THE SOUTH AFRICAN PROGRAMME TO PREVENT MOTHER-TO-CHILD TRANSMISSION OF HIV (PMTCT)

EVALUATION OF THE EARLY INFANT DIAGNOSIS SERVICE IN PRIMARY HEALTH CARE FACILITIES IN SOUTH AFRICA:

REPORT ON RESULTS OF A SITUATIONAL ASSESSMENT

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ABBREVIATIONS AND ACCRONYMS

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
ART	Antiretroviral therapy
ARV	Antiretroviral (drug)
CHAI	Clinton Health Access Initiative
CHC	Community Health Centre
DNA PCR	DNA-based Polymerase Chain Reaction Test
DTP1	Diptheria-Tetanus-Pertussis first dose - given at 6 weeks post-delivery
EC	Eastern Cape Province
EID	Early Infant Diagnosis
ENA	Enrolled Nurse Assistant
EPI	Expanded Programme on Immunisation
FS	Free State Province
GP	Gauteng Province
HCT	HIV Counselling and Testing Campaign
HIV	Human Immunodeficiency Virus
HSRU	Health Systems Research Unit of the Medical Research Council
IMCI	Integrated Management of Childhood Illnesses
KZN	KwaZulu-Natal Province
LP	Limpopo Province
MCWH	Maternal Child and Women's Health
MP	Mpumalanga Province
MRC	Medical Research Council
MTCT	Mother-to-child transmission (of HIV)
NC	Northern Cape Province
NHLS	National Health Laboratory Services
NW	North West Province
PHC	Primary Health Care
PICT	Provider-initiated counseling and testing
PMTCT	Preventing mother-to-child transmission of HIV
PNC	Postnatal care
Prof.	Professional
RtHC	Road to Health Chart
RtHB	Road to Health Booklet

SoPH	School of Public Health, University of the Western Cape
WC	Western Cape Province

EXECUTIVE SUMMARY

INTRODUCTION:

HIV is a major cause of child morbidity and mortality in developing countries. In South Africa, HIV related deaths account for more than one third of the total number of deaths in children under the age of 5 years.[1] Mother-to-child transmission of HIV (MTCT) is the main mode of HIV acquisition in these children (vertical transmission). In the absence of any interventions to prevent MTCT, approximately 25-35% of HIV positive mothers will transmit HIV to their infants by 6 months post-delivery.[2]

Antenatal and intrapartum MTCT can be prevented through early antenatal diagnosis of maternal HIV and timely provision of effective maternal treatment, prophylaxis and care. Post-natal MTCT can be eliminated by avoiding breastfeeding and reduced by practicing breastfeeding with antiretroviral cover. Thus prevention of postnatal paediatric HIV infection and paediatric morbidity or mortality depends on appropriate feeding practices, early infant diagnosis and linkages to appropriate care, treatment and support.

For each mother-infant pair continuity of care between antenatal and postnatal interventions to prevent vertical transmission optimises maternal and infant outcome. In the current South African context anecdotal reports indicate that continuity of PMTCT care is compromised because of ineffective recording systems on hospital or patient-held records or because mothers do not report their status or health workers do not enquire about HIV. HIV-exposed infants whose mothers do not access the PMTCT programme experience a delay in diagnosis and are often only identified when they experience severe morbidity or death.

In South Africa, early infant diagnosis (EID) is still becoming routine practice. Although data show that the coverage for total PCR tests done has increased since 2003 the coverage of EID services is only 53.5% nationally (range 40.6% to 71.5%) - well below the number expected based on antenatal HIV prevalence and live births.[3] We hypothesise that if EID services are offered at immunisation and all child health service delivery points then PCR uptake and knowledge of infant HIV status will increase and more children will access

appropriate HIV-related care timeously. However, there has thus far been no national assessment regarding the systems for maternal-infant HIV diagnosis, the feasibility of integrating early infant diagnosis with six week immunisation / child health services and linkages to care following infant HIV diagnosis. In the absence of national data the feasibility of conducting a national evaluation of the programme to prevent HIV transmission from mother to child (PMTCT programme) was not known prior to this assessment.

AIMS:

To conduct a situational assessment of the services that exists for early infant diagnosis (at six weeks post-delivery)

To describe the linkages between infant diagnosis and ongoing maternal and infant HIV-related care, treatment and support

To assess the feasibility of conducting an evaluation of the PMTCT programme amongst infants aged 4-8 weeks and their caregivers at immunisation service points in Primary Health Care facilities.

To assess the feasibility of integrating early infant diagnosis (EID) with six week immunisation (DTP1) and child health services.

METHODS:

A cross sectional study design was used to collect data from 680 sampled facilities selected using a probability proportional to size stratified (by annual immunisation/ DTP1 number and HIV prevalence) sampling method. These facilities were selected for the SA PMTCT Evaluation. The situational assessment data were collected using a structured questionnaire during interviews with clinic managers, nurses providing immunisation, PMTCT or sick child – including IMCI - services (one nurse per service delivery point in each facility) and district health information officers.

KEY FINDINGS:

Human Resources for Early Infant Diagnosis (EID)

Facility managers in sampled facilities highlighted a skills gaps in PHC facilities: the proportion of staff *trained in how to perform heel pricks* for DBS is generally low [59% of professional nurses in sampled facilities (range 42% in EC to 87% in WC); 40% of staff nurses (range 3% in NC to 100% in LP), 6% of lay counsellors (range 0% in EC/FS to 43% in KZN), and 5% ENAs (range 0% in LP/NC to 12% in MP)] as is the proportion who *actually perform* heel pricks [66% of professional nurses (range 52% in EC to 95% in WC); 23% of staff nurses (range was 8% in NC to 31% in WC); 4% enrolled nurse assistants (range was 0% in LP to 13% in MP); and 5% lay counsellors (range was 0% in EC/FS to 13% in KZN)].

Supply of DBS Kits:

Approximately 20% of facilities in EC, MP and LP reported experiencing stock-outs of DBS test kits during the past month. During our visit, more than 10% of sampled facilities in LP and NC were out of stock of DBS test kits.

Routine versus Targeted Infant Diagnosis:

Infant HIV testing is reportedly available in more than 95% of sampled primary health care facilities. However, not all HIV-exposed infants benefit from this service: according to ***facility managers'*** report, the protocol/algorithm used in over half (approximately 54%) of sampled facilities is HIV testing of known (reported/documented) HIV-exposed infants and only 46% of facility managers reported that their protocol/algorithm for testing includes offering routine provider initiated HIV testing to all mothers/infants visiting 6weeks immunisation service points regardless of prior testing (routine global testing). In order to verify the implementation of the above reported testing protocols/algorithms, *nurses providing immunisation services* ('immunisation nurses') were asked to report on infant HIV testing approach used at immunisation service points. The responses from 'immunisation nurses' indicate an even lower proportion of facilities actually implement routine global HIV testing. According to 'immunisation nurses' only 9% of immunisation service points provide routine global infant HIV testing, whilst the majority of immunisation service points provide infant

testing to documented/reported HIV-exposed infants only (68%) or do not at all provide infant HIV testing at immunisation service points (15%).

Several factors contribute to the lack of routine EID at immunisation service delivery points despite its inclusion in national polices and guidelines. According to 'immunisation nurses' these include irregular / slow communication of new policy updates to relevant managers and health care workers; lack of refresher/onsite trainings; staff shortages; DBS kit supply interruption and poor DBS kit stock control.

Involvement of immunisation services in Infant HIV testing services:

72% of interviewed staff at sampled facilities reported providing infant HIV testing at immunisation service points (i.e. infant testing is performed at immunisation service points). 5% reported that infant HIV testing service is provided at 6 weeks immunisation visits in conjunction with (i.e. through referral to) PMTCT/VCT service points. 15% reported that immunisation service points are not involved in providing infant HIV testing service. As reported above, 68% of immunisation service points reported giving infant testing to reported or documented HIV-exposed infants only, whereas small proportion (9%) of immunisation service points reported providing rapid maternal testing for all mothers presenting for 6 weeks immunisation visit followed by infant testing if maternal test confirms HIV-exposure of infant.

Integration between immunisation services and EID (Perception of health care personnel):
Health care personnel providing immunisation services in 72% of sampled facilities believe that offering early infant diagnostic services during routine immunisation visits is feasible. Of these 76% actually ***provide*** infant testing at immunisation service points but only 10% implement routine global EID.

On the contrary, although 77% of nurses offering sick child health care / IMCI services accept the importance of infant HIV testing, only 31% of them believed that it is feasible to provide infant HIV testing services at IMCI / child health service delivery points. Reasons for not supporting routine global EID at IMCI/child health service delivery points include staff shortages, time constraints and high workload.

Linkages between sampled facilities and Paediatric ARV services:

- Paediatric ARV services were available on site in 15% of sampled facilities.
- Forty-six percent of facilities referred infants to ARV clinics with referral letters *AND* pre-arranged appointments.
- 38% send infants to ARV clinics with referral letter only (no–pre-arranged appointments).
- 57% of facilities reported having a follow-up mechanism to monitor how many referred children actually went to ARV clinics.
- Forty-three percent of facilities reported that a follow-up mechanism also exists in the ARV clinic to track attendance of children and follow-up of non-attendees who had prior appointments.

Thirty-five percent of sampled facilities had systems in place for referring infants/mothers to community based care and support services.

Continuity of Care:

Linkages across different service delivery points (EPI services, PMTCT services, and IMCI services) is compromised by the lack of efficient patient held systems to speedily and accurately communicate infant HIV exposure / status. At the time of the survey, the new RtH booklet (which incorporates mother and infant HIV information) was being used in 7% of sampled facilities, two months after its implementation. Although most facilities currently use other methods (such as coding, stamps) to communicate infant HIV status, the efficiency of such systems is reported to be suboptimal [5, 6].

RECOMMENDATIONS:

The following actions are recommended to strengthen early infant diagnosis and follow-up of infants nationally:

(i) Amend the current regulations / scope of practice so that more staff, including staff nurses, enrolled nursing assistants and lay counsellors can perform infant heel pricks for HIV testing (task shifting with revised regulations)

(ii) Develop more effective and efficient dissemination and communication strategies to update managers and health care providers when policies / guidelines are updated e.g. cell phone updates or using similar e-technology

(iii) Maximise EID service availability by:

a. Training all PHC staff in infant DBS

b. Creating enabling environments (addressing human resource and infrastructure barriers) for provision of routine (global) EID to all mothers and infants at all maternal and child health service delivery points

(iv) Improve continuity of care by:

a. Meticulous documentation of maternal and infant HIV status on patient-held records (methodical implementation of the new RTH Booklet will assist in this regard)

b. Developing strong linkages and intersecting courses / training material for staff at different service delivery points (including EPI services, PMTCT services, IMCI services, ARV services and community based organisations).

(v) Increase availability of and access to paediatric ARV sites by strengthening linkages between immunisation, child health and ARV service delivery points

(vi) Promote social mobilization programmes that increase the demand for infant diagnosis

FOREWORD

The South African Medical Research Council was tasked to undertake the first national population-based evaluation of South Africa's Prevention of Mother-to-Child Transmission Programme.

Prior to the commencement of the survey an assessment was conducted to evaluate the systems that exist for early infant diagnosis in South Africa, and the feasibility of conducting the first population based evaluation of the PMTCT programme.

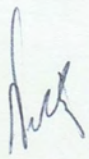
This work has shown that regulations around ***who*** performs infant HIV testing need to be reviewed: current regulations only allow registered professional nurses to perform blood drawing for early infant diagnosis, which is not in-keeping with the task-shifting that is occurring at facility-level. Furthermore training of staff for early infant diagnosis needs to be strengthened, with a view to capacitating various cadres of health care personnel so that a seamless EID service is provided throughout South Africa.

Continuity of care has always been an Achilles heel for effective follow-up of mothers and infants post-delivery and the results of this report emphasizes the need to offer HIV testing to all mothers and their infants at every single encounter with the health service. This report shows that across the 680 facilities included in the Situational Assessment targeted HIV testing to known HIV exposed infants attending clinics for six weeks immunization is offered in 68% of facilities, implying that current six weeks immunisation visits are missed opportunities for HIV-diagnosis and care. The stock-outs of DBS test kits reported in some provinces need urgent attention, and systems established so that health care staff understand why infant HIV diagnosis needs to be integrated into routine maternal and child health care.

Since the report was shared with the Department of Health every effort has been made to support facilities to provide effective and efficient services so that we can ensure that all mothers and infants are tested. The integration of the PMTCT programme into maternal and child health services has also received increased prioritization.

It gives us great pleasure to release this report which is the result of a partnership between the Department of Health, Medical Research Council, UWC, CHAI, ESRU, UNICEF and NICD/NHLS. Partnerships are critical if we want to reduce the burden of HIV in South Africa.

The National Department of Health would like to thank all development partners and health care personnel who participated in this assessment.



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DEFINITIONS

Care giver

A person who routinely feeds, baths, and changes the child's nappies. Includes parents, family members, nannies, or friends.

Continuity of care

The care, treatment and support plan is clearly communicated to health care personnel across maternal and child health services.

Enrolled nurse assistants

An enrolled nursing auxiliary or nursing assistant who completes a one-year course. Responsibilities include basic observations, bathing patients, caring at the bedside, assisting with other activities of daily living, such as feeding patients unable to help themselves, and assisting senior nurses and doctors – including in operating theatres.

Early infant diagnosis (EID)

Early infant diagnosis refers to HIV testing in infants aged less than two months. The testing could be done using whole blood (standard of care in the Western Cape Province) or dried blood spots (standard of care recommended in the national PMTCT guidelines 2010). EID is usually a 5 step process performed in infants aged <2 months. The steps are: (i) collection of infant blood from infant heel/toe pricks onto a Guthrie card (national standard of care) or collection of whole venous blood into blood tubes (as in the Western Cape Province); (ii) drying of the blood on a Guthrie card or agitating the whole blood specimen for a few minutes to ensure no clotting; (iii) transport of the cards or blood tubes to the laboratory (iv) processing the specimens in the laboratory; and (v) transport of the results from the laboratory back to the facility.

Health care personnel

Health care providers and health care workers, as defined in the National Health Act, and shown below.

Health care provider

Any person providing health services in terms of any law, including in terms of the:

- Allied Health Professions Act, 1982 (Act No.63 of 1982)
- Health Professions Act, 1974 (Act No. 56 of 1974)
- Nursing Act, 2005 (Act No. 33 of 2005)
- Pharmacy Act, 1974 (Act No. 53 of 1974) and
- Dental Technicians Act, 1978 (Act No. 19 of 1979)

Health care worker

Any person who is involved in the provision of health services to a user, but does not include a health care provider. This includes lay counsellors and community caregivers.

HIV-exposed infant

Infant born to an HIV-positive woman.

HIV-positive

Refers to people who have taken an HIV test whose results have been confirmed positive and who know their result.

HIV status unknown

Refers to people (including children) who have not taken an HIV test or who do not know the result of their test.

'Imunisation nurses'

In this report for ease of reference we refer to those health care providers providing immunisation to infants as 'immunisation nurses'. This does not imply that immunisation services should be seen as a separate service to routine child health care services.

Infant

A person from birth to 12 months of age.

Lay counsellors

A member from the community who has undergone shortened training to complement the work of registered nurses /staff nurses/enrolled nursing assistants.

Mother-to-child transmission (MTCT)

Transmission of HIV from an HIV-infected woman to her child during pregnancy, delivery or breastfeeding. The term is used because the immediate source of the infection is the mother, and does not imply blame on the mother. MTCT is also known as vertical transmission.

Professional nurses

A registered nurse who has completed a four year course and is legally authorized (registered) to practice after examination by a recognised board / nursing school.

Provider-initiated counselling and testing (PICT)

A routine, opt-out process in which health care personnel offer group information and HIV-testing, with the patient / client always retaining the option to decline.

Staff Nurse

An enrolled nurse (health care provider) who has undergone two years of training in a recognised nursing institution. These nurses work under the direct or indirect supervision of the registered nurse.

Targeted EID versus Routine (Global) EID

Targeted EID service refers to EID offered to known HIV-positive mothers. Routine (Global EID) refers to EID offered to all mothers bringing their infants for six weeks immunisation / check-up

1. INTRODUCTION

Mother to child transmission of HIV is a major child health challenge in developing countries.

In South Africa, HIV-related deaths account for more than one third of the total number of deaths occurring in children under the age of five years.[1,4] Most of these deaths occur among infants born to mothers who do not receive PMTCT interventions.[7] The MTCT rate, if mothers do not participate in a programme to prevent MTCT (PMTCT), ranges between 25 and 35 percent at 6 month post-delivery.[2] Most of these transmissions, or the consequent severe morbidity and mortality, are preventable through early diagnosis of maternal HIV infection, timely provision of interventions to prevent vertical transmission of HIV, early diagnosis of infant HIV, appropriate feeding practices (with ARV prophylaxis if breastfeeding), and effective treatment and care of infants with HIV infection.

Early infant diagnosis is a critical step to prevent HIV transmission or severe morbidity and mortality. Once identified (through EID) HIV negative infants born to HIV-positive mothers can receive the appropriate infant feeding advice and subsequent follow-up and care and HIV-positive infants can be referred for immediate treatment, care and support. For each mother-infant pair continuity of care between antenatal and postnatal strategies to prevent vertical transmission will optimise maternal and infant outcome. In the current South African context anecdotal reports indicate that continuity of care is compromised because of ineffective recording systems on hospital or patient-held records or because mothers do not report their status or health workers do not enquire about HIV status. Experience has shown that HIV-exposed infants who are not identified early experience a delay in diagnosis and are often only identified when they have severe morbidity.

EID services are still becoming routine standard of care for HIV-exposed infants. In 2008, globally only 15 percent of HIV-exposed infants were tested before the age of two months.[8] In South Africa, although data show that the coverage for total PCR tests done has increased since 2003, the coverage of EID services is only 53.5% nationally (range 40.6% to 71.5%),

which is well below the number expected based on antenatal HIV prevalence and reported live births.[3]

In assessing the need for EID services in South Africa we have estimated the burden of infant HIV-exposure in South Africa based on the 2009 antenatal survey and the 2010 mid-year population estimates (Table 1).[9, 10, 11]

Table 1: Estimated burden of infant (<5 years) HIV exposure by province

Province	Antenatal HIV prevalence[a]	Estimated number of **HIV-exposed live newborns** in 2010[b] (% of total HIV exposed infants in SA)	Number of population <5yrs old (% of total under 5 population)[c]	Estimated number **HIV-exposed infants <5yrs** (% of total HIV exposed infants <5 in SA)
EC	28.1%	33052 (12.32%)	722800 (14.11)	203107 (13.45)
FS	30.1%	15941 (5.94%)	259500 (5.07)	78110 (5.17)
GP	29.8%	56040 (20.90)	1029400 (20.10)	306761 (20.31)
KZN	39.5%	75338 (28.10)	1142100 (22.30)	451130 (29.87)
LP	21.4%	22582 (8.42)	620900 (12.13)	132873 (8.80)
MP	34.7%	26205 (9.77)	361800 (7.07)	125545 (8.31)
NC	17.2%	3685 (1.37)	91700 (1.79)	15772 (1.04)
NW	30%	18472 (6.89)	350700 (6.85)	105210 (6.97)
WC	16.9	16820 (6.27)	541900 (10.58)	91581 (6.06)
Total	29.4%	297371.9 (100)	5 120 800 (100)	1 510 089 (100)

a: (Ref: Antenatal survey 2009 – published 2010)
b: (estimated from HIV prevalence and live births per province, ref: Statistics South Africa, 23 Nov. 2009, "Recorded live births, 2008," Statistics South Africa, on line [http://www.statssa.gov.za/Publications/P0305/P03052008.pdf].
c: ref: Stats SA midyear population estimates 2010

From the above table, we estimate that the burden of under-five HIV exposure and the need for early infant diagnostic services is greatest in GP, KZN and EC, followed by LP and MP, then NW, WC and FS and finally the NC.

Current South African guidelines recommend infant HIV testing at 6 weeks of age[12] as current tests (i.e. DNA PCR test) have reasonable sensitivity (98.8%) and specificity (99.4%) for detecting antenatal and intrapartum HIV transmissions at this age.[13] Six weeks coincides with the six weeks infant immunisation visit, which, according to the District Health Information System has more than 95% coverage in South Africa. The high immunisation coverage at 6 weeks visits provides the ideal service point for six-week infant HIV testing and it is thus logical to integrate infant HIV testing with 6 weeks immunisation visits. The South African NDoH Guidelines for the Management of HIV in Children (2nd Edition 2010) state that 'the optimum time for PCR testing of HIV-exposed infants is 6 weeks of age,

coinciding with the 6 week immunisation visit and establishing the maternal HIV status at this visit is integral to well baby care.' Studies indicate that expansion of testing to immunisation service delivery points not only increases early infant diagnosis, but also contributes to the broader goal of strengthening maternal and child health, and reducing new postpartum infections[2]. However, thus far there are no national data on the feasibility of integrating six week infant PCR testing with routine immunisation and child health services.

The overall aims of this situational assessment were to assess the services that exist for early infant diagnosis; the linkages to care after infant HIV diagnosis and the feasibility of conducting a survey on PMTCT effectiveness in primary health care facilities.

The primary objectives of this assessment were:

- To investigate the human capacity, equipment, supplies and systems that exist for providing infant HIV DBS testing (including returning of results) and routine maternal HIV testing at 6 weeks postnatal visits;
- To investigate existing linkages for referring HIV-positive mothers and infants into HIV-related care.
- To explore the feasibility of conducting a survey on PMTCT effectiveness at age six weeks in primary health care facilities.

The secondary objectives were:

- To explore the attitudes of health care providers towards early infant diagnosis (4-6 weeks) and integration of early infant diagnosis (EID) into routine immunisation and child health care services, and
- To determine the extent to which EID has been integrated into routine child health care services.

The results from this report are presented in four sections:

1. **Organisation of the health system for EID services, maternal HIV testing and ongoing care following HIV diagnosis.** In this section we report findings on human

resources for EID and maternal / infant HIV-related care; and distribution of PMTCT/ARV services; linkages between EID and other maternal / infant HIV-related care; procurement and stock control of supplies for infant HIV testing and systems that exist for routine transport of DBS specimens.

2. **Policies and procedures relating to EID and maternal HIV testing**
3. **Perceived Feasibility of integrating EID into routine child health services**
4. **Feasibility of conducting a survey on PMTCT effectiveness** at age six weeks in primary health care facilities.

2. METHODOLOGY

A cross sectional study design was used to collect data from 680 facilities selected for the SA PMTCT Evaluation, to represent primary health care public facilities in all nine provinces.

SAMPLE

The sampling frame comprised all public clinics and community health centres throughout the country. Satellite and mobile clinics were excluded as they only operate for a few hours a week. Private facilities and public hospitals were not included in the sampling frame, as their recently documented immunisation load is low.[14]

Three thousand three hundred ninety (3390) community health centres and clinics were eligible for inclusion in the sampling frame.[14] These facilities were stratified into four groups based on the 2007 DHIS data and the 2008 Antenatal HIV prevalence estimates: small facilities with <130 annual immunisation (DTP1) coverage, medium size facilities with 130 - 300 annual immunisation (DTP1) coverage, large (annual immunisation/DTP 1 coverage >= 300) facilities with antenatal HIV prevalence below 29% (the national HIV prevalence estimate), and large facilities (>= 300 annual immunisation /DTP1coverage) with antenatal HIV prevalence equal to or above 29%.

The sample size of medium and large facilities was determined based on antenatal HIV prevalence and transmission rate estimates (see table 1). Based on this, 580 facilities were selected from medium and large size facilities for inclusion in both the SA PMTCT survey and the situational assessment that preceded the survey. Sample size in small size facilities was restricted to 10-20 facilities per province (100 facilities nationally), only for inclusion in the situational assessment to assess the logistic feasibility of providing routine 6 weeks PCR testing in small clinics. Sampling was based on probability proportional to size stratified sampling method. Accordingly, large facilities had higher probability of selection than medium facilities (appendix 1).

Sampled facilities that could not be accessed due to permanent closure or high security-risk areas (poor roads or high risk of high-jacking) and facilities moved into another province were replaced with the next eligible facility in the sampling frame (appendix 1).

DATA COLLECTION

Interviews were conducted with clinic managers, health information officers, immunisation nurses, PMTCT nurses and IMCI nurses using structured questionnaires. Both open ended and close ended questions were used to collect data on:

- Organisation of the health system for EID and postnatal maternal HIV testing which included:
    - human resources for EID and maternal / infant HIV-related care at postnatal period;
    - location / distribution of PMTCT/ARV services;
    - procurement and stock control of supplies for infant HIV testing;
    - systems that exist for routine transport of DBS specimens and,
    - communication / referral systems for HIV-related care;
- Current policies and procedures relating to EID and,
- Attitudes of MCWH staff towards early infant diagnosis.

Immunisation registers and PMTCT registers were reviewed and staff were asked about the information that they document on infants' RtHC. As one of the objectives of the

assessment was to explore feasibility of conducting the SAPMTCT Evaluation in immunisation clinics of primary health care facilities, immunisation registers were reviewed for the period September to November 2009. This was then compared with the DHIS 2007 immunisation data, which was used as a sampling frame for the SAPMTCT Evaluation.

The questionnaire was piloted prior to data collection in 2 selected clinics in WC.

Data was collected over a one month period in each province, between February and June, 2010. Prior to field work, a four-days training was conducted for field workers.

Ethics approval was obtained from Medical Research Council Ethics Committee (Ref: EC09-002). Approval and buy-in was obtained from National and Provincial Departments of Health before commencing the fieldwork.

Informed verbal consent was obtained from all respondents.

DATA MANAGEMENT AND ANALYSIS

Data was captured on Excel and was transferred to STATA 10 for analysis. Descriptive statistics included frequency tables and cumulative numbers are presented.

During data analysis the provision of infant HIV testing was categorized as follows:

- Routine global EID: All mothers visiting primary health care facilities for a 6 weeks check-up or immunisation get offered HIV testing either on themselves or on their infants
- Targeted Testing: HIV-testing only offered to known HIV-exposed infants
- HIV testing at all recommended visits: if facilities provided infant HIV diagnostic services at ALL of the following visits, as recommended by current guidelines: six weeks immunisation visits, IMCI sick child visits, six weeks after breastfeeding cessation and at 18 months.

3. RESULTS

BASELINE FEATURES OF FACILITIES VISITED

General description

A total of 680 (580 large and medium size and 100 small) public health facilities were selected from all 9 provinces for data collection. Of these, 625 (92%) facilities were visited between February and June 2010. Data collectors spent approximately one month in each province, and 9 different provincial teams gathered the data. Fifty-five (8%) of the sampled facilities could not be visited due to time constraints, temporary closure or reported absence of main staff members needed for the interviews. Table 2 below provides a detailed breakdown of sample size, sampled facilities and visited facilities.

Table 2: Sampled facilities in total and by province

Province	Total PHCs + CHCs (DHIS 2007)	No sampled (% provincial PHC+CHC)	No. visited (% sampled in province)	Facility stratum		
				Small No (column %)	Medium No (column %)	Large No (column %)
EC	714	87 (12%)	87 (100%)	10 (10%)	38 (17%)	39 (13%)
FS	266	83 (31%)	73 (88%)	13 (14%)	28 (12%)	32 (11%)
GP	340	76 (22%)	76 (100%)	16 (17%)	14 (6%)	46 (15%)
KZN	562	74 (13%)	71 (96%)	10 (10%)	23 (10%)	38 (13%)
LP	438	84 (19%)	56 (67%)	10 (10%)	23 (10%)	23 (8%)
MP	267	87 (33%)	87 (100%)	12 (13%)	25 (11%)	50 (17%)
NC	138	43(31%)	42 (98%)	10 (10%)	24 (11%)	8 (3%)
NW	338	79 (23%)	74 (94%)	7 (7%)	34 (15%)	33 (11%)
WC	327	67 (20%)	59 (88%)	8 (8%)	18 (8%)	33 (11%)
Total	3390	680 (20%)	625 (92%)	96 (100%)	227 (100%)	302 (100%)

3.1. ORGANISATION OF THE HEALTH SYSTEM FOR EID SERVICES, MATERNAL HIV TESTING AND ONGOING CARE FOLLOWING HIV DIAGNOSIS

3.1.1. HUMAN RESOURCES

Human resources are the bed-rock of a well functioning health system, and thus the PMTCT programme. Provision of high quality postnatal PMTCT services depends not only on the availability of adequate numbers of trained and qualified professionals, but also on the optimal use of the skills of different cadres of health care personnel.

In this study, as expected Professional Nurses constituted a larger (51%) proportion of health care personnel in sampled facilities; as expected at primary health care level doctors were the least available (5%) (see Table 3). In general lay counsellors outnumbered ENAs and Staff nurses.

Table 3: Human Resource Available in Sampled Facilities - number (%) and *average number per facility

	EC	FS	GP	KZN	LP	MP	NC	NW	WC	National
Number of facilities visited	87	73	76	71	56	87	42	74	59	625
Professional nurses	518 (54%) *6.0	321 (58%) *4.4	695 (58%) 9.1	546 (53%) *7.7	268 (48%) *4.8	422 (45%) *4.9	181 (44%) *4.3	375 (45%) *5.1	331 (46%) *5.6	3657 (51%) *5.9
Staff nurses	60 (6%) *0.69	19 (3%) *0.26	98 (8%) *1.3	168 (16%) *2.4	109 (20%) *1.9	118 (13%) *1.4	13 (3%) *0.3	37 (4%) *0.5	94 (13%) *1.6	716 (10%) *1.1
ENAs* **	187 (19%) *2.1	73 (13%) *1.0	131 (11%) *1.7	86 (8%) *1.2	101 (18%) *1.8	172 (18%) *2.0	56 (14%) *1.3	223 (27%) *3.0	114 (16%) *1.9	1143 (16%) *1.8
Lay counsellors	185 (19%) *2.1	123 (22%) *1.7	216 (18%) *2.8	193 (19%) *2.7	76 (14%) *1.4	181 (19%) 2.1	118 (29%) *2.8	142 (17%) *1.9	117 (16%) *2	1351 (19%) *2.2
Doctors**	18 (2%) *0.2	22 (4%) *0.3	61 (5%) *0.8	41 (4%) *0.6	2 (0.4%) *0.04	50 (5%) 0.6	39 (10%) *0.9	48 (6%) *0.6	68 (9%) *1.2	349 (5%) *0.6
TOTAL	968	558	1201	1034	556	943	407	825	724	7216
Average # health care personnel per facility	11.1	7.6	15.8	14.6	9.9	10.8	9.7	11.1	12.3	11.5

*** Doctors provide onsite support to numerous clinics and are not necessarily based full-time in one clinic. This data item refers to the number of doctors that provide support to clinics in the sampled facilities*

****Enrolled nurse assistants*

3.1.2. STAFF TRAINED IN AND PROVIDING EID SERVICES

Training on blood taking for early infant diagnosis (EID) was generally low (Table 4). Nationally only 59% (range 42% in EC to 87% in WC) of Professional Nurses were trained on blood taking for EID.

