



# Annual Progress Report

## October 1, 2014 — September 30, 2015



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## ACRONYMS

ADCH	Arthur Davison Children's Hospital
AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ART	Antiretroviral Therapy
ARV	Antiretroviral
ASW	Adherence Support Worker
BD	Beckton-Dickinson
CARE	CARE International
CBO	Community-based Organization
CD4	Cluster of Differentiation 4
CHAZ	Churches Health Association of Zambia
CHC	Chronic HIV Checklist
CT	Counseling and Testing
DATF	District AIDS Task Force
DBS	Dried Blood Spot
DCMO	District Community Medical Office
DNA PCR	Deoxyribonucleic Acid Polymerase Chain Reaction
EID	Early Infant Diagnosis
EMS	Express Mail Delivery
ESA	Environmental Site Assessment
eMTCT	Elimination of Mother-to-Child Transmission
EQA	External Quality Assistance
FBO	Faith-Based Organization
FHI	Family Health International
FP	Family Planning
GBV	Gender Based Violence
GCDD	Gender and Child Development Division
GIS	Global Information System
GPRS	General Packet Radio Service
GRZ	Government of the Republic of Zambia
cART	Highly Active Antiretroviral Therapy
HBC	Home-Based Care
HCW	Health Care Worker
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HTC	HIV Testing and Counseling
IEC	Information, Education and Communication
IPT	Intermittent Preventive Treatment (for malaria in pregnancy)
IQC	Internal Quality Control
LMIS	Laboratory Management Information System
M&E	Monitoring and Evaluation
MC	Male Circumcision

MCH	Maternal Child Health
MIS	Management Information System
MNCH	Maternal, Newborn and Child Health
MOH	Ministry of Health
MSH	Management Sciences for Health
MSL	Medical Stores Limited
NAC	National HIV/AIDS/STI/TB Council
NGO	Non-governmental Organization
NZP+	Network of Zambian People Living with HIV/AIDS
OGAC	Office of the Global U.S. AIDS Coordinator
OI	Opportunistic Infection
OR	Operations Research
PCR	Polymerase Chain Reaction
PEP	Post Exposure Prophylaxis
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PLHA	People Living with HIV/AIDS
PMO	Provincial Medical Office
PMTCT	Prevention of Mother-to-Child Transmission
PwP	Prevention with Positives
QA/QI	Quality Assurance/Quality Improvement
SCMS	Supply Chain Management System
SLMTA	Strengthening Laboratory Management Toward Accreditation
SMS	Short Message System
SOP	Standard Operating Procedure
STI	Sexually Transmitted Infection
TB	Tuberculosis
TBA	Traditional Birth Attendant
TWG	Technical Working Group
USAID	United States Agency for International Development
USG	United States Government
UTH	University Teaching Hospital
VSU	Victim Support Unit
VMMC	Voluntary Medical Male Circumcision
WHO	World Health Organization
ZPCT II	Zambia Prevention, Care and Treatment Partnership II
ZPCT IIB	Zambia Prevention, Care and Treatment Partnership II Bridge

## EXECUTIVE SUMMARY

At the end of September 2014, the U.S. Agency for International Development awarded a contract to FHI 360 valued at US\$24,900,000 to continue implementing the public sector HIV/AIDS services project under the Zambian Prevention, Care and Treatment Partnership II Bridge (ZPCT IIB). During the Bridge reporting period, ZPCT IIB worked side-by-side with the Government of the Republic of Zambia (GRZ) and other stakeholders to:

- maintain comprehensive, quality HIV/AIDS services in the 431 sites currently supported by ZPCT II;
- continue to scale up and improve services and systems to 20 new sites which have been identified; and
- lay the groundwork for the next era of USAID programming with concrete steps toward greater GRZ ownership, resource commitment and responsibility for sustaining quality.

Specifically, ZPCT IIB worked through the Ministry of Community Development Mother and Child Health (MCDMCH) and Ministry of Health (MOH), the provincial medical offices (PMOs), and district community medical offices (DCMOs) and other stakeholders to strengthen and expand HIV/AIDS clinical and prevention services in six provinces: Central, Copperbelt, Luapula, Muchinga, Northern and North-Western.

During this period, ZPCT IIB supported 470 health facilities (440 public and 30 private) across 57 districts in the six provinces. This represents an increase in coverage from 431 sites in 45 districts to 470 sites in 57 districts to provide access in new districts that were created by GRZ redistricting and reach remaining underserved areas with high HIV prevalence in previously supported districts.

Under the ZPCT IIB project, 793,650 individuals received HTC services in 470 supported facilities. Of these, 565,151 were served through the general HTC services while the rest were counseled and 228,499 tested through eMTCT services. While 228,499 women received eMTCT services (counseled, tested for HIV and received results), out of which 14,209 tested HIV positive. The total number of HIV-positive pregnant women who received ARVs to reduce the risk of eMTCT was 18,580. ZPCT IIB also implemented innovations in reaching more individuals to get tested through models of community based testing and counseling such as door to door HTC as well as using an HIV positive index client as an entry point to family based HTC within their household. In addition, the community ART dispensing was initiated during this period. A total of 49,461 new clients (including 2,418 children) were initiated on antiretroviral therapy in the 167 public and 23 private health facilities that provided ART services. Cumulatively 260,133 individuals are currently on antiretroviral therapy and of these 16,551 are children. Also, 75,664 men were circumcised across the ZPCT IIB supported provinces.

ZPCT IIB's major proposed targets include: 1) a 25 percent increase in the number of HIV-positive adults and children initiating antiretroviral therapy (ART) as a result of expanded eligibility under new GRZ guidelines from a baseline of 30,000

### **Key ZPCT IIB Achievements**

- ✓ 793,650 individuals received HTC services and their test results in 470 supported facilities
- ✓ 260,133 individuals received ART, including 49,461 initiating in the last 12 months
- ✓ 16,816 HIV-positive pregnant women received antiretroviral (ARV) prophylaxis to prevent mother-to-child HIV transmission
- ✓ 20,416 dried blood spot (DBS) samples processed for early infant diagnosis (EID)
- ✓ 75,664 male circumcision procedures performed
- ✓ 39 functional district referral networks linked facility/community services in comprehensive care continuum
- ✓ 1067 health care workers were trained in the Zambia consolidated guidelines for the treatment and prevention of HIV infection
- ✓ District capacity assessments were conducted in nine districts and six PMOs, and capacity All 45 districts graduated to increased responsibility for ensuring service quality

## OVERVIEW OF THE ZAMBIA PREVENTION, CARE AND TREATMENT PARTNERSHIP II BRIDGE

The Zambia Prevention, Care and Treatment Partnership II Bridge (ZPCT IIB) was a 14-month contract (AID-611-C-14-00001) between FHI 360 and the U.S. Agency for International Development (USAID) through the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR) with a ceiling of US \$24,900,000. Over the 14-month Bridge period, ZPCT IIB worked side-by-side with the GRZ through the Ministry of Community Development Mother and Child Health (MCDMCH) and Ministry of Health (MOH), the provincial medical offices (PMOs), and district community medical offices (DCMOs) and other stakeholders to strengthen and expand HIV/AIDS clinical and prevention services in six provinces: Central, Copperbelt, Luapula, Muchinga, Northern and North-Western.

FHI 360 was the lead organization on the project, responsible for overall program implementation and management of ZPCT IIB's international and local partners and their technical areas. To support the government at national, provincial, district, community and health facility levels, FHI 360 partnered with Management Sciences for Health (MSH), CARE International, Churches Health Association of Zambia (CHAZ), Chainama College of Health Sciences (CCHS), and University Teaching Hospital Surgical Department’s Male Circumcision Unit.

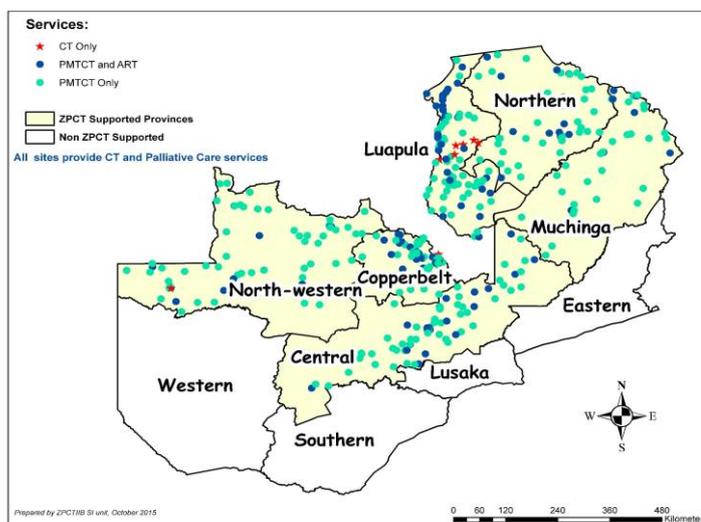
<b>ZPCT IIB Partners and Roles/Responsibilities</b>	
<b>Partner/Type</b>	<b>Roles/Responsibilities</b>
<b>FHI 360</b> <i>Prime</i>	Overall program, technical, and financial leadership; monitoring and evaluation (M&E) systems; key contact liaison with USAID; manage relationships with MOH, MCDMCH, NAC, and other partners. Lead implementer with MOH/MCDMCH in scaling up HIV/AIDS services in six provinces.
<b><i>International Organizations</i></b>	
<b>CARE</b>	Community mobilization and strengthening the continuum of care through referral networks. Manage adherence support workers (ASWs), lay counselors, and work with community-based organizations (CBOs) to generate demand for HIV/AIDS services.
<b>MSH</b>	Strengthening the MOH health system focusing on laboratory and pharmaceutical systems at national, district and the health facility levels through training and technical support.
<b><i>Zambian Organizations</i></b>	
<b>Churches Health Association of Zambia</b>	Expansion, scaling up prevention, care and treatment services through ten mission health facilities in three provinces supported by ZPCT IIB
<b>University Teaching Hospital</b>	Implementation of male circumcision services in ZPCT IIB supported health facilities through training and technical support
<b>Chainama College of Health Sciences</b>	Strengthening the MOH health system through training facility and community based health workers in HIV testing and counseling (HTC) services under ZPCT IIB

ZPCT IIB supported the GRZ goals of reducing prevalence rates and providing antiretroviral therapy (ART). The project implemented technical, program and management strategies to initiate, improve and scale-up elimination of mother-to-child transmission (eMTCT); HIV testing and counseling (HTC); expansion of male circumcision services; and clinical care services, including ART. The objectives of the ZPCT IIB project were to:

- Maintain existing HIV/AIDS services and scale-up the program to meet PEPFAR targets, as part of a package of core services that emphasizes treatment as prevention, strengthens the health system, and supports the priorities of the Ministry of Health (MOH) and National AIDS Council (NAC).

- Maintain the partnership and involvement of multiple stakeholders to sustain comprehensive HIV/AIDS services that emphasizes sustainability and greater GRZ allocation of resources, and supports the priorities of the MOH and NAC.
- Encourage integration of health and HIV services, where feasible, emphasizing the needs of patients for prevention at the national, provincial, district, facility, and community levels through joint planning with the GRZ, other USG, and non-USG partners.

ZPCT IIB provided support to all districts in Central, Copperbelt, Luapula, Muchinga, Northern and North-Western provinces, while consolidating and integrating services in facilities and communities, to assure seamless delivery of a comprehensive package reaching the household level, regardless of location. In addition, ZPCT IIB worked with its partners in strengthening the broader health sector by improving and upgrading physical structures, integrating HIV/AIDS services into other clinical



areas, increasing work force capacity, and strengthening key support structures, including laboratory and pharmacy services and data management systems. At the same time, ZPCT IIB supported MOH and MCDMCH to increase their capacity to monitor, maintain and improve quality throughout the national health system by fully integrating ZPCT IIB quality assurance/quality improvement (QA/QI) systems into day-to-day operations at all levels.

## ZPCT IIB RESULTS BY TASK

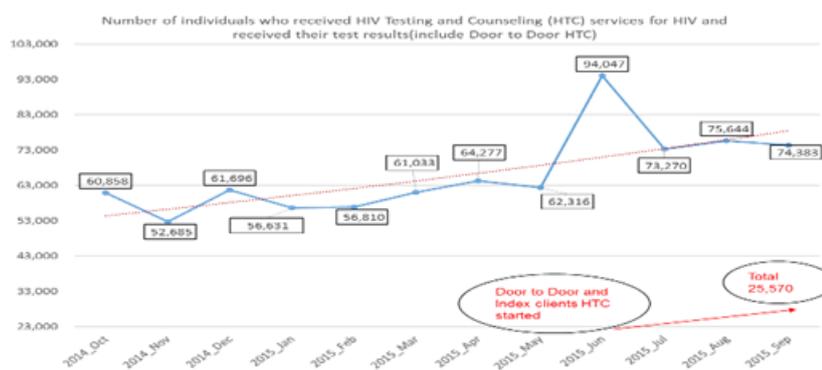
**Task 1: Maintain existing HIV/AIDS services and scale-up the program to meet PEPFAR targets, as part of a projected package of core services that emphasizes treatment as prevention, strengthens the health system, and supports the priorities of the Ministry of Health (MOH) and National AIDS Council (NAC).**

### *Task 1: Key Expected ZPCT IIB Results and Achievements*

Expected Results	Achievements
<ul style="list-style-type: none"> <li>Quality HIV/AIDS services maintained in all 431 ZPCT II-supported sites</li> <li>37,752 adults/children initiated on ART, a 25% increase under the new guidelines</li> <li>Services expanded to new sites: 20 CT, 20 eMTCT, 14 ART and 4 MC</li> </ul>	<ul style="list-style-type: none"> <li>Supported provision of quality HIV/AIDS services in 470 health facilities through regular technical assistance, training, on-site mentorship, provision of medical and laboratory medical equipment</li> <li>49,461 adults and children initiated on ART, a 36.9 % increase on 36,119 for the same period last year</li> <li>20 new sites fully functional and providing HTC, eMTCT, ART and VMMC services</li> </ul>

#### *1.1: Expand HIV testing and counseling (HTC) services*

440 public and 30 private facilities provided HTC services in the six ZPCT IIB supported provinces as well as through community based HTC services. This resulted in 793,650 clients being tested, counseled, and receiving their results (106,203 were children).



Of all those tested, 63,456 were found to be HIV positive and were referred for enrollment into HIV care and assessment for eligibility for cART. ZPCT IIB trained 54 HCWs and 41 lay counselors to provide CT according to national or international standards. Additionally, ZPCT IIB conducted mobile HTC activities and reached a total of 41,574 tested out of which 1,240 tested HIV positive and were referred for HIV care, treatment and support. 38,834 uncircumcised HIV negative males were referred for VMMC.

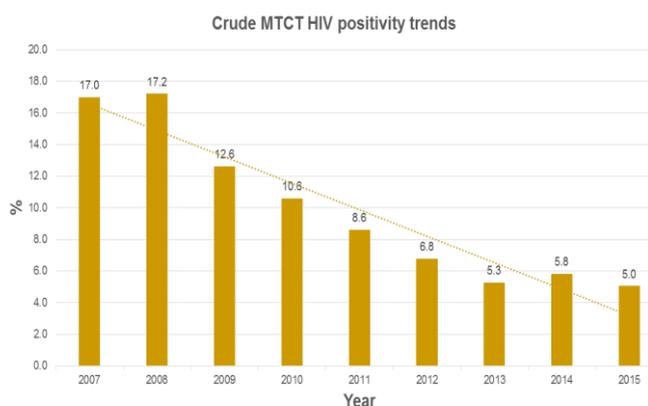
- Increasing access to HTC through community based HTC services:** ZPCT IIB has continued to promote and support the utilization of different models of community based testing and counseling such as door to door HTC as well as using an HIV positive index client as an entry point to family centered HTC within their household. This activity is being implemented in selected communities of Chililabombwe, Solwezi, Ndola, Kapiri, Kabwe, Mansa and Kasama districts. The introduction and implementation of these HTC approaches are in line with the new national consolidated HIV prevention and treatment guidelines. DCMOs, community leaders, HCWs and lay counsellors are fully engaged in the implementation of community based HTC services.

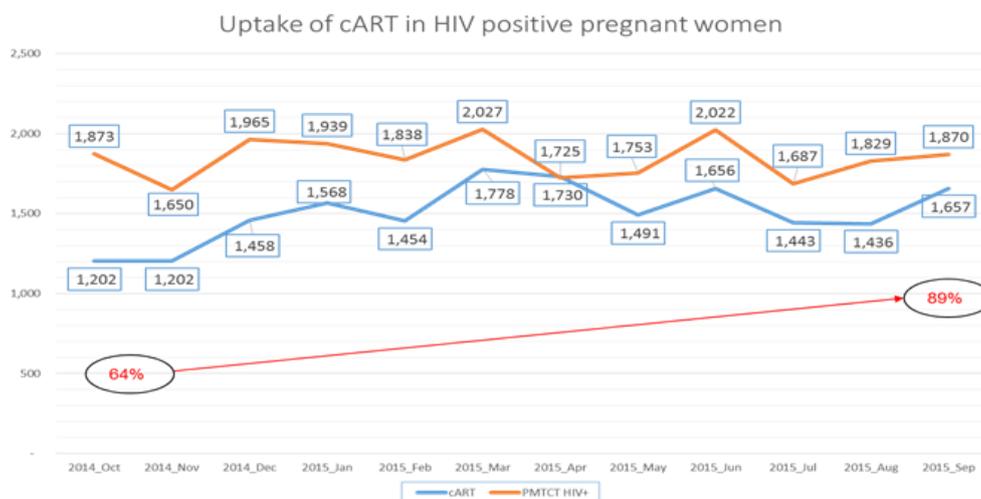
- Couple targeted HTC: This was prioritized and strengthened in ZPCT IIB supported health facilities. The importance of couple HTC continues to be emphasized during joint technical support and mentorship of HCWs and lay counselors, with a focus on effective linkages to clinical care/ART services, family planning, and VMMC. Post-test counseling is done with a focus on risk reduction behavior and safer sex practices to discordant couples. During the period under review, 81,286 HTC clients and 80,758 eMTCT clients received HTC as couples, out of which 2,776 were discordant couples, and all were referred for cART services in line with the current consolidated national HIV prevention and treatment guidelines. Uncircumcised HIV negative male partners were referred for VMMC services.
- Integrating HTC into other clinical health services: 57,740 FP clients were provided with HTC services. A total of 68,917 males received HTC services as part of a minimum package for VMMC services; and 3,673 TB clients with unknown HIV status received HTC services. ZPCT IIB has continued to expand HTC access by promoting the provider initiated testing counseling (PITC) and opt out approach for FP clients, in patients, TB patients, STI patients and pediatric in-patients. HTC has been integrated into VMMC.
- FP/HIV integration activities: This activity was prioritized for ZPCT IIB. Joint technical assistance and mentorship of HCWs and community on FP/HIV integration was provided to the health facilities. A total of 38,851 HTC clients were referred for FP and 23,616 were provided with FP services. 60,827 clients seeking family planning services were referred for HTC services and 57,740 were offered HTC services with same day results and referred appropriately according to the results. Those that tested HIV positive are referred for cART. During this period under review, 5,685 ART patients were provided with FP services. The lay counselors continued to be create demand for FP services in the community.
- HTC services for children: ZPCT IIB focused on routine HTC for children in under five clinic and paediatric wards. A total of 4,033 children were tested for HIV in under-five clinics; 106 tested positive. The HIV positive children were linked to treatment, care and support services.
- Integration of screening for gender based violence (GBV) within HTC services: This was an ongoing activity and was prioritized in all ZPCT IIB supported sites. During this reporting period, 39,827 HTC clients were screened for GBV and those that needed further support were referred accordingly to other service areas such as counseling, medical treatment, emergency contraception and legal aid.

