and HIV-1C Persistence

FUNDER:

CDRF Global

TIME PERIOD:

Oct 2024 - Jul 2026

HIV-1 persists in blood and tissues despite effective antiretroviral therapy (ART), but there is evidence of sex- and subtype-specific differences in the size and activity of the latent reservoir. For example, a recent study observed a trend toward a smaller HIV-1 reservoir in peripheral blood cells of Ugandan women compared to men; this cohort was predominantly composed of people living with HIV-1 (PLHIV) subtype D, which is associated with faster disease progression. Our preliminary findings point to a higher frequency of cells expressing tat/rev multiply spliced (ms)RNA in samples from South African women compared to men with HIV-1 subtype C. These contrasting findings highlight the importance of investigating sex-related differences in the size and activity of the latent HIV-1 reservoir, suggesting that sex hormones, immune responses, and viral subtype may all play a role. This project aims to characterise sex differences in immune response phenotypes and examine how these relate to the size of the latent HIV-1 reservoir in a cohort of ART-treated men and women living with HIV-1 subtype C in Lusaka, Zambia.

Safety and Immunogenicity of PanChol, a Novel Live Attenuated Oral Cholera Vaccine, in Zambia Adults (PanChol Study)

FUNDER:

Wellcome Trust

TIME PERIOD:

Feb 2026 - Sep 2026

This Phase 1b, randomized, double-blind, placebo-controlled clinical trial will evaluate the safety, tolerability, and immunogenicity of PanChol, a novel live attenuated oral cholera vaccine, in healthy Zambian adults aged 18–55 years. Approximately 32 participants will be enrolled at the Levy Mwanawasa University Teaching Hospital and the Centre for Infectious Disease Research in Zambia (CIDRZ).

Participants will receive a single oral dose of PanChol at either 107 or 108 CFU, or placebo. The study will assess reactogenicity, vibriocidal antibody responses, and IgG, IgA, and IgM responses to Vibrio cholerae Inaba and Ogawa polysaccharides, cholera toxin B subunit, and toxin-coregulated pilus (TCP). Stool shedding of PanChol organisms will be monitored through day 14 post-vaccination.

Participants will remain inpatients for 14 days for close safety monitoring and sample collection, followed by outpatient follow-up visits on days 29, 57, 90, and an optional day 180 visit. The trial aims to generate critical safety and immunogenicity data to inform the further development of PanChol as a potential oral cholera vaccine for endemic settings.

SUNSHINE Project

FUNDER:

EDCTP 2

TIME PERIOD:

May 2025 - Mar 2026

This study evaluates a candidate vaccine for shigellosis, a major cause of diarrhoeal disease, particularly in young children. Vaccine development has been challenged by reduced immune responses and protection in children under three years of age, highlighting the need to improve immunogenicity, potentially using adjuvants.

The trial assesses the safety and immunogenicity of two dose strengths (2.5 µg and 10 µg) of the injectable InvaplexAR-Detox Shigella vaccine, administered with and without the dmLT adjuvant (0.1 µg). InvaplexAR-Detox combines conserved invasion plasmid antigen proteins with a serotype-specific lipopolysaccharide modified for safe intramuscular use. The dmLT adjuvant has previously enhanced immune responses in preclinical studies and has shown safety in early human trials with other vaccines.

This Phase Ia/b trial is the first to evaluate InvaplexAR-Detox co-administered with dmLT. The Phase Ia (first-in-human) component was conducted at Leiden University Medical Centre in a non-endemic setting among immunologically naïve participants. Following its successful completion, Phase Ib is now being conducted in an endemic setting at CIDRZ in Zambia.

Viral Reservoir Study

FUNDER:

Erasmus University Medical Center and Aidsfonds

TIME PERIOD:

May 2023 - May 2025

Research on HIV-1 persistence has largely excluded African populations, despite over 60% of people living with HIV residing in Sub-Saharan Africa. Emerging studies from Uganda show that women and African cohorts may have smaller, more diverse, and less inducible HIV-1 reservoirs, potentially due to viral strain differences and stronger immune responses, including heightened type I interferon activity in women. These findings raise important questions about how women with HIV may respond to latency-reversal and immune-based cure strategies.

This study aims to establish a novel HIV-1 reservoir assay suitable for resource-constrained settings to better characterise viral persistence and immune influences in women. The approach will be applied to young adults on suppressive first-line ART enrolled at Chainda First Level Hospital in Lusaka, generating context-specific insights to inform future HIV cure research in Zambia.

Transitioning and Integrating Laboratory Services (TRAILS)

FUNDER:

Centers for Disease Control and Prevention

TIME PERIOD:

Sep 2023 - Sep 2028

CIDRZ has partnered with the Ministry of Health (MOH), the Association of Public Health Laboratories (APHL), Wits Health Consortium (WHC), and the Clinical and Laboratory Standards Institute (CLSI) to strengthen Zambia's health laboratory system, an essential component in achieving the UNAIDS 95 9595 goals and advancing HIV/AIDS epidemic control. Through this partnership, the organisations aim to support the Government of the Republic of Zambia (GRZ) in building and sustaining high-quality laboratory systems that meet the needs of people living with HIV (PLHIV) and the wider population. A team of experienced technical experts is applying proven strategies to enhance current laboratory support, provide technical assistance in supply management and

diagnostic network optimization, mentor GRZ staff in implementing a fully functional laboratory system, evaluate both setup and recurrent costs to create a comprehensive transition plan, and guide the phased transfer of all partner-supported laboratory services, monitoring, and evaluation activities to GRZ.

By the end of the funding period, our consortium envisions an MOH-implemented laboratory network capable of providing high-quality HIV diagnosis, care, treatment, and monitoring to improve patient care and overall public health.

Biosafety and Biosecurity

CIDRZ reinforced critical safeguards in Zambia's laboratories by investing in medical waste management, biosafety, and biosecurity. These efforts are essential for infection prevention and protect laboratory workers, patients, and surrounding communities.

We collaborated with the Ministry of Health to implement safe handling and disposal methods for hazardous waste, especially Guanidium Thiocyanate (GTC), a chemical used in molecular testing. Eighteen high-volume facilities were designated as GTC "hotspots," and three safer destruction methods, precipitation, charcoal, and sawdust, were piloted nationwide. More than 25 facilities received virtual training, and new tracking tools were introduced to monitor waste volumes and destruction practices.

For incineration,15 incinerators were prioritised for maintenance, and 21 sites received support with fuel and training. A digital dashboard was launched to monitor incinerator performance in real time, enhancing data use for maintenance scheduling and performance tracking.

Biosafety efforts achieved key milestones: all biosafety cabinets at supported sites were recertified, and biosafety mentorships were conducted in 20 facilities using ISO 35001/15190 standards. A basic biosafety and biosecurity (BSBS) package was developed to support standardised implementation and future scale-up.

Our work continues to ensure that as Zambia's laboratory system advances, it does so safely, for everyone.

Ensure Uninterrupted Sample Courier System Operations and Monitoring

In the 2024–2025 fiscal year, CIDRZ continued to safeguard one of the most vital links in Zambia's health system: the national sample courier network. Reliable transport of diagnostic samples, especially in rural and hard-to-reach areas, is essential to ensure that every patient receives timely testing and care, regardless of location.

To maintain this lifeline, CIDRZ, through the TRAILS project, funded the full annual cost of courier services through ZAMPOST and repaired 15 motorbikes to support intra-district transport in Northwestern Province. Two new vehicles were also procured for the region, improving transport reliability. Cold chain integrity was enhanced through the provision of Techni ice, temperature

loggers, and other critical supplies. Provincial teams were also oriented on the use of the Logistics App to more effectively track and monitor specimen movement. These combined efforts ensured uninterrupted sample collection and delivery across the network, minimising delays in results and missed treatment opportunities.

Challenges remain, including vehicle wear and tear, a lack of dedicated riders, and occasional disruptions caused by seasonal conditions. Cold chain maintenance and specimen packaging also continue to affect sample integrity in some areas. However, ongoing digital innovations and increased capacity-building are helping address these issues. By ensuring that no sample—and no patient—is left behind, CIDRZ is making diagnostic access more equitable and responsive, helping Zambia move closer to its 95-95-95 targets and universal health coverage.

HIV Rapid Testing Continuous Quality Improvement

The TRAILS project supported Zambia's Ministry of Health in strengthening the Rapid Testing Continuous Quality Improvement (RTCQI) program throughout 2024–2025. The project focused on improving the accuracy and reliability of HIV rapid testing through proficiency testing, workforce development, and digital monitoring tools. Over 3,800 testing sites participated, with high pass rates and targeted support provided to sites with deficiencies. TRAILS piloted new proficiency testing approaches, trained 27 trainers and assessors, and helped localize panel production to build sustainability. Digital dashboards were developed for ongoing monitoring. These efforts ensure HIV rapid testing remains accurate, reliable, and patient-centered across Zambia.

Improvement Of Laboratory Network Through Diagnostic Network Optimization (DNO)

In 2024–2025, CIDRZ partnered with the Ministry of Health (MOH) and CDC to enhance the efficiency of Zambia's laboratory network through Diagnostic Network Optimisation (DNO). Leveraging data-driven analysis, DNO strategically positions diagnostic equipment to ensure laboratory services are accessible, timely, and equitably distributed nationwide.

While the DNO exercise for the National Molecular and Pathogen Diagnostics Program (NMPDP) is ongoing, early results have established a foundation for a more responsive health system. By mapping test demand and specimen pathways, DNO enables planners to reconfigure networks, reduce turnaround times and unnecessary referrals, and maximise resource utilisation.

CIDRZ continues to advocate for technical assistance and broader training to promote national ownership and scalability of DNO. As Zambia's health system evolves, optimising diagnostic networks remains crucial to delivering fast, reliable, and equitable care. CIDRZ is proud to support this transformation, ensuring every test, in every district, contributes to better health outcomes.

Improvement of Specimens Monitoring and Results-Return Using Digital Solutions

CIDRZ strengthened Zambia's laboratory-to-clinic continuum by expanding digital health solutions that streamline specimen tracking, test result delivery, and clinical decision-making. In partnership with the Ministry of Health, APHL, and WHC, TRAILS supported the national rollout and integration of DisaLab LIS and the eLABS mobile application, both designed to improve efficiency, data visibility, and patient care outcomes.

DisaLab LIS was deployed in five additional facilities and ten point-of-care sites in Northwestern Province, with local MOH teams leading installations to reduce costs. The system's use now extends across HIV, TB, HPV, and the National Multi-Pathogen Diagnostic Program. Integrated with eLABS, SmartCare, and surveillance systems, LIS supports seamless test ordering, data capture, and centralized reporting for over 292 facilities nationwide, housing more than 33 million records in the national data repository.

The eLABS mobile workflow tool is now active across hundreds of sites. From October 2024 to September 2025, provinces using eLABS experienced higher testing volumes, rejection rates below 2% in most areas, and improved turnaround times for HIV Viral Load and Early Infant Diagnosis. Viral suppression rates remained high, with several provinces surpassing the 95% UNAIDS target.

National Multi-Pathogen Diagnostic Program (NMPDP)

CIDRZ partnered with the MOH and other stakeholders to develop the National Multi-pathogen Diagnostic Programme (NMPDP) to address significant gaps in Zambia's current diagnostic capabilities in molecular and microbiological techniques. This cutting-edge initiative incorporates advanced technologies such as open PCR and genomic sequencing to identify infectious pathogens accurately.

As part of sustainability efforts, CIDRZ collaborated closely with laboratory and clinical stakeholders to develop the NMPDP Framework, which contains the multiplex testing diagnostic strategy. Other supporting documents developed were standard operating procedures (SOPs), clinical algorithms, and case investigation forms to standardise the workflow. Site assessments were conducted at facilities to identify gaps that informed implementation priorities.

As of September 2024, 4 out of the 10 designated sites had successfully installed all the necessary equipment, LIS, and were fully operational. Further, staff at these locations were trained to ensure proficient use of the new technology. CIDRZ has continued programme implementation monitoring to resolve any issues, ensuring smooth operations and functionality across all sites.

The introduction of the open PCR platform has significantly enhanced the ability to detect and identify multiple pathogens simultaneously, providing a more comprehensive understanding of infectious disease patterns. The identification of a broad spectrum of pathogens that are frequently missed because of diagnostic limitations demonstrates the versatility of the open PCR platform in supporting the timely and accurate diagnosis of infectious diseases, leading to improved patient management and treatment outcomes.

Optimisation Of Laboratory and SmartCare Operations Through Solar Energy Maintenance

CIDRZ strengthened the reliability of laboratory and SmartCare operations by investing in solar energy solutions for health facilities across Zambia. Amid persistent energy challenges, especially in off-grid and load-shedding-prone areas, dependable solar power became essential for sustaining diagnostic services, refrigeration, electronic data systems, and uninterrupted healthcare delivery.

CIDRZ supported the repair, servicing, and maintenance of solar power systems, including inverters, battery banks, and photovoltaic panels, ensuring that laboratories, SmartCare stations, and critical medical equipment remained operational even during prolonged outages. These interventions reduced service disruptions, safeguarded sensitive data, and sustained timely patient care and results delivery.

To build long-term national capacity, 34 biomedical engineering technicians and provincial equipment officers received mentorship in maintaining power backup systems. This hands-on training, combined with logistical support for on-site repairs, empowered MOH staff to independently troubleshoot and manage solar infrastructure. TRAILS also introduced a monthly energy reporting tool to enable systematic tracking of solar system performance and improve responsiveness to faults.

As a result, platforms like DisaLab LIS and SmartCare have maintained consistent uptime, enabling seamless test management, real-time data sharing via eLABS, and continuous clinician-patient engagement. These energy resilience efforts are laying a critical foundation for sustainable, tech-enabled healthcare systems across Zambia, ensuring that power interruptions never stand in the way of patient care.

Optimization of Point-of-Care Testing to improve HPV testing, Viral Load (VL) and Early Infant Diagnosis (EID) coverage for priority populations.

CIDRZ advanced efforts to bring HIV Viral Load (VL) and Early Infant Diagnosis (EID) services closer to patients through Point-of-Care Testing (POCT). This approach eliminated long diagnostic delays, improved clinical decision-making, and eased the burden on central laboratories.

We supported 251 facilities nationwide with data bundles to enable real-time connectivity of GeneXpert platforms for reporting and monitoring POCT data. In collaboration with the Ministry of Health, the project maintained a live performance dashboard to help stakeholders track multi-disease testing trends, identify gaps, and take timely action, thereby improving planning and resource allocation. Despite disruptions from power outages and administrative delays, Data Quality Audits were successfully conducted at select sites, resulting in targeted corrective actions and stronger data reporting systems.

By placing life-saving diagnostics closer to where care is delivered, CIDRZ is helping to ensure that no patient is left waiting for the results that could change their life. This work continues to move Zambia closer to its HIV epidemic control targets through faster, more equitable access to testing and treatment.

Strengthen Laboratory Capabilities to Enhance Laboratory Operations and Quality Management Systems (QMS)

CIDRZ significantly strengthened Zambia's laboratory systems through implementation of ISO-based Quality Management Systems (QMS), expanded national mentorship, and sustainable in-house equipment calibration services. These efforts improved diagnostic accuracy, reduced errors, and enhanced patient outcomes nationwide.

All 13 of Zambia's ISO 15189-accredited laboratories successfully transitioned to the 2022 standard, with Kaoma General Hospital recommended for accreditation. The number of trained QMS mentors increased from 51 to 81, using a hybrid mentorship model combining preceptorship, virtual support, and structured monitoring tools. The program also strengthened external quality assessment systems by mentoring laboratories toward ISO 17043 accreditation and supporting local production of HIV viral load, TB, and early infant diagnosis proficiency testing panels.

In equipment calibration, Ministry of Health centres conducted 804 in-house calibrations across 38 sites at significantly lower cost than outsourced services, generating major savings and building national capacity. Seventeen Ministry staff were trained in ISO/IEC 17025:2017, and Zambia's central laboratory is now prepared for SADCAS accreditation.

