

METHODS SUPPLEMENT

TO THE

CDC ASSESSMENT OF RISKS TO THE GLOBAL POLIO ERADICATION INITIATIVE (GPEI) STRATEGIC PLAN 2010-2012

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Stepwise Process for Immunization and Surveillance Performance Assessment

Diagrammatic version follows the text

IMPORTATION BELT/IMPORTATION COUNTRIES

Immunization Performance Assessment

The Major Process Indicator for immunization for the importation belt/importation countries refers to SIAs conducted during the entirety of 2010 (i.e., <10% missed children in 2 SIAs in 2010), and the indicator will be given a final assessment for each country at the end of the year. However, ≥ 1 polio SIA(s) were conducted, with independent monitoring, in many of these countries between 1 January and 30 September 2010. When available, the independent monitoring data from these SIAs were used to assess immunization performance for this report. The methodology used to assess immunization performance for countries with and without SIA monitoring data is detailed below.

Part A: The following refers to countries having had ≥ 2 polio SIAs as of 30 September in 2010. If the country being assessed has had one polio SIA or no polio SIAs as of 30 September in 2010, go to Parts B and C, respectively, below.

Step 1:

The country is first assessed regarding the Major Process Indicator for immunization (i.e., <10% missed children in 2 SIAs). The two most recent SIAs are considered, and the national-level independent monitoring data are used, pooled from monitored areas. For a given SIA, if both house to house and out of house monitoring were conducted, the highest percentage of missed children between the two is chosen for the assessment. If only house to house or only out of house monitoring was conducted in a given SIA, the percentage of missed children obtained is used for the assessment.

The percentage of missed children being assessed from each of the two SIAs is scored based upon the following criteria: strong (<10% missed children), intermediate (10-14% missed children), or weak ($\geq 15\%$ missed children). Once each percentage is graded, the Major Process Indicator for immunization is scored as indicated below:

If SIA #1 is	AND	If SIA#2 is	Then, the Major Process Indicator is
Strong		Strong	STRONG
Strong		Intermediate	INTERMEDIATE
Strong		Weak	INTERMEDIATE
Intermediate		Strong	INTERMEDIATE
Intermediate		Intermediate	INTERMEDIATE
Intermediate		Weak	WEAK
Weak		Strong	INTERMEDIATE
Weak		Intermediate	WEAK
Weak		Weak	WEAK

Step 2:

- a) If the country received a score of weak for the Major Process Indicator for immunization (i.e., <10% missed children in 2 SIAs), it is considered to have **WEAK IMMUNIZATION PERFORMANCE**. The analysis of supplemental indicators is conducted; however the results are not considered for the immunization performance assessment.

- b) For countries with a score of intermediate for the Major Process Indicator for immunization (i.e., <10% missed children in 2 SIAs), the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - are then considered as follows:

Routine Pol3 coverage of: $\geq 90\%$ (Strong), 75-89% (Intermediate), <75% (Weak)

National zero dose OPV coverage of: ≤ 5 (Strong), 6-9% (Intermediate), $\geq 10\%$ (Weak)

Once each of these supplemental indicators is graded, immunization performance is assessed as indicated below:

If Pol3 is	AND	Zero Dose OPV is	Then, IMMUNIZATION PERFORMANCE is
Strong		Strong	INTERMEDIATE
Strong		Intermediate	INTERMEDIATE
Strong		Weak	INTERMEDIATE
Intermediate		Strong	INTERMEDIATE
Intermediate		Intermediate	INTERMEDIATE
Intermediate		Weak	INTERMEDIATE
Weak		Strong	INTERMEDIATE
Weak		Intermediate	INTERMEDIATE
Weak		Weak	WEAK

- c) For countries with a score of strong for the Major Process Indicator for immunization (i.e., <10% missed children in 2 SIAs), the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - are then considered as follows:

Routine Pol3 coverage of: $\geq 90\%$ (Strong), 75-89% (Intermediate), <75% (Weak)

National zero dose OPV coverage of: ≤ 5 (Strong), 6-9% (Intermediate), $\geq 10\%$ (Weak)

Once each supplemental indicator is graded, immunization performance is assessed as indicated below:

If Pol3 is	AND	Zero Dose OPV is	Then, IMMUNIZATION PERFORMANCE is
Strong		Strong	STRONG
Strong		Intermediate	STRONG
Strong		Weak	STRONG
Intermediate		Strong	STRONG
Intermediate		Intermediate	STRONG
Intermediate		Weak	STRONG
Weak		Strong	STRONG
Weak		Intermediate	STRONG
Weak		Weak	INTERMEDIATE

Part B: The following refers to countries having had one polio SIA as of 30 September in 2010.