Training of staff nurses, ENAs, and Lay counsellors was much lower (probably because current regulations do not allow them to prick infants for HIV diagnosis) - 40% of staff nurses (range 3% in NC to 100% in LP), 6% of lay counsellors (range 0% in EC/FS to 43% in KZN) and 5% (range 0% in LP/NC to 12% in MP) of ENAs were trained on blood taking for EID.

Tables 4 shows an imbalance between the proportion of staff trained and the proportion performing infant heel prick tests: a smaller proportion of professional nurses and ENAs were trained compared with the proportion providing infant heel prick tests. When we restricted our analysis to nurses working in immunisation and child health services, a slightly better (but still inadequate) proportion were trained compared to the total number of professional nurses trained on PCR testing (see Figure 1). Our findings show that at least half of the nurses offering immunisation or child health services in all 9 provinces were trained on blood drawing technique for EID (infant heel pricks for HIV testing in all provinces except WC where venous blood drawing was taught). In GP and WC more than 75% of nurses offering immunisation or child health services in selected facilities were trained in blood drawing technique for EID.

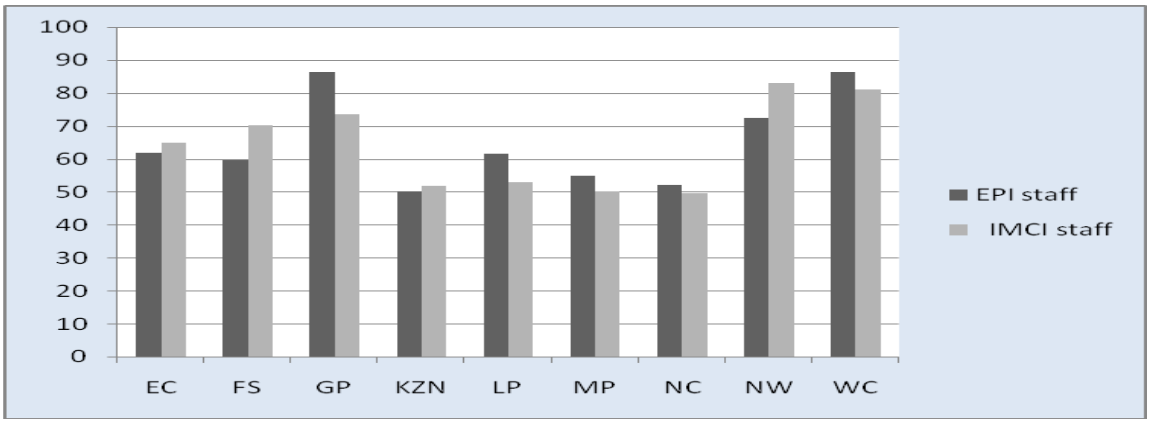

Figure 1: Immunisation and Child Health staff trained on EID technique (Blood drawing for EID)

In sampled health facilities professional nurses are the predominant cadre collecting infant specimens for early infant diagnosis (EID) - 66% nationally - however, in some provinces (e.g. KZN, GP and WC) lay counsellors, staff nurses and ENAs also perform blood drawing for EID (in addition to their routine tasks of pre-and post-test counselling), even though this deviates from the current South African regulations (see Table 4). Reports from these three provinces indicate that, such task shifting is an effective mechanism to reduce the work burden on Professional Nurses and Doctors.

Table 4: No (%) of Nurses, Lay Counsellors and Doctors in sampled facilities trained in or performing infant blood drawing for EID for HIV diagnosis*

Province	Professional Nurses			Staff Nurses			ENA			Lay Counsellors			Doctors	
	Total in selected PHC / CHC	Total trained in blood drawing for EID (%)	No (%) do heel prick	Total in selected PHC / CHC	Total trained in blood drawing for EID (%)	No (%) do heel prick	Total in selected PHC / CHC	Total trained in blood drawing for EID (%)	No (%)do heel prick	Total in selected PHC / CHC	Total trained in blood drawing for EID (%)	No (%) do heel prick	Total in selected PHC / CHC	No (%) do heel prick
EC	518	218 (42%)	269 (52%)	18	4 (7%)	3 (17%)	60	2 (3%)	6 (10%)	187	0	2 (1%)	185	0
FS	321	176 (55%)	225 (70%)	22	2 (9%)	5 (23%)	19	2 (11%)	2 (11%)	73	0	2 (3%)	123	0
GP	695	359 (52%)	327 (47%)	61	18 (30%)	3 (5%)	98	3 (3%)	18 (18%)	131	3 (2%)	3 (2%)	216	2 (1%)
KZN	546	270 (49%)	278 (51%)	41	36 (88%)	0	168	2 (1%)	48 (29%)	86	37 (43%)	5 (6%)	193	26 (13%)
LP	268	163 (61%)	217 (81%)	3	3 (100%)	0	109	0	6 (6%)	101	4 (4%)	0	76	10 (13%)
MP	422	294 (70%)	371 (88%)	50	31 (62%)	12 (24%)	118	14 (12%)	43 (36%)	172	11 (6%)	23 (13%)	181	10 (6%)
NC	181	92 (51%)	143 (79%)	39	1 (3%)	4 (10%)	13	0	1 (8%)	56	3 (5%)	1 (2%)	118	5 (4%)
NW	375	305 (81%)	356 (95%)	48	9 (19%)	22 (46%)	37	4 (11%)	10 (27%)	223	11 (5%)	5 (2%)	142	6 (4%)
WC	331	288 (87%)	228 (69%)	68	37 (54%)	1 (1%)	94	7 (7%)	29 (31%)	114	5 (4%)	5 (4%)	117	5 (4%)
SA	3657	**2165 (59%)**	2414 (66%)	350	**141 (40%)**	50 (14%)	716	**34 (5%)**	163 (23%)	1143	**74 (6%)**	46 (4%)	1351	64 (5%)

* **DBS in all provinces except WC**

Table 5 presents the involvement of EPI nurses, IMCI nurses, VCT nurses and lay counsellors in the provision of pre-test counselling, returning of results and post-test counselling for mothers/primary caregivers whose infants tested at 6 weeks and other postnatal visits. According to our findings, while some provinces (FS, EC) still predominantly use their Professional Nurses at EPI and IMCI service delivery points to provide pre-test counselling, returning of result, and post-test counselling, other provinces, such as KZN, LP and NW, have shifted such tasks to lay counsellors and VCT nurses. In WC, NW, MP, LP and KZN lay counsellors were involved in both pre-test and post-test counselling. Data indicate most provinces are comfortable to use lay counsellors for pre-test counselling, whereas post-test counselling was still predominantly done by professional nurses.

The selected facilities in the five provinces with the highest infant HIV exposure burden (EC, GP, KZN, MP and LP - Table 1) varied in their response to allocating responsibility for pre- and post-test counselling. Irrespective of high infant HIV exposure burden in EC involvement of lay counsellors in post-test counselling is minimal, whilst in KZN both lay counsellors and nurses are involved in post-test counselling. In LP, MP, and GP post-test counselling is predominantly given by nurses, however, lay counsellors also involved in post-test counselling.

Table 5: Service delivery points for pre- and post-test counselling

Cadre of staff providing the service	**Number and % of sampled facilities that provide pre-test counselling at various service delivery points by nurses or lay counsellors**									
	EC	**FS**	**GP**	**KZN**	**LP**	**MP**	**NC**	**NW**	**WC**	**SA**
'EPI' nurses**	66 (76%)	48 (66%)	30 (39%)	21 (30%)	14 (25%)	53 (61%)	27 (64%)	5 (7%)	15 (25%)	279 (45%)
'Child health' nurses^	75 (86%)	52 (71%)	30 (39%)	28 (39%)	15 (27%)	62 (71%)	28 (67%)	10 (14%)	20 (34%)	320 (51%)
'VCT' nurses¥	72 (83%)	45 (62%)	36 47%)	17 (24%)	48 (86%)	66 (76%)	34 (81%)	43 (58%)	23 (39%)	384 (61%)
Lay counsellors	49 (56%)	48 (66%)	42 (55%)	55 (77%)	36 (64%)	73 (84%)	32 (76%)	59 (80%)	52 (88%)	446 (71%)
	Number and % of sampled facilities that provide post-test counselling at various service delivery points by nurses or lay counsellors									
	EC	**FS**	**GP**	**KZN**	**LP**	**MP**	**NC**	**NW**	**WC**	**SA**
'EPI' nurses	58 (67%)	58 (79%)	35 (46%)	14 (20%)	16 (29%)	47 (54%)	30 (71%)	7 (9%)	20 (34%)	285 (46%)
'IMCI' nurses	69 (79%)	63 (86%)	36 (47%)	27 (38%)	17 (30%)	53 (61%)	30 (71%)	12 (16%)	30 (51%)	337 (54%)
'VCT' nurses	70 (80%)	46 (63%)	39 (51%)	30 (42%)	47 (84%)	55 (63%)	36 (86%)	42 (57%)	15 (25%)	380 (61%)
Lay counsellors	13 (15%)	12 (16%)	18 (24%)	26 (37%)	23 (41%)	32 (37%)	11 (26%)	39 (53%)	32 (54%)	306 (49%)

Note that nurses have been divided into different 'categories' based on their primary responsibility on the day of the survey: **Nurses who provide immunisation services; ^ nurses who provide child health services; ¥ nurse who provide VCT

3.1.3. DISTRIBUTION OF IMMUNISATION PMTCT AND ARV SERVICES

Overall, 81% facilities reported offering daily immunisation services (range 48% in NC to 99% in KZN), and although more than 90% sampled facilities reported offering any (self-defined) onsite PMTCT service (range 90% in WC to 99% in EC and GP), only 69% of these facilities offered PMTCT services daily (range 36% in NC to 85% in EC). Immunisation and PMTCT-service-days varied by province and both services were only offered daily in 60% of selected facilities (Table 6). In the five provinces with the highest burden of infant HIV exposure (Table 1) – EC, GP, KZN, MP and LP 78%, 68%, 80%, 54% and 84% of selected facilities provide both daily immunisation and PMTCT services.

In the selected facilities in the four provinces with the highest MTCT rates as per the 2010 SAPMTCT Evaluation (EC, FS, NW and MP) 78%, 55%, 46% and 54% respectively provide daily PMTCT and immunisation services.

Less than one-third of sampled PHC/CHC facilities offered onsite adult (26%) or paediatric (15%) ARV services indicating restricted availability of these services (see Table 6).

Table 6: Number and Percentage of Sampled Clinics offering Immunisation, PMTCT and ARV Services

	EC No (%)	**FS No (%)**	**GP No (%)**	**KZN No (%)**	**LP No (%)**	**MP No (%)**	**NC No (%)**	**NW No (%)**	**WC No (%)**	**SA No (%)**
Facilities with any onsite PMTCT services	86 (99%)	67 (92%)	75 (99%)	69 (97%)	53 (95%)	80 (92%)	41 (98%)	72 (97%)	53 (90%)	602 (96%)
Facilities with daily immunisation services	79 (91%)	50 (68%)	65 (86%)	70 (99%)	54 (96%)	73 (84%)	20 (48%)	50 (68%)	46 (78%)	507 (81%)
Facilities with daily PMTCT services	74 (85%)	57 (78%)	54 (71%)	58 (82%)	47 (84%)	53 (61%)	15 (36%)	41 (55%)	31 (53%)	430 (69%)
Facilities providing both daily PMTCT and immunisation	68 (78%)	40 (55%)	52 (68%)	57 (80%)	47 (84%)	47 (54%)	8 (19%)	34 (46%)	23 (39%)	376 (60%)
Facilities with onsite paediatric ARV services	27 (31%)	15 (21%)	8 (11%)	16 (23%)	3 (5%)	9 (10%)	3 (7%)	3 (4%)	11 (19%)	95 (15%)
Facilities with onsite adult ARV service	32 (37%)	17 (23%)	11 (14%)	43 (61%)	2 (4%)	15 (17%)	12 (29%)	13 (18%)	15 (25%)	160 (26%)

3.1.4. INFRASTRUCTURE FOR EARLY INFANT DIAGNOSIS

Lab transportation system

More than 90% of sampled facilities in each province report having a routine transport system to take DBS specimens to the laboratory. In most provinces the NHLS system or a private courier system were routinely used (Figure 2). Three percent (3%) of sampled facilities had no transportation system, out of which close to half of them (43%) reported the local lab is at close proximity to the facility hence they deliver specimens by hand.

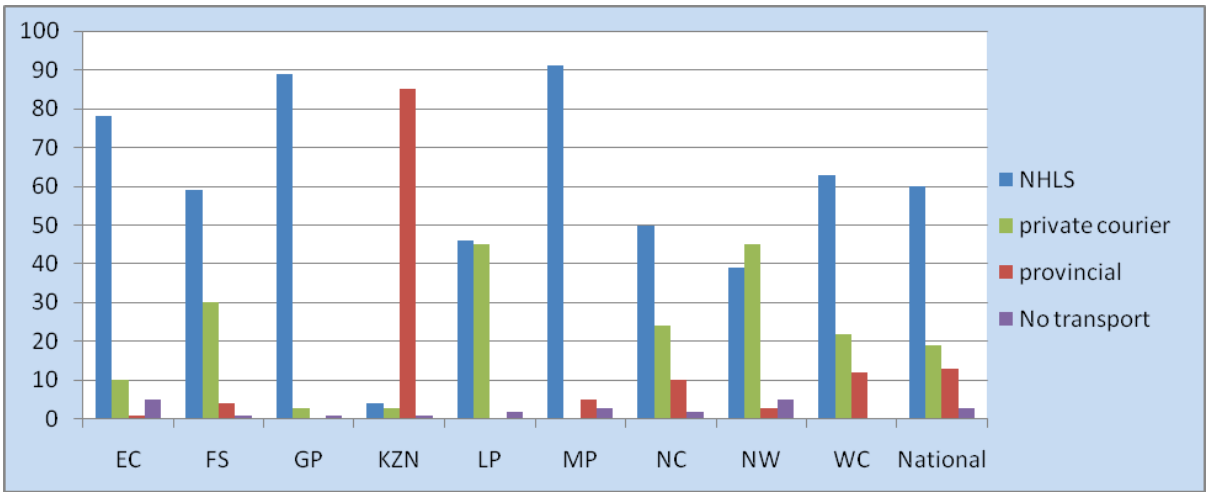

Figure 2: Lab transportation system

Frequency of lab specimen transportation

More than 90% of the facilities in MP, GP and WC had a daily blood specimen collection system, whereas in LP, FS, and NW – the three provinces with high MTCT rates in the 2010 SAPMTCT Evaluation - between 81% and 85% of the facilities had a daily lab specimen collection system. In KZN where infant HIV exposure burden is highest (Table 1) and EC where MTCT rate as measured in the 2010 SAPMCT Evaluation is high, only 72% and 60% respectively had a daily blood specimen collection system. In all facilities that provide infant heel pricks for HIV testing, a transportation system was available at least once a week.

Except in LP, more than 90% of the facilities reported that their transportation system is reliable. In LP 25 (44%) of facilities use private couriers to transport specimens to the laboratory whilst 26 (46%) use NHLS transport systems. Of the 25 that use private courier systems 7 (28%) reported that these systems were unreliable.

Storage of blood specimen (DBS or whole blood specimen)

The majority (>60%) of facilities in KZN, EC and GP stored blood specimens in the consultation room where the specimens were collected, whereas popular storage places in sampled facilities in WC (44%), LP (52%), NC (52%) and MP (44%) were fridges, cooler boxes or special containers (box).

Table 7: Storage space for DBS specimen

Province	Consulting room	Facility pharmacy	Clinic Manager's office	Facility fridge	Facility's staff tea room	Another room*
EC	57 (66%)	3(3%)	2 (2%)	8 (9%)	2 (2%)	14 (16%)
FS	29 (40%)	7 (10%)	2 (3%)	14(19%)	2 (3%)	9 (12%)
GP	48(63%)	0	0	20 (26%)	0	5 (7%)
KZN	52 (73%)	3 (4%)	1 (1%)	7 (10%)	0	7 (10%)
LP	11 (20%)	4 (7%)	0	29 (52%)	0	9 (16%)
MP	25 (29%)	2 (2%)	3 (3%)	38 (44%)	1 (1%)	18 (21%)
NC	12 (29%)	0	2 (5%)	22 (52%)	0	2 (5%)
NW	32 (43%)	1 (1%)	1 (1%)	23 (31%)	0	14 (19%)
WC	16 (27%)	0	2 (3%)	26 (44%)	1 (2%)	12 (20%)
ZA	282 (45%)	20 (3%)	13 (2%)	187 (30%)	6 (1%)	90 (14%)

*Another room included separate room for specimens, record keeping room, waiting room, etc.

Turnaround time

The National PMTCT and Paediatric ART guidelines recommend a four week or less turnaround time for processing of infant DBS specimens for infant HIV diagnosis. In this situational assessment, more than 80% of sampled facilities in 6 provinces (namely GP, EC, FS, WC, MP and NC) reported having 30 days (4 weeks) or less turnaround time and return results to the mother at or before the 10 weeks immunisation visit. However in KZN, only half the sampled facilities reported that results are returned to the mother at 10 weeks; 39% facilities reported returning results at the 14 weeks visit. In NW and in LP provinces 25% and 44% sampled facilities have a turnaround time greater than 4 weeks.

Supply of DBS kits

Both expiration and interruption of supply of DBS kits were major barriers to infant HIV testing in some facilities. Close to 20% of facilities in EC and LP claimed to have experienced stock-outs of DBS kits in the last month. During our visit, more than 10% of sampled facilities

in LP and NC were without DBS kit stock. Seventeen percent of sampled facilities in LP and 28% of facilities in NC had expired DBS test-kits.

Some of the reasons for stock outs and expiration of DBS kits were associated with lack of proper stock control. Forty two percent (42%) of those with DBS test-kit stock-outs at the time of the visit, and 52% of those who had expired DBS kits had no tracking system to control their DBS test-kit stock and expiry dates.

3.1.5. OTHER BARRIERS TO EID

Nationally few facilities (25%) reported experiencing other barriers for provision of EID. Time and budget shortages for training were reported as major barriers in 10% and 6% of sampled facilities respectively. Other barriers reported related to health services e.g. staff shortages and high work load at EPI service points and personal factors e.g. maternal fear of disclosure or maternal denial of HIV status OR infants coming with caregivers.

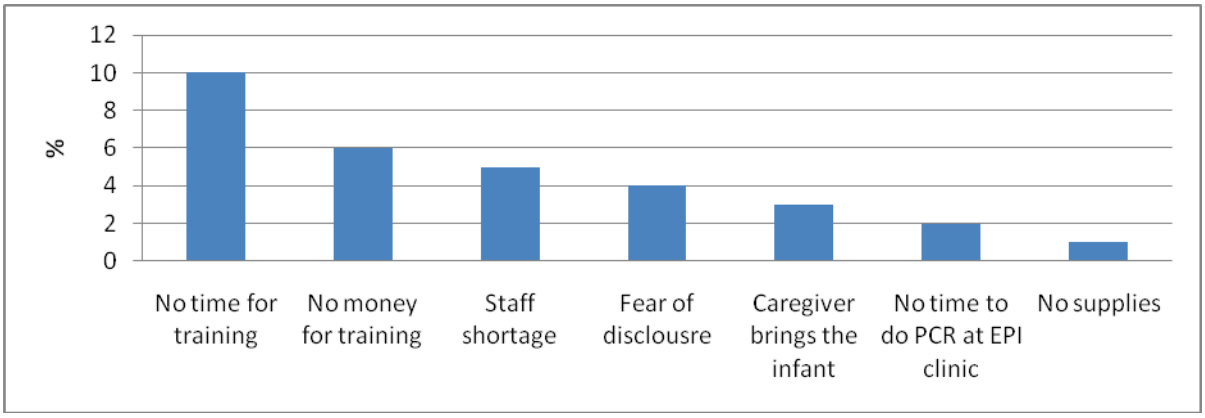

Figure 3: Barriers to EID

3.1.6. CONTINUITY OF CARE: FOLLOW UP, LINKAGES AND REFERAL SYSTEMS

Linkage and referral system

With certain variations between provinces, in 2010 the RtHC is the predominantly used patient held system to facilitate linkages between maternal antenatal and maternal and infant postnatal care programmes. At the time of this situational assessment the old RtHC with the coding system was used in most provinces to indicate HIV status (FS 84%, GP 84%,

MP 52% and NW 50%). The new Roth – which was launched in April 2010 – was being used in 7% of sampled facilities.

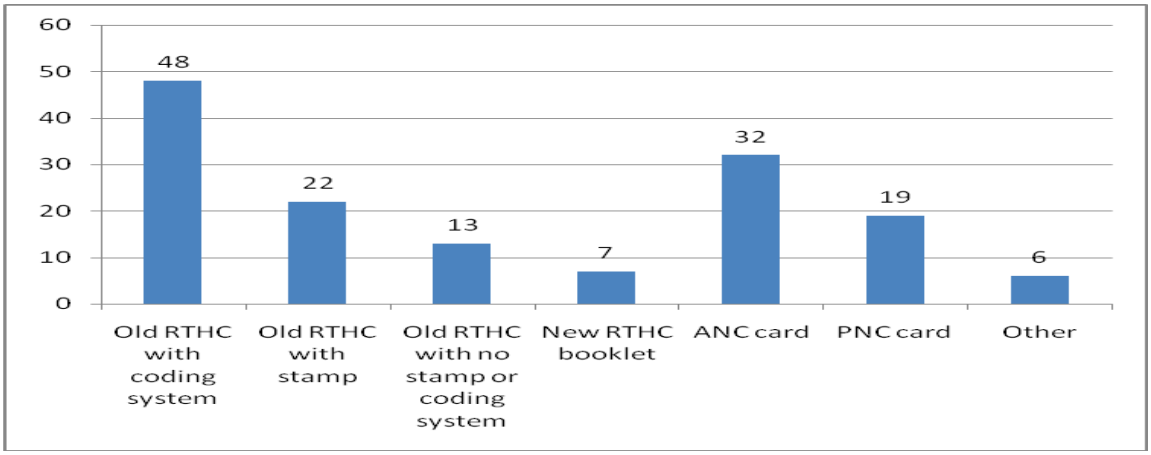

Figure 4: Patient held system

Less than 50% of facilities in NC (45%), MP (30%) and LP (41%) still used the old RtHC with no coding or stamp to indicate infant HIV exposure and/or infection status. EC and WC (EC 78%, WC 53%) used the old RtHC with the stamp. Clinics in three provinces (MP, NC and NW) reported using the ANC and PNC card as a patient held system to ensure continuity of care. Some facilities used both ANC card and the old RTHC with coding or stamp.

More than 90% of sampled facilities reported having a referral system for both adults and infants needing ARV treatment. Forty six percent of sampled facilities referred infants to ARV clinics with referral letters after making appointments at these ARV clinics. Another 38% send infants to ARV clinics with a referral letter only, without setting an appointment date with the ARV clinic. Fifty-seven percent of sampled facilities reported to have a follow-up mechanism to monitor how many referred children actually went to ARV clinics. Forty-three percent of sampled facilities reported that a follow-up mechanism also exists in the ARV clinic to track attendance of children and follow-up of non-attendees who had prior appointments. These reports were not verified as this was outside the scope of this assessment.

More than 75% of the facilities had referral forms/letters for infant and maternal referral to ARV clinics. However, most (>65%) of the facilities did not have any referral system for referring infants/mothers to community based services.

Both infant (96%) and mother (93%) referral for CD4 cell count testing and ARV service was high.

3.1.7. IN-SERVICE RECORDING SYSTEMS

The majority (89%) of sampled facilities used paper based recording system to capture patient level data within the facility, while 58 (8%) facilities (of which 23 were in WC) used both paper and electronic based recording system. PREMISE, MEDI TECH, and CLINICON are some of the examples of electronic recording systems used in facilities that use electronic system. All facilities that have electronic system recorded PMTCT information on the electronic system.

More than 80% of facilities visited had postnatal PMTCT registers. Generally infant information was less meticulously recorded on the PMTCT register compared to maternal information. For example infant CD4 cell count records (patients tested and their results) is captured only in 53% of facilities; Infant referrals for ARV was recorded in 66%, and infant postnatal prophylaxis was recorded in 67%. Other maternal and infant information are captured in more than 75% of sampled facilities.

Facilities were asked to indicate where they keep their PMTCT records:

- 27% of the sampled facilities reported that their PMTCT records are kept in a separate PMTCT clinic and 16% reported keeping them in the VCT room. Fifteen percent (15%) kept their PMTCT records in a room where multiple services are offered.

- 12% and 10% kept their PMTCT registers in the 'immunisation room' and 10% in the 'IMCI/child health room'.

- 6% had one separate register for each of the IMCI, immunisation & PMTCT services, and 3% had one separate PMTCT register in each of the rooms where PMTCT and immunisation services are offered. The rest (12%) reported to use other places such

as labour waiting room, 'TB room', manager's office and pharmacy room to keep PMTCT registers. Sixty five percent (65%) of immunisation service points which reported providing EID at immunisation service delivery points did not have an 'in room' PMTCT register – in these `facilities PMTCT registers were kept at a separate 'PMTCT room', 'IMCI room', or 'VCT room'.

3.2. POLICIES AND PROCEDURES RELATING TO EID AND MATERNAL HIV TESTING

Services for Infant HIV Testing

Early diagnosis of infants' HIV status and provision of prevention, treatment and care services are one of the highest priorities of the PMTCT programme. The South African (2010) PMTCT guideline recommends infant HIV testing at 6 weeks immunisation visits (or earlier if the infant is sick or if symptomatic HIV infection is suspected) and at IMCI visits (if not tested earlier). The guideline also recommends that all HIV-exposed infants be given a repeat test six weeks after cessation of breastfeeding and at 18 months of age.

According to this situational assessment, more than 90% (93% - 100%) of the facilities in all nine provinces (nationally 97% of the facilities) offer infant HIV testing at six weeks post-delivery. However, according to facility managers' reports, the protocol/algorithm used in over half (approximately 54%) of the facilities is HIV testing of known (reported/documented) HIV exposed infants, while only 46% of facility managers reported that their protocol/algorithm for testing includes offering routine provider initiated HIV testing to all mothers/infants visiting 6weeks immunisation service points regardless of prior testing (routine global testing) (see Figure 5). Facility managers in provinces such as KZN, WC and GP with better functioning vertical PMTCT programmes were more likely to report offering targeted testing and less likely to offer routine EID or HIV testing at all possible visits. Of those facilities that reported having a protocol for routine global EID, 33% reported that their protocol for routine EID states maternal rapid testing is offered to the mother and if the mother is HIV-positive, HIV testing is offered to the infant; 29% facility managers reported that they offer HIV testing directly to the infant without necessarily testing the

mother, and 38% reported using maternal rapid testing followed by infant testing or infant testing only, as needed. Close to half (48%) of the sampled facilities do not offer EID if an infant is brought to the clinic by a caregiver.

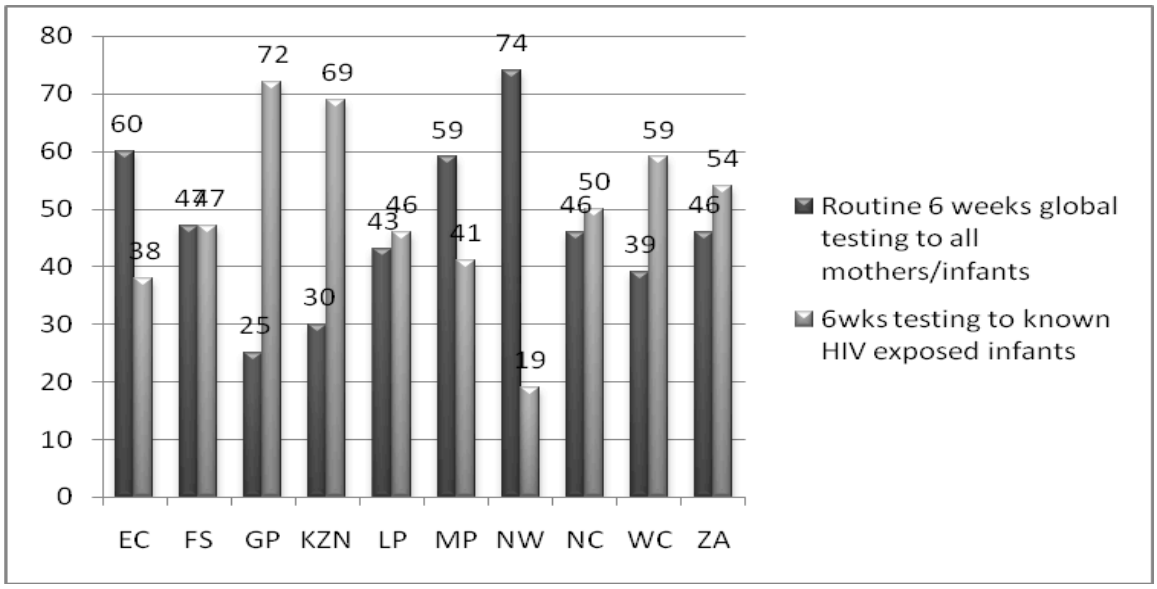

Figure 5: Percent of facilities with protocol/ algorithm for routine global EID versus targeted EID (facility managers' report)

In order to verify the implementation of the above reported testing protocol/algorithm, 'immunisation nurses' were also asked to report on infant HIV testing approach used at immunisation service points. The response from immunisation nurses indicate an even lower proportion of facilities actually implement routine global HIV testing: nurses reported only 9% of immunisation service points provide routine global infant HIV testing at 6 weeks immunisation service points, while 68% reported providing infant testing to documented/reported infants only, and 15% reported that immunisation service points are not involved in provision of infant HIV testing.

