



Special Programmes

The Comprehensive Care, Management and Treatment Programme for HIV and AIDS

BACKGROUND

The CCMT unit for the NHLS based at the NICD ensures good laboratory support for the National Department of Health's Comprehensive care, management and treatment programme for HIV and AIDS. We monitor the progress of the programme and place sufficient capacity to handle the volumes of CD4, viral load and HIV PCR tests entering the system.

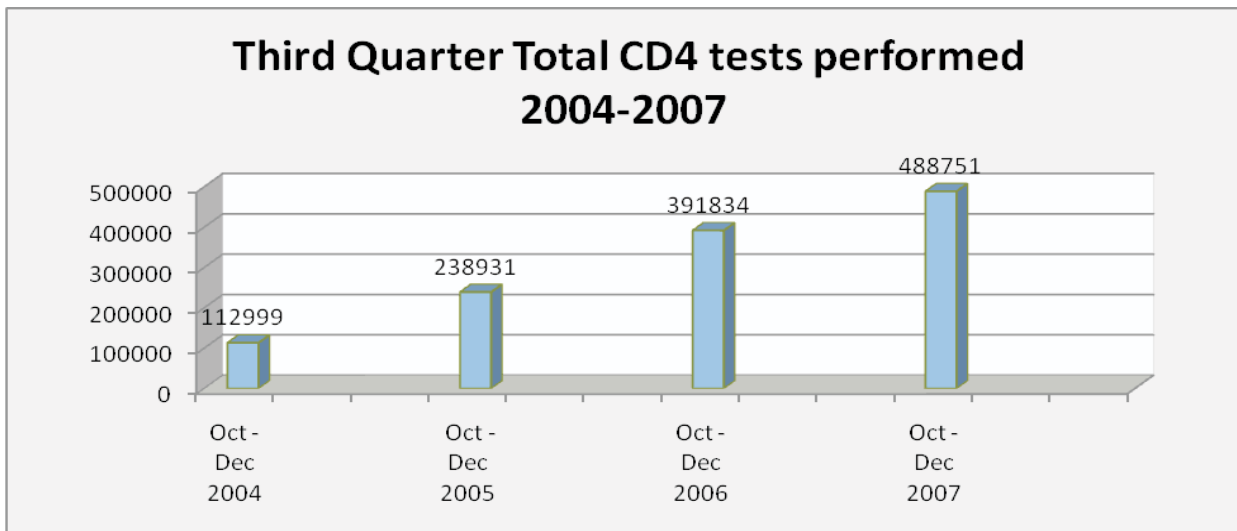
ACTIVITIES, HIGHLIGHTS AND ACHIEVEMENTS

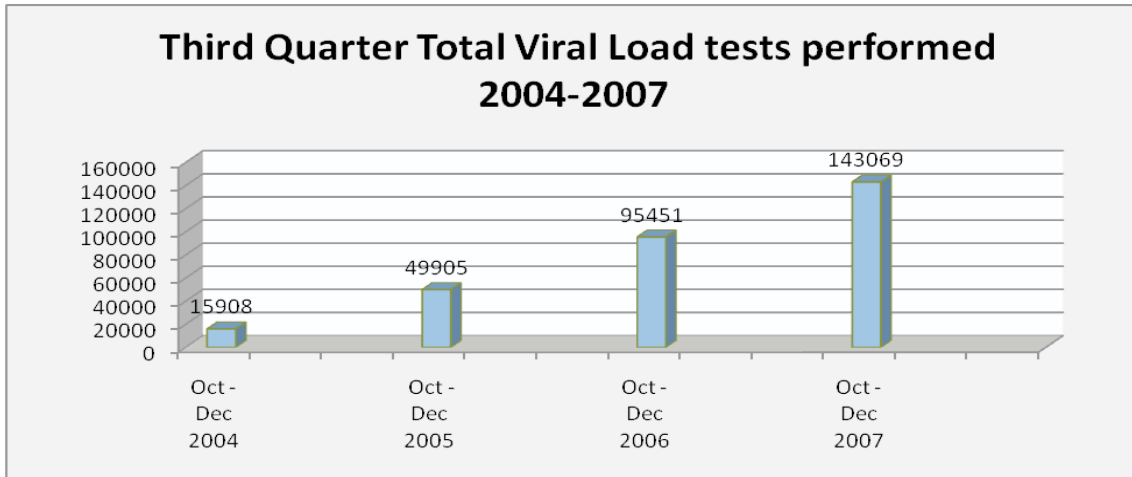
There has been tremendous expansion of the laboratories capable of performing the monitoring tests for people with HIV infection. From a handful of laboratories performing these assays mainly for research based applications, we now have 54 laboratories performing CD4 tests, 16 viral load

laboratories, and 8 PCR laboratories across South Africa. Many of these laboratories service relatively under-resourced areas such as rural Eastern Cape. The NHLS was processing in excess of 180 000 specimens for CD4 testing each month towards the end of 2007. Approximately 38% of these test results are below 200 cells/mm³. This should be compared with a rate of 55% at the beginning of the programme in 2004. A comparison of the volumes of tests processed can be viewed in the graph below comparing the numbers of CD4 tests done in the period October to December in each year.

We are currently testing approximately 55 000 viral load specimens each month across South Africa. Forty two percent of these specimens have undetectable viral load as opposed to 5% at the beginning of the programme in 2004. The increase in the number of test results produced can be viewed in the graph on the next page demonstrating growth across the October to December period of each year of the programme to date.

