<table>
<thead>
<tr>
<th>TABLE OF CONTENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO WE ARE</td>
</tr>
<tr>
<td>GOVERNANCE</td>
</tr>
<tr>
<td>MANAGEMENT</td>
</tr>
<tr>
<td>COVID-19 RESPONSE</td>
</tr>
<tr>
<td>TECHNICAL ASSISTANCE AND SUPPORT PROGRAMMES</td>
</tr>
<tr>
<td>RESEARCH</td>
</tr>
<tr>
<td>CENTRAL LABORATORY</td>
</tr>
<tr>
<td>TRAINING</td>
</tr>
<tr>
<td>PARTNERS</td>
</tr>
<tr>
<td>FINANCIALS</td>
</tr>
<tr>
<td>PUBLICATIONS</td>
</tr>
</tbody>
</table>
OUR VISION

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

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.
01. Who We Are

The Centre for Infectious Disease Research in Zambia (CIDRZ) is an independent nonprofit Zambian organisation committed to answering key research questions relevant to Zambia and the region. It 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.

Through close and on-going collaboration with the Government of the Republic of Zambia (GRZ) and its line ministries and by partnering with leading local and international universities, CIDRZ ensures that the latest research methodologies are used to answer locally relevant questions to improve healthcare delivery. CIDRZ runs several training fellowship programmes aimed at building the knowledge and skill of Zambian scientists and researchers to drive generation of evidence to support health policy development.

Over the years, our key focus areas have organically evolved, shifting from primarily HIV related, to encompass other infectious diseases such as enteric pathogens that contribute significantly to morbidity and mortality particularly for children and those that may be immunocompromised. Our work cuts across diverse populations, targeting those populations most at risk of infection or poor outcome from a particular disease. We leverage our social and behavioral change programs, health systems program, laboratory and supply chain expertise to support health services delivery across multiple disease focus and geographic locations.

Our Core Values

- **Accountability**: Our staff members are expected to acknowledge and assume responsibility for their actions, products, decisions and policies.
- **Equality**: CIDRZ is committed to fairness and equality in the workplace.
- **Honesty**: Our staff members are expected to be consistently truthful and straightforward.
- **Productivity**: Efficient and effective engagement of staff members on all targets/outputs.
- **Respect**: For all staff members, partners and stakeholders with whom we share common goals while recognising and respecting individual differences.
- **Transparency**: Demonstrated through dialogue that enables discussion of issues in an open, constructive, honest and problem-solving oriented manner.
2020 in Pictures and Events
On behalf of CIDRZ Management and Staff, it is with great joy that I present our Annual Report for CIDRZ Year 2020. The following pages showcase our numerous accomplishments over this past year in our quest to achieve our vision of a Zambia and a region, in which all people enjoy the best possible health. These achievements are in large part due to our diverse engagements and dynamic partnerships with stakeholders such as the Government of the Republic of Zambia and its various line ministries, particularly the Ministry of Health (MOH), funders, scientific collaborators and the communities. I would like to start by thanking all our partners in their ongoing support to CIDRZ over the past year and their commitment to the people of Zambia that we serve.

To state that 2020 was a dynamic year for CIDRZ is an understatement! Over this past year the CIDRZ team showed their sturdiness and adaptability at working through challenging situations in an environment impacted by global crisis due to COVID-19. All our staff were either affected or infected by COVID-19 resulting in time away from their jobs and the communities we serve. Despite the challenges, this period provided us with renewed focus, new perspectives and a push to embrace various electronic platforms developed over the last few years including our new CIDRZ laboratory virtual platform that captures client details and enables results feedback without any in-person interaction.

The 2020 World AIDS Day theme ‘Global solidarity, resilient HIV services’ aptly reflected 2020 and our approach to implementing our large PEPFAR funded HIV programme amidst the uncertainty of the COVID-19 outbreak. We are extremely proud of our contribution to the MOH’s efforts in bringing to a halt the HIV epidemic and their achievement of a key UNAIDS global target for HIV epidemic control. We look forward to supporting the MOH continued efforts to reach the 95/95/95 targets. This work would not have been possible without funding and support from the United States (US) government through the Presidential Emergency Plan for AIDS Relief (PEPFAR) and funding mechanisms from the US Centers for Disease Control and Prevention (CDC), Agency for International Development (USAID) and National Institutes of Health (NIH) who supported our various service delivery programs and research.

Innovation thrived in 2020, as we continued to investigate diarrheal diseases affecting our population. CIDRZ was able to conduct a pilot demonstration with funding from the Human Infection Challenge (HIC) Vaccine Network Catalyst fund of human infection challenge using a live attenuated vaccine as the infectious agent. This successful demonstration resulted in funding from Medical Research Council (MRC) UK to support a full human challenge clinical trial, the HIC Rotavirus study, which is currently assessing next generation rotavirus vaccines in Africa. We also continued to gain key insight in patients and providers perspective on the elements that contribute to quality health services through our Patient-Centred Care (PCC) implementation research study funded by the Bill & Melinda Gates Foundation. We are indebted to the Fleming Fund and the UK Government for their support in improving the laboratory infrastructure within the public health sector, with emphasis on addressing the gaps on understanding the breadth of anti-microbial resistance in our setting.

As CIDRZ embarks on celebrating 20 years since its incorporation in Zambia, I confident that we will continue to evolve and adapt to our changing environment, be it from natural causes or otherwise.

Thank you,
Dr. Izukanji Sikazwe
Chief Executive Officer
As I look back on all our accomplishments over the CIDRZ 2020 Year, a token of which have been summarized and captured in this annual report, I am amazed at what was possible in an otherwise difficult and challenging year. The CIDRZ team pulled together during tough times driven by the global outbreak of COVID-19 that impacted funding streams to the institution, curtailed important activities, delayed shipment of critical supplies required for HIV and COVID-19 services for the national response to both pandemics. Despite these challenges, we remained resilient and steadfast to our calling of working towards quality health services through impactful service delivery programs, locally relevant research and the training of Zambian clinicians, scientists and researchers.

Our 2020 annual report showcases the remarkable partnerships and friendships we have built over the last 19 years, particularly through funding by the U.S. government, that has enabled us to succeed. We were able to effortlessly support the national COVID-19 response early in the epidemic by donating key laboratory testing equipment to detect SARS-CoV-2 viral particles to increase the testing capacity in the Northern part of the country. Our team of Zambian researchers joined arms with others across the world to ensure that COVID-19 clinical research trials included participants from Zambia to generate local data around various aspects of this new disease in our population. Our Social Science Research Group (SSRG) worked tirelessly with MOH and their Risk Communication and Community Engagement (RCCE) unit to conduct and implement findings from rapid qualitative research on community understandings and barriers to enhance COVID-19 prevention. Our service delivery and technical assistant teams leveraged the COVID-19 to further roll-out dispensation of ARVs for multiple months for recipients of HIV treatment to reduce the frequency of clinic visits for drug pick-up. This approach allowed decongestion of the clinics and the ability of healthcare system to focus resources on urgent medical services during the acute surges in COVID-19 cases.

Despite all the unrest due to COVID-19, CIDRZ continued to support impactful technical assistance at the national level through contributing to national guidelines such as the MOH Service Standards for Health Institutions Providing Neonatal Care in Zambia and supporting the MOH Expanded Programme for Immunization (EPI) for children through our Department of Health System Strengthening.

At the provincial level, our teams supported technical assistance and the transition of service delivery programs to Provincial Health Offices (PHOs) particularly in Lusaka Province to further decentralize HIV services from primary health facilities to more community-based services and enhance the sustainability of these programmes.

Exceptional research also began in areas such as management of cardiometabolic complications of HIV in routine primary care settings using the WHO package of essential non-communicable disease intervention guidelines, human infection challenges for enteric disease, the use of vending machines to provide access to health products targeted at youth, as well as new urine tests and artificial intelligence to enhance TB diagnoses, particularly for people living with HIV. The outcomes and finding of this work have the potential to impact the entire region.

The CIDRZ team’s resilience and perseverance reflects the people across the breadth and depth of Zambia that continued to achieve various milestones across all sectors to improve their lives.

Thank you,
Bradford Machila
Board Chairman
The Board of Directors sets the strategic direction and provides oversight to the management of CIDRZ by meeting quarterly. It carries out its mandate through four (4) Committees:

- Finance and Audit
- Human Resources and Operations
- Research and Programmatic
- Investment

CIDRZ Management comprises dedicated and experienced professionals with competencies in Medicine, Public Health, Finance, Operations, Biomedical Sciences, Human Resources, Information, Communication Technology, Internal Audit and Risk and Compliance.

Executive Committee
In response to the outbreak of Covid-19, CIDRZ rapidly deployed our infectious disease and public health researchers, virologists, medical practitioners and implementation experts to quickly assist the global scientific community to understand the disease and its effect on our community. Virtual meetings were held with staff and local partners to disseminate latest scientific findings from prevention modalities, treatment options, to vaccines in real time related to the SARS-CoV-2 virus and the disease. CIDRZ worked closely with the MOH and the Zambian National Public Health Institution sitting on technical working groups and advisory committees to support the government to make timely and evidence-based decisions and policies.

The CIDRZ Central Lab rapidly rolled out COVID-19 PCR testing once developed and was able to assist the MOH to provide COVID-19 PCR testing for the public with funding from US CDC, Fleming Grant, Standard Chartered Bank PLC and the generous donation of $50,000 worth of reagents and technician time from the CIDRZ Board and Staff. CIDRZ also helped to improve PCR testing in the northern part of the country by providing the PCR testing platform at Chinsali General Hospital and seconding technicians to train MOH colleagues on how to operate the equipment during the first surge. This improved the testing capacity for the region and reduced the turn-around time for results as previously samples had to be transported to either the Copperbelt or Lusaka Province reference laboratories.