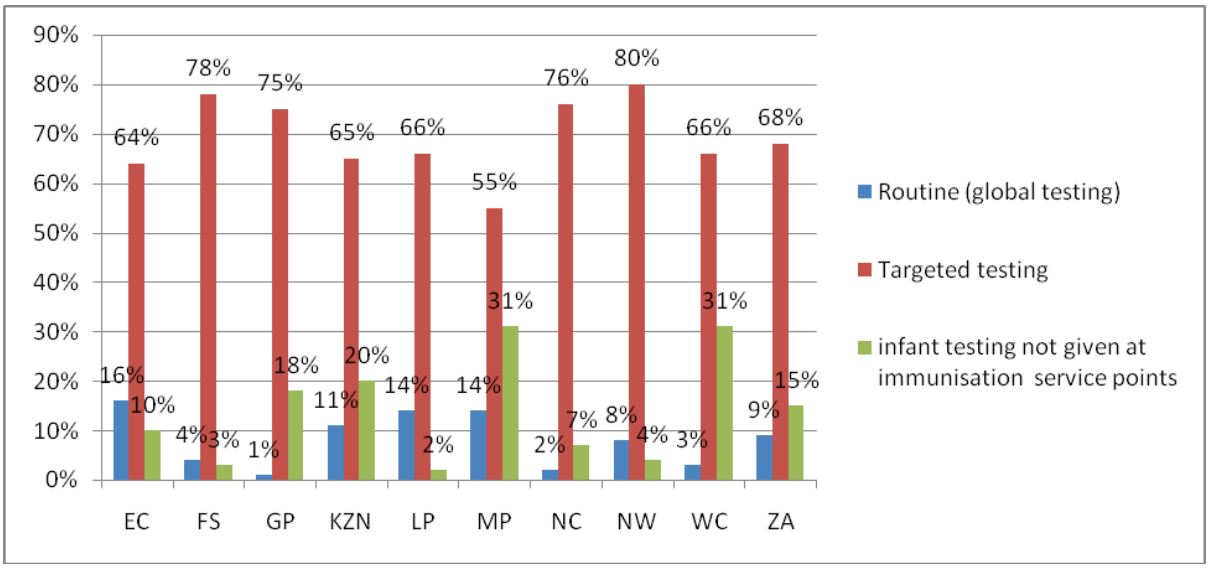

Figure 6: 'Immunisation Nurses' reports of coverage of Routine Global EID versus Targeted EID at 6 weeks immunisation service points

Only 40% of selected facilities offered infant HIV testing at all of the following nationally recommended visits: at 6 weeks visit, 6 weeks after cessation of BF, at IMCI clinics (if suspected/exposed and not tested before) and at 18 months (Table 8).

Table 8: Availability of infant HIV testing services for known HIV exposed infants at ALL of the following recommended visits: at 6 weeks visit, 6 weeks after cessation of BF, at IMCI clinics (if suspected/exposed and not tested before) and at 18 months

	EC	FS	GP	KZN	LP	MP	NC	NW	WC	ZA
% providing infant testing at ALL recommended visits	21	47	28	30	63	49	79	35	32	40

Infant HIV testing service at 6 weeks immunisation visits

Immunisation services are an integral part of most public health programmes. Nationally all PHCs and CHCs provide immunisation services. Six weeks immunisation service has above 90% utilization rate in all 9 provinces. Integration of EID services with immunisation service is therefore an important strategy to increase early diagnosis of HIV-exposed infants and ensure linkages to prevention, treatment and care services.

72% of sampled facilities reported that infant HIV testing is provided at immunisation service points (i.e. infant testing is performed at immunisation service point); 5% reported that infant HIV testing service is provided at 6 weeks immunisation visits in conjunction with (i.e. through referral to) PMTCT/VCT clinics; 15% reported that immunisation service points do not provide PCR testing service for infants (Figure 7).

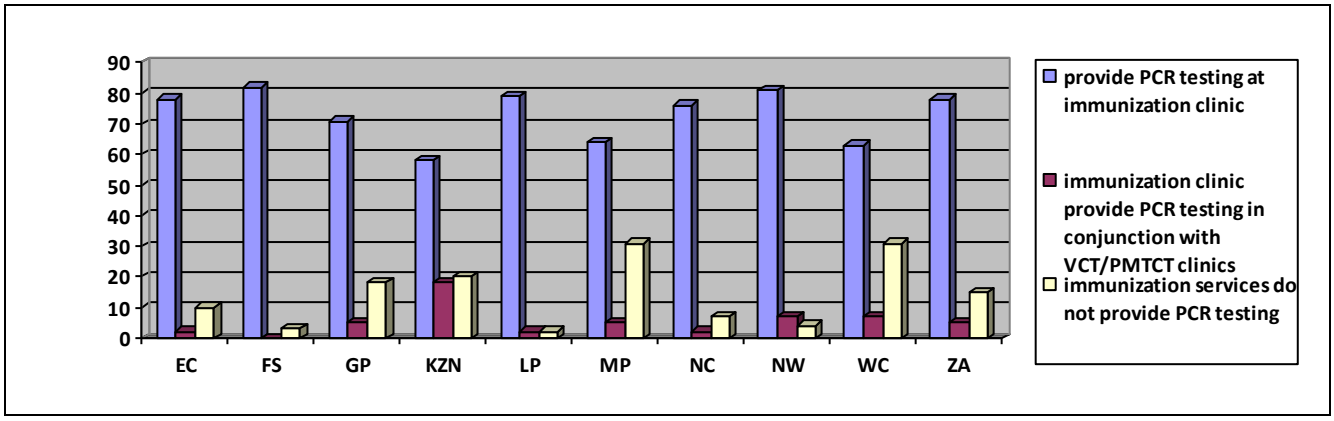

Figure 7: Infant HIV testing service at immunisation service points

3.3. PERCEIVED FEASIBILITY OF INTEGRATING EID INTO ROUTINE CHILD HEALTH VISITS

'Immunisation nurses' at 72% of sampled facilities believe that routine full integration of EID and immunisation is feasible. On the contrary, although 77% of nurses offering sick child health care / IMCI services accept the importance of infant HIV testing, only 31% of them believed that this is feasible at IMCI / child health service delivery points. Reasons for not supporting routine EID at IMCI/child health service delivery points services include perceived staff shortages, time constraints and high workloads.

3.4. FEASIBILITY OF CONDUCTING A SURVEY ON PMTCT EFFECTIVENESS AT AGE SIX WEEKS IN PRIMARY HEALTH CARE FACILITIES

The feasibility of achieving the potential sample size for each facility in the 6 weeks survey (SAPMTCT Evaluation) was assessed by comparing immunisation numbers in the sampling frame (from DHIS 2007) with immunisation registers from sampled facilities. Review of quarterly immunisation numbers (for the period September to November 2009) from immunisation registers indicates a generally lower number of immunisation for the period September to November 2009 compared to quarterly immunisation numbers calculated

from DHIS 2007 data (Table 9). Nineteen percent (19%) of sampled facilities nationally had recorded immunisation numbers in 2009 that were less than two thirds of the 2007 DHIS numbers (range 3% in KZN to 46% in LP) indicating that achieving desired sample size will be very difficult in at least 7 provinces which recently documented a more than 10% reduction in immunisation numbers compared with DHIS 2007 –which was used to calculate the number of facilities needed to attain sample size. In KZN only 3% of sampled facilities performed less than two third of the quarterly immunisation number calculated from DHIS 2007 data. Based on these results (data not presented), in 8 out of the 9 provinces (i.e. except in KwaZulu-Natal), achievement of expected sample size (within the duration allocated for each facility visit) will be difficult for more than 5% of sampled facilities.

Table 9: Potential to realise sample size for the SAPMTCT Evaluation

Province	No (%) of facilities with quarterly (Sep - Nov, 2009) DTP1 number < 2/3 of reported number on DHIS 2007	No (%) of facilities with quarterly (Sep-Nov, 2009) DTP1 number >=2/3 of reported number on DHIS 2007	Information not available during the time of visit
EC	18 (21%)	61(70%)	8 (9%)
FS	13 (18%)	35 (48%)	25 (34%)
GP	12 (16%)	36 (47%)	28 (37%)
KZN	2 (3%)	54 (76%)	15 (21%)
LP	26 (46%)	30 (54%)	-
MP	7 (8%)	27 (31%)	53 (61%)
NC	10 (24%)	12 (29%)	20 (48%)
NW	21 (28%)	38 (51%)	15(20%)
WC	12 (20%)	47 (80%)	-
Total	**121 (19%)**	**340 (54%)**	**164 (26%)**

Median quarterly immunisation number in small clinics was as expected very low in all 9 provinces (Table 10). The expected quarterly median immunisation number for small clinics based on the DHIS 2007 data ranges between 14.5 (in NC) and 29 (in FS), whereas the median immunisation number performed between September to November 2009 according to this situational assessment is between 18 (LP) and 58 (KZN) (Table 10). Although the report from the latter is slightly higher, for most of the provinces, inclusion of small facilities in the 6 weeks survey would still need allocation of a significant amount of time and resources for a relatively smaller sample size. For instance, in order to achieve at least a median sample size of 10 DBS from a small facility, in most of the provinces, one data collector will need to be allocated to the small facility for at least one month (or more) period – an inefficient use of resources.

Table 10 : Immunisation numbers in small facilities

Province	Expected quarterly median immunisation number (DHIS 2007)	Quarterly median immunisation number performed between Sep – Nov 2009
EC	28	29
FS	29	29
GP	27.5	49
KZN	25	58
LP	20	18
MP	27	34
NC	14.5	Information not available *
NW	28	28
WC	20	20

* Data collectors reported that most small clinics did not have immunisation registers

4. DISCUSSION OF KEY FINDINGS AND CONCLUSION

Infant HIV testing service is provided in more than 95% of sampled primary health care facilities in South Africa. However, despite this countrywide coverage, not all HIV-exposed infants benefit from the programme as the service largely targets infants born to HIV positive mothers that are already identified during the antenatal and intrapartum period. Many pregnant mothers do not access HIV testing service during the antenatal and intrapartum period. A 2009 study on missed opportunities in one local service area in Eastern Cape revealed that only 43% of antenatal care attendees get tested during pregnancy.[15] According to the 2009 global progress report, antenatal HIV testing in low and middle income countries is below twenty five percent (21%).[16] Hence, the HIV testing needs of infants are unlikely to be adequately addressed if infant HIV testing service continues to target only reported and documented HIV positive mothers.

There are well designed national policies and guidelines in South Africa recommending routine provision of HIV screening to all infants at 6 weeks immunisation visits. The National 2010 Paediatric ART Guideline provides a clear framework for the routine provision of HIV screening to both known HIV-exposed infants and infants of unknown HIV status infants at 6 weeks immunisation visits.[12] Despite this, current practices (as observed in this study) greatly differ from available policy guidelines and vary within and between provinces. Lack of timely communication of new policy decisions (policy changes) to relevant managers and healthcare workers is one of the major barriers for the lack of provision of effective PMTCT service delivery in South Africa.[17] With continually emerging new PMTCT evidence and international policy changes, the national PMTCT policy has been in continuous revision. Ongoing communication strategies and onsite trainings need to be integrated into the policy framework to ensure new policy updates reaches relevant managers and health care workers.

In addition, implementing routine provision of infant testing at 6 weeks visits needs a well functioning health system. Hence addressing the broader infrastructural, human resource, and supply constraints of the health system is crucial. Our findings show that one of the

perceived barriers to routine EID is the high workload experienced at immunisation service points and the lack of DBS training among both professional and non-professional staff. Task shifting for activities such as pre-test counselling, post-test counselling and DBS collection could make the provision of routine infant testing feasible. In this regard, the current regulations need revision to provide legal recognition for the involvement of trained non-professional staff (such as staff nurses, ENAs and lay counsellors) in collecting heel prick blood (DBS) samples from infants. In addition, ongoing formal and informal (on spot) staff trainings need to be promoted to ensure that all professionals as well as non-professional staff performing heel pricks for EID are trained on DBS collection, pre-test counselling and post-test counselling. In addition, given the high staff turnover rate and continuous policy amendments, different communication strategies (leaflets, conferences, workshops, cell phone, sms, and e- technology etc.) should be used to keep health care personnel's knowledge up-to-date.

This study also identifies DBS supply interruption and lack of proper stock control as one of the barriers for providing uninterrupted infant HIV testing services. Hence, in order to successfully implement routine testing at immunisation service points, barriers identified in this study need to be addressed. Our data on the lab transportation system, storage of specimen and turnaround time suggests that the health system in its current capacity could handle routine EID services, provided that other barriers are addressed.

On the other hand, the intended outcome of early infant diagnosis is not only to identify HIV-exposed infants but to improve their quality of life by providing appropriate infant feeding advice, ARV treatment/prophylaxis (as needed) and repeat HIV tests during follow-up visits. In this study, reported coverage of testing at follow-up visits was poor (nationally 46% coverage at both cessation of BF and at 18 months). Studies indicate that high loss to follow up rate is a major reason for poor coverage of PMTCT services during the postnatal period.[2, 13] Developing a strong link between heath care facilities and community based care services (such as community support groups) could facilitate early tracing of mothers lost to follow-up.[18] However, according to our study the communication (i.e. referral system) system between community based services and health facilities is generally weak.

The substantial loss to follow-up rate during the postnatal period is also due to the lack of coordination/communication within the different MCWH/PMTCT service delivery points. MCWH/PMTCT services are provided in a variety of settings, including at antenatal clinics, delivery clinics, postnatal clinics and HIV care and treatment sites. Efficient communication and referral systems are needed within these service points in order to ensure linkage to continuum of care.

In order to improve the communication and continuity of care patient held systems that incorporate maternal and infant HIV-related information are needed so that HIV-exposed infants are recognised at any service delivery point.[2] However, the new RtHB was not yet rolled out nationally at the time of this survey (early 2010). Therefore currently, with exception of few provinces (e.g. WC) which has introduced some interim measures (such as the stamp and ANC card) to facilitate linkages, the majority of the other provinces use the old RtHC with the coding system which has been reported to be complex and ineffective .[5,6] Roll-out and evaluation of the new RtHB needs to be assured.

Lastly, expanding routine HIV testing without having adequate access to ARV treatment adds less benefit to the main target of improving survival among infected infants. Our study indicates, only 15% of the PHC facilities have on site paediatric ARV clinics; almost half of all mothers and infants are referred off site for ARV services, and many referrals are done without pre-arranged appointment dates. Access to ARV clinics is therefore a major challenge that needs to be considered concurrently with plans to expand routine provision of infant HIV testing at 6 weeks immunisation visits / all child health services.

Limitations of the Situational Assessment

1. The assessment examined reported data from managers and health care staff on systems for EID at selected primary health care facilities nationally. These facilities were randomly selected as part of the SA PMTCT Evaluation and not for any specific reason relating to infant diagnosis. It is assumed that this provides valid and reliable national and provincial data on implementation of EID in South Africa.

2. The conclusions from this study (except for the immunisation section) are based on reported information and perception of health workers. There was no verification of infant diagnosis algorithms, referral systems and follow-up mechanisms. However the performance of the health care system ultimately relies on the knowledge and perception of health care workers[19], hence these findings should be useful for improving current system for early infant diagnosis service.

3. The situational assessment was particularly focused on evaluating the systems for early infant diagnosis and thus did not assess the systems for PMTCT-related care and integration thereof into routine antenatal care.

4. The situational assessment did not include more detailed qualitative work on reasons for delayed turn-around-time in NW and Limpopo provinces, and more detailed qualitative work on nurses attitudes towards the integration of EID into routine immunisation and maternal and child health services.

5. RECOMENDATIONS

Policy makers

Ongoing communication strategies and onsite trainings need to be integrated into the policy framework to ensure new policy updates reach relevant managers and health care workers.

Expanding both adult and paediatric ARV sites should be one of the top priorities for government and policy makers.

Policies need to promote enabling environments by designing strategies that can alleviate the most crucial problems of the health system. This includes:

- Ensuring equitable human resource allocation between provinces that is in accordance with disease burden and catchment population.
- Promoting strategies such as task shifting to address human resource shortages.

- Providing regulations enabling enrolled nurse assistants, staff nurses and lay counsellors to draw blood (heel pricks) for infant HIV testing.
- Expanding EID training programmes to professional nurses, doctors and all other staff involved in provision of child health service at primary health care facilities.
- Ensuring quick information flow using multiple platforms to service delivery points by providing continuous update/ in-service training on policy changes.
- Rolling out an efficient patient held system should also be an immediate priority to improve the communication and referral system between MCWH/PMTCT service delivery points.
- Policy makers should encourage social mobilization programmes that increase the demand for infant diagnosis

Health policy makers need to track and manage progress in implementation of these interventions.

Managers

- Health service managers should ensure that new staff members are trained on new testing protocols and referral systems.
- Managers in each facility / service delivery point need to ensure quick transfer/communication of information to service delivery points so that policies can be translated into action quickly.
- Managers need to ensure that facilities are well equipped (e.g. adequate provision of DBS kit supplies) and adequately staffed.
- Managers need to establish procedures for monitoring and evaluating the implementation of routine infant HIV testing services and especially EID services.
- Managers need to strengthen the referral system both within MCWH/PMTCT service delivery points and with community-based organizations.

Healthcare providers/Implementers

- Health care providers need to be accountable for implementation of routine infant HIV testing, and especially EID services.

- Health care providers should follow national protocols for implementation of EID at immunisation service points.
- Health care providers should take every opportunity to encourage all patients (mother and child) to test for HIV infection and follow through with appropriate prevention, treatment and care services.
- Health Care providers should work with local churches, community-based organisations and community groups to increase the demand for infant diagnosis and HIV testing

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APPENDICES

A) Results presented by province

1. The Eastern Cape Province

Table EC1: Total PHCs in the province and Sampled facilities

		Facility Grouping		
		Small No (column %)	**Medium No (column %)**	**Large No (column %)**
Total PHCs + CHCs in the province(DHIS 2007)	714			
Number sampled (% provincial PHC+CHC)	87 (12%)			
Number visited (% visited out of the total sampled)	87 (100%)			
Number visited in each stratum (% visited in each stratum for the province as proportion to total visited in the national stratum)		10 (10%)	38 (17%)	39 (13%)

Table EC2: Number and Type of Health Care Personnel Providing EID in Sampled Facilities

Type of Health Care Personnel	**Total number (%) in sampled facilities**	**Number (%) do EID/heel prick**	**Number (%) EID trained**
Professional nurses	518 (54%)	269 (52%)	218 (42%)
Staff nurses	18 (2%)	3 (17%)	4 (7%)
ENAs*	60 (6%)	6 (10%)	2 (3%)
Lay counsellors	187 (19%)	2(1%)	0
Doctors**	185 (19%)	0	

**Enrolled nurse assistants*

*** Doctors provide onsite support to numerous clinics and are not necessarily based full-time in one clinic. This data item refers to the number of doctors that provide support to clinics in the sampled facilities*

Table EC3: Number and % of sampled facilities that use nurses who provide immunisation services ('EPI nurses'); nurses who provide child health services ('Child Health' Nurses); nurses who provide VCT ('VCT' nurses) and lay counsellors for pre-test counselling, returning of results and post-test counselling

Description	**# (%) Provides pre-test counselling**	**# (%) Provides post-test counselling**
Nurses who provide immunisation services	66 (76%)	58 (67%)
'Child health' nurses	75 (86%)	69 (79%)
'VCT' nurses	72 (83%)	70 (80%)
Lay counsellors	49 (56%)	13 (15%)

Table EC4: Number and Percentage of Sampled Clinics offering Immunisation, PMTCT and ARV Services

	Number (%)
Facilities with onsite PMTCT services	86 (99%)
Facilities with daily immunisation services	79 (91%)
Facilities with daily PMTCT services	74 (85%)
Facilities providing both daily PMTCT and immunisation	68 (78%)
Facilities with onsite paediatric ARV services	27 (31%)
Facilities with onsite adult ARV service	32 (37%)

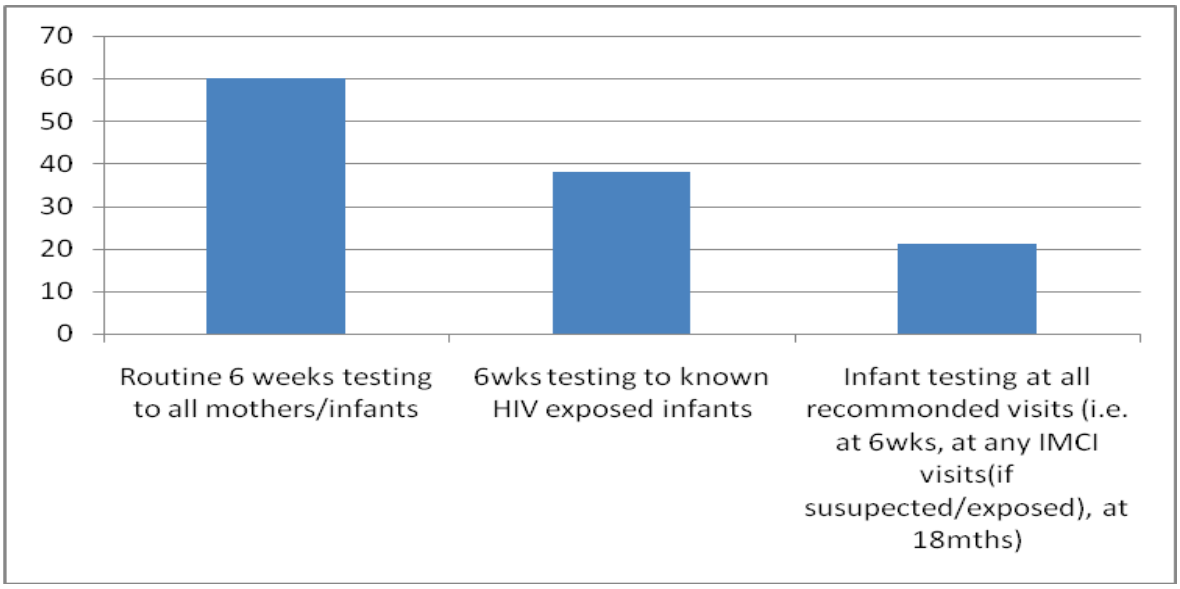

Figure EC1: Coverage (%) of routine and targeted infant testing at 6 weeks immunisation visits

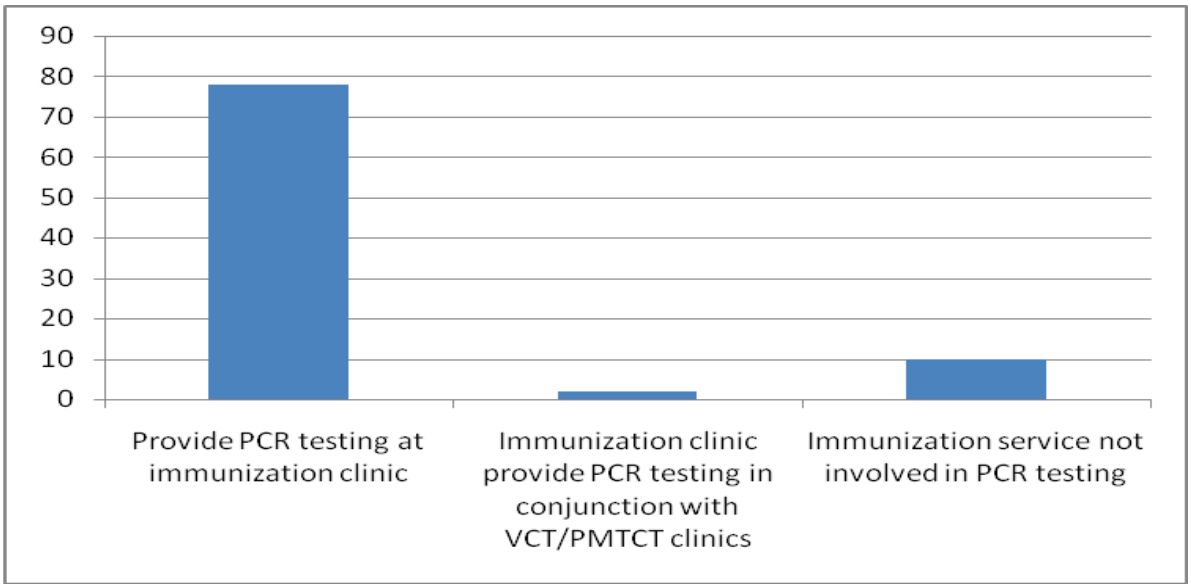

Figure EC2: Infant HIV testing service at 6 weeks immunisation visits

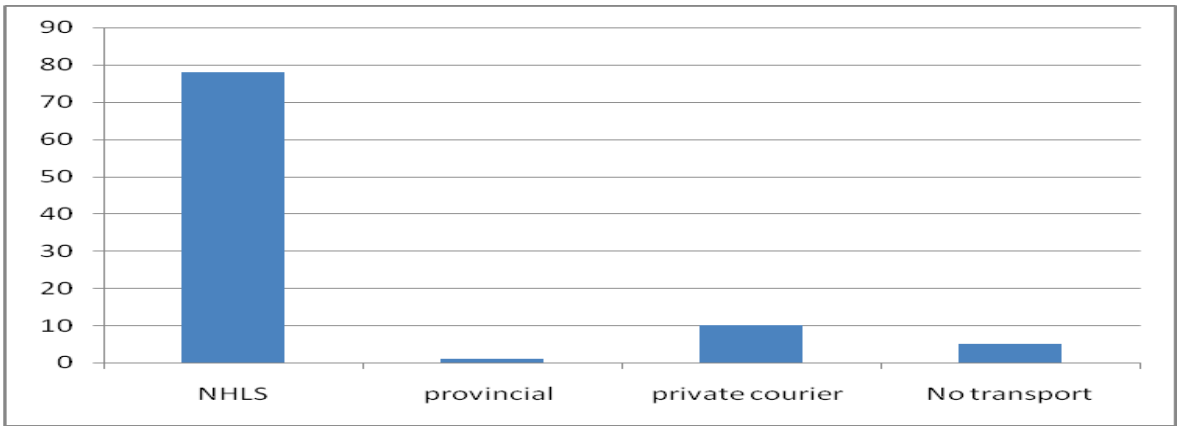

Figure EC3: Eastern Cape Lab transportation system

2. The Free State Province

Table FS1: Total PHCs in the province and Sampled facilities

		Facility Grouping		
		Small No (column %)	**Medium No (column %)**	**Large No (column %)**
Total PHCs + CHCs in the province (DHIS 2007)	266			
No sampled (% provincial PHC+CHC)	83 (31%)			
No. visited (% visited out of the total sampled)	73 (88%)			
Number visited in each stratum (% visited in each stratum for the province as proportion to total visited in the national stratum)		13(14%)	28 (12%)	32 (11%)

Table FS2: Number and Type of Health Care Personnel Providing EID in Sampled Facilities

Type of Health Care Personnel	**Total number (%) in sampled facilities**	**Number (%) do EID/heel prick**	**Number (%) EID trained**
Professional nurses	321 (58%)	225 (70%)	176 (55%)
Staff nurses	22 (4%)	5 (23%)	2 (9%)
ENAs*	19 (3%)	2 (11%)	2 (11%)
Lay counsellors	73 (13%)	2 (3%)	0
Doctors**	123 (22%)	0	

**Enrolled nurse assistants*

*** Doctors provide onsite support to numerous clinics and are not necessarily based full-time in one clinic. This data item refers to the number of doctors that provide support to clinics in the sampled facilities*

Table FS3: Number and % of sampled facilities that use nurses who provide immunisation services ('EPI nurses'); nurses who provide child health services ('Child Health' Nurses); nurses who provide

VCT ('VCT' nurses) and lay counsellors for pre-test counselling, returning of results and post-test counselling

Description	# (%) Provides pre-test counselling	# (%) Provides post-test counselling
Nurses who provide immunisation services	48 (66%)	58 (79%)
'Child health' nurses	52 (71%)	63 (86%)
'VCT' nurses	45 (62%)	46 (63%)
Lay counsellors	48 (66%)	12 (16%)

Table FS4: Number and Percentage of Sampled Clinics offering Immunisation, PMTCT and ARV Services

	Number (%)
Facilities with onsite PMTCT services	67 (92%)
Facilities with daily immunisation services	50 (68%)
Facilities with daily PMTCT services	57 (78%)
Facilities providing both daily PMTCT and immunisation	40 (55%)
Facilities with onsite paediatric ARV services	15 (21%)
Facilities with onsite adult ARV service	17 (23%)

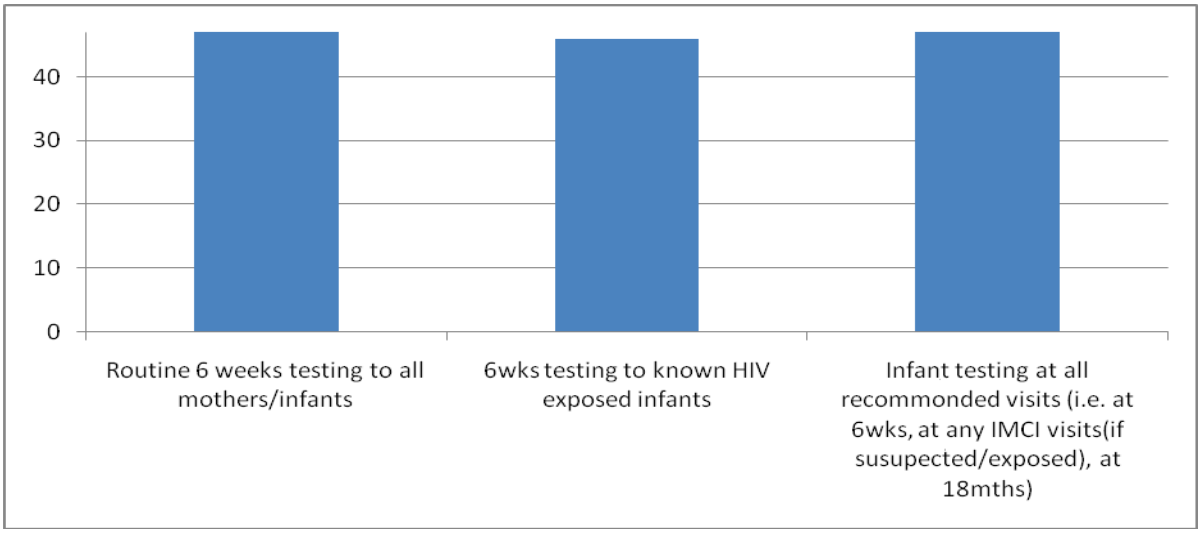

Figure FS1: Coverage (%) of routine and targeted infant testing at 6 weeks immunisation visits

