

The Zimbabwe Programme for Prevention of Mother to Child Transmission of HIV (PMTCT)

PMTCT Annual report 2010
Ministry Of Health and Child Welfare



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2010 Annual Report

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Most importantly, our gratitude goes out to the women and their families who continue to inspire us with their bravery and tenacity in tackling the scourge of HIV; and to the HIV positive pregnant women who utilize PMTCT services so that collectively as a nation, we can look forward to elimination of new HIV infections in children and a generation free of HIV.

The MOHCW is thankful to the organizations listed below, which deserve special mention for their technical and financial support to the national PMTCT Programme:

**EGPAF** 

**KAPNEK Trust** 

**OPHID** 

ZAPP

CHAI

ESP Partners (DFID, NORAD, SIDA, CIDA, Irish Aid)

**GFATM** 

JSI

**MSF** 

National AIDS Council (NAC)

NATPHARM/LSU

**NMRL** 

**PEPFAR** 

PMTCT Partnership Forum (PPF)

**UNICEF** 

UNITAID

WHO/CIDA

**ZVITAMBO** 

The MOHCW specially recognizes the immense contribution of PME and DHEs to management and coordination of the PMTCT Programme at provincial and districts levels.

We are indebted to EGPAF for providing technical support and funding for the printing of the 2010 Annual report.

# **List of Acronyms**

ANC Antenatal clinic
ARV Anti-Retrovirals

ART Antiretroviral therapy

AZT Azidothymidine/Zidovudine

CD4 Cluster of Differentiation 4 (used for T cells expressing CD4 receptors)

CIDA Canadian International Development Agency

CSO Central Statistics Office
DTTU Delivery Team Top Up Unit

EGPAF Elizabeth Glaser Paediatric AIDS Foundation

EMS Express Mail Service

ESP Expanded Support Programme

FDC Fixed Dose Combination

GFATM Global Fund to Fight AIDS, Tuberculosis and Malaria

HIV Human Immune Deficiency Virus

IMCI Integrated Management of Childhood Illnesses

IMF International Monetary Fund
 MCH Maternal and Child Health
 M&E Monitoring and Evaluation
 MER More Efficacious Regimen

MOHCW Ministry of Health and Child Welfare MTCT Mother to Child Transmission (of HIV)

NATPHARM National Pharmaceutical Company of Zimbabwe
NMRL National Microbiology Reference Laboratory

NVP Nevirapine
Q1 First Quartile
Q2 Second Quartile
Q3 Third Quartile

PITC Provider Initiated Testing and Counselling

PCR Polymerase Chain Reaction

PCN Primary Care Nurse

PLWHA People Living with HIV and AIDS

PMTCT Prevention of Mother to Child Transmission of HIV

sdNVP Single dose Nevirapine sd Standard Deviation TOT Training of Trainers

UNFPA United Nations Family Planning Agency

UNICEF United Nations Children's Fund

# **Executive summary**

Zimbabwe continues to experience a high prevalence of HIV, with an HIV prevalence of 13.7% in the general population and an ANC sero-prevalence of 16.1%. In 2010, the number of HIV positive pregnant women was estimated to be 47, 494 (2009 National HIV estimates). An estimated 15 000 children were newly infected with HIV in 2009; with more than 90% of these children acquiring HIV infection through mother to child transmission of HIV. Advances in treatment of HIV disease and introduction of several interventions for PMTCT have made paediatric HIV infection eminently preventable, to the extent that it is conceivable that no child should be born HIV infected in this day and age.

In developed countries, new pediatric HIV infections through vertical transmission have largely been eliminated, with reported mother-to-child transmission (MTCT) rates of less than 2%. This low level of MTCT can be attained in developing countries too as has been reported by countries in the region such as Botswana. Zimbabwe, like the other community of nations, has set herself the goal to eliminate new pediatric HIV infections and reduce MTCT rate to less than 5% in breast feeding populations.

Several developments internationally and locally have made elimination of pediatric HIV a real possibility. In 2010, WHO released new guidelines that recommend use of much more efficacious regimens for PMTCT and revised infant feeding recommendation in the context of HIV; with an emphasis on HIV free survival of children and making breastfeeding safer. Zimbabwe adopted these recommendations and revised the national treatment guidelines which were released in July 2010. This, together with increased global and country emphasis on scaling-up PMTCT towards elimination of new Paediatric HIV infections, has raised hopes that an HIV free generation is indeed possible.

The country has also started to emerge from years of socio-economic decline and optimism at population level is slowly building up. Additionally, there has been sustained high level support and advocacy to scale-up PMTCT from the MOHCW top management as well as increasing financial and technical support from local and international partners. It is in this context that the year 2010 witnessed encouraging trends in the implementation of PMTCT activities nationwide.

The PMTCT program has rapidly expanded in scope, with 1560 ANC sites (95%) providing PMTCT services out of a total of 1643 health care facilities. Of the 1560 sites providing PMTCT services, 1200 (77%) have both HIV testing and ARVs on site; while the remaining 360 have ARVs on site but do not have on-site HIV testing. Of the 1560 PMTCT sites, 883 sites now offer the more efficacious PMTCT prophylaxis regimen (MER 28) while the remaining 677 sites are still giving single dose Nevirapine (sdNVP) prophylaxis only.

While this is an improvement over last year's 200 facilities offering MER, it is disheartening to note that the sub-optimal sdNVP regimen is still being used in such a high number of health care facilities in the country.

Accelerated training of health care workers in MER and EID continued in 2010 in all of the 10 provinces in the country. There were a cumulative total of 3186 health care workers trained in MER, and this

included didactic and on-the-job training given during the supportive supervisory visits undertaken by program staff. A total of 2083 health workers were also trained in the use of the modified ANC and delivery registers, including the new HIV-Exposed Infant follow up register. The registers have been distributed and are in use country wide.

Out of the estimated 403 508 pregnancies in 2010, 350 590 (87%) attended antenatal care. This contrasts with the expected 90% of pregnant women who reported attending for ANC (ZDHS 2010/11). However, this is a significant increase compared to 2009 when programme coverage data showed that only 54% of all estimated pregnancies attended ANC. Antenatal care is the first port of call for PMTCT, for if pregnant women do not present themselves early and repeatedly for ANC, then the opportunity to test for HIV and give PMTCT services to those that test HIV positive will be lost. Acceptance for testing for HIV in the PMTCT program was high in 2010, with 337 537 (96%) of all pregnant women attending ANC being tested for HIV.

Of the 47 494 estimated HIV positive pregnant women in 2010; 39,782 (84%) received ARVs for prophylaxis. When disaggregated by regimen, 42% of the 39 782 dispensed ARV prophylaxis received MER, 11% were initiated on ART for their own health while the remaining 47% received sdNVP only for prophylaxis. In 2010 the country was able to reach universal access for maternal ARVs for PMTCT. However, the same cannot be said for the infant portion of the ARV prophylaxis regimen which continued to be low at 74%. The difference could be attributed to the documented low levels of institutional deliveries (65% in the ZDHS 2010/11) as infant prophylaxis is dispensed on delivery at health care facilities.

Increasing emphasis has gone to ensuring that HIV exposed infants are offered Cotrimoxazole prophylaxis and HIV DNA PCR testing from as early as 6 weeks of age or as early as possible thereafter. Much more needs to be done in these two areas however; as only 53% of the HIV exposed infants (HEI) received CTX prophylaxis in 2010. Though this figure is low, there is a substantial increase when compared to 2009 when only 34% of HEI received CTX prophylaxis. A total of 16 532 HIV DNA PCR tests were conducted in 2010, of which 2373 (17%) were positive. This is a significant increase over figures from 2009, when only 4 498 tests were performed; of which 901 (25%) were PCR positive.

As can be deduced from the data above, most of the PMTCT implementation practices in 2010 focused on HIV testing and counselling, antiretroviral prophylaxis, safer delivery practices and counselling and support on infant and young child feeding. The National PMTCT program, through the PMTCT Partnership forum, has begun the process of ensuring comprehensive programming for PMTCT that utilizes the WHO 4-pronged approach for the prevention of HIV in children. A sub-committee to look at programming for prongs 1 and 2 as well as the monitoring thereof was constituted in 2010 and work is continuing in this regard.

## 1.0 Background and Context

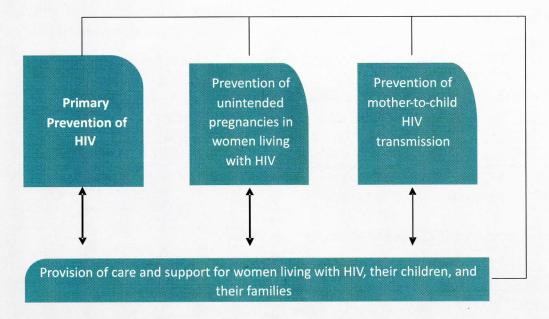
#### 1.1 Introduction

Despite significant gains in reducing HIV and AIDS prevalence, Zimbabwe remains one of the countries in the world with high HIV infection rates. According to the Zimbabwe HIV Estimates of 2009, the adult HIV prevalence was estimated at 13.6%, dropping from 16.1% in 2007 (see Table 1 below). The total number of HIV positive pregnant women needing PMTCT was estimated at 47,494 in 2010. The PMTCT program in Zimbabwe has evolved and has been rolled out using a phased approach, from the initial pilot in 1999 to a national program since 2002. In 2010, out of 1560 PMTCT sites, 677 (43%) sites continued to deliver sdNVP and the remaining 883 (57%) sites implemented the 2006 WHO guidelines.