In primary health facilities to protect patients and limit exposure to Covid-19, CIDRZ worked with LPHO to adapt patient flow and infection prevention measures to reduce the risk of COVID-19 spread. We scaled up dispensation of ART refills for longer periods to reduce patient visits and congestion at facilities to enable resources including personnel to focus on the COVID-19 response and other health emergencies.

COVID-19 Research

The CIDRZ research team engaged locally and internationally to foster and build collaborations to quickly develop COVID-19 specific research questions and protocols relevant to our setting. We successfully opened sites within the country for participant enrolment for the following studies:

- NIH funded COVID-19 Prevention Network (CoVPN) 5001, a prospective study of acute immune responses to SARS-CoV-2 infection and HVTN 405 HPTN1901 a clinical research study enrolling 800 participants from the US, South America and Sub-Saharan Africa to learn more about the SARS-CoV-2 infection and COVID-19 disease.
- Bill and Melinda Gates Foundation (BMGF) funded Crown Coronation Study, an international, Bayesian platform adaptive, randomized, placebo-controlled trial assessing the effectiveness of candidate interventions in preventing COVID-19 disease in healthcare workers.
- COVID-19 Hygiene Hub, which documented local, regional and national COVID-19 hygiene response strategies and shared lessons learned and local innovations by providing a platform to connect in-country organizations working on COVID-19 response along with developing plain-language practical guidance documents that are publicly available through an interactive website.

$50,000 worth of reagents and technician time from CIDRZ provided to help MoH

COVID-19 PCR Testing Developed and Rolled out to Improve Testing Capacity

800 Participants Enrolled for CoVPN 5001 & HVTN 405 HPTN1901 Prospective Study
COVID-19 Programmatic Support

The CIDRZ technical assistance and programmatic support teams also engaged current partners and stakeholders to leverage existing footprints and reach to expand and increase awareness and prevention measures. This included funding for support of programs such as: DIG-COVID 19 funded by DIGNITY and CIRKUITS COVID funded by the CDC to prevent and mitigate the impact of COVID19 pandemic in all correctional facilities within three supported provinces, Eastern, Lusaka and Western; MAC AIDS who funded additional resources to support Covid-19 in youth based spaces; USAID for additional resources to support the TB LCN program to identify and support TB centres to screen for COVID-19; and CDC who funded through ACHIEVE and LIFE additional personnel protective equipment and supplies to protect and support the Covid-19 response in health clinics and laboratories.

Lessons learned and future work:

CIDRZ was able to harness its resilience and resources including its staff to continue to activities despite the hurdles brought on by the outbreak of this epidemic.

CIDRZ had for several years invested in creating a near paperless system to improve the efficiency of our business operations, with aspects of this integrated into our research operations that enabled us to continue to operate with minimal disruption. For the most part, our operations’ departments were able to operate remotely, although some clinical trials and research studies had to be paused or completely stopped in line with COVID-19 prevention guidance particularly at the height of new cases.

Evolving and adapting to our changing environment for a healthy Zambia
1.0 ACHIEVING EPIDEMIC CONTROL IN ZAMBIA (ACHIEVE)

With support from the United States President’s Emergency Plan for AIDS Relief (PEPFAR) and the Centers for Disease Control and Prevention (CDC), CIDRZ works closely with the MOH towards ending the AIDS epidemic through the attainment of the 95:95:95 treatment targets set up by the UNAIDS. In the year under review, we achieved the following:

1.1 HIV Testing

CIDRZ supported 189 health facilities through provision of direct service delivery (DSD) in nine Districts of Western Province and Chongwe District in Lusaka Province. We also supported 59 facilities through technical assistance to the Lusaka Provincial Health Office (LPHO). CIDRZ placed lay counsellors across its supported clinics to provide testing and counseling services for people who don’t know their status or are at risk of contracting HIV. Consequently, 9,703 HIV positive clients were identified out of 231,176 clients tested across our DSD supported sites.

CIDRZ tested 31,145 children less than 15 years of age for HIV. Of these, 2% were identified to be HIV positive. Overall, 70,513 male adults were tested in 2020 of which 3,745 were newly identified positive (5% positivity) compared to almost twice as many females (5,410 newly identified positive females, with 4% positivity). To reduce the number of HIV tests performed, CIDRZ supported the optimization of HIV risk screening in supported sites, through the onsite orientation of Health Care Workers (HCW) on effective use of the HIV risk screening tool. The reorganized patient flow ensured that all clients were screened for HIV risk prior to being offered an HIV test.

To reach more men and other priority populations, CIDRZ supported the establishment of 27 men’s clinics, 13 unbranded community posts and 39 outreach points to increase access to HIV Testing Services (HTS) closer to home. Through this model, 17,982 males below the age of 15, who are reluctant to attend a health facility, were reached, 4,107 were tested and 220 new positive males were identified (5%). CIDRZ offered index testing (testing of sexual contacts of a newly
identified positive client) to 8,914 positive recipients of care. CIDRZ followed up on 8,420 sexual contacts out of 10,874 elicited. CIDRZ also identified 6,861 child contacts from parents and traced 5,976 who we later tested.

All CIDRZ supported sites were assessed for provision of safe and ethical index testing, with 172/248 sites meeting the standard by the end of the year under review. All testers were certified proficient to provide testing services and facilities were certified for HTS provision.

In another attempt to reach people who are reluctant to test, 16,583 HIV Self-Test kits (HIVST) were handed out; 2,768 of the kits were taken home and 13,815 people were assisted by a volunteer. A total of 14,011 HIVST were returned with results (164 were new positive clients, 100 were known positive clients).

1.2 HIV Care and Treatment

CIDRZ employed 221 staff, including medical doctors, clinical officers, nurses and community staff to support provision of clinical services. A further 138 Data Associates supported data management in all supported health facilities across 11 districts in Western and Lusaka Province. CIDRZ worked with Provincial and District health office staff to strengthen the implementation and monitoring of HIV related services and improve care quality. CIDRZ initiated 9,283 HIV positive people on treatment and ended the year with a total of 49,000 clients on treatment, reaching our target for the year. Of those clients, more than 50% received drugs for six months, which assisted the decongestion of clinics.

CIDRZ supported 31 high volume health facilities, (with more than 500 clients on Antiretroviral Medication (ARVs)), to acquire accreditation for the provision of HIV services by the Health Professions Council of Zambia (HPCZ).

To improve retention of clients on treatment, DSD models were established, such as six months dispensation of ARV’s, especially for clinics and areas isolated due to flooding in Western Province. Additionally, due to the pandemic, we set-up fast track clinics for drug pick-up and drug home delivery. CIDRZ assisted HCWs to use an appointment system, facilitated tracing activities for late clients, conducted training and onsite mentorship in pre and post-test counselling using the ARVs and Healthy Me messages. Welcome back messaging campaigns were conducted to ensure people are treated well and know they will be welcomed back should they miss appointments.

Additional space was provided to our supported clinics through the purchase and placement of fifteen prefabricated buildings.

CIDRZ promoted community involvement through stakeholder meetings, including meetings with traditional leaders, aimed at HIV testing and prevention service sensitization as well as a way of addressing stigma and discrimination.
1.3 Voluntary Medical Male Circumcision

The VMMC program began in 2017, it is a PEPFAR and CDC funded project under the ACHIEVE program. This ongoing project aims at reaching males aged 15 to 29 with voluntary medical male circumcision. The objective of the program is to help build Provincial Health Office capacity to provide comprehensive and sustainable HIV prevention, treatment, care and support services in Zambia, particularly in Western and Lusaka Provinces.

Zambia’s Western Province is dominated by the non-circumcising tribes of Lozis and Nkoyas. However, there are pockets of smaller circumcising tribes such as the Luvalaes, Bundas and Kachokwes scattered throughout the province. These tribes traditionally circumcise boys younger than ten as a rite of passage to adulthood, during a ceremony called Mukanda. The Zambian Demographic Health Survey of 2013/14 determined the male circumcision rate for Western Province at 47.9%. Uptake in the dominant tribes was low at 23.3%.

To reduce the incidence of HIV in Zambia through increasing awareness and establishing environments conducive for the rapid scale-up of male circumcisions to 1,985,083 by 2020, the CIDRZ MC program embarked on a series of aggressive demand generation activities. Among them was a sports soccer gala which was organised in Senanga district of Western Province. This was basically a concept that used local community football teams to each mobilize 15 clients for male circumcision for them to participate in the football tournament. Grassroot soccer is very popular in rural communities and brings people together which provides an opportunity to give them information and services. During the games, the MC mobilisers go round and engage with the crowd to give them messages which captivate the men long enough to influence their health choices.

The Senanga gala was organised with the support of Senanga District Health Office, Ministry of Education, Ministry of Defence, Ministry of Sports and CIDRZ. The guest of honour was the District Commissioner who was represented by the District Health Director Dr. Likambi Kabinda. because of the mobilisation done using this strategy, we managed to reach 2163 with VMMC messaging and circumcised 263 clients in four days.

1.4 Cervical Cancer

The Cervical Cancer Screening Programme started in 2006 with financial and technical support from PEPFAR through CDC and MoH. The program expanded, establishing close to 150 screening and treatment sites across the country.

