

NIGERIA

Epidemiologic Situation:

From January–June 2010, Nigeria has identified 6 WPV (3 WPV1 and 3 WPV3) cases in 6 districts in 4 states. WPV1 cases declined from 67 during January–June 2009; WPV3 cases declined from 290. The onset of the most recent WPV3 case was 15 June (Zamfara state) and of the most recent WPV1 case was 18 June (Borno state). There have been 9 cVDPV2 cases during January–June 2010, decreased from 137 during January–June 2009, in 6 northern states (others have since been identified).

Immunization Performance:

During January–June 2010, two national SIAs (one with bOPV, one tOPV) and three sub-national SIAs (one each bOPV, mOPV1, and mOPV3) were conducted. SIA monitoring data were not systematically reviewed; of those data available for the April SIA, $\geq 10\%$ of the children were missed in 18% of the monitored wards in Kano, 15% of the monitored wards in Borno, and 12% of the monitored wards in Kebbi.

The Major Process Indicator target is $< 10\%$ 0-dose children (per NPAFP data) in each of the 12 high-risk states. That goal has been met for ten (83%) of these states; the two that failed are Kano (20% 0-dose and 33% 4+ doses) and Yobe (12% 0-dose and 40% 4+ doses). The proportion of missed children may be underestimated by this indicator.

In this large country, pooled national data mask the current situation in the high-risk areas. The reported immunization status nationally of children with NPAFP 6–35 months of age revealed 3.6% 0-dose children and 65% of children 6–35 months of age with NPAFP who had a recall history of 4+ doses of OPV during July 2009–June 2010. Based on the Major Process Indicator and SIA monitoring, immunization performance is weak.

Surveillance Performance:

The Major Process Indicator target for all endemic, re-established transmission and “importation belt” countries is NPAFP rate > 2 in all sub-national levels (GPEI#2). AFP surveillance performance indicators appear to generally meet targets nationally and sub-nationally, with all states having NPAFP rates > 2 and $> 80\%$ adequate specimen collection.

Despite strong performance indicators in the current period and recent past, there are virologic indications of surveillance limitations. Three of the seven WPV1 isolates from July–December 2009 cases and all three WPV1 isolates from January–June 2010 exhibited $> 1.5\%$ divergence from the closest predecessor. Similarly, nine of the 24 (38%) WPV3 isolates from July–December 2009 and all three 2010 WPV3 isolates exhibited $\geq 1.5\%$ divergence. For VDPVs, there were 3 out of 14 in 2010 exhibited $> 1.5\%$ divergence from the closest predecessor during July–December 2009 but seven of nine from January–June 2010. A higher percentage of isolates may have distant genetic relationships as fewer WPV cases occur; however, genomic sequence analysis indicates some missed chains of WPV transmission during 2009–2010 were not detected for more than a year. This finding indicates intermediate surveillance performance despite AFP surveillance performance indicators meeting or exceeding targets at national and all state levels. Surveillance gaps might be occurring among specific subpopulations such as migrants in northern Nigeria who have limited access to immunization activities and health-care providers, as well as among specific districts with surveillance weaknesses in AFP detection, investigation, specimen collection and/or transport in some areas of the country.

Risk Assessment:

Substantial reductions in the number and extent of identified WPV1, WPV3, and cVDPV2 cases and affected districts during January–June 2010 compared with the same period in 2009 in Nigeria suggests marked improvements in coverage during SIAs since early- to mid-2009.

Within high-risk northern states, a high proportion of children remain at risk as a result of focal areas with low routine immunization and SIA coverage and high birth rates. Because there are uncertainties in the quality of AFP surveillance by the virologic evidence and because there are decreased but still sizable subpopulations of missed children, Nigeria has a high, decreasing risk of failure to detect and interrupt WPV transmission by the end of 2011. Furthermore, potential disruptions in services during the state and federal elections planned for early 2011 could limit program progress.

If progress in Nigeria can be sustained, WPV transmission in Nigeria could be interrupted in the near future. However, with a high proportion of 0-dose children in some areas, Nigeria has a high, decreasing risk of failure to detect and interrupt WPV transmission by the end of 2011.

PAKISTANEpidemiologic Situation:

In Pakistan during January–June 2010, 31 WPV cases (15 WPV1 and 16 WPV3) have been confirmed in 2010, compared with 22 (14 WPV1 and 8 WPV3) during January–June 2009. The number of districts affected by WPV have remained largely unchanged from 2009 (17) to 2010 (19) and are located in the northern transmission zone (most of Khyber Pakhtunkhwa [formerly North West Frontier Province] and the federally administered tribal areas [FATA], bordering eastern Afghanistan), and the southern transmission zone (bordering south Afghanistan, extending into Pakistan through Balochistan into the towns around Karachi, Sindh).

Immunization Performance:

The Major Process Indicator targets are <15% missed children during at least 8 SIAs in every district of the Quetta area and the persistent transmission districts and agencies of Khyber Pakhtunkhwa and FATA and <10% missed children during at least 4 SIAs in every town of Karachi. Of the five SIA rounds in 2010, house-to-house SIA independent monitoring indicated <10% missed children in most districts in most rounds. The target of <15% missed children has been reached in all SIA rounds in Peshawar district in Khyber Pakhtunkhwa, the monitored districts of FATA, and one of three monitored districts in Balochistan. Among the 18 monitored towns of Karachi, house-to-house SIA independent monitoring indicated <10% in five for all five SIA rounds to date; no other town had results from at least 4 rounds meeting the criterion.

The reported immunization status of children with NPAFP 6–35 months of age suggests high coverage viewed nationally (2% 0-dose children) and sub-nationally (all provinces having <10% 0-dose children). The overall proportion of children 6–35 months of age with 4+ doses of OPV (94%) is generally consistent with the WHO/UNICEF estimate of Pol3 coverage of 85% except in Khyber Pakhtunkhwa, where <80% of children