Table 1 Summary of HIV Estimates 2007 to 2010

at .	2007	2008	2009	2010
HIV 15+female	664,893	636,585	617,792	608, 700
	(570,154-755,995)	(541,767-727,782)	(522,907-712,279)	(515,402-703,020)
HIV Children 0-14	164,166	158,294	151,749	145, 224
	(101,401-213,490)	(196,957-206,564)	(92,348-198,683)	(88,123-191,371)
Prevalence Adult	16.06	15.07	14.26	13, 63
(15-49)	(15,23-16.94)	(14,23-16.03)	(13,38-15.27)	(12,71-14,74)
Need for ART-	76.771	74.193	71.893	89,490
Children (0-14)	(46.621-100,118)	(45,713-96,575)	(44,145-93,453)	(54,822-116,375)
Mother needing PMTCT	58,-219	53,-548	50,-069	47,494
- FWITCI	(33,609-77,681)	(31,050-72,531)	(28,473-68,158)	(27,057-64,698)

The strategic framework for the PMTCT program in Zimbabwe is anchored on the UN 4 pronged approach for the prevention of HIV infection in children. **See Figure 1 below.** 



#### 1.2: PMTCT Program Goals 2006-2010

#### The overall goal of the national PMTCT programme is:

To reduce HIV infection among children, to reduce HIV related morbidity and mortality and improve the quality of life among children living with HIV and AIDS.

#### The broad objectives are:

- To provide comprehensive PMTCT services to at least 80% of pregnant women, their babies and families, including care and treatment of pregnant women, in the context of universal access, with the aim of reducing MTCT rates to less that 10% by the end of 2010
- To provide paediatric HIV prevention, care, treatment, and support services to at least 80% of all children less than 15 years of age by the end of 2010, in the context of universal access, with the aim of improving child survival among HIV infected and affected children by at least 50%.

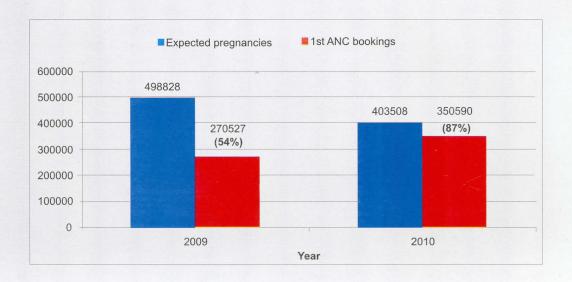
## **Specific Programme Objectives**

- 1. Advocate and increase awareness and commitment to addressing comprehensive, integrated PMTCT and paediatric HIV treatment and care programme among policy makers and key stakeholders.
- 2. Strengthen the provision of the comprehensive programme in all sectors of the family health delivery system.
- 3. Strengthen human resource capacity.
- 4. Ensure continuous availability and accessibility of good quality medicines, diagnostics, contraceptives, food and micronutrient supplements and other medical supplies.
- 5. Develop/strengthen the health infrastructure to enable delivery of the programme in a comprehensive manner.
- 6. Improve community mobilisation, service delivery and referral systems for HIV infected women, their infants and families.
- 7. Improve the generation, dissemination and use of strategic information to guide programming including monitoring and evaluation, surveillance and dissemination of best practices documentation.
- 8. Improve programme management, coordination and supervision in an integrated manner at all levels.
- 9. Mobilise resources for the implementation of the 2006-2010 comprehensive PMTCT and paediatric HIV prevention, care and support strategic plan.

## 1.3: PMTCT Program Highlights for Year 2010

The PMTCT program recorded enormous achievements in the 2010 illustrated by significantly higher uptake levels in various service areas compared to 2009. Data reporting rates increased from 53% in 2008 and 65% in 2009 to 75% in 2010 due to improved site reporting and data entry into the national HIV and AIDS Program M&E database.

Figure 2: Comparison of expected pregnancies per year versus actual number of pregnant women seen in ANC: 2009-2010



The estimated number of pregnant women in 2010 was lower than the number in 2009. As shown in figure 2 above, the expected number of pregnancies for 2010 were 403,508; compared to 498,828 in 2009 (Central Statistics Office, 2010). The explanation of why there is such a decline in expected pregnancies is contained in Annex 1. Of the estimated pregnant women in 2010, 350 590 (87%) attended at least one ANC visit; which is comparable to the 90% ANC attendance rate reported in ZDHS 2010/11. This percentage reflects significantly higher program coverage in 2010 compared to 2009 when only 54% of all expected pregnant women booked for first ANC visit.

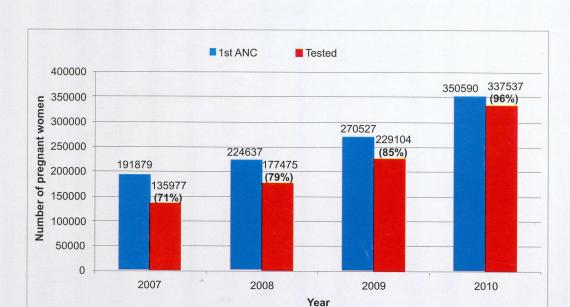
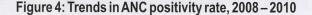
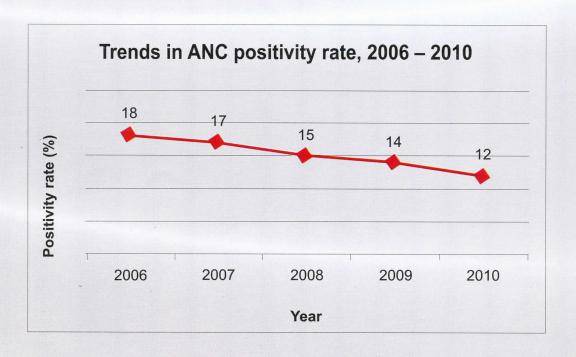


Figure 3: Comparison of Program level HIV testing rates: 2007-2010

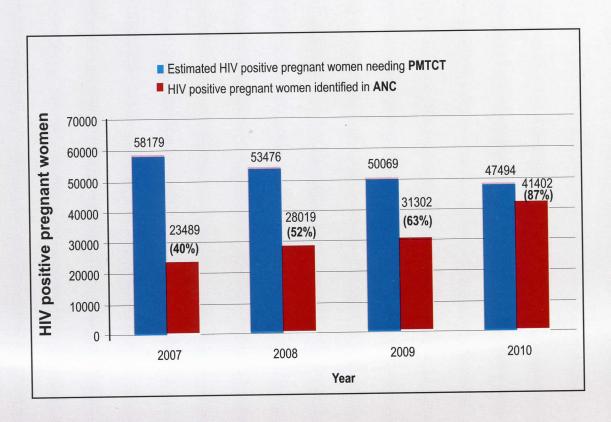
There has been a significant improvement in acceptance for HIV testing within the PMTCT program. In 2010, 96% of all pregnant women presenting in ANC received HIV testing as compared to 85% in 2009 and 79% in 2008. At population level, this translates to 84% of all expected pregnancies in 2010 as some pregnant women who should have come for ANC did not book for ANC. HIV testing rates varied by province with Matebeleland South (88%) and Masvingo (85%) reporting lower rates while Chitungwiza and Bulawayo recorded high HIV testing rates of almost 100%. See annex 3.



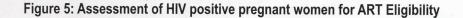


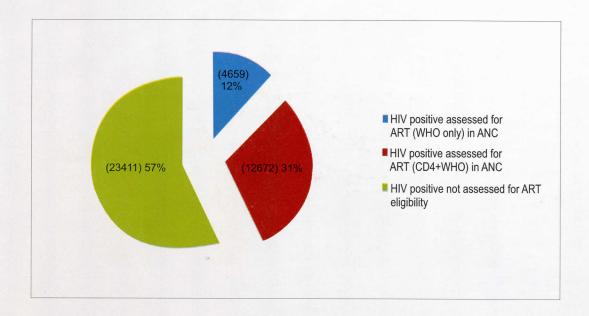
The program data confirms HIV positivity rate in ANC continues on a downward trend. Out of the 337 537 pregnant women who had an HIV test, 12% tested HIV positive, compared to 14% in 2009, and 15% in 2008. The decline in HIV positivity mirrors the general decline in adult HIV prevalence reported for Zimbabwe over the past decade.