In the period under review, we supported 39 cervical cancer screening centres in Lusaka, Chongwe and nine CIDRZ supported districts of Western province. Women were sensitized and over 18,000 HIV positive women between the ages of 25 and 49 were screened using mobile screening centres.

We trained over 600 HCWs to provide cervical cancer screening and treatment. The program prioritized service provision to women living with HIV in both static and outreach facilities. In response to the global strategy to accelerate the elimination of cervical cancer, CIDRZ’s cervical cancer programme was identified by the MoH as the first in the country to initiate cervical cancer screening using a highly effective test - the Human Papilloma Virus (HPV) DNA/RNA test using the Hologic panther machine.
The following were the successes of Lusaka Province.

1.5 Key Population Investment Fund (KPIF) Program

Key Population Investment Fund (KPIF) program started in 2019 and is funded by the United States’ Office of the Global AIDS Coordinator through CDC. The program is implemented in collaboration with MoH and Key Population Civil Society Organisations (KP CSOs). The KPIF programme aims to build KP CSO capacity to deliver valued services. The KPIF programmes are implemented in collaboration with KP CSOs and the government health facilities, with trained KP CSO members, and public health workers at the frontline of providing KP-friendly services.

1.6 Prevention of Mother to Child Transmission

The main goal of the project was to help the MoH eliminate paediatric HIV infection through the provision of family-centred HIV services and capacity building of District Health Office and facility staff. The project’s objective was to increase awareness and sensitization on HIV and syphilis counselling, testing and treatment and improve antenatal care attendance and facility delivery. We supported ten direct service delivery districts of which nine were in Western Province and one in Lusaka Province.

Despite facing some staff shortages in the Mother and Child Health (MCH) department and erratic supply of test kits, health care providers worked tirelessly to eliminate mother to child transmission. Almost all mothers who attend Ante Natal Clinic (ANC) are tested for HIV and all positive mothers are receiving Anti-Retroviral Drugs. To date only 1% of children are found to be HIV positive in their first six months. Unfortunately, because some mothers do not consistently take their medication, 4% of children are found to be positive after six months of breastfeeding.

To improve the mother’s adherence to medication and early child diagnosis, CIDRZ trained 592 Health Care Providers joint mother and child monitoring (cohort monitoring). CIDRZ also conducted onsite mentorship in all 286 supported sites to ensure mother-infant pairs are tracked up 24 months. In collaboration with District Health Offices, CIDRZ trained Health Care Providers to strengthen supervision of treatment supporters and ensure peer pairing with a peer also focused on addressing challenges. To improve the mother’s adherence to medication and early child diagnosis, CIDRZ trained 592 Health Care Providers joint mother and child monitoring (cohort monitoring). CIDRZ also conducted onsite mentorship in all 286 supported sites to ensure mother-infant pairs are tracked up 24 months.

1.7 Paediatric HIV Care and Support

With support from PEPFAR and CDC, CIDRZ staff provided direct health services for paediatric and adolescent HIV services to nine (9) Districts in Western Province and Chongwe District in Lusaka Province.

Data Quality Improvement and Systems Strengthening

CIDRZ supported over 200 facilities in managing the Electronic Health Record System (EHRs) SmartCare for routine data collection and reporting. CIDRZ conducted training and capacity building activities for various stakeholders, ensuring long-term sustainability in months for both clinical care and performance monitoring.

Various collaborative data review meetings and data quality audits with the Provincial Health Office, District Health Office and facility staff were implemented across nine supported Districts in Western Province and 2 Districts in Lusaka Province (Lusaka and Chongwe).

Data Management and Analysis Support

Data management support included, but was not limited to, the creation of electronic data collection tools to improve accurate and timely reporting, data cleaning and data extractions to study specific datasets to identify and understand gaps in performance and assist clinicians to adjust their program accordingly. Furthermore, CIDRZ conducted study specific data analysis for different types of research studies. Overall, the department supported over fifteen programmatic and research studies.

• A total of $426,914.01 was issued in 3 sub-awards to ten (10) KP-CSOs to support the provision of HIV services to KPs.
• Around 75 government health care providers in the three districts were accorded further providing friendly respectful and stigma-free HIV services to KPs.
• Use of the Social Network Strategy (SNS) – a peer-driven, referral strategy - to reach KPs with HIV services during which 3,902 KPs were reached with a positivity yield of 36% and a linkage rate of 98%.
• HIV services were provided to KPs at the static site-offices (safe spaces) through a decentralized service delivery (IDSS) model and through periodic outreach activities Safe and secure site-offices were identified and established in Chongwe, Chilanga, and Kafue Districts. This was done in collaboration with KP CSOs and the government health facilities, with trained KP CSO members, and public health workers at the forefront of providing KP-friendly services.

The following were the successes scored.

- The project's objective was to increase awareness and sensitization on HIV and syphilis counselling, testing and treatment and improve antenatal care attendance and facility delivery. We supported ten direct service delivery districts of which nine were in Western Province and one in Lusaka Province.

- Around 75 government health care providers in the three districts were accorded further providing friendly respectful and stigma-free HIV services to KPs.

- Use of the Social Network Strategy (SNS) – a peer-driven, referral strategy - to reach KPs with HIV services during which 3,902 KPs were reached with a positivity yield of 36% and a linkage rate of 98%.

- HIV services were provided to KPs at the static site-offices (safe spaces) through a decentralized service delivery (IDSS) model and through periodic outreach activities Safe and secure site-offices were identified and established in Chongwe, Chilanga, and Kafue Districts. This was done in collaboration with KP CSOs and the government health facilities, with trained KP CSO members, and public health workers at the forefront of providing KP-friendly services.

- Around 75 government health care providers in the three districts were accorded further providing friendly respectful and stigma-free HIV services to KPs.

- Use of the Social Network Strategy (SNS) – a peer-driven, referral strategy - to reach KPs with HIV services during which 3,902 KPs were reached with a positivity yield of 36% and a linkage rate of 98%.

- HIV services were provided to KPs at the static site-offices (safe spaces) through a decentralized service delivery (IDSS) model and through periodic outreach activities Safe and secure site-offices were identified and established in Chongwe, Chilanga, and Kafue Districts. This was done in collaboration with KP CSOs and the government health facilities, with trained KP CSO members, and public health workers at the forefront of providing KP-friendly services.
Facility Information Management System (FIMS)

CIDRZ continued to scale the use of their in-house developed FIMS. This system is accessible at all health facilities via the internet or through the CIDRZ network for locations without internet access. FIMS is one of the primary systems used to support management and reporting of ACHIEVE HIV/AIDS/TB data. Being a central repository, FIMS greatly reduced parallel data reporting, discrepancies in reports and duplication of effort.

SMS and USSD Implementation

In the year under review, the Strategic Information Department developed and supported a system which enabled clients who had a valid mobile phone number to receive a reminder to attend a clinic or drug visit 24 hours prior to their scheduled visit. Those that missed an appointment received a reminder 24 hours after the missed appointment and another reminder after 30 days.

In addition, a survey to collect data on patient experience in ART clinics was undertaken in 24 health facilities in Lusaka District. Participants received a prompt to take the survey three days after their facility visit. This survey was administered via a USSD prompt. So far, over 6,000 participants have taken the survey and more than 90% of the respondents are happy with the care received from the facilities they visited.

3.0 PAEDIATRIC (CHILD) AND ADOLESCENT HEALTH

3.1 Ministry of Health – Global Fund Adolescent Comprehensive Sexuality Education Project

From January to December 2020, CIDRZ was a sub-recipient of Global Funds through the MOH to carry out Comprehensive Sexuality Education (CSE) programme in Limulunga, Mongu and Sesheke Districts of Western Province. The objective was to curb new HIV infections, early child marriages, teen pregnancies, substance abuse and gender-based violence among young people. To kick-off the project, CIDRZ trained a total of 40 peer educators to deliver the CSE curriculum through daily sessions with adolescents at schools, youth friendly spaces at health facilities and in the community. To get stakeholder support, CIDRZ conducted meetings with multisectoral leaders and gate keepers in all 3 districts to introduce CSE curriculum to the target communities. The project reached a total of 106 leaders from faith-based organisations, community/traditional leaders, and representatives from MoH, Ministry of General Education, Ministry of Youth, Sport and Child Development participated resulting in general support from the community. The project successfully reached 38,221 adolescents (out of a target of 34,148) with CSE.
3.2 MAC OTZ Plus

The MAC Operational Triple Zero (MAC OTZ Plus) Project was funded by the MAC AIDS Fund for one year (June 2020 to May 2021) with the objective to recruit 6,000 adolescents living with HIV (ALHIV) into OTZ Clubs and deliver an HIV literacy package tailored to empower ALHIV in the management of their own health for better health outcomes. The project was adapted from the OTZ model which was successfully implemented in Kenya, to empower ALHIV to adopt and co-produce interventions that address poor health outcomes. Operation triple zero refers to interventions towards reaching i. zero viral load ii. zero mother to child transmission among pregnant and breastfeeding adolescents and iii. zero teen pregnancies.

The project was implemented in 16 MOH facilities where CIDRZ recruited and trained 32 adolescent peers to deliver the HIV literacy package to ALHIV. The package includes topics such as Adolescence, understanding sexual reproductive organs, sexual transmitted infections (STIs), HIV prevention, transmission and treatment, viral suppression, emotional and mental wellness, nutrition, etc. Through the literacy package, ALHIVs are mentored on the importance of viral suppression and the steps they can personally take towards achieving viral suppression.