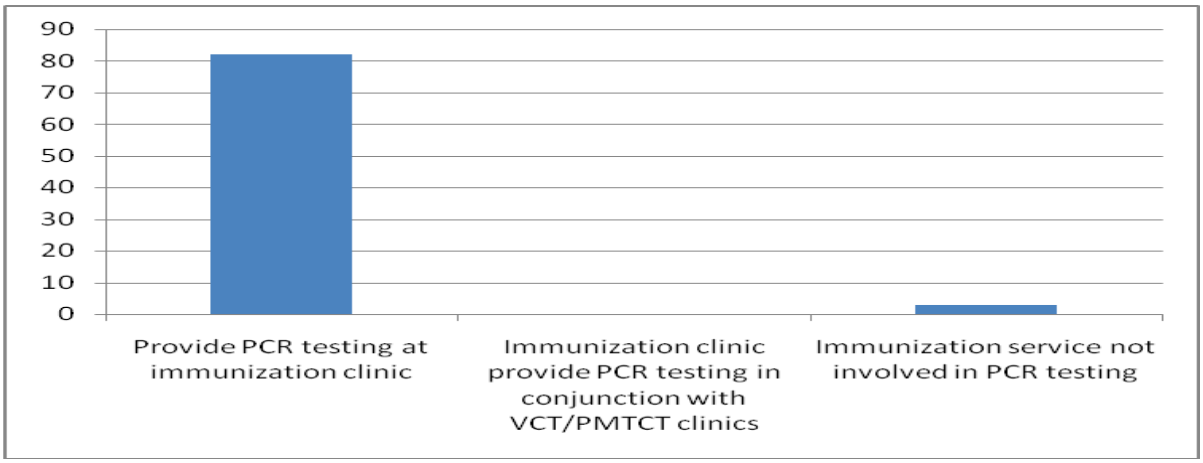

Figure FS2: Infant HIV testing service at 6 weeks immunisation visits

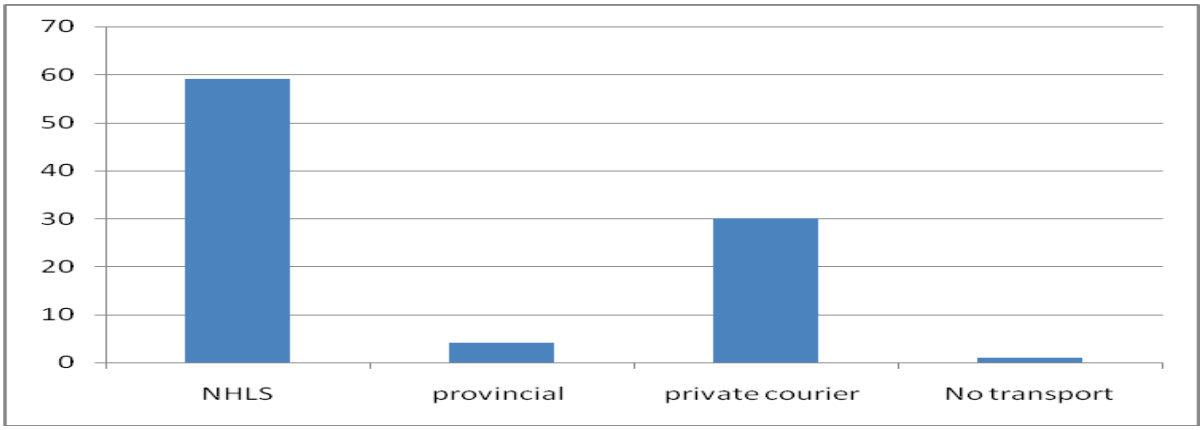

Figure FS3: Free State Lab transportation system

3. The Gauteng Province

Table GP1: Total PHCs in the province and Sampled facilities

		Facility Grouping		
		Small No (column %)	**Medium No (column %)**	**Large No (column %)**
Total PHCs + CHCs in the province (DHIS 2007)	340			
Number sampled (% provincial PHC+CHC)	76 (22%)			
Number visited (% visited out of the total sampled)	76 (100%)			
Number visited in each stratum (% visited in each stratum for the province as proportion to total visited in the national stratum)		16 (17%)	14 (6%)	46 (15%)

Table GP2: Number and Type of Health Care Personnel Providing EID in Sampled Facilities

Type of Health Care Personnel	Total number (%) in sampled facilities	Number (%) do EID/heel prick	Number (%) EID trained
Professional nurses	695 (58%)	327 (47%)	359 (52%)
Staff nurses	61 (5%)	3 (5%)	18 (30%)
ENAs*	98 (8%)	18 (18%)	3 (3%)
Lay counsellors	131 (11%)	3(2%)	3 (2%)
Doctors**	216 (18%)	2 (1%)	

**Enrolled nurse assistants*

*** Doctors provide onsite support to numerous clinics and are not necessarily based full-time in one clinic. This data item refers to the number of doctors that provide support to clinics in the sampled facilities*

Table GP3: Number and % of sampled facilities that use nurses who provide immunisation services ('EPI nurses'); nurses who provide child health services ('Child Health' Nurses); nurses who provide VCT ('VCT' nurses) and lay counsellors for pre-test counselling, returning of results and post-test counselling

Description	# (%) Provides pre-test counselling	# (%) Provides post-test counselling
Nurses who provide immunisation services	30 (39%)	35 (46%)
'Child health' nurses	30 (39%)	36 (47%)
'VCT' nurses	36 (47%)	39 (51%)
Lay counsellors	42 (55%)	18 (24%)

Table GP4: Number and Percentage of Sampled Clinics offering Immunisation, PMTCT and ARV Services

	Number (%)
Facilities with onsite PMTCT services	75 (99%)
Facilities with daily immunisation services	65 (86%)
Facilities with daily PMTCT services	54 (71%)
Facilities providing both daily PMTCT and immunisation	52 (68%)
Facilities with onsite paediatric ARV services	8 (11%)
Facilities with onsite adult ARV service	11 (14%)

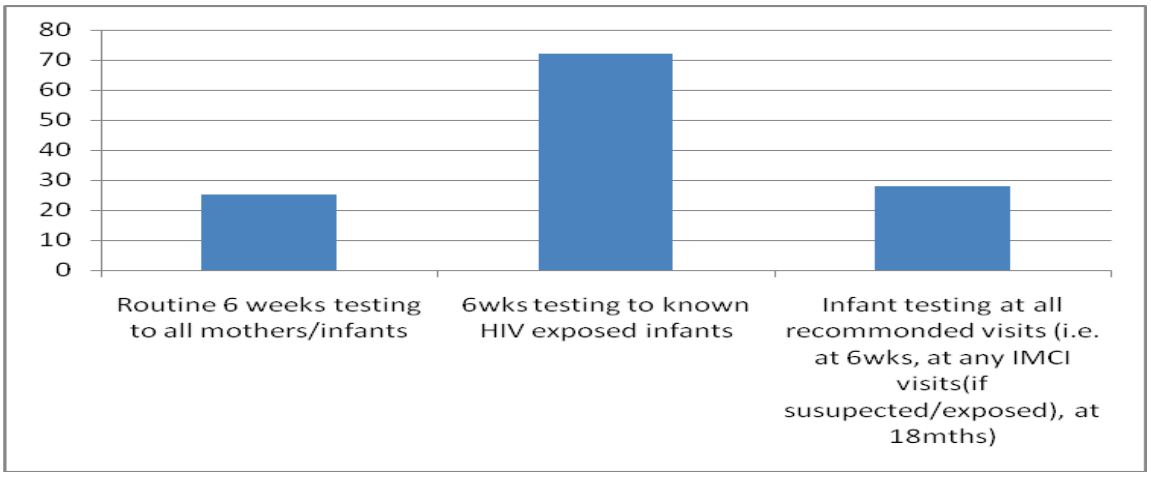

Figure GP1: Coverage (%) of routine and targeted infant testing at 6 weeks immunisation visits

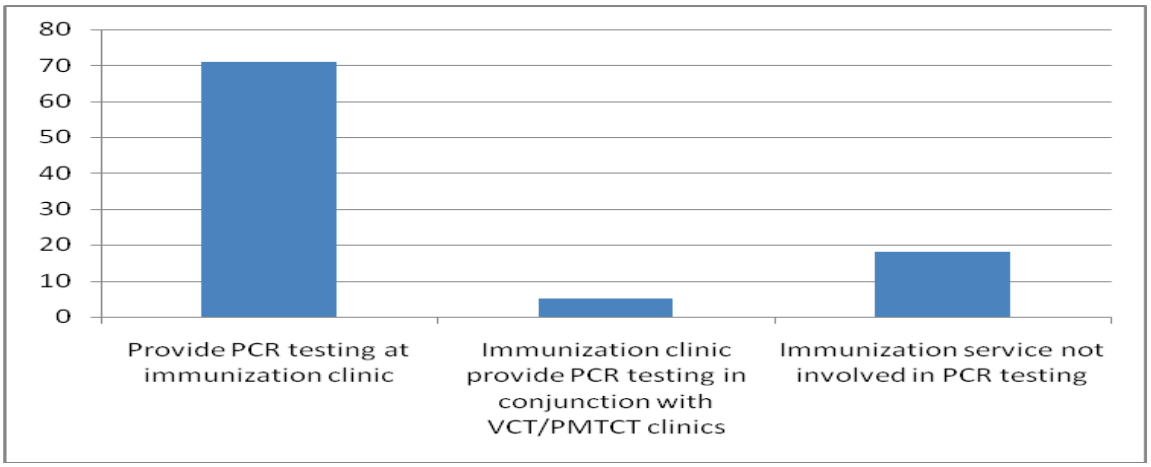

Figure GP2: Infant HIV testing service at 6 weeks immunisation visits

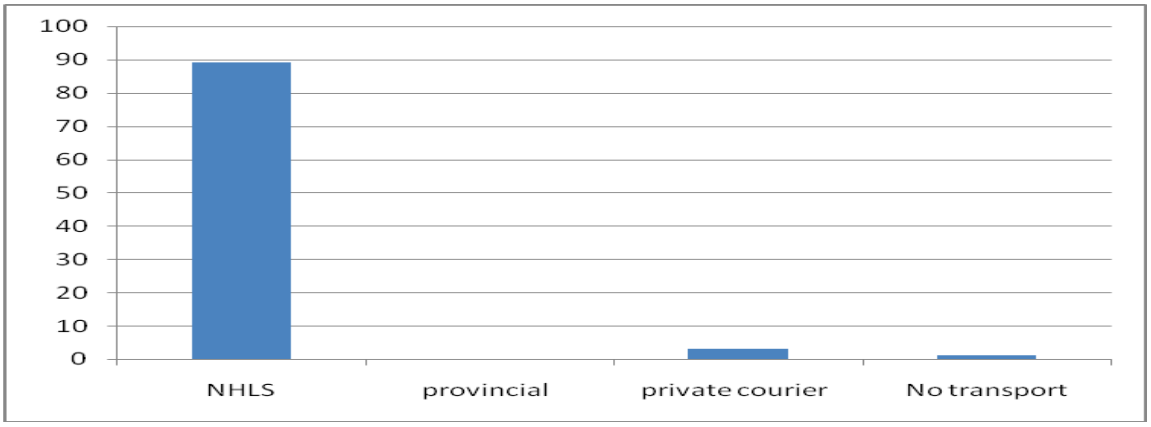

Figure GP3: Gauteng Lab transportation system

4. The KwaZulu-Natal Province

Table KZN1: Total PHCs in the province and Sampled facilities

		Facility Grouping		
		Small No (column %)	**Medium No (column %)**	**Large No (column %)**
Total PHCs + CHCs (DHIS 2007)	562			
No sampled (% provincial PHC+CHC)	74 (13%)			
Number visited (% visited out of the total sampled **)**	71 (96%)			
Number visited in each stratum (% visited in each stratum for the province as proportion to total visited in the national stratum)		10 (10%)	23 (10%)	38 (13%)

Table KZN2: Number and Type of Health Care Personnel Providing EID in Sampled Facilities

Type of Health Care Personnel	**Total number (%) in sampled facilities**	**Number (%) do EID/heel prick**	**Number (%) EID trained**
Professional nurses	546 (53%)	278 (51%)	270 (49%)
Staff nurses	41 (4%)	0	36 (88%)
ENAs*	168 (16%)	48 (29%)	2 (1%)
Lay counsellors	86 (8%)	5(6%)	37(43%)
Doctors**	193 (19%)	26 (13%)	

**Enrolled nurse assistants*

*** Doctors provide onsite support to numerous clinics and are not necessarily based full-time in one clinic. This data item refers to the number of doctors that provide support to clinics in the sampled facilities*

Table KZN3: Number and % of sampled facilities that use nurses who provide immunisation services ('EPI nurses'); nurses who provide child health services ('Child Health' Nurses); nurses who provide VCT ('VCT' nurses) and lay counsellors for pre-test counselling, returning of results and post-test counselling

Description	**# (%) Provides pre-test counselling**	**# (%) Provides post-test counselling**
Nurses who provide immunisation services	21 (30%)	14 (20%)
'Child health' nurses	28 (39%)	27 (38%)
'VCT' nurses	17 (24%)	30 (42%)
Lay counsellors	55 (77%)	26 (37%)

Table KZN4: Number and Percentage of Sampled Clinics offering Immunisation, PMTCT and ARV Services

	Number (%)
Facilities with onsite PMTCT services	69 (97%)
Facilities with daily immunisation services	70 (99%)
Facilities with daily PMTCT services	58 (82%)
Facilities providing both daily PMTCT and immunisation	57 (80%)
Facilities with onsite paediatric ARV services	16 (23%)
Facilities with onsite adult ARV service	43 (61%)

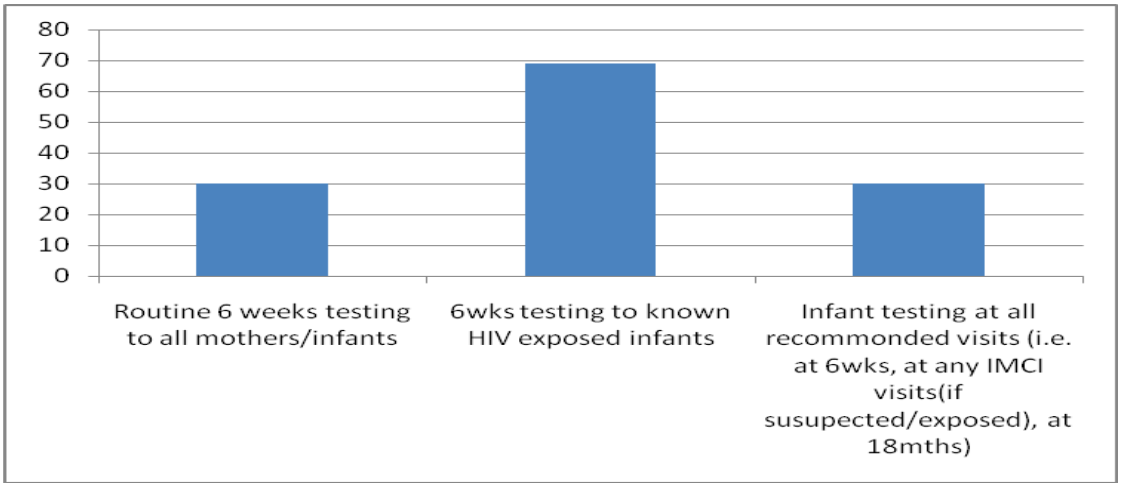

Figure KZN1: Coverage (%) of routine and targeted infant testing at 6 weeks immunisation visits

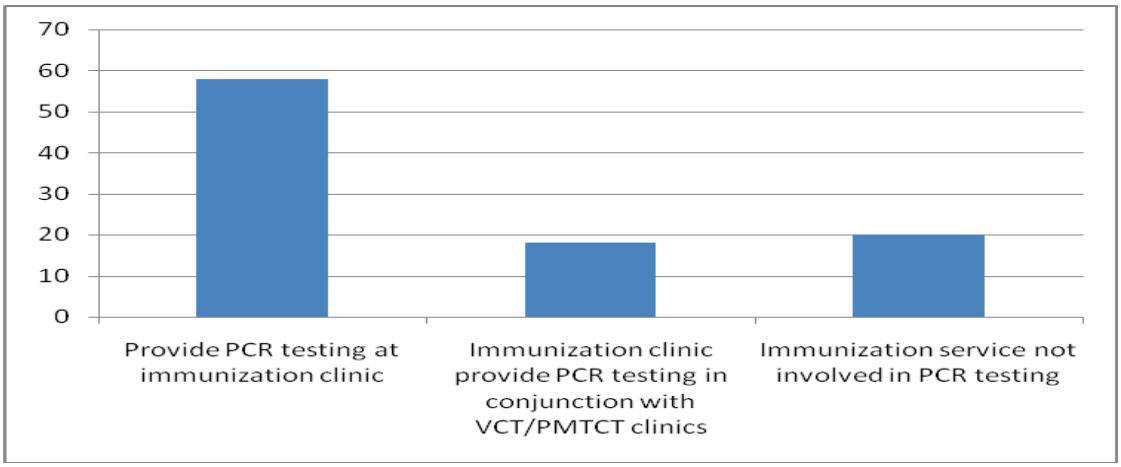

Figure KZN2: Infant HIV testing service at 6 weeks immunisation visits

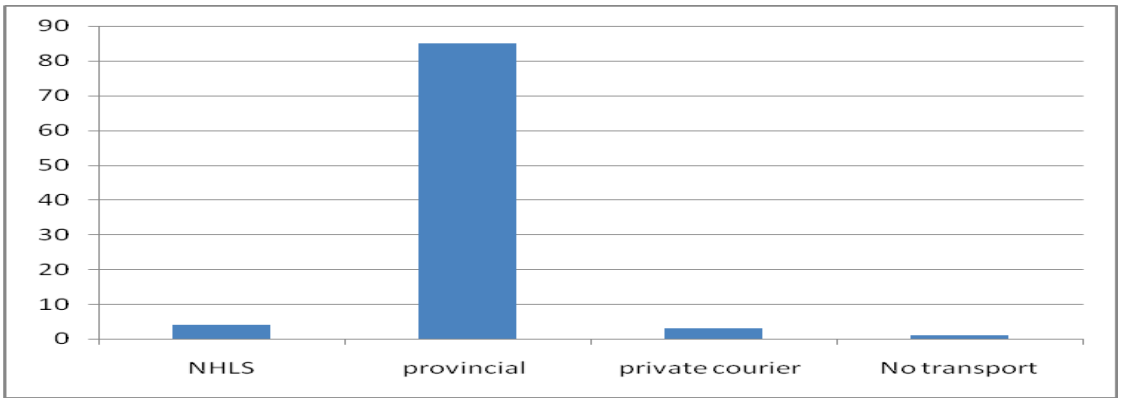

Figure KZN3: KwaZulu-Natal Lab transportation system

5. The Limpopo Province

Table LP1: Total PHCs in the province and Sampled facilities

		Facility stratum		
		Small No (column %)	**Medium No (column %)**	**Large No (column %)**
Total PHCs + CHCs in the province (DHIS 2007)	438			
Number sampled (% provincial PHC+CHC)	84 (19%)			
Number visited (% visited out of the total sampled)	56 (67%)			
Number visited in each stratum (% visited in each stratum for the province as proportion to total visited in the national stratum)		10 (10%)	23(10%)	23 (8%)

Table LP2: Number and Type of Health Care Personnel Providing EID in Sampled Facilities

Type of Health Care Personnel	**Total number (%) in sampled facilities**	**Number (%) do EID/heel prick**	**Number (%) EID trained**
Professional nurses	268 (48%)	217 (81%)	163 (61%)
Staff nurses	3 (20%)	0	3 (100%)
ENAs*	109 (18%)	6(6%)	0
Lay counsellors	101 (14%)	0	4 (4%)
Doctors**	76 (0.3%)	10 (13%)	

**Enrolled nurse assistants*

*** Doctors provide onsite support to numerous clinics and are not necessarily based full-time in one clinic. This data item refers to the number of doctors that provide support to clinics in the sampled facilities*

Table LP3: Number and % of sampled facilities that use nurses who provide immunisation services ('EPI nurses'); nurses who provide child health services ('Child Health' Nurses); nurses who provide VCT ('VCT' nurses) and lay counsellors for pre-test counselling, returning of results and post-test counselling

Description	# (%) Provides pre-test counselling	# (%) Provides post-test counselling
Nurses who provide immunisation services	14 (25%)	16 (29%)
'Child health' nurses	15 (27%)	17 (30%)
'VCT' nurses	48 (86%)	47 (84%)
Lay counsellors	36 (64%)	23 (41%)

Table LP4: Number and Percentage of Sampled Clinics offering Immunisation, PMTCT and ARV Services

	Number (%)
Facilities with onsite PMTCT services	53 (95%)
Facilities with daily immunisation services	54 (96%)
Facilities with daily PMTCT services	47 (84%)
Facilities providing both daily PMTCT and immunisation	47 (84%)
Facilities with onsite paediatric ARV services	3 (5%)
Facilities with onsite adult ARV service	2 (4%)

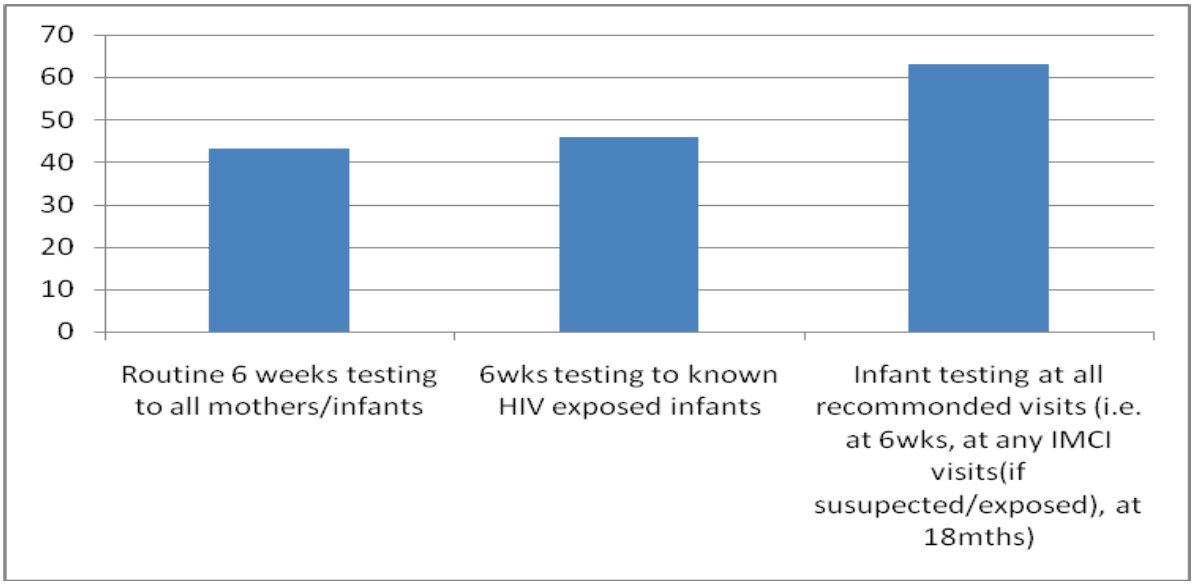

Figure LP1: Coverage (%) of routine and targeted infant testing at 6 weeks immunisation visits

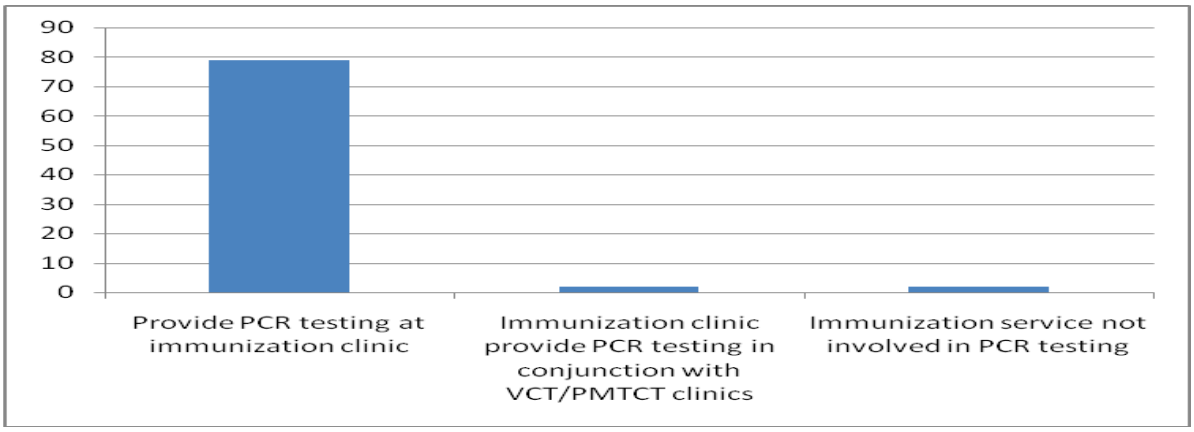

Figure LP2: Infant HIV testing service at 6 weeks immunisation visits

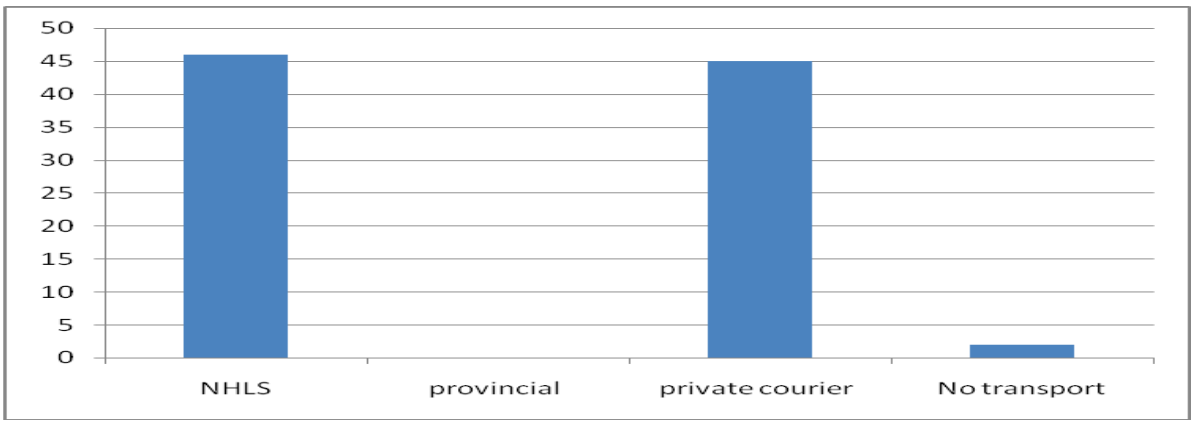

Figure LP3: The Limpopo Lab transportation system

6. The Mpumalanga Province

Table MP1: Total PHCs in the province and Sampled facilities

		Facility Grouping		
		Small No (column %)	**Medium No (column %)**	**Large No (column %)**
Total PHCs + CHCs in the province (DHIS 2007)	267			
No sampled (% provincial PHC+CHC)	87 (33%)			
No. visited (% visited out of the total sampled)	87 (100%)			
Number visited in each stratum (% visited in each stratum for the province as proportion to total visited in the national stratum)		12 (13%)	25(11%)	50 (17%)

Table MP2: Number and Type of Health Care Personnel Providing EID in Sampled Facilities

Type of Health Care Personnel	Total number (%) in sampled facilities	Number (%) do EID/heel prick	Number (%) EID trained
Professional nurses	422 (45%)	371 (88%)	294 (70%)
Staff nurses	50 (5%)	12 (24%)	31 (62%)
ENAs*	118 (13%)	43 (36%)	14 (12%)
Lay counsellors	172 (18%)	23(13%)	11(6%)
Doctors**	181 (19%)	10 (6%)	

**Enrolled nurse assistants*

*** Doctors provide onsite support to numerous clinics and are not necessarily based full-time in one clinic. This data item refers to the number of doctors that provide support to clinics in the sampled facilities*

Table MP3: Number and % of sampled facilities that use nurses who provide immunisation services ('EPI nurses'); nurses who provide child health services ('Child Health' Nurses); nurses who provide VCT ('VCT' nurses) and lay counsellors for pre-test counselling, returning of results and post-test counselling

Description	# (%) Provides pre-test counselling	# (%) Provides post-test counselling
Nurses who provide immunisation services	53 (61%)	47 (54%)
'Child health' nurses	62 (71%)	53 (61%)
'VCT' nurses	66 (76%)	55 (63%)
Lay counsellors	73 (84%)	32 (37%)

Table MP4: Number and Percentage of Sampled Clinics offering Immunisation, PMTCT and ARV Services

	Number (%)
Facilities with onsite PMTCT services	80 (92%)
Facilities with daily immunisation services	73 (84%)
Facilities with daily PMTCT services	53 (61%)
Facilities providing both daily PMTCT and immunisation	47 (54%)
Facilities with onsite paediatric ARV services	9 (10%)
Facilities with onsite adult ARV service	15 (17%)

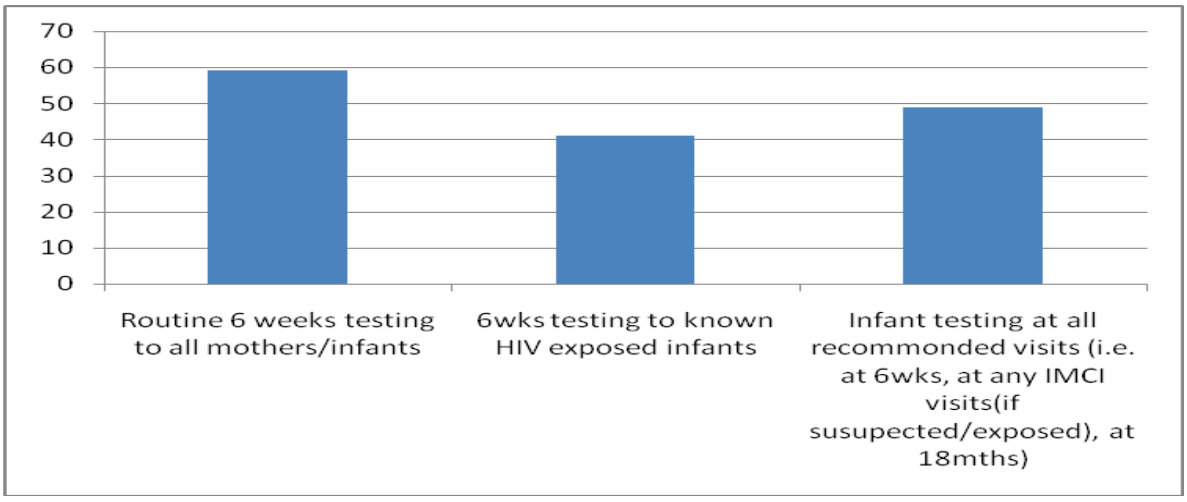

Figure MP1: Coverage (%) of routine and targeted infant testing at 6 weeks immunisation visits