Figure 4: Comparison of Estimated number of pregnant women needing PMTCT versus Actual number seen in ANC



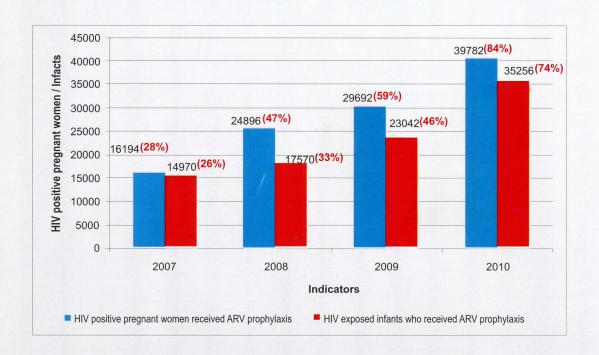
All though the estimated number of HIV positive pregnant women in Zimbabwe is declining as HIV prevalence continues to decline, the number of HIV positive pregnant women identified in the PMTCT programme continued to increase from 2007. A total of 41 042 (87% of estimated HIV positive pregnant women in the country) were identified as compared to 31 302 (63%) in 2009, 28 019 (52%) in 2008 and 40% in 2007.





Of the 41 042 HIV positive pregnant women seen in ANC, 12% were assessed for ART eligibility using WHO clinical staging only, 31% were assessed using both WHO clinical staging and CD4 count and the remaining 57% of the HIV positive pregnant women seen in ANC were not assessed for ART eligibility. According to WHO, between 30-40% of HIV infected pregnant women have a CD4 count less than or equal to 350 and are eligible for ART for their own health. It is evident that some ART eligible HIV positive pregnant women missed the opportunity to go on ART during pregnancy as they did not have a CD4 count done, and yet the subgroup of women with a low CD4 count are potentially 'high transmitters' of HIV to their HIV exposed infants; contributing almost 75% of all new HIV infections through MTCT.

Figure 6: HIV positive pregnant women and HIV exposed infants receiving ARV prophylaxis and coverage percentages for PMTCT prophylaxis against population data, 2007 - 2010



Trend analysis shows that there was an increase in uptake of ARVs for PMTCT by HIV positive pregnant women in 2010. Out of the total 47,494 estimated HIV positive pregnant women in the country, 84% received ARVs for PMTCT; including those who received ART for their own health. This proportion is significantly higher than the 2009 achievement of only 59% of estimated HIV positive pregnant women receiving ARVs for PMTCT. Infant ARV prophylaxis uptake increased from 33% in 2008 to 74% in 2010. This could be attributed to an increased number of comprehensive sites from 940 in 2009 to 1200 in 2010 and optimisation of service provision in all sites through improved availability of ARVs for PMTCT, training and supervision of health care workers and improved reporting by implementing sites.

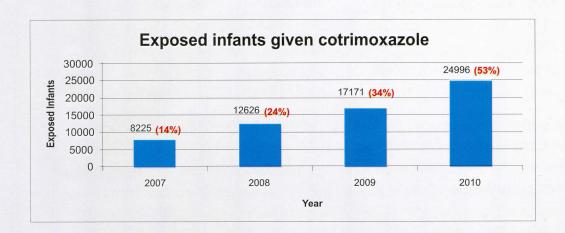


Figure 7: Cotrimoxazole Prophylaxis to HIV exposed infants (HEI)

There has been a notable increase in the proportion of HEI receiving CTX; which was at 53% in 2010 compared to 34% in 2009, 24% in 2008 and 14% in 2007. Whilst the proportion of HEI receiving Cotrimoxazole has increased, the coverage is still unacceptably low taking into account that it is a relatively cheap drug which should be widely available given its critical role in the prevention of PCP and other infections. However there are still challenges of recording of CTX which did not have a proper register and dispensing of CTX in pharmacies which reduces accessibility by clients. It has since been recommended that CTX be dispensed in FCH and provision made for recording in the infant dispensing register to improve data collection.

## DNA PCR for Early Infant Diagnosis (EID) of HIV

The major thrust for EID was scaling up of the program country wide as is indicated by the statistics below. In 2009, DBS collection was from 48 sites whilst in 2010 it increased to 379 sites. A decline in positivity rate from 27% in 2008 to 14% in 2010 was noted. There are many possible reasons for the decline in positivity rate, including that perhaps more asymptomatic infants are coming in to test, as well as use of the more efficacious regimen as the program transitions from use of single dose Nevirapine only to MER. Clearly more analysis of the data is needed to understand the reason for the decline. Of note is that the HIV DNA PCR results have not been analyzed based on whether they are from infants who had PMTCT or not, received only sdNVP or more efficacious regimen, were breastfed or not, were asymptomatic or symptomatic or had repeat PCR because of a previous negative PCR result. The Ministry will be working with the NMRL to achieve this data disaggregation.

Table 2: Specimens for PCR collected by year

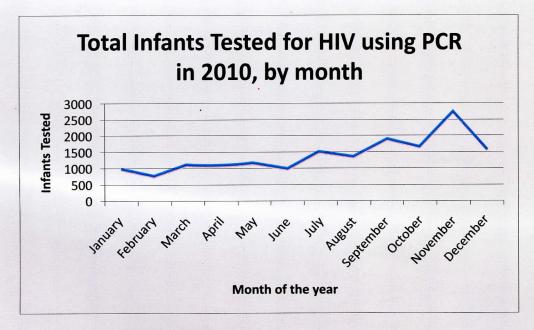
Year specimens	Total	Positive	Negative
2007	322	77 (24%)	245 (76%)
2008	2 169	581 (27%)	1 585 (73%)
2009	4 498	901 (20%)	3 597 (80%)
2010	16 481	2 327 (14%)	14 154 (86%)

Of the 16 481 samples submitted in 2010, 2327 (14%) were PCR positive while the remaining 14 154 tested negative. The mean age at test was 4.53 months (s.d=3.8). The median age at test was 3 months (Q1=2, Q 3=7). Bulawayo and Harare submitted the highest number of tests in 2010 as shown in annex 3. These were 4700 (28.5%) and 4 581 (27.8%) respectively. Almost equal numbers of male and female children were tested with 7665 (46.5%) females and 8 060 (48.9%) males tested. The remaining 756 (4.6%) samples submitted had missing gender. A total of 6 593 (40%) of the specimens were from infants less or equal to 2 months of age, 8 976 (54.5%) were between 2 months and 19 months of age and 912 (5.5%) had missing age.

November had the highest number of samples tested (2720) while February had the lowest test volumes. See figure 8 below. This is an indication of the increase in number of sites collecting samples. The median time it took for the specimens to reach the laboratory from the time the blood was drawn from the infant was 9 days (Q1=6, Q3=15) and the median laboratory turnaround time was 7 days (Q1=4, Q3=8).

Mashonaland West had the highest PCR positivity rate as shown in annex 4.

Figure 8: Trend Analysis of infants tested by month



## Achievements in the EID Program

- a) The automated COBAS APLIMPREP/COBAS TAQMAN machine for HIV qualitative real-time PCR and viral load testing was bought with support from Clinton Health Access Initiative (CHAI) in April 2010
- Lab scientists were trained at the National Institute for Communicable Diseases (NICD, RSA) in June 2010 on use of the automated testing system
- c) Eight EID Lab Scientists were recruited in November 2010 with support from Global Fund Round 8
- d) One data analyst and five data entry clerks were recruited to support the PCR database
- e) Number of specimens tested in 2010 increased by about 400% compared to 2009.
- f) There has been an improvement in intra-laboratory turnaround time of results from 10 days to 7 days
- g) Support and supervision was carried out in 4 Districts; namely Harare, Makoni, Zaka and Chirumhanzu
- NMRL EID unit was awarded a certificate of excellence by the CDC Global AIDS
   Programme in recognition of the consistency in quality of the proficiency testing results
   Commodities for EID were procured

#### **Point of Care CD4 Machines**

With support from CHAI, evaluation of Point of Care CD4 machines was conducted. The findings from the evaluation were presented as a poster presentation at the International AIDS Conference held in Vienna, Austria in July 2010. The results showed no significant difference in results between POC and laboratory based CD4 machines, and that both nurses and laboratory scientists could operate the POC machines. This resulted in the MOHCW approving use of POC devices by both laboratory and non-laboratory health providers.

MOHCW has given the go-ahead to procure POC machines to facilitate further roll out. Six health facilities were trained in August 2010 on how to use the PIMA machines. Training of POC operators was conducted by Medsure, the local representative company for the PIMA devices. CHAI has set-up and enrolled new POC CD4 machines on an External Quality Assurance (EQA) program with ZINQAP. A market sizing for introduction of POC CD4 and negotiating costs for POC CD4 devices and consumables has been done. A draft document on Strategic Deployment Recommendations for POC is being developed to include a financial gap analysis for POC CD4 testing so as to enable resource mobilization.