CIDRZ worked closely with care-giver support groups and NHCs to recruit ALHIVs into OTZ Clubs and successfully recruited 5,236 (2,060 Males and 3,176 Females) HIV positive adolescents between the ages of 13 to 24 years. Out of 3,176 girls recruited, 275 were pregnant and were enrolled in pregnant support groups and supported with the aim to prevent mother to child transmission.

CIDRZ | ANNUAL REPORT 2020
4.0 TUBERCULOSIS (TB)

The extensive portfolio of work conducted by the TB unit is supported by funding received from competitive grants from multiple agencies, including National Institute of Health (NIH), World Health Organization, PEPFAR, CDC, AERAS, TB Alliance for Drug Development, Stop TB Partnership, Elton John AIDS Foundation, the European Union and the Foundation for Innovative New Diagnostics (FIND).

4.1 Tuberculosis Local Organizations Network (TBLON)

**Funder:** USAID  
**Timeline:** March 2020 to March 2025

TBLON is being implemented in selected Districts of Southern and Lusaka Provinces. TBLON aims to support the prevention, care and treatment of TB in Zambia by improving access to high quality person-centred, drug susceptible - TB, Drug Resistant (DR)-TB and TB/HIV services. To reach this goal, CIDRZ is using improved TB case detection, strengthened programmatic management of DR TB, improved enabling environment for TB services through strengthened data management and improved TB Prevention and TB/HIV integration strategies/methodologies.

4.2 Closing the gap on Childhood TB in Zambia through use of targeted active case finding strategies amongst children (TB REACH Wave 7)

**Funder:** Stop TB Partnership/TB REACH  
**Timeline:** February 2020 to August 2021

The goal of the Childhood TB Project is to improve TB case detection in children (0-14 years) using proven active case finding strategies specific to children. Additionally, the project aims to assess the knowledge, attitudes and practices of health workers and caregivers towards childhood TB; validate artificial intelligence system for scoring chest X-ray images of children and evaluate C-reactive Protein (CRP) as TB screening tools in children above 4 years; evaluate novel screening and diagnostic tests in children 4 years and below; and explore and validate laboratory methods for stool Xpert ultra.

4.3 FujiLAM Study

**Funder:** University of Heidelberg  
**Timeline:** June 2020 to April 2022

This study assess the feasibility and acceptability of the FujiLAM, a new generation LAM assay. The study uses qualitative methods and interviews of key informants (Patients, health care workers, leadership in TB programs in Zambia) and FDCs were also conducted at facility levels.
Lab Innovation for Excellence (LIFE) is a Cooperative Agreement (CoAG) funded by the President’s Emergency Plan for AIDS Relief (PEPFAR) and the Centers for Disease Control and Prevention (CDC). It is a five-year project that kicked off in April 2018, and supports MOH and aims to:

- Accelerate scale up of HIV Viral Load (VL) and early infant diagnosis (EID) use for clinical care.
- Strengthen the implementation of Quality Management Systems (QMS) in national VL/EID laboratories across the country in preparation for International Organisation for Standardization (ISO) 15189 accreditation.
- Capacitate laboratories to address gaps found during evaluations by providing equipment, power backup, maintenance and technical support, as necessary for existing and new hubs as prioritized with MOH implementing partners and CDC Zambia.

The LIFE project has a national geographic scope with the following objectives:

1. Capacitate Laboratories
2. Provide training, technical support and mentorship to laboratory staff.
3. Facilitate data capture and result reporting systems.
4. Improve the monitoring and evaluation (M&E) systems.
5. Coordinate VL and EID courier systems.
7. Improve and strengthen waste management systems at VL testing facilities.

Successes

CIDRZ LIFE has been working towards strengthening the M&E system for courier services and QMS interventions. We have aligned our efforts with MOH goals of ensuring data is predominantly in electronic form and ensuring timely access to quality data for evidence-based decision making. We envisaged that routine monitoring will lead to improved available and access to quality data, more robust use of and reporting. We have developed electronic tools through android and Unstructured supplementary service data (USSD) platforms for real time reporting of sample and result movement. Program data is uploaded incorporated into near real-time dashboards.

Most of tools the project utilizes to collect, store and visualize data depend on the availability of smartphones however, this poses a challenge to the target users particularly the motorbike riders that do not have smartphones. To mitigate this gap, the project implemented an SMS based reporting tool where users (without smartphones or internet) send an SMS keyword to a provided phone number, which in return sends the keyword to the server and return a required field question as a text message to the user as can be shown in the screenshots of figure below:
CIDRZ Central Laboratory continued to have an excellent record of laboratory services in clinical diagnostics, screening, research, equipment verification and validation including mentorship and training of laboratory staff. The focus areas during the period under review are covered in the following sections.

6.0 BIOMEDICAL AND LABORATORY SCIENCE

6.1 Zambia Anti-Microbial Resistance (ZAMR)

ZAMR is funded by the British Government, through the Fleming Fund Zambia Country Grant. Phase 1 of the Grant started in August 2019 and was meant to run for 18 months until December 2020 but has been granted six months Non-Cost Extension (NCE) from January to June 2021. The Grant is implemented in seven Provinces namely Lusaka, Copperbelt, Southern, Eastern, Western, Luapula and Muchinga.

ZAMR sought to support the GRZ to strengthen and scale up laboratory capacity for quality microbiology diagnostics to support antimicrobial resistance (AMR) surveillance, responsible antimicrobial use (AMU) and surveillance activities to inform national policy to reduce AMR and improve collection and quality of AMU data. CIDRZ and the consortium partners (UNZA-Vet and PATH) worked with the MoH through the Antimicrobial Resistance Coordinating Committee (AMRCC) and ZNPHI, among others, to ensure Zambia achieves targets set in the global and AMR national action plan (NAP).

ZAMR supported the GRZ governance structures for AMR surveillance in holding planning meetings, oversight in document development and data hosting of the One Health server and Silab animal health server at Infratel.

ZAMR strengthened microbiology capabilities in 12 laboratories (6 under Animal Health and 6 under Human Health) to promote high quality data generation. Each sector has a reference laboratory, the University Teaching Hospital (UTH) for Human Health and Central Veterinary Research Institute (CVRI) for Animal Health. The Grant procured key laboratory equipment and refurbished the microbiology laboratories for the surveillance sites for enhanced performance.

We conducted on-site microbiology mentorship for both human health and animal health sites and all laboratories have since started generating AMR data. M&E mentorship was equally conducted to ensure high quality data is produced and data use is conducted at both site and national level.

Throughout the ZAMR project, the Grant trained 89 Laboratory Staff and the training delivered included: one health approach; data analysis, interpretation and management; data usage to inform policy and effective communication; biosafety and biosecurity; production of ATCC and Isolate inventory management; culture, identification and AST, ESBL, MIC, storage of organism, transportation, ATCC propagation and storage; archiving isolates and biosecurity of the samples; and forecasting, inventory management and MSL procedures and policies.
The Department of Primary Care & Health System Strengthening provides technical assistance and innovative approaches to improve primary care and strengthen health system performance.

7.1 The Expanded Programme on Immunisations-Optimisation (EPI-OPT)

The Expanded Programme on Immunisations-Optimisation (EPI-OPT) project, funded by UNICEF Zambia and Gavi, the Vaccine Alliance, is working to improve and have more equitable immunisation coverage rates in all health facilities offering immunisation services in Southern and Western Provinces (589). The project initiated in Southern Province in August 2019 with funds from UNICEF Zambia and scaled to Western Province with funds received through Gavi in August 2020. Funding ends in December 2021. EPI-OPT takes a collaborative approach working together with Government, the Churches Health Association of Zambia (CHAZ), PATH, UNICEF and CIDRZ.

EPI-OPT’s objectives are to:

1. strengthen and improve EPI knowledge and skills of Health Care Workers (HCWs) at district and health facility levels;
2. improve the immunisation supply chain and logistics performance;
3. improve EPI monitoring and data quality, visibility and use for continuous improvement; and
4. improve demand for immunisation services.

CIDRZ supports the first two objectives with other partners supporting the others.

The project initiated with baseline assessments in all facilities, followed by refresher training for 562 HCWs in Southern Province and 285 in Western Province. CIDRZ supported Government to implement a ‘system design’ approach for vaccine delivery in Southern province—with districts delivering vaccines directly to health facilities rather than having each facility pick-up vaccines monthly. District staff bring vaccines each month and utilise this opportunity to provide mentorship. CIDRZ provides technical assistance to districts and aids in reviewing data to troubleshoot and improve performance.

One year into Southern Province implementation several improvements have been noted since baseline. Health facilities with no vaccine stock outs improved from 68% to 84% and vaccine stock control cards matching physical counts increased from 25% to 92%. Health facilities reporting vaccine wastage increased from 28% to 82% and facilities recording no antigens with Vaccine Vial Monitor (VVM) stage 3 or 4 (which equates to an unviable vaccine) improved from 50% to 88%. Additionally, immunisation schedule adherence for a child who received the second dose of the Measles Rubella vaccine (between 18-23 months) increased from 48% to 83%.

CIDRZ | ANNUAL REPORT 2020
CIDRZ is working with districts to support areas beyond immunisation including the delivery of other commodities during vaccine delivery and to promote districts to provide their own transport and drivers for increased sustainability, with 5-8 districts (of 13) doing so each month.

7.2 Technical Support to Improve Immunisation Services in Zambia

CIDRZ provides technical assistance to the EPI through the Partnership Engagement Framework (PEF) TA funded by Gavi, the Vaccine Alliance. The TA began in October 2019 and runs through June 2021 and supports national and subnational immunisation activities. The objectives of the programme are to improve immunisation services and build capacity and transfer skills to HCWs through strengthening management and governance capacity; support capacity building of the immunisation supply chain; strengthen sub-national health systems; and support coordination and functioning of national EPI activities.