## 1.2: Elimination of mother-to-child transmission (eMTCT) services

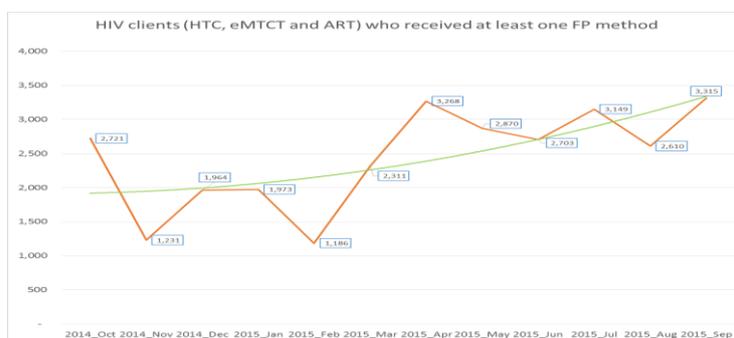
436 public and 24 private health facilities provided eMTCT services in the six ZPCT IIB supported provinces. 228,499 ANC clients were provided with eMTCT services during the year. Of these, 14,209 tested HIV positive and 13,962 received ARVs for eMTCT representing 98%. 74 HCWs and 50 PMTCT lay counsellors were trained in the provision of eMTCT services. 70 eMTCT lay counselors were trained in ART adherence counseling.

HIV positive pregnant and breastfeeding women, together with their HIV infected partners were initiated on cART within MNCH units in many of the health facilities and referrals made to ART clinics in those where this was not yet feasible. 431 eMTCT sites are providing cART within MNCH while 24 are referring mothers to ART clinic for initiation of cART.



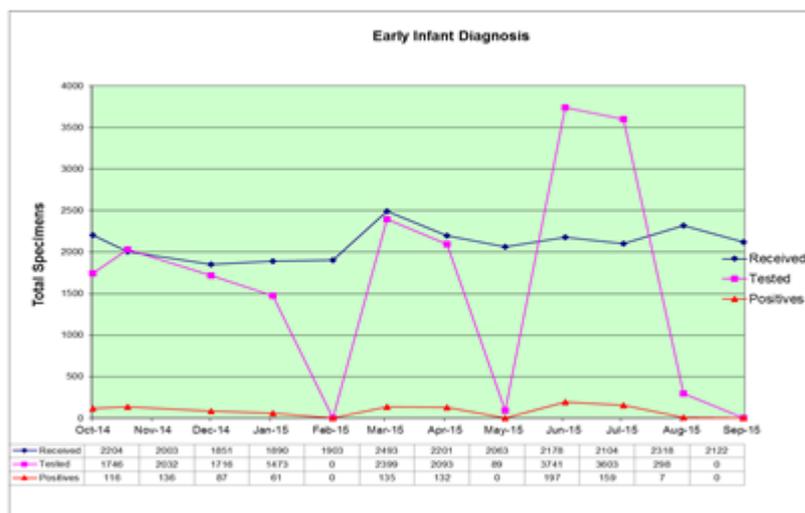


A total of 14,209 pregnant women tested HIV positive and were therefore eligible for cART and out of which 13,962 were initiated on cART.



- Operationalizing new and strengthening existing eMTCT services:** There were 228,499 ANC clients provided with eMTCT services, with routine HTC services using the opt out strategy and 12,815 (5,6 %) newly tested HIV positive. 1,394 were re-tested positive during subsequent ANC visits with 7,969 pregnant women known positive at entry. A total of 18,580 women received ARVs for eMTCT. ZPCT IIB technical staff have continued to support scaling up of Option B+ to the new facilities that had not yet implemented the services in collaboration with the DCMOs and MNCH coordinators. HIV positive pregnant and breastfeeding women, together with their HIV infected partners were initiated on cART within MNCH units in many of the health facilities and referrals made to ART clinics in those where this was not yet feasible. Also, ZPCT IIB strengthened routine HIV testing during the first ANC visit using the opt-out strategy and early infant diagnosis using dried blood spot (DBS).
- Strengthening early infant diagnosis (EID) of HIV for exposed babies:** DBS collection at six weeks and six months remained the focus of the technical assistance and mentorship to facility staff in ensuring that all clients are captured during under five clinic for this service. Results are issued as soon as results are received and initiation on cART is commenced. The facilities have continued to send samples to the PCR Lab despite them not receiving results due to central stock out of PCR reagents in Ndola. A total of 20,416 samples were collected from 327 facilities and sent to the PCR laboratory at ADCH. 863 out of 15,556 tests performed tested reactive and 692 were initiated on cART. There is a national stock out of EID consumables for the PCR Lab that

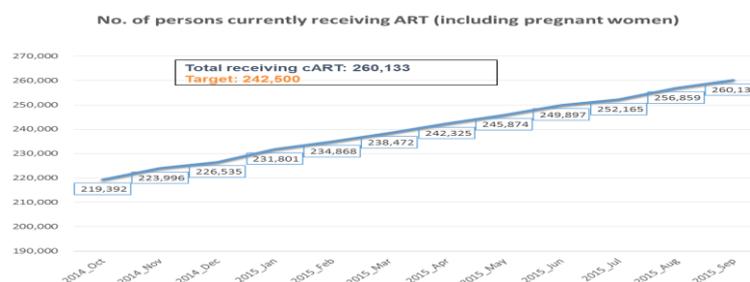
has been ongoing from about early August to the end of September; as a result, no testing has been done during this period. ZPCT IIB placed an emergency order to procure these EID reagents and they are expected to be received in the country next quarter.



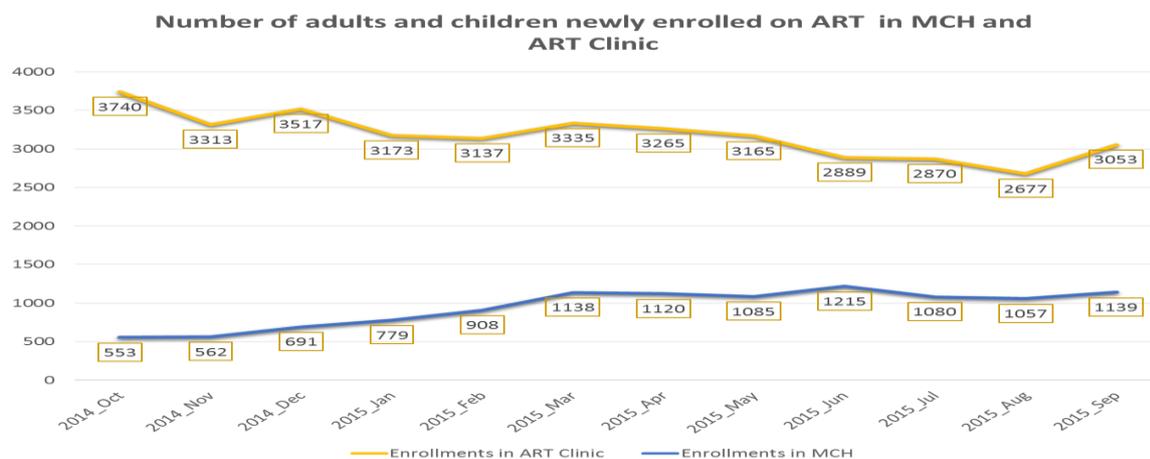
- Re-testing of HIV negative pregnant women:** In collaboration with the DCMOs, ZPCT IIB technical staff has continued supporting health facilities in strengthening retesting of HIV negative pregnant and breastfeeding women who test HIV negative early in pregnancy or before delivery, from 32 weeks and during postnatal period with emphasis on accurate documentation in the eMTCT registers. A total of 67,257 pregnant women were re-tested and 1,394 tested HIV positive (sero-converted) which represents a 2% sero-conversion rate. Those who sero-converted were initiated on cART according to the current national consolidated HIV prevention and treatment guidelines.
- The 12 FP/HIV model sites continued integrating FP and ART services:** FP counseling of clients seeking services in MNCH and ART has continued to be strengthened at all the 12 model sites with clients being offered FP services within the ART Clinic with correct and accurate documentation in the FP registers. Expansion of FP services including LARC to 120 additional facilities are earmarked. FP equipment and instruments are being procured for distribution to the facilities as part of scale up support. Planned follow up and mentorship visits to HCWs by ZPCT IIB technical staff to all the 12 facilities has continued. Printing and distribution of Job Aids for FP to all the 12 model sites was completed. A total of 3,861 Jadelle and 212 IUCDs were inserted in the 12 model sites. 3,781 clients received oral contraceptive pills and 26,942 received injectable contraceptives 24,576 DEPO and 1,466 Noristerat.
- Project Mwana to reduce turn-around time for HIV PCR results:** The implementation is ongoing in many of the selected facilities. However, the national stock out of EID consumables for the PCR lab has negatively affected provision of services.

### 1.3: Antiretroviral Therapy (ART)

During the implementation of the ZPCT IIB, 167 public and 23 private health facilities provided ART services. All the 190 ART facilities provide both pediatric and adult ART services and report their data independently in the six ZPCT IIB supported provinces.



49,461 new clients (including 2,418 children) were initiated on antiretroviral therapy. Compared with the previous annual data of 36,119 new ART clients this uptake represents an increased uptake of 13,342 ART clients or increase of 36.9% more clients for this year. 473 were HIV positive individuals in HIV discordant couples and 3,635 were HIV positive pregnant women identified through the eMTCT program (2,308 initiated in ART clinic while 1,327 initiated in MCH). Cumulatively, there are now 260,133 patients that are receiving treatment through the ZPCT IIB supported sites, including 16,551 children. In addition, 1,051 patients on treatment were switched to second line regimen due to treatment failure. As part of HIV/FP integration, 45,383 patients on ART were referred for FP services.



Enrolment of adults and children in MCH has more than doubled with increment from 553 in October, 2014 to 1,139 in September, 2015

Operationalization of the new consolidated prevention and treatment guidelines: Orientation of health care workers (HCWs) in the Consolidated HIV Management guidelines has continued; 1067 HCWs were orientated in the period under review. Further support in the recent past has been targeted towards on-site mentorship of new job aids which are anchored on the revised Consolidated HIV Management guidelines. Most frontline providers have really appreciated the new job aids as they will make referencing key issues in their work relatively much easier. Mansa, Ndola and Kabwe laboratories have started performing viral loads as part of monitoring patients but the indicators to track this activity are yet to be operationalized.

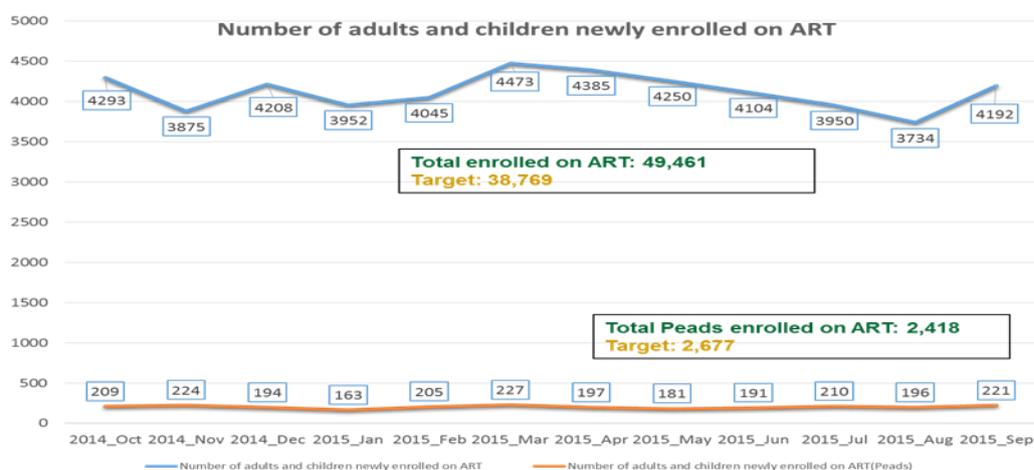
- Post exposure prophylaxis (PEP): PEP services were provided in 419 supported facilities. Technical support was provided to the facilities to ensure proper documentation of information in the PEP registers. A total of 1,070 clients received PEP services during the period under review as follows: exposure type I (sexual) 431 exposure type II (occupational) 431 and other exposure 208. Updated PEP job aids based on the revised Zambia Consolidated HIV Guidelines were distributed in all ZPCT IIB supported sites across the six provinces to ensure that frontline workers provided the service correctly.
- Usage of SmartCare Clinical Reports for Patient Management: Ongoing support is being provided to ensure Data Entry Clerks (DECs) update the electronic SmartCare and are able to generate facility clinical reports which are used to guide patient management. Examples of these reports include treatment failure reports, late for pharmacy pick up reports and late for clinical visit reports. Towards the end of the last reporting period, a revised version of smart care has been approved at national level both the paper (forms) version and the software version has also been rolled out and is being installed in most facilities. Late for pharmacy pick up reports generated were also passed on to ASWs to follow up patients in the community who missed appointments. The roll out will continue in the next reporting period.
- Implementing Community ART Dispensing (CAD) and roll out of Community ART Tracking (CAT) register: Authority was finally obtained from MoH to finally go ahead with

implementation of the Community ART Dispensing which is meant to help decongest ART clinics. Implementation will continue in the next six months. The CAT register is being rolled out to all ART sites including option B+ sites to strengthen documentation related to tracking of defaulting ART patients in the context of retention in HIV care.

- Support use of Comprehensive Quality Color Treatment Codes (CQCTC) for patient management: ZPCT IIB has conceptually developed a CQCT coding system which has seven quality indicators. There are; suspected treatment failure case; viral load required; Biochemistry concern; Immunology concern; Missed appointment; Unknown HIV status and Eligible client not yet initiated on ART. The idea is to use paper stickers with ‘‘these different but code specific colors’’ on patient files ‘‘with dates of flagging’’ to guide various HCWs to be prompted to take action that will result in better patient management, and hopefully demonstrate better patient outcomes. The efforts related to utilization of these quality activities will be recorded in a log and may easily form various types of QI projects. This CQCTC system will be used to monitor how well patients with outstanding issues in the facilities will be attended to by HCWS once prompted by a paper color sticker. It is expected to become operational effective next quarter.

### ***Pediatric ART activities***

ZPCT IIB supported the provision of quality pediatric HIV services in 190 ART sites. From these facilities, 2,418 children were initiated on antiretroviral therapy, out of which 692 were below two years of age.



During this reporting period, a total 49,461 adults and children were newly enrolled on ART of which 2,418 were children.

- Strengthening early infant diagnosis of HIV and enrollment into HIV care and treatment: ZPCT IIB implemented different systems to reduce the turnaround time for results in the EID program and early initiation on treatment for those found to be HIV positive. This included fast tracking encrypted DBS results for HIV positive babies through email to provincial staff for onward submission to health facilities, web2sms and Mwana health project. The facilities that received positive results were followed up by our staff to ensure that the care-givers were contacted and children initiated on cART. Technical support was provided across the six supported provinces in the follow-up and initiation on ART of HIV positive babies. A latest memo from MoH indicates that Tenofovir lower dosage from 150mg upwards will be available starting next quarter which may very well support the option of using easy to use ARV combination that should strengthen pediatric uptake and adherence. Pediatric ART continues to be monitored and is with time expected to improve in the coming months because of enhanced eligibility criteria for all HIV positive children who are 15 years and below. 692 HIV positive babies less than two years of age were initiated on ART.

- Expanded eligibility criteria for children: Onsite mentorship was provided to staff trained in the consolidated guidelines to ensure that any child 15 years and below who test positive is commenced on cART. ASWs were also given names of children in the Pre-ART registers for follow-ups so that they are brought to the facilities for initiation. What remains to be operationalized is the indicators that capture uptake in the different age groups.
- Adolescent HIV services: ZPCT IIB continued supporting adolescent HIV clinics. The following facilities across the provinces conducted adolescent support group meetings; Chipulukusu, Ndeke, Chimwemwe, Kakoso and Kamuchanga Hospital (Copperbelt); Ngungu, Makululu and Kapiri Urban clinic (Central); Mbala General Hospital, Kasama urban clinic, Location and Chilubula Mission Hospital (Northern) and Mpika District hospital (Muchinga). Further, Mansa general Hospital support group visited Samfya for an outing at Lake Bangweulu. Abraham, one of the youngest advocates at Mbala General Hospital won the national award in HIV activism organized by Southern Africa AIDS Trust (SAT). Ronald Ross Hospital, and Lubengele Health Centre have completed the process of identifying and registering adolescents and caregivers, and are scheduled to begin having meetings. Adolescent HIV Support group outdoor activities were carried out at Solwezi Urban Clinic. Adolescent clinic days were also set at Kasempa Urban Clinic, Mwinilunga District Hospital, Zambezi District Hospital and Solwezi General Hospital.
- National level activities: ZPCT IIB staff participated in the Pediatric ART TWG meetings. ZPCT IIB supported the Pediatric ART Review Conference which was held from 3rd to 4th June 2015 at the Intercontinental Hotel in Lusaka. Two presentations were made by ZPCT IIB. Dr. Thomas Katakana presented on “Pediatric Program at Arthur Davison Hospital in the Copperbelt Province” and Mangani Zulu presented on “Trends in mother to child transmission in the Northern parts of Zambia”. At the same conference, an adolescent, Abraham belonging to one of the support groups supported by ZPCT IIB in Northern Province shared his experiences as an adolescent Living with HIV and how the support group has been of great help to him personally.