Overall, these advancements have strengthened the reliability, efficiency, and sustainability of Zambia's laboratory network, moving the country closer to a locally led, high-quality diagnostic system.

Support to National Health Research and Training Institute (NHRTI) and Forensic DNA Laboratory

With funding from US CDC, CIDRZ provided targeted technical and operational support to the National Health Research and Training Institute (NHRTI), a vital regional hub for molecular diagnostics, research, and outbreak response in northern Zambia. Formerly known as TDRC, NHRTI now serves as a key reference laboratory supporting HIV viral load (VL), early infant diagnosis (EID), and epidemic surveillance in underserved areas.

Through our support, critical diagnostic equipment, including PCR platforms, biosafety cabinets, and auxiliary laboratory systems, received scheduled preventive maintenance and calibration. These efforts ensured uninterrupted laboratory operations, maintained test accuracy, and enabled clinicians to make timely decisions that improve patient outcomes and support rapid epidemic response.

Additionally, CIDRZ procured and deployed a motor vehicle to strengthen sample courier systems. Managed by CIDRZ for accountability, the vehicle supports both forensic DNA testing operations and broader initiatives to strengthen the Ministry of Health's laboratory system.

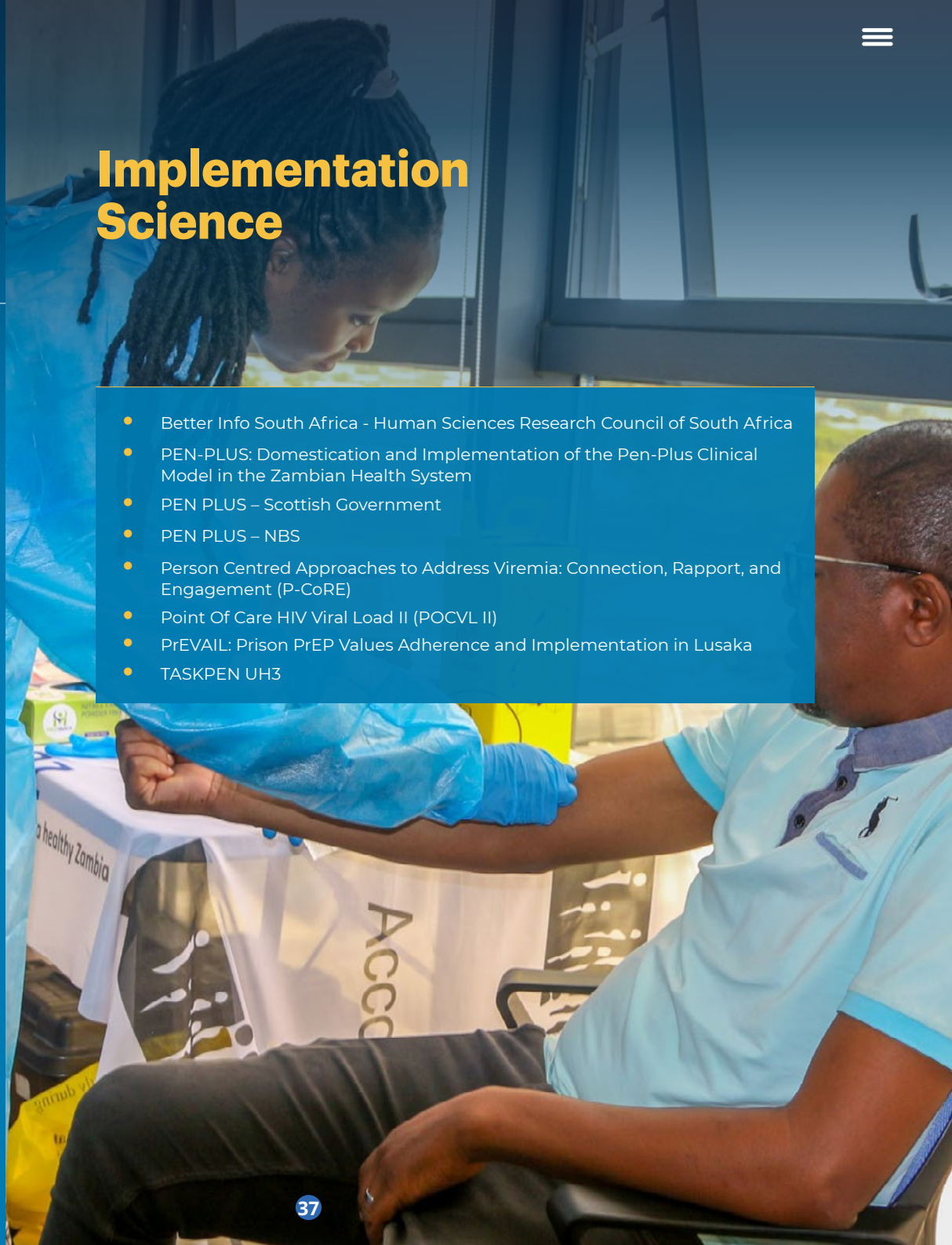
Waste Management

In the year under review, CIDRZ continued to provide routine technical assistance to monitor incinerator functionality in twenty-one (21) PCR testing facilities handling medical and infectious waste. Fuel support was provided to all supported incinerators. Electronic tools for monitoring fuel consumption and optimising incinerator performance were developed and implemented. We contributed to the development of Laboratory Waste Management Guidelines and procured and distributed auxiliary supplies, including protective gear (goggles, face shields, aprons, work suits, gloves), bins on wheels, wheelbarrows, shovels, and stationery (registers and box files for recording waste).

CIDRZ also assessed the functional and technical status of incinerators in 21 selected health facilities, which informed future repair requirements. These repair works are planned for FY3 of this project. We also developed and deployed an electronic incinerator reporting tool across all sites and, in collaboration with the Ministry of Health, conducted training on its use. Additionally, we provided mentorship and retraining on incinerator fuel management and documentation, reaching 74 staff members across the 21 facilities.

04

Implementation Science



- Better Info South Africa - Human Sciences Research Council of South Africa
- PEN-PLUS: Domestication and Implementation of the Pen-Plus Clinical Model in the Zambian Health System
- PEN PLUS – Scottish Government
- PEN PLUS – NBS
- Person Centred Approaches to Address Viremia: Connection, Rapport, and Engagement (P-CoRE)
- Point Of Care HIV Viral Load II (POCVL II)
- PrEVAIL: Prison PrEP Values Adherence and Implementation in Lusaka
- TASKPEN UH3

Better Info South Africa - Human Sciences Research Council of South Africa

FUNDER:

Gates Foundation

TIME PERIOD:

Oct 2023 - Jan 2026

By building on the work of BetterInfo in Zambia, we continue to provide technical support for implementation in South Africa. BetterInfo aims to understand disengagement from care after initiating ART and explore potential ways to encourage PLHIV to return to care. The goal is to identify the entry and exit stages in the care process and understand the factors affecting different populations. By predicting care trajectories for PLHIV, the study aims to develop targeted interventions to improve long-term retention and re-engagement in care.

From February 11-18, 2024, an exchange visit to the Human Science Research Council, KwaZulu-Natal (SA) was conducted. Key activities included a site visit to Ethembeni Clinic, where 150 files were assessed for tracing. Recommendations after this visit focused on team integration, task allocation, and training to enhance data retrieval and study objectives.

PEN-PLUS: Domestication and Implementation of the Pen-Plus Clinical Model in the Zambian Health System

FUNDER:

Leona M. and Harry B. Helmsley Charitable Trust

TIME PERIOD:

Nov 2024 - Mar 2027

During the reporting period, the project focused on its core objective: strengthening the quality of clinical services at PEN-Plus clinics. This was achieved by implementing care aligned with the PEN-Plus Essential Programmatic Standards, conducting quarterly mentorship sessions, maintaining a reliable supply chain of essential PEN-Plus commodities, and collaborating closely with the Ministry of Health for drug supply management. Key achievements included delivering high-quality clinical care and mentorship, enhancing supply chain management systems, and strengthening patient support and community engagement. Additional milestones included building capacity among master trainers in PEN-Plus clinical practice and successfully launching the PEN-Plus National Operational Plan, Treatment Guidelines, and Curriculum in June 2025, marking a significant step in scaling up the PEN-Plus initiative.

PEN PLUS – Scottish Government

FUNDER:

Scottish Government

TIME PERIOD:

Apr 2024 - Mar 2027

The PEN PLUS project aims to strengthen the prevention, diagnosis, and management of Non-Communicable Diseases (NCDs) at district level. The programme focuses on increasing the capacity and coverage of healthcare workers able to provide quality NCD services under the leadership of the Ministry of Health (MoH).

During the reporting period, the programme strengthened collaboration with the Ministry of Health by deploying an attaché to support government leadership and financial commitment towards NCD prevention and management. The project also supported the launch of the PEN Plus National Operational Plan, Treatment Guidelines, and Curriculum in June 2025, marking a significant milestone in the national scale-up of the PEN-Plus programme.

To enhance service delivery, the programme trained healthcare workers from Chifubu Level 1 Hospital and Chipata District Hospital in the management of severe NCDs. Following the trainings, PEN-Plus clinics were established at both facilities and are now providing integrated services for the prevention, diagnosis, and management of severe non-communicable diseases.

PEN PLUS – NBS

FUNDER:

Consortium on Newborn Screening in Africa for Sickle Cell Disease (CONSA)

TIME PERIOD:

Apr 2024 - Apr 2025

The PEN PLUS–NBS project focused on strengthening newborn screening services in PEN Plus sites to enable early identification and management of sickle cell disease (SCD). Early screening allows for timely interventions such as penicillin prophylaxis, immunisation against encapsulated bacteria, and education for parents or guardians, all of which contribute to improved health outcomes and reduced complications associated with SCD.

During the implementation period, newborn screening services were introduced at Matero Level One Hospital, Kapiri Mposhi District Hospital, and Mwachisompola Level One Hospital. The programme targeted babies under the age of three months, with an annual enrolment target of between 10,000 and 15,000 newborns. Babies identified with sickle cell disease were promptly linked to care and provided with early interventions including antibiotics, folate supplementation, antimalarial prophylaxis, and recommended immunisations during infancy.

The programme also prioritised counselling and follow-up services for parents and caregivers. Counselling sessions were conducted for all families whose babies underwent screening, while additional support and linkage to care were provided for those with positive SCD results. Continuous follow-up was conducted to monitor adherence to treatment and preventive measures, with follow-up data captured to support ongoing patient care and programme monitoring.

Person Centred Approaches to Address Viremia: Connection, Rapport, and Engagement (P-CoRE)

FUNDER:

Gates Foundation

TIME PERIOD:

Oct 2023 - Jun 2028

CIDRZ received approval to conduct the Person-Centred Care approaches to address Viremia: Connection, Rapport and Engagement (P-CoRE) study from the University of Zambia Biomedical Research Ethics Committee (UNZABREC) on 16th April 2024, and the National Health Research Authority (NHRA) on 20th June 2024.

P-CoRE is a Gates Foundation-funded study implemented by CIDRZ in partnership with the Ministry of Health to improve viral load suppression among populations most likely to be missed by routine systems. The project uses tracing, viral load ascertainment, and human-centred co-design (HCD) to develop and test a scalable person-centred package across 24 public HIV clinics in Lusaka and Central Provinces.

By January 2026, 2,659 clients had been sampled, 1,878 were eligible for tracing and 1,063 successfully recruited, alongside 250/250 completed healthcare worker surveys. The team has initiated use of the ENhancing Assessment of Common Therapeutic factors (ENACT) tool to assess counselling quality, and delivered six HCD workshops with national, provincial, facility and community stakeholders, including clients and adolescents, to prioritise intervention components such as strengthened locator systems, improved counselling skills, leadership engagement and audit-feedback dashboards.

A realist review of 84 studies has identified multi-level mechanisms–health-system leadership, interpersonal rapport, individual empowerment and appropriate regimen changes–that will inform intervention refinement. Key challenges include incomplete locator information, data quality issues, loss of experienced community-based volunteers and logistical and security barriers to tracing, which CIDRZ is addressing through closer facility collaboration, improved scheduling, and expanding ENACT and HCD activities across all 24 sites.

Point Of Care HIV Viral Load II (POCVL II)

FUNDER:

National Institutes of Health

TIME PERIOD:

Sep 2023 - Aug 2024

This project focuses on the testing and validation of a novel point-of-care (POC) HIV viral load (VL) testing device that is self-powered and CRISPR-based. The aim is to determine how effectively this mobile diagnostic tool performs in real-world Zambian laboratory conditions, particularly in primary health care facilities that have limited access to electricity and conventional laboratory infrastructure. The project seeks to bridge the diagnostic gap by developing a simple, rapid, and affordable platform for HIV RNA detection to improve ART monitoring and management. By integrating this POC technology into Zambia's existing HIV VL testing framework, the study will contribute to faster diagnosis, improved patient management, and potentially enhance differentiated care models in resource-limited settings.

PrEVAIL: Prison PrEP Values Adherence and Implementation in Lusaka

FUNDER:

National Institutes of Health

TIME PERIOD:

Apr 2023 - Mar 2025

PreVAIL started enrolling incarcerated people detained at four correctional facilities in Lusaka, Zambia in August 2023 following regulatory and administrative approvals from Zambia Correctional Service, National Health Research Authority of the Ministry of Health (MOH), and University of Maryland Institutional Review Board.

A total of 706 participants were enrolled between 8 August 2023 and 31 March 2024 with average age 28.6 years and 95.2% (n/N=672/706) male. Of 687 (96.7%) screened for PrEP, 75.1% (n/N=516/687) were PrEP eligible, and 63.0% (n/N=325/516) initiated PrEP.. Participants were followed up at months 1, 3, 6, 9, and 12 after enrollment, including in the community after release from the facility.

As of March 2025, over 1200 study follow-up visits had been completed. A total of 1104 (92%) participants had at least one follow-up visit. Furthermore, 199 urine tenofovir adherence tests were conducted

among 155 participants and showed that 57 (28.6%) were adherent to PrEP. A complementary qualitative component of the study is examining contextual, health behavior, implementation, and health system factors associated with PrEP uptake, persistence, and adherence. In the adherence sub-cohort, 39.7% (60/151) tests indicated objective adherence. Over 602 person-years of follow-up, three participants seroconverted [incidence: 0.5% (95% CI:0.1-1.5]—all of whom were not on PrEP at the time—and were linked to treatment.

In summary, PrEP uptake was high among incarcerated people in Zambia and associated with PrEP knowledge. PrEP persistence and objectively assessed adherence decreased with time. Our findings point to the need for prevention services tailored to this population to promote prevention-effective PrEP use.

The study completed all data collection on 31st March 2025 and successfully disseminated preliminary findings to key stakeholders on 23 May 2025. Final manuscript was submitted for publication in September 2025.

TASKPEN UH3

FUNDER:

National Institutes of Health

TIME PERIOD:

Sep 2020 - Aug 2025

The TASKPEN study is a 5-year project funded by the National Heart, Lung, and Blood Institute (NHLBI) at the United States (U.S.) National Institutes of Health (NIH) and is a collaboration between CIDRZ and the University of Zambia (UNZA). It focused on task shifting and integrating the WHO Package of Essential Noncommunicable Disease Interventions (WHO-PEN) approach to managing cardiometabolic co-morbidities and complications of HIV into routine care settings for persons living with HIV. From 2020-2022, using local data and implementation science theory, the project adapted WHO-PEN for the national HIV program in Zambia, and created a streamlined package of evidence-based practices and implementation strategies that we have coined “TASKPEN”.