CIDRZ supported a national Supplementary Immunisation Activity (SIA) for the Measles Rubella vaccine and the Inactivated Polio Vaccine (IPV) presentation switch. TA included development of tools and training health care workers. TA was also provided for the oral cholera vaccination campaign in Lusaka District and the second round of national HPV vaccination. TA support a seconded Logistician to government who is responsible for national vaccine forecasting, monitoring and reporting.

CIDRZ also assessed preparedness to conduct the vaccination response between the respective rounds; progress in the implementation of the campaign; regular monitoring of coverage and supervision data; and monitoring the quality of the campaign through in-process monitoring and Lot Quality Assurance Sampling. The polio outbreak response was completed at the end of 2020, as no new poliovirus cases were recorded over a period of 6 months.

7.3 Zambia Emergency Operations Centre (EOC) funded by the Bill and Melinda Gates Foundation

Following an outbreak of Vaccine Derived Polio Virus (VDPV), which occurred at the end of 2019, CIDRZ provided assistance to initiate the Zambia Emergency Operations Centre (EOC) funded by the Bill and Melinda Gates Foundation, which ran from March 2020 through January 2021. The EOC supported a response team and established a command post to handle the polio outbreak; this was later expanded to include COVID-19.

The programme provided administrative and operational support to the EOC and helped facilitate the coordination and response to both threats. For the polio outbreak, 3 vaccination rounds were conducted in 2 effected districts and, as well as 18 identified high-risk districts. The EOC hosted a team of experts who held meetings to assess the situation through active surveillance, providing guidance and monitoring of surveillance activities. The team also assessed preparedness to conduct the vaccination response between the respective rounds; progress in the implementation of the campaign; regular monitoring of coverage and supervision data; and monitoring the quality of the campaign through in-process monitoring and Lot Quality Assurance Sampling. The polio outbreak response was completed at the end of 2020, as no new poliovirus cases were recorded over a period of 6 months.

CIDRZ also supported the EOC team to monitor COVID-19. The team was responsible for the development of Standard Operating Procedures (SOPs) and guidelines and for providing daily updates on COVID-19 and analysis of data from across the country.
0.5 Research

1.0 CLINICAL TRIAL AND NETWORK STUDIES

1.1 Matero Clinical Research Site Activities (University of Alabama at Birmingham Clinical Trials Unit)

Our Matero Clinical Research Site under the University of Alabama at Birmingham Clinical Trials Unit has continued to receive core funding to support HIV Vaccine Trials Network Studies at CIDRZ. This core funding from the National Institute of Health comes to CIDRZ through the University of Alabama at Birmingham.

1.1.1 HVTN 705/VAC89220 HPX2008

Funder: National Institute of Health, Bill & Melinda Gates Foundation and Janssen Vaccines & Prevention, B.V.

Objectives: the project is a multicenter, randomized, double-blind, placebo-controlled phase 2b efficacy study of a heterologous prime/boost vaccine regimen of Ad26.COV2.S-HIV and aluminum phosphate adjuvanted Clade C gp140 in preventing HIV-1 infection in women of sub-Saharan Africa; whose objective is to test a combination of 2 experimental vaccines, namely HVTN 705 and VAC89220 HPX2008 and to determine if the vaccines can prevent HIV infection, whether the vaccines are safe to give to people and how people’s immune systems respond to these vaccines.

Our Matero CRS was allocated a total of 94 enrolment slots and we beat that target by enrolling a total of 107 study participants. Study participants completed their vaccination visits and will be followed up until May 2022. The study currently has a retention rate of 90%.

1.2 International Epidemiology Databases to Evaluate AIDS (IeDEA) Network

1.2.1 Liver fibrosis in Zambian HIV-HBV Co-Infected patients: A Long-Term Prospective Cohort Study

Funder: National Institute of Public Health (NPH).
Timeline: the study kicked off on 15th October 2015 and is set to run up to 31st December 2025.

Objectives: the main objective of the study is to determine the prevalence of significant levels of liver fibrosis in HIV-HBV patients in Zambia using non-invasive tests; to identify the predictors of significant fibrosis among HIV-HBV patients and to assess the impact of ART on the progression of liver fibrosis in 178 HIV-HBV patients in Zambia.
1.2.2 IeDEA Burden of Non-Communicable Diseases among HIV Infected Person’s study

**Funder:** National Institute of Public Health  
**Timeline:** The study kicked off on 10th August 2020 and will run for five years.

**Objectives:** The study seeks to improve the current knowledge on the epidemiology and intersection between HIV and non-communicable diseases including cardiovascular, metabolic, kidney and liver diseases among 1,000 HIV-positive and HIV-negative adults in Zambia and Zimbabwe. Study participants will undergo a range of clinical and laboratory tests, including lifestyle and behavioural risk factor assessments for physical activity, diet and mental health over a 5-year followup period.

1.2.3 IeDEA- DTG SWITCH -Longitudinal Analysis of Virologic Failure and Drug Resistance at and After Switching to Dolutegravir-based First-line ART (DTG-SWITCH)

**Funder:** National Institute of Public Health (NHP)

**Study duration:** The study started on 4th June 2020 and will run for two years six months.

**Objectives:** The objective of the study is to recruit and characterize the short and long-term outcomes of first-line switch to the DTG-based ART in Africa in representative populations. Specifically, the study will assess the incidence of virologic failure and the contribution of drug resistance to virologic failure after switch and determine the incidence of the neuropsychiatric, metabolic and other side effects of the DTG-based ART when associated with TAF or TDF in African patients among 1410 HIV-positive adults in Zambia.

2.0 ENTERIC DISEASE AND VACCINES RESEARCH UNIT

Known as (EDVRU), the unit is comprised of vibrant young researchers who are enthusiastic about research as a career. Over the years, the unit has carried out work which has stimulated basic laboratory science research at CIDRZ. Through this work, a rotavirus cell-culture platform, validated local capacity for basic ELISA assays, micronutrient assessments and Luminex® based multiplex PCR capacity work have been conducted.

- The unit is primarily responsible for competing for grants,
- conducting research,
- analysing generated research data,
- disseminating findings and
- capacity building through skills transfer and postgraduate training.

2.1 Delivering Oral Vaccines Effectively (DOVE)

**Funder:** Johns Hopkins University  
**Timeline:** Four years (2017-2020)

**Objectives:** The project objective was to determine the effect of extended dose intervals on the immune response to oral cholera vaccine (Shanchol) and strengthening cholera surveillance through hotspot mapping in Zambia.

Study results were published in a paper titled: “Identification of Cholera Hotspots in Zambia: A Spatiotemporal Analysis of Cholera Data from 2008 to 2017”.

2.2 Non-Replicating Rotavirus Vaccine (NRRV)

**Funder:** PATH  
**Timeline:** April 2019 - June 2024

**Objectives:** The objective of the trial is testing the hypothesis that the Non-Replicating Rotavirus Vaccine (NRRV) vaccine is superior to Rotarix in the prevention of diarrhoea in children under the age of 5.
2.3 Randomised Controlled Trial of Two Versus Three Doses of Rotavirus Vaccine (Rotarix) for Boosting and Longevity of Vaccine Immune Responses in Zambia (ROVAS-2)

Funder: European and Developing Countries Clinical Trials Partnership (EDCTP)
Timeline: April 2018 - 2023

Objectives: the ROVAS-2 study is focused on testing the hypothesis that an alternate dosing strategy for Rotarix, the current rotavirus vaccine used in Zambia, could be an effective approach in improving child protective immunity against infection with rotavirus and thereby contributing to enhanced diarrhoea control in the target population.

2.5 Rota Virus Vaccine (ROTAVAC) Study

Funder: PATH

Objectives: the main goal was to assess if infants were able to mount successful immune responses to ROTAVAC and ROTAVAC 5D 28 days after completing vaccination at 6, 10 and 14 weeks of age.

The aim of this study was to test two formulations of ROTAVAC, a refrigerated formulation (ROTAVAC 5D) and a frozen formulation (ROTAVAC) for safety and efficacy in children. The study enrolled 450 children at George Clinic in Lusaka who were vaccinated at six, ten and fourteen weeks of age with reactogenicity measured within a week of vaccination and vaccine responses measured one-month post-vaccination. The study successfully showed that the vaccine was safe and suitably efficacious in Zambian infants. The study was also able to show that the immunogenicity of ROTAVAC 5D was non-inferior to ROTAVAC. Data collected from the study was recently published in Vaccines and was entitled Immunogenicity and safety of two monovalent rotavirus vaccines, ROTAVAC and ROTAVAC 5D in Zambian Infants (Chilengi et al 2021).

2.6 Immunogenicity to cholera vaccine within a population at risk in Zambia: mapping the kinetics of immune responses over time (CHOVAXIM)

Funder: European and Developing Countries Clinical Trials Partnership (EDCTP).
Timeline: July 2018 to June 2021

Objectives: the project objective is to profile cholera specific antibody status of a population at risk of cholera before and after receiving the first and second doses of the Shanchol® oral Cholera vaccine (OCV).

So far, the project has performed vibriocidal assays on all samples that were collected from baseline (day 0) through to 30 months despite difficulties in procuring reagents from outside of the country due to COVID-19.

2.7 EDCTP ShigOraVax (RIA2018V-2308) Project (Early clinical development of an oral Shigella vaccine through phase II study in Africa)

Funder: European and Developing Countries Clinical Trials partnership (EDCTP).
Timeline: September 2020 - 2025.

