CeSHHAR Zimbabwe

ANNUAL REPORT
2018-2019

Acknowledgements

Thank you to our funders and donors for your continued generous support of our research and programmes. Thank you to our Executive Director and her entire team for their hard work, loyalty and commitment to community service which has been demonstrated on so many occasions during the years, and last but not least, our board members for their generous contribution to CeSHHAR's operations during the years.

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Partners

- Ministry of Health and Child Care
- National AIDS Council
- City Health Departments across Zimbabwe
- Liverpool School of Tropical Medicine
- Population Services International - Zimbabwe
- University of Zimbabwe
- Malawi Liverpool Wellcome Trust Clinical Research Programme
- University College London
- London School of Hygiene and Tropical Medicine
- University of California Berkeley
- University of North Carolina
- Burnett Institute
- AIDS Vaccine Advocacy Coalition
- Zimbabwe Lawyers for Human rights
- Zimbabwe Republic Police
- RTI International
- World Education
- Africaid
- UZ-Clinical Research Centre
- Institute of Tropical Medicine Antwerp
- Wellcome Trust Africa Centre for Health and Population Studies

Funders

- Bill and Melinda Gates Foundation
- CDC Zimbabwe
- Children's Investment Fund Foundation
- EDCTP
- Elton John AIDS Foundation
- Global Fund to Fights AIDS, TB and Malaria
- Health Development Fund (DfID, SIDA, IrishAID)
- National Institutes of Health
- Positive Action for Adolescents, ViiV Healthcare
- President's Emergency Plan For AIDS Relief (PEPFAR)
- UK Medical Research Council
- UNFPA Zimbabwe
- UNICEF Zimbabwe
- UNITAID
- USAID
- Wellcome Trust

Acronyms

AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral Therapy
BMGF	Bill and Melinda Gates Foundation
CDC	Centers for Disease Control and Prevention
CeSHHAR	Centre for Sexual Health and HIV/AIDS Research
DREAMS	Determined Resilient Empowered AIDS-free Mentored and Safe
eMTCT	Elimination of Mother to Child Transmission
HIV	Human Immunodeficiency Virus
ICT	Information and Communication Technology
LSHTM	London School of Hygiene and Tropical Medicine
LSTM	Liverpool School of Tropical Medicine
MeSH	Measurement and Surveillance of HIV Epidemics
NAC	National AIDS Council
NIH	National Institutes of Health
PEPFAR	President's Emergency Plan For AIDS Relief
PrEP	Pre-exposure Prophylaxis
PSI	Population Services International
PVO	Private Voluntary Organisation
RCA	Recipient Contracted Audits
RTI	Research Triangle Institute
SAPPH-IRe	The Sisters Anti-Retroviral Programme for Prevention of HIV
STAR	Shaping and Stimulating the Market for HIV Self-testing in Africa
STI	Sexually Transmitted Infections
UCL	University College London
USAID	United States Agency for International Development
VMMC	Voluntary Medical Male Circumcision
WHO	World Health Organisation

About us

CeSHHAR Zimbabwe was registered as trust in January 2012. Previously known as the Regai Dzive Shiri Project, which has operated in Zimbabwe since 1999, CeSHHAR Zimbabwe houses over twenty HIV prevention and sexual health research and programmatic projects. In 2014 CeSHHAR Zimbabwe was registered as a Private Voluntary Organisation (PVO) with the Ministry of Public Service, Labour and Social Welfare (PVO 27/2014). CeSHHAR works with an impressive range of partners and enjoys a close working relationship with both Ministry of Health and Child Care (MoHCC) and National AIDS Council (NAC).

In addition to undertaking research and implementing programmes, CeSHHAR has a strong commitment to strengthening research capacity among Zimbabwean graduates. Three CeSHHAR researchers have completed their PhDs in 2013, 2014 and 2016 respectively while three are registered. About a dozen have completed their Masters degrees and several are registered. Four staff have been awarded HIV Research Trust Fellowships and another four have been awarded AVAC fellowships.

Vision, Mission, Values and Principles

Vision:

• Good health for all in southern Africa through research, innovation, programming and capacity strengthening

Mission:

• To conduct research, deliver programmes, and strengthen capacity to inform health policy and programming in Zimbabwe and beyond

Values and Principles:

• Locally-appropriate, culturally relevant, public health research.
• Scientific excellence and innovation
• Spirit of partnership and engagement
• Ethical, transparent organisational ethos
• Cost effectiveness and efficiency
• Inclusivity and respect for all regardless of gender, culture, sexuality and economic status

Board Governance

CeSHHAR Zimbabwe is a non-profit Private Voluntary Organisation (PVO) registered in Zimbabwe as a local Charitable Trust as per notarial deed of donation and trust with the Master of the High Court Harare, Zimbabwe.

CeSHHAR Zimbabwe has an Executive Committee which governs the organisation and provides overall policy direction to efficiently achieve the organisational aims and objectives, consistent with the organisation's values and approach. The Committee members are ultimately responsible under the terms of PVO registration for the management and administration of the organisation. However, management decisions are delegated to the Director (the Chief Executive Officer) and through her to the employees. The Executive Committee provides a very experienced and highly qualified, complementary combination of medical, legal and financial advice.

Members of the CeSHHAR Zimbabwe Board are:

- Mr. James A. Mushore (Chairman)
- Dr. Gregory M. Powell (Vice Chairman)
- Professor David Lalloo (Member)
- Ms. Kuda E. Mutasa (Vice Secretary)
- Mr. Ronald Sagonda (Treasurer)
- Ms. Patricia Mbetu (Member)
- Ms. Miranda Khumalo (Member)
- Dr. Walter Mangezi (Member)

Message from the Chairman

The past two years have been an exciting time for CeSHHAR, taking stock of what has worked well, thinking strategically about how to move forward to ensure long-term sustainability. CeSHHAR continues to work closely with Ministry of Health and Child Care and is supported by a number of funders and donor agencies, to conduct high quality implementation research to optimise and evaluate a range of HIV prevention and care interventions. Important projects came to a close in 2019, while new and exciting research is beginning. Responsibility for raising funds is being taken on more broadly across the CeSHHAR leadership. Notable successes include the appointment of two of CeSHHAR's senior researchers, Webster Mavhu and Euphemia Sibanda, as senior lecturers at the Liverpool School of Tropical Medicine (LSTM), strengthening the ties between the two institutions. Euphemia Sibanda was awarded an African Research Leader Fellowship by the UK Medical Research Council, housed between LSTM and CeSHHAR.

In addition, CeSHHAR successfully competed to run Zimbabwe's national programme for sex workers around Zimbabwe on behalf of National AIDS Council and funded by Global Fund for AIDS TB and Malaria. Complementary funding for the programme was received from USAID through PSI Zimbabwe, providing greater opportunities for the programme to strengthen services provision for younger women. The programme continues to provide an important platform for implementation research and is supporting the AMETHIST trial as part of a Wellcome Trust Collaborative Award in Scicence.

The board met four times in 2018 and three in 2019, to receive, review and approve programme updates, financial reports, and annual budgets. The board approved revisions to several of its operating policies in addition to adopting a number of newly crafted policies to enhance compliance and effectiveness of CeSHHAR's operations. The board also oversaw the annual external audit processes, and the United States Agency for International Development's Recipient Contracted Audit for funding received in 2018.

I would like to thank donors for their support, fellow board members for their contributions in terms of time and advice, executive director, management and staff for their dedication and commitment.

James Mushore

Executive Director's Report

2018 and 2019 have been important years for CeSHHAR, drawing large and important research studies to a close and ensuring that results are widely disseminated and adopted into national /global guidance where appropriate. Additionally CeSHHAR has raised funding to significantly expand the scope, reach and visibility of the national sex work programme 'Sisters with a Voice' which CeSHHAR runs on behalf of Zimbabwe's Ministry of Health and Child Care and National AIDS Council, strengthening the Sisters programme's capacity to act as a implementation-research platform. In 2018 CeSHHAR successfully competed to be National AIDS Council's partner for provision of sex work services nationally under GFATM. In 2019, Sisters was featured in the UNAIDS Global Report, show casing both programme and research successes. We have built on the Sisters platform to secure significant new research funding for key populations research from the Wellcome Trust Bill and Melinda Gates Foundation.