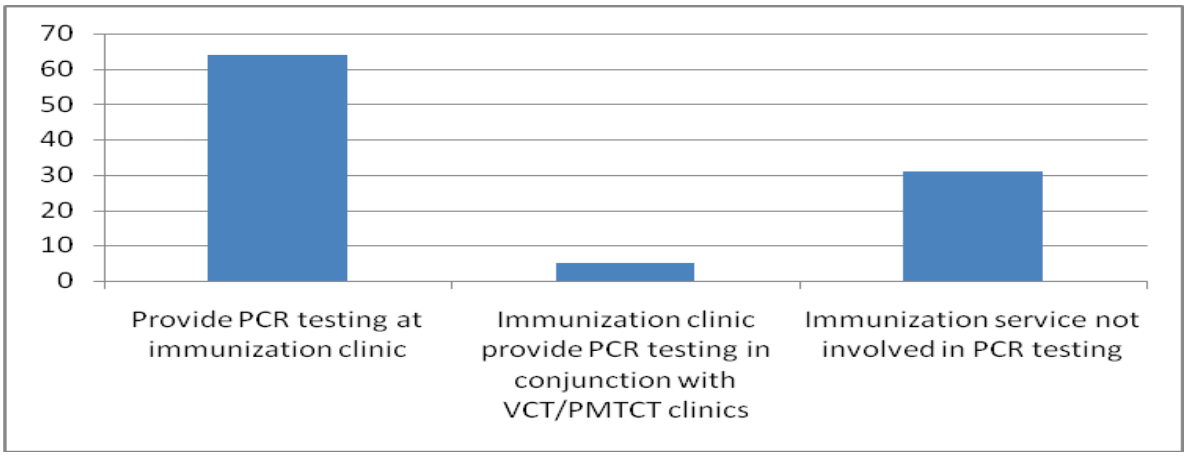

Figure MP2: Infant HIV testing service at 6 weeks immunisation visits

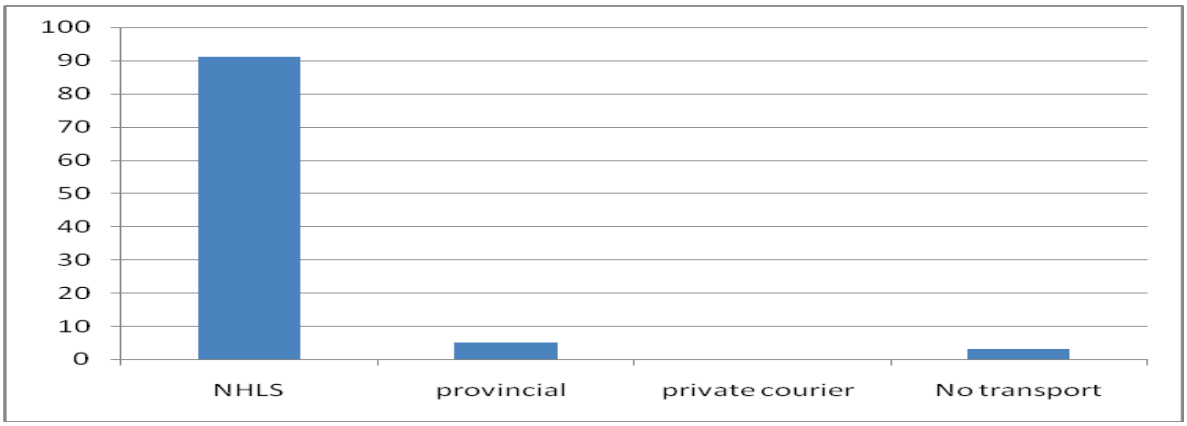

Figure MP3: The Mpumalanga Lab transportation system

7. The Northern Cape Province

Table NC1: Total PHCs in the province and Sampled facilities

		Facility Grouping		
		Small No (column %)	**Medium No (column %)**	**Large No (column %)**
Total PHCs + CHCs in the province (DHIS 2007)	138			
No sampled (% provincial PHC+CHC)	43 (31%)			
Number visited (% visited out of the total sampled)	42 (98%)			
Number visited in each stratum (% visited in each stratum for the province as proportion to total visited in the national stratum)		10 (10%)	24 (11%)	8 (3%)

Table NC2: Number and Type of Health Care Personnel Providing EID in Sampled Facilities

Type of Health Care Personnel	**Total number (%) in sampled facilities**	**Number (%) do EID/heel prick**	**Number (%) EID trained**
Professional nurses	181 (44%)	143 (79%)	92 (51%)
Staff nurses	39 (3%)	4 (10%)	1 (3%)
ENAs*	13 (14%)	1 (8%)	0
Lay counsellors	56 (29%)	1 (2%)	3(5%)
Doctors**	118 (10%)	5(4%)	

**Enrolled nurse assistants*

*** Doctors provide onsite support to numerous clinics and are not necessarily based full-time in one clinic. This data item refers to the number of doctors that provide support to clinics in the sampled facilities*

Table NC3: Number and % of sampled facilities that use nurses who provide immunisation services ('EPI nurses'); nurses who provide child health services ('Child Health' Nurses); nurses who provide VCT ('VCT' nurses) and lay counsellors for pre-test counselling, returning of results and post-test counselling

Description	**# (%) Provides pre-test counselling**	**# (%) Provides post-test counselling**
Nurses who provide immunisation services	27 (64%)	30 (71%)
'Child health' nurses	28 (67%)	30 (71%)
'VCT' nurses	34 (81%)	36 (86%)
Lay counsellors	32 (76%)	11 (26%)

Table NC4: Number and Percentage of Sampled Clinics offering Immunisation, PMTCT and ARV Services

	Number (%)
Facilities with onsite PMTCT services	41 (98%)
Facilities with daily immunisation services	20 (48%)
Facilities with daily PMTCT services	15 (36%)
Facilities providing both daily PMTCT and immunisation	8 (19%)
Facilities with onsite paediatric ARV services	3 (7%)
Facilities with onsite adult ARV service	12 (29%)

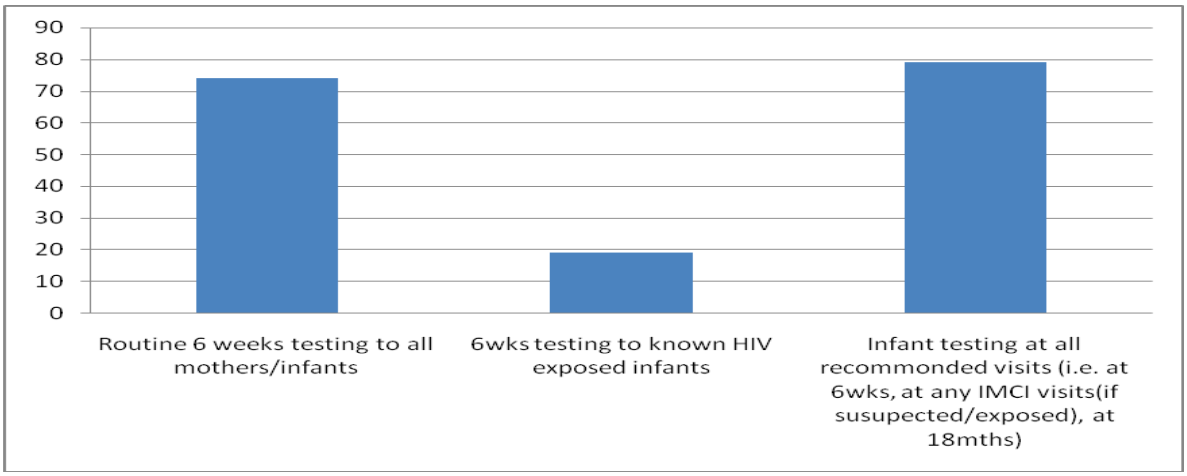

Figure NC1: Coverage (%) of routine and targeted infant testing at 6 weeks immunisation visits

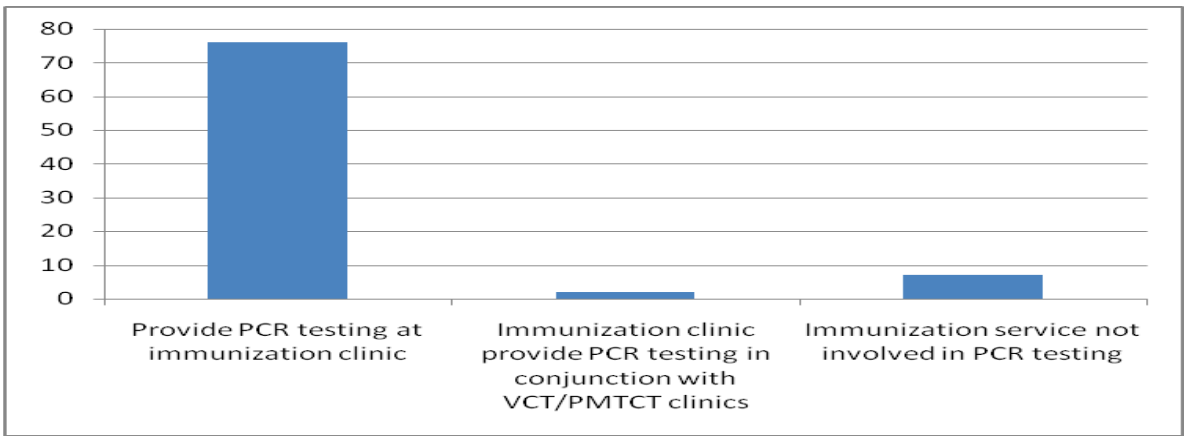

Figure NC2: Infant HIV testing service at 6 weeks immunisation visits

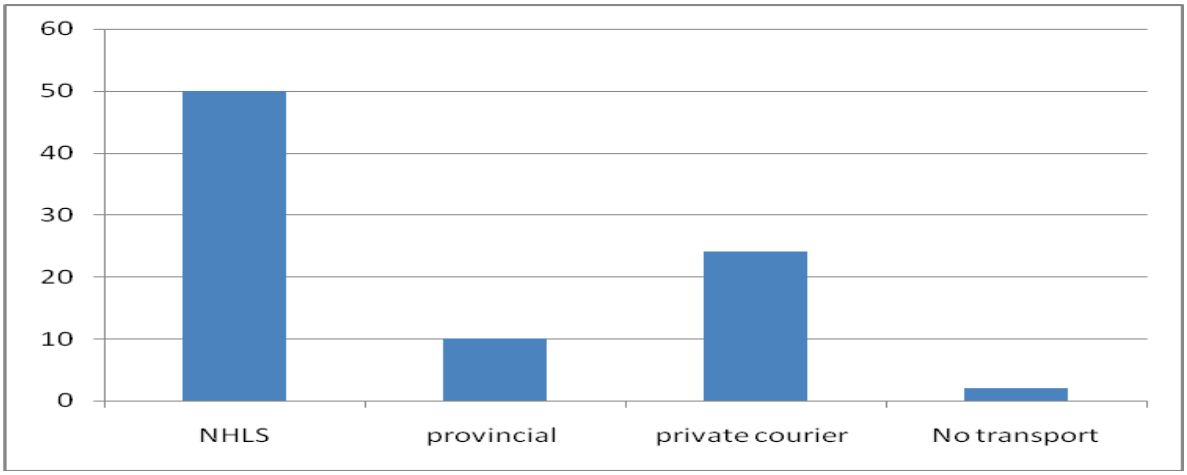

Figure NC3: The Northern Cape Lab transportation system

8. The North West Province

Table NW1: Total PHCs in the province and Sampled facilities

		Facility Grouping		
		Small No (column %)	**Medium No (column %)**	**Large No (column %)**
Total PHCs + CHCs in the province (DHIS 2007)	338			
Number sampled (% provincial PHC+CHC)	79 (23%)			
Number visited (% visited out of the total sampled)	74 (94%)			
Number visited in each stratum (% visited in each stratum for the province as proportion to total visited in the national stratum)		7 (7%)	34 (15%)	33 (11%)

Table NW2: Number and Type of Health Care Personnel Providing EID in Sampled Facilities

Type of Health Care Personnel	Total number (%) in sampled facilities	Number (%) do EID/heel prick	Number (%) EID trained
Professional nurses	375 (45%)	356 (95%)	305 (81%)
Staff nurses	48 (6%)	22 (46%)	9 (19%)
ENAs*	37 (5%)	10 (27%)	4 (11%)
Lay counsellors	223 (27%)	5(2%)	11(5%)
Doctors**	142 (17%)	6 (4%)	

**Enrolled nurse assistants*

*** Doctors provide onsite support to numerous clinics and are not necessarily based full-time in one clinic. This data item refers to the number of doctors that provide support to clinics in the sampled facilities*

Table NW3: Number and % of sampled facilities that use nurses who provide immunisation services ('EPI nurses'); nurses who provide child health services ('Child Health' Nurses); nurses who provide VCT ('VCT' nurses) and lay counsellors for pre-test counselling, returning of results and post-test counselling

Description	# (%) Provides pre-test counselling	# (%) Provides post-test counselling
Nurses who provide immunisation services	5 (7%)	7 (9%)
'Child health' nurses	10 (14%)	12 (16%)
'VCT' nurses	43 (58%)	42 (57%)
Lay counsellors	59 (80%)	39 (53%)

Table NW4: Number and Percentage of Sampled Clinics offering Immunisation, PMTCT and ARV Services

	Number (%)
Facilities with onsite PMTCT services	72 (97%)
Facilities with daily immunisation services	50 (68%)
Facilities with daily PMTCT services	41 (55%)
Facilities providing both daily PMTCT and immunisation	34 (46%)
Facilities with onsite paediatric ARV services	3 (4%)
Facilities with onsite adult ARV service	13 (18%)

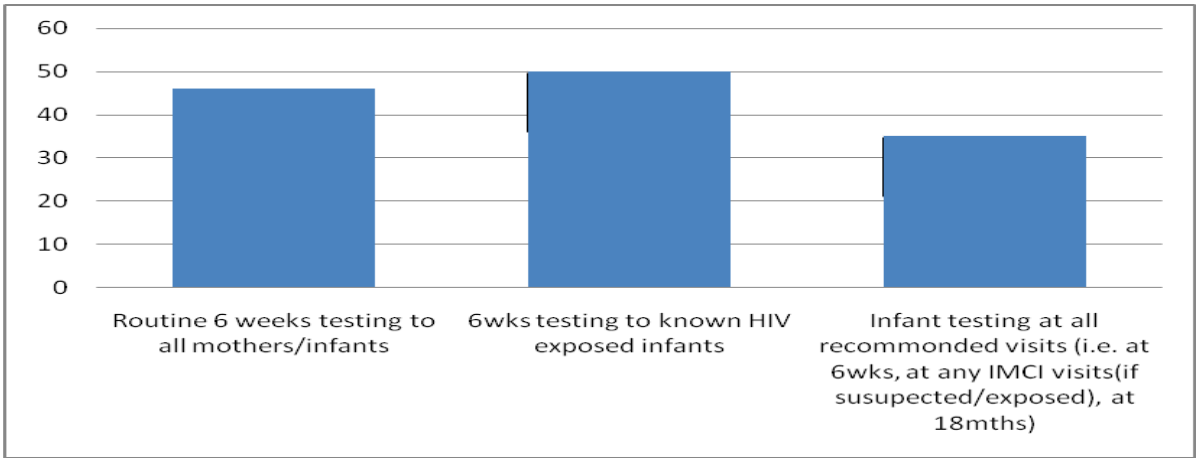

Figure NW1: Coverage (%) of routine and targeted infant testing at 6 weeks immunisation visits

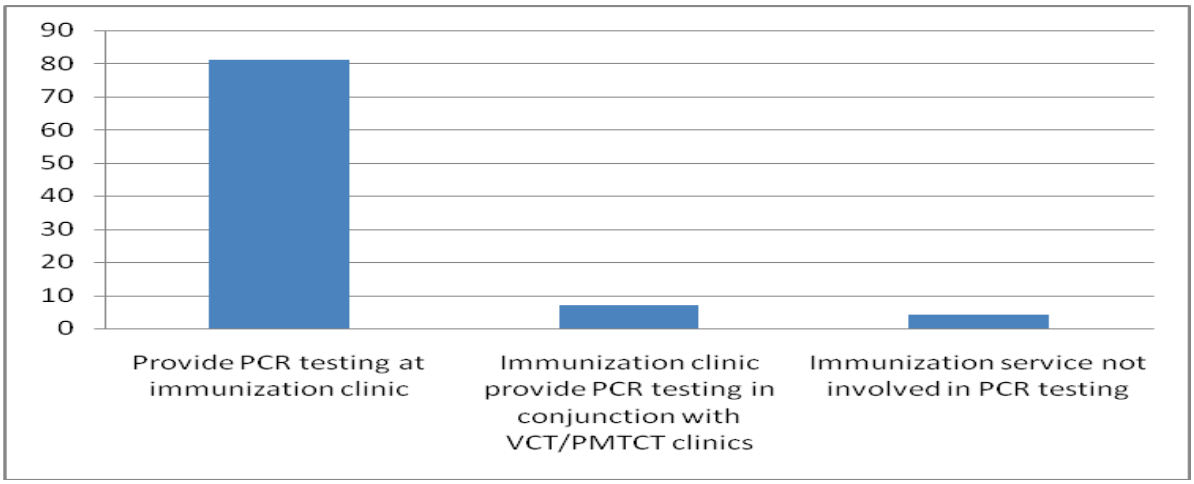

Figure NW2: Infant HIV testing service at 6 weeks immunisation visits

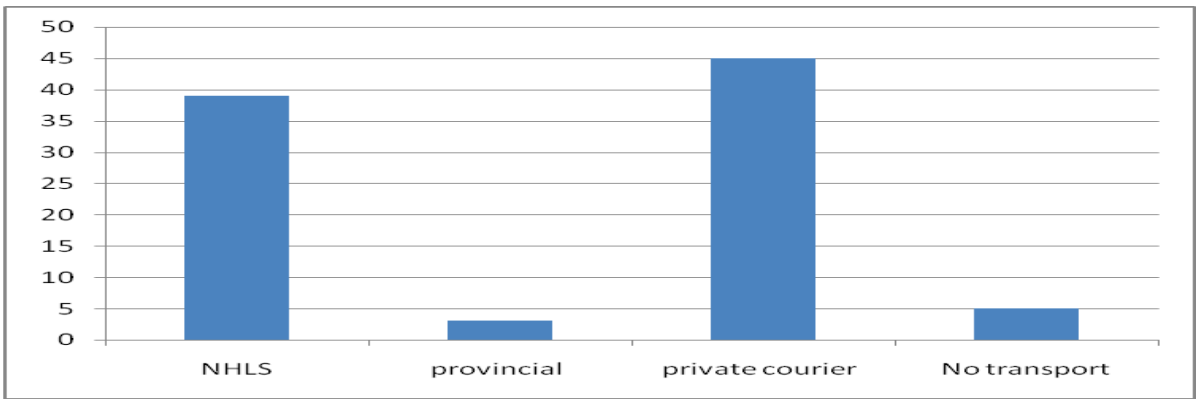

Figure NW3: The North West Lab transportation system

9. The Western Cape Province

Table WC1: Total PHCs in the province and Sampled facilities

		Facility Grouping		
		Small No (column %)	**Medium No (column %)**	**Large No (column %)**
Total PHCs + CHCs in the province (DHIS 2007)	327			
No sampled (% provincial PHC+CHC)	67 (20%)			
No. visited (% visited out of the total sampled)	59 (88%)			
Number visited in each stratum (% visited in each stratum for the province as proportion to total visited in the national stratum)		8 (8%)	18 (8%)	33 (11%)

Table WC2: Number and Type of Health Care Personnel Providing EID in Sampled Facilities

Type of Health Care Personnel	Total number (%) in sampled facilities	Number (%) do EID/heel prick	Number (%) EID trained
Professional nurses	331 (46%)	228 (69%)	288 (87%)
Staff nurses	68 (9%)	1 (1%)	37 (54%)
ENAs*	94 (16%)	29 (31%)	7 (7%)
Lay counsellors	114 (19%)	5 (4%)	5 (4%)
Doctors**	117 (9%)	5 (4%)	

**Enrolled nurse assistants*

*** Doctors provide onsite support to numerous clinics and are not necessarily based full-time in one clinic. This data item refers to the number of doctors that provide support to clinics in the sampled facilities*

Table WC3: Number and % of sampled facilities that use nurses who provide immunisation services ('EPI nurses'); nurses who provide child health services ('Child Health' Nurses); nurses who provide VCT ('VCT' nurses) and lay counsellors for pre-test counselling, returning of results and post-test counselling

Description	# (%) Provides pre-test counselling	# (%) Provides post-test counselling
Nurses who provide immunisation services	15 (25%)	20 (34%)
'Child health' nurses	20 (34%)	30 (51%)
'VCT' nurses	23 (39%)	15 (25%)
Lay counsellors	52 (88%)	32 (54%)

Table WC4: Number and Percentage of Sampled Clinics offering Immunisation, PMTCT and ARV Services

	Number (%)
Facilities with onsite PMTCT services	53 (90%)
Facilities with daily immunisation services	46 (78%)
Facilities with daily PMTCT services	31 (53%)
Facilities providing both daily PMTCT and immunisation	23 (39%)
Facilities with onsite paediatric ARV services	11 (19%)
Facilities with onsite adult ARV service	15 (25%)

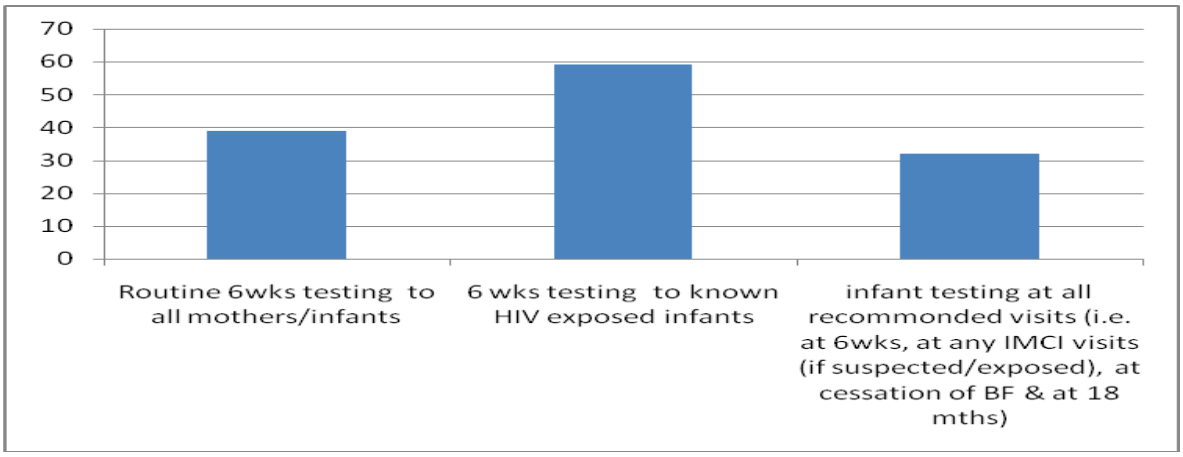

Figure WC1: Coverage (%) of routine and targeted infant testing at 6 weeks immunisation visits

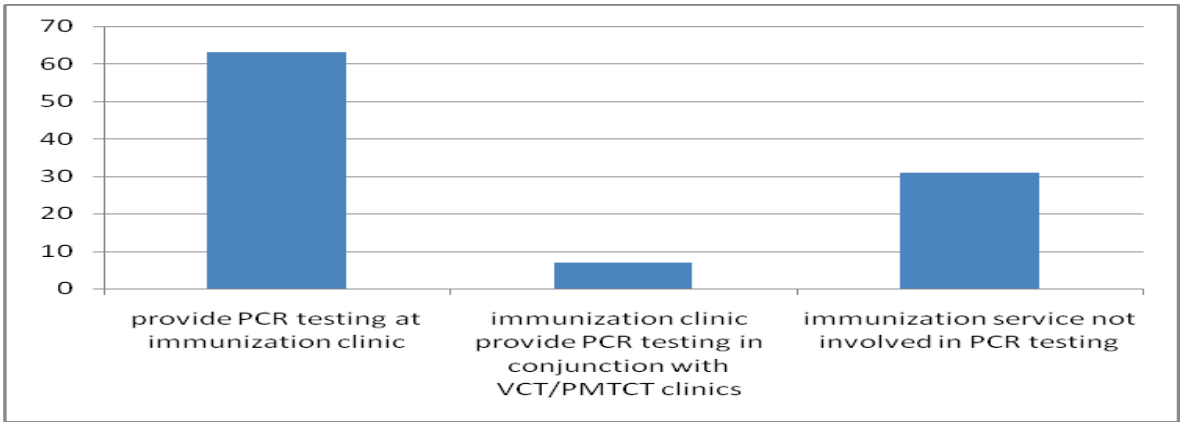

Figure WC2: Infant HIV testing service at 6 weeks immunisation visits.

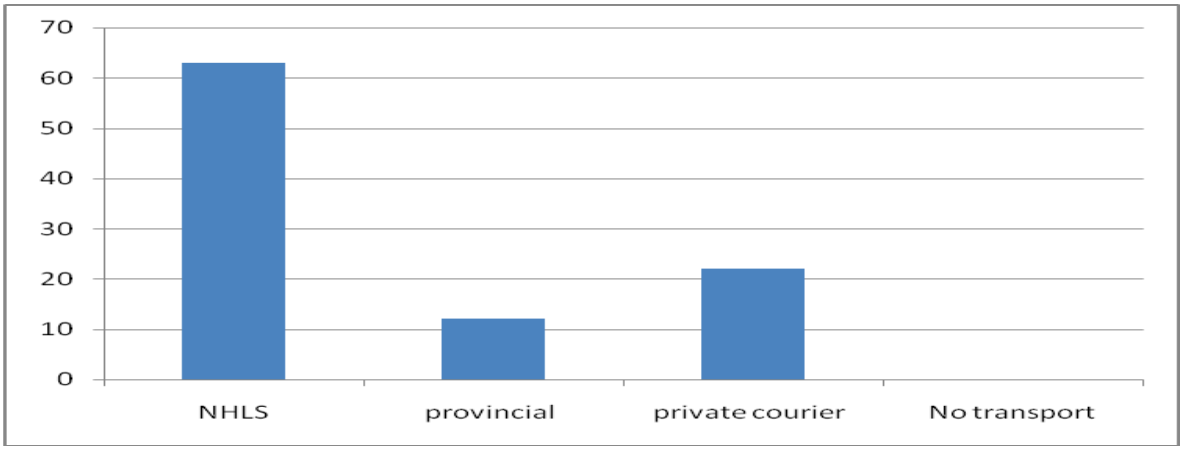

Figure WC3: The Western Cape Lab transportation system

B) List of sampled facilities by province and strata

1. Eastern Cape Province

Eastern Cape small (<= 130 annual DTP1 number) size facilities *

No	District/Metro	Facility	# of times selected
1	ec Oliver Tambo District Municipality	ec Mzintlava Clinic	1
2	ec Oliver Tambo District Municipality	ec Shawbury Clinic	1
3	ec Chris Hani District Municipality	ec Mahlubini Clinic	1
4	ec Amathole District Municipality	ec Wesley Clinic	1
5	ec Alfred Nzo District Municipality	ec Ndawenzima Clinic	1
6	ec Chris Hani District Municipality	ec Mkapusi Clinic	1
7	ec Oliver Tambo District Municipality	ec Mpeko Clinic	1
8	ec Amathole District Municipality	ec Peelton Clinic	1
9	ec Amathole District Municipality	ec Mpozolo Clinic	1
10	ec Oliver Tambo District Municipality	ec Magwa Clinic	1
11	ec Amathole District Municipality	ec Mdingi Clinic	1
12	ec Oliver Tambo District Municipality	ec Mangcwanguleni Clinic	1
13	ec Amathole District Municipality	ec Nomakhwezi Makhenyane Clinic	1
14	ec Amathole District Municipality	ec Robert Mbelekana Clinic	1
15	ec Chris Hani District Municipality	ec Clarkebury Clinic	1
16	ec Chris Hani District Municipality	ec Manzimahle Clinic	1
17	ec Oliver Tambo District Municipality	ec Khanyayo (Holy Cross) Clinic	1
18	ec Amathole District Municipality	ec Ngqusi Clinic	1
19	ec Cacadu District Municipality	ec Rietbron Clinic	1
20	ec Ukhahlamba District Municipality	ec Esilindini Clinic	1

**Fieldworkers (FWs) were given this list and were asked to select at least 10 out the 20 facilties in the list for situational assessment visit (the selection of the 10 clinics was based on logisitic feasibility)*

Eastern Cape Medium (130-300 annual DTP1 number) size facilities

No	District/Metro	Facility	# of times selected
1	ec Alfred Nzo District Municipality	ec Dundee Clinic	1
2	ec Oliver Tambo District Municipality	ec Kanyayo (Bizana) Clinic	1
3	ec Alfred Nzo District Municipality	ec Zulu Clinic	1
4	ec Amathole District Municipality	ec Gcaleka Clinic	1
5	ec Amathole District Municipality	ec Berlin Clinic	1
6	ec Chris Hani District Municipality	ec Lahlangubo Clinic (Ngcobo)	1
7	ec Ukhahlamba District Municipality	ec Ndofela Clinic	1
8	ec Amathole District Municipality	ec NU 12 Clinic	1
9	ec Ukhahlamba District Municipality	ec Barkly East Clinic	1
10	ec Chris Hani District Municipality	ec Ntsimba Clinic	1
11	ec Nelson Mandela Metropolitan Municipality	ec Central Clinic (Port Elizabeth)	1
12	ec Amathole District Municipality	ec Ndabakazi Clinic	1
13	ec Oliver Tambo District Municipality	ec Lujizweni Clinic	1
14	ec Ukhahlamba District Municipality	ec Upper Telle Clinic	1