The ShigOraVax project aims at advancing the clinical development of a safe, efficacious and affordable Shigella vaccine. The project will work at developing oral Shigella vaccine called ‘ShigOraVax’ against three serotypes of Shigella flexneri (2a, 3a and 6) as well as Shigella sonnei. Specific objectives of this project include (i) conduct of a phase Ia/b clinical trial in European and African adults followed by (ii) an age de-escalating phase II in Burkina Faso and a multi-centre phase Ib clinical trial in Burkina Faso and Zambia.
2.8 EDCTP RIA2017S-2024 — ETEC Vaccine Efficacy Project

Funder: The study is being funded by the European and Developing Countries Clinical Trials Partnership (EDCTP).

Study duration: the study started in September 2019 at Matero Clinical Research Site and is scheduled to end in December 2020.

This is a Phase 1 age descending study in adults, children aged 10 to 23 months and children aged 6 to 9 months which seeks to establish the safety and immunogenicity of ETVAX® vaccine in Zambia.

246 participants will be recruited and followed up for four months with the objective of establishing the safety and immunogenicity of ETVAX®. CIDRZ’s goal was to move ETVAX®, an inactivated whole cell vaccine candidate, into advanced clinical development including field efficacy testing.

2.9 A Demonstration Project on Health Care Worker Protection Against Hepatitis B in Kalulushi District

Funder: University of Oxford

Timeline: December 2018 - November 2020

Objectives: The main objective was to pilot a Hepatitis B program (i.e., raising awareness on HBV prevention, management and treatment, provide full vaccination) to prevent Hepatitis B infection in Health Care Workers.

Under this project, 673 Health Care Workers were recruited. To-date, eligible 204 with a median age 28.5 years (IQR: 25-35.5) participants have been followed up from screening to completion of full Hepatitis B vaccine.

The project spearheaded the development and establishment of the first Zambian national implementation framework and clinical guidance for viral hepatitis, prevention and treatment which was officially launched by the Minister of Health on 28th July 2019 to commemorate the World Hepatitis Day.

CIDRZ trained clinicians from Kalulushi General Hospital on the management and treatment of Hepatitis B, as well as COVID-19 management.

From our baseline screening, 31 Hepatitis B Surface Antigen (HbsAg)-positive participants were identified and linked to care. This contributed to the World Health Organization’s viral hepatitis intervention target number five of HBV treatment. The project managed to demonstrate attained adequate protection in >99% of those that received the full vaccination.
3.0. IMPLEMENTATION SCIENCE

In 2017, CIDRZ launched the Implementation Science Unit (ISU) to maximize the reach, effectiveness, implementation and sustainability of interventions across CIDRZ programs and to identify critical programmatic questions that require study through an implementation science lens. Today, the ISU continues to promote and evaluate the introduction of evidence-based interventions into real-world programs and clinical settings to improve Zambia’s health system and the health of all Zambians.

3.1 Community Impact to Reach Key and Underserved Individuals for Treatment and Support (CIRKUITS)

Funder: CDC/PEPFAR
Timeline: 30 September 2018 – 29 September 2020

CIRKUITS was funded by CDC/PEPFAR through a two-year award from the University of Maryland-Baltimore. CIRKUITS aimed to provide comprehensive HIV prevention, care and treatment to underserved priority and key populations, especially adolescent girls and young women and incarcerated people. CIDRZ reached these populations with tailored HIV prevention messages and through targeted high-yield HIV testing services such as index testing, social network strategy (SNS) testing and venue-based testing.

Over the last project year, a total of 42,369 individuals received services provided by CIRKUITS, including: 13,697 who received HIV self-testing (HIVST) services; 13,543 priority populations and 11,420 key populations who received combination HIV prevention services; and 3,348 partners of index clients who were reached with HIV testing services including 361 reached through voluntary counselling and testing (VCT).

A total of 6,382 CIDRZ CIRKUITS clients were counselled and tested for HIV during the last project year. Of the total clients tested, 2,465 tested positive, resulting in an annual positivity yield of 39%. And out of the total positive clients, 2,378 or 96% of clients were successfully linked to antiretroviral therapy (ART) and care.

FY20 (OCT 2019 - SEPT 2020) HIV TESTING & LINKAGE SERVICES

- **HIV TESTING**: 6,382
- **POSITIVE**: 2,465 (39%)
- **LINKAGE**: 2,378 (96%)

CIDRZ | ANNUAL REPORT 2020
3.2 COVID-19 Mitigation and Support for Incarcerated People

Funder: CDC
Timeline: 1 July 2020 - 30 April 2021

This CDC-funded project sought to mitigate the effects of COVID-19 among incarcerated persons in Lusaka, Eastern, Southern and Western provinces by offering SARS-CoV-2 rapid testing linked to isolation and contact tracing, as well as other COVID-19 mitigation measures such as scaling universal masking.

We aimed to improve hygiene and disinfection practices in supported correctional facilities through capacity building efforts and by ensuring the availability of adequate soap and clean water or hand sanitizer. The project trained incarcerated people and correctional facility staff on the basics of COVID-19 mitigation, training 31 duty officers, 35 health care staff and 105 incarcerated peer educators on COVID-19 testing, screening and prevention methods. We strengthened existing Corrections Health Committees to respond to COVID-19 and coordinate the implementation of dedicated Health, Hygiene & Sanitation committees to oversee implementation of COVID-19 infection control measures. CIDRZ also supported the transfer and referral of symptomatic incarcerated persons and staff to receive COVID-19 medical care at nearby health facilities.

CIDRZ improved COVID-19 screening and testing in affected facilities by procuring point-of-care rapid tests as well as nd swabs for molecular testing to rapidly identify the SARS–CoV-2 virus that causes COVID-19. And before introduction of on-site test availability at correctional facilities, we facilitated quick (within 24 hours) sample transport and result reporting for COVID-19 test samples coming from the Zambia Correctional Service. Collectively, these interventions mitigated the worst effects of COVID-19 for incarcerated people during the height of the ‘second wave’ in Zambia in early 2021 figure.

COVID-19 Cases in Zambian Correctional Facilities: March 2020 - April 2021

3.3 Building Capacity of the Zambia Correctional Service to Prevent and Manage COVID-19 in Correctional Facilities

Funder: Danish Institute against Torture (DIGNITY)
Timeline: 1 June 2020 - 30 October 2020

In supported correctional facilities in Lusaka, Eastern and Western provinces, this project implemented a training curriculum to build capacity in the prevention and management of COVID-19 and to provide technical guidance to the Zambia Correctional Service (ZCS) in implementing COVID-19 infection control practices. We developed project implementation documents including training tools, registers and an evaluation tool to track changes in COVID-19 prevention and management practices. We evaluated supported correctional facilities’ adherence to COVID-19 prevention and management practices which included hygiene and disinfection practices (e.g., hand washing and regular cleaning/disinfection of high contact surfaces); screening and prevention practices (e.g., temperature monitoring, masking and isolation of incarcerated people and staff with related symptoms). We documented overall improvement in adherence to COVID-19 prevention and management guidelines at all correctional facilities from an average of 26% adherence to recommended guidelines at baseline to an average of 73% after training and technical support.

3.4 Application of Implementation Science approaches to assess the effectiveness of Task-shifted WHO-PEN to address cardiovascular and metabolic complications in people living with HIV in Zambia, short name: TASKPEN

Funder: U.S. National Institutes of Health (NIH)
Timeline: 10 September 2020 - 31 August 2022

The TASKPEN project is funded by the U.S. NIH through the National Heart, Lung and Blood Institute (NHLBI) and Fogarty International Center and is a collaboration between CIDRZ and the University of Zambia (UNZA) This Lusaka District-based study is a milestone-based project, funded for up to 5 years. This project aims to apply empirically supported implementation science strategies, including task shifting to non-physician health workers, audit and feedback and eHealth clinical decision support to integrate management of cardiovascular disease risk factors and cardiometabolic complications of HIV within a robust HIV service delivery platform in Lusaka, Zambia. Using local data and implementation science theories, the project will adapt the evidence-based WHO Package of essential noncommunicable disease interventions (WHO-PEN) for the national HIV program in Zambia and create a streamlined, task-shifted evidence-based intervention that we have coined “TASKPEN”. We will rigorously evaluate the TASKPEN intervention using a pragmatic, stepped-wedge trial embedded in routine care settings for persons living with HIV in Lusaka, Zambia. While focused on cardiovascular and metabolic complications related to HIV, the TASKPEN study will yield insights to address other noncommunicable diseases in the future.
3.5 Person-Centred Public Health for HIV treatment in Zambia (PCPH)

**Funder:** Bill and Melinda Gates Foundation  
**Duration:** August 2017 to March 2022

The Person-Centred Public Health for HIV treatment in Zambia (PCPH) is a research project with planned dissemination of study findings during its period of implementation. Building on results from the Better Information for Health in Zambia study that demonstrated a high prevalence of clinic-based barriers to care, including rude health care worker (HCW) behaviour, short intervals between patient clinic visits and long wait times at the facility, the PCPH study seeks to train HCW on how to improve patient provider dialogue about patient experiences. By conducting training and mentorship on patient-centred care (PCC) skills and using robust survey tools and methodologies to assess care, this research will inform future approaches to quality of care in low middle-income countries. Patient-centred care is a multi-faceted approach to care broadly defined as “providing care that is respectful of and responsive to individual patient preferences, needs and values and ensuring that patient values guide all clinical decisions”.