In addition 2018-2019 have seen an extended CeSHHAR leadership group work with external facilitation to frame CeSHHAR's strategic direction for the next 10 years, resulting in nine new strategic priorities, which includes shifting responsibility for fund raising and management from the executive director to the senior management team, to ensure CeSHHAR's sustainability in the longer term. The senior management teams are now leading most CeSHHAR funding applications. The CeSHHAR Strategic Plan for 2019-2021 has been drawn up with the participation of CeSHHAR staff and approved by the Board, setting CeSHHAR on a new and exciting course.

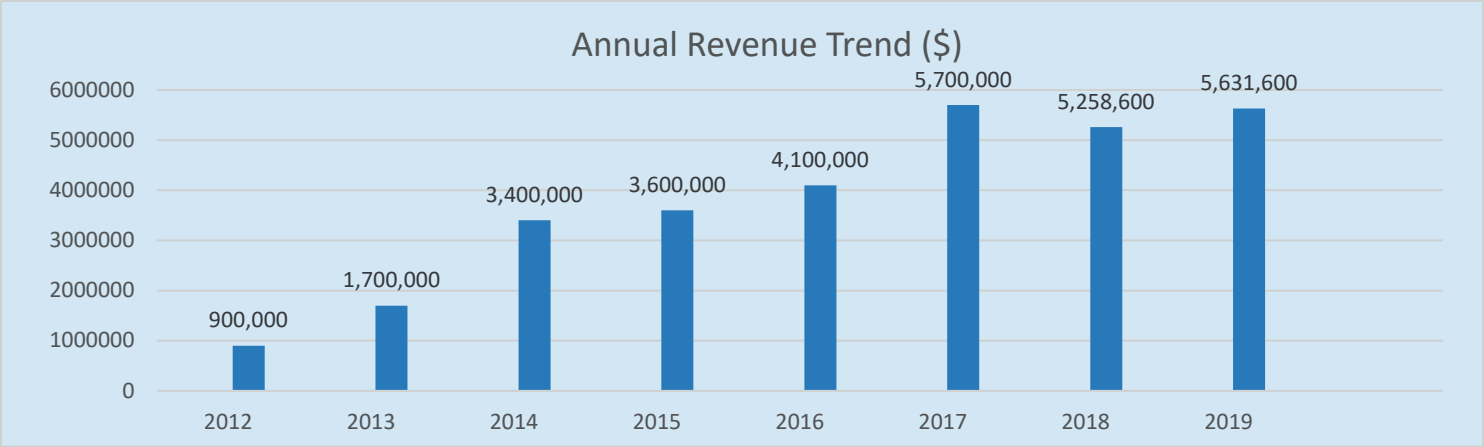
Importantly CeSHHAR has continued to strengthen its links with the Liverpool School of Tropical Medicine (LSTM). Two senior members of research staff are now appointed as senior lecturers at the School. Professor David Lalloo, Director of the Liverpool School of Tropical Medicine has joined the Board as an ex-officio member and exchange visits between academic and administrative staff at LSTM with resulting shared learning and networking have continued.

Frances M Cowan

Our Finances

• Though there was an 8% decline in revenue from $5.7m to $5.3m in 2018 due to delays in Sex Work programme activities as a result of change in funders there was an increase of 7% in 2019 as we maintained activity levels nullifying effect of start-up delays.

• The total budget portfolio increased from $11.2m to $15.2m - the highest contributor being Global Fund AIDS TB and Malaria on the Sex Work grant at 30% of the portfolio, Bill & Melinda Gates at 24%.



Our Finances

• There was a 6% decrease in project expenses due to reduced field-based survey activities as several research projects were wrapped up at the end of 2019.

• Personnel costs represent 59% of total costs, followed by travel at 13% for the different surveys and programme implementation activities.

• We remain in a net surplus position of $55,400 after utilizing prior year Retained Earnings to cover shortfalls.

• Research related grants contribute 33% to the portfolio compared to 67% of direct programme implementation.

• Both the institutional and Recipient Contracted audits for 2018 and 2019 are unqualified.

• Staff compliments averaged 150 during 2019 with a peak 220 during survey periods

Our Finances

Statement of Financial Position:

- There is a 61% increase in donor receivables as five grants ended at the end of the year, receipt of funds occurred in the new year after finalisation of reports.
- Vehicle purchase increased non-current assets by $31k.
- Cash and bank increased in line with increase in Deferred Income and reduction in Trade receivables.
- Increase in liabilities was due to increase in staff payables.
- Net surplus position projected to be maintained in the next financial year.

	2018	2019
ASSETS		
Current assets	**984,400**	**829,800**
- Fuel stock	1,100	4,300
- Trade receivables	34,600	92,800
- Receivables from donor	521,400	324,700
- Cash and cash equivalents	427,300	408,000
Non-current assets	**39,100**	**8,700**
TOTAL ASSETS	**1,023,500**	**838,500**
EQUITY & LIABILITIES		
Equity	**890,400**	**830,600**
- Accumulated surplus	55,400	110,800
- Deferred income	835,000	719,800
Current liabilities	**133,100**	**7,900**
TOTAL EQUITY & LIABILITIES	**1,023,500**	**838,500**

Our Data & ICT Department

As reported in last year's annual report we engaged a consultant to develop a comprehensive Integrated Management Information System (IMIS) using DHIS2, starting with the 'Sisters' Sex Work programme. The system was scheduled to have been operational by the end of June, 2019. However, the amount of workload proved to be greater than initially anticipated.

Though the front end of the system has been user-tested and most of the identified issues attended to, there have been challenges with synchronizing such a large database with adequate security. These two issues are of paramount importance to the operation of the system.

We are hoping that the remaining challenges will be resolved and that an operational version will soon be available for use at the clinic sites.

The ICT and Data department continues to play its critical role as a service provider in terms of building new systems, maintaining existing ones and also advising different research projects and programmes on data requirements and management, amongst others.

As part of organisational and leadership development training (2018-2019), ICT and Data came up with two strategic objects to strengthen IT and data systems across CeSHHAR.

We propose to acquire Sophos Internet Firewall and Office365 in the coming year as we move towards fulfilment of the objectives.

STRATEGIC OBJECTIVES

- *Cyber-secure*
- *Paperless*

CeSHHAR Research & Programmes

CeSHHAR Zimbabwe has had a very busy year, running research projects and implementing the Sisters programme both in urban and rural Zimbabwe.

These fall under four defined thematic areas:

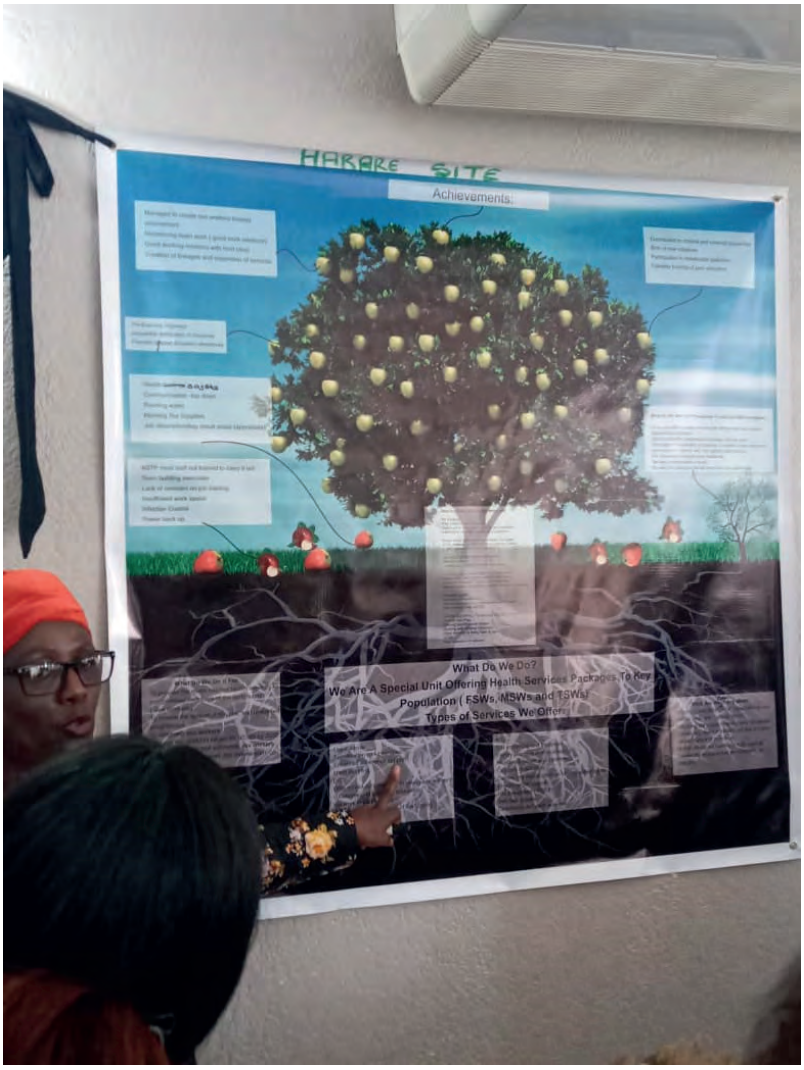
- **Key Populations**
- **Masculinities Research**
- **Integration of Sexual & Reproductive Health and HIV**
- **Children and Adolescence**

The Key Populations Research and Implementation Programme

The Key Populations Research and Implementation Programme focuses on the sexual and reproductive health, HIV prevention and care needs and the broader social welfare of female sex workers in Zimbabwe.