## Challenges of the EID Program

- There were stock outs of DBS bundles and PCR reagents due to various reasons;
   mainly related to the rapid scaling-up of EID services
- b) Both the FEDEX and the EMS systems were not working satisfactorily
- c) Limited Freezer space for storing of tested DBS samples
- d) Limited back-up equipment for the manual testing, e.g. Micro-plate washer, thermal cycler and heating blocks
- e) No valid service contracts for some equipment
- f) Photocopier breakdowns and stationery stock-outs affected dispatch of results
- g) Frequent water cuts and electrical outages affected the running of the NMRL
- h) Weak program linkages (patient referral system) HEI needing follow up and HIV infected infants needing ART

#### 2.0 Program Specific Objectives

#### 2.1 Specific Objective 1

"Advocate and increase awareness and commitment to addressing comprehensive, integrated PMTCT and paediatric HIV treatment and care programme among policy makers and key stakeholders."

#### **Achievements**

In order to enhance the linkage of PMTCT to institutionalized follow up services as well as to introduce more efficacious PMTCT regimen, targeted communities were mobilized. Target audiences included policy makers, traditional leaders, counsellors, village health workers and communities at large. A national PMTCT high level advocacy meeting was held for stakeholders and policy makers with support from EGPAF. Community mobilisers and village health workers were trained to strengthen community mobilization activities with support from partners.

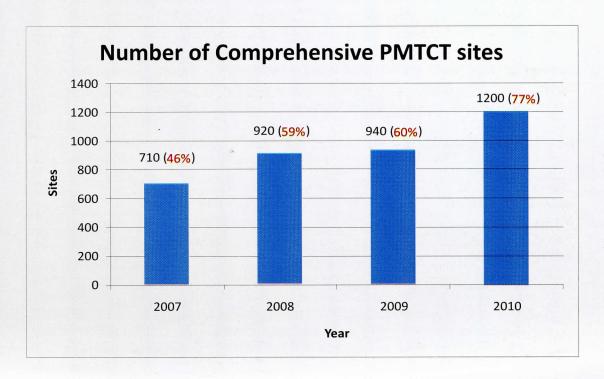
#### Challenges

- Lack of a mass media communication strategy for the increased uptake of PMTCT services
- Poor male involvement
- Lack of peer support groups

## 2.2: Specific Objective 2

"Strengthen the provision of the comprehensive programme in all sectors of the family health delivery system."

Figure 9: Comparison of the number of facilities offering on-site HTC and ARV prophylaxis for PMTCT 2007-2010



#### **Achievements**

There are 1643 health facilities in the country of which 1560 (95%) are ANC sites offering PMTCT services. In 2010, 1200 (77%) sites were offering both on-site rapid HIV testing and ARVs for PMTCT; an increase from 940 (60%) in 2009. Facilities that did not have Rapid HIV testing on site but had ARVs for PMTCT decreased from 620 (40%) in 2009 to 360 (23%) in 2010. Of all ANC sites in the 62 districts, 883 (57%) offered more efficacious regimen (MER 28) which was an increase from 200 (13%) sites in 2009. In 2010, the number of sites collecting DBS for HIV DNA PCR increased to 379 (24% of all ANC sites) from 48 (3% of all ANC sites) sites in 2009.

## 2.3 Specific Objective 3

"Strengthen human resource capacity."

Introduction of the revised WHO PMTCT regimen in 2010 necessitated the need for continued capacity building of health care workers to provide quality and integrated PMTCT services that benefit mothers and their families. In-service trainings in rapid HIV testing, use of Point of Care Pima machine for CD4 count, MER, M&E, EID and infant and young child feeding counselling in the context of HIV were conducted.

Trainings targeted health workers at all levels of health service delivery. Some of the trainings were conducted through PMTCT implementing partners at district level. The total numbers of health care workers trained are shown in table 3 below.

Table 3: Number of health care workers trained by partner

Type of training	Number trained	Source of fund
National TOT MER/EID	68	GFR8, UNICEF
Master TOT EID	23	CHAI
District Trainings MER / EID	189	ESP
Rapid HIV Testing	621	ESP, CIDA, UNICEF, OPHID, ZAPP, KAPNEK TRUST
IYCF in the context of HIV	563	ESP, CIDA, UNICEF, OPHID, ZAPP, KAPNEK TRUST
Basic PMTCT	68	OPHID, ZAPP
EMNOC / MER	276	UNICEF
MER / EID	1387	GFR8,, CIDA ZAPP, KAPNEK TRUST
MER	1256	OPHID, ZVITAMBO, ZAPP KAPNEK TRUST
EID	236	UNICEF
Peads OI/ART	31	OPHID
Adult OI/ART	43	OPHID
Use of Point -of- care PIMA CD4 Machine	128	KAPNEK TRUST/UNICEF
Integrated PMTCT and STI	35	MSF-SPAIN
Monitoring and Evaluation Training	180	ESP, EGPAF, GFR8

In addition to in-service training, on the job training and support supervision of health care providers were conducted.

## Challenges

- a) Insufficient funding allocated for trainings
- b) Fewer health workers trained in MER/EID and infant and young child feeding counselling relative to the number of PMTCT sites
- c) Inadequate numbers of Provincial Trainers to fully cascade quality trainings at district level
- d) Fewer integrated PMTCT Trainings
- e) Health workers were not able to utilise their skills because of the shortages of DBS bundles
- f) Limited post training support and supervision due to inadequate manpower at national level
- g) Inadequate training materials

## 2.4 Specific Objective 4

"Ensure continuous availability and accessibility of good quality medicines, diagnostics, contraceptives, food and micronutrient supplements and other medical supplies."

JSI/SCMS continued to support the Delivery Team Top Up Unit (DTTU) of the Zimbabwe National Family Planning Council (ZNFPC) in the distribution of family planning commodities, HIV test kits as well as ARVs for PMTCT. Serial testing was adopted with Determine as the 1st test, Sd Bioline as the confirmatory test and Insti as the tie breaker. All the products had donor commitment and 883 MER trained sites received their commodities via the DTTU program. Drug expirations were limited as the commodities were evenly distributed. The total commitment for ARVs for PMTCT and HIV test kits was US\$4,851,672 for 2010 as shown in tables 4 and 5 below respectively. The LSU received US\$1,500,971 worth of ARVs for PMTCT in 2010. The breakdown of the support is as indicated below.

Table 4: Donor support for ARVs received in 2010

Donor	Amount Commited
UNITAID	US\$1.326,939
Global Fund Round 5	US\$65,795
SCMS	US\$108,237
Sub Total	US\$1 500,971

NOTE: ARVs received in 2010 will be consumed in 2010, 2011 and part of 2012.

Table 5: Support for HIV test kits is as indicated below

Amount Committed
US \$150, 415
US\$109,760
US \$253,555
US \$1,255,934
US \$660,242
US \$ 920,795
US\$3,350,701
US4,851,672

#### Challenges

Stock outs of key commodities continued to be experienced in 2010. HIV test kits faced some supply gaps and sites experienced some shortages as is indicated below.

- Some of the Service Delivery Points (SDPs) were difficult to reach as a result of wet weather conditions, such as those in Mbire District in Mash Central, Chimanimani in Manicaland and Gokwe in Midlands
- b) Some of the PMTCTARVs ended up being used for adult ART
- c) The NVP and AZT syrups were packaged in 240mls bottles and these had to be decanted into smaller 20ml bottles. These smaller bottles were not always available, and when available, they would sometimes not have bottle tops
- d) There was a decrease in stock outs for most of the products except for Infant and Maternal Nevirapine which had supply gap challenges towards the last quarter ARVs for PMTCT were in some instances delivered to the hospital pharmacies but were not always forwarded to the PMTCT sites, leading to delayed implementation of MER.

**Table 6:** The percentage stock out rates for test kits were as follows:

	QR1 2010	QR2 2010	QR3 2010	Qr4 2010
Determine	16.70%	3.90%	1.10%	3.90%
Chase			<b>建</b> 杂花点	
Buffer	22.00%	15.00%	12.00%	19.99%
SD Bioline	11.20%	2.70%	0.10%	2.10%
Insti	84.00%		33.00%	1.40%

**Table 7:** The percentage stock out rates for NVP were as follows:

Infant NVP	4.20%	27.00%	12.50%	13.30%
Maternal				
NVP	10.70%	11.10%	3.90%	10.40%

## 2.5 Specific Objective 5

"Develop/strengthen the health infrastructure to enable delivery of the programme in a comprehensive manner."

#### **Achievements:**

1200 health facilities were assessed for eligibility to provide expanded PMTCT services.

## 2.6 Specific Objective 6

"Improve community mobilisation, service delivery and referral systems for HIV infected women and their families."

#### **Achievements:**

Activities included community sensitization meetings, campaigns and male sensitization meetings. A number of PMTCT partners and the Ministry of Health village health workers were instrumental in community mobilization activities.

CIDA supported 43 community sensitization meetings and 42 campaigns in the 7 CIDA supported districts which are Harare, Bulawayo, Chitungwiza, Zaka, Chirumanzu, Murewa and Makoni.

ZAPP supported community mobilization activities through use of theatre by community mobilizers to address and educate the community on PMTCT and other related issues. UNICEF also supported community mobilization and awareness activities in the three districts namely Gokwe North and South and Mwenezi by male champions through PACT Zimbabwe in which over the two year duration of the program, up to 37% couples were tested together as compared to 1% at baseline.