#### 1.4: Clinical palliative care services

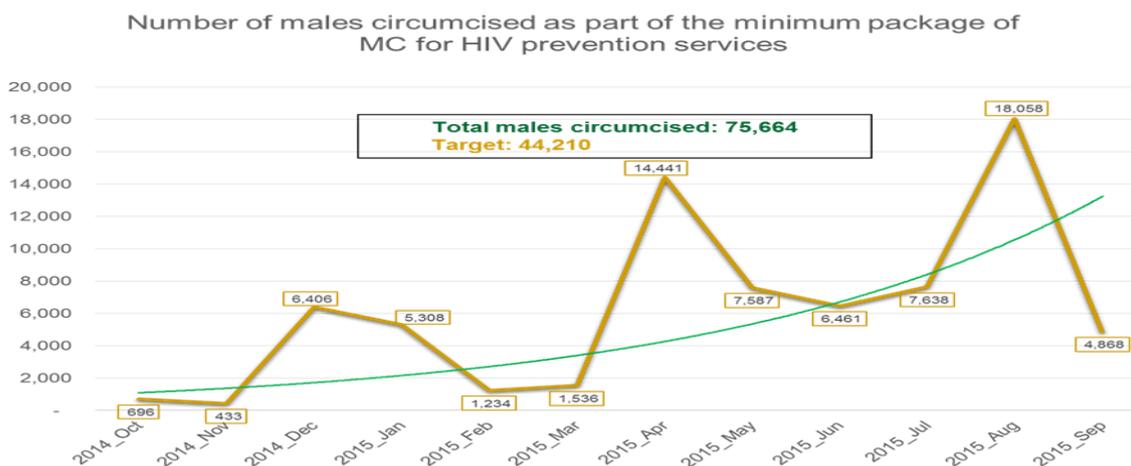
440 public and 30 private health facilities provided clinical palliative care services for PLHA this period. A total of 368,189 clients received care and support at ZPCT IIB supported sites which included provision of cotrimoxazole prophylaxis (septrin), nutrition assessment using body mass index (BMI), and screening for and management of TB, hypertension and diabetes as well as pain management.

- Screening for selected chronic conditions in patients accessing HIV services: As part of managing HIV as a chronic condition, PLHA attending HIV services were screened for diabetes. During this reporting period, 47,230 PLHA were screened using the chronic HIV checklist (CHC).
- Nutrition assessment and counseling: ZPCT IIB supported the clinical assessment and counseling of nutrition in HIV treatment settings using body mass index (BMI). A total of 65,275 were assessed for nutritional status using BMI and the malnourished are referred accordingly.
- Screening for gender based violence (GBV) in clinical settings: Using the CHC screening tool, 26,818 clients were screened for GBV in ART clinical settings primarily by ASWs. Those found to have GBV related issues were referred to other services as needed, such as further counseling, shelter, economic empowerment support, and paralegal services.
- Cotrimoxazole prophylaxis: A total of 29,798 clients were put on cotrimoxazole prophylaxis, and 10,329 exposed infants initiated on cotrimoxazole through the eMTCT program.

#### 1.5: Scale up Voluntary Medical Male Circumcision (VMMC) services

ZPCT IIB supported VMMC service in 61 (58 public and 3 private) health facilities. There has been a significant increase in the number of clients reached with the service during this reporting period; 75,664 men were circumcised (49,521 in static sites and 26,143 through outreach MC services). Out

of the total males circumcised, 42,480 males were in the age group 15-49 and 68,917 were counseled and tested for HIV before being circumcised representing 91.1%. Of this number, 241 tested positive for HIV and were linked to care and treatment.

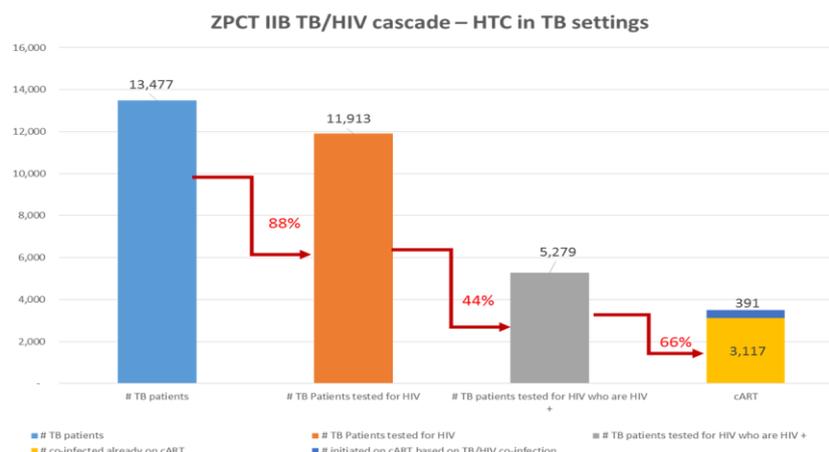


- Strengthening integrated service delivery: ZPCT IIB has continued to strengthen an integrated approach in VMMC program. All static VMMC sites have HTC testing corners in the MC rooms, STI screening, reproductive health services and ART treatment. Internal referrals between these program areas has shown an upward trend. 38,150 men were linked from CT to MC.
- Support use and scale-up of facility QA/QI tools and processes to improve HIV service delivery:
- Support use and scale-up of facility QA/QI tools and processes to improve HIV service delivery: In support of the MCDMCH Quality improvement in VMMC commodity management, nine (9) MC sites participated in pilot QI project called Essential Medicines Logistic Implementation pilot (EMLIP) hybrid. This activity highlighted the following successes: all health facilities do systematically fill in Requisition and Reporting monthly and hand over to District Pharmacists. All sites had stock control cards and key items for VMMC in general are in stock at health facilities which was due to implementing partner involvement. The gap identified was that all pilot health facilities did not receive reliable supplies for VMMC or essential medicines from MSL. Another Quality activity was VMMC data audit which was sponsored by the MCDMCH. Three supported provinces namely Central, Copper belt and Muchinga were included in the audit exercise.
- Capacity building: The Surgical Society of Zambia (SSZ) was identified as a local firm to conduct the male circumcision surgical skills trainings. Four male circumcision surgical skills trainings for health workers were conducted in Copperbelt (2), Central and Muchinga province to mitigate against the high attrition levels. A total of 58 HCWs drawn from six provinces attended the surgical skills training during the reporting period.
- Interventions to improve VMMC reach (MC outreach): ZPCT IIB scaled up the outreach VMMC approach in order to increase coverage in highly populated areas with low MC rates. The result of this sustained effort to plan MC outreach around geographical distribution is that 26,143 men were reached with VMMC service. In addition ZPCT IIB actively participated and supported the August national school holiday MC campaign. A total of 38,905 men were reached during the December, April and August school holiday campaigns. All ZPCT II 40 supported districts conducted outreaches using the district based budgeting in reaching 75,664 men with MC Service.
- Strengthening existing systems for coordinating MC programming: Nationally ZPCT IIB supported the MCDMCH in two pilots namely VMMC commodity management and VMMC data quality and reporting. At provincial level, ZPCT IIB has continued to participate and attend

Technical Working Group meetings and data review meetings that have assisted in planning outreach activities at district level.

### 1.6: TB/HIV services

ZPCT IIB supported 470 health facilities to implement TB/HIV services during the year.



TB/HIV cascade: 88% of TB patients were tested for HIV, out of which 44% tested positive, 66% of the patients who were positive (Co-infected) were initiated on cART (391) or were already on ART (3117).

- ***Improving screening for TB:*** Because of continued low numbers of clients screened for TB in the HIV care clinics against the potential number of clients who pass through these clinics, technical assistance was strengthened and targets were given to the provincial offices on the number of clients to be screened for TB. Out of 64,547 patients seen in clinical care/ART clinics and screened for TB, 3,381 were found to be symptomatic, and were documented and referred for further management. 3,510 patients were diagnosed with active TB and were started on treatment. 3117 patients receiving HIV care and treatment were also receiving TB treatment. 391 TB patients were started on ART. Emphasis was placed on capturing data of TB patients with unknown HIV status.
- ***Initiation of all TB/HIV co-infected PLHA:*** ZPCT IIB mentored MOH staff and monitored the linkages for HIV positive TB clients who are eligible for ART and how early they were initiated on ART. Mentoring of health care workers and monitoring is ongoing to improve ART uptake in the first 30 and 60 days respectively.
- ***Establish referral of TB/HIV co-infected patients from ART clinics to TB corners:*** Discussions have been held with district and facility TB/HIV coordinators in three districts (Kabwe, Ndola, and Kitwe) on implementing the one-stop center for TB and HIV services. The next step is to identify TB facilities that do not have ART services and training health care workers to manage TB/HIV co-infection.

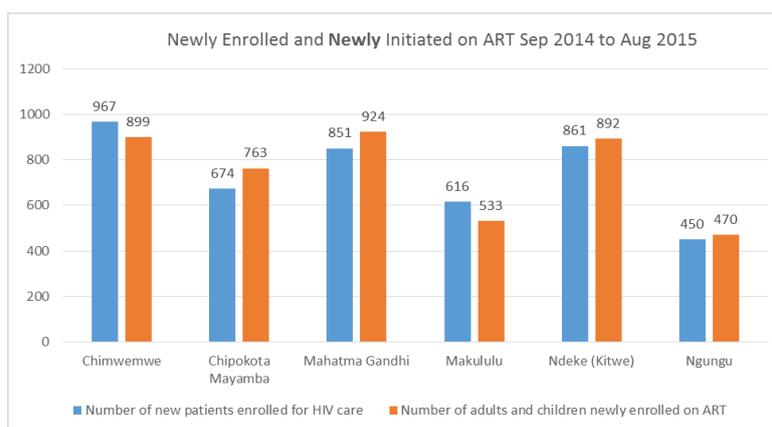
### 1.7: Population Effects of Antiretroviral Therapy to Reduce HIV Transmission (PopART) Study – HPTN071

During the year under review, the Population Effects of Antiretroviral Therapy to Reduce HIV Transmission (PopART) Study – HPTN071 in Zambia continued implementing activities. The ZPCT IIB's PopART activities focused on the following:

- ***Human resource:*** ZPCT IIB introduced a new position for technical officer to provide technical assistance to the PopART health facilities in Central and Copper belt provinces. Two other positions that fell vacant due to resignation of one Clinical Officer and death of a study nurse were also filled up.

- Voluntary Medical Male Circumcision (VMMC) services: Makululu, Ngungu, Ndeke, Chimwemwe, Chipokota Mayamba and Chipulukusu PopART sites provided static and outreach MC services. Chipulukusu, Makululu and Chimwemwe participated in the periodical MC outreach activities that were targeted at improving uptake of MC in Central and Copper belt provinces. All the six facilities participated actively in the planned national MC campaign activities and contributed to the high numbers of MC services provided as seen in the MC graph. However, Chipulukusu faced challenges with MC providers arising from the resignation and provincial transfers of two MC providers. ZPCT IIB provincial office worked in collaboration with Ndola DCMO and availed a provider from the camp provider. ZPCT IIB also trained three more HCWs (two PopART staff and one MOH).
- Implementation of Option B+: ZPCT IIB continued to provide technical support towards implementation of Option B+ services. A total of 206 HIV positive pregnant and breastfeeding women were initiated on cART in the PopART sites.
- Implementation of Isoniazid Preventive Therapy (IPT): a total of 88 HCWs participated in IPT orientations that were coordinated by ZAMBART. IPT orientations took place at Makululu, Ngungu, Chipokota Mayamba, Chipulukusu, Ndeke and Chimwemwe health centers. All the six facilities adhere to MOH TB guidelines which recommend analysis of clients sputum samples with Gene Xpert machine prior to provision of Isoniazid Preventive Therapy. The Gene Xpert machines are located at Kabwe General Hospital for Ngungu and Makululu health centers, Chipokota Mayamba health center, Arthur Davison Hospital for Chipulukusu health center and Kitwe Central Hospital for Ndeke and Chimwemwe health centers. Copperbelt and Central provinces experienced limited stocks of Isoniazid (INH) 300mg tablets which are expiring in November 2015. Towards the end of the 4<sup>th</sup> quarter, new eligible clients were not provided with IPT as recommended by ZCG. However, ZPCT IIB is working with MSL, MOH and the PHO/DCMOs to ensure availability of IPT.

- Initiation of HIV positive clients based on PopART study criteria (“Test and Treat” irrespective of CD4 count): The health facilities falling in Arm A (Chipulukusu and Ndeke) continued to implement universal HTC with clients who test positive for HIV and initiated them on ARVs irrespective of CD4



count/WHO Stage as per study protocol. Active mobilization and linkage to care in Arms A and B continued. Facilities falling in Arm B (Makululu and Chimwemwe) continued to implement universal HTC and initiated eligible clients on ARVs according to the current national ART Guidelines. The remaining two facilities falling in Arm C (Ngungu and Chipokota Mayamba) provided the standard of care as recommended by the current national ART Guidelines, but with no active mobilization or linkage.

### 1.8: Public-private partnerships

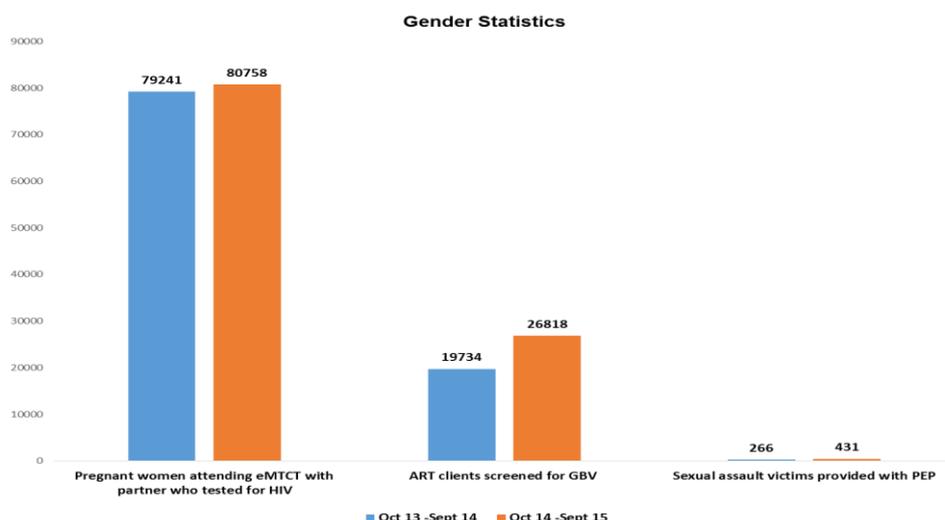
ZPCT IIB has continued to provide technical support to PPP sites in form of supportive supervision, mentoring and onsite orientation for staff in data management using smart care / national registers. All 30 private health facilities have reported service statistics based on their level of service delivery such as HTC, PMTCT and ART.

## 1.9: Gender Integration

- Capacity building: Community volunteers were trained in GBV screening and referral from the ZPCT IIB supported provinces. The most common observed type of violence mentioned by participants during the training was physical and sexual assault. The most reported type of violence suffered by children especially girls is defilement and rape. The project, through trainings and community mobilization, is empowering people with information on how to identify a GBV survivor and the type of support to provide to such people. The participants were tasked to develop action plans that will be monitored by project staff. The ZPCT IIB project followed up the trainees with on-site mentoring and supervision.
- Integrate gender into existing service providers' training packages: During the period under review, the ZPCT IIB team through the leadership of the Director of Technical Support Services and the Senior Advisor EMTCT/HTC facilitated and got buy-in from the technical working group on HIV Counseling and Testing (CT-TWG) to integrate gender into the national psychosocial counseling curriculum. Gender has so far been integrated in the draft national psychosocial counseling training package. It is hoped that this will facilitate provision of gender sensitive HTC services and sustain gender sensitivity among new and old health care providers through continued technical support and training.
- Addressing GBV as a key HIV prevention strategy and quality of care issue: More than four in ten women in Zambia have suffered physical and sexual gender based violence and 42% of survivors never seek help with only 1% seeking medical help (ZDHS 2013-2014). GBV is recognized as a global health issue. Most community members tend to settle GBV cases at home due to lack of knowledge. Some report after 72 hours which is too late to benefit from HIV prevention interventions such as PEP. ZPCT IIB supports community sensitization, builds capacity of health care workers and community volunteers to effectively address GBV and facilitate GBV screening, treatment and referral. During the reporting period 23 (12female and 11male) community volunteers were trained in GBV screening and referral. Community volunteers conduct community sensitization aimed at changing behavior and eradicating harmful cultural and social norms that increase vulnerability to HIV/AIDS for both men and women. At the health facility the community volunteers use the Chronic HIV Care checklist to screen clients for GBV and refer them to needed services.

ZPCT IIB also facilitated proactive screening of clients for gender based violence in HIV/AIDS service settings using the Chronic HIV Care (CHC) checklist in order to improve disclosure and increase access to PEP and Emergency Contraceptives. During the period under review a total of 34,936 clients were screened for GBV and 132 victims of sexual assault were provided with PEP.

- Facility-based services to improve male access to HIV and other RH services: ZPCT IIB has continued promoting men's participation in perceived "women's" health services like antenatal and family planning and HIV/AIDS services through promotion of couple counseling. During the period under review 81,286 pregnant women accessed PMTCT services with their male partners. It is hoped that this will improve women and men's disclosure of HIV status, adherence to treatment and to PMTCT services.



**Task 2: Increase the partnership and involvement of multiple stakeholders to sustain comprehensive HIV/AIDS services that emphasize sustainability and greater GRZ allocation of resources, and support the priorities of the MOH and NAC.**

***Task 2: Key Expected ZPCT IIB Results and Achievements***

Expected Results	Achievements
<ul style="list-style-type: none"> <li>▪ 170 sites providing HIV/AIDS-related laboratory services (3 new sites)</li>   <li>▪ 451 sites providing essential pharmacy/dispensing services (20 new sites)</li>   <li>▪ 1,419 trained community volunteers deployed to support CT, eMTCT and ART adherence counseling</li> </ul>	<ul style="list-style-type: none"> <li>▪ 169 laboratories providing HIV/AIDS related laboratory services. Three new laboratories (Nakonde, Lufwanyama and Mpulungu) in the process of developing fully functional status</li>   <li>▪ 470 MOH sites providing essential pharmacy/dispensing services</li>   <li>▪ 1,377 community volunteers deployed in 420 sites providing CT, ART adherence and eMTCT counselling</li> </ul>

ZPCT IIB partner Management Sciences for Health provided support to 169 laboratories; three new laboratories are in the process of attaining fully functional status. ZPCT II also provided support to 470 pharmacies. Two trainings on equipment use and maintenance were hosted, one involved training of provincial medical equipment officers and provincial biomedical scientists in order to begin addressing sustainability strategies. Three commodity management trainings were hosted during the quarter for MoH/MCDMCH staff. MSH also attended three national quantification planning meetings to prepare for HIV Test Kits, Laboratory commodities and Essential Medicines. Additionally, MSH conducted four Smart Care Essentials training with partner EGPAF at which 100 pharmacy HCWs were trained and roll out of the tool was commenced and fully implemented at 30 facilities in three (Northwestern, Central, Copperbelt) of the six ZPCT IIB supported provinces. Laboratory and pharmacy staff also attended Option B+ meetings at provincial level.

This report includes all activities conducted by Management Sciences for Health (MSH) through September 2015. During the reporting period, the following key activities were completed:

1. Roll out of equipment data base
2. Equipment use and maintenance training
3. Roll out of Smart care Pharmacy integrated module

4. Support to typeset and print revised Pharmacy SOPs
5. Provision of Isoniazid for prophylaxis as per guidelines
6. Provision and orientation of Zambia Consolidated ART Guidelines
7. Strengthening of Inventory management and Abridged ARV logistic systems for Option B+
8. Commodity management training
9. Smart Care Training in the Pharmacy Module
10. Re working of draft protocols for localized and scaled up studies for dry spot suitability for VL assays.
11. Installation and training for the PIMA Point of Care analyzer in 60 ZPCT IIB supported facilities.
12. Validation of the Cobas Ampliprep /Cobas TAQMAM (CAP/CTM 96) PCR analyzer for HIV Early Infant Diagnosis at ADCH PCR Laboratory.
13. Validation of the CAP/CTM for viral load analyses.