CeSHHAR runs the National 'Sisters with a Voice' programme for female sex workers on behalf of Ministry of Health and Child Care and National AIDS Council. Sisters with a Voice is one of the few nationally scaled programmes for sex workers in Africa.

In addition, CeSHHAR has 4 ongoing research projects exploring various aspects of female sex workers' lives and vulnerabilities.



The Key Populations Implementation Programme

Overview

CeSHHAR implements the National Sex Work Programme “Sisters with a Voice” on behalf of the National AIDS Council (NAC) and the Ministry of Health and Child Care (MoHCC). It is supported by Global Fund to Fight AIDS, TB and Malaria (GFATM), USAID and PEPFAR through PSI, the Elton John AIDS Foundation, UNFPA, the Institute for Tropical Medicine - Antwerp and the Bill and Melinda Gates Foundation. In Zimbabwe 54% of female sex workers are HIV infected and incidence is estimated at 10% per annum. Initiated in 2009, Sisters aims to optimise coverage, linkage and retention in HIV prevention and care cascades, reduce HIV and STI acquisition and transmission, improve the mental and physical health of sex workers, reduce the vulnerability of sex workers to violence and to empower the sex worker community and sustain collective capacity for action.

The Key Populations Implementation Programme

Clinical Services

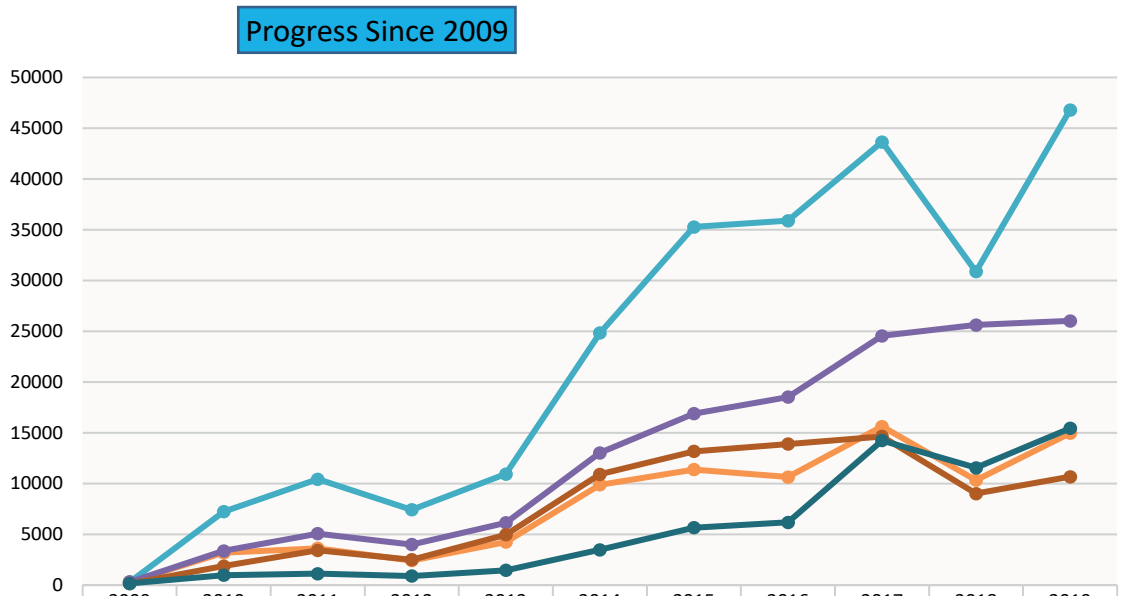
Funding Source: Global Fund to Fight AIDS, TB and Malaria (GFATM), USAID, PEPFAR, Elton John AIDS Foundation

Services are provided through 10 static, 23 highway mobile clinic and 24 local mobile clinic sites across all 10 provinces of Zimbabwe. **6 Static Clinics in major towns**: Harare, Mutare, Masvingo, Gweru, Bulawayo and Karoi. **4 Border Static Clinics**: Beitbridge, Chirundu, Forbes and Victoria Falls. **23 Highway Mobile sites**: Marondera, Juru, Bindura, Murehwa, Chipinge, Rusape, Birchenough Bridge, Checheche, Gwanda, Lupane,Zvishavane, Kadoma, Kwekwe, Gokwe, Magunje, Kariba, Chinhoyi,Hwange, Chiredzi, Chivhu, Ngundu, Jerera, Headlands. **24 local mobile sites** within Harare, Bulawayo, Masvingo, Mutare and Gweru. Clinics offer comprehensive sexual and reproductive health services including HIV testing and counselling, linkage to ART, initiation on pre-exposure prophylaxis (PrEP), family planning services, condom promotion and provision and STI diagnosis and treatment.

The Key Populations Implementation Programme

Over the course of the past ten years, increasing numbers of sex workers have been seen reflecting the scale up and intensification of programming facilitated by increases in funding. 25 638 women visited the clinics in 2018 and 26 040 in 2019. By December 2019 more than 86 000 sex workers had visited the programme with 10 000+ FSW diagnosed HIV +ve and referred to ART services. 253 000 clinic visits and 85 000+ STIs treated.

Increasing numbers of FSW seen reflecting scale up and intensification of programming facilitated by increases in



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Number new sex workers seen	322	3,196	3,642	2,442	4,254	9,896	11,391	10,656	15636	10,359	14,981
Number of client visits	328	7,257	10,445	7,438	10,960	24,845	35,284	35,903	43648	30887	46807
Total Number SW attending for a clinic visit	322	3,394	5,083	4,021	6,150	13,045	16,904	18,538	24561	25,638	26,040
Number of STI treated	162	1,895	3,439	2,523	4,975	10,932	13,189	13,914	14662	9,031	10,688
Number of HIV tests performed	175	996	1,145	913	1,481	3,500	5,677	6,200	14257	11,576	15,462

The Key Populations Implementation Programme

Community outreach and mobilization

Funding Source: GFATM, USAID, PEPFAR, Elton John AIDS Foundation

The sex work programme is peer led with sex workers taking the lead in delivery of HIV prevention programmes to their peers. Sisters is supported by 337 peer educators and microplanners who are supervised by 32 Outreach Workers and Peer Educator Supervisors. Peer educators identify sex workers in the community, offer ongoing health education, including condom distribution and demonstration and create demand for programmes.

Through these activities sex workers are encouraged to test for HIV, attend quarterly STI screening visits and adherence support is offered. Community outreach is vital for mapping and validation of hotspots to ensure that the programme is reaching out to its target population where the need is greatest and is able to respond to changes in the nature and location of sex work.

Microplanning is a risk-differentiated approach that strengthens peer-led outreach through identification of where sex workers can be found and prioritizing contact with sex workers most in need according to their risk.