An evaluation study of this pilot has been done from which lessons learnt have been documented. Recommendations have been made for possible expansion with a more focussed male peer support group approach to more districts to promote male involvement in PMTCT /Pediatrics HIV Care and Treatment services.

## 2.7 Specific Objective 7

"Improve the generation, dissemination and use of strategic information to guide programming including monitoring and evaluation, surveillance and dissemination of best practices documentation."

#### Monitoring and Evaluation

## **Data Quality Audit**

The Global Fund conducted a data quality audit through JSI. The objectives of the audit were three fold:

- To verify the quality of reported data for key indicators at selected sites
- To assess the ability of data-management systems to collect, manage and report quality data
- To contribute to M&E systems strengthening and capacity building

Recommendations from the DQA were as follows:

- a) Develop M&E reporting guidelines
- b) Develop data collection, aggregation, analysis and dissemination guidelines
- c) Review M&E tools to measure timeliness and completeness of reports
- d) Approve a formal organogram for the M&E Unit in the AIDS and TB Programme
- e) Finalize, print and disseminate working definitions for indicators
- f) Revise M&E tools: Use CODES in Registers
- g) All support and supervision visits should verify at least one Performance Framework Indicator

The audit recommendations above have been used to guide HIV and AIDS monitoring and evaluations systems in 2011.

## Essential Data Set (EDS) for HIV and AIDS programmes

The M&E team completed the Essential Data Set which lists all core and additional program indicators on HIV and AIDS based on GF, WHO, UNGASS, PEPFAR, UA and IATT frameworks. The guide indicates reference points for data source and shows numerators and denominators for calculating indicators. The finalization of this document addressed recommendation (e) above from the GF data quality audit.

#### Indicator Database Roll-out

The Ministry completed the national roll out of the indicator database to all districts. This has improved data transmission as data can be transmitted electronically from district to provincial levels, and onwards to the national level. Reporting rates have significantly improved from 60% in 2009 to 75% in 2010.

## Revision and Printing of M&E Tools

All ANC, labour & delivery and follow-up registers and forms were reviewed and updated by MOHCW, partners and other stakeholders to align them with 2010 WHO guidelines. The tools will be piloted, finalised, printed and distributed in 2011. Printing of the M&E tools will be supported by CHAI, EGPAF, UNICEF, Global Fund and CIDA. EGPAF supported the printing and distribution of 200 copies of the 2009 Annual PMTCT report and referral registers which were delivered to the 883 MER sites.

## M&E challenges

There have been frequent changes to the PMTCT regimen that necessitated revisions to the M&E tools. The revised tools were not always printed in sufficient numbers to cover all ANC sites. Consequently, some facilities would continue to have access only to the old tools whilst others had the new reporting tools that have HTC, PMTCT and ART sections. In addition, shortage of M&E stationery resulted in some facilities failing to submit reports at all, hence affecting reporting rates and data transmission at different levels. Due to staff rotation in big institutions, there is a challenge of retaining M&E capacity as healthcare workers trained in M&E move to other departments.

## Support and supervision visits

CIDA, CHAI, Global Fund, ESP, UNICEF and EGPAF supported teams to conduct support visits to sites. The support visits were conducted by national, provincial and district teams. The support visits included on the job training for DBS collection and data collection. However, there were resource limitations for conducting these visits which are supposed to be done once every quarter at all levels.

## **Provincial Monitoring and Evaluation Trainings**

EGPAF, ESP and the Global Fund supported monitoring and evaluation trainings for four provinces; namely Bulawayo, Chitungwiza, Mashonaland East and Manicaland, as these provinces had few health workers trained in salient aspects of monitoring, data recording, reporting and verification. The benefit of the provincial M&E TOTs was establishment of provincial teams capable of providing M&E training to districts and sites. However, due to absence of funding to cascade the trainings to district level, the training has not been cascaded to implementers. It has since been recommended that the available resources be used to conduct district level trainings in order to build capacity at site level. The trainings will be facilitated by national level and provincial staff trained during provincial TOTs as on-going capacity development for provincial and district level supervisors while directly training the implementers.

# Provincial review and planning meetings

UNICEF supported four provincial review and planning meetings (Manicaland, Mashonaland West, Mashonaland East and Masvingo). A total of 234 health officers from 28 districts participated. The outcome of the provincial review and planning meetings was a road map on how to overcome challenges and accelerate the roll out of MER and EID. Some district programme review meetings were conducted with support from partners.

## 2.8 Specific Objective 8

"Improve programme management, coordination and supervision in an integrated manner at all levels."

#### **PMTCT Partnership Forum**

With support from EGPAF, six bi-monthly PMTCT Partnership Fora (PPF) meetings were conducted. In addition, technical sub committees followed up on various issues that were emerging. These committees were:

- Early Infant Diagnosis: DBS roll out and EID training materials
- Point of Care CD4 Testing
- ART in MCH: Development of SOP and piloting of ART in MCH
- Prongs 1 and 2: Primary prevention of HIV infections and prevention of unintended pregnancies
- PMTCT communication strategy: Positive steps two
- Paediatric ART

#### 2.9 Specific Objective 9

"Mobilise resources for the implementation of the 2006-2010 comprehensive strategic plan for PMTCT and paediatric HIV prevention, care and support."

The programme continued to benefit from financial, technical and human resource support from Government and other funders. **Government of Zimbabwe (GOZ)** continued to fund the program in terms of provision of infrastructure, human resources and other administrative costs.

## Partner support

#### **Partners**

- EGPAF: through the Family AIDS Initiative (FAI)
- · ZAPP
- · KAPNEK
- OPHID
- · WHO/CIDA
- · UNICEF/CIDA
- GFATM
- ESP (5 partners:- DFID, NORAD, SIDA, CIDA, Irish Aid)
- · CHAI
- ZVITAMBO
- Commodities from NAC, NATPHARM, JSI, SCMS, UNITAID
- · PEPFAR
- · MSF
- · National AIDS Council (NAC)
  - CIFF

Overall coordination for partner support was provided by MOHCW PMTCT.

EGPAF continues to play a leading role in supporting PMTCT in Zimbabwe through the Family Aids Initiative consortium (FAI) which includes Kapnek, ZAPP and OPHID. EGPAF provided funding to the three implementing partners to conduct PMTCT training for health workers and provide support and supervision in 38 districts. In addition, EGPAF provided technical and human

resource support to the PMTCT programme at national level. EGPAF supported a high level national PMTCT /Paediatrics HIV Advocacy meeting whose major recommendations included prioritizing ART for eligible HIV infected pregnant women and the provision of ART within the MNCH settings. Additionally, EGPAF supported the national PMTCT program in M&E through printing and distribution of the 2009 Annual report and referral registers .

**UNICEF** contributed immensely to the scale up of the PMTCT program in 2010. Funding was provided to implementing partners for capacity building of health workers within MNCH units to provide more efficacious regimens for PMTCT integrated with EMNOC and young child feeding counselling. Other areas of support included:

Human resource support to retain two officers in the PMTCT program

- Procurement of ARV drugs and Cotrimoxazole for an estimated 10,800 HIV infected mothers and their HIV exposed infants
  - Procurement of 35 POC machines deployed through Kapnek Trust
- Support of four provincial review and planning meetings
- Seven districts were each supported with a vehicle
  - Support of male champion program by PACT in three districts resulted in an increase in couple testing from 1% to 37%
    - Technical support and input in various fora; both local and international

With funding from EGPAF, UNICEF and other donors, Kapnek supports 594 sites of which 530 provide on-site HTC and ARV prophylaxis while the remaining 64 sites have ARVs for prophylaxis but refer for HTC. Of the 594 sites, 180 sites offer MER services and 44 PMTCT sites are also colocated with OI/ART sites that initiate ART. Seventy one sites are ART follow up sites. Kapnek's major area of focus in 2010 was mainly capacity building, mentoring, support and supervisory visits for the health workers. Fourteen post training site support visits were conducted and 254 sites were visited.

Eight sensitization workshops were held for nurse managers, clinic orderlies and community based counsellors. A total of 178 health workers benefited from these sensitization workshops on MER/EID.

Community mobilization activities supported by UNICEF were conducted in 15 PMTCT sites with guidance of an external media consultant for the increased uptake of the PMTCT program. Five (5) program review and planning meetings were held in three districts and these highlighted challenges faced in program implementation from which recommendations to increase uptake of PMTCT in Kapnek supported districts were drawn.