15	ec Oliver Tambo District Municipality	ec Nolita Clinic*	1
16	ec Amathole District Municipality	ec Braelyn Clinic	1
17	ec Ukhahlamba District Municipality	ec Palmietfontein Clinic	1
18	ec Oliver Tambo District Municipality	ec Qobo Clinic	1
19	ec Chris Hani District Municipality	ec Whittlesea Clinic	1
20	ec Chris Hani District Municipality	ec Mjanyana Clinic	1
21	ec Oliver Tambo District Municipality	ec Mdyobe Clinic	1
22	ec Amathole District Municipality	ec Nkanya Clinic	1
23	ec Amathole District Municipality	ec Cumakala 2 Clinic	1
24	ec Cacadu District Municipality	ec Kroonvale Clinic	1
25	ec Chris Hani District Municipality	ec Tora Clinic	1
26	ec Ukhahlamba District Municipality	ec Khayamnandi Clinic	1
27	ec Oliver Tambo District Municipality	ec Ndanya Clinic	1
28	ec Chris Hani District Municipality	ec Qebe Clinic	1
29	ec Oliver Tambo District Municipality	ec Isilimela Gateway Clinic	1
30	ec Oliver Tambo District Municipality	ec Qaukeni Clinic	1
31	ec Oliver Tambo District Municipality	ec Phakamile Clinic	1
32	ec Chris Hani District Municipality	ec New Rest Clinic	1
33	ec Cacadu District Municipality	ec Pal 1 Clinic	1
34	ec Chris Hani District Municipality	ec Elliot Clinic	1
35	ec Oliver Tambo District Municipality	ec Kohlo Clinic	1
36	ec Alfred Nzo District Municipality	ec Mntwana Clinic	1
37	ec Amathole District Municipality	ec Alphendale Clinic	1
38	ec Oliver Tambo District Municipality	ec Nkumandeni Clinic	1
39	ec Oliver Tambo District Municipality	ec Nessie Knight Clinic	1

** Replacement facilitiy*

Eastern Cape large (annual DTP1 # >=300) and below average (<29%) HIV prevalence facilities

No	District/Metro	Facility	# of times selected
40	ec Oliver Tambo District Municipality	ec Lutshaya Clinic	1
41	ec Oliver Tambo District Municipality	ec Lusikisiki Village Clinic (Qaukeni)	1
42	ec Oliver Tambo District Municipality	ec Mfundisweni Clinic	1
43	ec Oliver Tambo District Municipality	ec Tombo CHC	1
44	ec Oliver Tambo District Municipality	ec Mthatha Gateway Clinic	1
45	ec Alfred Nzo District Municipality	ec Maluti CHC	1
46	ec Alfred Nzo District Municipality	ec Mount Ayliff PHC Clinic	1
47	ec Oliver Tambo District Municipality	ec Ngangelizwe CHC	1
48	ec Alfred Nzo District Municipality	ec Sipetu PHC Clinic	1
49	ec Oliver Tambo District Municipality	ec St Elizabeth's PHC Clinic	1
50	ec Oliver Tambo District Municipality	ec Flagstaff Clinic	1
51	ec Oliver Tambo District Municipality	ec Holy Cross PHC Clinic	1
52	ec Oliver Tambo District Municipality	ec Nkozo Clinic	1
53	ec Oliver Tambo District Municipality	ec Stanford Terrace Clinic	1

Eastern Cape large facilities (annual DTP1 # >=300) with HIV prevalence above or equal to (>=29%) the national HIV prevalence estimate

No	District/Metro	Facility	# of times selected
54	ec Nelson Mandela Metropolitan Municipality	ec Motherwell CHC	1
55	ec Nelson Mandela Metropolitan Municipality	ec Kwamagxaki Clinic	1
56	ec Nelson Mandela Metropolitan Municipality	ec Mabandla Clinic	1
57	ec Chris Hani District Municipality	ec Zwelakhe Dalasile Clinic	1
58	ec Nelson Mandela Metropolitan Municipality	ec Walmer 14th Avenue Clinic	1
59	ec Chris Hani District Municipality	ec Kuyasa Clinic	1
60	ec Nelson Mandela Metropolitan Municipality	ec Soweto Clinic	1
61	ec Amathole District Municipality	ec Macibe Clinic	1
62	ec Nelson Mandela Metropolitan Municipality	ec Park Centre Clinic	1
63	ec Chris Hani District Municipality	ec Ngcobo PHC Clinic	1
64	ec Nelson Mandela Metropolitan Municipality	ec Chatty Clinic	1
65	ec Amathole District Municipality	ec Idutywa Village Clinic	1
66	ec Chris Hani District Municipality	ec Parkvale Clinic	1
67	ec Amathole District Municipality	ec Fezeka NU 3 Clinic	1
68	ec Nelson Mandela Metropolitan Municipality	ec Zwide Clinic	1
69	ec Nelson Mandela Metropolitan Municipality	ec Tshangana Clinic	1
70	ec Nelson Mandela Metropolitan Municipality	ec Motherwell NU 2 Clinic	1
71	ec Amathole District Municipality	ec Butterworth Gateway Clinic	1
72	ec Amathole District Municipality	ec Pefferville Clinic	1
73	ec Amathole District Municipality	ec Nqamakwe CHC	1
74	ec Chris Hani District Municipality	ec Tembelihle Clinic	1
75	ec Ukhahlamba District Municipality	ec Empilisweni Clinic	1
76	ec Nelson Mandela Metropolitan Municipality	ec Kwadwesi Clinic	1
77	ec Oliver Tambo District Municipality	ec St Patrick's PHC Clinic	2

2. Free State Province

Free State small (<= 130 annual DTP1 coverage) size facilities*

No	District/Metro	Facility	# of times selected
1	fs Lejweleputswa District Municipality	fs Bultfontein Clinic	1
2	fs Thabo Mofutsanyane District Municipality	fs Fateng Tse Ntsho Clinic	1
3	fs Thabo Mofutsanyane District Municipality	fs Leratswana Clinic	1
4	fs Fezile Dabi District Municipality	fs Kananelo OPD 07h00 - 16h00	1
5	fs Motheo District Municipality	fs Tweespruit Clinic	1
6	fs Thabo Mofutsanyane District Municipality	fs Tina Moloi Clinic	1
7	fs Motheo District Municipality	fs Monument Clinic	1
8	fs Lejweleputswa District Municipality	fs Duke Street Clinic	1
9	fs Lejweleputswa District Municipality	fs Dealesville Clinic	1

10	fs Thabo Mofutsanyane District Municipality	fs Tshirela Clinic	1
11	fs Lejweleputswa District Municipality	fs Riebeeckstad Clinic	1
12	fs Xhariep District Municipality	fs Mamello Clinic (Trompsburg)	1
13	fs Thabo Mofutsanyane District Municipality	fs Kokelong Clinic	1
14	fs Lejweleputswa District Municipality	fs Mmamahabane Clinic	1
15	fs Fezile Dabi District Municipality	fs Qalabotjha Clinic	1
16	fs Xhariep District Municipality	fs Luckhoff Clinic	1
17	fs Lejweleputswa District Municipality	fs Ikgomotseng Clinic	1
18	fs Thabo Mofutsanyane District Municipality	fs Reitz Clinic	1
19	fs Thabo Mofutsanyane District Municipality	fs Sekamotho Mota Clinic	1
20	fs Thabo Mofutsanyane District Municipality	fs Memel Clinic	1

**Fieldworkers (FWs) were given this list and were asked to select at least 10 out the 20 facilties in the list for situational assessment visit (the selection of the 10 clinics was based on logisitic feasibility)*

Free State Medium (annual DTP dose 130-300) size facilities

No	District/Metro	Facility	# of times selected
1	fs Thabo Mofutsanyane District Municipality	fs Phomolong Clinic (Ficksburg)	1
2	fs Lejweleputswa District Municipality	fs Boshof Clinic	1
3	fs Thabo Mofutsanyane District Municipality	fs Mphatlalatsane Clinic	1
4	fs Thabo Mofutsanyane District Municipality	fs Leseding Clinic	1
5	fs Thabo Mofutsanyane District Municipality	fs Hlohlolwane Clinic	1
6	fs Thabo Mofutsanyane District Municipality	fs Bakenpark Clinic	1
7	fs Fezile Dabi District Municipality	fs Thusanang Clinic (Sasolburg)	1
8	fs Fezile Dabi District Municipality	fs Relebohile Clinic (Heilbron)	1
9	fs Fezile Dabi District Municipality	fs Phahameng Clinic (Frankfort)	1
10	fs Motheo District Municipality	fs Mmabana Clinic	1
11	fs Thabo Mofutsanyane District Municipality	fs Zamani Clinic	1
12	fs Fezile Dabi District Municipality	fs Sizabantu Clinic	1
13	fs Thabo Mofutsanyane District Municipality	fs Masebabatso Clinic	1
14	fs Motheo District Municipality	fs Manyatseng Clinic	1
15	fs Thabo Mofutsanyane District Municipality	fs Nthabiseng Clinic	1
16	fs Thabo Mofutsanyane District Municipality	fs Soetwater Clinic	1
17	fs Lejweleputswa District Municipality	fs Kamohelo Clinic	1
18	fs Motheo District Municipality	fs National Hospital Gateway Clinic	1
19	fs Lejweleputswa District Municipality	fs Winburg Clinic	1
20	fs Motheo District Municipality	fs Mokwena Clinic	1
21	fs Fezile Dabi District Municipality	fs Kgotso Clinic	1
22	fs Fezile Dabi District Municipality	fs Phedisong Clinic	1
23	fs Motheo District Municipality	fs Fichardtpark Clinic	1
24	fs Fezile Dabi District Municipality	fs Philani Clinic	1
25	fs Lejweleputswa District Municipality	fs Boithusong Clinic	1

26	fs Fezile Dabi District Municipality	fs Rainbow Clinic	1
27	fs Thabo Mofutsanyane District Municipality	fs Monontsha Clinic	1
28	fs Fezile Dabi District Municipality	fs Seeisoville Clinic	1
29	fs Fezile Dabi District Municipality	fs Sedibeng sa Bophelo Clinic	1
30	fs Lejweleputswa District Municipality	fs Tshwaraganang Clinic (Hertzogville)	1
31	fs Thabo Mofutsanyane District Municipality	fs Clocolan Clinic	1

Free State large size facilities (annual DTP1 number >=300) with HIV prevalence above or equal to (>=29%) the national HIV prevalence estimate

No	District/Metro	Facility	# of times selected
32	fs Lejweleputswa District Municipality	fs Bothaville Clinic	1
33	fs Lejweleputswa District Municipality	fs Kgotsong Clinic (Bothaville)	1
34	fs Motheo District Municipality	fs Dr Pedro Memorial Clinic	1
35	fs Lejweleputswa District Municipality	fs Phahameng Clinic (Bultfontein)	1
36	fs Thabo Mofutsanyane District Municipality	fs Namahali Clinic	1
37	fs Fezile Dabi District Municipality	fs Bophelong Clinic (Kroonstad)	1
38	fs Motheo District Municipality	fs Kagisanong Clinic	1
39	fs Lejweleputswa District Municipality	fs Kgotsong Clinic (Welkom)	1
40	fs Fezile Dabi District Municipality	fs Harry Gwala Clinic (Sasolburg)	1
41	fs Thabo Mofutsanyane District Municipality	fs Meqheleng Clinic	1
42	fs Thabo Mofutsanyane District Municipality	fs Thusa Bophelo Clinic	1
43	fs Thabo Mofutsanyane District Municipality	fs Reitumetse Clinic	1
44	fs Motheo District Municipality	fs Batho Clinic	1
45	fs Lejweleputswa District Municipality	fs Thabong Clinic	1
46	fs Motheo District Municipality	fs Maletsatsi Mabaso Clinic	1
47	fs Lejweleputswa District Municipality	fs Hoopstad Clinic	1
48	fs Lejweleputswa District Municipality	fs Albert Luthuli Memorial Clinic	1
49	fs Lejweleputswa District Municipality	fs Khotalong Clinic	1
50	fs Thabo Mofutsanyane District Municipality	fs Riverside Clinic	1
51	fs Lejweleputswa District Municipality	fs K-Maile Clinic	1
52	fs Thabo Mofutsanyane District Municipality	fs Boiketlo Clinic	1
53	fs Thabo Mofutsanyane District Municipality	fs Rearabetswe Clinic (Petrus Steyn)	1
54	fs Motheo District Municipality	fs Gaongalelwe Clinic	1
55	fs Thabo Mofutsanyane District Municipality	fs Bethlehem Clinic	1
56	fs Motheo District Municipality	fs Thusong Clinic	1
57	fs Fezile Dabi District Municipality	fs Parys Clinic	1
58	fs Lejweleputswa District Municipality	fs Theunissen Masilo Clinic	1
59	fs Motheo District Municipality	fs Molefi Tau Clinic	1
60	fs Fezile Dabi District Municipality	fs Rammulotsi Clinic	1
61	fs Motheo District Municipality	fs Chris de Wet Clinic	1

62	fs Motheo District Municipality	fs Thaba Nchu Clinic	1
63	fs Xhariep District Municipality	fs Matlakeng Clinic	1
64	fs Thabo Mofutsanyane District Municipality	fs Boitumelo Clinic (Senekal)	1
65	fs Motheo District Municipality	fs Pule Sefatsa Clinic	1
66	fs Lejweleputswa District Municipality	fs Welkom Clinic	1
67	fs Motheo District Municipality	fs Winnie Mandela Clinic (Botshabelo)	1
68	fs Motheo District Municipality	fs MUCPP CHC	2
69	fs Motheo District Municipality	fs Heidedal CHC Maternity	2
70	fs Thabo Mofutsanyane District Municipality	fs Phuthaditjhaba Clinic	1

3. Gauteng Province

Gauteng small (<= 130 annual DTP1 coverage) size facilities*

No	District/Metro	Facility	# of times selected
1	gp City of Johannesburg Metropolitan Municipality	gp Petervale Clinic	1
2	gp Ekurhuleni Metropolitan Municipality	gp Selope Thema Clinic	1
3	gp City of Johannesburg Metropolitan Municipality	gp Tladi Prov Clinic	1
4	gp Metsweding District Municipality	gp Sokhulumi Clinic	1
5	gp West Rand District Municipality	gp Blyvooruitsig Clinic	1
6	gp City of Johannesburg Metropolitan Municipality	gp Parkhurst Clinic	1
7	gp City of Johannesburg Metropolitan Municipality	gp Sandown Clinic	1
8	gp City of Johannesburg Metropolitan Municipality	gp Chiawelo CHC	1
9	gp City of Johannesburg Metropolitan Municipality	gp Lawley Clinic	2
10	gp Sedibeng District Municipality	gp Driehoek Clinic	1
11	gp Metsweding District Municipality	gp Ekangala CHC	1
12	gp West Rand District Municipality	gp Kocksoord Clinic	1
13	gp Ekurhuleni Metropolitan Municipality	gp Daveyton East Clinic	1
14	gp City of Johannesburg Metropolitan Municipality	gp Sophiatown Clinic	1
15	gp City of Johannesburg Metropolitan Municipality	gp Berario Clinic	1
16	gp West Rand District Municipality	gp Randgate Clinic	1
17	gp West Rand District Municipality	gp Zuurbekom Clinic	1
18	gp City of Johannesburg Metropolitan Municipality	gp Lenasia South CHC	1
19	gp West Rand District Municipality	gp Zenzele Clinic	1

**Fieldworkers (FWs) were given this list and were asked to select at least 10 out the 19 facilties in the list for situational assessment visit (the selection of the 10 clinics was based on logisitic feasibility)*

Gauteng Medium (annual DTP dose 130-300) size facilities

No	District/Metro	Facility	# of times selected
1	gp City of Johannesburg Metropolitan Municipality	gp Florida Clinic	1
2	gp City of Johannesburg Metropolitan Municipality	gp Sinethemba Clinic	1
3	gp City of Johannesburg Metropolitan Municipality	gp Riverlea Major Clinic	1
4	gp City of Johannesburg Metropolitan Municipality	gp Ennerdale Ext 8 Clinic	1
5	gp City of Tshwane Metropolitan Municipality	gp Pretorius Park Clinic	1
6	gp Ekurhuleni Metropolitan Municipality	gp Northmead Clinic	1
7	gp Ekurhuleni Metropolitan Municipality	gp Elsburg Clinic	1
8	gp Ekurhuleni Metropolitan Municipality	gp Bapsfontein Clinic	1
9	gp Metsweding District Municipality	gp Bronkhorstspruit Clinic	1
10	gp Metsweding District Municipality	gp Refilwe Clinic	1
11	gp Sedibeng District Municipality	gp Rus ter vaal Clinic	1
12	gp Sedibeng District Municipality	gp Zone 14 Clinic	1

Gauteng large (annual DTP1 # >=300) and below average (<29%) HIV prevalence facilities

No	District/Metro	Facility	# of times selected
13	gp City of Tshwane Metropolitan Municipality	gp Soshanguve Block JJ Clinic	1
14	gp City of Tshwane Metropolitan Municipality	gp Stanza Bopape II Clinic	1
15	gp City of Tshwane Metropolitan Municipality	gp Maria Rantho Clinic	1
16	gp City of Tshwane Metropolitan Municipality	gp Rosslyn Clinic	1
17	gp City of Tshwane Metropolitan Municipality	gp East Lynne Clinic	1
18	gp City of Tshwane Metropolitan Municipality	nw Jubilee Gateway Clinic	1
19	gp City of Tshwane Metropolitan Municipality	nw Kekanastad Clinic	1
20	gp City of Tshwane Metropolitan Municipality	nw Temba CHC	1
21	gp West Rand District Municipality	gp Dr Ramirez Martinez Clinic	1
22	gp West Rand District Municipality	gp Mogale Clinic	1
23	gp West Rand District Municipality	gp ML Pessen Clinic	1
24	gp West Rand District Municipality	gp Mohlakeng CHC	1

Gauteng large size facilities (annual DTP1 number >=300) with HIV prevalence above or equal to (>=29%) the national HIV prevalence estimate

No	District/Metro	Facility	# of times selected
25	gp City of Johannesburg Metropolitan Municipality	gp Ebony Park / Kaalfontein Clinic	1
26	gp City of Johannesburg Metropolitan Municipality	gp Zola LA Clinic	1
27	gp City of Johannesburg Metropolitan Municipality	gp Siphumlile Clinic	1

28	gp City of Johannesburg Metropolitan Municipality	gp Lenasia South Civic Centre Clinic	1
29	gp City of Johannesburg Metropolitan Municipality	gp Hillbrow CHC	1
30	gp City of Johannesburg Metropolitan Municipality	gp Diepkloof LA Clinic	1
31	gp City of Johannesburg Metropolitan Municipality	gp Meadowlands Zone 2 LA Clinic	1
32	gp City of Johannesburg Metropolitan Municipality	gp Itireleng LA Clinic	1
33	gp City of Johannesburg Metropolitan Municipality	gp Stretford Clinic	1
34	gp City of Johannesburg Metropolitan Municipality	gp Senaoane Clinic	1
35	gp City of Johannesburg Metropolitan Municipality	gp Bophelong (Region 2) Clinic	1
36	gp City of Johannesburg Metropolitan Municipality	gp Tshepisong Porta Cabin Clinic	1
37	gp City of Johannesburg Metropolitan Municipality	gp Rosettenville Clinic	1
38	gp City of Johannesburg Metropolitan Municipality	gp Joubert Park Clinic	1
39	gp Ekurhuleni Metropolitan Municipality	gp Vosloorus Ext 28 Clinic	1
40	gp Ekurhuleni Metropolitan Municipality	gp boksburg North Clinic	1
41	gp Ekurhuleni Metropolitan Municipality	gp Simunye Clinic (Brakpan)	1
42	gp Ekurhuleni Metropolitan Municipality	gp Lethabong Clinic	1
43	gp Ekurhuleni Metropolitan Municipality	gp White City Clinic	1
44	gp Ekurhuleni Metropolitan Municipality	gp Olifantsfontein Clinic	1
45	gp Ekurhuleni Metropolitan Municipality	gp Phuthanang Clinic	1
46	gp Ekurhuleni Metropolitan Municipality	gp First Avenue Clinic	1
47	gp Ekurhuleni Metropolitan Municipality	gp Ramokonopi CHC	1
48	gp Ekurhuleni Metropolitan Municipality	gp Phenduka Clinic	1
49	gp Ekurhuleni Metropolitan Municipality	gp Tembisa Main Clinic	1
50	gp Ekurhuleni Metropolitan Municipality	gp Katlehong North Clinic	1
51	gp Ekurhuleni Metropolitan Municipality	gp Tsakane Clinic	1
52	gp Ekurhuleni Metropolitan Municipality	gp Germiston City Clinic	1
53	gp Ekurhuleni Metropolitan Municipality	gp Reiger Park Clinic	1
54	gp Ekurhuleni Metropolitan Municipality	gp Dresser Clinic	1
55	gp Ekurhuleni Metropolitan Municipality	gp Palmridge Clinic	1
56	gp Sedibeng District Municipality	gp Levai Mbatha CHC	1
57	gp Sedibeng District Municipality	gp Randvaal Clinic	1
58	gp Sedibeng District Municipality	gp Johan Heyns CHC	1
59	gp Sedibeng District Municipality	gp Midvaal CHC	1
60	gp Sedibeng District Municipality	gp Sepei Motsoeneng Clinic	1

4. KwaZulu-Natal Province

KwaZulu-Natal small (<= 130 annual DTP1 coverage) size facilities

No	District/Metro	Facility	# of times selected
1	kz Zululand District Municipality	kz Stedham Clinic	1
2	kz Sisonke District Municipality	kz Mnyamana Clinic	1
3	kz eThekwini Metropolitan Municipality	kz Kingsburgh Clinic	1

4	kz iLembe District Municipality	kz Mphise Clinic	1
5	kz Ugu District Municipality	kz Mabheleni Clinic	1
6	kz Amajuba District Municipality	kz Thembalihle Clinic	1
7	kz Ugu District Municipality	kz Baphumile Clinic	1
8	kz Uthungulu District Municipality	kz Mathungela Clinic	1
9	kz uMgungundlovu District Municipality	kz Ngubeni Clinic	1
10	kz Sisonke District Municipality	kz Kwamashumi Clinic	1
11	kz eThekwini Metropolitan Municipality	kz Athlone Park Hall Clinic	1
12	kz Umzinyathi District Municipality	kz Amakhabela Clinic	1
13	kz Uthungulu District Municipality	kz Mandaba Clinic	1
14	kz Sisonke District Municipality	kz Ncwadi Clinic	1
15	kz uMgungundlovu District Municipality	kz Ntembeni Clinic	1
16	kz iLembe District Municipality	kz KwaNyuswa Clinic	1
17	kz Umzinyathi District Municipality	kz Mawele Clinic	1
18	kz Zululand District Municipality	kz Ngqeku Clinic	1
19	kz Zululand District Municipality	kz Gluckstadt Clinic	1
20	kz iLembe District Municipality	kz Thafamasi Clinic	1

**Fieldworkers (FWs) were given this list and were asked to select at least 10 out the 20 facilties in the list for situational assessment visit (the selection of the 10 clinics was based on logisitic feasibility)*

KwaZulu-Natal Medium (annual DTP dose 130-300) size facilities

No	District/Metro	Facility	# of times selected
1	kz eThekwini Metropolitan Municipality	kz Luganda Clinic	1
2	kz eThekwini Metropolitan Municipality	kz Sydenham Heights Clinic	1
3	kz eThekwini Metropolitan Municipality	kz Zwelibomvu Clinic	1
4	kz eThekwini Metropolitan Municipality	kz Odidini Clinic	1
5	kz eThekwini Metropolitan Municipality	kz Magabheni Clinic	1
6	kz iLembe District Municipality	kz Mpumelelo Clinic	1
7	kz iLembe District Municipality	kz Mbekaphansi Clinic	1
8	kz Sisonke District Municipality	kz Mntungwana Clinic	1
9	kz Ugu District Municipality	kz Gcilima Clinic	1
10	kz Ugu District Municipality	kz Philani Clinic	1
11	kz uMgungundlovu District Municipality	kz Maguzu Clinic	1
12	kz uMgungundlovu District Municipality	kz Esigodini Clinic	1
13	kz Umkhanyakude District Municipality	kz KwaMbuzi Clinic	1
14	kz Umkhanyakude District Municipality	kz Ophondweni Clinic	1
15	kz Umkhanyakude District Municipality	kz Makhathini Clinic	1
16	kz Umzinyathi District Municipality	kz Glenridge Clinic	1
17	kz Uthukela District Municipality	kz Driefontein Clinic	1
18	kz Uthukela District Municipality	kz Limehill Clinic	1
19	kz Uthungulu District Municipality	kz Cinci Clinic	1
20	kz Uthungulu District Municipality	kz Nhlabane Clinic	1

21	kz Uthungulu District Municipality	kz Ntuze Clinic	1
22	kz Uthungulu District Municipality	kz Ntumeni Clinic	1
23	kz Zululand District Municipality	kz Khambi Clinic	1
24	kz Zululand District Municipality	kz Ophuzana Clinic	1

KwaZulu-Natal large (annual DTP1 # >=300) and below average (<29%) HIV prevalence facilities

No	District/Metro	Facility	# of times selected
25	kz Umzinyathi District Municipality	kz Gunjana Clinic	1
26	kz Umzinyathi District Municipality	kz Charles Johnson Memorial Gateway Clinic	1

KwaZulu-Natal large facilities (annual DTP1 # >=300) with HIV prevalence above or equal to (>=29%) the national HIV prevalence estimate

No	District/Metro	Facility	# of times selected
27	kz Amajuba District Municipality	kz Emfundweni Clinic	1
28	kz Amajuba District Municipality	kz Madadeni 5 Clinic	1
29	kz Amajuba District Municipality	kz Osizweni 1 Clinic	1
30	kz eThekwini Metropolitan Municipality	kz Umlazi AA Clinic	1
31	kz eThekwini Metropolitan Municipality	kz Chatsworth Township Centre Clinic	1
32	kz eThekwini Metropolitan Municipality	kz Shallcross Clinic	1
33	kz eThekwini Metropolitan Municipality	kz Halley Stott Clinic	1
34	kz eThekwini Metropolitan Municipality	kz Umlazi D Clinic	1
35	kz eThekwini Metropolitan Municipality	kz Rydalvale Clinic	1
36	kz eThekwini Metropolitan Municipality	kz Ntshongweni Clinic	1
37	kz eThekwini Metropolitan Municipality	kz Tongaat CHC	1
38	kz eThekwini Metropolitan Municipality	kz Inanda C CHC	1
39	kz eThekwini Metropolitan Municipality	kz Fredville Clinic	1
40	kz eThekwini Metropolitan Municipality	kz Cato Manor Clinic	1
41	kz eThekwini Metropolitan Municipality	kz Mpumalanga Clinic	1
42	kz eThekwini Metropolitan Municipality	kz Amaoti Clinic	1
43	kz iLembe District Municipality	kz Sundumbili CHC	1
44	kz iLembe District Municipality	kz Groutville Clinic	1
45	kz Sisonke District Municipality	kz Kokstad LA Clinic	1
46	kz Sisonke District Municipality	KZ St Margaret's PHC Clinic	1
47	kz Ugu District Municipality	kz Thembalesizwe Clinic	1
48	kz Ugu District Municipality	kz Harding Clinic	1
49	kz Ugu District Municipality	kz Dududu Clinic	1

50	kz uMgungundlovu District Municipality	kz Gomane Clinic	1
51	kz uMgungundlovu District Municipality	kz East/Boom CHC	1
52	kz uMgungundlovu District Municipality	kz Imbalenhle CHC	1
53	kz uMgungundlovu District Municipality	kz Northdale Clinic*	1
54	kz Umkhanyakude District Municipality	kz Macabuzela Clinic	1
55	kz Uthukela District Municipality	kz Emmaus Gateway Clinic	1
56	kz Uthukela District Municipality	kz AE Haviland Memorial Clinic	1
57	kz Uthungulu District Municipality	kz Ndundulu Clinic	1
58	kz Uthungulu District Municipality	kz KwaMbonambi Clinic	1
59	kz Uthungulu District Municipality	kz Thokozani Clinic	1
60	kz Uthungulu District Municipality	kz Ensingweni Clinic	1
61	kz Uthungulu District Municipality	kz Ndlangubo Clinic	1
62	kz Zululand District Municipality	kz Njoko Clinic	1
63	kz Zululand District Municipality	kz Mabedlane Clinic	1
64	kz Zululand District Municipality	kz Itshelejuba Gateway Clinic	1

**replaced facility*

5. Limpopo Province

Limpopo small (<= 130 annual DTP1 coverage) size facilities

No	District/Metro	Facility	# of times selected
1	lp Thabazimbi Local Municipality	lp Dwaalboom Clinic	1
2	lp Thabazimbi Local Municipality	lp Chromite Clinic	1
3	lp Mogalakwena Local Municipality	lp Tiberius Clinic	1
4	lp Mutale Local Municipality	lp Tshiungani Clinic	1
5	lp Polokwane Local Municipality	lp Spitzkop Clinic	1
6	lp Polokwane Local Municipality	lp Block 14 Clinic	1
7	lp Makhado Local Municipality	lp De Hoop Clinic	1
8	lp Greater Giyani Local Municipality	lp Msengi Clinic	1
9	lp Thabazimbi Local Municipality	lp Regorogile 2 Clinic	1
10	lp Greater Tzaneen Local Municipality	lp Tours Clinic	1
11	lp Thulamela Local Municipality	lp Mbilwi Clinic	1
12	lp Greater Tubatse Local Municipality	lp Motshana Clinic	1
13	lp Mogalakwena Local Municipality	lp Mattanau Clinic	1
14	lp Polobne Local Municipality	lp Seobi-Dikgale Clinic	1
15	lp Makhado Local Municipality	lp Khomela Clinic	1
16	lp Thulamela Local Municipality	lp Tshilidzi Gateway Clinic	1
17	lp Greater Tzaneen Local Municipality	lp Zangoma Clinic	1
18	lp Polokwane Local Municipality	lp Mothiba Clinic	1
19	lp Thulamela Local Municipality	lp Ntlhaveni D Clinic	1

20	lp Greater Marble Hall Local Municipality	lp Marble Hall Clinic	1

**Fieldworkers (FWs) were given this list and were asked to select at least 10 out the 20 facilties in the list for situational assessment visit (the selection of the 10 clinics was based on logisitic feasibility)*