### *2.1: Maintain, expand and strengthen pharmacy services*

During the period under review, MSH took into consideration ZPCTII close out activities as basis for laying out follow on action plans for the bridge project. Technical support in pharmaceutical services was provided to 470 facilities of which 30 are in the private sector. The main focus was on roll out and strengthening logistic systems for Option B+, ART adherence and retention in care in collaboration with other units. Other areas covered included monitoring performance of commodity management systems, FP/HIV prevention integration, rational medicine use and medicines safety monitoring including Pharmacovigilance activities and adverse drug reporting system and building pharmacy staff capacity in medication use counseling and patient monitoring, management information systems and the male circumcision (MC) program.

- Smart Care pharmacy module: A review of the status of Smart care integrated pharmacy module at supported ART pharmacies indicated that the majority of ART facilities had been deployed with the new version of smart care v4.5.0.5 and of these only a few were operational in the pharmacy. Despite networking and deployment of the tool, commissioning was not done due to a number of reasons including inability to conduct training and orientation for pharmacy staff towards the end of ZPCT II as a result of insufficient funding for this exercise. Other reasons were lack of computers or non-functional computers at some ART sites, inadequate staffing and electricity related issues such as low voltage and frequent power outages. Following this, four Smart care essentials trainings were conducted for 100 pharmacy staff coupled with intensive technical support to roll out the use of the tool. In addition, routine servicing and maintenance schedules were instituted in collaboration with IT and programs units to repair all nonfunctional computers. During the implementation it was noted that some facilities were also using another tool called eLMIS and it was noted that both systems could not be used during dispensations. This triggered a call for all stakeholders involved in pharmacy electronic systems to come together and extensively review the Smart care and eLMIS systems to explore possibilities of interoperability of the two databases to ease the burden on the staff and ultimately enhance data management.
- Pharmaceutical Management: During the year, MSH reviewed the implementation of the National Pharmacy Mentorship program aimed at improving pharmaceutical services in the public health systems that was rolled out to selected facilities in all the ten provinces. This program was officially handed over to Ministry of health (MOH) and Ministry of Child Development Maternal and Child Health (MCDMCH). One of the recommendations was to decentralize this exercise to the provinces and the districts and allow for the provincial and district pharmacists to take it up as part of their action plans. MOH central level staff and cooperating partners remained as overseers and assisted with monitoring of activities and supervision of mentors. During this period, standard

pharmaceutical storage conditions that assure the quality of medicines indicated that a number of air conditioners were nonfunctional at most of the facilities. This issue was reported to the programs unit and vendors were notified to rectify this. The provincial technician was also engaged in discussion to go around and assess the situation as well as repair the units.

- Rational Medicine Use: As a result of a delay in the orientation of staff on the consolidated 2013 ART guidelines, a number of facilities were using Zidovudine based regimens for pediatric patients. Most of the pharmacies had the Abacavir based products in stock but these were not being prescribed by clinicians despite sharing this information with relevant staff. In addition, there was low stock of Isoniazid, Pyridoxine for TB prevention in PLHIV due to knowledge gap by pharmacy personnel on the new ART guidelines. On- the- job orientations were conducted and staff were asked to order drugs using the prescribed channels. There was also an overstock of Atazanavir due to low demand for the product as clinicians are not familiar with the drug and prefer to continue using Alluvia. MSH worked with pharmacy staff to ensure the drug was available in the pharmacies and to step up on sensitization and awareness of the benefits of Atazanavir. The pharmacy staff worked with the clinical care unit to set up a number of orientation sessions to address this.
- Implementation of Option B+: At inception of this initiative there was a challenge in accessing drugs for HAART at most ART facilities. Most of these sites had qualified Pharmacy staff to oversee management of drug commodities in MCH departments but this was overshadowed by inadequate coordination in the supply chain. The facility staff at non-ART sites were not trained in ART management as well as the abridged ARV logistics system. There was no well-defined logistics system in place to enable non-ART sites access option B+ commodities affected by the transitioning from using the PMTCT LS to ARV LS. There were challenges with storage of commodities due to lack of medicines storage cabinets in both the Pharmacy and MCH as well as insufficient knowledge in ARV drugs management among some staff in MCH. Lockable Storage cabinets were distributed to some facilities and systems strengthening regarding commodity management and logistics systems in line with option B+ was provided. Another problem noted was the lack of manual tools such as Daily activity registers and stock control cards for inventory management in MCH. All the above issues were addressed during the course of the year. This led to availability of ARVs for EMTCT and proper inventory management tools to manage the medicines and supplies in the MCH department.
- Male Circumcision Program: ZPCT IIB received MC consumable kits, MC re-usable instrument, incontinent sheets, Sodium hypochlorite, chlorhexidine gluconate, chromic catgut, povidone iodine and Lignocaine and this was distributed to the six ZPCT IIB provinces in support of the December campaign. Some facilities had insufficient transaction records for MC commodities at the SDP and the pharmacy staff were asked to assume responsibility and take a lead in ensuring this was rectified, ZPCT IIB Pharmacy and MC units worked closely to ensure this aspect was strengthened and achieved. MCDMCH convened a meeting for a number of stakeholders to explore the possibility of improving the coordination of VMMC supply chain management. It was noted that this program is heavily partner driven and it is desirable that a logistics system be put in place to address this. It was resolved that a partner mapping exercise will be conducted and in future budgets and work plans should be shared.
- Supply Chain Management: MSH participated in national level activities focused on planning for various commodities in support of the ART, PMTCT, OI and STI, MC, reproductive health and other programs closely linked to HIV/AIDS services provision:
  - Post Exposure Prophylaxis: MSH provided focused TA and mentoring on the availability and use of the commodities required for PEP and assisting in providing solutions aimed at increasing access to the PEP products. It was noted that some non-ART facilities were referring PEP cases to the nearest ART facility instead of offering this services on site as per guidelines. The pharmacy unit worked in collaboration with the clinical care unit to orient

staff on the PEP program, delivered the PEP registers and re-oriented the staff on how to order PEP drugs and how to use the PEP register.

- ARV Logistics System Status: At the start of the review period, there was inadequate stock of pediatric Nevirapine suspension for eMTCT at MSL and in an effort to ensure equitable distribution of the low stock, the provincial pharmacist distributed to all districts until the situation normalized in the middle of the review period. The stock levels were varied across the six provinces and districts resupplied the system on a monthly basis as a stop gap measure to mitigate any stock outs and ensure continuity of services. A number of ZPCT II B supported facilities had recorded stock imbalances of the pediatric combinations AZT/3TC/NVP and AZT/3TC tablets. The stock out was attributed to a national stock out of the products at national level. The AZT/3TC Pediatric combination arrived in country during the review period and this was distributed to affected areas and the situation normalized. Other ARV drugs that run low during this time was Atripla.
- Essential Medicines: Towards the end of the period, there were reports of a stock out of some antimalarial drugs such as Artemeter/Lumefantrine and an overstock of RDTs. MSL was implored to cope with these stock imbalances and take note of the increased demand during certain periods to avoid stock outs. Low stocks were also noted for certain antibiotics, antihypertensive drugs, antipsychotics and analgesics. A number of service delivery points (SDPs) were not stocked up with emergency contraceptive pills due to low demand and/or lack of awareness on availability despite the commodity being stocked at almost all the districts. Facility staff such as family planning nurses, facility in charges and pharmacy in charges were advised to order emergency contraceptives as part of family planning activities in support of gender based violence (GBV) campaigns. The pharmacy unit in collaboration with the Gender specialist collaborated efforts to increase sensitization and awareness at facility level and in the community respectively.
- Guidelines and SOPs: ZPCT IIB worked with MOH/MCDMCH and other cooperating partners to finalize the pharmacy SOP manual. The new principal pharmacist in charge of rational drug use was tasked to identify partners to assist with type setting and printing of this document and ZPCT IIB took this up.

## *2.2: Maintain, expand and strengthen laboratory services*

During the year MSH supported 144 laboratories in public health facilities and 25 laboratories in private health facilities, with 131 of these laboratories having the capacity to provide HIV testing and CD4 count analysis or total lymphocyte count analysis. MSH provided support through technical assistance, equipment maintenance, training, and placement of equipment.

- PCR laboratory at Arthur Davison Children's Hospital: During the year the ADCH PCR Laboratory migrated from manual DNA extraction, amplification and detection using the Roche DNA Amplicor Kits to full automation. This was achieved through the acquisition of the MoH approved Cobas Ampliprep Cobas TAQMAN 96 Roche DNA PCR Analyzer. Training for this platform was conducted as well as validation for EID and VL against an identical platform and trial runs were performed to verify consistency of operations. Over the months the laboratory has suffered major national stock outs of critical reagents to support particularly EID testing affecting the consistent processing of the current workload that stands at about 25,000 samples annually. ZPCT IIB initiated procurement of reagents in quarter 1 to address the national stock out and was able to process backlogged EID samples and with time was able to continue testing for about six weeks with national supplies coming soon after ZPCT IIB adhoc procurements.
- Viral Load testing has proceeded though demand for testing has not been very pronounced partly due to stock outs and also due to insufficient information reaching the clinical fraternity on the availability of VL testing for monitoring ART clients as per new WHO guidelines. ZPCT IIB initiated procurement of reagents to address the national stock out.

- **PCR Mansa:** Operations of the PCR Laboratory in Mansa began to take shape during the year under review as installation and training on the Cobas Ampliprep /Cobas TAQMAN 48 took place early in 2015. Consistent operations of the laboratory were however hampered by power challenges to primarily the entire district of Mansa and ultimately to Mansa General Hospital and the PCR Laboratory. At the same time national stores ran out of critical PCR testing reagents for viral load and early infant diagnosis compounding test availability even further between quarter 1 and 2 of 2015. In quarter three viral load testing commenced with support from the generator supplied by ZPCT IIB but operations were not sustainable due to the long power outages and the high cost of fuel. ZPCT IIB therefore, embarked on a plan to address the power challenges at the laboratory in a cost efficient and effective manner. This prompted the need for a power assessment designed to explore power alternatives for the PCR unit. Currently solar power is being considered and after verification of offers from the various vendors is completed installation of a solar energy unit will be considered.
- **Provincial PCR Updates.**

**Kabwe General Hospital:** Installation of the equipment and training of staff at the laboratory took place during the year under review. The laboratory now has the capacity to perform VL and EID testing but due to the stock outs of EID kits, it has not been able to provide EID consistently. However, VL testing proceeded during the year and some ART clients' samples were processed. VL testing has continued through the months and demand for testing is steadily being created primarily for Kabwe district.

**Solwezi General Hospital:** The laboratory is not yet functional. In plan is the validation of VL and EID by ADCH PCR personnel. Otherwise installation of equipment has taken place.

**Kasama General Hospital:** Equipment has been installed but training has not been conducted yet. It is expected that in the next quarter (October to December 2015) staff will be trained.
- **Improving efficiencies in the PCR lab and sustainability at ADCH:** ZPCT IIB during the year engaged MoH on the need for the PCR Laboratory to second one full time GRZ laboratory scientist to the lab to address sustainability and to further address the transition strategy currently being implemented by the project in collaboration with MoH. ADCH management therefore, placed one lab scientist in quarter three to address this need, however, within the quarter the scientist was withdrawn by ADCH management because of staffing shortages in the main lab. This turn of events is being actively pursued by the Provincial Program Manager who has begun discussions with the Provincial Medical Office.
- **Internal quality control:** The year under review saw the scaling up of the use of MoH approved internal quality control documentation. The major challenge with this roll out has been the inconsistent use of the logs which are critical for verifying implementation of quality practices such as the maintenance of equipment, monitoring of temperature and the inconsistent entry of quality control data on a daily basis across all the provinces in the 169 supported labs only about 50% of these are consistently using the MoH approved IQC documentation while some labs have the documentation sitting on files with no updates while others have inconsistent data capturing practices clearly evident in the gaps seen from the entries. These challenges have been brought to the attention of Provincial Biomedical Scientists and District Biomedical Scientists and lately to the Provincial Medical Equipment Officers who have been engaged to assist with equipment monitoring.
- **External quality assurance:** MoH approved external quality assurance programs as follows:
  - **CD4 External Quality Assistance (EQA) Program:** Twelve cycles of CD4 Proficiency UKNEQAS panels have been sent out to enrolled facilities during the year to the fifty six (56) enrolled labs out of the 124 labs with CD4 testing equipment supported by ZPCT IIB. Feedback from the national reference laboratory during the year continues to be a challenge affecting timely corrective actions before the next successive cycle is received. ZPCT IIB

however, has been able to assist with some corrective actions and has mentored staff on the need to review feedback reports, perform and document corrective actions and ensure testing performance and outcomes improve for the following cycles. Performance analysis for CD4 EQA for the period January 2013 to December 2014 has been completed and will provide the basis for focused interventions and corrective actions going forward.

- ***HIV EQA Program:*** During the year one cycle of panels was distributed to the 133 enrolled ZPCT IIB supported facilities in quarter 2 of 2015. Only 33 feedback performance reports from the Zambia National Quality Assurance Program (ZANQAP) based at the national reference laboratory were received during the quarter 3 against 133 panels that were distributed representing 24% feedback. Performance for all 33 participating facilities was at 100%. Outstanding performance reports will be followed up accordingly. Overall performance of testing centers has generally been above average though actual testing practices have been a source of concern due to deviations from standard operating procedures.
- ***Chemistry EQA Program:*** MoH and the Biomedical Society of Zambia advised on the discontinuation of the RANDOX Chemistry EQA program during the year under review and assured that if sites were not re-enrolled on the same scheme later in the year they would be considered for a different scheme altogether in the very near future.
- ***EQA and TB diagnostic activities:*** TB External Quality Assessment provision by MoH provincial teams has been drastically reduced over the past 2 years. This has primarily occurred due to the reduced support from co-operating partners particularly TB Care.
- ***Commodity availability & management:*** During the year various commodities suffered inconsistent availability at the National Medical Stores Limited. Ethylene Diamine Tetraacetic Acid (EDTA) containers critical for CD4 testing and Full Blood Counts, Pentra C 200 ALT kits and ABX Micros Controls. Critical option B+ supplies were also inconsistently stocked during the year including Rapid Plasma Reagin (RPR) kits that were recalled in quarter 3 because they failed quality control and hepatitis B surface antigen kits were also stocked out. However, some facilities have been procuring these supplies during the year from facility resources though this is not a uniform practice. The management of commodities at facility level continued during the year with the use of bin/stock cards verifying good commodity management practices.
- ***Equipment Maintenance and Enhanced Management:*** The year saw the fulfilment of three Equipment Capacity Strengthening Training events designed to impart skills and knowledge to Provincial Biomedical Scientists (PBS) and Provincial Medical Equipment Officers (PMEO). Vendors Scientific Group, Becton Dickinson and Biogroup trained MoH medical equipment engineers to address turnaround time of equipment breakdown and defined repairs. Appreciation of the working principles and common problems encountered by users has been assimilated by MoH engineers and PBS and plans for regular joint monitoring visits between PME0, PBS and vendors are in place. The year has seen some monitoring activities at the localized provincial capital level. Scaling up to the districts is in plan and will assume shape as the year continues to progress.
- ***CD4 Point of Care testing - PIMA Functionality:*** During the year 60 PIMA point of care analyzers were introduced to select facilities across all the six provinces to improve access to CD4 testing. The primary beneficiaries were PMTCT centers but it was realized that some ART centers could also benefit. During the year CD4 specimen referral activities as a consequence of these placements has begun to reduce. Only about five analyzers have broken down since placement and the vendor has promptly responded to all operational challenges. The only outstanding challenges with this platform is the externalization of quality control results to the MoH approved server. During the year ZPCT IIB brought this challenge to the attention of the responsible vendor and it is expected that this will be resolved before the end of the fourth quarter.
- ***Equipment functionality:***

Chemistry Analyzers: The year has seen the replacement of humalyzers with Cobas C111 Chemistry analyzers conferring better testing capabilities to district hospital and health center laboratories. Overall functionality of chemistry analyzers pentra c200 and C111 has been stable while some facilities have become very wary of using the humalyzer for back up because of its labor intensive nature. Response to breakdowns has varied across the two vendors between 7 and 21 days; strategies to reduce this time are in plan.

- *FACSCount CD4 machines*: ZPCT IIB supported 124 Facs Count analyzers during the year. Functionality was very stable with breakdowns being attended to within a window of 5 to 10 days.
- *FACSCalibur*: Assessments during the year revealed that users are not keen on using the platform because of the absence of sample loaders. This state of affairs reduces the equipment's throughput significantly almost equating it to the FACS Count throughput. In plan is the procurement of sample loaders that will enhance the performance and use of the analyzer and ease on sample processing for staff.
- *ABX Micros haematology analyzers*: The performance of this robust platform across ZPCT IIB supported facilities has been stable, breakdowns have been attended to within a three week time frame
- *ABX Pentra C200*: Generally stable performance experienced through the quarter across all provinces.
- *Sysmex poch 100-i*: No major incidents were reported during the year.
- *PIMA*: A total of sixty analyzers have been placed in ZPCT IIB supported facilities and during the year 98% of these were functional.
- 24 Haemocue analyzers and 340 Hemocue micro cuvettes were procured during the year.

### *2.3: Develop the capacity of facility HCWs and community volunteers*

During the last 12 months ZPCT IIB trained a total of 2,234 participants as follows:

- **MC training**: A total of 58 HCWs were trained in Copperbelt (CB), Central and Northern/Muchinga provinces.
- **LARC FP training**: 99 HCWs were trained in Northern/Muchinga, Luapula, Central, Copperbelt and Northwestern provinces.
- **Basic CT training**: 54 HCW trained in Central province. **ASW training**: 50 cadres were trained in Muchinga/Northern.
- **ASWs Refresher training**: 77 community volunteers were trained from CB, Northern, North Western and Luapula provinces.
- **eMTCT**: 125 HCWS were trained in Northern/Muchinga, Luapula and Copperbelt provinces
- **eMTCT lay counsellors**: 50 were trained in Copperbelt.
- **Gender Based Violence trainings**: 73 Community cadres were trained in North- Western, Central and Copperbelt Provinces
- **Pediatric ART**: 89 HCWs were trained in Central, Northern and Copperbelt.
- **Adult ART/OI training**: 274 HCWs were trained in Central, Copperbelt, Northern/Muchinga, Luapula and Northwestern provinces.
- **BD equipment use and maintenance training**: 20 HCWs trained in Copperbelt.
- **ART Commodity Management**: 92 HCWs were trained in Luapula, Copperbelt, Central, Northwestern and Muchinga/Northern provinces.