Unfortunately, little is known about how to evaluate and implement PCC in the public health context of HIV care in sub-Saharan Africa hence this study is being implemented in 24 public health facilities in Lusaka Province.

**Our four main study objectives are:**

1. To evaluate the implementation of the PCC intervention in routine care setting in Zambia
2. To evaluate the effect of the PCC intervention on service delivery and patient experience
3. To evaluate the effect of the PCC intervention on retention and viral suppression
4. To evaluate the cost and cost effectiveness of the PCC intervention.

Study approaches include the use of electronic tools such as SMS surveys that capture the patient experience in real time and provide a “diagnosis” for each facility as to what the level of performance is as well as the prevailing problems at a facility. Second, we train and use practice facilitators (i.e., “Mentors”) to feed these data on patient experience and performance back to the facilities and guide their response using quality improvement methodologies targeting the prevalent barriers at each facility. Finally, the study motivates the facilities through an incentive schema based on their performance. The results of this three-part PCC intervention evaluated through a stepped wedge cluster randomized trial design will be made available in May 2022.
Our Training programmes are targeted at achieving the CIDRZ mission: ‘to improve access to quality healthcare in Zambia through capacity development, exceptional implementation science and research and impactful sustainable public health programmes’. The Training Unit endeavours to provide a platform for capacity development through implementation of different programs targeted at developing different skill levels. These training opportunities are funded by individually funded projects within CIDRZ with a duration of 12 -36 months. Some of its focused programs include the following:

CIDRZ PhD Fellows

The purpose of this program is to develop home grown post doctoral level researchers who develop scientific writing skills and confidence to apply for grants which ultimately contributes to the expansion and sustainability of the institution. The PhD Fellows are recruited from the HealthCorps fellowship program, existing employees who wish to embark on PhD academic training and a direct entry supported by a specific project. These Fellows are mentored by CIDRZ Principal Investigators to develop their own research questions and are admitted into formal university for academic training. The academic research is based on ongoing or proposed CIDRZ projects. In the current cohort, we have 2 fellows who have completed their PhD training and have continued to participate in research projects to horn their skills and experience to becoming lead researchers and contribute to publications.

CIDRZ Health Corps Fellows

The CIDRZ Health Corps Fellowship program is a prestigious and highly competitive program which enrols candidates from various fields of study with a master’s qualification from both local and international universities for a year. The selected fellows work in different projects at CIDRZ while the Fellowship program helps them identify their research and career interests. A cherished goal of the CIDRZ Health Corps Fellowship is to expose graduates to real life research/implementation science and offer hands on experience which allows them to sharpen their career trajectory. The success of each cohort is progression to PhD training and integration to impactful research work. Over the past year, 4 fellows progressed to embark on PhD training.

MSc by Research Studentship

This Research Unit focuses on basic and translational research aimed at vaccines and enteric diseases prevention and control. In addition, we aim to generate information for policy makers and contribute to the wider scientific population. To harness this agenda, CIDRZ offers an opportunity to students willing to enhance their research capacity by enrolling for a master’s program by research, currently only with the University of Zambia, while working with the CIDRZ implemented research project. Students are supported by dedicated CIDRZ mentors and institutional supervisors. The course of study is supported by CIDRZ and a student receives a stipend while undertaking their studies.

CIDRZ Internships

CIDRZ offers training opportunities aimed at providing practical work experience to enhance theory and help early career professionals transition into the job area. In line with our role as a training organization, an attempt is made to tailor experiences to the individuals’ requirements while providing genuine opportunities for students and early career professionals to learn about their desired career path. CIDRZ offers both paid and unpaid internships to both local and international students. For graduates, internships provide valuable entry routes into their career trajectories and contribute to the development of ‘on the job’ professional skills.
07. CIDRZ Partners and Donors in the 2020 Financial Year

Bill & Melinda Gates Foundation
Centers for Disease Control and Prevention (CDC)
Chiesi Foundation
Columbia University
Crown Agents
Department for International Development (DFID)
 Desire Line
 Dignity International
Elton John Foundation
European & Developing Countries Clinical Trials Partnership (EDCTP)
Foundation for Innovative New Diagnostic (FIND)
Fred Hutchinson Cancer Research Center
Global Alliance for Vaccines and Immunisation (GAVI)
Imperial College of Science, Technology & Medicine
International Association of Providers of AIDS Care (IAPAC)
Johns Hopkins University
London School of Hygiene & Tropical Medicine
M·A·C AIDS Fund of Tides Foundation
Mott MacDonald Foundation
National Heart, Lung and Blood Institute (NHLBI)
National Institute of Health (NIH)
National Institute of Mental Health

Partners in Health
Program for Appropriate Technology in Health
(PATH)
Research Center Borstel-Leibniz Lung Center (RCB)
Stop TB Partnership
Tides Foundation
United Nations Children’s Fund (UNICEF)
United States Agency for International Development (USAID)
University of Alabama (UAB)
University of Bern
University of Birmingham
University of California, San Francisco
University of Maryland, Baltimore
University of Oxford
University of Rochester
ViiV Healthcare Limited
Wellcome Trust
World Health Organisation
World Vision
## STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

<table>
<thead>
<tr>
<th></th>
<th>2020 Kwacha</th>
<th>2019 Kwacha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programme income</td>
<td>710,773,102</td>
<td>493,384,370</td>
</tr>
<tr>
<td>Programme expenses</td>
<td>(591,570,363)</td>
<td>(462,251,073)</td>
</tr>
<tr>
<td>Operating surplus/(deficit)</td>
<td>119,202,739</td>
<td>31,133,297</td>
</tr>
<tr>
<td>Other income</td>
<td>55,915,447</td>
<td>69,438,139</td>
</tr>
<tr>
<td>Administrative expenses</td>
<td>(156,702,285)</td>
<td>93,094,246</td>
</tr>
<tr>
<td>Results from operating activities</td>
<td>18,415,901</td>
<td>7,477,190</td>
</tr>
<tr>
<td>Finance income</td>
<td>52,597,609</td>
<td>11,840,313</td>
</tr>
<tr>
<td>Surplus for the year</td>
<td>71,013,510</td>
<td>19,317,503</td>
</tr>
<tr>
<td>Tax credit</td>
<td>215,606</td>
<td>119,473</td>
</tr>
<tr>
<td>Surplus for the year after tax</td>
<td>71,229,116</td>
<td>19,436,976</td>
</tr>
<tr>
<td>Items that will not be reclassified to surplus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfer of excess depreciation</td>
<td>198,286</td>
<td>198,286</td>
</tr>
<tr>
<td><strong>Total comprehensive surplus for the period</strong></td>
<td><strong>71,427,402</strong></td>
<td><strong>19,635,262</strong></td>
</tr>
</tbody>
</table>
## Balance Sheet

<table>
<thead>
<tr>
<th>ASSETS</th>
<th>2020 Kwacha</th>
<th>2019 Kwacha</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-current assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, Plant and Equipment</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Investment in subsidiaries</td>
<td>335,080</td>
<td>189,017</td>
</tr>
<tr>
<td>Deferred tax asset</td>
<td>70,100,880</td>
<td>58,784,929</td>
</tr>
<tr>
<td><strong>Current assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventories</td>
<td>5,735,290</td>
<td>8,478,701</td>
</tr>
<tr>
<td>Trade and other receivables</td>
<td>31,334,131</td>
<td>41,150,360</td>
</tr>
<tr>
<td>Financial assets – Held to maturity</td>
<td>72,505,419</td>
<td>46,942,992</td>
</tr>
<tr>
<td>Cash and cash equivalents:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Restricted</td>
<td>145,896,451</td>
<td>76,234,529</td>
</tr>
<tr>
<td>- Un-Restricted</td>
<td>31,865,691</td>
<td>27,211,744</td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td>357,437,862</td>
<td>258,803,255</td>
</tr>
</tbody>
</table>

| Reserves and grants         |             |             |
| Share Capital               | -           | -           |
| Revenue Reserves            | 157,205,396 | 85,579,708  |
| Capital Grant               | 28,098,600  | 28,078,800  |
| Revaluation Reserve         | 5,948,665   | 6,146,950   |
| **Total equity**            | 191,252,661 | 120,405,458 |

| Liabilities                 |             |             |
| Long-term liabilities       | -           | -           |
| Long-term payables          | -           | 6,466,676   |
| **Current liabilities**     |             |             |
| Deferred Income             | 86,893,390  | 78,480,023  |
| Trade and other payables    | 79,291,811  | 53,387,554  |
| Income tax payable          | -           | 69,544      |
| **TOTAL LIABILITIES**       | 166,185,201 | 138,397,579 |

| TOTAL EQUITY AND LIABILITIES| 357,437,862 | 258,803,255 |

## Statement of Cashflows

<table>
<thead>
<tr>
<th>CASH FLOWS FROM OPERATING ACTIVITIES</th>
<th>2020 Kwacha</th>
<th>2019 Kwacha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surplus of income over expenditure for the period</td>
<td>71,013,510</td>
<td>19,416,976</td>
</tr>
</tbody>
</table>

**Adjustments for:**

- Depreciation charge: 15,407,101
- Impairment of trade receivables: 919,781
- Interest income: 12,156,892
- Loss on disposal of property and equipment: 10,853,853
- Exchange gains: 40,140,717
- Operating cashflows before movement: 45,596,636