From June 2023 to September 2025, the project scaled up the TASKPEN package at 12 health facilities in Lusaka using a cluster-randomized, hybrid type 2 effectiveness-implementation stepped wedge trial design to evaluate the clinical effectiveness and implementation outcomes of the TASKPEN package. Over the course of the trial, 5,504 people living with HIV (PLHIV) (99% of the target sample size) were enrolled across the 12 public health facilities in Lusaka, demonstrating robust feasibility and reach in real-world settings. A nested cohort of 320 PLHIV with co-morbid NCDs identified through the trial were followed longitudinally for ~2 years to assess long-term clinical and implementation outcomes. The data analysis is ongoing and main trial findings are expected to be disseminated in early 2026, but the implementation experience demonstrated that integrating NCD care into existing HIV platforms is not only possible but feasible and effective, supporting dual disease management among PLHIV, a growing public health priority in sub-Saharan Africa. By harnessing implementation strategies (task-shifting, streamlined workflows, government facility engagement) already established in the HIV response, the model offers a sustainable approach to scaling NCD care that aligns with nati


PHARMACY
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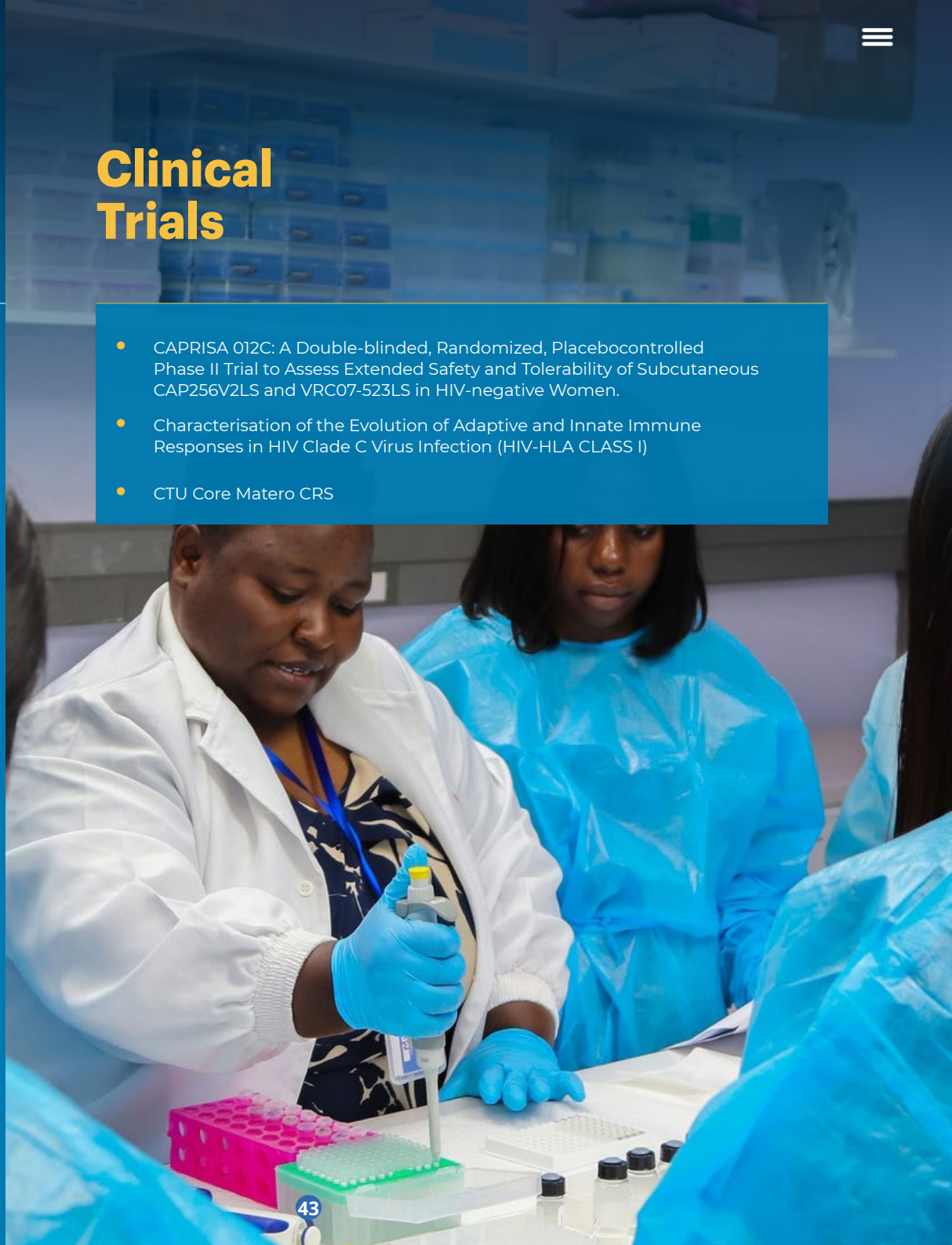
05

Clinical Trials

- CAPRISA 012C: A Double-blinded, Randomized, Placebocontrolled Phase II Trial to Assess Extended Safety and Tolerability of Subcutaneous CAP256V2LS and VRC07-523LS in HIV-negative Women.
- Characterisation of the Evolution of Adaptive and Innate Immune Responses in HIV Clade C Virus Infection (HIV-HLA CLASS I)
- CTU Core Matero CRS



CAPRISA 012C: A Double-blinded, Randomized, Placebo-controlled Phase II Trial to Assess Extended Safety and Tolerability of Subcutaneous CAP256V2LS and VRC07-523LS in HIV-negative Women.

FUNDER:
Centre of the AIDS Programme of Research in South Africa (CAPRISA)

TIME PERIOD:
Jan 2022 - Jun 2025

The purpose of this study was to assess the extended safety and tolerability of subcutaneous CAP256V2LS and VRC07-523LS monoclonal antibodies in HIV-negative women and obtain an estimate of efficacy in preventing HIV infection in young women. To achieve this, 1024 HIV-negative women between the ages of 18 and 30 were enrolled in the study, with 95% (974) enrolled at two sites in South Africa and 5% (50) at the Matero Clinical Research Site (CRS) in Zambia. The Matero CRS was activated in August 2023, concluded enrolment activities in December 2024 and vaccination activities in May 2024. Close-out visits were completed on June 30, 2025.

All participants have been closed out, including data on pregnancy outcomes updated for the two participants with ongoing pregnancies at close out, with the retention rate remaining above 90%. The data analysis is currently ongoing pending data lock and archiving.

Characterisation of the Evolution of Adaptive and Innate Immune Responses in HIV Clade C Virus Infection (HIV-HLA CLASS I)

FUNDER:
Gates Foundation

TIME PERIOD:
Nov 2023 - Dec 2025

This study aims to identify human leukocyte antigen (HLA) class I genes that restrict highly networked epitopes and are associated with protective immunity against regionally circulating HIV subtypes, thereby providing evidence to inform the development of vaccines that are effective in sub-Saharan Africa.

CTU Core Matero CRS

FUNDER:
National Institute of Allergy and Infectious Diseases National Institutes of Health

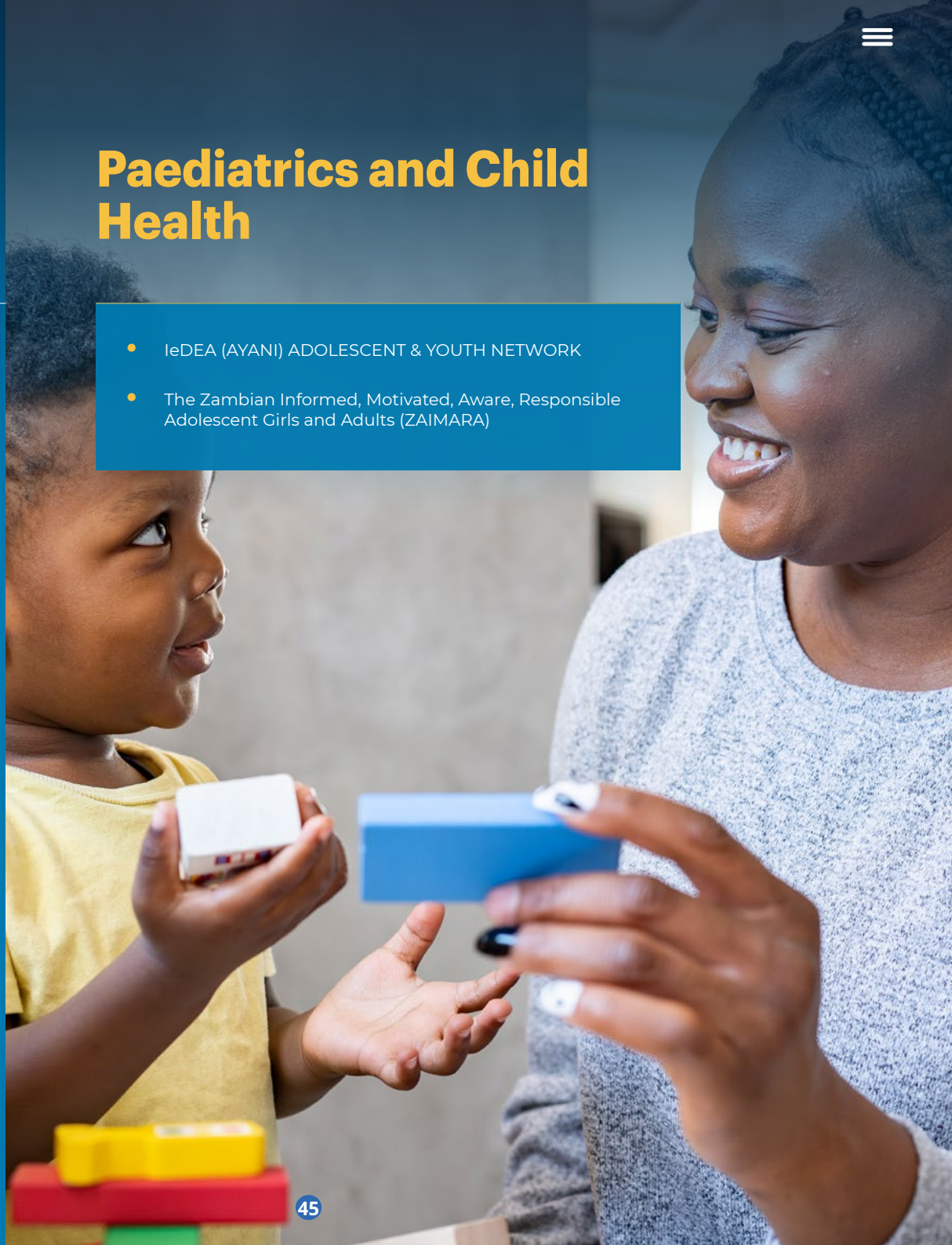
TIME PERIOD:
Oct 2021 - Oct 2026

The Alabama-to-Zambia CTU continues to support the NIAID HIV/AIDS scientific priorities through therapeutics and prevention trials. This award supports regulatory, clinical, data, laboratory, and implementation activities for all active Clinical Trials Unit-affiliated studies being conducted at the Matero Clinical Research Site (CRS). Over this reporting period, DAIDS determined that, due to inadequate past or planned participation in ongoing or future Network studies, the Matero Reference Clinic CRS (30290) has been transitioned from a core HVTN Network site to an NIAID Reserve site. Effective 12/1/2023, the site will remain in the DAIDS Database for potential selection for upcoming protocols on an as-needed basis.

06

Paediatrics and Child Health

- IeDEA (AYANI) ADOLESCENT & YOUTH NETWORK
- The Zambian Informed, Motivated, Aware, Responsible Adolescent Girls and Adults (ZAIMARA)



IeDEA (AYANI) ADOLESCENT & YOUTH NETWORK

FUNDER:

National Institutes of Health (NIH)

TIME PERIOD:

Jul 2019 - Apr 2025

The Adolescent and Young Adult Network of IeDEA (AYANI) is a nested cohort of sites within global IeDEA that have been equipped to recruit ALWH from within the global IeDEA clinical cohort, perform in-depth data collection around the specific biological, mental, social, and cultural factors that may impact ALWH outcomes, and then continue to prospectively follow this cohort of ALWH. AYANI is being developed at each of the six IeDEA paediatric regions (East Africa, Central Africa, West Africa, Southern Africa, Asia-Pacific, and Caribbean/Central and South America. The AYANI cohort enrolled 50 ALWH between the ages of 15-24 years from each region for the AYANI baseline and follow-up assessments. These ALWH acquired HIV perinatally or behaviourally. The main objective of the study is to investigate how care transition, key co-morbidities and conditions, mental health challenges, and social environment factors impact the outcomes of antiretroviral therapy adherence, viral suppression, care engagement, and mortality among ALWH.

The Zambian Informed, Motivated, Aware, Responsible Adolescent Girls and Adults (ZAIMARA)

FUNDER:

National Institutes of Health (NIH)

TIME PERIOD:

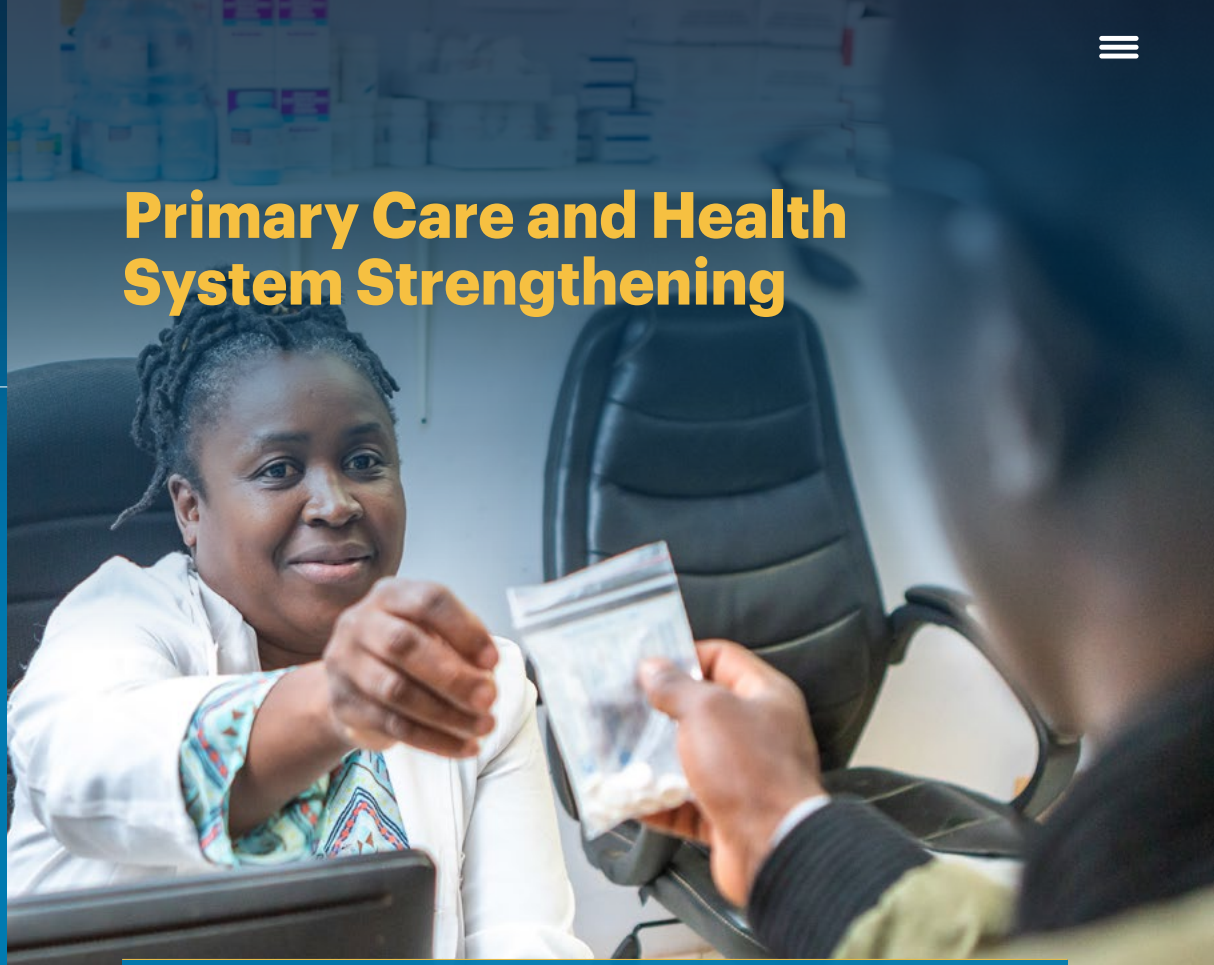
Sep 2023 - Aug 2027

The study is hybrid effectiveness-implementation research focused on systematically adapting the Informed, Motivated, Aware, Responsible Adolescent Girls and Adults (IMARA) curriculum, which was previously tailored for South Africa (IMARA-SA), for use in Zambia. The adapted curriculum has been renamed the Zambian Informed, Motivated, Aware, Responsible Adolescent Girls and Adults (ZAIMARA). ZAIMARA curriculum focuses on strengthening communication between adolescent girls and young women (AGYW) and their mother figures (MF) to make healthy sexual decisions, to learn more about HIV, sexually transmitted infections (STIs), and pre-exposure prophylaxis (PrEP). The topics in the curriculum focus on effective communication, mothers talking to daughters on sex, HIV, STIs and PrEP. The intervention consists of participants attending a two-day workshop with their MF. The study aims to evaluate the impact of ZAIMARA on improving HIV testing, HIV and STI incidence, PrEP uptake, and sexual risk behaviour among adolescent girls and young women.