- Basic CT lay: 41 volunteers were trained in Muchinga/Northern and Copperbelt provinces.
- Child CT lay: 15 volunteers were trained in copperbelt province.
- Couple counselling lay: 20 cadres were trained in central province.

Trained staff receive post-training on-site mentorship to ensure that the knowledge and skills learned are utilized in service delivery in the different technical areas.

In addition, in order to facilitate operationalization of the new GRZ consolidated prevention and treatment guidelines, ZPCT IIB supported the orientation of HCWs in these guidelines in five provinces.

As a follow up to the update of the national HTC training package, ZPCT IIB supported another workshop organized by the Zambia Counselling Council (ZCC) and MOH to develop power point presentation slides and the trainee's manual. The final package is expected to be completed and printed during the next quarter.

Training Course	Province	Number Trained
Male Circumcision	Training was done in Copperbelt, Central, Muchinga/Northern	58
Zambia consolidated guidelines	Trained Copperbelt, Central, Muchinga/Northern/Central	1067
Paediatric ART	Trained Copperbelt, Central, Northern	89
Adult ART	Training was done in all provinces	274
Basic CT HCW	Training was done in Central	54
Family Planning	Trained All provinces	99
EMTCT HCW	Trained in Northern Muchinga, Luapula and Copperbelt	125
Child CT HCW	Training done for Copperbelt, Luapula	30
ART Commodity	Training done for all provinces	92
BD EUMT	Training done in Copperbelt	20
Basic CT Lay	Training was done in Muchinga/Northern and Copperbelt	41
Child CT Lay	Training done in Copperbelt	15
Couple Counselling Lay	Central	20
ASW Lay	Muchinga/Northern	50
ASW Refresher Lay	CB, Northern, Northwestern Luapula	77
EMTCT Lay	Copperbelt	50
GBV	Northwestern, CB, Central	73

#### *2.4: Support for community volunteers while laying the groundwork for increased sustainability*

ZPCT IIB supported 1,377 community volunteers (359 ASWs, 484 HTC Lay counselors, and 534 eMTCT lay counselors) during this reporting period. The volunteers provided adherence support to ART clients, demand creation for HTC, VMMC, eMTCT, and clinical care services. There were 585 volunteers who received their payment using the automated ZANCO Bank XAPIT system while 792 volunteers received their payments by cash. All the provinces have some volunteers being paid through the bank with the exception of North-Western Province. The volunteers referred clients to the supported sites as follows:

The ZPCT IIB supported community volunteers referred clients to the supported sites as follows:

- HIV testing and counseling: Lay counselors at the ZPCT IIB supported facilities mobilized and referred 125,459 (69,229 females and 56,230 males) for counseling and testing. A total of 94,478 (53,275 females and 41,203 males) reached and accessed services at the facilities.
- Elimination of mother-to-child transmission (eMTCT): eMTCT volunteers referred clients to access eMTCT services, plan for delivery at the health facility, and provided information to expectant mothers on benefits of utilizing eMTCT services and planning for delivery at the facility. A total of 77,796 expectant mothers were referred for eMTCT services and 61,310 accessed the services at health facilities across the six supported provinces.
- Clinical care: The volunteers made referrals to various HIV related clinical services such as TB, ART, and STI screening and treatment, and palliative care. A total of 34,246 (19,055 females and 15,191 males) were referred for clinical care, and 28,046 (15,629 females and 12,417 males) reached the facility and accessed the services.
- Antiretroviral treatment: Adherence support workers (ASWs) visited PLWHA who are on ART for peer support and promote adherence to ART treatment. They located clients on ART who were lost to follow-up and re-engaged them to services. As a result, ASWs visited and counseled 17,966 HIV positive clients (9,405 females and 8,561 males), who were referred for further management at the supported facilities. A total of 15,858 clients (8,184 females and 7,674 male) reached the facility and were reengaged to services.
- Voluntary medical male circumcision: 37,352 males were mobilized and referred for VMMC at static sites. As a result, a total of 26,502 males were circumcised. As a standard practice, all males were tested for HIV before being circumcised.

**Task 3: Increase the capacity of the PMOs and DMOs to perform technical and program management functions**

**Task 3: Key Expected ZPCT IIB Results and Achievements**

Expected Results	Achievements
<ul style="list-style-type: none"> <li>▪ PMO/DCMO annual plans, Performance Appraisal tools and technical support are focused on integrated service delivery</li> </ul>	<p>ZPCT IIB participated in the 2016-2018 Midterm expenditure framework planning. ZPCT IIB TA at DCMO and facility level is focused on enhanced planning, implementation and monitoring of service integration</p>
<ul style="list-style-type: none"> <li>▪ Critical capacities/effective management models identified for post-graduation transition</li> </ul>	<p>Strategy for implementing post-graduation transition is focused on using existing GRZ tools and systems (e.g. QA/QI and clinical mentorship tools, empowering PMO and DCMO staff). This is meant to enhance GRZ capacity to manage decentralized HIV/AIDS services</p>
<ul style="list-style-type: none"> <li>▪ Transition and CS plans for six provinces and 10 districts developed</li> </ul>	<p>Implementation has begun in 10 districts showing early results (e.g. DCMOs have taken ownership of capacity strengthening plans; they are monitoring the plans and requesting implementation of activities in the plans)</p>
<ul style="list-style-type: none"> <li>▪ Success demonstrated in GRZ-managed clinical mentoring program in 10 districts</li> </ul>	<p>More regular joint visits between ZPCT IIB project clinical staff with GRZ clinical mentors; the latter are conducting clinical mentoring using GRZ clinical mentoring tools in laboratory and pharmacy for example.</p>
<ul style="list-style-type: none"> <li>▪ Capacity to manage maintenance of air conditioners, motorbikes and lab equipment increased in 10 districts</li> </ul>	<p>ZPCT IIB has linked MOH approved equipment vendors to the GRZ lab staff (Provincial Biomedical Scientist and Provincial Medical Equipment Officers). PMEOs and PBSs trained by vendors on 10 major lab equipment. Joint monitoring visits has resulted in PMEO ability to repair defined faults on lab equipment. There is quicker response time by the MOH approved equipment vendors to reported faults.</p>
<ul style="list-style-type: none"> <li>▪ Success demonstrated in fully GRZ-managed HIV/AIDS commodities in 10 districts</li> </ul>	<p>Provincial and district staff's ability to manage commodities increased, e.g.</p> <ul style="list-style-type: none"> <li>- project has noted reduction in stock imbalances in the 10 selected pilot districts</li> <li>- stock outs for tracer medicines and medical supplies reduced to minimum levels unless stocked out centrally</li> <li>- monthly MSL ordering reporting rates maintained above 80%</li> </ul>

Expected Results	Achievements

### 3.1: Joint Assessment and Planning Process

During the reporting period, ZPCT IIB supported a joint planning meeting with both Ministry of Health and Ministry of Community Development Mother and Child officials to assess and plan for transitioning of project work to GRZ. There were a number of areas in the HIV/AIDS program identified as spearheaded by GRZ while other aspects such as funding for project financed activities would take a much longer time to be realized. One important outcome of this meeting was a general transition strategy obliging the project to work through the existing GRZ structures and procedures while strengthening the technical and management capacities of GRZ. A joint transition plan that will result in a smooth and orderly transition of project supported activities to GRZ was also developed and submitted to USAID on March 31, 2015. A number of these activities have begun to be implemented during the Bridge project while the majority of activities are anticipated to be implemented in the follow on project.

ZPCT IIB conducted the district capacity assessment in nine of the ten identified pilot districts (Kitwe, Ndola, Mwinilunga, Kabwe, Serenje, Mpika, Nakonde, Kasama, Kawambwa and Samfya) chosen on the basis of their ability to sustain the quality of services in the district. The assessments focused on the following areas: clinical mentorship, commodity management, integration of services, equipment maintenance and coordination of HIV services in the districts. It was clear from the assessment that the assessed DCMOs' capacity for critical management functions and systems needed to be built to be able to manage these services independently, particularly to manage the transitioned functions. One important outcome of this exercise was the capacity strengthening plans developed based on findings on the capacity assessments. Implementation of these plans has begun and it is anticipated that the implementation of the capacity strengthening plans will result in an improvement in the planning, implementation, documentation and monitoring of decentralized HIV related services.

In the period under review, ZPCT IIB supported one Quality Improvement (QI) technical working group meeting at MOH in Lusaka with the aim of contributing to and strengthening QI problem identification and monitoring of quality in HIV services through advocacy on the use of the robust ZPCT IIB QA/QI tools to be integrated into the national QI program.

ZPCT IIB technical staff jointly with GRZ prepared for and supported both technically and financially the national, provincial and pilot district planning launches and planning review meetings working with GRZ counterparts to conduct district data review meetings to strengthen the data use in the planning processes in the pilot districts.

### 3.2: Provision of Capacity Strengthening TA and Related Support

ZPCT IIB provided capacity strengthening (CS) TA as follows:

- **Integration of services:** During this period, ZPCT IIB worked with all PMOs and DCMOs in all the supported facilities making significant progress in strengthening service integration. Family Planning integration in all HIV service areas and other clinical areas including Voluntary Male Medical Circumcision (VMMC), eMTCT, HTC, ART, MNCH, and TB was prioritized. Other areas of integration included HTC in TB and VMMC as well as GBV in HTC. In order to strengthen and ensure sustainability of integrated services, joint mentorship visits to facilities were also conducted by ZPCT IIB, PMO and DCMO staff in order to strengthen service integration and to ensure sustainability in line with existing GRZ policies and guidelines.
- **Clinical mentoring:** ZPCT IIB technical staff initially focused on operationalization and scaling up of Option B+ as the package for ARVs for eMTCT in collaboration with the DCMOs and MNCH coordinators in all facilities. Later, mentorship focused on FP, VMMC, PEP, new consolidated ART guidelines, and Option B+, HTC, eMTCT particularly strengthening retesting of HIV negative women, and the 3I's in TB including and other clinical HIV areas such as the

laboratory and pharmacy/commodity management. Another important area of support included mentorship in service integration and strengthening referrals.

Efforts were made by ZPCT IIB in the year to strengthen PMOs and DCMOs capacity to coordinate and implement clinical mentorship in the various ZPCT IIB supported districts and provinces through joint mentorship visits. These joint mentorship visits were spearheaded by the ZPCT IIB laboratory and pharmacy staff in Northern, Muchinga and Copperbelt provinces as part of implementation of the district capacity strengthening plans. These visits focus on integration of the ZPCT IIB mentorship system with the GRZ system including the tools. In addition, emphasis is put on mentoring the GRZ mentors to be able to provide this mentorship with the use of the GRZ laboratory and pharmacy mentorship tools. Further, the established process requires that ZPCT IIB staff meet with their GRZ counterparts to discuss the data and come up with areas to provide focused mentorship. In this, the role of ZPCT IIB staff is to facilitate the equipping of GRZ mentors with skills to fulfil the commitment to transition this area to GRZ.

As part of Capacity strengthening, Muchinga PMO and Nakonde DCMO were oriented in the national clinical mentorship and Quality Improvement training packages. This activity culminated into the formation of both the Clinical Care Teams responsible for coordinating clinical mentorship and the Quality Improvement (QI) Committees at both PMO and DCMO levels. Several QI projects were commenced which are jointly being followed up by ZPCT IIB and GRZ counterparts.

- Commodity management: provincial ZPCT IIB Pharmacy staff conducted joint mentorship with GRZ Pharmacy staff as part of the capacity strengthening activities
- Equipment maintenance: Training was done in equipment maintenance by Scientific Group and Becton Dickinson (BD) for users, Provincial Biomedical Scientists (PBS) and the Provincial Medical Equipment Officers (PMEO). This laid the foundation for capacity strengthening in equipment maintenance and supervision of the laboratory staff including ensuring adherence to national guidelines and SOPs. This will ensure improvement in the sustenance, maintenance and viability of critical laboratory equipment needed to support the ART program. Involving the PMEOs in these training will assure sustainability of equipment maintenance functions transitioned to GRZ. This has resulted in improvements in the linkages with vendors as well as development of critical monitoring tools such as the equipment monitoring checklist used for joint mentorship visits

One good story came up from Luapula province (Mbereshi) where the Pentra C 200 broke down and instead of the vendor traveling, the spare part was sent to the PMEO who later fixed the analyzer by replacing the spare part which saved time and money but more importantly empowered the GRZ engineer to repair it.

- District coordination of HIV services: meetings were held in Ndola and Kabwe districts to review status and performance of the District Referral Networks (DRN) as part of capacity strengthening. One outcome of these meeting was a plan to reactivate and support the DRNs with a meeting and updating of the membership directory and strengthening the use of standardized forms including referral feedback and tracking of referred clients.

## **STRATEGIC INFORMATION (M&E and QA/QI)**

ZPCT IIB has actively continued collaborating with Ministry of Health (MoH) in supporting and monitoring the implementation of quality improvement activities across the six supported provinces. During this reporting period, the below listed activities have been supported:

## Capacity Building for National QA/QI Integration

During the period under review, a total of 52 technical staff have been trained in national performance improvement approach (PIA) quality improvement model. This basic training has equipped provincial teams to collaborate and integrate the ZPCT IIB model into the Ministry of Health (national) quality improvement model in all the program areas. The five day workshop targeted ZPCT IIB technical staff in preparation for the roll out of quality improvement training based on the performance improvement approach as recommended by the Ministry of Health.

### Quality Improvement Projects

ZPCT IIB continued supporting MOH in monitoring of quality improvement projects aimed at improving clinical services. One QI project supported by ZPCT IIB that address clinical HIV program accomplished its objective. The following are the two QI projects which were being implemented:

- Mungwi District's QI project is aimed at increasing the number of men seeking voluntary male medical circumcision (VMMC) through Mungwi Baptist site from 8 clients to 40 clients per month by the end of April 2015.
- Mpulungu QI project is aimed at establishing a reliable logistics system for satellite ARV dispensaries. The team desires to implement a requisition & report (R&R) system for the satellite ARV dispensaries. The QI team plans to conduct a detailed system analysis, conduct a root-cause analysis and ensure that an improvement measurement system is well established.

### Quality Assurance/Quality Improvement Assessments

- During the period under review, revision of all QA/QI tools for each technical area were finalized to conform to the updated HIV guidelines and standard operating procedures. Additionally, a QA/QI Microsoft Access database was developed for data entry and data analysis using excel pivot table in conformity with the updated quality assurance & quality improvement tools.
- Strengthening existing systems for coordinating National QA/QI programming: ZPCT IIB continued to support the national QA/QI unit at the MoH by attending and participating in quarterly quality improvement technical working group meetings. ZPCT IIB technical staff attended a quality improvement stakeholders meeting for a national quality improvement effort. The national quality improvement initiative was aimed at increasing the proportion of HIV exposed infants accessing early infant diagnosis in Western and Lusaka provinces.

## RESEARCH

During the course of the ZPCT IIB project, we embarked on carrying out a number of operational research (OR) projects. Considering the complexity of the HIV/AIDS epidemic, it is imperative to learn from operations research as we continue supporting the scaling up of HIV treatment, prevention, and intervention in our settings as the evidence generated helps to improve our programming. The OR projects in ZPCT IIB were identified based on issues encountered from program implementation.

Based on these OR projects, ZPCT IIB submitted abstracts to regional and international conferences. Below are abstracts that were or will be presented at these conferences:

1. Beyond IRIS TB, how common is tuberculosis among patients on ART? This was submitted, accepted and presented as a poster at the **9th International Workshop on HIV Treatment, Pathogenesis and Prevention Research in Resource-poor Settings (9th INTEREST workshop) held in Harare, Zimbabwe from 5-8 May, 2015.**
2. Characterizing Non-IRIS TB Treatment among cART Patients in Zambia. This was submitted and accepted to be presented as poster at the **46th Union World Conference on Lung Health to be held in Cape Town, South Africa from 2-6 December, 2015.**

In addition, ZPCT IIB also worked on generating manuscripts based on these same OR projects and identifying journals to submit these manuscripts. The following manuscripts were accepted for publication in peer reviewed journals:

1. **Health Facility Graduation from Donor-Supported Intensive Technical Assistance and Associated Factors in Zambia.** *PLoS One.* 2015 Jun 22;10(6).
2. **Is Male Involvement in ANC and PMTCT Associated with Increased Facility-Based Obstetric Delivery in Pregnant Women?** *African Journal of Reproductive Health.* 2015 Jun;19(2).

## **PROGRAM AND FINANCIAL MANAGEMENT**

*Recipient agreements:* ZPCT IIB managed 74 recipient agreements (56 DCMOs, 12 general hospitals and six Provincial Medical Offices).

*Renovations:* 16 out of the 25 ZPCT IIB targeted renovations are practically complete awaiting final inspection and certification. The remaining nine refurbishments have been advertised and tender evaluation and selection is on-going. Contract signing, works commencement and completion for the pending refurbishments is expected in the fourth quarter of 2015.

### **Mitigation of environmental impact**

ZPCT IIB continues to monitor management of medical waste and ensure environmental compliance in all of its supported health facilities as per USAID approved Environmental Mitigation and Monitoring Plan (EMMP), by ensuring waste is segregated in color code bins, ensuring availability and proper use of sharp boxes, ensuring burning pits and disposal sites are fenced off to prevent scavenging.

The project conducted mobile HTC and VMMC in various locations. During the mobile HTC and VMMC, the project ensured that the waste was managed according to the USAID approved Environmental Mitigation and Monitoring Plan (EMMP) by ensuring that at each of the sites, the team placed bio-hazard bags and sharp boxes for medical waste disposal. During the HTC implementation process, used needles, and other sharp implements were stored in sharp boxes while soiled cotton wool and used disposable gloves were kept in bio hazards bags. After the exercise, sharp boxes and the bio-waste bags were transported to the health facility for disposal under the supervision of a trained health facility staff.

### **Procurement**

ZPCTII/B procured the following: printing of 220000 safe motherhood cards, 220000 female birth cards, 220000 male birth cards, and 660 CAT registers.

ZPCTII/B also procured various quantities and kinds of reagents for the PCR laboratory, 120 hand wash stations with buckets, 30 voltage stabilizers, 24 stethoscopes, 36 saltar scale with bags, 24 medicine trolleys, 29 fetal scopes, 24 examination tables, 48 digital thermometers, 60 delivery beds, 48 bedside screens with curtains, 24 adult scale with height measure, two UPS, 30 voltage stabilizers, 29 tents with accessories (foldable chairs, tables and beds); 126 gynecologic simulator, 126 reproductive implant model, 126 condom male models and installed two air conditioning units. The printing materials, equipment and supplies are for ZPCTII/B supported sites.

ZPCTII/B has been distributing the items to the provincial sites as and when deliveries are made from the vendors.

### **Human Resources**

*Recruitment:* ZPCT IIB has employed into 182 positions. There are 5 vacant positions that will be filled in the next quarter.