<table>
<thead>
<tr>
<th>Changes in working capital</th>
<th>2020 Kwacha</th>
<th>2019 Kwacha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decrease in inventories</td>
<td>2,743,412</td>
<td>287,227</td>
</tr>
<tr>
<td>Decrease in trade and other receivables</td>
<td>8,856,448</td>
<td>(24,567,206)</td>
</tr>
<tr>
<td>Decrease in long term payables</td>
<td>(6,465,676)</td>
<td>(880,000)</td>
</tr>
<tr>
<td>Increase in deferred income</td>
<td>8,413,367</td>
<td>-</td>
</tr>
<tr>
<td>Increase in trade and other payables</td>
<td>25,909,257</td>
<td>53,336,415</td>
</tr>
<tr>
<td>Net cash generated in operating activities</td>
<td>39,496,808</td>
<td>28,056,436</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CASH FLOWS FROM INVESTING ACTIVITIES</th>
<th>2020 Kwacha</th>
<th>2019 Kwacha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest received</td>
<td>12,155,852</td>
<td>5,289,004</td>
</tr>
<tr>
<td>Project Grant</td>
<td>(381,915)</td>
<td>28,030,800</td>
</tr>
<tr>
<td>Purchase of financial instruments</td>
<td>(25,552,427)</td>
<td>(33,032,647)</td>
</tr>
<tr>
<td>Capitalisation of VenYou</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Purchase of property and equipment</td>
<td>(37,430,842)</td>
<td>(46,537,884)</td>
</tr>
<tr>
<td>Net cash used in investing activities</td>
<td>(51,218,292)</td>
<td>(46,250,727)</td>
</tr>
<tr>
<td>Net increase in cash and cash equivalents</td>
<td>33,875,152</td>
<td>1,737,646</td>
</tr>
<tr>
<td>Cash and cash equivalents at 1 October 2019</td>
<td>103,446,273</td>
<td>95,158,215</td>
</tr>
<tr>
<td>Exchange gains</td>
<td>40,440,717</td>
<td>6,551,310</td>
</tr>
<tr>
<td>Cash and cash equivalents at 30 September 2020</td>
<td>177,762,142</td>
<td>103,446,273</td>
</tr>
<tr>
<td>Programme Income</td>
<td>2020 Kwacha</td>
<td>2019 Kwacha</td>
</tr>
<tr>
<td>------------------</td>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td>ACHIEVE</td>
<td>354,813,507</td>
<td>360,714,800</td>
</tr>
<tr>
<td>LIFE</td>
<td>118,891,013</td>
<td>41,059,475</td>
</tr>
<tr>
<td>GATES PCC</td>
<td>28,879,153</td>
<td>14,768,385</td>
</tr>
<tr>
<td>ETVAX PROJECT</td>
<td>26,068,352</td>
<td></td>
</tr>
<tr>
<td>NRRV</td>
<td>19,814,412</td>
<td>5,266,909</td>
</tr>
<tr>
<td>CIRCUITS</td>
<td>11,715,677</td>
<td>7,821,386</td>
</tr>
<tr>
<td>SHIGORA VAX</td>
<td>11,535,023</td>
<td></td>
</tr>
<tr>
<td>ZAM AMR</td>
<td>11,357,835</td>
<td></td>
</tr>
<tr>
<td>Mental Health</td>
<td>9,835,401</td>
<td>5,493,357</td>
</tr>
<tr>
<td>USAID TB LON</td>
<td>9,218,662</td>
<td></td>
</tr>
<tr>
<td>HVTN</td>
<td>7,799,402</td>
<td>9,076,415</td>
</tr>
<tr>
<td>GAVI</td>
<td>7,254,123</td>
<td>1,301,214</td>
</tr>
<tr>
<td>liOEA</td>
<td>7,148,065</td>
<td>2,106,666</td>
</tr>
<tr>
<td>ROTAVAC TRIAL</td>
<td>6,025,491</td>
<td>9,553,307</td>
</tr>
<tr>
<td>WHO HIV</td>
<td>5,068,703</td>
<td>3,735,095</td>
</tr>
<tr>
<td>NIH - CTU</td>
<td>4,063,355</td>
<td>2,547,525</td>
</tr>
<tr>
<td>SKILLS</td>
<td>3,983,085</td>
<td></td>
</tr>
<tr>
<td>HEPATITIS - B</td>
<td>3,596,142</td>
<td>958,310</td>
</tr>
<tr>
<td>TB REACH</td>
<td>3,590,309</td>
<td>4,381,142</td>
</tr>
<tr>
<td>ELTON JOHN</td>
<td>3,377,407</td>
<td>6,101,043</td>
</tr>
<tr>
<td>HUIST UM STUDY</td>
<td>2,926,262</td>
<td></td>
</tr>
<tr>
<td>POLIO EOC PROJECT</td>
<td>2,718,708</td>
<td></td>
</tr>
<tr>
<td>EDCTP CHO VAXIM</td>
<td>2,648,726</td>
<td></td>
</tr>
<tr>
<td>Z CHECK</td>
<td>2,634,301</td>
<td>758,989</td>
</tr>
<tr>
<td>WELCOMETRUST</td>
<td>2,124,281</td>
<td></td>
</tr>
<tr>
<td>VMRC</td>
<td>2,093,477</td>
<td></td>
</tr>
<tr>
<td>MOH GLOBAL FUND</td>
<td>1,807,603</td>
<td>997,397</td>
</tr>
<tr>
<td>OPCCON</td>
<td>1,708,309</td>
<td>1,413,243</td>
</tr>
<tr>
<td>ANALYSIS</td>
<td>1,671,140</td>
<td>1,841,922</td>
</tr>
<tr>
<td>EDCTP ROVAS 2</td>
<td>1,666,088</td>
<td></td>
</tr>
<tr>
<td>LAM FRESH/ FUJILAM</td>
<td>1,628,578</td>
<td></td>
</tr>
</tbody>
</table>

**PROGRAMME INCOME (Continued)**

<table>
<thead>
<tr>
<th>Programme Income</th>
<th>2020 Kwacha</th>
<th>2019 Kwacha</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTEGRATED CAD</td>
<td>1,537,249</td>
<td></td>
</tr>
<tr>
<td>AERAS</td>
<td>1,468,396</td>
<td>326,014</td>
</tr>
<tr>
<td>AVERT - YOUNG VOICES EDUCATION IN ZAMBIA</td>
<td>1,382,166</td>
<td></td>
</tr>
<tr>
<td>CHASE</td>
<td>1,266,183</td>
<td>952,569</td>
</tr>
<tr>
<td>ACHIEVE ADVANCING CERVICAL CANCER SCREENING</td>
<td>1,209,780</td>
<td></td>
</tr>
<tr>
<td>GYNOCULAR</td>
<td>1,180,134</td>
<td>2,066,825</td>
</tr>
<tr>
<td>UCSF - GLADSTONE CENTER FOR AIDS</td>
<td>1,140,717</td>
<td></td>
</tr>
<tr>
<td>HIC - VAC</td>
<td>1,008,476</td>
<td>956,442</td>
</tr>
<tr>
<td>SHARE</td>
<td>703,342</td>
<td>128,457</td>
</tr>
<tr>
<td>CHOLERA CONTROL AWARD</td>
<td>465,199</td>
<td>1,425,469</td>
</tr>
<tr>
<td>CDC DETECT</td>
<td>-</td>
<td>144,931</td>
</tr>
<tr>
<td>STAND</td>
<td>-</td>
<td>6,057</td>
</tr>
<tr>
<td>MAC PMTCT</td>
<td>-</td>
<td>3,956,143</td>
</tr>
<tr>
<td>OTHER PROJECTS</td>
<td>18,872,871</td>
<td>3,613,987</td>
</tr>
<tr>
<td></td>
<td>710,772,102</td>
<td>493,384,370</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Programme Income</th>
<th>2020 Kwacha</th>
<th>2019 Kwacha</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERGRATED CAD</td>
<td>1,537,249</td>
<td></td>
</tr>
<tr>
<td>AERAS</td>
<td>1,468,396</td>
<td>326,014</td>
</tr>
<tr>
<td>AVERT - YOUNG VOICES EDUCATION IN ZAMBIA</td>
<td>1,382,166</td>
<td></td>
</tr>
<tr>
<td>CHASE</td>
<td>1,266,183</td>
<td>952,569</td>
</tr>
<tr>
<td>ACHIEVE ADVANCING CERVICAL CANCER SCREENING</td>
<td>1,209,780</td>
<td></td>
</tr>
<tr>
<td>GYNOCULAR</td>
<td>1,180,134</td>
<td>2,066,825</td>
</tr>
<tr>
<td>UCSF - GLADSTONE CENTER FOR AIDS</td>
<td>1,140,717</td>
<td></td>
</tr>
<tr>
<td>HIC - VAC</td>
<td>1,008,476</td>
<td>956,442</td>
</tr>
<tr>
<td>SHARE</td>
<td>703,342</td>
<td>128,457</td>
</tr>
<tr>
<td>CHOLERA CONTROL AWARD</td>
<td>465,199</td>
<td>1,425,469</td>
</tr>
<tr>
<td>CDC DETECT</td>
<td>-</td>
<td>144,931</td>
</tr>
<tr>
<td>STAND</td>
<td>-</td>
<td>6,057</td>
</tr>
<tr>
<td>MAC PMTCT</td>
<td>-</td>
<td>3,956,143</td>
</tr>
<tr>
<td>OTHER PROJECTS</td>
<td>18,872,871</td>
<td>3,613,987</td>
</tr>
<tr>
<td></td>
<td>710,772,102</td>
<td>493,384,370</td>
</tr>
</tbody>
</table>