Additionally, the study will assess the effects of monthly mental health screenings with referrals versus monthly nutrition and exercise screenings on the job retention of peer leaders. Implementation factors and outcomes associated with ZAIMARA will also be examined across five sites. In the first year, the focus was on locally adapting the curriculum with the adolescent and adult community advisory board (CAB) for use in Zambia, as well as training local trainers in ZAIMARA. In the second and third years, the study will recruit adolescent girls and mother figures for a randomized controlled trial aimed at evaluating the effectiveness of ZAIMARA and the Health Promotion Curriculum in enhancing HIV testing, HIV and STI incidence, PrEP uptake, and sexual risk behaviour.

07

Primary Care and Health System Strengthening



- COVID-19 Vaccine Delivery Support (CDS) Needs-based and Third Round
- Cholera Outbreak Response
- Health Systems Strengthening (HSS)/ Equity Accelerator Fund (EAF)/ Human papilomavirus (HPV) HSS
- Partnership Engagement Framework (PEF) Technical Country Assistance (TCA)
- HPV TCA
- Measles Rubella (MR) Supplementary Immunisation Activities (SIA)

COVID-19 Vaccine Delivery Support (CDS) Needs-based and Third Round

FUNDER:

Gavi, the Vaccine Alliance

TIME PERIOD:

Jul 2022 - Jun 2026

This funding initially supported the rapid deployment and scale-up of COVID-19 vaccination. As the pandemic evolved, CIDRZ pivoted its support towards integration of COVID-19 into routine immunisation services, while addressing declining coverage and a rising number of zero dose children. CIDRZ provided technical assistance to the development and implementation of Zambia's EPI recovery plan, part of the Big Catch-Up (BCU) initiative designed to vaccinate children who missed routine doses and to restore immunisation coverage back to pre-pandemic levels.

From December 2024, CIDRZ conducted national Training of Trainers on vaccine management and microplanning, which cascaded across all 10 provinces, reaching 84 districts and 2,074 health facilities. In partnership with Akros, GIS-based microplanning tools were developed and deployed, enabling health facilities to better define catchment areas and optimise outreach strategies.

CIDRZ further supported all 116 districts and their respective health facilities with operational resources to sustain outreach vaccination activities between March and May 2025. Targeted outreach support was provided through two Periodic Intensification of Routine Immunisation (PIRI) activities carried out first in 31 targeted districts with a high number of children missing immunisation doses, and then in 50 targeted districts in the last half of 2025.

In addition, CIDRZ strengthened supervisor systems by supporting national, provincial, and district-level mentorship and monitoring for BCU implementation, contributing to improved programme performance and accountability.

Cholera Outbreak Response

FUNDER:

The ELMA Relief Foundation

TIME PERIOD:

Feb 2024 - Nov 2025

CIDRZ support a comprehensive cholera outbreak response, integration vaccination, field operations and applied research to inform outbreak control strategies.

Oral cholera vaccination campaigns were implemented in 4 districts (Lusaka, Kabwe, Nsama and Mpulungu) delivering 950,029 doses and achieving 99% administrative coverage.

In parallel, CIDRZ led laboratory and field investigations to better understand drivers of the outbreak. Over 500 water samples and 300+ clinical samples were collected and analysed. Preliminary findings indicate that multiple pathogens beyond Vibrio cholerae contributed to the observed disease burden, with manuscripts currently under peer review

Health Systems Strengthening (HSS)/ Equity Accelerator Fund (EAF)/ Human papillomavirus (HPV) HSS

FUNDER:

Gavi, the Vaccine Alliance

TIME PERIOD:

Feb 2024 - Dec 2026

CIDRZ is supporting the Ministry of Health to improve equity in immunisation by targeting zero dose (missing DPT1) and under-immunised children across 32 low-performing districts.

A key focus has been strengthening last-mile vaccine distribution and supply chain performance, with districts reporting no stockouts across all antigens increasing from 87% (Jul-Dec 2024) to 100% (Jan-Oct 2025). Two district-level stock review meetings were held with district logisticians to review stock status, assess supply chain performance gaps, and develop data-driven action plans to optimise vaccine availability and distribution.

CIDRZ, working with Akros, developed and scaled an electronic GIS microplanning tool, now deployed across 1,180 health facilities. Following the training, 97% of health facilities successfully developed and submitted their 2025 microplans, improving the identification and targeting of underserved populations. GIS maps illustrating health facility catchment areas were also provided to support the planning of vaccination outreach efforts.

Real-time performance monitoring systems are also being established, including dashboards to track microplan implementation and vaccination coverage, enabling data-driven decision-making at subnational levels.

Under HPV HSS, CIDRZ supported the transition to a single-dose HPV schedule, strengthening systems for identification and outreach to eligible girls. Pre-registration was conducted, with health care workers collaborating with teachers and community gatekeepers to identify and mobilise eligible girls for vaccination. CIDRZ provided operational support to conduct outreach in these schools and communities which reached over 1,300 health facilities across 53 districts, resulting in 180,460 girls vaccinated—primarily through school-based delivery.

Partnership Engagement Framework (PEF) Technical Country Assistance (TCA)

FUNDER:

Gavi, the Vaccine Alliance

TIME PERIOD:

Mar 2024 - Dec 2026

Through PEF support, CIDRZ is providing embedded technical assistance to the national EPI to strengthen programme performance, vaccine management and monitoring, and outbreak responsiveness.

Key contributions include:

- Supporting the introduction of a second dose of IPV, including tool development and workforce training
- Providing readiness support for the malaria vaccine introduction
- Strengthening outbreak response coordination, including cholera

CIDRZ also plays a central role in supporting national immunisation governance, including coordination of the Zambia Immunisation Technical Advisory Group (ZITAG) processes and provision of technical inputs on immunisation policy, target populations and dosing strategies.

Further support includes strengthening AEFI surveillance systems, forecasting and quantification of vaccine needs, and alignment with national budgeting and supply processes.

CIDRZ also contributed to the development of key strategic documents, including the national EPI manual and HPV revitalisation plan, and conducted data analyses to inform programme decision-making.

HPV TCA

FUNDER:

Gavi, the Vaccine Alliance

TIME PERIOD:

Dec 2023 - Nov 2025

CIDRZ supported national efforts to improve HPV vaccine coverage, including strengthening data systems and targeted outreach.

Following the HPV Multi-Age Cohort (MAC) initiative, CIDRZ supported the clearing of data backlog from the electronic HPV tracker for over 222,000 records across 97 districts.

Targeted 'mop-up' vaccination campaigns were conducted across 58 districts, reaching over 200,000 girls who had missed vaccination, including immunocompromised girls who had missed their second dose.

Measles Rubella (MR) Supplementary Immunisation Activity (SIA)

FUNDER:

Gavi, the Vaccine Alliance

TIME PERIOD:

Apr 2024 - Dec 2025

CIDRZ provided technical and operational support to Zambia's national MR SIA, conducted as part of outbreak response efforts. Support included planning, development of training materials, and cascade training from national to facility level, reaching over 3,300 health facilities. CIDRZ also supported operational financing for outreach during implementation. CIDRZ further supported the post-campaign evaluation to inform future SIAs and routine immunisation strategies.

08

Reproductive, Maternal, Newborn and Child Health

- Randomized Controlled Trial of Caffeine Citrate in Preterm Infants at Risk of Apnea in Zambia
- Effectiveness study of folic acid fortified iodized salt to increase folate concentrations in women of reproductive age in Zambia, a non-fortifying country. Short title: Folic Acid Salt Study
- Assessment of Neisseria Gonorrhoeae and Chlamydia Trachomatis Sexually Transmitted Infection Prevalence Among Pregnant Women, Adolescents, and Key Populations in Lusaka, Zambia
- Comparative Effectiveness of Cervical Cancer Screening Policies in Zambia - A Mathematical Approach
- Longitudinal analysis of HR-HPV infection and cervical intraepithelial neoplasia in women living with HIV
- Admission to the Kangaroo Mother Care Ward and Maternal Postpartum Depression: A Randomized Controlled Trial
- Mental Wellness among Vulnerable Populations
- Improving the implementation of neonatal bag-mask ventilation in Zambia: Formative research
- Low-Cost Monitoring of Preterm Infants Breathing Based on Wireless Accelerometry
- Low Cost CRISPR-on-Paper for Cervical Cancer Screening at the Point of Care
- Syphilis in Pregnancy Study (SIPS)
- Monitoring and Evaluation of the National Syphilis Screening and Treatment Program
- From Exclusion to Equity: Implementing Sexually Transmitted Infections Screening Initiative among Women with Disabilities in Lusaka, Zambia: A Pilot Study

Randomized Controlled Trial of Caffeine Citrate in Preterm Infants at Risk of Apnea in Zambia

FUNDER:

NIH Fogarty & University of Alabama at Birmingham

TIME PERIOD:

Apr 2026 - Dec 2027

While global child mortality has been reduced substantially during the last decades, neonatal mortality, which contributes almost 50% of the under-5 mortality, has been reducing at a much slower pace, taking the lives of 2.3 million neonates annually. Approximately 15 million (11%) preterm babies are born every year, which in turn contributes to at least a third of global neonatal deaths. Preterm infants who require additional care after birth comprise approximately 25% of neonatal intensive care unit [NICU] admissions in developed countries but up to 60% in low- and middle-income countries (LMICs) such as Zambia. Furthermore, apnea of prematurity [AoP], a condition exhibited by cessation of breathing for =20 or <20 seconds accompanied by bradycardia and/or cyanosis, is common among moderately preterm infants. AoP occurs in up to 90% of infants who are born below 34 weeks and among almost all <29 weeks gestational age (GA) and contributes to delayed hospital discharge.

We are proposing a (phase 3) randomized, double-blinded, placebo-controlled trial with a 1:1 parallel allocation to be implemented at the UTH NICU in Lusaka, Zambia. We hypothesize that in moderately preterm infants (29 0/7 to 33 6/7 weeks GA), continuing caffeine citrate treatment for 28 days following hospital discharge compared to placebo will decrease the number of sick visits due to suspected apneic events. Our trial is a novel approach to caffeine citrate therapy and will provide first-ever information on its randomized use after hospital discharge in a low-resource settings.

Effectiveness study of folic acid fortified iodized salt to increase folate concentrations in women of reproductive age in Zambia, a non-fortifying country. Short title: Folic Acid Salt Study

FUNDER:

Kaul Paediatric Research Institute (KPRI COA) 2024-2026 (#2028835) Mary Heersink Institute for Global Health (MHIGH UAB)

TIME PERIOD:

Mar 2026 - Feb 2027

Neural tube defects (NTD) are the most severe congenital anomaly of the central nervous system that remains compatible with life. They arise during the earliest stages (<28 days after conception) of development. Every year, 214,000-322,000 pregnancies worldwide result in new NTDs that contribute to high mortality and morbidity. Children affected with NTDs who survive are born with an open myelomeningocele (MMC), which is more broadly called spina bifida (SB). They require extensive medical care and multiple surgical interventions and face lifelong disability. Quality-of-life impairments often include cognitive impairment, social stigmatization/isolation, depression, and the inability to live independently.

Our long-term goal is to implement widespread food fortification with folic acid globally to prevent folate-sensitive neural tube defects. Our overall objective in this application is to assess the effectiveness of FISFA as a universal food fortification vehicle by 1) increasing serum and RBC folate levels and 2) assessing folate insufficiency levels and highlighting the need for fortified foods in Zambia. Our central hypothesis is that FISFA will increase folate levels by a minimum of 1.40 nmol/L

by month 1, and the effect size of this intervention will be higher than previously reported 0.12 due to lack of ongoing folic acid fortification in Zambia when compared to the US. The rationale for this project is that identifying the effectiveness of FISFA on folate levels is likely to prevent an additional 65% of NTDs globally.

Assessment of Neisseria Gonorrhoeae and Chlamydia Trachomatis Sexually Transmitted Infection Prevalence Among Pregnant Women, Adolescents, and Key Populations in Lusaka, Zambia

FUNDER:

GARDP Foundation

TIME PERIOD:

Feb 2024 - Mar 2025

Globally, more than one million people acquire a sexually transmitted infection (STI) every day amounting to around 374 million infections annually. Some viral STIs, like Human Papilloma Virus (HPV) and Human Immunodeficiency Virus (HIV), are still incurable and can be deadly, but some bacterial and parasitic STIs – like chlamydia and gonorrhoea– are curable. Infections with Chlamydia trachomatis (CT) and Neisseria gonorrhoeae (NG) are very common both in resource-rich and resource limited settings, however, the effectiveness of available treatment options are diminishing due to increasing rates of antimicrobial resistance (AMR).

STIs are an increasing public health problem in Zambia with an estimated 200,000 cases treated annually. According to the recent Health Management Information Systems (HMIS) report, the number of new STIs in Zambia has been rising from 237,531 cases in 2017 to 503,325 cases in 2021. However, screening for NG and CT infection in Zambia is not routinely performed with women typically managed syndromically, therefore the true burden of undiagnosed asymptomatic infection to public health is unknown.

This study aims at understanding the burden of disease of NG and CT among pregnant women as priority STIs that cause adverse birth outcomes, sexually active adolescent boys and girls, key populations (female sex workers and high-risk men) disproportionally affected by STIs and their consequences. The study objective is to 1) epidemiologically describe the prevalence of these infections among pregnant women, non-pregnant adolescent girls and boys, and KPs, thus, by proxy, the general population in Zambia, and 2) to determine the antimicrobial susceptibility profile of gonococcal strains isolated from study participants with positive NG NAAT results among adolescent and key populations.

Comparative Effectiveness of Cervical Cancer Screening Policies in Zambia - A Mathematical Approach

FUNDER:

National Institutes of Health and Swiss Cancer Research

TIME PERIOD:

May 2022 - Apr 2025

Cervical cancer (CC) is the fourth leading cause of cancer deaths globally and the leading cause of cancer deaths in women in 36 countries, including Zambia. In 2020, the World Health Organization (WHO) issued global policy recommendations to eliminate cervical cancer as a public health problem by 2030. The highest cervical cancer incidence rates worldwide are found in Southern and East African countries such as Eswatini, Malawi, and Zambia. The high cervical cancer burden in these countries is linked to the high HIV prevalence, as women living with HIV (WLHIV) are more likely to develop cervical disease.