#### **GLOBAL FUND**

Staff recruitment and Retention:

- One PMTCT programme officer was recruited in October 2010 and retained
- Five laboratory data officers were recruited to assist with entry of EID data: 2 for NMRL; 2 for Mpilo Hospital and 1 for Mutare
- Eight laboratory specialists were recruited and retained to assist with timely analysis of EID data: 4 for NMRL, 2 for Mpilo Hospital and 2 for Mutare
- Support and supervision-The GFR8 provided support to districts for DHE meetings and district support supervision. Two support and supervision visits were conducted by staff from the National level

## **WHO-CIDA Support**

WHO-CIDA supported the PMTCT program with a total of USD\$718 010 in 2010 for the roll out of MER 28 in the seven supported districts which are Murewa, Makoni, Harare, Bulawayo, Chitungwiza, Chirumanzu and Zaka. Six of the districts managed to roll out MER and EID services to all health facilities except Murewa. Sensitization of policy makers and communities at district level was done. A total of 43 advocacy and sensitization meetings for district leadership and programme managers were held. In addition, 42 community awareness campaigns were carried out. Seven PMTCT refresher courses were conducted for 369 community mobilisers to update them on new PMTCT developments. As part of strengthening of national and site level diagnostic services, procurement of 162 000 syphilis test kits was done to screen pregnant women during ANC. Stationery was delivered to the 7 CIDA supported districts and fuel was supplied for implementation of CIDA—supported activities within the districts.

#### **ZAPP**

With funding from EGPAF, ZAPP supported MOHCW to capacitate nurses and midwives for Chitungwiza hospital and the city clinics through training in such areas as rapid HIV testing, PMTCT, HIV counselling for children and DBS collection for HIV DNA PCR. Other areas of support included community mobilization activities by the community mobilisers through use of theatre to address and educate the community on PMTCT and other related issues and provision of psycho-social support services to children in Chitungwiza. ZAPP conducted a number of operational research pieces to inform policy and guide PMTCT programme implementation. A total of **USD\$ 88 159.98** was used towards programme activities.

#### **OPHID**

OPHID, with funding from EGPAF and other donors supported 200 sites in 9 districts to implement the PMTCT programme. The main areas which OPHID supported were in operational research to guide programme implementation, training of health workers in competencies such as EID, OI/ART management, PMTCT and Infant and young child feeding counselling. OPHID programme officers also conducted support and supervisory visits.

#### CHAI

In 2010, CHAI supported Early Infant Diagnosis (EID) national scale up with:

- Retention of lab staff for EID (3 scientists, 1 database officer)
- Procurement of EID commodities
- Stationery and other lab needs (photocopying and maintenance of the photocopier)
- DBS sample transportation through FedEx and EMS envelopes
- Printing of registers
- Development of SOPs to guide implementation at new DBS submitting sites
- Redesigning of EID data management and reporting system
- Development and revision of EID training manuals
- Funding for a National TOT for EID

#### **Paediatrics**

- Embarked on Pediatric Care and Treatment Review Exercise
- Revision of PMTCT/ART Treatment Guidelines

Support for PITC and PC Impact Assessment Study
Salary support for PC

## Other National Level Support

- Forecasting and quantification support to MOHCW for pediatric and adult 2nd line ARVs, lab commodities and RUTFs
- Technical and commodity support to all aspects of POC CD4 testing to enhance CD4 access for HIV positive pregnant women and children

Financial support was received from other partners that support PMTCT which include ESP, UNITAID and UNFPA.

## 4.0 PMTCT program challenges

- a) Inadequate community mobilization and demand generation activities in the face of such obstacles as user fees
- b) Late booking and increasing home deliveries which presented missed opportunities for PMTCT
- c) Low male involvement negatively affecting uptake of PMTCT services
- d) Low coverage of ARV prophylaxis for PMTCT; including low numbers of treatment eligible HIV positive pregnant women initiating ART for their own health
- e) Commodity insecurity with stock-outs of ARVs at some sites
- f) Inadequate EID commodities and related laboratory consumables
- g) Loss to follow up of HIV exposed infants is still a problem; leading to low HIV testing rates of HEI, and fewer numbers going on cotrimoxazole prophylaxis from as early as 6 weeks of age
- h) Inadequate attention given to Prongs 1 and 2 of the comprehensive approach to preventing HIV infections in children

#### 5.0. Recommendations

#### **General PMTCT services**

- 1. More Health workers need to be trained in WHO clinical staging and all service delivery points should have a WHO clinical staging flow chart
- 2. There is need to have more POC CD4 machines in addition to deploying more conventional CD4 count machines
- 3. District review meetings should precede provincial review meetings

#### **HIV-Exposed infants**

- 1. Strengthen mother-baby pair follow-up
- Scale-up DBS collection for HIV DNA PCR
- 3. Cotrimoxazole prophylaxis to be dispensed at service point
- 4. Increase entry points for HIV testing of children e.g. through PITC of all children whether sick or not; including of children of unknown HIV exposure status. Reconfirm HIV status at 18 months of age using Rapid test or ELISA

#### **HIV-infected infants**

1. Initiate ART without waiting for any immunological or clinical criteria

2. Increase access to paediatric OI/ART through training and mentorship of service providers

#### 6.0 Stretch goals for 2011

- Reach 90% of all estimated HIV positive pregnant women with PMTCT services following the 2010 WHO guidelines
- Increase MER 14 sites to 1300 sites by end of 2011
- Minimize missed opportunities for PMTCT: all ANC sites should have on-site Rapid HIV testing services. Rapidly scale-up HTC training in the remaining "360 minimum sites"
- Determine ART eligibility in at least 80% of the HIV infected pregnant women
- Initiate CTX in 80% of HEI by 2 months of age
- Perform HIV DNA PCR testing in 65% of HEI by 2 months of age

Continue to pursue delivery of a quality, comprehensive 4-pronged approach to the prevention of new HIV infections in children delivered within a strengthened MNCH platform

#### 6.0 Summary

Commendable achievement has been made in scaling-up PMTCT and early infant diagnosis in 2010; though much more still needs to be done. As the PMTCT program continues to scale-up, increased attention must go into ensuring that the subgroup of HIV positive pregnant women who need ART for their own health and for PMTCT receive ART as this has potential to reduce MTCT by as much as three quarters. Mother-infant follow up strategies will be critical as the program strives to reduce loss to follow-up while strengthening longitudinal care for the HIV-exposed or HIV infected infant as well as for the mother who is already known to be HIV positive.

Zimbabwe has clearly set herself the goal of elimination of new Pediatric HIV infections by 2015 and to do this increasing attention will need to be focused on rolling out more efficacious regimen for PMTCT according to the WHO 2010 guidelines and in supporting mentorship and supervision of health care workers at implementing sites; within both the public and private sectors. The emphasis on prongs 1 and 2 that deal with primary prevention of HIV and prevention of unintended pregnancies in HIV positive pregnant women respectively needs to receive closer attention as the country moves towards elimination of new HIV infections by 2015 and keeping mothers and children alive. In addition, linkages with sexual reproductive health and maternal, newborn and child health services will be critical to attainment of MDGs 4, 5 and 6 by 2015.

It is fundamental that progress towards the goal of elimination of new HIV infections in children be monitored. As such, M&E activities will need to be strengthened including conducting impact evaluations to allow us address the question of how many new pediatric HIV infections are averted through implementation of PMTCT.

Therefore, as we look to 2011 and beyond, there will be need for a concerted effort to scale up PMTCT services: from creating demand for services right through to provision of quality comprehensive services in order to attain elimination of new HIV infections by 2015.

#### 7.0 ANNEXES

# ANNEX 1: POPULATION PROJECTIONS FOR ZIMBABWE (PERIOD 2002 TO 2010)

This write-up serves to explain the methodology that was used to produce Zimbabwe population projections for the period 2002 to 2010. These projections should not be taken as predictions or forecasts of the Zimbabwean population. Rather, these should be considered as illustrations of population growth or change that would occur if events were to present themselves as prescribed by the proposed assumptions.

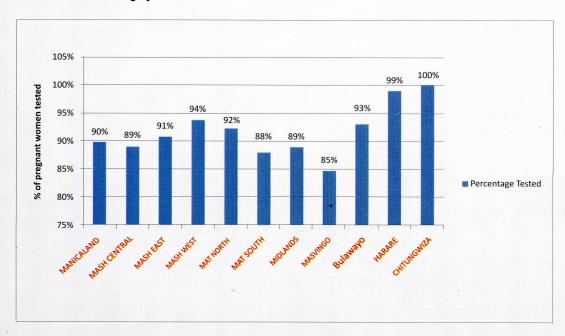
Zimbabwe population projections for the period 2002 to 2010 were computed using the cohort component method. This method is defined simply by the use of estimates and projections of births, deaths and net migration to update the population. The cohort component method is inherent in Spectrum computer package. The Spectrum software was designed by Futures Group International for making population projections taking HIV/AIDS into account. Besides demographic projections (DEMPROJ), spectrum has a module for projecting the impact of HIV/AIDS on the population called AIM. AIM requires data describing the characteristics of HIV/AIDS epidemic and the health care system.

The basic input data for the Spectrum software includes: base year population by five-year-age groups for males and females separately, total fertility rates; age specific fertility rates; the sex ratio at birth; life expectancy at birth for males and females separately; HIV assumptions classified as upper, middle and lower variants. Therefore, the most plausible projection figure under one of the three sets of assumptions was used as one of input data during the processing of the 2009 National HIV Estimates. However, there is still need to continuously improve the process of developing population projections for the country.