Limpopo Medium (annual DTP dose 130-300) size facilities

No	District/Metro	Facility	# of times selected
1	lp Capricorn District Municipality	lp Alldays Clinic	1
2	lp Capricorn District Municipality	lp Boschplaats Clinic	1
3	lp Capricorn District Municipality	lp Dendron Clinic	1
4	lp Capricorn District Municipality	lp Indermark Clinic	1
5	lp Capricorn District Municipality	lp Makotopong Clinic	1
6	lp Capricorn District Municipality	lp Mamushi Clinic	1
7	lp Capricorn District Municipality	lp Sebayeng Clinic	1
8	lp Capricorn District Municipality	lp Soetfontein Clinic	1
9	lp Greater Sekhukhune District Municipality	lp Moganyaka Clinic	1
10	lp Greater Sekhukhune District Municipality	lp Motetema Clinic	1
11	lp Greater Sekhukhune District Municipality	lp Nkoana Clinic	1
12	lp Greater Sekhukhune District Municipality	lp Penge Hospital/CHC	1
13	lp Greater Sekhukhune District Municipality	lp Phasha Clinic	1
14	lp Greater Sekhukhune District Municipality	lp Roossenekal Clinic	1
15	lp Greater Sekhukhune District Municipality	lp Seroka Clinic	1
16	lp Mopani District Municipality	lp Duiwelskloof Gateway Clinic	1
17	lp Mopani District Municipality	lp Julesburg CHC	1
18	lp Mopani District Municipality	lp Lebaka Clinic	1
19	lp Mopani District Municipality	lp Mabins Clinic	1
20	lp Mopani District Municipality	lp Mamaila Clinic	1
21	lp Mopani District Municipality	lp Middelwater Clinic	1
22	lp Mopani District Municipality	lp Muhlaba Clinic	1
23	lp Mopani District Municipality	lp Nyavana Clinic	1
24	lp Mopani District Municipality	lp Shotong Clinic	1
25	lp Mopani District Municipality	lp Turkey Clinic	1
26	lp Mopani District Municipality	lp Willows Clinic	1
27	lp Vhembe District Municipality	lp Folovhodwe Clinic	1
28	lp Vhembe District Municipality	lp Kulani clinic	1
29	lp Vhembe District Municipality	lp Levubu Clinic	1
30	lp Vhembe District Municipality	lp Masakona Clinic	1
31	lp Vhembe District Municipality	lp Matsa Clinic	1
32	lp Vhembe District Municipality	lp Musina Clinic	1
33	lp Vhembe District Municipality	lp Rambuda Clinic	1
34	lp Vhembe District Municipality	lp Tshaulu Clinic	1
35	lp Vhembe District Municipality	lp Tshikuwi Clinic	1
36	lp Vhembe District Municipality	lp Vhambelani Maelula Clinic	1

37	lp Waterberg District Municipality	lp Mahwelereng 2 Clinic	1
38	lp Waterberg District Municipality	lp Marapong Clinic	1
39	lp Waterberg District Municipality	lp Mokamole Clinic	1
40	lp Waterberg District Municipality	lp Thabazimbi Clinic	1

Limpopo large (annual DTP1 # >=300) and below average (<29%) HIV prevalence facilities

No	District/Metro	Facility	# of times selected
41	lp Capricorn District Municipality	lp Buitestraat CHC	1
42	lp Capricorn District Municipality	lp Nobody Clinic	1
43	lp Capricorn District Municipality	lp Perskebult Clinic	1
44	lp Capricorn District Municipality	lp Ramokgopa Clinic	1
45	lp Capricorn District Municipality	lp Moletjie Clinic	1
46	lp Capricorn District Municipality	lp Dikgale Clinic	1
47	lp Capricorn District Municipality	lp Makgato Clinic	1
48	lp Greater Sekhukhune District Municipality	lp Tshehlwaneng Clinic	1
49	lp Greater Sekhukhune District Municipality	lp Hlogotlou CHC	1
50	lp Greater Sekhukhune District Municipality	lp Klipspruit Clinic	1
51	lp Greater Sekhukhune District Municipality	lp Jane Furse Gateway Clinic	1
52	lp Greater Sekhukhune District Municipality	lp Burgersfort CHC	1
53	lp Mopani District Municipality	lp Shivulani Clinic	1
54	lp Mopani District Municipality	lp Mapayeni Clinic	1
55	lp Mopani District Municipality	lp Nkowankowa CHC	1
56	lp Mopani District Municipality	lp Shiluvana CHC	1
57	lp Vhembe District Municipality	lp Marseilles Clinic	1
58	lp Vhembe District Municipality	lp Tshino Clinic	1
59	lp Vhembe District Municipality	lp Shikundu Clinic	1
60	lp Vhembe District Municipality	lp Vhufuli Tshitereke Clinic	1
61	lp Vhembe District Municipality	lp Malamulele Clinic	1
62	lp Vhembe District Municipality	lp Vyeboom Clinic	1
63	lp Vhembe District Municipality	lp Rabali Clinic	1
64	lp Vhembe District Municipality	lp Mbokota Clinic	1
65	lp Vhembe District Municipality	lp Bungeni CHC	1
66	lp Vhembe District Municipality	lp William Eddie CHC	1
67	lp Waterberg District Municipality	lp Seleka Clinic	1
68	lp Waterberg District Municipality	lp Mahwelereng 1 Clinic	1
69	lp Waterberg District Municipality	lp Rebone Clinic	1
70	lp Waterberg District Municipality	lp Mahwelereng Zone 2 Clinic	1
71	lp Waterberg District Municipality	lp Vaalwater Clinic	1
72	lp Waterberg District Municipality	lp Mosesetjane Clinic	1
73	lp Waterberg District Municipality	lp Potgietersrus/Mogalakwena Clinic	1
74	lp Waterberg District Municipality	lp Warmbaths Clinic	1

6. Mpumulanga Province

Mpumalanga small (<= 130 annual DTP1 coverage) size facilities

No	District/Metro	Facility	# of times selected
1	mp Ehlanzeni District Municipality	mp Renee Clinic	1
2	mp Gert Sibande District Municipality	mp Grootvlei Clinic	1
3	mp Nkangala District Municipality	mp Pullenshope Clinic	1
4	mp Nkangala District Municipality	mp Haakdoringlaagte Clinic	1
5	mp Ehlanzeni District Municipality	mp Kaapschehoop Clinic	1
6	mp Nkangala District Municipality	mp Sakhelwe Clinic	1
7	mp Ehlanzeni District Municipality	mp Brondal Clinic	1
8	mp Nkangala District Municipality	mp De Beersput Clinic	1
9	mp Nkangala District Municipality	mp Eastdene Clinic	1
10	mp Gert Sibande District Municipality	mp New Scotland Clinic	1
11	mp Gert Sibande District Municipality	mp Greylingstad Clinic	1
12	mp Ehlanzeni District Municipality	mp Sihlangu Clinic	1
13	mp Ehlanzeni District Municipality	mp Glory Hill Clinic	1
14	mp Nkangala District Municipality	mp Lefisoane Clinic	1
15	mp Gert Sibande District Municipality	mp Balfour Clinic	1
16	mp Ehlanzeni District Municipality	mp Ndindindi Clinic	1
17	mp Nkangala District Municipality	mp Goederede Clinic	1
18	mp Gert Sibande District Municipality	mp Fernie 2 Clinic	1
19	mp Ehlanzeni District Municipality	mp Sabie Clinic	1
20	mp Ehlanzeni District Municipality	mp Mbuzini Clinic	1

**Fieldworkers (FWs) were given this list and were asked to select at least 10 out the 20 facilties in the list for situational assessment visit (the selection of the 10 clinics was based on logisitic feasibility)*

Mpumalanga Medium (130-300 annual DTP1 coverage) size facilities

No	District/Metro	Facility	# of times selected
1	mp Nkangala District Municipality	mp Boekenhouthoek Clinic	1
2	mp Gert Sibande District Municipality	mp Davel Clinic	1
3	mp Nkangala District Municipality	mp Diphalane (Pankop) CHC	1
4	mp Nkangala District Municipality	mp Empilweni Clinic	1
5	mp Gert Sibande District Municipality	mp Ezamokuhle Clinic	1
6	mp Nkangala District Municipality	mp Gemsbokspruit Clinic	1
7	mp Ehlanzeni District Municipality	mp Gutshwa Clinic	1
8	mp Gert Sibande District Municipality	mp Iswepe Clinic	1
9	mp Ehlanzeni District Municipality	mp Jeppes Reef Clinic	1
10	mp Nkangala District Municipality	mp Kwaggafontein A Clinic	1
11	mp Nkangala District Municipality	mp Kwazamokuhle Clinic	1
12	mp Gert Sibande District Municipality	mp Lothair/Silindile Clinic	1

13	mp Nkangala District Municipality	mp Marapyane CHC	1
14	mp Gert Sibande District Municipality	mp MS Msimanga Clinic	1
15	mp Ehlanzeni District Municipality	mp Murhotso Clinic	1
16	mp Nkangala District Municipality	mp Nokaneng CHC	1
17	mp Ehlanzeni District Municipality	mp Phiva Clinic	1
18	mp Ehlanzeni District Municipality	mp Sikhwahlane Clinic	1
19	mp Nkangala District Municipality	mp Siyathuthuka Clinic	1
20	mp Ehlanzeni District Municipality	mp Tekwane Clinic	1
21	mp Gert Sibande District Municipality	mp Trichardt Clinic	1
22	mp Nkangala District Municipality	mp Vaalbank Clinic	1
23	mp Gert Sibande District Municipality	mp Wakkerstroom Clinic	1
24	mp Gert Sibande District Municipality	mp Wesselton Clinic	1
25	mp Ehlanzeni District Municipality	mp White River Clinic	1

Mpumulanga large facilities (annual DTP1 # >=300) with HIV prevalence above or equal to (>=29%) the national HIV prevalence estimate

No	District/Metro	Facility	# of times selected
26	mp Gert Sibande District Municipality	mp Amersfoort Clinic	1
27	mp Gert Sibande District Municipality	mp Amsterdam CHC	1
28	mp Ehlanzeni District Municipality	mp Barberton Clinic	1
29	mp Ehlanzeni District Municipality	mp Belfast Clinic (Bushbuckridge)	1
30	mp Ehlanzeni District Municipality	mp Brooklyn Clinic	1
31	mp Ehlanzeni District Municipality	mp Calcutta Clinic	1
32	mp Ehlanzeni District Municipality	mp Casteel Clinic	1
33	mp Ehlanzeni District Municipality	mp Clau Clau Clinic	1
34	mp Ehlanzeni District Municipality	mp Cottondale Clinic	1
35	mp Gert Sibande District Municipality	mp Derby/Rustplaas Clinic	1
36	mp Gert Sibande District Municipality	mp Driefontein New Stands CHC	1
37	mp Gert Sibande District Municipality	mp Embalenhle CHC	1
38	mp Gert Sibande District Municipality	mp Emthonjeni Clinic	1
39	mp Gert Sibande District Municipality	mp Ermelo Clinic	1
40	mp Gert Sibande District Municipality	mp Ethande Clinic	1
41	mp Ehlanzeni District Municipality	mp Eziweni Clinic	1
42	mp Ehlanzeni District Municipality	mp Gottenburg Clinic	1
43	mp Ehlanzeni District Municipality	mp Hazyview Clinic	1
44	mp Ehlanzeni District Municipality	mp Kamhlushwa Clinic	1
45	mp Ehlanzeni District Municipality	mp Kanyamazane CHC	1
46	mp Nkangala District Municipality	mp Kriel Clinic	1
47	mp Nkangala District Municipality	mp KwaMhlanga Clinic	1
48	mp Gert Sibande District Municipality	mp Lebohang CHC	1
49	mp Ehlanzeni District Municipality	mp M'Africa CHC	1

50	mp Ehlanzeni District Municipality	mp Mangweni CHC	1
51	mp Ehlanzeni District Municipality	mp Maviljan Clinic	1
52	mp Nkangala District Municipality	mp Mhluzi Clinic	1
53	mp Ehlanzeni District Municipality	mp Middelplaas Clinic	1
54	mp Nkangala District Municipality	mp Moloto CHC	1
55	mp Ehlanzeni District Municipality	mp Moreipuso Clinic	1
56	mp Ehlanzeni District Municipality	mp Msogwaba Clinic	1
57	mp Ehlanzeni District Municipality	mp Mthimba Clinic	1
58	mp Ehlanzeni District Municipality	mp Naas CHC	1
59	mp Gert Sibande District Municipality	mp Nhlazatshe Clinic	1
60	mp Ehlanzeni District Municipality	mp Oakley Clinic	1
61	mp Ehlanzeni District Municipality	mp Orinoco Clinic	1
62	mp Ehlanzeni District Municipality	mp Phola-Nzikasi CHC	1
63	mp Gert Sibande District Municipality	mp Sakhile Clinic	1
64	mp Ehlanzeni District Municipality	mp Schoemansdal Clinic	1
65	mp Nkangala District Municipality	mp Seabe CHC	1
66	mp Gert Sibande District Municipality	mp Sead Clinic	1
67	mp Gert Sibande District Municipality	mp Secunda Clinic	1
68	mp Ehlanzeni District Municipality	mp Thulamahashe CHC	1
69	mp Gert Sibande District Municipality	mp Tjakastad Clinic	1
70	mp Ehlanzeni District Municipality	mp Tonga Block B Clinic	1
71	mp Nkangala District Municipality	mp Tweefontein H Clinic	1
72	mp Nkangala District Municipality	mp Tweefontein M Clinic	1
73	mp Ehlanzeni District Municipality	mp Welverdiend Clinic	1
74	mp Ehlanzeni District Municipality	mp Xanthia Clinic	1
75	mp Nkangala District Municipality	mp Siyabuswa CHC	2

7. Northern Cape Province

Northern Cape small (<130 annual DTP1 coverage) size facilities

No	District/Metro	Facility	# of times selected
1	nc Siyanda District Municipality	nc Askham CHC	1
2	nc Namakwa District Municipality	nc Brandvlei CHC	1
3	nc Namakwa District Municipality	nc Concordia Clinic	1
4	nc Pixley ka Seme District Municipality	nc De Aar Clinic	1
5	nc Namakwa District Municipality	nc Garies Clinic	1
6	nc Pixley ka Seme District Municipality	nc Hanover Clinic	1
7	nc Kgalagadi District Municipality	nc Kathu Clinic	1
8	nc Frances Baard District Municipality	nc Longlands Clinic	1
9	nc Frances Baard District Municipality	nc Mapule Matsepane Clinic	1

10	nc Pixley ka Seme District Municipality	nc Marydale Clinic	1
11	nc Pixley ka Seme District Municipality	nc Niekerkshoop Clinic	1
12	nc Pixley ka Seme District Municipality	nc Nonzwakazi Clinic	1
13	nc Pixley ka Seme District Municipality	nc Nonzwakazi Clinic	1
14	nc Pixley ka Seme District Municipality	nc Phillipstown Clinic	1
15	nc Namakwa District Municipality	nc Pofadder Clinic	1
16	nc Siyanda District Municipality	nc Rietfontein CHC	1
17	nc Namakwa District Municipality	nc Steinkopf Clinic	1
18	nc Pixley ka Seme District Municipality	nc Van Wyksvlei Clinic	1
19	nc Pixley ka Seme District Municipality	nc Vosburg CHC	1
20	nc Frances Baard District Municipality	nc Windsorton Clinic	1

**Fieldworkers (FWs) were given this list and were asked to select at least 10 out the 20 facilties in the list for situational assessment visit (the selection of the 10 clinics was based on logisitic feasibility)*

Northern Cape Medium (130-300 annual DTP1 coverage) size facilities

No	District/Metro	Facility	# of times selected
1	nc Frances Baard District Municipality	Delportshoop	1
2	nc Namakwa District Municipality	nc Komaggas Clinic	1
3	nc Siyanda District Municipality	nc Keimoes Clinic	1
4	nc Pixley ka Seme District Municipality	nc Bongani Clinic (L Adams)	1
5	nc Frances Baard District Municipality	nc Kimberley City Clinic	1
6	nc Namakwa District Municipality	nc Calvinia Clinic	1
7	nc Siyanda District Municipality	nc Postmasburg Clinic	1
8	nc Siyanda District Municipality	nc Upington Clinic	1
9	nc Pixley ka Seme District Municipality	nc Prieska Clinic	1
10	nc Frances Baard District Municipality	nc Phuthanang Clinic	1
11	nc Frances Baard District Municipality	nc Pholong Clinic	1
12	nc Siyanda District Municipality	nc Progress Clinic	1
13	nc Frances Baard District Municipality	nc Mataleng Clinic	1
14	nc Frances Baard District Municipality	nc Greenpoint Clinic	1
15	nc Pixley ka Seme District Municipality	nc Hopetown Clinic	1
16	nc Frances Baard District Municipality	nc Pampierstad CHC	1
17	nc Pixley ka Seme District Municipality	nc Victoria West Clinic	1
18	nc Kgalagadi District Municipality	nc Wrenchville Clinic	1
19	nc Pixley ka Seme District Municipality	nc Griekwastad (Helpmekaar) CHC	1
20	nc Pixley ka Seme District Municipality	nc Petrusville Clinic	1
21	nc Pixley ka Seme District Municipality	nc Lowryville Clinic	1
22	nc Frances Baard District Municipality	nc Ikhutseng Clinic	1
23	nc Pixley ka Seme District Municipality	nc Breipaal Clinic	1

Northern Cape large (annual DTP1 # >=300) and below average (<29%) HIV prevalence facilities

No	District/Metro	Facility	# of times selected
24	nc Siyanda District Municipality	nc Lingelethu Clinic (Pabalello)	1
25	nc Frances Baard District Municipality	nc Ritchie Clinic	1
26	nc Frances Baard District Municipality	nc Ma-Doyle Clinic	1
27	nc Siyanda District Municipality	nc Louisvaleweg Clinic	1
28	nc Frances Baard District Municipality	nc Betty Gaetsewe Clinic	1
29	nc Frances Baard District Municipality	nc Galeshewe Day Hospital	1
30	nc Pixley ka Seme District Municipality	nc Kuyasa Clinic	1
31	nc Frances Baard District Municipality	nc Beaconsfield Clinic	1
32	nc Siyanda District Municipality	nc Sarah Strauss Clinic	1
33	nc Frances Baard District Municipality	nc Dr Torres Clinic	2

8. North West Province

North West small (<130 annual DTP1 coverage) size facilities

No	District/Metro	Facility	# of times selected
1	nw Kgalagadi District Municipality	nw Bendel Clinic	1
2	nw Kgalagadi District Municipality	nw Bothithong Clinic	1
3	nw Bophirima District Municipality	nw Christiana Town Clinic	1
4	nw Central District Municipality	nw Driefontein Clinic	1
5	nw Kgalagadi District Municipality	nw Glen Red Clinic	1
6	nw Central District Municipality	nw Holcim Clinic	1
7	nw Frances Baard District Municipality	nw Kgomotso Clinic	1
8	nw Bophirima District Municipality	nw Kokomeng Clinic	1
9	nw Bojanala Platinum District Municipality	nw Lesetlheng Clinic	1
10	nw Kgalagadi District Municipality	nw Loopeng Clinic	1
11	nw Kgalagadi District Municipality	nw Manyeding Clinic	1
12	nw Kgalagadi District Municipality	nw Mecwetsaneng Clinic	1
13	nw Central District Municipality	nw Mogosane Clinic	1
14	nw Central District Municipality	nw Motswedi Clinic	1
15	nw Bophirima District Municipality	nw Perth Clinic	1
16	nw Central District Municipality	nw Ramatlabama CHC	1
17	nw Kgalagadi District Municipality	nw Seoding Clinic	1
18	nw Bojanala Platinum District Municipality	nw Tladistad Clinic	1
19	nw Bophirima District Municipality	nw Tweelingspan Clinic	1
20	nw Bojanala Platinum District Municipality	nw Welgeval Clinic	1

**Fieldworkers (FWs) were given this list and were asked to select at least 10 out the 20 facilties in the list for situational assessment visit (the selection of the 10 clinics was based on logisitic feasibility)*

North West Medium (130-300 annual DTP1 coverage) size facilities

No	District/Metro	Facility	# of times selected
1	nw Southern District Municipality	nw Top City Clinic	1
2	nw Southern District Municipality	nw Tswelelang 1 Clinic	1
3	nw Central District Municipality	nw Khunotswana Clinic	1
4	nw Bojanala Platinum District Municipality	nw Madibeng Clinic	1
5	nw Central District Municipality	nw Magogwe Clinic	1
6	nw Southern District Municipality	nw Ventersdorp Gateway Clinic	1
7	nw Central District Municipality	nw Borakalalo CHC	1
8	nw Southern District Municipality	nw Promosa Clinic	1
9	nw Southern District Municipality	nw Potchefstroom Gateway Clinic	1
10	nw Bojanala Platinum District Municipality	nw Reagile Clinic	1
11	nw Bophirima District Municipality	nw Utlwanang CHC	1
12	nw Central District Municipality	nw Setlopo Clinic	1
13	nw Southern District Municipality	nw Leeudoringstad CHC	1
14	nw Bojanala Platinum District Municipality	nw Tlaseng Clinic	1
15	nw Bojanala Platinum District Municipality	nw Swartruggens Clinic	1
16	nw Central District Municipality	nw Tshunyane Clinic	1
17	nw Central District Municipality	nw Disaneng Clinic	1
18	nw Frances Baard District Municipality	nw Mammutla Clinic	1
19	nw Bojanala Platinum District Municipality	nw Karlien Park Clinic	1
20	nw Bojanala Platinum District Municipality	nw Moretele CHC	1
21	nw Central District Municipality	nw Madibogopan Clinic	1
22	nw Bojanala Platinum District Municipality	nw Koster Gateway Clinic	1
23	nw Bojanala Platinum District Municipality	nw Kgabalatsane Clinic	1
24	nw Central District Municipality	nw Tswelelopele CHC	1
25	nw Bojanala Platinum District Municipality	nw Sandfontein Clinic	1
26	nw Central District Municipality	nw Ratlou CHC	1
27	nw Southern District Municipality	nw Tigane CHC	1
28	nw Bojanala Platinum District Municipality	nw Motlhabe CHC	1
29	nw Central District Municipality	nw Vriesgewacht Clinic	1
30	nw Central District Municipality	nw Rapulana Clinic	1
31	nw Bojanala Platinum District Municipality	nw Anna Legoale Clinic	1
32	nw Bojanala Platinum District Municipality	nw Maubane Clinic	1
33	nw Bojanala Platinum District Municipality	nw Rabokala Clinic	1
34	nw Bojanala Platinum District Municipality	nw Madidi Clinic (Kleinfontein)	1
35	nw Bojanala Platinum District Municipality	nw Hoekfontein Clinic	1
36	nw Bojanala Platinum District Municipality	nw Thulwe Clinic	1
37	nw Central District Municipality	nw Coligny CHC	1

North West large (annual DTP1 # >=300) and below average (<29%) HIV prevalence facilities

No	District/Metro	Facility	# of times selected
38	nw Central District Municipality	nw Montshioa Stadt CHC	1
39	nw Central District Municipality	nw Montshioa Town Clinic	1
40	nw Central District Municipality	nw Mafikeng Gateway Clinic	1
41	nw Bophirima District Municipality	nw Morokweng CHC	1
42	nw Central District Municipality	nw Unit 9 CHC	1
43	nw Central District Municipality	Bodibe 2	1
44	nw Bophirima District Municipality	nw Taung Gateway Clinic	1
45	nw Central District Municipality	nw Blydeville Clinic	1
46	nw Central District Municipality	nw Gelukspan Gateway Clinic	1
47	nw Central District Municipality	nw Lehurutshe Clinic	1
48	nw Bophirima District Municipality	nw Dryharts Clinic	1
49	nw Central District Municipality	nw Bodibe Clinic	1
50	nw Central District Municipality	nw Letsopa Clinic	1
51	nw Bophirima District Municipality	nw Mamusa CHC	1
52	nw Central District Municipality	nw Setlagole Clinic	1
53	nw Central District Municipality	nw Lonely Park Clinic	1

North West large facilities (annual DTP1 # >=300) with HIV prevalence above or equal to (>=29%) the national HIV prevalence estimate

No	District/Metro	Facility	# of times selected
54	nw Southern District Municipality	nw Alabama Clinic	1
55	nw Bojanala Platinum District Municipality	nw Bakubung Clinic	1
56	nw Southern District Municipality	nw Boiki Thlapi CHC	1
57	nw Bojanala Platinum District Municipality	nw Classic House Clinic	1
58	nw Bojanala Platinum District Municipality	nw Ga-Motla Clinic	1
59	nw Bojanala Platinum District Municipality	nw Hartebeesfontein Clinic	1
60	nw Southern District Municipality	nw JB Marks Clinic	1
61	nw Bojanala Platinum District Municipality	nw Kana Clinic	1
62	nw Bojanala Platinum District Municipality	nw Letlhabile CHC	1
63	nw Bojanala Platinum District Municipality	nw Makapanstad CHC	1
64	nw Southern District Municipality	nw Orkney Town Clinic	1
65	nw Southern District Municipality	nw Potchefstroom Clinic	1
66	nw Southern District Municipality	nw Steve Tshwete Clinic	1
67	nw Bojanala Platinum District Municipality	nw Tlhabane CHC	1
68	nw Southern District Municipality	nw Grace Mokgomo CHC	1
69	nw Bojanala Platinum District Municipality	nw Rustenburg Gateway Clinic	1

9. Western Cape Province

Western Cape small (<130 annual DTP1 coverage) size facilities

No	District/Metro	Facility	# of times selected
1	wc Eden District Municipality	wc Zoar Clinic	1
2	wc Overberg District Municipality	wc Barrydale Clinic	1
3	wc West Coast District Municipality	wc Graafwater Clinic	1
4	wc Overberg District Municipality	wc Grabouw D/C Clinic	1
5	wc Eden District Municipality	wc Calitzdorp (Bergsig) Clinic	1
6	wc West Coast District Municipality	wc Lalie Cleophas Clinic	1
7	wc West Coast District Municipality	wc Langebaan Clinic	1
8	wc West Coast District Municipality	wc Riebeeck West Clinic	1
9	wc City of Cape Town Metropolitan Municipality	wc Groenvallei Clinic	1
10	wc Eden District Municipality	wc Regent Street Clinic	1
11	wc West Coast District Municipality	wc Van Rhynsdorp Clinic	1
12	wc Cape Winelands District Municipality	wc McGregor Clinic	1
13	wc Eden District Municipality	wc Uniondale (Lyonsville) Clinic	1
14	wc Overberg District Municipality	wc Riviersonderend Clinic	1
15	wc Cape Winelands District Municipality	wc Patriot Plein Clinic	1
16	wc Overberg District Municipality	wc Greyton Clinic	1
17	wc Eden District Municipality	wc Crags Clinic	1
18	wc City of Cape Town Metropolitan Municipality	wc Gordon's Bay Clinic	1
19	wc Cape Winelands District Municipality	wc Zolani Clinic	1
20	wc Cape Winelands District Municipality	wc Victoria Street Clinic	1

**Fieldworkers (FWs) were given this list and were asked to select at least 10 out the 20 facilties in the list for situational assessment visit (the selection of the 10 clinics was based on logisitic feasibility)*

Western Cape Medium (130-300 annual DTP1 coverage) size facilities

No	District/Metro	Facility	# of times selected
1	wc Cape Winelands District Municipality	wc Cogmanskloof Clinic	1
2	wc Cape Winelands District Municipality	wc Happy Valley Clinic	1
3	wc Cape Winelands District Municipality	wc Rawsonville Clinic	1
4	wc Cape Winelands District Municipality	wc Touws River Clinic	1
5	wc Cape Winelands District Municipality	wc Hillcrest Clinic	1
6	wc Cape Winelands District Municipality	wc Aan-het-Pad Clinic	1

7	wc Cape Winelands District Municipality	wc Klapmuts Clinic	1
8	wc Central Karoo District Municipality	wc Beaufort West Constitution Street Clinic	1
9	wc Central Karoo District Municipality	wc Nieuveldpark Clinic	1
10	wc City of Cape Town Metropolitan Municipality	wc Sir Lowry's Pass Clinic	1
11	wc City of Cape Town Metropolitan Municipality	wc Fish Hoek Clinic	1
12	wc City of Cape Town Metropolitan Municipality	wc Westlake Clinic	1
13	wc City of Cape Town Metropolitan Municipality	wc Spencer Road Clinic	1
14	wc Eden District Municipality	wc New Horizon Clinic	1
15	wc Eden District Municipality	wc Plettenberg Bay CHC	1
16	wc Eden District Municipality	wc Parkdene Clinic	1
17	wc Eden District Municipality	wc Ladismith (Nissenville) Clinic	1
18	wc Eden District Municipality	wc Bongolethu Clinic	1
19	wc Overberg District Municipality	wc Hermanus Clinic	1
20	wc Overberg District Municipality	wc Caledon Clinic	1
21	wc West Coast District Municipality	wc Lutzville Clinic	1
22	wc West Coast District Municipality	wc Darling Clinic	1
23	wc West Coast District Municipality	wc Moorreesburg CHC	1

Western Cape large (annual DTP1 # >=300) and below average (<29%) HIV prevalence facilities

No	District/Metro	Facility	# of times selected
24	wc City of Cape Town Metropolitan Municipality	wc Mfuleni Clinic	1
25	wc City of Cape Town Metropolitan Municipality	wc Ikwezi Clinic	1
26	wc City of Cape Town Metropolitan Municipality	wc Wesbank Clinic (Oostenberg)	1
27	wc City of Cape Town Metropolitan Municipality	wc Brackenfell Clinic	1
28	wc City of Cape Town Metropolitan Municipality	wc Wallacedene Clinic	1
29	wc City of Cape Town Metropolitan Municipality	wc Lotus River Clinic	1
30	wc City of Cape Town Metropolitan Municipality	wc Hout Bay Main Road Clinic	1
31	wc City of Cape Town Metropolitan Municipality	wc Claremont Clinic	1
32	wc City of Cape Town Metropolitan Municipality	wc Retreat Clinic	1
33	wc City of Cape Town Metropolitan Municipality	wc Strandfontein Clinic	1
34	wc City of Cape Town Metropolitan Municipality	wc Masiphumelele Clinic	1
35	wc City of Cape Town Metropolitan Municipality	wc Langa Clinic	1
36	wc City of Cape Town Metropolitan Municipality	wc Nyanga Clinic	1
37	wc City of Cape Town Metropolitan Municipality	wc Hanover Park Clinic	1
38	wc City of Cape Town Metropolitan Municipality	wc Vuyani Clinic	1
39	wc City of Cape Town Metropolitan Municipality	wc Silvertown Clinic	1
40	wc City of Cape Town Metropolitan Municipality	wc Tafelsig Clinic	1

41	wc City of Cape Town Metropolitan Municipality	wc Phumlani Clinic	1
42	wc City of Cape Town Metropolitan Municipality	wc Mzamomhle Clinic	1
43	wc City of Cape Town Metropolitan Municipality	wc Eastridge Clinic	1
44	wc City of Cape Town Metropolitan Municipality	wc Valhalla Park Clinic	1
45	wc City of Cape Town Metropolitan Municipality	wc Vanguard CHC	1
46	wc City of Cape Town Metropolitan Municipality	wc Kasselsvlei Clinic	1
47	wc City of Cape Town Metropolitan Municipality	wc St Vincent Clinic	1
48	wc City of Cape Town Metropolitan Municipality	wc Ravensmead Clinic	1
49	wc Eden District Municipality	wc Alma CHC	1
50	wc Overberg District Municipality	wc Zwelihle Clinic	1
51	wc Overberg District Municipality	wc Grabouw CHC	1
52	wc West Coast District Municipality	wc Diazville Clinic	1
53	wc West Coast District Municipality	wc Hanna Coetzee Clinic	1
54	wc City of Cape Town Metropolitan Municipality	wc Guguletu Clinic	2

Western Cape large facilities (annual DTP1 # >=300) with HIV prevalence above or equal to (>=29%) the national HIV prevalence estimate

No	District/Metro	Facility	# of times selected
55	wc City of Cape Town Metropolitan Municipality	wc Zakhele Clinic	1
56	wc City of Cape Town Metropolitan Municipality	wc Nolungile Clinic	1
57	wc City of Cape Town Metropolitan Municipality	wc Luvuyo Clinic	1

C) Situational assessment data collection tool/questionnaire

Situational Analysis questionnaire

Interviewer read out: Thank you for agreeing to answer our questions. The questionnaire is divided into four sections. The first section assesses general postnatal PMTCT information. You can answer some or all of the questions in this section or you can refer us to a person who can best answer the relevant questions. The second section is particularly for you (the clinic manager). The third section has questions for the key nurse who coordinates or provides EPI / immunisation services in the clinic and the fourth section is for the key nurse who provides IMCI or sick babies service.