This study aims to employ mathematical modelling to simulate various policy scenarios for cervical cancer prevention, providing an analytical basis to support policymakers in Zambia. By quantifying relationships and projecting outcomes across different variables, the model offers a structured framework to evaluate policy effectiveness, guiding decision-makers toward empirically grounded, optimal strategies. The approach will involve developing a mathematical model to simulate the lifetimes of a cohort of Zambian women, utilizing existing demographic and cervical cancer natural history data to assess the comparative effectiveness and cost-effectiveness of various prevention strategies.

Longitudinal analysis of HR-HPV infection and cervical intraepithelial neoplasia in women living with HIV

FUNDER:

National Institutes of Health

TIME PERIOD:

Jul 2019 - Apr 2025

Longitudinal analysis of HR-HPV infection and cervical intraepithelial neoplasia in women living with HIV Cervical cancer screening is failing in countries with high HIV prevalence and modelling studies show that significant scale-up efforts are required to reduce mortality from cervical cancer in these countries. Vaccination programs alone will not curb the burden of disease. Secondary screening strategies remain the “best buy” for preventing invasive cervical cancer (ICC) and premature death in women. Data to inform screening strategies for women living with HIV (WLHIV) are notably scarce and urgently required. Though it is widely acknowledged that the clinical course of human papillomavirus (HPV) infection in WLHIV differs from the general population with increased risk of recurrent and persistent infection with high-risk human papillomavirus (HR-HPV) subtypes, very few studies assess this comprehensively. Prospective cohorts assessing HR-HPV infection as well as histological outcomes following screening and treatment are limited and especially in the African setting. This data is instrumental for informing guidelines, acknowledged by the recent World Health Organization draft strategy to eliminate cervical cancer (WHO).

In our study, we will continue to monitor the cohort of study participants and characterise the clinical course of HR-HPV infection and Cervical Intraepithelial Neoplasia (CIN) in women living with HIV (WLHIV) up to 48 months study post-enrolment. HIV status, HR-HPV testing, and histological data will be obtained from women at baseline, 6 months, 24- and 48 months.

Admission to the Kangaroo Mother Care Ward and Maternal Postpartum Depression: A Randomized Controlled Trial

FUNDER:

Grand Challenges Canada

TIME PERIOD:

Apr 2024 - Sep 2027

Postpartum depression (PPD) is a serious public health problem affecting 17% of mothers globally, with higher rates recorded in Africa - 40%. PPD is a depressive disorder that commences during the antenatal period up to the first year of an infant's life characterized by feelings of worthlessness, fatigue, insomnia, decreased functioning, low mood, and even suicidal thoughts. It can result in increased maternal morbidity, social challenges, physical harm, decreased quality of life, and can negatively impact child development. Furthermore, it is linked with growth retardation, malnutrition, behavioural changes, poor adherence to immunization schedules, and recurrent infections and hospitalization. Admission of a neonate to the NICU is a risk factor for postnatal depression with heightened symptoms in comparison to mothers of well neonates. PPD is associated with higher adverse infant health outcomes, including non-exclusive breastfeeding, diarrhoea, and malnutrition.

Kangaroo Mother Care (KMC), an acceptable intervention in low-resource and culturally diverse settings, is an effective method to provide care and warmth to the newborn through skin-to-skin care. KMC has also been shown to contribute to increased exclusive breastfeeding, neonatal weight gain, and mother-infant bonding. However, the impact of KMC on maternal PPD among women whose newborns have been admitted to the NICU and get KMC as part of the dropdown care has not been studied. In this study, we aim to determine whether initiation of KMC at the NICU followed by admission to the KMC ward for continued support reduces maternal PPD and other maternal and infant adverse outcomes in low-resource settings.

Mental Wellness among Vulnerable Populations

FUNDER:

University of Colorado

TIME PERIOD:

Jun 2025 - May 2026

Mental health disorders, such as depression, anxiety, and others, are among the top leading causes of disability-adjusted life years (DALYs) among adolescents and adults globally, with the highest burden borne in low and middle-income countries (LMICs). Depression is of particular concern given it is the leading cause of disability and the fourth leading cause of the global burden of disease. Postpartum depression (PPD), a form of depressive disorder, is a serious public health problem affecting 17% of mothers globally, with higher rates recorded in Africa - 40%.

PPD is a depressive disorder that can last up to the first year of an infant's life characterized by feelings of worthlessness, fatigue, insomnia, decreased functioning, low mood, and even suicidal thoughts. In the last two decades, the global prevalence of PPD increased by 18.4% with Africa having the highest burden (40-50%). PPD can result in increased maternal morbidity, social

challenges, physical harm, decreased quality of life, and can negatively impact child development. Furthermore, it is linked with growth retardation, malnutrition, behavioural changes, poor adherence to immunization schedules, and recurrent infections and hospitalization. PPD is associated with higher adverse infant health outcomes, including non-exclusive breastfeeding, diarrhoea, and malnutrition.

Through the use of the Edinburgh Postnatal Depression Scale in Zambia, depressive symptoms have been found among 48% of the general population, reaching as high as 70% among HIV-positive women in Zambia. We are proposing a cross-sections study to determine the burden of depression, including PPD, and GBV, among vulnerable populations comprised of pregnant women and newly delivered mothers, adolescent boys and girls, and key populations (female sex workers and high-risk young men).

Improving the implementation of neonatal bag-mask ventilation in Zambia: Formative research

FUNDER:

Kaul Paediatric Research Institute of the Alabama Children's Hospital Foundation

TIME PERIOD:

Jun 2025 - May 2027

Neonatal mortality rates remain high, especially in African low- and middle-income countries (LMICs), and the decline in neonatal mortality has been slower than that of post-neonatal under-5 mortality. In 2012, the newborn mortality rate in Zambia was 27 per 1,000 live births. Since then, it has declined by an average of only 0.27 deaths per 1,000 live births per year compared to 0.65 deaths per 1,000 live births during the previous 10 years. At this pace of mortality reduction, Zambia will not meet the 2030 Sustainable Development Goal of reducing neonatal mortality to at least 12 per 1,000 live births until 2066. The Zambia Ministry of Health has committed to implementing maternal and newborn health programs.

Improving timely, effective, and continuous bag-and-mask ventilation (BMV) in LMICs such as Zambia, as well as in sub-Saharan Africa in general, is crucial to reducing intrapartum (fresh) stillbirths and very early neonatal deaths worldwide. Deaths within the first 24 hours after birth account for more than half of early neonatal deaths. Neonatal resuscitation may avert 30% of intrapartum-related neonatal deaths and has shown benefit in reduction of intrapartum-related stillbirths. Of resuscitation actions, including suctioning and stimulation, BMV most strongly influences morbidity and mortality. The study objective is to determine and understand the contributors to the "know-do" gap in bag-mask ventilation (BMV) for non-breathing newborns and to design implementation strategies to improve the adoption, adherence, and sustainment of BMV.

Low-Cost Monitoring of Preterm Infants Breathing Based on Wireless Accelerometry

FUNDER:

University of Alabama at Birmingham and Sheffield University

TIME PERIOD:

Jan 2026 - Dec 2026

Preterm birth remains a critical public health challenge in many low- and middle-income countries (LMICs). In sub-Saharan Africa, neonatal intensive care is hampered by significant systemic and resource-related challenges. Many neonatal intensive care units (NICUs) struggle with limited equipment, inadequate staffing and training, and poor communication – all of which contribute to lower quality care and higher neonatal mortality rates. Within neonatal care, continuous monitoring of vital signs - particularly breathing patterns - is essential for the early detection of life-threatening conditions such as apnea of prematurity (AOP) and sepsis. Conventional monitoring systems, however, are often prohibitively expensive, complex to maintain, and ill-suited to the infrastructural constraints found in resource-limited settings.

We will implement the trial in two phases. The first phase will focus on collection of pilot data and an initial assessment of the feasibility of the approach. The second phase will collect a more substantial amount of data, develop robust algorithms for identification of adverse respiratory events, and assess the acceptability and usefulness of the DREAM system in the NICU.

Low Cost CRISPR-on-Paper for Cervical Cancer Screening at the Point of Care

FUNDER:

National Institutes of Health

TIME PERIOD:

May 2025 - Apr 2027

Human papillomavirus (HPV)-associated cervical cancer is a leading cause of cancer death for women worldwide, especially in low- and middle-income countries (LMICs). In LMICs, the burden of cervical cancer is substantial, with an estimated 477,960 new cases and 273,680 cervical cancer-related deaths in 2018. Although visual inspection with acetic acid (VIA) has been used for cervical cancer screening in LMICs due to its simplicity and low cost, it has low sensitivity and reproducibility. Thus, HPV DNA testing is the most sensitive and reliable method for detecting HPV infection. In this project, we propose to (1) develop a low-cost (~$ 3.5), rapid (~40 min), and sensitive (< 100 copies/sample) CRISPR-on-paper diagnostic system for cervical cancer screening at the point of care, and (2) to validate the CRISPR-paper-based device for Human Papillomavirus (HPV). The device will be validated against the GeneXpert Cepheid HPV test result. The proposed study is to be implemented at Kanyama General Hospital Cervical Cancer screening clinic. The study will give us data on its accuracy when used in routine clinical settings.

Syphilis in Pregnancy Study (SIPS)

FUNDER:

National Institutes of Health

TIME PERIOD:

Jun 2023 - May 2027

Infection with syphilis during pregnancy is common and the highest rates occur in African women. The World Health Organization (WHO) estimates that 7.1 million new cases of syphilis occurred in 2020. In 2016, 1 million pregnant women were diagnosed with syphilis and 661,000 congenital syphilis (CS) cases occurred. Most of these cases (61%) were in women living in sub-Saharan Africa where the estimated CS case rate was 1,119 per 100,000 live births compared to 151 per 100,000 live births in the US and 19 cases per 100,000 births in Europe. CS rates are stable in SSA and they rose 254% between 2016-2020 in the US.

Syphilis infection in women is usually asymptomatic and T. pallidum readily crosses the placenta in all stages of pregnancy. Syphilis screening is universally recognized as a critical component of prenatal care, yet we documented a screening rate of only 42% in Zambia in 2018-2019, mostly due to a lack of testing. Repeat screening at 28 weeks and at delivery to detect incident infection is effective but rarely performed in resource-limited settings, resulting in missed prevention opportunities. Vertical transmission occurs after 9 weeks and transmission rates range from 50-80% in untreated early syphilis and 10% in latent disease.

The SIPS team has designed an observational cohort to enroll and follow 750 well-characterized pregnant women with confirmed syphilis and their exposed infants as well as 750 pregnant controls in Cameroon and Zambia with follow up and repeated sample collection through 12 months after delivery. SIPS participants will have pre- and post-treatment blood samples, cord blood, and placentas collected from women, neonates, and infants to assess immune responses in addition to oral and lesion swabs for PCR testing to carry out the study aims. Our expected outcome is to identify T. pallidum antigens with a role in dissemination, placental attachment, and vertical transmission. Our long-term goals are to advance these newly identified antigens as potential vaccine candidates for reproductive age women and to support syphilis diagnostic testing with highly specific molecular testing and specific antigens that can discern syphilis stage and treatment response in pregnant women and infants.

Monitoring and Evaluation of the National Syphilis Screening and Treatment Program

FUNDER:

Evidence Action

TIME PERIOD:

Apr 2023 - Jul 2027

Syphilis in pregnancy remains a critical public health problem globally and in sub-Saharan Africa, with prevalence ranging from 0.1-10% among women attending antenatal care (ANC). Pregnant women experience high rates of adverse birth outcomes including low birthweight, preterm birth, stillbirth, and congenital syphilis. Incorporating HIV and syphilis dual testing into antenatal care visits has shown to be both an acceptable and cost-effective approach to increasing the uptake of syphilis screening and treatment rates.

The Ministry of Health (MoH) in partnership with Evidence Action, has begun the roll out of a robust training of trainer's cascade to scale up the HIV/Syphilis dual testing nationwide, thus strengthening syphilis treatment services in the 2,700+ health facilities in the country that provide ANC services. Following each phase of the scale-up, CIDRZ has been tasked to conduct a data verification program utilizing a Comprehensive Facility Survey (CFS) to evaluate the impact of the scale-up by retrospectively extracting existing data pertaining to the national maternal HIV/Syphilis dual testing program in Zambia.

The overarching aim of the verification program is to undertake an in-depth, multifaceted evaluation of the nationwide scale-up of the HIV/syphilis dual testing program in Zambia to identify gaps in the screening and treatment algorithm, bottlenecks, barriers, and facilitators to providing syphilis screening and treatment to pregnant women in Zambia. Using existing government data, the CFS will target randomly selected health facilities providing ANC services in Zambia to gather data on the following critical outcomes: (a) rates of syphilis screening, treatment, and positivity rate among pregnant women attending ANC, and (b) rates of partner screening and treatment among pregnant women who screened positive for syphilis.

From Exclusion to Equity: Implementing Sexually Transmitted Infections Screening Initiative among Women with Disabilities in Lusaka, Zambia: A Pilot Study

FUNDER:

University of Alabama at Birmingham

TIME PERIOD:

Feb 2026 - Oct 2026

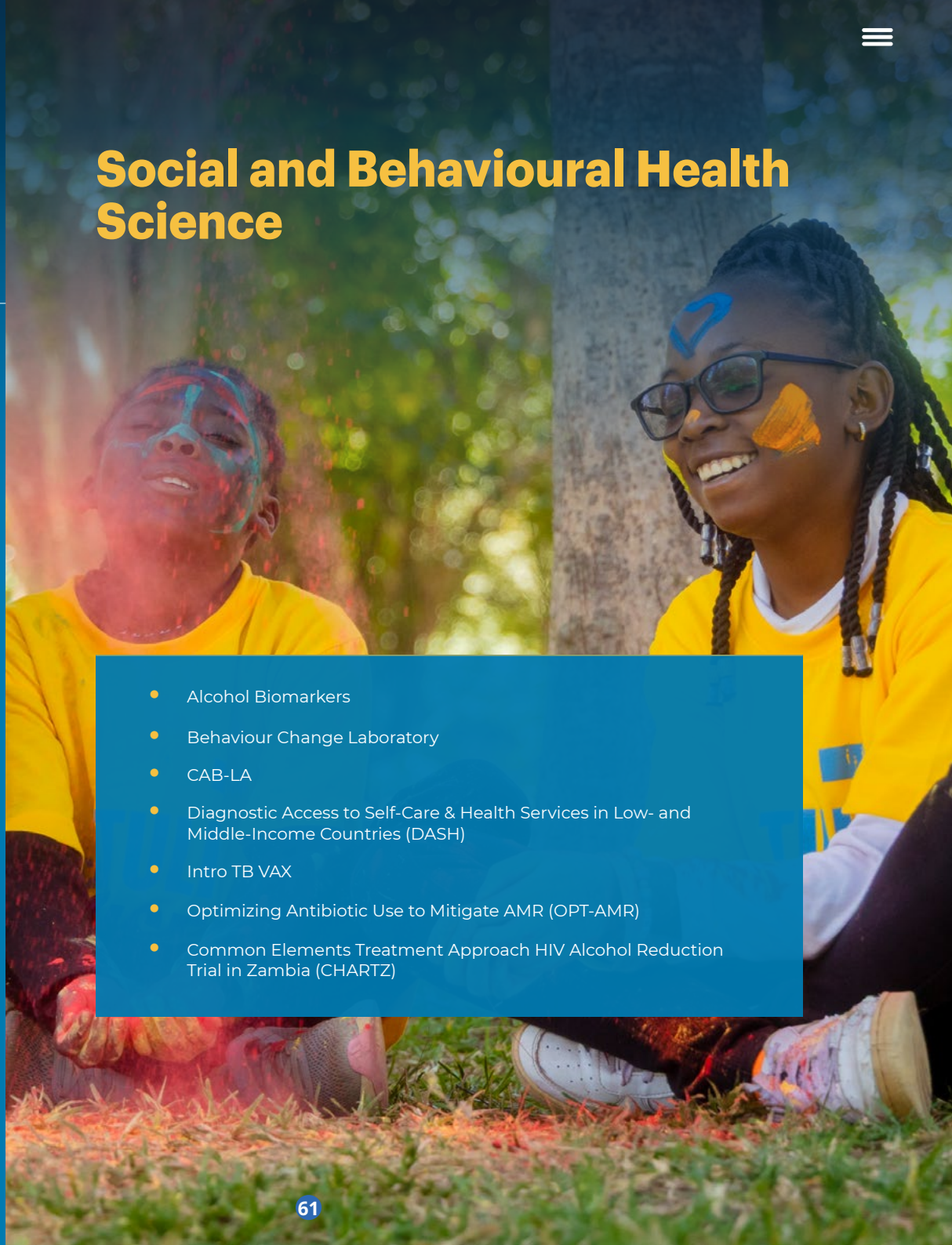
Globally, an estimated 376 million new cases of curable sexually transmitted infections (STIs), including chlamydia, gonorrhoea, trichomoniasis, and syphilis, occur each year among people aged 15–49, contributing to infertility, long-term disability, death, and increased HIV transmission. In sub-Saharan Africa, STI prevalence among women in the general population ranges from 8.5% to 32.7% and is reported to be even higher among women with disabilities.