HOTSPOT

- Ensures micro-planner knows for whom they are responsible
- At first contact, micro-planner records sex worker on the hotspot list, and encourages her to register at the Sisters clinic and a unique Sisters number is given
- Focus of peer outreach work is regular contact with sex workers on their list

RISK ASSESSMENT

- Based on five criteria micro-planners can ask and assess in casual conversation
- Provides scores based on sex worker's responses
- Helps micro-planners estimate if the SW is at loew, medium or high risk of STI and HIV acquisition and transmission

TRACKING

- Micro-planner records activities conducted during outreach
- Makes contact with sex workers on their hotspot list weekly, fortnightly or monthly depending on risk
- Records topics discussed, referrals made, condoms distributed for each contact
- Any problems encountered or additional needs of micro-planner or those they are supporting are discussed at weekly meeting with Outreach Worker

The Key Populations Implementation Programme

Supporting Sex Worker CBOs

Funding Source: Elton John AIDS Foundation

Funding Period: March 2018 to December 2020

Partnerships for support, strengthening and capacity building are established with four CBOs: Zimbabwe Rainbow Community (ZRC), Women Against All Forms of Discrimination (WAAD), Trans* and Intersex Rising Zimbabwe (TIRZ) and TransSmart. Each CBO received a sub-grant of USD7,500 for 2019 and developed its own budget in line with priority areas identified during capacity assessments. This included supporting key personnel, procurement of equipment, organisational policy development, implementation of activities, advocacy and community mobilisation, particularly in remote areas.

Each CBO was provided with a standalone office at the Harare Drop In Centre (DIC). The DIC also provides a shared boardroom and garden where CBOs host meetings and events.

Drop in Centres (DIC)

Funding Source: Elton John AIDS Foundation, GFATM

Funding Period: January 2018 to December 2020

There are two DICs in Harare and Bulawayo providing safe spaces for the sex worker community. The DICs provides a safe space for sex workers to rest, socialise, discuss issues and organise. Computers and internet connectivity are available for the sex worker community to use.

Mental Health and the Friendship Bench

Funding Source: USAID through PSI

Funding Period: October 2019 to September 2020

In response to the high prevalence of common mental disorders (CMD) amongst sex workers (SAPPH-IRe endline 2016 1219/2883 - 41.3%, Size Estimation 2017 1389/2707 - 48.3%), CeSHHAR has partnered with the Friendship Bench Project to pilot the Friendship Bench within the Sisters' programme. The Friendship Bench is problem solving therapy delivered by trained lay health workers.

Fifteen lay mental health counsellors – Friendship Bench Buddies - were trained in November 2019 by the Friendship Bench Project following a Theory of Change workshop to determine how the intervention should be delivered. The bench will piloted will be in Harare at Mbare Hostels Clinic and at the DIC from January 2020.

The Key Populations Implementation Programme

Empowering sex workers in Zimbabwe through self-help groups

Funding Source: Bill and Melinda Gates Foundation through LSTM

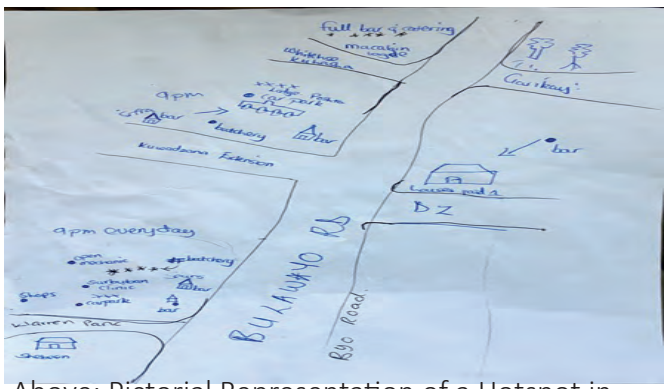
Funding Period: November 2016 to May 2019

- We explored the feasibility and applicability of self help groups (SHG) to empower FSW
- We hypothesized that SHG would empower FSW financially, socially and psychologically
- FSW involved in SHG were drawn from a pilot of systematised peer led outreach (microplanning) which is data guided and seeks to improve FSW linkages with health services.
- Harare was divided into 50 hotspots based on the volume of sex work in an area and 50 empowerment workers were each responsible for one hotspot, and a caseload of 50 SW.

The SHG and microplanning pilot was conducted between April 2017 and May 2019.

1. 55 SHG were running by end of April 2019, 16 running with minimal support from the programme.
    - Popular activities in SHG were, ISALs, establishment of child care services, grocery rounds, general buying and selling of goods
2. A total of 570 FSW were involved in SHG and all linked to health services
3. 14 SHG were trained in Internal Saving and Lending Scheme (ISALs)- 240 FSW benefitted.
4. 2568 SW were micro-planned enrolled into micro planning and tracked according to their risk status, 951 (37%) linked to health services.

Above: Self Help Group meeting in progress at the Drop In Centre © CeSHHAR 2018



Above: Pictorial Representation of a Hotspot in Harare- Kuwadzana area © CeSHHAR, 2018

The Key Populations Implementation Programme

Educational Assistance Program

Funding Source: Institute of Tropical Medicine, Antwerp

Funding Period: October 2017 to December 2021

Young women who sell sex (YWSS) in Zimbabwe have frequently had to drop out of school as a result of financial/social shocks further increasing their vulnerability to HIV as well as reducing their opportunity for alternative/future employment. As a structural intervention, second chance education could potentially lessen the vulnerability of HIV acquisition among YWSS.

Second Chance Education is offered through two pathways:

i. Second Chance Secondary Education- beneficiaries are integrated into mainstream education

ii. Vocational training-short courses mostly for a duration of 3 to 10 months with work placement

• The package of support includes school fees, uniforms, stationery and transport money where applicable.

• In 2019 stipends were added to support basic expenses such as rentals for beneficiaries who:

- Maintain an attendance record of at least 80%
- Participate in self help groups and
- Attend quarterly clinic visits

• Between May 2018 to December 2019 the programme cumulatively enrolled 159 beneficiaries

• 4 Self help groups were established (Hopely, Stoneridge, Epworth & Mbare)

• 22 YWSS sat for public examinations (5 Advanced level & 17 Ordinary level)

• 43 YWSS completed vocational training courses.

Right: Secondary Education beneficiaries enrolled at Young Africa Academy © CeSHHAR, 2019

The Key Populations Implementation Programme

Spotlight – addressing gender based violence

Funding Source: UNFPA

Funding Period: September 2019 to December 2021

Spotlight initiatives are implemented to sensitise key populations and the general community on sexual and gender based violence (SGBV). Implementation is through key population led community based organisations (CBOs). These include Zimbabwe Rainbow Community (ZRC), Women Against All forms of Discrimination (WAAD), Trans and Intersex Rising Zimbabwe (TIRZ) and TransSmart.

The Spotlight Initiative is implemented through a number of activities:

- Community activism of key population-led CBOs advocating for prevention of GBV against male, female, trans* sex workers including
  - Commemoration of 16 days of activism in five priority provinces
  - CBOs campaigns around their commitment to combating SGBV
  - Social fairs to sensitise communities on public health issues
- CBO Capacity building
  - Training of CBO members as paralegals
  - Training of CBO members as case care workers
- Engagement with YWSS (15-24 yrs.)
  - Self-help groups
  - Educational Assistance- vocational training
- Young Sisters Community mobilisation meetings
  - Interactive health education sessions with young sex workers

Right: SGBV sensitisation meeting in Mazowe © CeSHHAR, 2019

The Key Populations Implementation Programme

Addressing sex worker mobility

Funding Source: PEPFAR/USAID

Funding Period: October 2019 to September 2021

Mobility among sex workers is high with movement for work and non-work reasons. A recent systematic review found that female sex worker mobility was associated with delayed access to HIV care and treatment interruptions, and this varied by context and outcome. In Zimbabwe, among a representative sample of 2,883 sex workers from 14 sites, evidence suggested reduced viral suppression among FSW working away from 'home' for more than 31 days at mines/farms/growth points. Overall 17% of all FSW reported travelling outside Zimbabwe.

Border crossing points are sex work hotspots attracting high numbers of sex workers, providing the opportunity to reach high numbers of FSW and link them to services, including those who are crossing into neighboring countries to work. Mobile populations including sex workers often face challenges in accessing care when abroad resulting in treatment interruptions, loss to follow-up and treatment failure. An intervention to strengthen access to comprehensive HIV services among mobile Female Sex Workers across national borders in Zimbabwe, Botswana, Mozambique and Zambia is being implemented funded by PEPFAR through USAID and supported by the Ministry of Health and Child Care, National AIDS Council and PSI Zimbabwe.