*Training and Development:* The following *trainings were attended by 7 ZPCT IIB staff.*

- Purchasing and Stores Management
- Leadership and Supervisory Skills
- Microsoft Excel for Finance Modelling
- Human Resources Management Skills
- Report Writing Skills

## Information Technology

### Model Site Local Area Network Installations:

The DMOs in collaboration with the PMO's office have identified sites which will serve as local reference points for training of HCWs in the district in SmartCare use. These model facilities require all service areas to be interconnected by a network. ZPCT IIB has been working with the MOH to ensure that Local Area Network Installations are installed in 12 model sites in addition to the previously reported installation across all supported provinces.

### Private APN Update:

Airtel was engaged to provide a data circuit between ZPCT IIB supported facilities and Lusaka office to ease data transfers using a dedicated data circuit which connects remote facilities to servers in Lusaka. It is envisioned that this will reduce costs related to data collection. Supported facilities will be setup on the system as soon as the field tests are completed and a final contract is signed with Airtel.

### SmartCare Version upgrade:

The current version of the SmartCare software will be replaced with version 4506 by end of November 2015. In preparation for this activity our provincial IT officers participated in the upgrade preparation meeting that took place in Kabwe.

### DHIO IT Capacity Building:

As an outcome of the transition planning meeting held with GRZ counterparts earlier in the year, the IT unit has developed a provisional training manual which will be used to strengthen hardware support skills for District Health Information Officers (DHIOs) to enable them better support information technology at district level. Implementation plans of these training are currently being worked out.

## Finance

- Pipeline Report: The cumulative obligated amount is \$24,900,000 out of which ZPCT IIB has spent US\$19,264,641 as of September 30, 2015. The total expenditure to date represents 77% of the cumulative obligation, using the current burn rate of US\$1,481,895. This expenditure is expected to increase in the next quarter when ZPCT IIB receives invoices from the subcontractors. All recipient agreements with the GRZ/MOH and MCDMCH which underwent amendment were signed by the GRZ/MOH and MCDMCH.
- Reports for July - September 2015:  
Submitted one invoice (SF1034), for deliverable number 10 as per contract payment schedule.
- Trainings and Financial Reviews during the reporting period

The following trainings and financial reviews took place in the period under review:

- In September 2015, some members of the finance team attended training in Financial Management for USG Funding and USAID Sub-award Management, here in Lusaka. These trainings were conducted by InsideNGO.
- The Contracting Officer and Southern Africa PMT Lead from the East & Southern African Business Unit (ESABU) visited the country office in September 2015, and conducted Contract Management Services training for various country office personnel.
- During this period, the following field office travels were undertaken:

- In July and August 2015, the Compliance Officer travelled to the Copperbelt and Central Provinces for compliance reviews. In September 2015, the Finance and Compliance team travelled to Central and North-Western Provinces to conduct compliance and financial supervisory reviews.
- In August 2015, staff from the Procurement Unit travelled to Northern Province to conduct an inventory verification and update exercise;
- The CMS team travelled to the Copperbelt and North-Western Provinces to conduct orientation in preparation of sub-recipient financial reports. They also worked with the Program team to create standard filing systems for recipient agreements and reports;
- In September 2015, a consultant from the unit travelled to the Copperbelt to help with the year-end report and also conduct a financial review for the period; and
- Staff from the Administration Unit travelled to Central and Luapula Provinces to provide guidance in administrative processes and procedures

## KEY ISSUES AND CHALLENGES

### National-level issues

The period under review recorded stock outs of HIV EID kits and HIV viral load kits, this state of affairs has been quite persistent over the past two quarters resulting in testing backlogs. The ADCH PCR Laboratory is still processing samples from the last stock out which was coupled with equipment breakdown (an average of six weeks in all). Stock outs of commodities supporting ABX Micros analyzer were short-lived as within ten days supplies were replenished and testing continued as per normal. The general outlook indicated that stock levels for most routine laboratory reagents was somewhat stable.

- **SmartCare Integrated Pharmacy Module:** It was noted that there are some sites at which another inventory tool has been implemented called the eLMIS and some concern has been raised over which tool to use. Both MoH and CDC were notified and will give an update next quarter.
- **ARV Stock Imbalances:** There were stock imbalances noted for Efavirenz 600mg, pediatric Abacavir/Lamivudine, Zidovudine 300mg tablets, Lamuvidine 150mg tablets, Kaletra and Atazanavir during the quarter under review. ZPCT IIB, in collaboration with MSL, ensured re-distribution to affected areas and the situation normalized at the end of quarter for some products.
- **Equipment functionality:**
  - *Humalyzer 2000 chemistry analyzers:* Functionality of this platform was generally stable across all provinces and in some facilities is now acting as a backup analyzer. MoH have begun placing the Cobas C111 which is a fully automated chemistry platform designed for low throughput centers. This analyzer is steadily replacing the humalyser as the main chemistry analyzer in some district labs e.g. Mwense District Hospital.
  - *FACSCount CD4 machines:* Luapula province still has a number of challenges with FACS Counts which are largely attributable to poor electricity supply Kawambwa District Hospital, Mansa General Hospital and Kabuta Rural Health Centre are still problematic and haven't been resolved by the vendor yet.
  - *FACSCalibur:* This platform was generally functional except for Mansa and Solwezi General Hospitals (SGH & MGH), for MGH the vendor was unable to comprehensively address the problem due to power inconsistencies while for SGH there appears to have been a breakdown in communication on how the equipment can be used; however, this has been resolved. Assessments have revealed that users are not keen on using the platform because of the absence of sample loaders. This state of affairs reduces the equipment's throughput significantly, almost equating it to the FACS Count throughput.
  - *ABX Micros hematology analyzers:* The performance of this robust platform across ZPCT IIB supported facilities has been stable, and breakdowns have been attended to within a three week time frame
  - *ABX Pentra C200:* Generally stable performance experienced through the quarter across all provinces.
  - *Sysmex poch 100-i:* No major incidents were reported during this period.

## Annex A. Travel/Temporary Duty (TDY)

Travel this Period (September 2014 – September 2015)
<ul style="list-style-type: none"> <li>▪ Hilary Lumano, Senior Technical Advisor, Laboratory Services attended and made a poster presentation at the African Society of LAB Medicine Congress held from November 29 – December 5, 2014 in Cape Town – South Africa</li> </ul>
<ul style="list-style-type: none"> <li>▪ Monica Mulunda Sichilima, Associate Director of Finance and Administration and Claire Chihili, Finance Manager attended the expenditure analysis and WCAMENA workshop from September 8 – 17, 2014, Pretoria – South Africa</li> </ul>
<ul style="list-style-type: none"> <li>▪ Margaret Mwanza PopART Coordinator attended the HPTN 071/PopART Face to Face Intervention meeting in Johannesburg, South Africa from March 18 – 21, 2015</li> </ul>
<ul style="list-style-type: none"> <li>▪ Kennedy Chilufya, IT Officer and Aka Musole, IT Manager attended the training in VMWare VSphere 5.5 from February 15 – 21, 2015 Johannesburg – South Africa</li> </ul>
<ul style="list-style-type: none"> <li>▪ Dr. Prisca Kasonde, Director Technical Support and Dr. Thierry Malebe Senior Advisor CT/PMTCT participated in a design meeting on treatment held from January 18 – 22, 2015, Pretoria – South Africa</li> </ul>
<ul style="list-style-type: none"> <li>▪ Mutinta Namasiku Chaambwa Itwi, CMS Manager and Amukena Mukumbuta, CMS Officer travelled to participate in the grants management and administration training for ESABU staff in Johannesburg, South Africa from March 1 – 7, 2015</li> </ul>
<ul style="list-style-type: none"> <li>▪ Akamuunwa Musole, IT Manager and Mutale Kazilimani Moyo attended the 2015 Annual ISS Conference from March 27 – 31, 2015 Nairobi – Kenya</li> </ul>
<ul style="list-style-type: none"> <li>▪ Sarah Johnson, Senior Director for Project Quality Assurance &amp; Coordination, and Catherine Mundy, Principal Technical Advisor for Laboratory Services, travelled to Lusaka from 23rd January to 3rd February, 2015 for MSH technical support and overall review of the ZPCT IIB project.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Veronique Mestdagh, MSH Human Resources Partner, travelled to Lusaka from Feb 8 – 14, 2015 to conduct orientation for all staff and assist with personnel issues.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Sarah Johnson, Bud Crandall and Alaine travelled to Zambia from May 1 to 17 to conduct capacity assessments in 10 districts focused on equipment maintenance, commodity management, integration of services and clinical mentoring.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Catherine Mundy travelled to Zambia in May 2015 to provide routine support and assess the implementation of ZPCT IIB deliverables.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Catherine Mwale, Patrick Katayamoyo, Patrick Makelele, and Bosco Mukanyimi, travelled to Harare in Zimbabwe to attend to the 9th International Workshop on HIV treatment, Pathogenesis and Prevention Research in Resource–Limited settings from 4th -8th May 2015.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Nyirenda Lameck- Snr Strategic Information Advisor, Sitenge Gift- Snr Technical Officer-M&amp;E, and Sinyangwe Victor- Snr Provincial M&amp;E Officer attended a FHI360 Global SI/M&amp;E workshop on data quality and data use from June 8 – 12, 2015, Addis Ababa – Ethiopia.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Dr. Prisca Kasonde, Director Technical Support and Joshua Kashitala, QA/QI Advisor travelled to Johannesburg South Africa to attend Male Circumcision Partners Meeting sponsored by the Gates Foundation from September 7-8</li> </ul>

## Annex C. ZPCT IIB Project Achievements October 1, 2014 to September 30, 2015

Indicator	Annual Achievements		Quarterly Achievements (July – Sept 2015)		
	Targets (Oct 14 – Sept 15)	Achievements (Oct 14 – Sept 15)	Male	Female	Total
<b>1.1 Counseling and Testing (CT) services</b>					
Service outlets providing CT according to national or international standards	451	470 (440 Public, 30 Private)			470 (440 Public, 30 Private)
Individuals who received HIV/AIDS CT and received their test results	539,247	565,151	85,190	80,044	165,234
Individuals who received HIV/AIDS CT and received their test results (including PMTCT)	756,693	793,650	85,190	138,107	223,297
Individuals trained in CT according to national or international standards	110	69	0	0	0
<b>1.2 Prevention of Mother To Child Transmission (eMTCT) services</b>					
Health facilities providing ANC services that provide both HIV testing and ARVs for eMTCT on site	437	460 (436 Public, 24 Private)			460 (436 Public, 24 Private)
Pregnant women with known HIV status (includes women who were tested for HIV and received their results)	217,446	228,499		58,063	58,063
HIV-positive pregnant women who received antiretroviral to reduce risk of mother-to-child-transmission during pregnancy and delivery	14,745	18,580		4,597	4,597
Pregnant women Newly initiated on treatment during the current pregnancy (Option B+)	3,659	13,962		3,349	3,349
<b>Family Planning</b>					
Number of HIV service delivery points supported by PEPFAR that are directly providing integrated voluntary family planning services	451	460 (436 Public, 24 Private)			460 (436 Public, 24 Private)
Number of clients attending HIV services (in HTC, eMTCT and ART) referred for FP services	74,292	84,234	4,191	17,849	22,040
Number of clients from HIV services (HTC, eMTCT and ART) who received at least one FP method	33,567	29,301	970	8,104	9,074
Health workers trained in the provision of PMTCT services according to national or international standards	25	74	0	0	0
<b>1.3 Treatment Services and Basic Health Care and Support</b>					
Service outlets providing HIV-related palliative care (excluding TB/HIV)	451	470 (440 Public, 30 Private)			470 (440 Public, 30 Private)
Individuals provided with HIV-related palliative care (excluding TB/HIV) (adults and children)	371,010	368,189	137,159	220,809	357,968
Pediatrics provided with HIV-related palliative care (excluding TB/HIV)	25,938	23,482	11,610	11,814	23,424
Individuals trained to provide HIV palliative care (excluding TB/HIV)	125	454	53	64	117
Service outlets providing ART	189	190 (167 Public, 23 Private)			190 (167 Public, 23 Private)
Individuals newly initiating on ART during the reporting period	38,769	49,461	3,881	7,995	11,876
Pediatrics newly initiating on ART during the reporting period	2,677	2,418	317	310	627
Individuals receiving ART at the end of the period	203,731	260,133	96,937	163,196	260,133
Pediatrics receiving ART at the end of the period	14,323	16,551	8,320	8,145	16,551
Health workers trained to deliver ART services according to national or international standards	125	454	53	64	117
<b>TB/HIV services</b>					
Service outlets providing treatment for TB to HIV+ individuals (diagnosed or presumed) in a palliative	451	470 (440 Public, 30 Private)			470 (440 Public, 30 Private)

Indicator	Annual Achievements		Quarterly Achievements (July – Sept 2015)		
	Targets (Oct 14 – Sept 15)	Achievements (Oct 14 – Sept 15)	Male	Female	Total
care setting					Private)
HIV+ clients attending HIV care/treatment services that are receiving treatment for TB	3,985	3,391	497	344	841
Individuals trained to provide treatment for TB to HIV+ individuals (diagnosed or presumed)	125	454	53	64	117
Registered TB patients who received HIV/AIDS CT and their test results at a USG-supported TB service outlet	11,718	11,913	1,761	1,046	2,807
<b>1.4 Male Circumcision services</b>					
Service outlets providing MC services	60	61 (58 Public, 3 Private)			61 (58 Public, 3 Private)
Individuals trained to provide MC services	52	58	30	15	45
Number of males circumcised as part of the minimum package of MC for HIV prevention services	44,210	75,664	30,578		30,578
<b>2.1 Laboratory Support</b>					
Laboratories with capacity to perform clinical laboratory tests	170	170 (145 Public, 25 Private)			170 (145 Public, 25 Private)
Individuals trained in the provision of laboratory-related activities	60	88	9	2	11
Tests performed at USG-supported laboratories during the reporting period: (a) HIV testing, (b) TB diagnostics, (c) syphilis testing, and (d) HIV/AIDS disease monitoring	N/A	1,575,054			408,214
<b>2.2 Capacity Building for Community Volunteers</b>					
Community/lay persons trained in counseling and testing according to national or international standards (excluding TB)	70	89	20	21	41
Community/lay persons trained in the provision of ART adherence counseling services according to national or international standards	390	124	0	0	0
<b>3 Capacity Building for PHOs and DHOs</b>					
Local organizations (PMOs and DMOs) provided with technical assistance for HIV-related institutional capacity building	10	10			10
<b>4 Public-Private Partnerships</b>					
Private health facilities providing HIV/AIDS services	31	30			30
<b>Gender</b>					
Number of pregnant women receiving PMTCT services with partner	N/A	80,758		19,634	19,634
No. of individuals who received testing and counseling services for HIV and received their test results (tested as couples)	N/A	175,401	16,815	23,845	40,660
<b>Quality Assurance/Quality Improvement</b>					
Number of PEPFAR-supported clinical service sites with quality improvement activities implemented that address clinical HIV program processes or outcomes and have documented process results in the last 6 months	N/A	2			2

## Annex D. Success Stories

### Improving Option B+ services through capacity building at Chiwempala Clinic

The introduction of Option B+ strategy came with its own challenges one of which was lack of skilled manpower to actualize the activity in the Maternal Child Health (MCH) department. HIV positive pregnant women were referred to the ART clinic and many of them would not go to the clinic to access services. The few women who managed to reach the ART clinic had difficulties returning for follow up visits because some were unable to attend both the Antenatal and ART clinic in a space of few weeks. This resulted in late HAART initiation of HIV positive pregnant women, increased defaulter rate and poor follow up of HIV exposed babies.

Using PEPFAR funds, two midwives were trained at Chiwempala Clinic in full ART/OI Management through ZPCT II Bridge capacity building support.

Today, Mrs. Lungu the newly trained ART nurse no longer refers HIV positive pregnant woman and



their HIV exposed children to ART clinics. All the services are now being offered from MCH department on the same day; this has improved the services and retention of clients on treatment with initiation currently standing at 95%. No default has been recorded in the past three months.

*Faith Tozeyana the ART MCH Nurse pulling out ART file for the option B plus client who came for follow-up review*

Mrs. Faith Tozeyana the ART MCH nurse, says record keeping improved after the training because they now understand

how to create the SmartCare client file. The nurses are now able to assess, initiate and monitor pregnant mothers on HAART including opening client files.

Mrs. Chilufya one of the clients receiving Option B+ said from Chiwempala Clinic: “today we are happy because we receive all the services from one clinic (MCH) and we spend less than an hour to be attended to; before we used to spend more than two hours waiting. We do not have to be referred from MCH to ART clinic to start other processes anymore. This was so frustrating especially on busy days and it meant that I had to stand in a long queue and wait for hours to be attended to but now things are much better.”