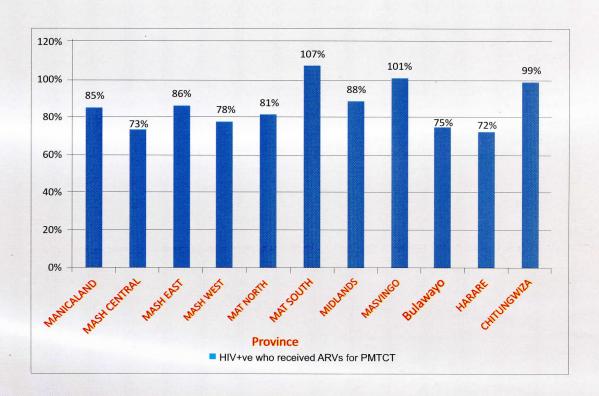
#### Prepared by:

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**ANNEX 2: HIV Testing by Province** 

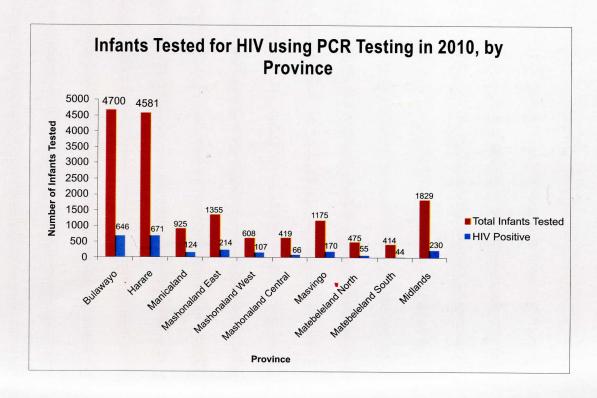


ANNEX 3: Maternal PMTCT ARV prophylaxis by province



MatSouth and Masvingo provinces reported over 100% ARV prophylaxis coverage and yet they have low HIV testing rates. This could be attributed to patients who present with a documented HIV positive result and are given drugs and yet they would not have been tested in those provinces because of high levels of mobility in their populations to neighbouring countries.

**ANNEX 4: EID Provincial Coverage** 



**ANNEX 5: PMTCT Commodities Procured in 2010** 

Product	Quantity
DBS Bundles	101,280 tests
Amplicor Reagents	21,696 tests
Ampliprep Reagents	17,808 tests
Lab consumables Amplicor	33,600 tests
Lab consumables Ampliprep	24 packs
Kaletra Syrup	4,866 packs
PIMA Devices	6,(10 incl. 4 to VCT / PS)
PIMA Cartridges	12,200 packs
PIMA Bead Standard	12
PIMA Finger stick sample collection	12,500 tests
PIMA Printer paper	13,000 tests
DNA PCR Request Registers	1,230 (61,500 tests)
DNA PCR Clinic Register	274 (27,400 tests)
DNA PCR Lab Register	224 (22,400 tests)
Transmittal forms	1,000
Reorder forms	500
Yellow Bond	40
EMS Envelopes	1,500
Ready to Use Therapeutic Food (RUTF)	1,800 cartons

					-																
AREA	ANC First Visit	ANC women HIV tested	ANC Women HIV+	HIV +ve women Dispensed sd NVP in ANC	HIV +ve women initiated on AZT in ANC	HIV +ve assessed for ART(W HO) in	HIV+ve assessed for ART(CD 4) in ANC	HIV +ve eligible for ART in ANC	HIV +ve initiated on ART in	Institutional deliveries	BBA/ Home	Labour /PNC with unknown HIV	HTC in Labour /PNC	HIV +ve women identified in Labour/	Mom dispensed with AZT/3T C in Labour	Inf dispensed with sdNVP only	Inf dispensed with sdNVP and AZT	HIV positive mothers started CTX	HEI started on CTX	Partners HIV tested	Partner HIV+
						ANC			ANC			status		PNC	/PNC		7-28days				
BUHERA	5634	4771	393	351	233	264	238	120	87	2430	1317	172	51	32	83	119	189	299	372	387	78
CHIMANIMANI	3517	3377	294	295	89	108	108	70	30	1913	525	102	51	52	37	167	75	270	227	234	32
CHIPINGE	5697	4262	379	352	59	163	76	97	50	3235	681	344	110	96	90	249	59	237	245	171	. 45
MAKONI	12016	11340	1431	1334	676	807	482	200	77	7425	1179	326	211	37	472	308	760	427	538	1748	234
MUTARE	10932	9782	1032 410	920 362	131	371 190	237	170	101	8370	1179	1435	93	46	182	516	367	737	483	696	130
NYANGA	5508	5078	428	399	46	209	119	117	55	3577	466	474	179	55	70	209	96	238	284	331	49
MANICALAND	47641	42792	4367	4013	1340	2112	1325	43 817	15 415	3475	480	105	48	24	41	227	53	166	157	417	62
WIANICALAND	47041	42/32	4307	4013	1340	2112	1323	817	415	30425	5827	2958	743	342	975	1795	1599	2374	2306	3984	630
BINDURA	3900	3008	398	488	82	58	27	12	6	1813	210	400	12	20	10	447	40				
CENTENARY	4594	3901	339	132							218	409	13	38	19	147	19	164	205	210	56
GURUVE	4462	4316	495	371	85 95	122	30	55	15	3050	187	121	71	73	73	156	138	190	170	439	99
MAZOWE	10099	9406	1441	1140	107	73	35 76	63 75	12 45	2358 6399	1013 216	184 91	85 75	24	32	202	40	280	207	226	40
MT.DARWIN	7625	7401	622	439	172	188	104	81	70	3616			75	23	30	838	53	654	696	570	139
RUSHINGA	3076	1946	151	130	25	18	8	15	18	1274	1094	324 88	162	4	83	245	170	364	244	502	86
SHAMVA	953	815	88	77	0	0	0	0	0	554	0	0	0	0	0	70 48	13	155	126	130	19
MBIRE	2825	2663	227	144	66	64	7	18	16	1068	871	132	54	10	19	80	20	70	76	68	13
MASHONALAND															13			149	108	556	75
CENTRAL	37534	33456	3761	2921	632	570	287	319	182	20132	3772	1349	468	236	262	1786	453	2026	1832	2701	527
СНІКОМВА	3190	2974	426	382	155	110	59	35	12	2303	225	69	69	34	116	204	163	208	282	207	er.
GOROMONZI	2331	2272	358	364	74	135	42	13	7	1649	511	264	188	34	46	214	56	120		387	65
U.M.P	4257	3907	464	452	103	211	73	44	14	1905	1292	268	182	31	36				173	245	58
HWEDZA	2635	2444	347	362	141	144	59	26	18	1391	484	62	60	34	83	180	38 107	187	201	482 302	75
MARONDERA	4532	4456	630	595	138	376	116	88	39	4191	634	656	623	113	81	268	339	194	392		
MUDZI	5539	5228	580	594	52	322	36	33	7	2724	1173	134	135	26	24	393	46	115	310	577 981	138
MUREWA	10896	9365	1299	1183	565	533	353	993	513	3734	1717	337	360	140	397	354	669	522	535	938	94 159
митоко	4700	3665	454	309	33	11	1	7	6	3268	163	81	22	8	16	263	28	141	183	193	25
SEKE	4517	4351	757	760	458	127	168	109	95	2975	724	365	325	74	223	189	440	332	644	325	69
MASHONALAND EAST	42597	38662	5315	5001	1719	1969	907	1348	711	24140	6923	2236	1964	494	1022	2212	1886	1980	2881	4430	727
CHEGUTU	4526	4465	662	557	297	81	59	55	38	6131	693	2146	408	120	163	195	419	390	313	299	80
HURUNGWE	11924	10833	1345	928	521	682	109	194	118	5542	1865	913	232	179	254	220	328	577	434	980	269
KADOMA	9211	9961	1283	1476	364	261	210	184	163	8034	742	876	155	154	222	644	277	565	713	959	158
KARIBA	2087	1928	194	166	54	12	0	4	4	862	108	41	22	6	31	75	30	70	62	70	14
MAKONDE	4835	3503	450	321	86	30	29	32	28	4168	278	728	122	132	23	267	115	174	236	935	118
ZVIMBA	5131	4684	796	767	53	74	109	67	36	3074	578	261	242	104	34	422	75	370	355	351	90
WEST WEST	37714	35374	4730	4215	1375	1140	516	536	387	27811	4264	4965	1181	695	727	1823	1244	2146	2113	3594	729
BINGA	5456	5242	308	341	24	67	7	14	2	2056	1208	103	25	26	14	151	27	226	169	1198	119
BUBI	1595	1587	322	317	126	66	0	7	12	774	133	15	5	0	59	200	67	49	177	39	10
HWANGE	4535	3887	593	605	217	161	126	81	53	3624	189	152	42	40	156	485	245	312	434	276	49
LUPANE	2987	2821	503	508	140	265	13	28	6	2409	351	155	52	66	50	435	71	136	290	112	30
NKAYI	3511	3207	527	477	312	131	128	88	34	2469	701	105	125	27	259	201	241	332	204	361	89
TSHOLOTEHO		3601	701	493	278	155	250	157	125	2423	674	98	20	295	270	146	443	257	616	211	81
TSHOLOTSHO		4070	25:															100000			
TSHOLOTSHO  UMGUZA  MATEBELELAND	1569	1370	301	286	70	78	15	3	6	709	142	20	21	7	25	164	55	90	122	79	15