It is supported by enhanced data monitoring to optimise uptake of prevention and care and ensure continued engagement undisrupted by travel.
Improvement of HIV services for mobile populations will be achieved through:

1. A cross-border and regional referral system implemented through a coordinated approach involving all stakeholders in Zimbabwe, Botswana, Mozambique and Zambia.
2. Discussions about travel and travel preparedness forming a routine part of all consultations including provision of 'safe travel packs' containing buffer supplies of ART (or potentially PrEP) plus a transfer letter.
3. Measurement of successful transfer/linkage and retention

The Key Populations Implementation Programme

Building resilience through self-help groups for adolescent sex workers with young children in Zimbabwe

Funding Source: BMGF Grand Challenges Programme

Funding Period: January 2018 to December 2019

Programme highlights

- 7 self-help groups established for young women aged 16-19, who were pregnant or new mothers, and were involved in selling sex
- 65 women (71%) retained through to the end of the programme
- 72% attended half or more of the 12 participatory sessions, 67% attended at least 8, and 13% completed all sessions
- Interactive activities covered healthy pregnancy and parenting, sexual and reproductive health, emotional and mental well-being, managing risks, and planning for the future
- 14 young women were referred into vocational training to continue their education, taking courses in nursing assistance, hotel and catering, and beauty therapy / hairdressing

there is light at the end of the tunnel. I believe I have a better future now. … I have stopped looking for clients during the day because I have no time, I will be at school.

CeSHHAR has really helped impact my health. They stress that we should use 'condoms', when at work as well as help us to know other family planning methods

Key Populations Research

Differentiated Prevention and Care to Support the Virtual Elimination of risk of acquisition and or transmission of HIV Among Sex Workers in Southern Africa – AMETHIST (Adapted Microplanning: Eliminating Transmissible HIV In Sex Transactions)

Funding Source: Wellcome Trust

Funding Period: October 2019-December 2024

The overall goal for this study is to develop and evaluate a micro-planning intervention for Africa, considering the heterogeneity of FSWs and their experiences and deepen the understanding of how to optimise the implementation and determine population impact and cost-effectiveness.

The study is being conducted at the 57 static and outreach sites where the National Sex Work Program is being implemented. Findings will help to inform health care policy in Africa.
The study has several sub-studies that will be conducted at different time points over the course of five years.

a) The study will commence with an expanded analysis of program data. Since its inception in 2009, the Sisters with a Voice Program has been collecting program data from program beneficiaries for different purposes, from different locations and at different time periods. The data which include demographics, clinical information, sexual behaviour, mobility and violence. We will conduct an analysis of this program data and findings will be used to refine the intervention.

b) A series of quantitative and qualitative sub-studies will be conducted to explore and understand how sex workers transition in and out of sex work and what are the implications of these transitions on their engagement into prevention, treatment, care and support services.

Key Populations Research

c) We are evaluating the use of microplanning as an HIV prevention and care differentiated community support model for FSWs in Zimbabwe in an impact evaluation. The impact evaluation is nested within the Sisters with a Voice Program. In this study 22 outreach sites were randomised to either receive the enhanced microplanning intervention and self-help groups or standard care. Microplanning activities commenced in June 2019. A rigorous process evaluation is being conducted to understand how the program is being implemented and its impact on reducing transmissible HIV in sex transactions. In addition an end line survey of 4,400 female sex workers will be conducted using a respondent driven sampling in June 2021.

d) We will refine an existing individual based micro simulation model to predict the impact and cost-effectiveness of intervention to increase engagement with treatment and care services.

e) In order to understand whether findings obtained from the Zimbabwean context can be translated into other African settings, we will describe the patterns and life course of sex work in Malawi and rural KwaZulu-Natal (KZN), South Africa, where the contexts of sex work are different from Zimbabwe.

Key Populations Research

Pilot study to assess the feasibility and utility of recent infection testing for HIV within an outreach programme for female sex workers in Zimbabwe

Funding Source: Bill and Melinda Gates Foundation

Funding Period: October 2019 to December 2022

The overall goal of this study is to distinguish between recent and long-standing HIV infection among female sex in Zimbabwe. The first phase of the pilot study commenced in June 2018 and was completed in 2019. An analysis of DBS samples collected from participants from previous studies was conducted. In addition samples were collected prospectively from newly diagnosed HIV positive sex workers at six National Sex Work static sites: Harare, Bulawayo, Gweru, Karoi, Masvingo and Mutare. A total of 103 (4.12%) from 2499 analysed DBS samples were recently infected . Factors associated with recent infection after adjustment were age at start of sex work ($p<0.001$), STI symptoms in past year . Of the 366 newly diagnosed HIV positive FSW, 33 (10.5%) had been recently infected.

We received additional funding to recruit an additional 600 women in 2020 and we are anticipating to repeat recency testing annually until 2022. The study will now be extended from the initial 6 to all the 57 static and outreach sites and will include male and transgender key populations in addition to female sex workers.

Key Populations Research

Improving access to HIV services for sex workers in Zimbabwe: field study and mathematical modeling

Funding source: AIDSfonds through Dept. of Public Health, Erasmus Medical Center Rotterdam, The Netherlands

Funding period: December 2017 to January 2022

The main objective of this study is to determine the impact of improved access to services for key populations in Zimbabwe including female , male and transgender sex workers through mathematical modeling and secondary data analyses.

The project, a collaborative research initiative between CeSHHAR and the Department of Public Health, Erasmus Medical Center Rotterdam, The Netherlands is analyzing routine data collected for the National Sex work Program on female sex workers, male and transgender sex workers. To date, a total of 100 male and transgender sex workers have been enrolled in the study. Progress towards developing a mathematical model to allow for incorporating male and transgender sex workers as part of the HIV transmission dynamics has been made.

Key Populations Research

Impact Evaluation of DREAMS (Determined Resilient Empowered AIDS-free Mentored and Safe) in Zimbabwe – focusing on impact in young women who sell sex

Funding Source: Bill and Melinda Gates Foundation, subcontracted by London School of Hygiene and Tropical Medicine

Funding Period: January 2016 to November 2019

The DREAMS study was a multi-country study, implemented in Zimbabwe, Kenya and South Africa. In Zimbabwe, the impact evaluation was conducted among 2400 young female sex workers recruited from two intervention sites (Bulawayo and Mutare) and four control sites (Kwekwe, Zvishavane, Chinhoyi and Karoi (control). The impact evaluation was aimed at estimating whether the DREAMS combined package of social and clinical interventions, which includes an offer of pre-exposure prophylaxis (PrEP), to adolescent girls and young women at highest risk of HIV reduced HIV incidence among this group. The study explored the pathways through which DREAMS influences HIV risk.

HIV incidence was measured at baseline, at 12 and then 24 months. An in-depth process evaluation was conducted throughout the duration of the study.

The overall objective of this DREAMS impact evaluation was to provide government and key stakeholders with information that can be used to advocate and plan for targeted delivery of HIV prevention services, including PrEP, among other clinical and social services, such as social protection interventions to support PrEP adherence, to adolescent girls and young women at highest risk of HIV in Zimbabwe. Analysis of study findings is on-going.

Masculinities Research Programmes

Implementation research to inform scale up and sustainability phases of Voluntary Medical Male Circumcision in Zimbabwe

Funding Source: Bill & Melinda Gates Foundation through PSI Zimbabwe
Funding period: January 2017 to December 2019

Zimbabwe's Voluntary Medical Male Circumcision (VMMC) program is designed to promote adult/adolescent circumcision as a means of reducing HIV acquisition. In collaboration with Ministry of Health and Child Care and PSI Zimbabwe, CeSHHAR has run a number of operations research projects to support these activities.

In 2018-2019, our research focused mainly on evaluating the demand creation and service delivery models developed and deployed for the VMMC "catch-up" and "sustainability" phases. Key to this project was determining the relative cost-effectiveness of various VMMC models (including models for demand creation) and their likely population-level impact.

Of note, some districts in Zimbabwe have already reached saturation of VMMC at ages 15-29 years (defined as having circumcised all uncircumcised men who fall within those age categories). In consultation and close collaboration with Ministries of Health and Education, PSI is overseeing development and implementation of a VMMC "sustainability" strategy targeting adolescents (≥19 years old). The strategy is being implemented using a phased approach which CeSHHAR has rigorously evaluated. Two factors central to the strategy are: a) ensuring program ownership and, b) seeing a reduction in costs over time (decreasing costs). The VMMC project will provide evidence to key stakeholders on approaches that can be replicated and taken to national scale in Zimbabwe and in other VMMC priority countries.

Integration of Sexual & Reproductive Health and HIV

HIV Self Testing in Zimbabwe

HIV self-testing, where a person collects his or her own oral fluid or blood specimen, performs the test and interprets the result, is recommended by WHO as an HIV testing strategy. There is evidence that self-testing increases the uptake of testing among individuals who would not otherwise test, including men, young people, female sex workers and men having sex with men.