Laboratory capacity in support of the CCMT for HIV and AIDS				
	Number of laboratories	Number of systems	Test Capacity in an 8 hr working day	Test utilization
CD4 tests	54	76	250 800	190 000 (75%)
Viral load tests	16	20	63 360	52 000 (82%)
HIV PCR tests	8	9	25 740	16 000 (62%)

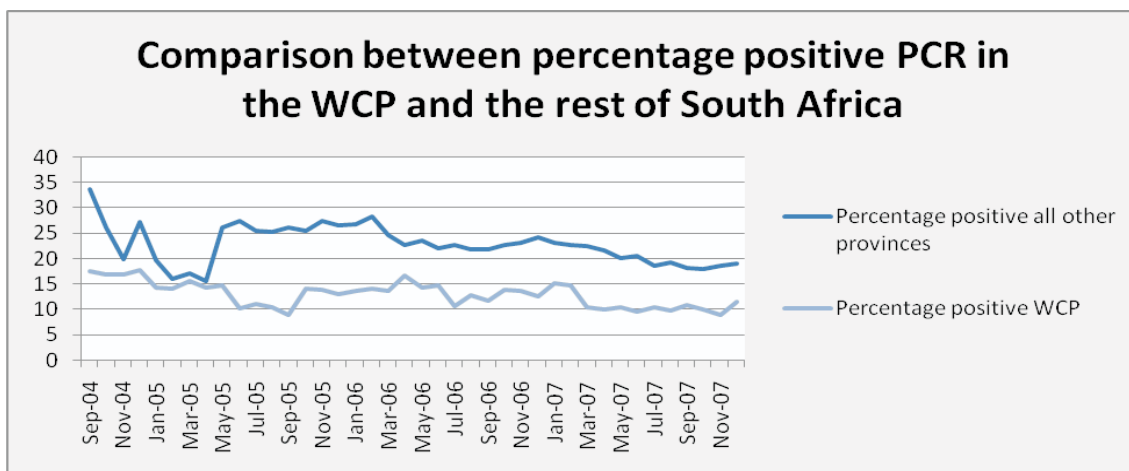
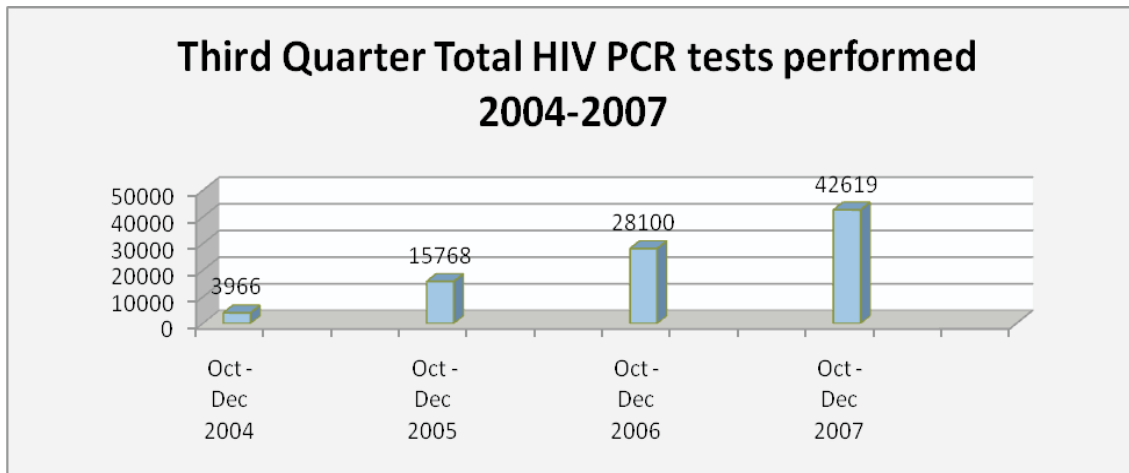




NHLS is performing in excess of 16 000 HIV PCR tests each month in support of infant diagnosis of HIV infection in the South African exposed birth cohort. The encouraging increase in the numbers of children accessing testing can be seen in the graph below comparing the specimen numbers over the period October to December of each year since the start of the programme.

A further encouraging trend can be seen in comparing the positivity rates of the Western Cape as compared

with the rest of South Africa. The Western Cape uses a dual therapy regimen in preventing mother to child transmission of HIV, whereas the rest of South Africa uses a single dose Nevirapine regimen. The National Department of Health has now released its new guidelines modeled on the Western Cape regimen and we should see improvements in the mother to child transmission rate across the whole country once this has been implemented.



We have implemented PCR testing on dried blood spots in all the PCR Laboratories in South Africa. This is to increase accessibility of PCR testing to a greater number of infants. Venipuncture on 6 week old babies is difficult and not all health care staff is sufficiently skilled to perform this procedure, particularly in the primary care and EPI setting. Dried blood spot collection involves a simple heel prick with a lancet and collection on suitable grades of filter paper supplied to the clinics by NHLS. This is one of the factors contributing to the increased uptake of PCR testing in this country. Most test results are returned to the clinics within 11 days and action is implemented on the baby's return to the clinic at 10 weeks of age based on the test result.

We have also begun developing EQA panels for the dried blood spot testing. Once this programme is fully established, it will be handed over to the NHLS QA division for continuing management. A similar programme will be started for viral load testing.

CAPACITY BUILDING

We have one MSc student, Mr Riyadh Maheter, registered for his degree through the faculty of health science at the University of the Witwatersrand. He has also attended several advanced courses to enhance his skills in Microsoft Excel and Access as well as project management.

Dr Terry Marshall spoke at a meeting held in the NICD PRF Training Centre for World AIDS Day on 30 November 2007. Mobile clinics were arranged for staff for HIV testing.



Sarah Hloma standing by one of the mobile clinics.



One of the signs put up at NICD on World AIDS Day.



Sr Louisa Choeu, Dr Terry Marshall and Sarah Hloma awaiting the results of their HIV tests.