Women with disabilities face heightened vulnerability due to systemic and social barriers, including 50% less access to sexual health education and services, disability-related stigma, engagement in risky sexual behaviours, and a 3–4 times higher likelihood of experiencing sexual violence. In Zambia, disability prevalence among women is estimated at 29.9%, and women with mild to moderate disabilities attending antenatal care have a 2.21-times higher likelihood of HIV infection compared with the general population.

To address these disparities, CIDRZ proposes a pilot, disability-inclusive study to screen women with physical disabilities for chlamydia/gonorrhoea, HIV, syphilis, Trichomonas vaginalis, and cervical cancer using visual inspection with acetic acid (VIA). The study will generate data on economic and social exclusion and improve understanding of how intersecting factors, such as age, education, ethnicity, economic status, and gender, compound barriers to accessing sexual and reproductive health services.

09

Social and Behavioural Health Science



- Alcohol Biomarkers
- Behaviour Change Laboratory
- CAB-LA
- Diagnostic Access to Self-Care & Health Services in Low- and Middle-Income Countries (DASH)
- Intro TB VAX
- Optimizing Antibiotic Use to Mitigate AMR (OPT-AMR)
- Common Elements Treatment Approach HIV Alcohol Reduction Trial in Zambia (CHARTZ)

Alcohol Biomarkers

FUNDER:
National Institutes of Health (NIH) via Columbia University

TIME PERIOD:
May 2020 - Apr 2026

In this ongoing pilot study, conducted in collaboration with Columbia University and building on the ZAMBAMA platform, we are examining alcohol and substance use among adolescents and young adults (AYA) in Lusaka, Zambia. Adolescents reported using a variety of substances including alcohol, driven by psychological, social and structural factors. They perceived the Screening, Brief Interventions and Referral to Treatment (SBIRT) program as an appropriate approach for addressing unhealthy alcohol use and offered practical suggestions to strengthen its implementation within youth services. The study then integrated SBIRT into existing HIV services and is evaluating alcohol intake using both self-report and a urine biomarker (ethyl glucuronide; uEtG) which detects recent alcohol use. We will collect information on participation experience and the concordance between self-report and uEtG findings. Findings will inform the development of scalable approaches to address alcohol use among adolescents within HIV programmes in Zambia and similar settings.

Behaviour Change Laboratory

FUNDER:
Reckitt via LSHTM

TIME PERIOD:
Dec 2022 - Jun 2026

The Behaviour Change Lab was established in collaboration with the London School of Hygiene and Tropical Medicine as the field site to test novel approaches to improve WASH (Water, Sanitation and Hygiene) practices. The first study examined end-user preferences for hand hygiene enabling technologies in urban and peri-urban Lusaka, the findings of which were presented by Dr Anjali Sharma at the Annual National Health Research Conference (NHRC) and by Dr Kazimbaya, at the Annual UNC WASH conference. Notably, at the UNC WASH conference, Head of Department Ms. Jenala Chipungu served as a panellist on setting the global research agenda for WASH Study findings will inform product development and marketing to increase and sustain uptake of hand-washing facilities, a prerequisite for infection prevention and control.

Through the BC Lab, the unit is also investigating the quality of weaning foods in peri-urban communities and the associated risk factors for contamination by combining ethnographic research and laboratory analysis. This work contributes to the scarce knowledge on household food hygiene in these setting.

Finally, the collaboration includes a sub-study called Longitudinal Variation in Insecurity and Extreme Weather (LONGVIEW), which examines the effects of climate change patterns on hygiene practices, water availability and related health outcomes. Together, these studies position the Behaviour Change Lab as an important platform for generating practical, policy-relevant evidence to improve WASH and household hygiene in Zambia and similar settings.

CAB-LA

FUNDER:
National Institute of Health (NIH) via The John Hopkins University (JHU)

TIME PERIOD:
Aug 2025 - Jul 2026

This research utilizes theoretically grounded, rigorous implementation research to specify implementation strategies to optimize introduction of long-acting, injectable Cabotegravir PrEP (LAI CAB PrEP) for Adolescents and Young Adults (AYA) in Zambia. By focusing on implementation early in the rollout, the research seeks to minimize the time from proven efficacy in a clinical trial to real-world, population-level prevention impact. The study applies a sequential, mixed-methods design, incorporating health system, healthcare worker (HCW), and AYA perspectives throughout. It begins with a multi-method qualitative phase, followed by a quantitative preferences survey, and concludes with participatory implementation strategy design.

The study utilizes document reviews, stakeholder dialogues, health systems mapping, and observations to identify lessons learned across related health areas to support LAI CAB uptake and persistence. The study will also assess AYA and HCWs' preferences for different LAI CAB implementation strategies and explore variation across groups. The findings will be synthesized using implementation mapping to produce well-specified implementation strategies to inform service delivery to guide the introduction and delivery of LAI CAB PrEP services in Zambia.

Diagnostic Access to Self-Care & Health Services in Low- and Middle-Income Countries (DASH)

FUNDER:
Gates Foundation via University of Washington

TIME PERIOD:
Oct 2022 - May 2026

We provided training, quality assurance, and analytical support to qualitative research teams in South Africa, Zambia, and Kenya for this multi-country study exploring the acceptability of home-based, rapid diagnostic testing for various communicable and non-communicable conditions. The study assessed the use of self-testing both independently and with support from a mobile application designed to guide users through testing and interpretation of results.

Participants across the three countries expressed positive attitudes toward self-testing both with and without an app, highlighting the benefits of timely diagnosis and reduced clinic burden. However, they raised concerns regarding the accuracy and interpretation of results, psychological readiness to receive results, and potential for widening the digital gap. Participants advocated for social support and comprehensive education throughout the steps of implementation of self-testing programmes.

In the next phase, we will conduct a randomised control trial in Zambia to evaluate three modes of delivering self-tests aimed at promoting timely care-seeking and self-care. The department will also continue providing technical assistance on the qualitative sub-studies conducted by teams in Kenya and South Africa. Collaborators include the ICRC-UW and Audere in the USA, HSRC in South Africa, KEMRI in Nairobi-Kenya, and Akros and CIDRZ in Zambia.

Intro TB VAX

FUNDER:
Gates Foundation via UCSF

TIME PERIOD:
Aug 2024 - Dec 2027

The department is working with the CIDRZ TB department to meet the global END TB targets through the Intro-TB Vax study, which examines strategies for introducing new TB vaccines for adults and adolescents. As already highlighted, the efficacy of several TB vaccines likely depends on an individuals' TB infection (TBI) status. Also, most modelling and costing studies have focused on age-based implementation strategies that combine general routine and adolescent TB vaccination programs. Such strategies may be costly (even if cost-effective) and may overlook important differences in TB risk across adult and adolescent populations. This includes groups more likely to be infected with TB, develop TB disease, and/or transmit TB.

Targeting certain venues that attract high-risk groups, may represent a feasible, impactful, and cost-effective approach to new TB vaccine implementation for adults and adolescents, especially during the early rollout stage when vaccine supply is limited. These high-risk groups include health workers, people living with HIV (PLHIV), TB household contacts, people with heavy alcohol use, minibus drivers, miners, and incarcerated persons,

Using qualitative methods grounded in social and behavioural science, the study will explore the feasibility and impact of various TB vaccine implementation strategies for adults and adolescents in high TB burden countries. The study will be conducted across 3 countries, including Zambia, Nigeria and Indonesia, with Copperbelt and Lusaka selected as study sites in Zambia.

Optimizing Antibiotic Use to Mitigate AMR (OPT-AMR)

FUNDER:
National Institute for Health and Care Research (NIHR)

TIME PERIOD:
Jan 2024 - Aug 2028

Inappropriate antibiotic prescribing and patient use are key drivers of antimicrobial resistance (AMR). Addressing both are critical to reduce AMR and protect healthcare systems. The World Health Organisation (WHO) AMR Global Action Plan highlights the need to increase surveillance in Low and middle-income countries Income Countries (LMIC) to improve antimicrobial stewardship. Building on our consortium's health systems research in Uganda, Malawi, and Zambia, this study aims to measurably improve the quality of clinical care (QoC) and antibiotic use, while modelling AMR transmission drivers amongst bacterial pathogens.

Our focus is febrile illness of children <5-years, the most common clinical presentation in sub-Saharan Africa. These illnesses are often empirically treated with antibiotics which risks inappropriate use and emergence of AMR. Whilst recommended, microbiological surveillance of AMR is unsustainable due to cost and logistical constraints. This study explores a more sustainable approach to identify geographic variation in AMR prevalence to understand local AMR drivers and inform context-specific antibiotic stewardship strategies. The overall aim will be to develop a metric and evidence use process for improving the management of childhood febrile illness in community settings.

Common Elements Treatment Approach HIV Alcohol Reduction Trial in Zambia (CHARTZ)

FUNDER:
National Institute of Health (NIH) via University of Alabama

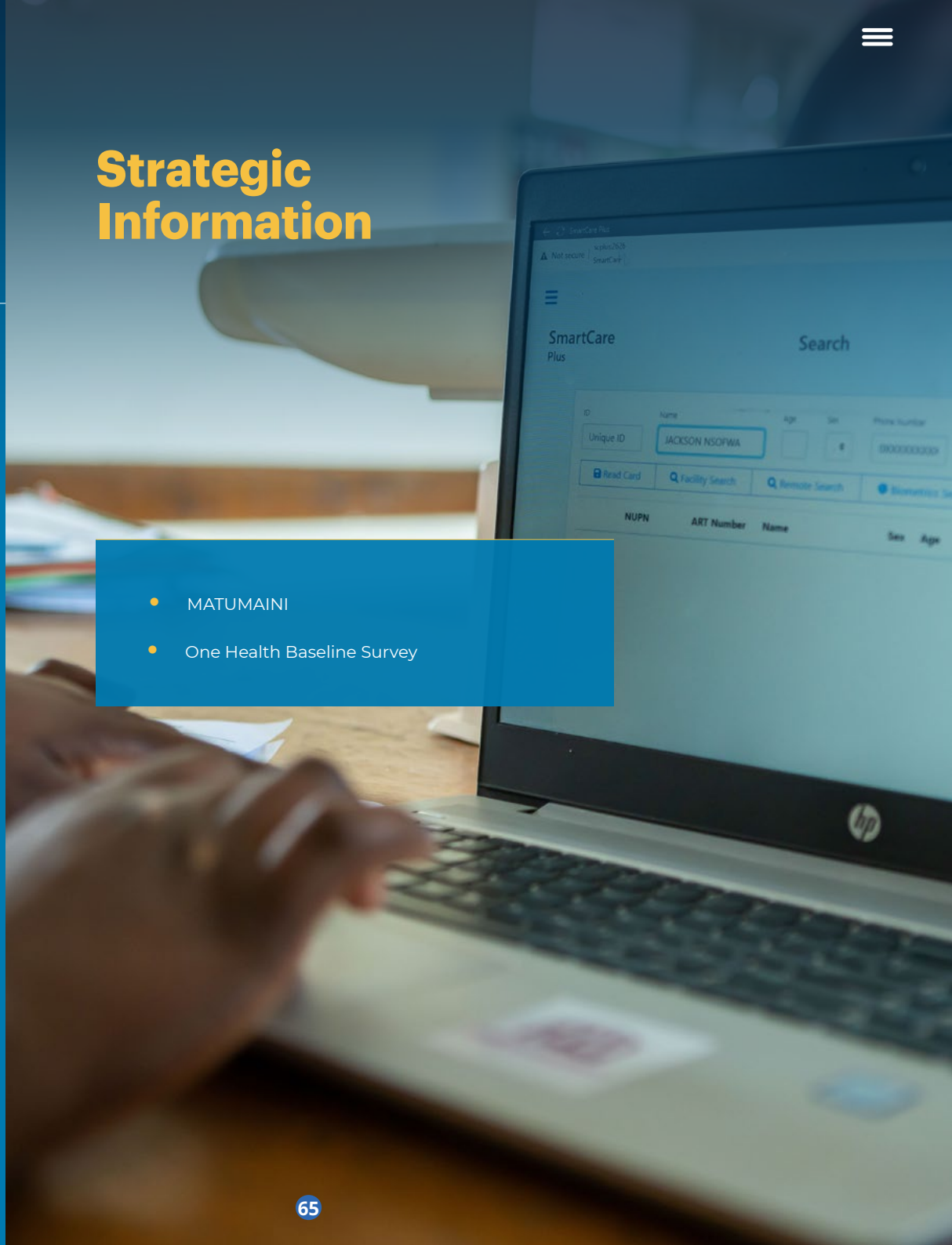
TIME PERIOD:
Sep 2021 - Aug 2026

This NIH-funded collaboration between UAB, Columbia University, JHU, and CIDRZ is evaluating strategies to improve HIV outcomes among people living with HIV who experience treatment interruption along with high alcohol use and co-occurring mental health and behavioural challenges. The study examines the effectiveness of SBIRT, with or without a transdiagnostic treatment approach, compared to standard of care, in reducing HIV care gaps, including high HIV viremia.

Enrolment into the study has now been completed. Retention has been strong across study arms, including among participants receiving the transdiagnostic treatment approach, which involves a longer duration of engagement. These findings demonstrate the feasibility of delivering integrated behavioural health interventions within HIV care settings and will inform future strategies to improve viral suppression among individuals facing complex health challenges.

10

Strategic Information



- MATUMAINI
- One Health Baseline Survey

MATUMAINI

FUNDER:

NYU

TIME PERIOD:

May 2021 - Sep 2025

The Matumaini COVID-HIV study successfully completed data analysis on COVID-19 risk factors during the provision of HIV services in 65 health facilities across 6 provinces in Zambia. The findings highlighted moderate to good ventilation in all 65 facilities. They also flagged a high median total duration of time clients spent in some facilities during a visit. Dissemination meetings to share the findings were successfully held with 18 District Health offices across the 6 provinces. A manuscript has been submitted for peer review and is awaiting publication. The Matumaini RTRI study held 2 manuscript writing workshops for Clinical and SI staff to create capacity and allow dedicated time to develop manuscripts from the data collected in various programs.