AREA ANC First Visit   BEITBRIDGE 4287 BULILIMA 2718 GWANDA 3524 INSIZA 3184 MATOBO 2494 UMZINGWANE 1236 MANGWE 2752 MATEBELELAND 20195 CHIRUMANZU 3337 GOKWE NORTH 14575 GWERU 3346 KWEKWE 6759 MBERENGWA 5821 SHURUGWI 2930 ZVISHAVANE 3121	3801 2299 3150 2959 2168 795 2598	ANC Women HIV+  688  558  595  652  454  211  581	HIV+ve women Dispensed sd NVP in ANC 669 659 659 448 201	HIV +ve wo men initiated on AZT in ANC 103 20 311 417 172	HIV +ve assessed for ART(W HO) in ANC	HIV+ve assessed for ART(CD 4) in ANC	HIV +ve eligible for ART in ANC	HIV +ve initiated on ART in ANC	Institutional deliveries	BBA/ Home	Labour /PNC with unknown HIV status	HTC in Labour /PNC	HIV +ve wo men identified in Labour/ PNC	Mom dispensed with AZT/3T C in Labour /PNC	Inf dispensed with sdNVP only	Inf dispensed with sdNVP and AZT 7-28days	HIV positive mothers started CTX	HEI started on CTX	Partners HIV tested	Partne HIV+
BULILIMA 2718 GWANDA 3524 INSIZA 3184 MATOBO 2494 JMZINGWANE 1236 MANGWE 2752 WATEBELELAND SOUTH 20195 CHIRUMANZU 3337 GOKWE NORTH 14575 GWERU 3346 KWEKWE 6759 MBERENGWA 5821 SHURUGWI 2930 ZVISHAVANE 3121	2299 3150 2959 2168 795 2598	558 595 652 454 211	569 659 699 448	20 311 417	23			21		4					-5.					
BULILIMA 2718 GWANDA 3524 INSIZA 3184 MATOBO 2494 UMZINGWANE 1236 MANGWE 2752 MATEBELELAND 20195 SOUTH 20195 CHIRUMANZU 3337 GOKWE NORTH 14575 GWERU 3346 KWEKWE 6759 MBERENGWA 5821 SHURUGWI 2930 ZVISHAVANE 3121	2299 3150 2959 2168 795 2598	558 595 652 454 211	569 659 699 448	20 311 417	23			21												
GWANDA 3524 INSIZA 3184 MATOBO 2494  UMZINGWANE 1236 MANGWE 2752  MATEBELELAND 20195 SOUTH 20195  CHIRUMANZU 3337 GOKWE NORTH 14575 GWERU 3346  KWEKWE 6759 MBERENGWA 5821  SHURUGWI 2930 ZVISHAVANE 3121	3150 2959 2168 795 2598	595 652 454 211	659 699 448	311 417	227	2			2066	374	203	197	76	81	351	124	212	430	108	32
INSIZA 3184  MATOBO 2494  JMZINGWANE 1236  MANGWE 2752  MATEBELELAND 20195  SOUTH 20195  CHIRUMANZU 3337  GOKWE NORTH 14575  GWERU 3346  KWEKWE 6759  MBERENGWA 5821  SHURUGWI 2930  ZVISHAVANE 3121	2959 2168 795 2598	652 454 211	699 448	417			1	5	447	53	45	5	0	. 4	178	5	95	317	81	34
MATOBO 2494  JMZINGWANE 1236  MANGWE 2752  MATEBELELAND 20195  SOUTH 3337  GOKWE NORTH 14575  GWERU 3346  KWEKWE 6759  MBERENGWA 5821  SHURUGWI 2930  ZVISHAVANE 3121	2168 795 2598	454 211	448			105	78	59	2673	437	91	79	27	190	328	395	415	602	209	56
MANGWE 2752  MATEBELELAND 20195 SOUTH 20195  CHIRUMANZU 3337 GOKWE NORTH 14575 GWERU 3346 KWEKWE 6759 MBERENGWA 5821 SHURUGWI 2930 ZVISHAVANE 3121	795 2598	211	10000	172	170	59	65	53	1708	293	24	27	19	216	257	223	147	344	182	43
MANGWE 2752  MATEBELELAND 20195  CHIRUMANZU 3337  GOKWE NORTH 14575  GWERU 3346  KWEKWE 6759  MBERENGWA 5821  SHURUGWI 2930  ZVISHAVANE 3121	2598		201		92	77	38	29	1630	191	30	83	24	106	301	190	154	332	98	27
### ACT   CHIRUMANZU   3337		581		24	8	0	3	2	309	50	6	5	0	11	68	10	76	73	88	28
CHIRUMANZU 3337  GOKWE NORTH 14575  GWERU 3346  KWEKWE 6759  MBERENGWA 5821  SHURUGWI 2930  ZVISHAVANE 3121	17770		927	0	0	0	0	0	1944	3	0	0	0	0	448	0	71	280	58	19
CHIRUMANZU 3337 GOKWE 14575 NORTH 14575 GWERU 3346 KWEKWE 6759 MBERENGWA 5821 SHURUGWI 2930 ZVISHAVANE 3121		3739	4172	1047	863	301	240	169	10777	1401	399	396	146	608	1931	947	1170	2378	824	239
GOKWE NORTH 14575 GWERU 3346 KWEKWE 6759 MBERENGWA 5821 SHURUGWI 2930 ZVISHAVANE 3121																				1.30
NORTH 14575 GWERU 3346 KWEKWE 6759 MBERENGWA 5821 SHURUGWI 2930 ZVISHAVANE 3121	3110	398	374	270	348	250	158	76	2445	304	71	115	30	248	68	284	202	430	222	33
GWERU 3346 KWEKWE 6759 MBERENGWA 5821 SHURUGWI 2930 ZVISHAVANE 3121	11371	955	766	325	406	197	85	50	4121	1298	245	127	17	115	137	138	445	353	1102	189
MBERENGWA 5821 SHURUGWI 2930 ZVISHAVANE 3121	3598	517	412	321	291	462	203	147	5512	628	1231	599	125	425	4	809	196	663	223	65
SHURUGWI 2930 ZVISHAVANE 3121	6167	882	1051	287	223	108	123	136	5382	409	789	275	130	228	434	263	502	524	390	121
ZVISHAVANE 3121	- 5622	949	973	183	192	167	101	57	3800	207	151	107	79	154	450	189	369	346	681	138
*	2707	413	501	183	291	217	150	120	1770	324	189	106	37	95	124	159	198	187	311	57
*	2771	449	344	21	6	1	0	1	2609	46	32	2	0	7	295	18	190	396	147	30
GOKWE 2131	2041	293	264	82	148	183	80	31	2831	149	288	23	22	72	97	75	160	125	76	22
SOUTH 42020	37387	4856	4685	1672	1905	1585	900	618	28470	3365	2996	1354	440	1344	1609	1935	2262	3024	3152	655
BIKITA 5338	4004	381	368	133	125	61	47	36	3669	295	402	59	54	65	202	91	364	222	447	109
CHIREDZI 7917	8153	888	941	228	408	16	24	17	5552	578	249	95	29	146	409	218	301	553	448	71
CHIVI 5424	3119	438	629	56	80	33	26	19	2398	77	125	15	13	26	208	39	194	225	160	38
GUTU 754	691	62	100	71	70	84	30	29	1675	38	90	19	13	67	72	87	106	57	32	5
MASVINGO 7856	5740	672	751	156	88	94	51	35	7185	63	798	239	142	193	421	207	561	652	647	158
MWENEZI 6782	6171	848	830	521	521	214	176	99	5029	556	1088	226	55	334	188	381	485	296	439	130
ZAKA 8524	8234	937	996	815	802	763	244	206	6130	355	237	211	39	617	82	723	725	560	543	102
MASVINGO 42595	36112	4226	4615	1980	2094	1265	598	441	31638	1962	2989	864	345	1448	1582	1746	2736	2565	2716	613
	1010	3.00	1070	4000	4000	2022	000													
Bulawayo 14102	+		1978	1905	1833	2029	864	533	19868	1520	4073	2212	546	1555	756	3155	547	2721	1467	363
Harare 34721	34549	3745	3625	3278	3225	2995	829	333	44777	2428	11493	7249	1279	2775	170	4445	1722	2410	1253	331
Chitungwiza 7979	8029	944	1530	675	997	923	393	227	13175	726	3053	1844	593	619	50	1201	352	754	1428	300
NATIONAL TOTALS 350590		2 41042	39782	16790	17631	12672	7222	4254	265677	255.00		18565	5577	12168	15496	19760	18717	24006	27025	550