

### b Introduction of Very Early Infant Diagnosis of HIV into the National Consolidated Guidelines

As a means of identifying intra-uterine HIV-infected infants earlier, birth testing of all HIV-exposed infants was introduced into the National Consolidated Guidelines on 1 June 2015.<sup>1</sup> Prior to this, routine HIV PCR testing was performed in infants at 6 weeks of age, with allowance for earlier testing in symptomatic infants. Additionally, the targeted testing of high-risk infants at birth has been practiced with varying intensity since 2013, most notably in Gauteng, KwaZulu-Natal and Western Cape provinces. We report the number and results of HIV PCR tests done during the first week of life\* from 1 June 2015 to 31 August 2015 and compare the findings with those for the same periods in 2013 and 2014. This analysis has been performed to determine the immediate uptake and impact of birth testing after its implementation at a national level.

Since 1 June, there has been a dramatic increase in the total number of HIV PCR tests performed in the first week of life in all 9 provinces compared to the same periods in 2013 and 2014 (Figure 8), providing a total of 35 400 HIV PCR tests within the first week of life for the period 1 June 2015 to 31 August 2015.<sup>†</sup> Surveillance to monitor the national coverage of HIV birth testing is on-going.

The uptake of birth testing has been associated with a substantial increase in the absolute number of HIV-positive infants detected during the first week of life, with a total of 430 HIV-positive results reported from 1 June 2015 to 31 August 2015 (Figure 9). Whereas the absolute number of very

early detected HIV-infected infants has increased, the percentage positivity has decreased from 3% in 2014 to 1% in 2015, most likely on account of the low volumes and targeted nature of testing prior to 1 June 2015.

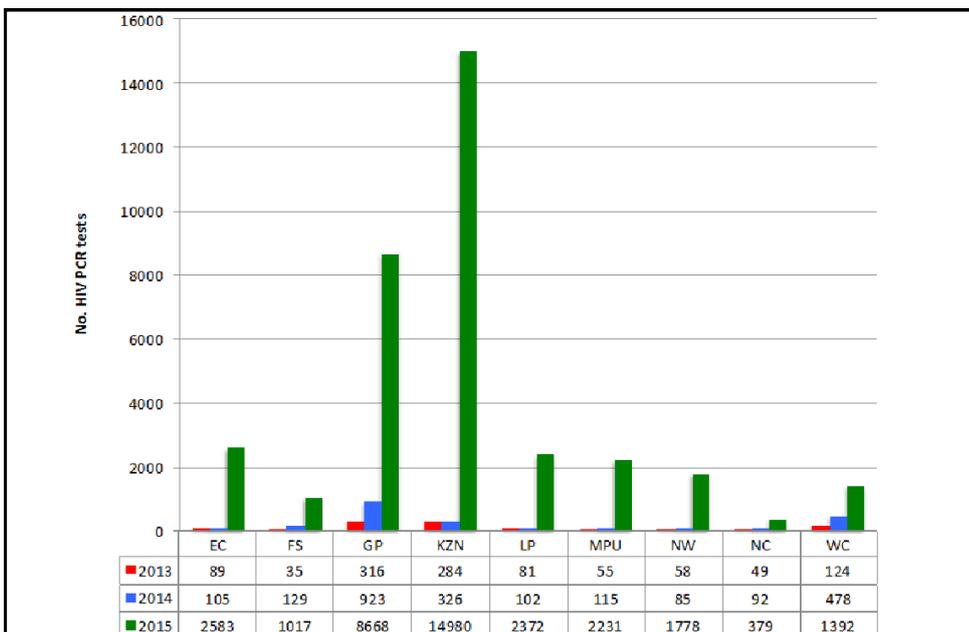
These results reflect the immediate uptake of birth testing within the first 3 months of the national implementation of the new testing guidelines, and suggest that birth testing can successfully be scaled up and will assist in the earlier detection of intra-uterine HIV-infected infants. Priorities remain the successful linkage into care for those infants who test HIV PCR-positive at birth, and to ensure repeat testing at 10 weeks of age for those infants who test HIV PCR-negative at birth.

1. South African National Department of Health. National Consolidated Guidelines for the prevention of mother-to-child transmission of HIV (PMTCT) and the management of HIV in children, adolescents and adults. Pretoria: National Department of Health, 2015. (Accessed September 11, 2015 at <http://www.health.gov.za/index.php/2014-03-17-09-09-38/policies-and-guidelines/category/230-2015p>)

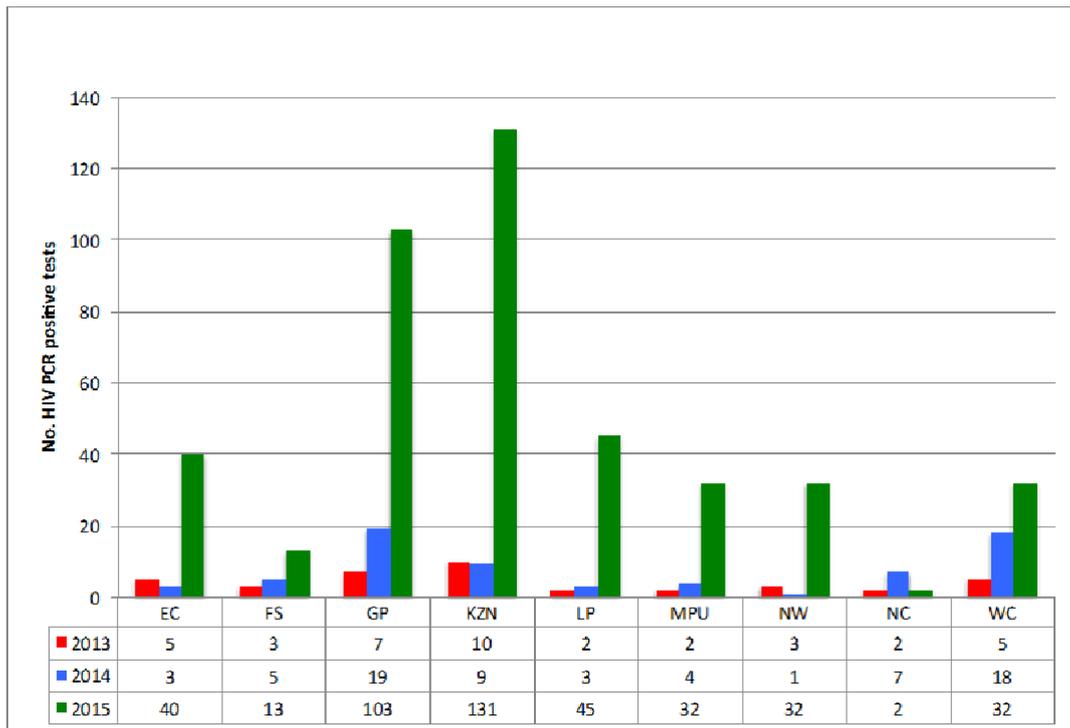
\*Whereas National Guidelines stipulate birth testing, this analysis was performed in infants within the first week of life to account for those neonates who were tested on follow up to a healthcare facility.

†These results are likely an under-estimation of uptake of birth testing on account of maternal details, such as age, reflecting on the HIV PCR request forms of newborn infants.

**Source:** Centre for HIV and STI, NICD-NHLS



**Figure 8. Number of HIV PCR tests done in the first week of life during the period June to August in the years 2013, 2014 and 2015**



**Figure 9. Number of Positive HIV PCR tests in the first week of life during the period June to August in the years 2013, 2014 and 2015**