into neighboring countries as evidenced by repeated episodes of importation into Niger in 2009–2010 and into Sudan in past years.

DEMOCRATIC REPUBLIC OF THE CONGO

Epidemiologic Situation:

During January–June 2009, three WPV3 cases were identified which represented transmission within DRC after importation in 2009. Five WPV1 cases were identified during January–June 2010 in provinces of the country adjacent to Angola, as a result of two separate importation events with WPV of Angolan origin. As of 16 August, there have been six cases reported, five in Kasai province on the Angola border; the most recent had onset on 11 July. One confirmed case with onset 10 June was detected in Katanga province on the border with Tanzania/Lake Tanganyika.

Immunization Performance:

The Major Process Indicator target is <10% missed children in each SIA in Orientale, North & South Kivu (and all provincial capitals)(GPEI #7). SIAs have not been implemented to date in those areas. Independent monitoring data for the two most recent SIAs in Bandundu and Kasai-Occidental indicate ≥10% (12-38%) missed children.

NPAFP immunization data are consistent with the SIA monitoring data. The reported immunization status of children with NPAFP 6–35 months of age indicates weakness in coverage nationally (12% 0-dose children). The overall proportion of children 6–35 months of age with NPAFP with 4+ doses of OPV (33%) is inconsistent with the WHO/UNICEF estimate of Pol3 coverage (74%) and suggests the Pol3 coverage estimate (made without recent surveys) may overestimate true coverage.

Surveillance Performance:

The Major Process Indicator targets are >80% adequate specimens in all provinces (GPEI #5) and a NPAFP rate >2 in all provinces (GPEI#6). Overall AFP surveillance performance indicators meet NPAFP rate and specimen collection targets nationally and sub-nationally (100%); however, virologic sequence analysis indicates surveillance performance is weak with significant evidence of missed chains of transmission in Katanga.

There are historical concerns about the quality of surveillance in the northeast/east area of the country, because the isolates from the 2009 Burundi WPV1 cases were genetically closely related to WPV1 last isolated in 2008 in northeast areas of DRC. On this basis, the country was classified in 2009 by the Advisory Committee on Polio Eradication as having suspected re-established transmission. That classification is substantiated by the finding that WPV isolated from the most recently identified case in Katanga province is most closely related to WPV isolated in DRC in 2007–2008. This undetected transmission demonstrates intermediate surveillance performance with deficiencies in AFP detection, investigation, specimen collection and/or transport in eastern areas of the country despite surveillance performance indicators meeting targets.

Risk Assessment:

All recent WPV cases at the southwest border of DRC are imported or closely related to imported WPV from Angola. There has not been sufficient time to indicate whether the response efforts to date will lead to interruption of transmission within 6 months of onset of the first case.

Most importantly, undetected circulation in eastern provinces for over two years of WPV originally imported from Angola in 2007 presents clear virologic evidence of weaknesses in immunization and surveillance. This serious limitation in surveillance plus substantial weaknesses in routine immunization and SIA coverage, throughout the country but primarily in the east, indicate that the Democratic Republic of the Congo has a high, increasing risk to detecting and interrupting WPV transmission by the end of 2010. Of future note, caution will be needed in interpreting the last date of WPV case onset as an indicator of the end of transmission because of the undetected limitations in surveillance quality.

Democratic Republic of the Congo has a high, increasing risk of failure to detect and interrupt WPV transmission by the end of 2010; evident weaknesses in surveillance in eastern portions of the country in spite of strong sub-national surveillance performance indicators, and weaknesses in immunization performance, are of major concern.

SUDAN

Since the WPV transmission zone in 2009-2010 was south Sudan, this assessment of risk is limited to that area of Sudan.

Epidemiologic Situation:

WPV1 of Nigerian origin was imported into Sudan via Chad in 2004 and resulted in 147 polio cases during 2004–2005. With apparent interruption of WPV1 transmission in Sudan in 2005, western Sudan experienced two WPV3 importation events in 2008.

WPV1 was isolated from a child with AFP who resided in Ethiopia near the south Sudan/Ethiopia border in a cross-border subpopulation with onset in April 2008. Subsequently, cases were detected further west in south Sudan starting in June 2008; the most recent case had onset 27 June 2009 for a total of 71 cases in south Sudan during 2009-2010. Although the apparent duration of the outbreak was ~12 months, genomic sequence analysis indicated that the most closely related WPV1 isolate prior to 2008 was obtained from a case-patient in Sudan in 2005. It was on this basis that the country/area was classified in 2009 by the Advisory Committee on Polio Eradication as having suspected re-established transmission.

Immunization Performance:

The Major Process Indicator target is <10% of missed children in each state during each SIA (GPEI #10). Immunization performance for south Sudan is weak based on SIA monitoring indicators for two rounds for the 10 provinces in south Sudan which indicate suboptimal coverage (≥10% missed children, up to 21%) in 60% of the provinces. However, SIA monitoring data for identifying missed children outside the house were not