Section I – Basic postnatal PMTCT information

Note to the field worker: *start the interview with the clinic manager, however the clinic manager may answer all questions in section 1 or may refer you to one of the IMCI nurse, immunisation nurse, PMTCT nurse or VCT nurse. Please note the name of the person who you are referred to (i.e. write 'EPI nurse' if you were referred to EPI nurse) next to the relevant question so that you remember the person you need to interview after the clinic managers interview.*

A. Assessment of the existing system for identifying HIV infected & exposed infants

1. Does your clinic offer HIV testing for infants during 6 weeks immunisation visit?

   1= Yes

   2 = No ➔ ***if no skip to q2***

1.1. *If yes*, which of the following algorithms/protocols do you use to identify HIV exposed or infected infants during 6 weeks immunisation visit: ***PROMPT RESPONDENTS & CIRCLE ALL THAT APPLY***

1= All mothers bringing their infants for 6 weeks immunisation visit get offered a DNA PCR test on their infant

2= All mothers bringing their infants for a 6wks immunisation visit get offered a rapid HIV test on their own blood & if they are HIV positive (from the rapid test) their infants will be offered DNA PCR test

3= Infants born to mothers who report themselves as HIV positive get offered a DNA PCR test during 6wks immunisation visit

4= Infants born to HIV positive mothers as recorded on the RTHC get offered a DNA PCR test during 6wks immunisation visit

5= Infants born to HIV positive mothers as recorded on the register get offered a DNA PCR test during 6wks immunisation visit

6= Mothers who ask for HIV tests during 6 weeks immunisation visit get offered an HIV test on themselves followed by a DNA PCR test on their infant if they are positive

7= Mothers who ask specifically for an infant HIV test get offered an HIV test on their infants during 6 weeks immunisation visit

8= Other

8.1= If yes to other, specify _____

1.2. Do you provide PCR testing for infants that comes with a caregiver (eg. grandmothers etc) without the mother present?

1=Yes

2= No

2. Do you offer HIV testing to infants at visits other than 6 weeks immunisation visit?

1= Yes

2= No ➔ ***if no skip to q 3***

➔ ***if no to both q1 & q2 skip to q13***

2.1. *If yes*, other than 6 week visit, can you tell us on which other visits or at what stages of the infants life HIV testing is provided ***PROMPT RESPONDENTS & CIRCLE ALL THAT APPLY***

1= All sick children suspected for HIV exposure from clinical symptoms will be offered HIV test at any age if they were not tested before

2= All HIV exposed babies visiting the sick baby clinic will be given HIV test if were not tested before

3= If a child is born from a known HIV positive mother a PCR test will be given after cessation of breastfeeding

4= If a child is born from a known HIV positive mother a PCR test will be given at 9 months

5= If a child is born from a known HIV positive mother a rapid test will be given at 18 months

6= Other

6.1. =If yes to other, specify _____

3. Do you have Standard Operating Procedures that you follow to do (i.e to collect, dry & pack blood specimens) PCR specimens?

   1=Yes

   2= No

4. In which one of the following services/clinics do you offer HIV testing to identify HIV exposed/infected infants? ***PROMPT RESPONDENTS & CIRCLE ALL THAT APPLY***

   1= HIV testing is offered & performed at the PMTCT clinic

   2= HIV testing is offered & performed at the immunisation clinic

   3= HIV testing is offered & performed at the IMCI/sick baby clinic

   4=Immunisation clinic offers HIV testing to mother infant pairs & refers those who agree to test to the PMTCT clinic

   5= Immunisation clinic offers HIV testing to mother infant pairs & refers those who agree to test to the VCT clinic

   6= IMCI/sick baby clinic offers HIV testing to mother infant pairs & refers those who agree to test to the PMTCT clinic

   7= IMCI/sick baby clinic offers HIV testing to mother infant pairs & refers those who agree to test to the VCT clinic

   8= Other

   8.1= Specify other

B. Sending DBS for lab testing

5. If your facility offers PCR testing, where (to which lab) do you send the DBS/whole blood specimens for testing? Specify the name & address of the laboratory where the blood specimens are sent.

   Name

   Physical Address & telephone number

6. Is there a transport system that takes these PCR specimens to the laboratory?

1= Yes

2= No ➔ ***if No skip to q9***

6.1. *If yes*, please tell us what transportation system is used:

1= Routine provincial system

2= Routine NHLS system

3= Routine private courier

4= if routine private courier, provide contact details

Name

Telephone number

5= Other:

5.1= If other, specify/provide contact details:

Name

Address

7. How frequently are these infant PCR specimens sent to laboratory for PCR testing? ***ONLY ONE RESPONSE***

1= Daily

2= On certain standardised day/days of the week

3= Once a week (no standardised day i.e. adhoc whenever there are enough specimens to send)

4= Ad hoc basis – sometimes once a week, sometimes fortnightly

5= Not sent to the lab

6= Other

6.1= If other, specify

7.1. If lab specimens are sent on certain standardised day/days of the week, specify which day/days of the week _____ and time of the day (i.e. mornings/afternoons) _____ the DBS/whole blood specimens are sent to the lab

8. Is this transportation system reliable?

1= Yes it is reliable ➔ ***if Yes skip to q10***

2=Not reliable

8.1. *If the transportation is not reliable*, describe the problems that you have been having with the transportation system

9. If there is no transportation system , ask how PCR specimens reach to the laboratory.

10. Where do you store infant PCR specimens in the facility until they are collected?

1= Consulting room in which they were taken

2= Facility pharmacy

3= Clinic Manager's office

4= Facility's staff tea room

5= Facility fridge

6= Other

6.1= if other specify

11. What is the average turnaround time for PCR test result – i.e. the number of weeks from the day the specimen has been taken from the infant to the day that the facility receives the result?

12. When do mothers usually receive their infants PCR test result if the blood specimen was collected at the 6 week immunisation visit? ***ONLY ONE RESPONSE***

1= usually at 10 weeks

2= usually at 14 weeks

3= other

4= if other specify _____

To the field worker: if answered yes to q1 or q2 skip to q15

13. If PCR testing service is not given in this facility, are there <u>any other blood specimens</u> (eg. CD4 count) that you send to the lab?

1= Yes

2= No ➔ ***if No skip to q15***

13.1. If yes, specify Name & address of the lab that you use for these other specimens

Name

Physical Address & telephone number

13.2. *If yes*, please tell us what transportation system is used:

1= Routine provincial system

2= Routine NHLS system

3= Routine private courier

4= *if routine private courier*, provide contact details

Name

Contact number

5= Other:

5.1= *If other*, specify/provide contact details:

Name

Address

14. If yes how frequently are these other blood specimens (eg. CD4 count) sent to the laboratory? ***ONLY ONE RESPONSE***

1= Daily

2= On certain standardised day/days of the week

3= Once a week (no standardised day i.e. adhoc whenever there are enough specimens to send)

4= Ad hoc basis – sometimes once a week, sometimes fortnightly

5= Not sent to the lab

6= Other

6.1= If other, specify

14.1. If these other blood specimens (e.g. CD4 count etc.) are sent on certain standardised day/days of the week, specify which day/days of the week _____ & time of the day (mornings/afternoons) _____ they are sent to the NHLS lab

C. Pretest counseling, providing test result & post test counseling

15. Who provides pretest counseling <u>for infant</u> HIV testing? ***CIRCLE ALL THAT APPLY***

1= VCT Counsellor (nurse)

2= VCT lay counsellor

3= EPI clinic Nurse

4= Nurse – IMCI trained

5= Nurse – not IMCI trained

6= None (eg. PCR testing not done and results not given) ➔ ***if None skip to q19***

7= Other

7.1= if other, specify

16. Who provides PCR test result of the baby to the mother? ***CIRCLE ALL THAT APPLY***

1= VCT Counsellor (nurse)

2= VCT lay counsellor

3= EPI clinic Nurse

4= Nurse – IMCI trained

5= Nurse – not IMCI trained

6= None (eg. PCR testing not done and results not given)

7= Other

7.1= if other, specify

17. Does the same person who gives PCR test result provide post-test counseling for infant HIV testing?

1= Yes ***-> if yes skip to q19***

2= No

18. If no, who provides post-test counseling for infant HIV testing? ***CIRCLE ALL THAT APPLY***

1= VCT Counsellor (nurse)

2= VCT lay counsellor

3= EPI clinic Nurse

4= Nurse – IMCI trained

5= Nurse – not IMCI trained

6= None (eg. PCR testing not done and results not given)

7= Other

7.1= if other, specify

19. Who provides post-test counseling for mothers that received testing on themselves? ***CIRCLE ALL THAT APPLY***

1= VCT Counsellor (nurse)

2= VCT lay counsellor

3= EPI clinic Nurse

4= Nurse – IMCI trained

5= Nurse – not IMCI trained

6= None (eg. rapid HIV testing not done and results not given) ***-> if none skip to q21***

7= Other

7.1= if other, specify

20. Who provides pretest counseling for mothers that receive HIV testing? ***CIRCLE ALL THAT APPLY***

1= VCT Counsellor (nurse)

2= VCT lay counsellor

3= EPI clinic Nurse

4= Nurse – IMCI trained

5= Nurse – not IMCI trained

6= None (eg. rapid HIV testing not done and results not given)

7= Other

7.1= if other, specify

21. Where do mothers receive their infants PCR test results / post-test counseling? ***PROMPT***

1= in a separate room allocated for VCT

2= in a separate routine consulting room

3= in any available private space in the clinic

4= in any available public space in the clinic

5= Outside the clinic – under a tree or in a private space outdoors

6= Others

6.1= if other specify

22. If there is a separate room available for post-test counseling, write down the directions to the room or the room name or number of the place where mothers receive PCR test results / post-test counseling.

23. If HIV testing is not done in this facility or if there is no separate room available for post-test counselling, write down the full address of the nearest facility where infants can be referred for receiving PCR test results & post-test counseling

Name

Address

D. Supplies *(Skip this section if no PCR testing service is given from q1 & q 2)*

24. Do you have PCR test kits in stock today (field worker should ask to see the kits)?

1 = Yes 2= No ***-> if no skip to q26***

25. ***For the field worker to see***: are all within the expiry date (ask to see the kits)?

1 = Yes 2= No

26. Does the clinic have stock-cards (or a similar system) to track supplies of PCR test kits?

1 = Yes 2= No

27. How frequently do you order PCR kits? ***ONLY ONE RESPONSE***

1= Daily

2= Weekly - on a set day of the week

3= Weekly – ad hoc days

4= Monthly

5= Other

5.1= if other, specify

28. Who is responsible for keeping track of PCR stock?

1= EPI nurse

2= IMCI nurse

3= VCT nurse

4= other

4.1 if other, specify

29. Has there been any day in the last month when the clinic ran out of PCR stock?

1= Yes, 2= No ***-> if no skip to q30***

29.1. *If yes,* for how long _____

E. Mother baby follow-up system – registers & cards

30. Is there any clinic-held recording system or register that tracks postnatal PMTCT follow-up of mother infant pairs?

1=Yes

2=No -***> if no skip to q36***

30.1. If yes, in which unit(s) of the facility is this register(s) kept (ask to see & confirm)? ***PROMPT RESPONDENT & CIRCLE ALL THAT APPLY***

1= At separate PMTCT clinic

2= At immunisation clinic

3= At IMCI/sick baby clinic

4= At VCT clinic

5= Have one register for each of IMCI & immunisation clinic

6= Have one register for each of IMCI, immunisation & PMTCT clinic

7= kept in a room with multiple services (i.e PMTCT, IMCI, immunisation given in same room)

8= Other

8.1= if other Specify

30.2. If yes, which of the following is captured in this register(s) (ask to see & confirm): ***TICK ALL THAT APPLY***

- ☐ Maternal testing
- ☐ Maternal HIV status
- ☐ Infant PCR testing done at 6wks
- ☐ Infant PCR testing done at any age
- ☐ Infants HIV status
- ☐ Infant CD4 count
- ☐ Mothers CD4 count
- ☐ Infant referral for ARV
- ☐ Mother referral for ARV
- ☐ Infant & mother referral for support & care
- ☐ Infant postnatal prophylaxis
- ☐ Infant Cotrimoxazole (bactrim)
- ☐ Infant feeding

To the interviewer: ***write "no record" if there was no record for some of the questions***

31. According to this record(s), between September 1 & Nov 30, 2009, how many infants were tested for HIV at 6 weeks (DNA PCR)?

31.1. Of these infants tested for HIV at 6 weeks using DNA PCR, how many were HIV positive? (If this is not recorded, please write not recorded)

32. According to this record(s), between September 1 & Nov 30, 2009, how many infants were tested for HIV using PCR *in total (regardless of age)?*

32.1. Of these infants (tested at any age) how many were HIV positive?

33. How many were routinely given Cotrimoxazole (bactrim) at 6 weeks as part of a PMTCT intervention? _____

34. According to this records, between September 1 & Nov 30, 2009, how many of the HIV positive infants were referred for ARV treatment? _____

35. According to this record between September 1 & Nov 30, 2009 how many mothers were known HIV positive (both newly diagnosed & already known)? _____

35.1. How many of these HIV positive mothers were given CD4 Count after giving birth? _____

35.2. Of those whose CD4 count was done, how many were documented as having a CD4 cell count <200? __

35.3. How many of the mothers with <200 CD4 count were referred for ARV service? ____

36. Is there any patient-held system that facilitates linkages between maternal antenatal and postnatal care e.g. postnatal card/RHTC?

1= Yes

2= No **-> if no skip to q37**

36.1. If yes, specify which card is used? ***CIRCLE ALL THAT APPLY***

1= postnatal card

2= RtHC

3= Antenatal card

4= Other

4.1= if other, specify

36.2. *If RtHC is used*, which RtHC is currently used in the clinic?

1= The new RtHC booklet

2= The old RtHC with the coding system

3= The RtHC with stamp

4= The old RtHC with no coding system and no stamp

5= Other

5.1= if other specify

37. Is there a PMTCT clinic in your facility?

1= Yes

2= No ***-> if no skip to q38***

37.1. *If yes*, which day(s) of the week does the PMTCT clinic run? ***CIRCLE ALL THAT APPLY***

1= Monday 4= Thursday

2= Tuesday 5= Friday

3= Wednesday 6= Everyday

38. Do infants born to PMTCT mothers receive immunisations at certain specific day/days of the week?

1= Yes

2= No***-> if no skip to q39***

38.1. If yes, on which day/ days of the week do they receive immunisation service? ***CIRCLE ALL THAT APPLY***

1= Monday 4= Thursday

2= Tuesday 5= Friday

3= Wednesday 6= Everyday

39. Which of the following medical records do you use to capture patient level data? ***CIRCLE ALL THAT APPLY***

1= electronic medical records (EMR)

2= Paper-based ***-> if paper based skip to q40***

3= both electronic & paper based

4= Other

4.1= *If other*, specify

39.1. Which electronic medical records do you use?

40. Do you capture your PMTCT data on an electronic database?

1= Yes

2= No ***-> skip to q42***

41. If yes, please specify what system/database you use

F. Referrals

42. Do you normally routinely ask all mothers at 6 weeks visit whether they had HIV test (& received their result) during their last pregnancy?

1= Yes

2= No

43. If yes, do you refer or provide VCT for mothers who haven't been tested during pregnancy?

1= Yes

2= No

44. Do you normally ask HIV positive mothers (as identified by the RtHC or mothers report) when her last CD4 count was done after delivery?

1= Yes

2= No ***-> if no skip to q46***

45. If yes, do you routinely identify & provide CD4 count test for mothers who haven't had a CD4 count since giving birth?

1= Yes

2= No

46. Can you please tell us the name & address of the clinic/facility where blood is taken /drawn for CD4 count test?

Name

Address

47. If you provide CD4 count test, what is the average turnaround time for a return of maternal CD4 cell count result i.e. the number of weeks from the day the specimen has been taken from the mother to the day that the facility receives the results?

48. Do you refer HIV positive infants (as identified by the RtHC or mothers report) for CD4 count?

1= Yes

2= No

49. Do you refer HIV positive infants to ARV clinics?

1= Yes

2= No

50. Is there an ARV clinic (for children) in this facility?

1 = Yes

2= No ***-> if no skip to q52***

51. *If yes*, write down the room number or describe how to get to the room where the ARV clinic runs

_____

_____

52. If there is no ARV clinic in this facility then write down the name and address of the facility to which children are usually referred (more than one clinic can be stated)

Name

Address

53. Is there a specific person that you refer them to?

1=Yes 2= No

If yes, who ?

Person's name:

53.1. Do you telephone and make an appointment for the infant or do you simply refer with a letter (no appointment)?

1= Referral letter written and appointment made

2= No referral letter written but appointment made

3= Referral letter written but no appointment made

4= Other

53.2. Is there a follow-up mechanism in your clinic to monitor how many referred children actually went to the ARV clinic?

1= Yes

2= No

53.3. Do you know whether there is a follow-up mechanism in the ARV clinic to track attendance of children and follow-up of non-attendees?

1= Yes

2= No

3= Don't know

54. Which day(s) of the week does the paediatric ARV clinic run?

1= Monday	4= Thursday	7= Don't know
2= Tuesday	5= Friday	8= Other
3= Wednesday	6= Everyday	8.1. = if other specify

55. Do you refer HIV positive mothers to ARV clinics?

1= Yes

2= No

56. Is there adult ARV clinic in this facility?

1= Yes

2= No ***-> if no skip to q58***

57. If yes, write down the room number or describe how to get to the room where the ARV clinic runs

_____

_____

58. If there is no ARV clinic in this facility then write down the name and address of the facility to which mothers are usually referred (more than one clinic can be stated)?

Name

Address (street name & room no)

59. Is there a specific person that you refer them to? 1= Yes 2= No

If yes, who?

Person's name:

60. Which day(s) of the week does the adult ARV clinic run? ***CIRCLE ALL THAT APPLY***

1= Monday 4= Thursday 7= Other

2= Tuesday 5= Friday 7.1= If other specify

3= Wednesday 6= Everyday 8= Don't know

61. Do you refer HIV positive mothers to community-based support & care services?

1= Yes

2= No

62. Do you have referral forms/letters to refer (ask to see & confirm):

62.1. Infants to ARV clinics: 1= Yes 2= No

62.2. Mothers to ARV clinics: 1= Yes 2= No

62.3. Infants to community-based support & care services: 1= Yes 2= No

62.4. Mothers to community-based support & care services: 1= Yes 2= No

63. ***For the interviewer***: Which of the following clinic staff participated in the interview? **CIRCLE *ALL THAT APPLY***

1= PMTCT nurse

2= Immunisation nurse

3= IMCI/sick baby nurse

4= VCT nurse

5= clinic manager

6= Other

6.1= if other, specify

Section II – Interview with clinic manager

A. Training need assessment

1. We would like to know more about the number of staff members in this facility, what they have been trained in and what services they provide. ***Instruction to interviewer: if a service is not provided or no-one has been trained please write zero***

	Total number in facility	**PCR**		**VCT**			**How to immunize children**		**Routine child health services**		**ARV services**	
		Do / provide service	**Trained in SOP for PCR**	**Do Counseling**	**Do VCT**	**Formally trained in VCT**	**Do**	**Trained in how to provide EPI services**	**See sick children**	**Trained in IMCI**	**Do**	**Trained in ARV initiation or monitoring**
Professional nurses												
Staff nurses												
Enrolled nurse assistant												
Lay counselors												
Doctors												
Other (specify)												

2. Of those staffs who provide EPI service, how many have been formally trained in how to do infant PCR testing?

3. What have been the barriers to training on infant PCR? ***CIRCLE ALL THAT APPLY***

   1= No time for training – clinic too busy

   2= No money for training

   3= Other

   3.1. If other specify

4. If some staff members have been trained, have you experienced any barriers to offering PCR tests at EPI clinics?

   1= Yes

   2= No ***-> if no skip to q 6***

5. If yes, what are these barriers? ***CIRCLE ALL THAT APPLY***

   1= Mothers resistant to HIV testing/ Mothers fear of disclosing status

2= No time at EPI clinics

3= No supplies for PCR testing

4= Person other than mother brings infant to the clinic

5= Staff shortages

6= Too few staff trained

7= No one trained on pre & post counseling

7.1. Other

6. Of those staff who provide IMCI/sick babies, how many have been formally trained in how to do infant PCR testing? (give a definite number)

7. If some staff members have been trained, have you experienced any barriers to offering PCR tests at sick child clinics? 1= Yes 2= No ***-> if no skip to q9***

8. If yes, what are these barriers? ***CIRCLE ALL THAT APPLY***

1= Mothers resistant to HIV testing

2= No time at sick child clinics

3= No supplies for PCR testing

4= Person other than mother brings infant to the clinic

5= Staff shortages

6= Too few staff trained

7= No one trained on pre & post counseling

8= Other

7.1. If other specify

9. Please tell us if you have used any of the following to improve your PMTCT services?

9.1. Task shifting 1= Yes 2= No

9.1.1. If yes, please explain what you have done

9.2. Re-organising the clinic flow 1= Yes 2= No

9.2.1. If yes please explain what you have done

9.3. Mothers to mothers groups 1= Yes 2= No

9.4. Lay counselors 1= Yes 2= No

9.4.1. If yes please explain how you use lay counselors in your clinic (circle all that apply)

1= To do counseling

2= To do testing for HIV

2= To weigh babies

3= To fill in the PCR form

4= To do infant feeding counseling

5= To clean the clinic

6= To talk to HIV positive mothers

7= Other

7.1= If other, specify

B. Attitude

10. In your opinion, who / which service should offer routine infant DNA PCR testing? ***CIRCLE ALL THAT APPLY***

    1= EPI/immunisation clinic

    2= IMCI/sick baby clinic

    3= PMTCT clinics

    3= Hospitals only

    4= HIV clinics only

    5= Other

    5.1 = If other specify

11. Can you give us reasons for your answers

12. Would you be willing to send your EPI and IMCI / child health staff on DBS training sometime this year?

    1= Yes ***-> if yes skip to 13***

    2= No

12.1. If no, please state why

C. Arrangement of logistics for the 6 weeks survey

Interviewer read out: *The following questions are aimed at assisting us with logistical arrangements for the 6 week survey. We would like to make arrangements for a suitable area to conduct the interviews, storage of blood samples and returning of lab results.*

Accommodation

13. Is there accommodation within or nearby the facility (e.g. nursing residence)?

    1= Yes

    2= No ***-> if no skip to 19***

14. If available, can we use your facility's accommodation during the data collection period?

    1= Yes

    2= No

    3= Don't know

14.1. *If don't know,* can you tell me who I can ask/talk to

15. How many people can be housed in your facility's accommodation?

16. Does the room(s) have a bed or beds?

    1= Yes if yes how many _____

    2= No

17. Does the room(s) has cooking utensils?

    1= Yes

    2= No

18. Do you serve food?

    1= Yes if yes how much do you charge per dinner ___

    2= No

19. *If accommodation is not available within the facility*, can you please give us your suggestions where field workers can stay during the survey (B&B or private homes) – get the name, address & contact number of this accommodations

20. Do you perhaps know the costs of these B&Bs/private homes?

Transport

21. ***For the fieldworker:*** What is the road type that this clinic is on?

    1= Tar

    2= Gravel

    3= Sand / dirt

    4= Other

    4.1= If other, specify:

22. What is the suitable Car type for this road?

    1= Normal motor vehicle

    2= by 4 SUV, Venture, bakkie, Condor

    3= 4 by 4 SUV, Venture, bakkie, Condor

    4= other

    4.1.= if other, specify

23. Is there a regular Taxi/Bus/train that can be used to get to the facility ?***-> if no to all skip to q25***

    Tick all that apply

    ☐Taxi

    ☐Bus

    ☐Train

24. *If yes*, ask how frequently does it run

    24.1. Taxi

    24.2. Bus

    24.3. Train

    24.4.1. Is there a 6am train in the morning?

25. Cost of Taxi from the nearest B&B /local private houses to the facility

26. Cost of Bus from the nearest B&B /local private houses to the facility

27. Cost of Train from the nearest B&B /local private houses to the facility

Other logistics (local field workers, interview space & clinic address)

28. Do you know anyone who has previous field work experience & that lives within the district/sub district?

    1= Yes

    2= No

29. *If yes*, can you give us the contact addresses of this person(s) & encourage them to send their CV to the following address: targetedevalhsur@gmail.com fax: 0219380483 (***instruction to the field worker*****:** *post the field workers advert on the clinics notice board after asking permission of the clinic manager*)

30. We know that space is problem in most facilities but would you be able to allocate a space for us to interview mothers and collect DBS spots from babies when the national survey starts?

    1=Yes

    2=No

31. ***If yes, ask to see this space & note what equipment this space has. Ask if you would be able to get a chair for the mother and a surface that you could use to lay the baby down when doing the DBS testing. (to the field worker: Note that some small clinics may not be able to provide you with a room – therefore any quite corner which is not far from the EPI clinic area & a place/or chair to comfortably sit the mother will be enough.)***

32. Ask if we can use a corner of any secure room in the clinic for drying blood specimens (write down agreed room for drying specimens). Report if space is a major problem in the clinic.

33. Ask for a secure place to keep the 6 weeks survey PCR specimens until collection time (write down agreed room for storing specimens) Report if space is a major problem in the clinic

34. What is the referral clinics postal address for return of PCR results?

Section III – Interview with key person/nurse that coordinates or provides immunisation service

Introduce the study to the interviewee using the information sheet & receive signed consent before starting the interview

1. Are immunisations done every day?

    1= Yes

    2= No

2. Is there any particular day / days of the week when more immunisations are done (compared with other days) – ask to see the register & confirm

To the interviewer: Review the immunisation register & capture the following data:

3. How many DTP 1 Immunisations were done last week = _____
4. How many DTP 1 Immunisations were done on the month of November 2009 = _____
5. How many DTP1 Immunisations were done from September 1 to November 30, 2009 =_____

6. Do you provide PCR testing when infants come for their 6 week immunisation? ***PROMPT***

   1= Yes we provide PCR testing at immunisation clinic

   2= Yes we provide PCR testing in conjunction with VCT/PMTCT clinics

   3= No **if no Skip to q 8**

7. If yes how do you identify HIV exposed infants at 6weeks? ***CIRCLE ALL THAT APPLY***

   1= Give rapid test to all mothers who presents at 6 weeks immunisation visit

   2= From register

   3= If mother reported

   4= We ask mothers their status

   5= From the RTHC

   6=Antenatal card

   7= Others

   7.1= If other specify

8. In your opinion, is it a good idea to offer infant DNA PCR testing routinely as part of EPI/immunisation services?

   1=Yes ***-> skip to q10***

   2= No

9. If no, please state why:

   1= It is not part of Immunisation nurses responsibilities

   2= There is not time to do this

   3= It is a good idea but it is not part of immunisation nurses responsibilities or there is no time

   4= There is not enough staff to do this

   4= Other

   4.1=if other, specify

10. If yes, in your opinion is it feasible to offer DNA PCR testing as part of routine EPI services?

    1=Yes

    2= No

    a. *Please explain your answer*

11. Do you normally ask all mothers at 6 weeks visit whether they had HIV test (& received their result) during their last pregnancy?

    1=Yes

    2=No

12. If yes, do you refer or provide VCT for mothers who haven't been tested during pregnancy?

    1=Yes

    2=No

13. Do you normally routinely ask HIV positive mothers (as identified by the RTHC or mothers report) at 6 weeks visit when her last CD4 count was done?

    1=Yes

    2=No

14. If yes, do you routinely identify & provide CD4 count test for mothers who haven't been checked for their CD4 count since giving birth?

    1=Yes

    2=No

15. Do you refer HIV positive infants (as identified by the RTHC or mothers report) for CD4 count?

    1=Yes

    2=No

Section IV – IMCI/sick baby head nurse

Introduce the study to the IMCI/sick baby head nurse using the information sheet & receive signed consent before starting the interview

1. Do you offer PCR testing for HIV-exposed infants at sick baby clinic?

    1=Yes

    2=No

2. If yes how do you identify HIV exposed infants for PCR testing? ***CIRCLE ALL THAT APPLY***

    1= Symptoms of infants

    2= From clinic register

    3= From patient folder

    4= From the RTHC

    5= From mothers/caregivers report

    4= Others

    4.1= If other specify

3. Is it a good idea to offer infant DNA PCR testing routinely as part of routine IMCI /sick child services?

    1=Yes

    2= No

4. If it is a good idea, do you think it is feasible to offer DNA PCR testing as part of routine IMCI/ ill child care?
    4.1. Please explain your answer

5. Do you normally routinely ask all new mothers whether they had HIV test (& received their result) during their last pregnancy?

    1=Yes

b2=No

6. If yes, do you refer or provide VCT for mothers who haven't been tested during pregnancy?

   1=Yes

   2=No

7. Do you normally routinely ask HIV positive mothers (as identified by the RTHC/other registers or mothers report) when her last CD4 count was done?

   1=Yes

   2=No

8. If yes, do you routinely identify & provide CD4 count test for mothers who haven't been checked for their CD4 count since giving birth?

   1=Yes

   2=No

9. Do you refer HIV positive infants (as identified by the RTHC , registers or mothers report) for CD4 count?

   1=Yes

   2=No

THE SOUTH AFRICAN PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV (PMTCT)

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REPORT ON RESULTS OF A SITUATIONAL ASSESSMENT