## Annex F. ZPCT IIB Supported Health Facilities and Services

### Central province

District	Health Facility	Type of Facility (Urban/Rural)	ART	PMTCT	CT	CC	Lab	Specimen Referral for CD4	MC
<i>Kabwe</i>	1. Kabwe GH	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		
	2. Mahatma Gandhi HC	Urban	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		
	3. Kabwe Mine Hospital	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	4. Bwacha HC	Urban		◆	◆	◆	◆		
	5. Makululu HC	Urban	◆ <sup>1</sup>	◆	◆	◆	◆		
	6. Pollen HC	Urban	◆ <sup>1</sup>	◆	◆	◆		◆	
	7. Kasanda UHC	Urban	◆ <sup>1</sup>	◆	◆	◆	◆		
	8. Chowa HC	Urban		◆	◆	◆	◆	◆	
	9. Railway Surgery HC	Urban		◆	◆	◆	◆	◆	
	10. Katondo HC	Urban	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		
	11. Ngungu HC	Urban	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	12. Natuseko HC	Urban	◆ <sup>1</sup>	◆	◆	◆	◆	◆	
	13. Mukobeko Township HC	Urban		◆	◆	◆		◆	
	14. Kawama HC	Urban		◆	◆	◆		◆	
	15. Kasavasa HC	Rural		◆	◆	◆		◆	
	16. Nakoli UHC	Urban		◆	◆	◆			
	17. Kalwela HC	Rural		◆	◆	◆		◆	
<i>Mkushi</i>	18. Mkushi DH	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	19. Chibefwe HC	Rural		◆	◆	◆		◆	
	20. Chalata HC	Rural	◆ <sup>1</sup>	◆	◆	◆	◆	◆	
	21. Masansa HC	Rural	◆ <sup>1</sup>	◆	◆	◆	◆	◆	⊙
	22. Nshinso HC	Rural		◆	◆	◆		◆	
	23. Nkumbi RHC	Rural		◆	◆	◆			
	24. Musofu RHC	Rural							
<i>Luano</i>	25. Chikupili HC	Rural		◆	◆	◆		◆	
	26. Coppermine RHC	Rural		◆	◆	◆			
	27. Old Mkushi RHC	Rural	◆	◆	◆	◆			
	28. Kaundula	Rural		◆	◆	◆			
<i>Serenje</i>	29. Serenje DH	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	30. Chitambo Hospital	Rural	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	31. Chibale RHC	Rural		◆	◆	◆		◆	
	32. Muchinka RHC	Rural		◆	◆	◆		◆	
	33. Kabundi RHC	Rural		◆	◆	◆		◆	
	34. Chalilo RHC	Rural		◆	◆	◆		◆	
	35. Mpelembe RHC	Rural	◆ <sup>1</sup>	◆	◆	◆	◆	◆	
	36. Mulilima RHC	Rural		◆	◆	◆		◆	
	37. Gibson RHC	Rural		◆	◆	◆			
	38. Nchimishi RHC	Rural		◆	◆	◆			
	39. Kabamba RHC	Rural		◆	◆	◆			
	40. Mapepala RHC	Rural		◆	◆	◆		◆	
<i>Chibombo</i>	41. Liteta DH	Rural	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	42. Chikobo RHC	Rural		◆	◆	◆		◆	
	43. Mwachisompola Demo Zone	Rural	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		
	44. Chibombo RHC	Rural		◆	◆	◆		◆	⊙
	45. Chisamba RHC	Rural	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		

District	Health Facility	Type of Facility (Urban/Rural)	ART	PMTCT	CT	CC	Lab	Specimen Referral for CD4	MC
	46. Mungule RHC	Rural		◆	◆	◆		◆	
	47. Muswishi RHC	Rural		◆	◆	◆		◆	
	48. Chitanda RHC	Rural		◆	◆	◆			
	49. Malambanyama RHC	Rural		◆	◆	◆		◆	
	50. Chipeso RHC	Rural		◆	◆	◆		◆	
	51. Kayosha RHC	Rural	◆ <sup>2</sup>	◆	◆	◆		◆	
	52. Mulungushi Agro RHC	Rural		◆	◆	◆		◆	
	53. Malombe RHC	Rural		◆	◆	◆		◆	
	54. Mwachisompola RHC	Rural		◆	◆	◆		◆	
	55. Shimukuni RHC	Rural		◆	◆	◆		◆	
	56. Keembe RHC	Rural							
57. Muntemba RHC	Rural								
<i>Kapiri Mposhi</i>	58. Kapiri Mposhi DH	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		
	59. Kapiri Mposhi UHC	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		
	60. Mukonchi RHC	Rural	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	61. Chibwe RHC	Rural		◆	◆	◆		◆	
	62. Lusemfw RHC	Rural		◆	◆	◆		◆	
	63. Kampumba RHC	Rural	◆ <sup>1</sup>	◆	◆	◆		◆	
	64. Mulungushi RHC	Rural		◆	◆	◆		◆	
	65. Chawama UHC	Rural		◆	◆	◆		◆	
	66. Kawama HC	Urban		◆	◆	◆		◆	
	67. Tazara UHC	Rural		◆	◆	◆		◆	
	68. Ndeke UHC	Rural		◆	◆	◆		◆	
	69. Nkole RHC	Rural	◆ <sup>1</sup>	◆	◆	◆		◆	
	70. Chankomo RHC	Rural		◆	◆	◆		◆	
	71. Luanshimba RHC	Rural		◆	◆	◆		◆	
	72. Mulungushi University HC	Rural		◆	◆	◆	◆	◆	
	73. Chipepo RHC	Rural		◆	◆	◆		◆	
74. Waya RHC	Rural	◆ <sup>1</sup>	◆	◆	◆		◆		
75. Chilumba RHC	Rural		◆	◆	◆		◆		
<i>Mumbwa</i>	76. Mumbwa DH	Urban		◆	◆	◆	◆ <sup>3</sup>		⊙
	77. Myooye RHC	Rural		◆	◆	◆			
	78. Lutale RHC	Rural		◆	◆	◆			
	79. Nambala RHC	Rural		◆	◆	◆			
	80. Kamilambo RHC	Rural	◆	◆	◆	◆			
	81. Chiwena RHC	Rural		◆	◆	◆			
82. Kamilambo RHC	Rural								
<i>Itezhi Tezhi</i>	83. Itezhi Tezhi DH	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		
	84. Masemu UC	Rural		◆	◆	◆	◆		
	85. Kaanzwa RHC	Rural		◆	◆	◆		◆	
	86. Nasenga RHC	Rural		◆	◆	◆			
	87. Lubanda RHC	Rural							
<i>Ngaabwe</i>	88. Mukumbwe RHC	Rural		◆	◆	◆			
<b>Totals</b>			<b>26</b>	<b>79</b>	<b>79</b>	<b>79</b>	<b>28</b>	<b>50</b>	<b>10</b>

ART – Antiretroviral Therapy; CC – Clinical Care; CT – Counseling and Testing; PMTCT – Prevention of Mother to Child Transmission; MC – Male Circumcision

◆ ZPCT II existing services	1 = ART Outreach Site
⊙ MC sites	2 = ART Static Site
⊙ <sup>1</sup> MC services initiated	3 = Referral laboratory for CD4

Note: Grey shaded are new ZPCT IIB sites

## Copperbelt Province

District	Health Facility	Type of Facility (Urban/Rural)	ART	PMTCT	CT	CC	Lab	Specimen Referral for CD4	MC
<i>Ndola</i>	1. Ndola Central Hospital	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		
	2. ADCH	Urban	◆ <sup>2</sup>		◆	◆	◆ <sup>3</sup>		
	3. Lubuto HC	Urban	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		
	4. Mahatma Gandhi HC	Urban	◆ <sup>1</sup>	◆	◆	◆	◆	◆	
	5. Chipokota Mayamba	Urban	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		
	6. Mushili Clinic	Urban		◆	◆	◆		◆	
	7. Nkwazi Clinic	Urban		◆	◆	◆		◆	
	8. Kawama HC	Urban		◆	◆	◆	◆	◆	
	9. Ndeke HC	Urban		◆	◆	◆		◆	
	10. Dola Hill UC	Urban		◆	◆	◆		◆	
	11. Kabushi Clinic	Urban		◆	◆	◆	◆	◆	⊙
	12. Kansenshi Prison Clinic	Urban	◆ <sup>1</sup>	◆	◆	◆	◆	◆	
	13. Kaloko Clinic	Urban		◆	◆	◆		◆	
	14. Kaniki Clinic	Urban	◆ <sup>1</sup>	◆	◆	◆		◆	
	15. New Masala Clinic	Urban	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		
	16. Pamodzi-Sathiya Sai	Urban		◆	◆	◆		◆	
	17. Railway Surgery Clinic	Urban		◆	◆	◆		◆	
	18. Twapia Clinic	Urban	◆ <sup>1</sup>	◆	◆	◆	◆	◆	
	19. Zambia FDS	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	20. Itawa Clinic	Urban		◆	◆	◆		◆	
	21. Masala Main	Urban							
<i>Chingola</i>	22. Nchanga N. GH	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	23. Chiwempala HC	Urban	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		
	24. Kabundi East Clinic	Urban	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	25. Chawama HC	Urban	◆ <sup>2</sup>	◆	◆	◆	◆	◆	⊙
	26. Clinic 1 HC	Urban	◆ <sup>1</sup>	◆	◆	◆	◆	◆	
	27. Muchinshi Clinic	Rural	◆ <sup>1</sup>	◆	◆	◆		◆	
	28. Kasompe Clinic	Urban		◆	◆	◆		◆	
	29. Mutenda HC	Rural		◆	◆	◆		◆	
	30. Kalilo Clinic	Urban		◆	◆	◆		◆	
	<i>Kitwe</i>	31. Kitwe Central Hospital	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>	
32. Ndeke HC		Urban	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		
33. Chimwemwe Clinic		Urban	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		
34. Buchi HC		Urban	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		
35. Luangwa HC		Urban	◆ <sup>1</sup>	◆	◆	◆	◆	◆	⊙
36. Ipusukilo HC		Urban	◆ <sup>1</sup>	◆	◆	◆	◆	◆	
37. Bulangililo Clinic		Urban	◆ <sup>1</sup>	◆	◆	◆	◆	◆	⊙
38. Twatasha Clinic		Urban		◆	◆	◆		◆	
39. Garnatone Clinic		Urban			◆	◆		◆	
40. Itimpi Clinic		Urban		◆	◆	◆		◆	
41. Kamitondo Clinic		Urban		◆	◆	◆		◆	
42. Kawama Clinic		Urban	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		
43. Kwacha Clinic		Urban		◆	◆	◆		◆	
44. Mindolo 1 Clinic		Urban	◆ <sup>2</sup>	◆	◆	◆	◆	◆	
45. Mulenga Clinic		Urban	◆ <sup>1</sup>	◆	◆	◆		◆	
46. Mwaiseni Clinic		Urban		◆	◆	◆		◆	

District	Health Facility	Type of Facility (Urban/Rural)	ART	PMTCT	CT	CC	Lab	Specimen Referral for CD4	MC
	47. Wusakile GRZ Clinic	Urban		◆	◆	◆		◆	
	48. ZAMTAN Clinic	Urban	◆ <sup>1</sup>	◆	◆	◆	◆	◆	⊙
	49. Chavuma Clinic	Urban	◆ <sup>1</sup>	◆	◆	◆	◆	◆	
	50. Kamfinsa Prison Clinic	Urban	◆ <sup>2</sup>	◆	◆	◆		◆	
	51. Mwekera Clinic	Urban		◆	◆	◆		◆	
	52. ZNS Clinic	Urban	◆ <sup>1</sup>	◆	◆	◆	◆	◆	
	53. Riverside Clinic	Urban	◆ <sup>2</sup>	◆	◆	◆	◆	◆	
54. Buchi Small	Urban								
<i>Luanshya</i>	55. Thompson DH	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		
	56. Roan GH	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	57. Mikomfwa HC	Urban		◆	◆	◆		◆	
	58. Mpatamatu Sec 26 UC	Urban	◆ <sup>1</sup>	◆	◆	◆	◆	◆	
	59. Luanshya Main UC	Urban		◆	◆	◆	◆	◆	
	60. Mikomfwa UC	Urban		◆	◆	◆		◆	
	61. Section 9 Clinic	Urban		◆	◆	◆		◆	
	62. New Town Clinic	Urban		◆	◆	◆		◆	
63. Fisenge UHC	Urban		◆	◆	◆		◆		
<i>Mufulira</i>	64. Kamuchanga DH	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	65. Ronald Ross GH	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	66. Clinic 3 Mine Clinic	Urban		◆	◆	◆		◆	
	67. Kansunswa HC	Rural		◆	◆	◆		◆	
	68. Clinic 5 Clinic	Urban		◆	◆	◆		◆	
	69. Mokambo Clinic	Rural		◆	◆	◆		◆	
	70. Suburb Clinic	Urban		◆	◆	◆		◆	
	71. Murundu RHC	Rural		◆	◆	◆		◆	
	72. Chibolya UHC	Urban		◆	◆	◆		◆	
	73. Buteko Clinic	Urban							
<i>Kalulushi</i>	74. Kalulushi GRZ Clinic	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	75. Chambeshi HC	Urban	◆ <sup>1</sup>	◆	◆	◆	◆	◆	
	76. Chibuluma Clinic	Urban	◆ <sup>1</sup>	◆	◆	◆		◆	
	77. Chati RHC	Rural		◆	◆	◆			
	78. Ichimpe Clinic	Rural		◆	◆	◆			
	79. Kalulushi Township	Urban							
<i>Chililabombwe</i>	80. Kakoso District HC	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	81. Lubengele UC	Urban	◆ <sup>1</sup>	◆	◆	◆		◆	
<i>Lufwanyama</i>	82. Mushingashi RHC	Rural		◆	◆	◆		◆	
	83. Lumpuma RHC	Rural	◆ <sup>1</sup>	◆	◆	◆		◆	
	84. Shimukunami RHC	Rural	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	85. Nkana RHC	Rural		◆	◆	◆		◆	
	86. Lufwanyama DH	Urban	◆	◆	◆	◆			
<i>Mpongwe</i>	87. Kayenda RHC	Rural		◆	◆	◆	◆	◆	⊙
	88. Mikata RHC	Rural		◆	◆	◆		◆	
	89. Ipumba RHC	Rural		◆	◆	◆	◆	◆	
	90. Kalweo RHC	Rural		◆	◆	◆		◆	◆
<i>Masaiti</i>	91. Kashitu RHC	Rural		◆	◆	◆		◆	
	92. Jeleman RHC	Rural		◆	◆	◆		◆	
	93. Masaiti Boma RHC	Rural		◆	◆	◆	◆	◆	⊙
	94. Chikimbi HC	Rural		◆	◆	◆		◆	
<b>Totals</b>			<b>43</b>	<b>87</b>	<b>89</b>	<b>89</b>	<b>42</b>	<b>65</b>	<b>17</b>

ART – Antiretroviral Therapy; CC – Clinical Care; CT – Counseling and Testing; PMTCT – Prevention of Mother to Child Transmission; MC – Male Circumcision

◆ ZPCT II existing services	1 = ART Outreach Site
⊙ MC sites	2 = ART Static Site
⊙ <sup>1</sup> MC services initiated	3 = Referral laboratory for CD4

## Luapula Province

District	Health Facility	Type of Facility (Urban/Rural)	ART	PMTCT	CT	CC	Lab	Specimen Referral for CD4	MC
<i>Chiengi</i>	1. Puta RHC	Rural	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		
	2. Kabole RHC	Rural	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>	◆	
	3. Chipungu RHC	Rural		◆	◆	◆		◆	
	4. Munkunta RHC	Rural		◆	◆	◆			
	5. Lunchinda RHC	Rural		◆	◆	◆			
	6. Sambula RHC	Rural		◆	◆	◆			
	7. Chiengi DH	Rural	◆	◆	◆	◆			
	8. Kalembwe RHC	Rural							
	9. Mwabu RHC	Rural							
<i>Kawambwa</i>	10. Kawambwa DH	Rural	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	11. Kawambwa HC	Rural		◆	◆	◆		◆	
	12. Mushota RHC	Rural		◆	◆	◆		◆	
	13. Munkanta RHC	Rural	◆ <sup>1</sup>	◆	◆	◆		◆	
	14. Kawambwa Tea RHC	Urban		◆	◆	◆		◆	
	15. Mufwaya RHC	Rural		◆	◆	◆			
<i>Mwansabombwe</i>	16. Mbereshi Mission	Rural	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	17. Kazembe RHC	Rural	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		
	18. Lubufu RHC	Rural							
	19. Salanga RHC	Rural							
<i>Chembe</i>	20. Chembe RHC	Rural	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		
	21. Chipete RHC	Rural		◆	◆	◆		◆	
	22. Kasoma Lwela RHC	Rural		◆	◆	◆		◆	
	23. Kunda Mfumu RHC	Rural		◆	◆	◆		◆	
	24. Lukola RHC	Rural		◆	◆	◆			
<i>Mansa</i>	25. Mansa GH	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		
	26. Senama HC	Urban	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	27. Central Clinic	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	28. Matanda RHC	Rural		◆	◆	◆		◆	
	29. Buntungwa RHC	Urban		◆	◆	◆		◆	
	30. Chisembe RHC	Rural		◆	◆	◆		◆	
	31. Chisunka RHC	Rural		◆	◆	◆		◆	
	32. Fimpulu RHC	Rural		◆	◆	◆		◆	
	33. Kabunda RHC	Rural		◆	◆	◆		◆	
	34. Kalaba RHC	Rural		◆	◆	◆		◆	
	35. Kalyongo RHC	Rural		◆	◆	◆			
	36. Katangwe RHC	Rural		◆	◆	◆			
	37. Luamfumu RHC	Rural	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	38. Mabumba RHC	Rural		◆	◆	◆		◆	
	39. Mano RHC	Rural		◆	◆	◆		◆	
	40. Mantumbusa RHC	Rural		◆	◆	◆		◆	
	41. Mibenge RHC	Rural		◆	◆	◆		◆	
	42. Moloshi RHC	Rural		◆	◆	◆		◆	
	43. Mutiti RHC	Rural		◆	◆	◆		◆	
	44. Muwang'uni RHC	Rural		◆	◆	◆		◆	
	45. Ndoba RHC	Rural		◆	◆	◆		◆	
	46. Nsonga RHC	Rural		◆	◆	◆		◆	
	47. Paul Mambilima RHC	Rural		◆	◆	◆		◆	

District	Health Facility	Type of Facility (Urban/Rural)	ART	PMTCT	CT	CC	Lab	Specimen Referral for CD4	MC
	48. Lubende RHC	Rural		◆	◆	◆			
	49. Kansenga RHC	Rural		◆	◆	◆			
<i>Milenge</i>	50. Mulumbi RHC	Rural		◆	◆	◆		◆	
	51. Milenge East 7	Rural	◆ <sup>2</sup>	◆	◆	◆	◆		
	52. Kapalala RHC	Rural		◆	◆	◆			
	53. Sokontwe RHC	Rural		◆	◆	◆			
	54. Lwela RHC	Rural		◆	◆	◆			
<i>Chipili</i>	55. Chipili RHC	Rural		◆	◆	◆		◆	
	56. Mupeta RHC	Rural			◆	◆		◆	
	57. Kalundu RHC	Rural			◆	◆			
	58. Kaoma Makasa RHC	Rural		◆	◆	◆		◆	
	59. Luminu RHC	Rural			◆	◆		◆	
	60. Lupososhi RHC	Rural			◆	◆		◆	
	61. Mukonshi RHC	Rural		◆	◆	◆		◆	
	62. Mutipula RHC	Rural			◆	◆			
	63. Mwenda RHC	Rural	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		
<i>Mwense</i>	64. Mambilima HC (CHAZ)	Rural	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		
	65. Mwense Stage II RHC	Rural	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		
	66. Chibondo RHC	Rural			◆	◆		◆	
	67. Chisheta RHC	Rural		◆	◆	◆		◆	
	68. Kapamba RHC	Rural		◆	◆	◆		◆	
	69. Kashiba RHC	Rural		◆	◆	◆		◆	
	70. Katuta Kampemba RHC	Rural		◆	◆	◆		◆	
	71. Kawama RHC	Rural		◆	◆	◆		◆	
	72. Lubunda RHC	Rural		◆	◆	◆		◆	
	73. Lukwesa RHC	Rural	◆ <sup>2</sup>	◆	◆	◆		◆	
	74. Mubende RHC	Rural		◆	◆	◆		◆	
	75. Mununshi RHC	Rural		◆	◆	◆		◆	
	76. Musangu RHC	Rural	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>	◆	
	77. Musonda RHC	Rural		◆	◆	◆			
	<i>Nchelenge</i>	78. Nchelenge RHC	Rural	◆ <sup>2</sup>	◆	◆	◆		◆
79. Kashikishi RHC		Rural	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		
80. Chabilikila RHC		Rural	◆ <sup>2</sup>	◆	◆	◆		◆	
81. Kabuta RHC		Rural	◆ <sup>2</sup>	◆	◆	◆		◆	⊙
82. Kafutuma RHC		Rural	◆ <sup>2</sup>	◆	◆	◆		◆	
83. Kambwali RHC		Rural	◆ <sup>2</sup>	◆	◆	◆		◆	
84. Kanyembo RHC		Rural	◆ <sup>2</sup>	◆	◆	◆		◆	
85. Chisenga RHC		Rural	◆ <sup>1</sup>	◆	◆	◆		◆	
86. Kilwa RHC		Rural	◆ <sup>1</sup>	◆	◆	◆		◆	
87. St. Paul's Hospital (CHAZ)		Rural	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		
88. Kabalenge RHC		Rural		◆	◆	◆			
<i>Samfya</i>	89. Lubwe Mission Hospital (CHAZ)	Rural	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		
	90. Samfya Stage 2 Clinic	Rural	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	91. Kasanka RHC	Rural	◆ <sup>1</sup>	◆	◆	◆		◆	
	92. Shikamushile RHC	Rural		◆	◆	◆	◆ <sup>3</sup>		
	93. Kapata East 7 RHC	Rural		◆	◆	◆		◆	
	94. Kabongo RHC	Rural		◆	◆	◆		◆	
	95. Katanshya RHC	Rural		◆	◆	◆			