One Health Baseline Survey

FUNDER:

Sustainable Food Systems Ireland (SFSI)

TIME PERIOD:

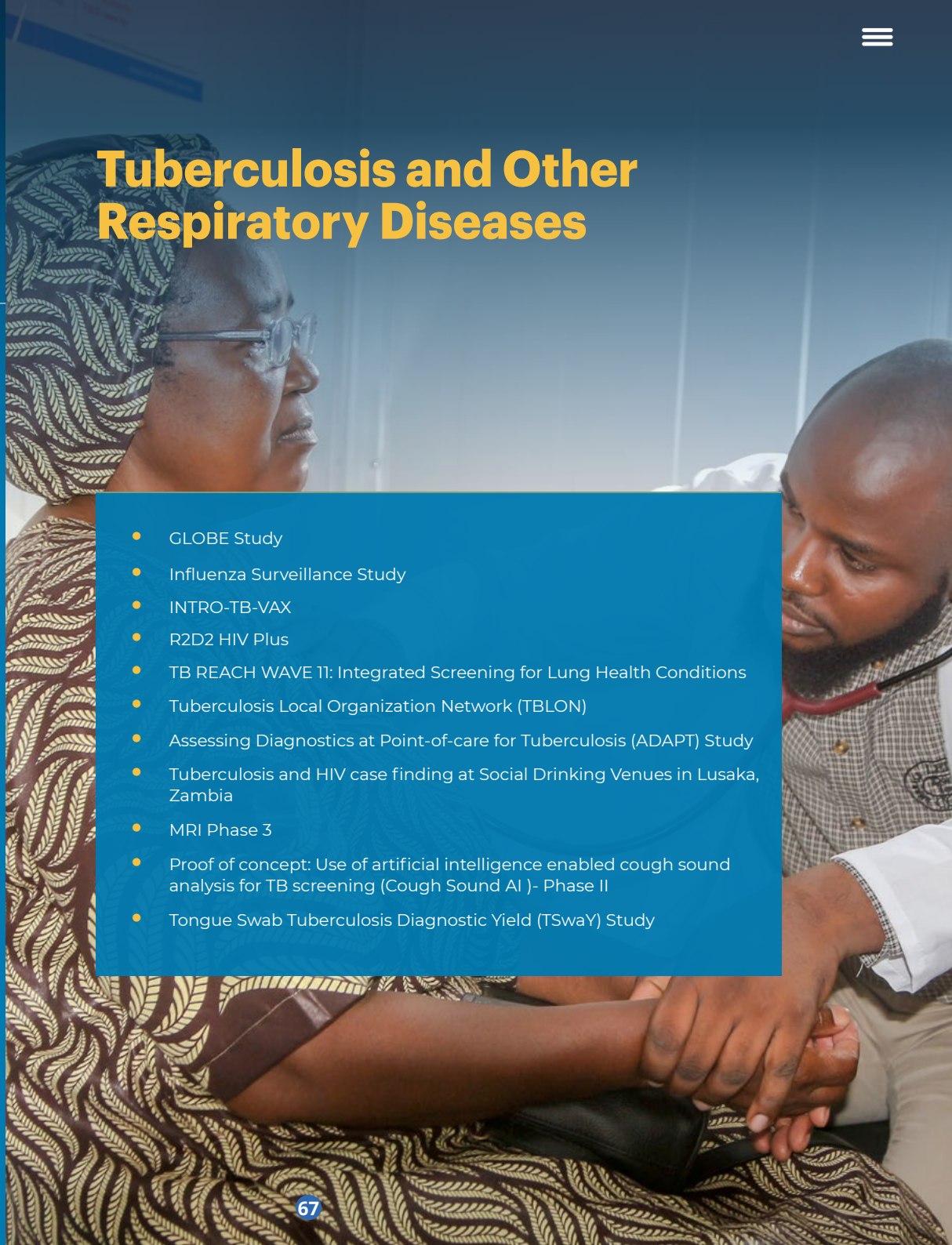
Sep 2024 to Mar 2025

The One Health Baseline Study was conducted to gather essential evidence on how key food system and One Health actors in Zambia are managing food safety, zoonotic disease risks, antimicrobial use, waste, and surveillance across sectors. The study has now been completed, with data collection and analysis finished, and the main report has been officially submitted to the funder, Sustainable Food Systems Ireland (SFSI).

We are currently working on developing the main study manuscript for journal submission. Additionally, we will receive funding to conduct a landscape mapping of digital health systems either existing or missing within key One Health government agencies such as the Ministry of Fisheries and Livestock (MFL), Ministry of Health (MoH), Ministry of Agriculture (MoA), and the Zambia National Public Health Institute (ZNPHI), to identify opportunities for more integrated, One Health–focused digital solutions.

11

Tuberculosis and Other Respiratory Diseases



- GLOBE Study
- Influenza Surveillance Study
- INTRO-TB-VAX
- R2D2 HIV Plus
- TB REACH WAVE 11: Integrated Screening for Lung Health Conditions
- Tuberculosis Local Organization Network (TBLON)
- Assessing Diagnostics at Point-of-care for Tuberculosis (ADAPT) Study
- Tuberculosis and HIV case finding at Social Drinking Venues in Lusaka, Zambia
- MRI Phase 3
- Proof of concept: Use of artificial intelligence enabled cough sound analysis for TB screening (Cough Sound AI)- Phase II
- Tongue Swab Tuberculosis Diagnostic Yield (TSwaY) Study

GLOBE Study

FUNDER:

Deutsche Forschungsgemeinschaft (DFG)

TIME PERIOD:

Oct 2021 - Oct 2026

The Globe project is a hybrid effectiveness–implementation trial assessing innovative digital tools for tuberculosis (TB) screening in Zambia. It evaluates the added diagnostic value, feasibility, and cost-effectiveness of digital solutions deployed in primary care to identify individuals at high risk of TB. Key tools include mTBscreen, a smartphone app using AI to generate TB risk scores from routine demographic and clinical data, and the imPulse™ Una System, an AI-enabled vibroacoustic e-stethoscope for TB screening and triage.

The study hypothesises that these tools are feasible in decentralized settings, can detect additional high-risk individuals earlier than current algorithms, and may reduce transmission, morbidity, and mortality. Findings will guide the selection and integration of effective, acceptable, and cost-effective digital TB screening strategies and inform further development of mTBscreen. The study is underway in primary care facilities in Lusaka, including George, Chawama, and Kanyama, with over 1,400 participants enrolled since July 2025

Influenza Surveillance Study

FUNDER:

DELTAS (CIDRZ-IDEAL program)

TIME PERIOD:

Jan 2024 - Dec 2025

Acute respiratory viral illnesses continue to be significant causes of outpatient visits among both adults and children. Their impact was re-emphasized by the recent COVID-19 pandemic. In Zambia, the epidemiology of other respiratory infections among adults including that of Influenza, RSV and others alongside their risk factors for severe outcomes and clinical outcomes remains poorly described.

The Influenza surveillance study aims to determine the burden, distribution and seasonality of viral respiratory infections resulting in acute disease in a high HIV burden setting in Lusaka Zambia while exploring risk factors and outcomes by varying patient demographics.

Additionally, the study will assess the use of a novel diagnostic facemask as a sample collection alternative to routine nasopharyngeal swabbing for testing on Molecular diagnostic platforms.
This is a cross-sectional mixed method study aiming to enrol 594 symptomatic individuals from outpatient departments at two first level hospitals (Kanyama and Chawama) in Lusaka Zambia.

INTRO-TB-VAX

FUNDER:
Gates Foundation

TIME PERIOD:
Aug 2024 - Dec 2027

As new adult and adolescent tuberculosis (TB) vaccines approach potential licensure within the next 5–7 years, effective implementation strategies are needed to meet global End TB targets. Because vaccine effectiveness may depend on TB infection status, strategies may differ between preventing infection (e.g., BCG revaccination in uninfected individuals) and preventing disease (e.g., M72 in those already infected). Existing age-based rollout models may be costly and fail to address heterogeneity in TB risk.

This study aims to identify preferred, feasible, and impactful TB vaccine delivery strategies by targeting high-risk groups and venues, such as people living with HIV, TB contacts, health workers, individuals with heavy alcohol use, miners, prisoners, and transport workers, particularly during early rollout when supply is limited. Using a prospective mixed-methods design, the study will be conducted in Zambia, Nigeria, and Indonesia. In Zambia, implementation will focus on Copperbelt and Lusaka, enrolling about 2,800 adolescents and adults across diverse high-risk venues.

R2D2 HIV Plus

FUNDER:
Gates Foundation

TIME PERIOD:
Sep 2025 - Sep 2027

CIDRZ has embarked on a study that will systematically evaluate novel HIV VL and/or CD4 testing tools across both point-of-care and open-platform PCR-based formats to support their use in disease monitoring. The study is currently at the protocol development stage.

TB REACH WAVE 11: Integrated Screening for Lung Health Conditions

FUNDER:
Stop TB Partnership

TIME PERIOD:
Sep 2024 - Sep 2026

The TB REACH Wave 11 project aims to assess the impact of an Integrated Service Delivery (ISD) model for tuberculosis (TB) and other lung health conditions in Zambia. The project integrates screening and diagnosis for TB, post-TB lung disease, asthma, silicosis, and COPD across community, primary, and secondary care levels. This model is designed to improve diagnostic accuracy, reduce delays, and enhance access to comprehensive lung health services.

Using a quasi-experimental controlled before-and-after design, the ISD model will be piloted in Kafue District and compared with standard TB care in Chongwe District. High-risk individuals will be prospectively screened, and a nested sub-study will evaluate an AI-enabled cough sound screening tool.

Key objectives include optimizing ISD implementation, increasing community demand for integrated services, documenting best practices for scale-up, and determining the burden of post-TB lung disease. The project will generate critical evidence to inform national policies and guidelines for integrated lung health services in Zambia.

Tuberculosis Local Organization Network (TBLON)

FUNDER:

USG - Department of State

TIME PERIOD:

Oct 2022 - Mar 2026

The USAID TBLON is a five-year project implemented by a consortium comprising CIDRZ, Afya Mzuri, and CITAM Plus. The original project end date was March 31, 2025; however, a costed extension was granted from June 22, 2025 to March 31, 2026, to allow continuation of operations with a focus on life-saving activities only.

Throughout both the original and extension periods, the project continued supporting the Ministry of Health (1,962), Ministry of Defence (before stop-work order (SWO)), Ministry of Home Affairs (60), and private (116) health facilities across eight provinces to strengthen TB prevention, care, and treatment in Zambia. Implementation in FY24 was significantly disrupted by SWO, with activities only resuming in July with a modified scope.

FY24 milestone targets included screening 380,000 individuals for drug-susceptible TB, evaluating 340,000 presumptive cases in the laboratory, 70% TB contact investigation (TBCI) coverage for contacts to bacteriologically confirmed TB patients, and initiating ART for 95% of TB/HIV co-infected patients.

Although operations were initially affected by the SWO, the project mitigated performance gaps through structured mop-up activities following the resumption of project implementation. Through intensive mop-up activities, the project recovered from the drop in indicators and achieved over 100% in all milestone and other indicators: screened 12,463,405 patients for TB, evaluated 530,152 presumptive cases in the laboratory, detected 41,156 TB patients, achieved a TBCI coverage of 98% (76,214) and 98% TB ART coverage.

Additional key contributions to the national TB programme included support for MDR-TB and DS-TB active case-finding surges; introduction of TPT for HIV-negative contacts aged over five years; training of 20 staff (10 Senior Health Information Officers and 10 District Health Information Officers) in TB data management; conducting data quality audits in 103 facilities and distributing a wide range of data collection and reporting tools to supported provinces.

Assessing Diagnostics at Point-of-care for Tuberculosis (ADAPT) Study

FUNDER:

UCSF Sub Award

TIME PERIOD:

Aug 2023 - Dec 2028

The Assessing Diagnostics at Point-of-care for Tuberculosis (ADAPT) study seeks to assess promising, point-of-care (POC) tuberculosis (TB) diagnostic tests in clinical studies conducted in settings of intended use. Rapid diagnosis and effective treatment are important for improving patient outcomes and reducing TB transmission. However, sputum-based testing remains the mainstay of TB diagnosis. The ADAPT study will evaluate the sensitivity, specificity and yield of novel diagnostic tests against a reference standard including sputum Xpert® MTB/RIF Ultra and sputum mycobacterial culture among adolescents and adults with presumptive TB (based on having TB symptoms, or TB risk factor + positive TB screening test) presenting to outpatient health facilities in high burden countries.

Since it's initiation, the study protocol has been updated to broaden the scope of the study to include drug resistance testing, increase the sample size, describe additional novel diagnostic tests in the TB development pipeline to be onboarded and allow for additional study activities in line with the R2D2 protocol.

Data generated from the study has contributed valuable evidence for the ongoing evaluation of novel tongue swab-based TB screening and diagnostic platforms to guide WHO guidance development.

Tuberculosis and HIV case finding at Social Drinking Venues in Lusaka, Zambia

FUNDER:

Center for AIDS Research (CFAR) National Institute of Allergy and Infectious Diseases (NIH) University of California San Francisco (UCSF)

TIME PERIOD:

Oct 2021 - Oct 2025

This study investigates TB and HIV case finding in social drinking venues in the George and Matero townships of Lusaka, where disease burden is high. Using a prospective cross-sectional design, it aims to estimate the prevalence of previously undiagnosed TB and HIV among venue patrons and employees, particularly those with alcohol use disorder, and to identify preferred features of venue-based screening strategies using Best–Worst Scaling among stakeholders. Adults aged 18 and above who consent and agree to TB testing will be enrolled, excluding those intoxicated or already on TB treatment. By pioneering on-site chest X-ray TB screening and TB/HIV testing in social drinking venues, the study seeks to inform scalable approaches to reduce undiagnosed TB and HIV in Zambia.

MRI Phase 3

FUNDER:

Gates Medical Research Institute.

TIME PERIOD:

Feb 2024 - Jan 2028

This Phase 3, randomised, double-blind, placebo-controlled, multicentre clinical trial aims to evaluate the efficacy, safety, and immunogenicity of the M72/AS01E-4 Mtb vaccine administered intramuscularly on a 0,1-month schedule to adolescents and adults (ages 15-44). It aims to confirm the efficacy observed in the previous Phase 2b trial, where the M72/AS01E-4 vaccine demonstrated approximately 50% protection against laboratory-confirmed pulmonary TB in IGRA-positive, HIV-negative adults. The trial will also assess the safety, immunogenicity, and vaccine efficacy (VE) in both IGRA-negative and HIV-negative individuals and people living with HIV (PLHIV). The results are expected to support global licensure of the vaccine, particularly in low- and middle-income countries.

CIDRZ is among the 4 Zambian sites conducting this trial out of 64 sites in 7 countries (Malawi, Kenya, South Africa, Indonesia, Vietnam). A total of 20,000 participants have been enrolled across these multiple sites in TB endemic regions. At our site, Chawama CRS 298 participants were recruited with a current retention of 98%.

Proof of concept: Use of artificial intelligence enabled cough sound analysis for TB screening (Cough Sound AI)- Phase II

FUNDER:

Sheffield University

TIME PERIOD:

Apr 2024 - Apr 2025

The Cough Sound AI study aims to develop a rapid, low-cost AI screening system and rigorously assess its accuracy and performance. Using a cross-sectional design, the study recruited three categories of participants: bacteriologically confirmed TB patients, individuals with respiratory conditions other than TB, and healthy controls. During Phase 2, data from Phase 1 participants were used to develop an AI model, where the best audio-only classifier achieved an area under the receiver operating characteristic curve (AUROC) of 85.2% for distinguishing TB-positive individuals from all others. Incorporating demographic and clinical features further improved model performance to an AUROC of 92.1%. In addition, 749 participants were enrolled across the three groups in Phase 2, bringing the total number of participants who recorded cough sounds in the study to 1,284. The additional data will be used to further train and enhance the model. The study was conducted at Kanyama General Hospital, Chawama General Hospital, and George Clinic, with the goal of enabling accessible TB screening in low-resource settings.