Since 2014, we have partnered with Ministry of Health and Child Care, PSI Zimbabwe and RTI in conducting research that has informed policy and practice. Our work includes the following outputs

- Self-test instructions for use (IFU) that were optimised for facilitating accurate self-testing using oral fluid tests or blood-based tests. Our recommended IFUs are being used nationally and have been adopted by manufacturers
- Recommendations on evidence based models of distributing HIV self-test kits, informed by robust cluster randomized trials, quasi experimental studies, economic evaluations, discrete choice experiments and qualitative studies
- Estimates of the effect of self-testing on knowledge of HIV status and linkage to post-test services

Above: A man testing himself for HIV in the presence of his wife
©UNITAID/Photo by: Eric Gauss

Through international collaborations in Zambia, Malawi, South Africa, Lesotho, eSwatini and the United Kingdom, we have contributed to a breadth of context-specific and cross-cutting knowledge on HIV self-testing.

Our funding for the self-testing research has come from NIH through RTI, Integrated Support Program through PSI, UNITAID, Bill & Melinda Gates Foundation and UKRI MRC/DFID. We have completed work funded by NIH and Integrated Support Program.

Integration of Sexual & Reproductive Health and HIV

Shaping and stimulating the market for HIV self-testing in Africa (HIV Self-Testing Africa, STAR)

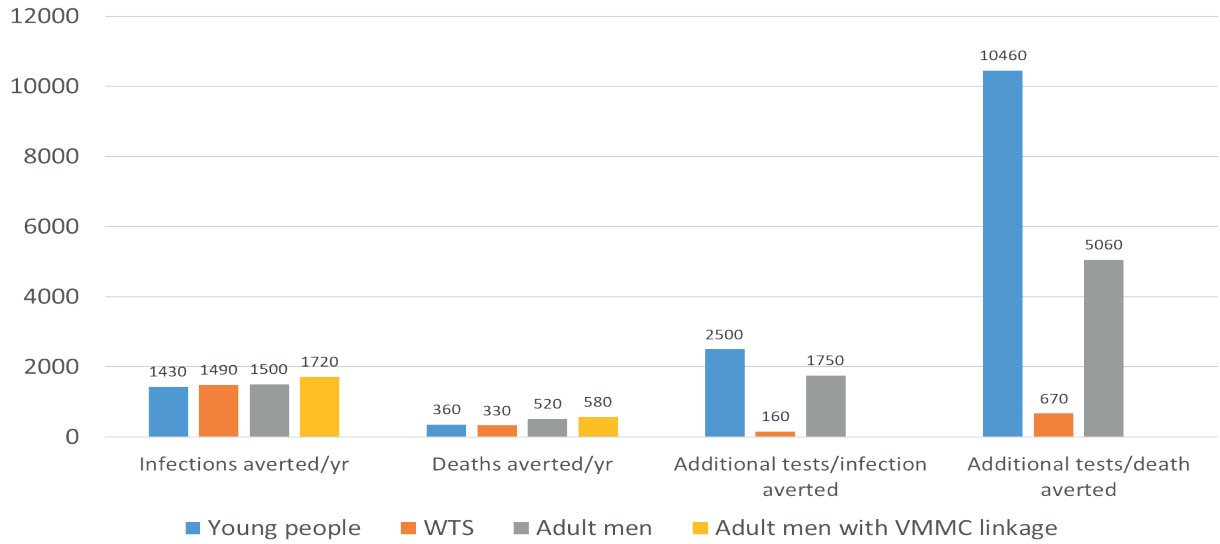
Funding Source: UNITAID through PSI

Funding Period: September 2015 to June 2020

Our largest body of work on HIV self-testing is through the STAR Initiative, a game changing project led by Population Services International (PSI) working in collaboration with World Health Organisation (WHO), London School of Hygiene & Tropical Medicine (LSHTM), Liverpool School of Tropical Medicine (LSTM), University College London (UCL), with local research partners in Zimbabwe, Malawi, Zambia, South Africa, Lesotho and the Kingdom of eSwatini, see link http://hivstar.lshtm.ac.uk/

Through the STAR Initiative we have evaluated different models of distributing HIV self-test kits. The largest evaluation is of the community-based distribution model, where we found that door-to-door distribution of self-tests kits in rural communities resulted in 89% of people reporting that they had ever tested for HIV, compared to an expected 75%. Initiation of antiretroviral therapy (ART), increased by 27% in health facilities whose catchment areas were self-testing communities, compared to those which were not.

Epidemiological impact of community-based distribution of self-test kits



Modelling shows that although it is most cost effective to distribute kits to women having transactional sex (WTS) in terms of mean cost per DALY, the largest number of infection/deaths averted by self-testing is among adult men who link to voluntary medical male circumcision (VMMC). J Int AIDS Soc. 2019;22 Suppl 1:e25243.

Integration of Sexual & Reproductive Health and HIV

Community-led HIV self-testing (conducted through STAR initiative)

Community-led distribution of test kits

• Given the benefits of community-based self testing, we are evaluating a model that has potential to be less expensive and scalable: a community-led model, where rural communities take a lead in designing and implementing their own self-testing models

• We piloted this intervention in 2018 and found that communities were excited about leading their own self-testing programs as they see an opportunity of improving uptake of ART and anticipated reduction in new HIV infections

• We will soon have results of whether community-led self-testing results in better coverage of testing and linkage to post-test services.

Above: Information dissemination in community-led self-testing: a poster mounted on a tree

Above: A rural community meeting to plan community led self-testing

The quotes below illustrate the acceptability of the community-led model:

"We have accepted these (kits) and we want to immediately go with them…[it's like hunger] if you are hungry and food delays aah…if these (kits) are to come next year aah…" A villager during the first meeting where community-led self-testing was introduced

"What impressed me the most is the fact that as a community we can achieve an HIV infection free community if we all test for HIV, and those who test positive are put on treatment… but will you continue giving us the kits, because the distributors are still willing to distribute especially to those who were left behind, and as leaders we also want these kits to keep coming)" Village headman at the end of a distribution campaign

Integration of Sexual & Reproductive Health and HIV

Self-testing research

Funding Source: Bill and Melinda Gates Foundation

Funding Period: February 2017 to July 2019

1. Demand for HIV self-tests at different prices

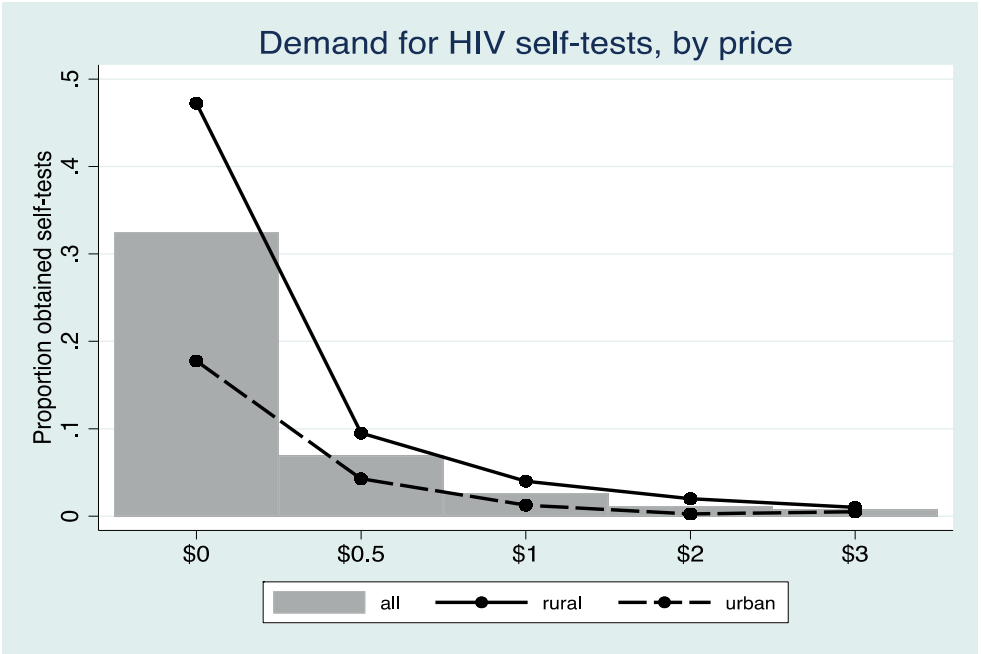
• We conducted a randomised trial among 3,996 participants in rural and urban communities in Zimbabwe

• Participants were randomised to four different price points of 0, $0.50, $1, $2, $3

• Each participant was given a voucher that they could redeem for a self-test kit at a price determined by the randomisation. There was a further randomisation of collection points, with rural participants randomised to collect from village health workers or tuck shops, and urban participants randomised to collect from a local clinic or pharmacy.