District	Health Facility	Type of Facility (Urban/Rural)	ART	PMTCT	CT	CC	Lab	Specimen Referral for CD4	MC
	96. Mundubi RHC	Rural							
<b>Totals</b>			<b>30</b>	<b>81</b>	<b>87</b>	<b>87</b>	<b>20</b>	<b>52</b>	<b>8</b>

*ART – Antiretroviral Therapy; CC – Clinical Care; CT – Counseling and Testing; PMTCT – Prevention of Mother to Child Transmission; MC – Male Circumcision*

◆ ZPCT II existing services	1 = ART Outreach Site
⊙ MC sites	2 = ART Static Site
⊙ <sup>1</sup> MC services initiated	3 = Referral laboratory for CD4

Note: Grey shaded are new ZPCT IIB sites

## Muchinga Province

District	Health Facility	Type of Facility (Urban/Rural)	ART	PMTCT	CT	CC	Lab	Specimen Referral for CD4	MC
Nakonde	1. Nakonde RHC	Rural	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	2. Chilolwa RHC	Rural		◆	◆	◆		◆	
	3. Waitwika RHC	Rural		◆	◆	◆		◆	
	4. Mwenzo RHC	Rural		◆	◆	◆		◆	
	5. Ntatumbila RHC	Rural	◆ <sup>1</sup>	◆	◆	◆		◆	
	6. Chozi RHC	Rural	◆ <sup>2</sup>	◆	◆	◆		◆	
	7. Chanka RHC	Rural		◆	◆	◆			
	8. Shem RHC	Rural		◆	◆	◆			
	9. Nakonde DH	Rural	◆	◆	◆	◆	◆	◆	⊙
Mpika	10. Mpika DH	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	11. Mpika HC	Urban		◆	◆	◆		◆	
	12. Mpepo RHC	Rural		◆	◆	◆	◆	◆	
	13. Chibansa RHC	Rural		◆	◆	◆	◆	◆	
	14. Mpumba RHC	Rural		◆	◆	◆		◆	
	15. Mukungule RHC	Rural		◆	◆	◆		◆	
	16. Mpika TAZARA	Rural	◆ <sup>2</sup>	◆	◆	◆		◆	
	17. Muwele RHC	Rural		◆	◆	◆			
	18. Lukulu RHC	Rural		◆	◆	◆			
	19. ZCA Clinic	Rural		◆	◆	◆			
Shiwa Ng'andu	21. Matumbo RHC	Rural		◆	◆	◆		◆	
	22. Shiwa Ng'andu RHC	Rural		◆	◆	◆			
	23. Mwika RHC	Rural		◆	◆	◆			
	24. Kabanda RHC	Rural		◆	◆	◆			
Chinsali	25. Chinsali DH	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙ <sup>1</sup>
	26. Chinsali HC	Urban		◆	◆	◆		◆	
	27. Lubwa RHC	Rural		◆	◆	◆	◆		
	28. Mundu RHC	Rural		◆	◆	◆			
Isoka	29. Isoka DH	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙ <sup>1</sup>
	30. Isoka UHC	Urban		◆	◆	◆	◆	◆	
	31. Kalungu RHC	Rural	◆ <sup>2</sup>	◆	◆	◆		◆	
	32. Kampumbu RHC	Rural		◆	◆	◆			
	33. Kafwimbi RHC	Rural		◆	◆	◆			
Mafinga	34. Muyombe	Rural	◆ <sup>1</sup>	◆	◆	◆	◆	◆	
	35. Thendere RHC	Rural		◆	◆	◆			
	36. Mulekatembo RHC	Rural							
Chama	37. Chama DH	Rural	◆	◆	◆	◆	◆	◆	
	38. Chikwa RHC	Rural		◆	◆	◆			
	39. Tembwe RHC	Rural		◆	◆	◆			
<b>Totals</b>			<b>9</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>9</b>	<b>16</b>	<b>4</b>

ART – Antiretroviral Therapy; CC – Clinical Care; CT – Counseling and Testing; PMTCT – Prevention of Mother to Child Transmission; MC – Male Circumcision

◆ ZPCT II existing services	1 = ART Outreach Site
⊙ MC sites	2 = ART Static Site
⊙ <sup>1</sup> MC services initiated	3 = Referral laboratory for CD4

Note: Grey shaded are new ZPCT IIB sites

## Northern Province

District	Health Facility	Type of Facility (Urban/Rural)	ART	PMTCT	CT	CC	Lab	Specimen Referral for CD4	MC
<i>Kasama</i>	1. Kasama GH	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		
	2. Kasama UHC	Urban	◆ <sup>2</sup>	◆	◆	◆	◆	◆	
	3. Location UHC	Urban	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		
	4. Chilubula (CHAZ)	Rural	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		
	5. Lukupa RHC	Rural	◆ <sup>2</sup>	◆	◆	◆	◆	◆	
	6. Lukashya RHC	Rural		◆	◆	◆		◆	
	7. Misengo RHC	Rural		◆	◆	◆		◆	
	8. Chiongo RHC	Rural		◆	◆	◆		◆	
	9. Chisanga RHC	Rural	◆ <sup>2</sup>	◆	◆	◆		◆	
	10. Mulenga RHC	Rural		◆	◆	◆		◆	
	11. Musa RHC	Rural		◆	◆	◆		◆	
	12. Kasama Tazara	Rural		◆	◆	◆		◆	
	13. Lubushi RHC (CHAZ)	Rural		◆	◆	◆		◆	
	14. Mumbi Mfumu RHC	Rural		◆	◆	◆			
	15. Nkole Mfumu RHC	Rural		◆	◆	◆			
<i>Mbala</i>	16. Mbala GH	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	17. Mbala UHC	Urban		◆	◆	◆		◆	
	18. Tulemane UHC	Urban	◆ <sup>1</sup>	◆	◆	◆	◆	◆	
	19. Senga Hills RHC	Rural	◆ <sup>1</sup>	◆	◆	◆	◆	◆	
	20. Chozi Mbala Tazara RHC	Rural		◆	◆	◆		◆	
	21. Mambwe RHC (CHAZ)	Rural		◆	◆	◆	◆	◆	
	22. Mpande RHC	Rural		◆	◆	◆			
	23. Mwamba RHC	Rural		◆	◆	◆			
	24. Nondo RHC	Rural		◆	◆	◆			
	25. Nsokolo RHC	Rural		◆	◆	◆			
	26. Kawimbe RHC	Rural		◆	◆	◆		◆	
<i>Mpulungu</i>	27. Mpulungu HC	Urban	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	28. Isoko RHC	Rural		◆	◆	◆			
	29. Chinakila RHC	Rural		◆	◆	◆		◆	
	30. Mpulungu DH	Rural	◆	◆	◆	◆			
<i>Mporokoso</i>	31. Mporokoso DH	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	32. Mporokoso UHC	Urban	◆ <sup>1</sup>	◆	◆	◆	◆	◆	
	33. Chishamwamba RHC	Rural		◆	◆	◆			
	34. Mukupa Kaoma RHC	Rural		◆	◆	◆			
	35. Shibwalya Kapila RHC	Rural	◆ <sup>2</sup>	◆	◆	◆			
<i>Luwingu</i>	36. Luwingu DH	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	37. Namukolo Clinic	Urban		◆	◆	◆		◆	
	38. Chikoyi RHC	Rural							
	39. Nsombo RHC	Rural							
	40. Ipusukilo RHC	Rural							
	41. Katuta RHC	Rural							
	42. Tungati RHC	Rural							
<i>Kaputa</i>	43. Kaputa RHC	Rural	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	44. Kalaba RHC	Rural		◆	◆	◆			
	45. Kasongole RHC	Rural		◆	◆	◆			
<i>Nsama</i>	46. Nsumbu RHC	Rural		◆	◆	◆	◆	◆	

District	Health Facility	Type of Facility (Urban/Rural)	ART	PMTCT	CT	CC	Lab	Specimen Referral for CD4	MC
	47. Kampinda RHC	Rural		◆	◆	◆			
	48. Nsama RHC	Rural	◆	◆	◆	◆			
<i>Mungwi</i>	49. Chitimukulu RHC	Rural		◆	◆	◆		◆	
	50. Malole RHC	Rural		◆	◆	◆		◆	
	51. Nseluka RHC	Rural	◆ <sup>2</sup>	◆	◆	◆		◆	
	52. Chimba RHC	Rural		◆	◆	◆		◆	
	53. Kapolyo RHC	Rural		◆	◆	◆		◆	
	54. Mungwi RHC (CHAZ)	Rural	◆ <sup>2</sup>	◆	◆	◆	◆		⊙
	55. Makasa RHC	Rural		◆	◆	◆			
	56. Ndasas RHC	Rural		◆	◆	◆			
<i>Chilubi Island</i>	57. Chaba RHC	Rural		◆	◆	◆			
	58. Chilubi Island RHC	Rural	◆ <sup>2</sup>	◆	◆	◆	◆		
	59. Matipa RHC	Rural		◆	◆	◆			
	60. Mofu RHC	Rural							
<b>Totals</b>			<b>21</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>17</b>	<b>27</b>	<b>6</b>

ART – Antiretroviral Therapy; CC – Clinical Care; CT – Counseling and Testing; PMTCT – Prevention of Mother to Child Transmission; MC – Male Circumcision

◆ ZPCT II existing services	1 = ART Outreach Site
⊙ MC sites	2 = ART Static Site
⊙ <sup>1</sup> MC services initiated	3 = Referral laboratory for CD4

Note: Grey shaded are new ZPCT IIB sites

**North-Western Province**

District	Health Facility	Type of Facility (Urban/Rural)	ART	PMTCT	CT	CC	Lab	Specimen Referral for CD4	MC
<i>Solwezi</i>	1. Solwezi UHC	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		
	2. Solwezi GH	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		
	3. Mapunga RHC	Rural		◆	◆	◆		◆	
	4. St. Dorothy RHC	Rural	◆ <sup>1</sup>	◆	◆	◆	◆	◆	
	5. Mutanda HC	Rural		◆	◆	◆		◆	
	6. Maheba D RHC	Rural		◆	◆	◆	◆	◆	
	7. Mumena RHC	Rural		◆	◆	◆		◆	
	8. Kapijimpanga HC	Rural		◆	◆	◆		◆	
	9. Kanuma RHC	Rural		◆	◆	◆			
	10. Kyafukuma RHC	Rural		◆	◆	◆		◆	
	11. Lwamala RHC	Rural		◆	◆	◆		◆	
	12. Kimasala RHC	Rural		◆	◆	◆			
	13. Lumwana East RHC	Rural		◆	◆	◆			
	14. Maheba A RHC	Rural		◆	◆	◆			
	15. Mushindamo RHC	Rural		◆	◆	◆			
	16. Kazomba UC	Urban		◆	◆	◆			
	17. Mushitala UC	Urban		◆	◆	◆			
	18. Shilenda RHC	Rural		◆	◆	◆			
	19. Kakombe RHC	Rural		◆	◆	◆			
	20. Kamisenga RHC	Rural		◆	◆	◆			
	21. Solwezi Training College	Urban		◆	◆	◆		◆	
<i>Kabompo</i>	22. Kabompo DH	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	23. Mumbeji RHC	Rural		◆	◆	◆		◆	⊙
	24. Kabulamema RHC	Rural		◆	◆	◆			
	25. Kayombo RHC	Rural		◆	◆	◆			
<i>Zambezi</i>	26. Zambezi DH	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	27. Zambezi UHC	Urban			◆	◆		◆	
	28. Mize HC	Rural		◆	◆	◆		◆	
	29. Chitokoloki (CHAZ)	Urban	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		
	30. Mukandakunda RHC	Rural		◆	◆	◆			
	31. Nyakulenga RHC	Rural		◆	◆	◆			
	32. Chilenga RHC	Rural		◆	◆	◆			
	33. Kucheka RHC	Rural		◆	◆	◆			
	34. Mpidi RHC	Rural		◆	◆	◆			
<i>Mwinilunga</i>	35. Mwinilunga DH	Urban	◆ <sup>2</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	36. Kanyihampa HC	Rural		◆	◆	◆		◆	
	37. Luwi (CHAZ)	Rural	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		
	38. Lwawu RHC	Rural		◆	◆	◆			
	39. Nyangombe RHC	Rural		◆	◆	◆			
	40. Sailunga RHC	Rural		◆	◆	◆			
	41. Katyola RHC	Rural		◆	◆	◆			
	42. Chiwoma RHC	Rural		◆	◆	◆			
	43. Lumwana West RHC	Rural		◆	◆	◆			
	44. Kanyama RHC	Rural		◆	◆	◆			
<i>Ikelenge</i>	45. Ikelenge RHC	Rural		◆	◆	◆		◆	⊙

District	Health Facility	Type of Facility (Urban/Rural)	ART	PMTCT	CT	CC	Lab	Specimen Referral for CD4	MC
	46. Kafweku RHC	Rural		◆	◆	◆		◆	
<i>Mufumbwe</i>	47. Mufumbwe DH	Rural	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	48. Matushi RHC	Rural		◆	◆	◆		◆	
	49. Kashima RHC	Rural		◆	◆	◆			
	50. Mufumbwe Clinic	Rural		◆	◆	◆		◆	
<i>Chavuma</i>	51. Chiyeke RHC	Rural	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	52. Chivombo RHC	Rural		◆	◆	◆		◆	
	53. Chiingi RHC	Rural		◆	◆	◆		◆	
	54. Lukolwe RHC	Rural		◆	◆	◆	◆	◆	
	55. Nyatanda RHC	Rural		◆	◆	◆			
<i>Kasempa</i>	56. Kasempa UC	Urban	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		⊙
	57. Nselauke RHC	Rural		◆	◆	◆		◆	
	58. Kankolonkolo RHC	Rural		◆	◆	◆			
	59. Lunga RHC	Rural		◆	◆	◆			
	60. Dengwe RHC	Rural		◆	◆	◆			
	61. Kamakechi RHC	Rural		◆	◆	◆			
<i>Manyinga</i>	62. St. Kalemba (CHAZ)	Rural	◆ <sup>1</sup>	◆	◆	◆	◆ <sup>3</sup>		
	63. Kasamba RHC	Rural		◆	◆	◆		◆	
	64. Kashinakazhi RHC	Rural		◆	◆	◆			
	65. Dyambombola RHC	Rural		◆	◆	◆			
<b>Totals</b>			<b>12</b>	<b>62</b>	<b>63</b>	<b>63</b>	<b>14</b>	<b>20</b>	<b>8</b>

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◆ ZPCT II existing services	1 = ART Outreach Site
⊙ MC sites	2 = ART Static Site
⊙ <sup>1</sup> MC services initiated	3 = Referral laboratory for CD4

Note: Grey shaded are new ZPCT IIB sites

## Annex G. ZPCT IIB Private Sector Facilities and Services

District	Health Facility	Type of Facility (Urban/Rural)	ART	PMTCT	CT	CC	Lab	Specimen Referral for CD4	MC
<i>Kabwe</i>	1. Kabwe Medical Centre	Urban		◆	◆	◆	◆		
	2. Mukuni Insurance Clinic	Urban			◆	◆	◆		
	3. Provident Clinic	Urban		◆	◆	◆	◆		
<i>Mkushi</i>	4. Tusekelemo Medical Centre	Urban	◆	◆	◆	◆	◆		
<i>Ndola</i>	5. Hilltop Hospital	Urban	◆	◆	◆	◆	◆	◆	
	6. Maongo Clinic	Urban	◆	◆	◆	◆	◆	◆	
	7. Chinan Medical Centre	Urban	◆	◆	◆	◆	◆	◆	
	8. Telnor Clinic	Urban	◆	◆	◆	◆	◆	◆	
	9. Dr Bhatt's	Urban	◆		◆	◆		◆	
	10. ZESCO	Urban	◆	◆	◆	◆	◆	◆	
	11. Medicross Medical Center	Urban	◆		◆	◆	◆	◆	
	12. Northrise Medical Centre	Urban		◆	◆	◆	◆	◆	
<i>Kitwe</i>	13. Indeni Clinic	Urban		◆	◆	◆	◆	◆	
	14. Company Clinic	Urban	◆	◆	◆	◆	◆ <sup>3</sup>		
	15. Hillview Clinic	Urban	◆	◆	◆	◆	◆	◆	
	16. Kitwe Surgery	Urban	◆	◆	◆	◆		◆	
	17. CBU Clinic	Urban	◆	◆	◆	◆	◆	◆	
	18. SOS Medical Centre	Urban	◆		◆	◆	◆ <sup>3</sup>		
	19. Tina Medical Center	Urban	◆	◆	◆	◆	◆ <sup>3</sup>		
	20. Carewell Oasis clinic	Urban	◆	◆	◆	◆	◆	◆	
<i>Kalulushi</i>	21. Springs of Life Clinic	Urban	◆	◆	◆	◆		◆	
	22. Progress Medical Center	Urban	◆	◆	◆	◆	◆	◆	
<i>Chingola</i>	23. CIMY Clinic	Urban	◆		◆	◆		◆	
<i>Chingola</i>	24. Chingola Surgery	Urban		◆	◆	◆	◆	◆	
<i>Mpongwe</i>	25. Nampamba Farm Clinic	Rural		◆	◆	◆		◆	
<i>Mwense</i>	26. ZESCO Musonda Falls	Rural	◆	◆	◆	◆			
<i>Solwezi</i>	27. Hilltop Hospital	Urban	◆	◆	◆	◆	◆		⊙
	28. Solwezi Medical Centre	Urban	◆	◆	◆	◆	◆		⊙
	29. St. Johns Hospital	Urban	◆	◆	◆	◆	◆		⊙
	30. Chikwa Medics	Urban	◆	◆	◆	◆		◆	
<b>Totals</b>			<b>23</b>	<b>26</b>	<b>30</b>	<b>30</b>	<b>20</b>	<b>17</b>	<b>3</b>

ART – Antiretroviral Therapy; CC – Clinical Care; CT – Counseling and Testing; PMTCT – Prevention of Mother to Child Transmission; MC – Male Circumcision

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