Tongue Swab Tuberculosis Diagnostic Yield (TSwaY) Study

FUNDER:

The Gates Foundation

TIME PERIOD:

May 2023 - Dec 2024

This was a multi-country cross-sectional non-inferiority study that aimed to determine the diagnostic yield of tongue swabs compared to that of sputum for TB diagnostic testing among presumptive TB patients in four high TB burden countries including Philippines, Uganda, Vietnam and Zambia. A total of 1639 individuals were recruited across all sites with 650 from George health centre, Nakachenje and Ngwerere rural health centres in Lusaka. The study also included the evaluation of new near-point-of-care (NPOCs) molecular diagnostics such as the Pluslife platform. The evidence generated from this work has contributed to the recently announced WHO policy recommendations for a new class of NPOC-NAATs for the initial detection of TB without rifampicin resistance at peripheral levels of the health system and at lower costs than other molecular tests and instrument types. They also highlighted the use of tongue swabs as an alternate sample for TB testing. We are happy to mention that Zambia is now an early adopter of this recommendation with support from Global Fund (GF) and other partners.

12

Organisational Capacity

- ELMA Core Financing

ELMA Core Financing

FUNDER:

ELMA Philanthropies

TIME PERIOD:

Apr 2023 - Sep 2026

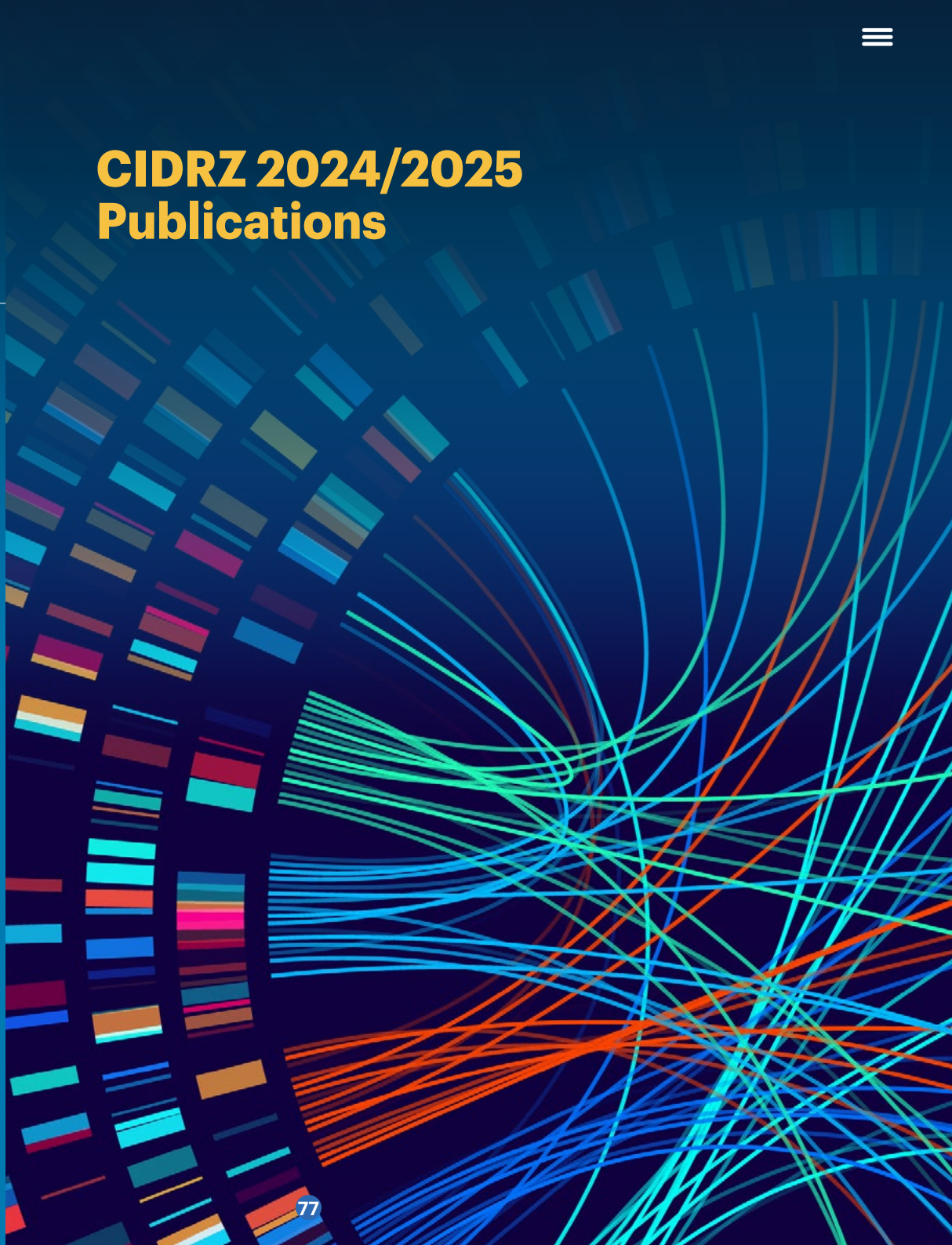
The ELMA Core Finance Project continued to play a central role in strengthening CIDRZ's institutional capacity and advancing strategic priorities during the new financial year. Building on investments from the previous year, ELMA funding supported organisational stability, leadership continuity, and sustained progress toward CIDRZ's long-term mission and sustainability goals.

A key achievement during the year was the recruitment of the Chief Executive Officer (CEO) and Chief Scientific Officer (CSO), strengthening leadership, governance, and strategic oversight. In parallel, ELMA support enabled continued assistance to Chainda South Clinic, including the procurement of essential medicines and salary support for key staff, helping to sustain quality service delivery following the earlier refurbishment of the facility.

ELMA funding also continued to support systems strengthening, particularly the integration of CIDRZ's operational systems into the Sage X3 ERP platform. Progress made during the year has further reduced data redundancy and improved operational efficiency, with remaining integrations planned for completion in FY2026. Overall, the project has reinforced CIDRZ's organisational resilience and capacity to deliver impactful research and public health programmes.

13

CIDRZ 2024/2025 Publications



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CIDRZ Partnerships

CIDRZ works closely with the Government of the Republic of Zambia, and local and global donor and research organizations to improve the health outcomes of Zambians. Our valued partners include:

ZAMBIAN GOVERNMENT

- Ministry of Community Development and Social Welfare
- Ministry of Education
- Ministry of Health
- Ministry of Home Affairs
- Ministry of Local Government and Rural Development
- Ministry of Defence
- Cancer Diseases Hospitals
- National HIV/AIDS/STI/TB Council
- National TB and Leprosy Control Program
- University Teaching Hospitals
- Zambia Correctional Service

GOVERNMENT DONORS

- The U.S. President's Emergency Plan for AIDS Relief (PEPFAR)
- Centers for Disease Control and Prevention (CDC)
- The Scottish Government
- National Institutes of Health (NIH)
- National Institute of Mental Health (NIMH)
- National Heart, Lung, Blood Institute (NHLBI)
- United States Agency for International Development (USAID)
- European & Developing Countries Clinical Trials Partnership
- Foreign Commonwealth & Development Office
- Medical Research Council
- Wellcome Trust
- US Department of Defense HIV/AIDS Prevention Program (DHAPP)
- Department of Agriculture, Food and the Marine Ireland

INTERNATIONAL BODIES

- The Global Fund to Fight AIDS,
- Tuberculosis and Malaria
- UNICEF
- World Health Organization (WHO)
- World Vision
- Population Services International

INDUSTRY/ RESEARCH:

- Delft Imaging
- Desire Line
- DIGNITY
- EPSRC Impact Acceleration Account (IAA) and Higher Education Innovation Fund (HEIF)
- JSI Research and Training Institute
- Gavi, The Vaccine Alliance
- PACT
- PATH
- PPD Global Limited
- Village Reach
- Africa Health Research Institute
- Foundation for Aids and Immune Research
- Infectious Disease Research Collaboration

FOUNDATIONS:

- AIDSFond
- Gates Foundation
- Chiesi Foundation
- The ELMA Foundation
- The ELMA Vaccines and Immunisation Foundation
- Erasmus MC
- Esther Foundation
- The Fleming Fund
- The Leona M and Harry B Helmsley Charitable Trust
- Johnson and Johnson Foundation
- M.A.C AIDS Fund
- Mott MacDonald Foundation
- Swiss National Science Foundation
- Fred Hutchinson Cancer Center
- Mirvie
- Evidence Action

UNIVERSITIES

- Amsterdam Institute for Global Health and Development (AIGHD), Netherlands
- Columbia University, USA
- Fred Hutchinson Cancer Research Center, USA
- Harvard University, USA
- Imperial College of Science, Technology and Medicine, United Kingdom
- Johns Hopkins University, USA
- London School of Hygiene and Tropical Medicine, United Kingdom
- New York University, USA
- Research Center Borstel- Leibniz Lung Center (RCB)
- Stellenbosch University, South Africa
- Swiss Tropical and Public Health Institute, Switzerland
- University of Alabama at Birmingham, USA
- University of Bern, Switzerland
- University of California, San Francisco, USA
- University of Heidelberg, Germany
- University of Johannesburg, South Africa
- University of Lusaka, Zambia
- University of Maryland, Baltimore
- University of Nijmegen, Netherlands
- University of Oxford, United Kingdom
- University of Rochester, United States
- University of Rwanda, Rwansa
- University of Sussex, United Kingdom
- University of the Free State, South Africa
- University of Zambia, Zambia
- Vanderbilt University, USA
- Washington University, USA
- Yale University, USA

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CIDRZ Financials

- Consolidated Statement of Income and Expenditure and Other Comprehensive Income
- Consolidated statement of financial position as at 30 september 2025
- Consolidated statement of cash flows for the year ended 30 september 2025
- Programme Income

Full Financial Statements are available at cidrz.org or by request.

CONSOLIDATED STATEMENT OF INCOME AND EXPENDITURE AND OTHER COMPREHENSIVE INCOME

	2025 Kwacha	2024 Kwacha
Programme income	1,714,961,238	1,455,625,644
Programme expenses	(1,425,538,050)	(1,265,440,239)
Operating surplus	**289,423,188**	**190,185,405**
Administrative expenses	(287,246,602)	(238,616,497)
Other income	72,666,080	68,214,906
Results from operating activities	**74,842,667**	**19,783,814**
Finance costs	(17,607,131)	(5,612,992)
Finance income	(42,497,501)	65,844,036
Surplus (deficit) for the year	**14,738,035**	**80,014,858**
Income tax expense	(6,838,281)	(6,349,899)
Surplus (deficit) for the year after tax	**7,899,754**	**73,664,959**
Items that will not be reclassified subsequently to profit or loss		
Gain on property, plant and equipment revaluation	(25,589,900)	22,579,332
Total comprehensive profit (loss) for the year	**(17,690,146)**	**96,244,291**

CONSOLIDATED STATEMENT OF FINANCIAL POSITION AS AT 30 SEPTEMBER 2025

	2025 Kwacha	2024 Kwacha
ASSETS		
Non-current assets		
Property, plant and equipment	275,614,528	292,350,565
Right of use assets	1,439,673	2,591,411
Investment in subsidiary	-	--
	277,054,201	**294,941,976**
Current assets		
Inventories	24,196,456	11,315,759
Trade and other receivables	201,339,531	245,762,326
Financial assets – Held to maturity	-	2,998,542
Assets Held for sale	8,130,000	-
Cash and cash equivalents	-	-
-Restricted	316,162,406	491,354,621
-Un-Restricted	19,184,818	21,029,957
	569,013,211	**772,461,205**
TOTAL ASSETS	**846,067,412**	**1,067,403,181**
Reserves and grants		
Revenue reserves	185,134,378	177,234,624
Capital grant	25,197,600	25,797,499
Revaluation reserve	6,430,690	32,020,590
Total equity	**216,762,668**	**235,052,713**
Liabilities		
Non-current liabilities		
Bank borrowings	110,355,195	140,377,125
Deferred tax liability	4,500,542	2,165,940
Lease liabilities	801,128	1,369,685
	115,656,865	**143,912,750**

CONSOLIDATED STATEMENT OF FINANCIAL POSITION AS AT 30 SEPTEMBER 2025

	2025 Kwacha	2024 Kwacha
Current liabilities		
Deferred income	370,103,099	539,984,327
Trade and other payables	112,999,159	114,581,564
Bank borrowings	14,239,380	16,043,100
Bank overdraft	10,050,089	13,153,799
Lease liabilities	926,458	903,643
Income tax payable	5,329,694	3,771,285
	513,647,879	**688,437,718**
TOTAL LIABILITIES	**629,304,744**	**832,350,468**
TOTAL EQUITY AND LIABILITIES	**846,067,412**	**1,211,315,931**

CONSOLIDATED STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 30 SEPTEMBER 2025

	2025 Kwacha	2024 Kwacha
CASH FLOWS FROM OPERATING ACTIVITIES		
Surplus (deficit) for the year	80,014,858	80,014,858
Adjustments for:		
Depreciation of property, plant and equipment	19,016,702	19,016,702
Depreciation of right-of-use assets	1,151,738	1,151,738
Impairment charge (reversals) of trade receivables	3,916,015	3,916,015
Interest income	(1,383,580)	(1,383,580)
Finance costs	5,612,992	5,612,992
Amortisation of project grant	(580,200)	(580,200)
Loss on disposal of property and equipment	1,093,853	1,093,853
Revaluation of borrowings	(15,783,810)	-
Net exchange gains	42,700,267	(64,460,456)

CONSOLIDATED STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 30 SEPTEMBER 2025

	2025 Kwacha	2024 Kwacha
Net cashflows from operations before tax	84,112,811	44,381,922
Income tax paid	(2,945,270)	(910,405)
	81,167,541	**43,471,517**
Changes in working capital		
Decrease (increase) in inventories	(12,880,697)	(199,869)
Decrease (increase) in trade and other receivables	45,521,940	(92,462,882)
(Decrease) increase in deferred income	(169,881,228)	276,553,106
(Decrease) increase in trade and other payables	747,941	3,058,944
Net cash generated in operating activities	**(55,324,503)**	**230,420,816**
CASH FLOWS FROM INVESTING ACTIVITIES		
Interest received	202,767	1,383,580
Cash received (invested in) on maturity of financial instruments	2,998,542	(1,015,225)
Purchase of property and equipment	(44,875,312)	(191,193,375)
Net cash used in investing activities	**(41,674,004)**	**(190,825,020)**
CASH FLOWS FROM FINANCING ACTIVITIES		
Proceed from borrowings	-	156,420,225
Repayment of borrowings	(32,616,689)	(4,700,607)
Interest paid on bank overdraft	(377,809)	(435,066)
Repayment of lease liabilities	(1,240,372)	(1,240,372)
Net cash generated (used) in financing activities	**(34,234,870)**	**150,044,180**
Net (decrease) increase in cash and cash equivalents	(131,233,376)	189,639,976
Cash and cash equivalents at start of year	499,230,779	245,130,347
Exchange differences	(42,700,267)	64,460,456
Cash and cash equivalents at end of year	**325,297,135**	**499,230,779**

PROGRAMME INCOME		
	2025 Kwacha	**2024 Kwacha**
Proud Z	308,890,001	255,899,623
DFPP-DHAPP	259,479,089	194,942,739
TRAILS	187,524,008	145,647,571
USAID CHEKUP I	185,416,485	214,125,084
USAID TB LON Project	177,333,270	174,161,445
USAID ECAP III	68,016,906	85,431,864
ZAMR – Zambia AMR	53,544,160	14,181,807
CDS third round	51,213,713	20,276,023
ZIH- FAA 1	33,982,320	102,354,577
MR SIA 2024	23,032,243	-
NIH TASKPEN Project	21,952,664	8,199,884
ZAIMARA Project	19,422,403	-
ELMA Co-Financing	18,723,341	10,915,003
PCC-CoRE	18,503,293	6,779,316
MRI-TBVO2	15,918,124	6,159,864
PEN-Plus Project	15,269,105	13,374,968
HSS EAF	12,282,573	3,187,766
CDS Needs-based	12,198,853	20,276,023
HCWG	16,851,632	32,635,136
OTHER PROJECTS	215,407,055	147,076,952
	1,714,961,238	**1,455,625,644**

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