• Results are shown in the figure; demand was significantly affected by price at which the kit was offered.

• There was no difference in preference for collection points in rural communities, but urban participants preferred pharmacy to local clinic



2. Blood-based HIV self-testing

We have been conducting a series of studies to determine the feasibility and acceptability of blood-based HIV self-testing which include:

1. Optimising instructions for use (IFUs) for four blood-based test kits. We found that participants from rural and urban communities are able to test with accuracy, although in-person demonstration was necessary to optimise accuracy
2. Determining user ability to self-test with accuracy using a blood-based test
3. Head to head comparison of blood-based self-tests
4. A pilot study of a voucher distribution strategy among female sex workers, men having sex with men and their social networks
5. Observational study described in box below

Offer of Blood-Based Self-Test (BBST) vs. Oral Fluid Test (OFT) vs. Provider-Delivered Test

• The study was done among female sex workers and general population in rural and urban clinics.
• Individuals coming to test were offered the choice between the three testing options above. The table shows the results.

Number enrolled	1,244
Number (%) choosing provider test	185 (14.9%
Number (%) choosing OFT	619 (49.8)
Number (%) choosing BBST	440 (35.4)

Integration of Sexual & Reproductive Health and HIV

Self-testing research

Funding Source: UKRI Medical Research Council

Funding Period: January 2019 to September 2022

• There are high rates of new HIV infections among young people, particularly young women. Despite this there is suboptimal knowledge of HIV status in this group

• Through this UKRI MRC/DFID funded research (African Research Leader Scheme) we have opportunity to evaluate models that have potential to improve uptake of HIV testing among tertiary education students

• The research will also be an opportunity to see how models that have been developed for HIV self-testing can be adapted for other conditions of public health importance

Specific Objectives

1. Determine the effectiveness of a peer-led, mass media supported model for providing HIV self-test services compared to use of mass media alone to increase knowledge of HIV status and linkage to appropriate prevention and care (Primary objective)

2. Develop and evaluate the use of a mobile Health tool to support measurement/documentation of self-test kit distribution and follow-up of self-test recipients to estimate uptake of prevention and treatment services following self-testing

3. Determine the cost and cost effectiveness of HIV self-testing distribution models

4. Explore potential for adapting refined self-testing and linkage models for other conditions of public health importance

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Evaluation of Zimbabwe's National PMTCT Programme

We conducted three serial population representative cross sectional surveys to evaluate Zimbabwe's PMTCT program, with each survey evaluating a different WHO-recommended PMTCT approach: pre-Option A (baseline), option A, and Option B+ in 2012, 2014 and 2018 respectively

Fig 1: Mother to child transmission and HIV free survival

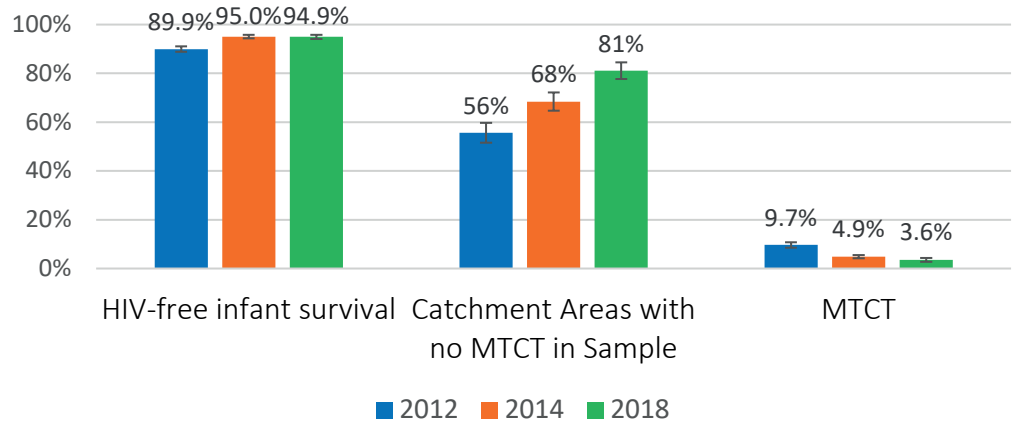
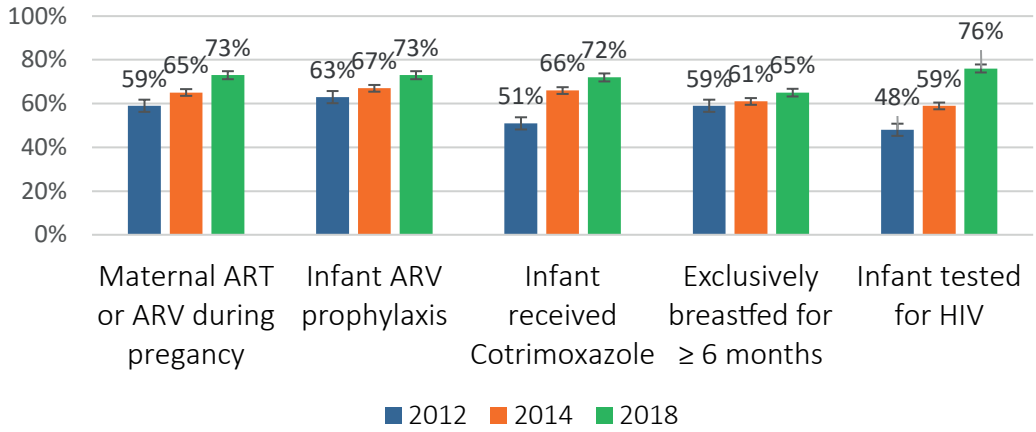


Fig 2: Maternal and infant cascade



PMTCT =Prevention of mother to child transmission of HIV

MTCT=Mother to child transmission of HIV

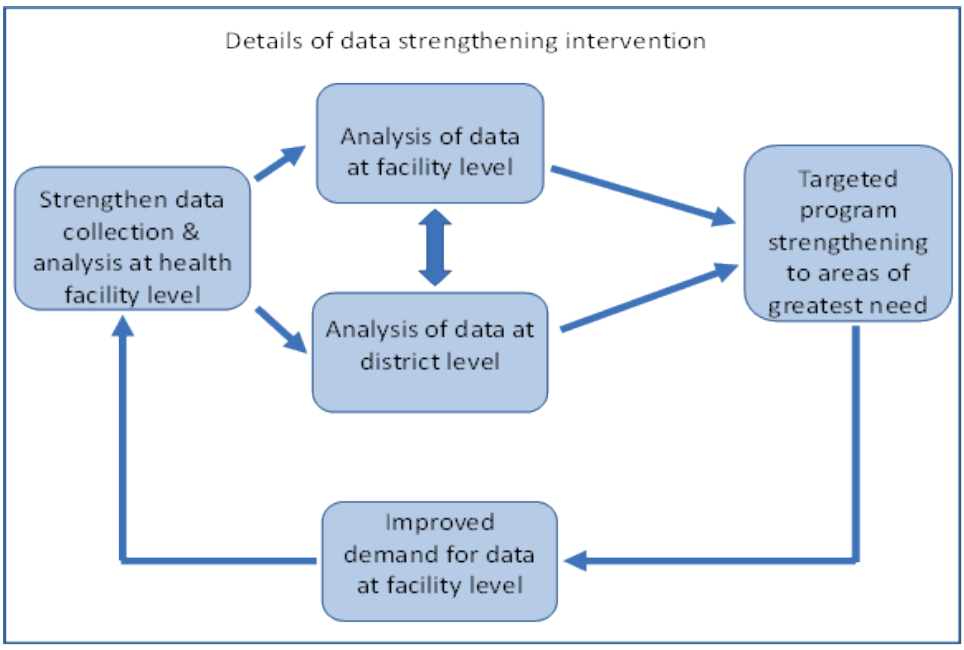
Evaluation of Zimbabwe's National PMTCT Programme

Zimbabwe has made remarkable progress increasing coverage of PMTCT services and reducing MTCT. MTCT decreased across the survey rounds as shown in Fig 1. These data were useful for informing practice; an example of this is shown below.

Data integration exercise

In 2019 we conducted a data integration exercise where we integrated our survey data with program data from OPHID and Ministry of Health, and modelling data from National AIDS Council in order to derive lessons for strengthening implementation and documentation of the national PMTCT program.

We found that i) data integration is feasible; ii) there is facility-level variability in implementation of services and, iii) there are gaps in post-delivery cascades for mothers and babies. We prosed a data strengthening exercise as detailed in the figure*.



*Sibanda et al, JIAS 2020

Odyssey Qualitative Substudy: Optimising adherence to HIV treatment

Funding Source: ViiV Health Foundation
Funding Period: May 2017 to April 2019

The qualitative sub-study sought to identify how best to support children and young people to maintain optimal adherence to second line treatment.

Three key issues frame the need for timely research with young people on second line ART:

- The evident risk of mortality due to therapeutic and virological failure.
- The socially complex reasons behind problematic ART adherence in HIV paediatric populations in general
- The awareness that second-line ART has long been used as a deterrent, or threat, to enforce adherence to first line treatment in young people.

Data collection for all the two phases was completed by December 2019. Data analysis and paper writing is ongoing. Preliminary findings were presented at the AIDS 2018 conference in Amsterdam.

Childhood and Adolescence

Odyssey DTG QualitativeSubstudy: Optimising adherence to HIV treatment

Funding Source: ViiV Health Foundation

Funding Period: April 2019 to December 2019

In 2017 WHO published an alert about the possible risks of taking dolutegravir (DTG) during pregnancy of increased chances giving birth to a baby with spinal bifida. The intervention arms of Odyssey involve participants being put onto DTG.

- The trial sites conducted specialized counselling to advise participants about the DTG alert.
- Clinic staff explained the nature of the risks and counseled all sexual active female participants to take contraception.

The study sought to explore young people and their caregivers' understanding of the dolutegravir (DTG) alert and their sexual and reproductive health (SRH) needs within the context of the ODYSSEY trial.

Data collection was completed in January 2020 and data analysis and write up is ongoing.

Childhood and Adolescence

Clinical and social status and service delivery needs of young mothers living with HIV and their children: an operational research study

Funding Source: UNICEF/Africaid

Funding Period: July 2018 to June 2019

The Zvandiri programme (run by Africaid) is a model of differentiated service delivery for children, adolescents and young people (0-24 years) living with HIV in Zimbabwe.

- In 2018, young mothers, 18-24 years, living with HIV were trained and supported in 4 districts to act as Young Mentor Mothers (YMM) to provide enhanced care and support to vulnerable mother-baby pairs, within the Zvandiri programme.
- This holistic model uses peer led counselling, home visits, daily SMS contact, referrals and integration into adolescent friendly mother-baby support groups.

The study sought to understand the clinical and psychosocial status, virological and immunological characteristics and service delivery needs of young HIV infected mothers aged 15-24 years.

Childhood and Adolescence

Key findings

- All mothers were on ART (83.6% first line; 16% second line)
- 86% (n=152) of mothers self-reported good ART adherence
  - Only 14% (n=25) were struggling with drug adherence.
- 55.9% of the young mothers scored 12 or above on the EPDS indicative of PND. 13.5% had severe depression.
- 39.6% (n=70) scored ≥9 on the SSQ-14 indicating risk of common mental disorder.
- 54.7% of mothers who reported experiencing violence had 9 or more CMD symptoms using the SSQ-14 compared to 25.3% who never experienced violence (chi2=16.0, p<0.001).
- 62.7% of mothers who reported experiencing violence were at risk of depression using the EPDS compared to 50.0% who never experienced violence (chi2 = 2.9, p=0.09).
- 88.1% (n=156) of the mothers had disclosed their status to someone
  - only 54.2% (n=78) had disclosed to their male partners.
- 73.5% self-reported that their male partners had had an HIV test, 14.7% had not tested and 11.9% didn't know whether their partners had tested for HIV or not

Finding were presented at the ICASA2019 conference in Rwanda and won the Best Abstract Award Track C . Paper writing is ongoing

Childhood and Adolescence

Evaluating a multi-component, community-based programme to improve adherence and retention in care among children and adolescents living with HIV in Zimbabwe

Funding Source: ViiV Healthcare's Positive Action for Adolescents Programme

Funding period: February 2016 to December 2020

In collaboration with Ministry of Health and Child Care, Liverpool School of Tropical Medicine, Africaid, London School of Hygiene and Tropical Medicine and the University of Zimbabwe College of Health Sciences, CeSHHAR Zimbabwe evaluated the Zvandiri (As I am) programme. The Zvandiri programme is a model of differentiated clinical service delivery for HIV positive children and adolescents in Zimbabwe.

CeSHHAR evaluated the programme in two districts (Bindura and Shamva) in Mashonaland Central province using a cluster-randomised controlled trial. Sixteen clinics were randomised to either enhanced antiretroviral therapy (ART) adherence support or standard of care. Eligible individuals (HIV positive adolescents aged 13-19 years and eligible for ART) in both arms received ART and adherence support provided by adult counsellors and nursing staff. Adolescents attending intervention arm clinics were additionally invited to attend a monthly support group, allocated to a designated Community Adolescent Treatment Supporter (CATS), and followed-up through short message service (SMS) and calls plus home visits. The type and frequency of contact was determined by whether adolescent was 'stable' or in need of enhanced support. Stable adolescents received a monthly home visit plus a weekly, individualised, SMS. An additional home visit was conducted if participants missed a scheduled clinic appointment or support group meeting. Participants in need of further, enhanced, support received bi-weekly home visits, weekly phone calls and daily SMS. Caregivers of adolescents in intervention attended a caregiver support group. Adolescents recruited to the trial had a clinical, behavioural and psychological assessment at baseline and after 48 and 96 weeks.

Childhood and Adolescence

At 96 weeks, 52 (25%) of 209 adolescents in the Zvandiri intervention group and 97 (36%) of 270 adolescents in the control group had an HIV viral load of at least 1000 copies per µL or had died (adjusted prevalence ratio 0·58, 95% CI 0·36–0·94; p=0·03). In the trial, we observed high rates of virological failure (defined as at least one HIV viral load result of ≥1000 copies/µL over 96 weeks) in both arms of the trial (31.2% in the control arm; 13.2% in the Zvandiri arm). We hypothesise that some of these failures were likely due to drug resistance.

We are now testing dried blood spot samples collected from all cluster-randomised controlled trial participants (N=189) who had a viral load ≥1000 copies/µL at 48 and/or 96 weeks for ART resistance.

Zvandiri

AFRICAID

Childhood and Adolescence

Study on the Burden of Diseases Potentially Preventable by Maternal Immunization in Sub-Saharan Africa

Funding Source: European Commission through LSTM

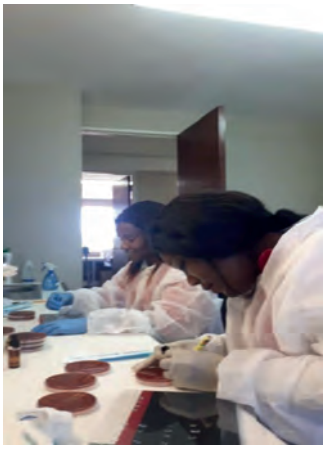
Funding Period: June 2018 to January 2020

This is a multi-country (Zimbabwe and Ghana), population-based prospective cohort study that will follow-up mothers from pregnancy until childbirth; and their infants for at least the first year of life. The overall aim of the study is to quantify the burden of group B streptococcus, respiratory syncytial virus disease influenza, and pertussis among pregnant women and their infants and evaluate how this burden is modified by co-morbidities such as HIV or TB infection or HIV-TB co-infection.

In 2018 the following activities were done:

- Site inspection visit by the LSTM
- CeSHHAR team trained by the LSTM team on data and sample collection
- NMRL lab personnel trained at the Respiratory and Meningeal Pathogens Research Unit in SA on Group B Streptococcus (GBS identification and Isolation)
    - The training was a key activity towards ensuring expertise is available in study sites and processes are standardized.
    - The laboratory training will contribute significantly to improvement of Isolation and identification Of GBS in the National Reference laboratory.
- 235 pregnant women and 23 infants were recruited

Above: CeSHHAR team data & specimen collection training



Above: trainees conducting catalase test

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