Step 1:

The country is first assessed regarding the Major Process Indicator for immunization (i.e., <10% missed children in its sole SIA). National-level independent monitoring data are used, pooled from monitored areas. For the sole SIA, if both house to house and out of house monitoring were conducted, the highest percentage of missed children between the two is chosen for the assessment. If only house to house or only out of house monitoring were conducted, the percentage of missed children obtained is used for the assessment.

The percentage of missed children being assessed from the sole SIA is scored based upon the following criteria: strong (<10% missed children), intermediate (10-14% missed children), or weak (≥15% missed children). Once the percentage is graded, the Major Process Indicator for immunization is scored as indicated below:

If the sole SIA is	Then, the Major Process Indicator is
Strong	STRONG
Intermediate	INTERMEDIATE
Weak	INTERMEDIATE

Step 2:

- a) For countries with a score of intermediate for the Major Process Indicator for immunization (i.e., <10% missed children in its sole SIA), the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - are then considered as follows:

Routine Pol3 coverage of: ≥90% (Strong), 75-89% (Intermediate), <75% (Weak)

National zero dose OPV coverage of: ≤5 (Strong), 6-9% (Intermediate), ≥10% (Weak)

Once each supplemental indicator is graded, immunization performance is assessed as indicated below:

If Pol3 is	AND	Zero Dose OPV is	Then, IMMUNIZATION PERFORMANCE is
Strong		Strong	INTERMEDIATE
Strong		Intermediate	INTERMEDIATE
Strong		Weak	INTERMEDIATE
Intermediate		Strong	INTERMEDIATE
Intermediate		Intermediate	INTERMEDIATE
Intermediate		Weak	INTERMEDIATE
Weak		Strong	INTERMEDIATE
Weak		Intermediate	INTERMEDIATE
Weak		Weak	WEAK

- b) For countries with a score of strong for the Major Process Indicator for immunization (i.e., <10% missed children in its sole SIA), the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - are then considered as follows:

Routine Pol3 coverage of: ≥90% (Strong), 75-89% (Intermediate), <75% (Weak)

National zero dose OPV coverage of: ≤5 (Strong), 6-9% (Intermediate), ≥10% (Weak)

Once each supplemental indicator is graded, immunization performance is assessed as indicated below:

If Pol3 is	AND	Zero Dose OPV is	Then, IMMUNIZATION PERFORMANCE is
Strong		Strong	STRONG
Strong		Intermediate	STRONG
Strong		Weak	STRONG
Intermediate		Strong	STRONG
Intermediate		Intermediate	STRONG
Intermediate		Weak	STRONG
Weak		Strong	STRONG
Weak		Intermediate	STRONG
Weak		Weak	INTERMEDIATE

Part C: The following refers to countries having had no polio SIAs or having had polio SIAs but without independent monitoring as of 30 September in 2010.

Step 1:

- a) For countries that fall into this category, routine Pol3 estimates and zero dose OPV dose histories are considered as follows:

Routine Pol3 coverage of: $\geq 90\%$ (Strong), 75-89% (Intermediate), $< 75\%$ (Weak)

National zero dose OPV coverage of: ≤ 5 (Strong), 6-9% (Intermediate), $\geq 10\%$ (Weak)

Once each supplemental indicator is graded, immunization performance is assessed as indicated below:

If Pol3 is	AND	Zero Dose OPV is	Then, IMMUNIZATION PERFORMANCE is
Strong		Strong	STRONG
Strong		Intermediate	INTERMEDIATE
Strong		Weak	INTERMEDIATE
Intermediate		Strong	INTERMEDIATE
Intermediate		Intermediate	INTERMEDIATE
Intermediate		Weak	WEAK
Weak		Strong	INTERMEDIATE
Weak		Intermediate	INTERMEDIATE
Weak		Weak	WEAK

Surveillance Performance Assessment

Step 1:

The country is first assessed regarding the Major Process Indicator for surveillance, (i.e., the proportion of sub-national areas with NPAFP rates > 2 within the last 12 months). NPAFP rates are only calculated for sub-national areas where the population was $\geq 100,000$. A state or province was considered to have a rate within an acceptable range if the upper 90% confidence limit was ≥ 2 . When sub-national NPAFP rates are used, they are based upon upper 90% confidence limits.

For each country, the proportion of sub-national areas with NPAFP rates >2 within the last 12 months was scored according to the following criteria: strong (100% of sub-national areas with NPAFP rates >2), intermediate (80-99% of sub-national areas with NPAFP rates >2), or weak (<80% of sub-national areas with NPAFP rates >2).

Step 2:

- a) If the country received a score of weak for the Major Process Indicator for surveillance (i.e., the proportion of sub-national areas with NPAFP rates >2), it is considered to have **WEAK SURVEILLANCE PERFORMANCE**. The analysis of supplemental indicators is conducted; however the results are not considered for the surveillance performance assessment.
- b) For countries with a score of intermediate for the Major Process Indicator for surveillance (i.e., the proportion of sub-national areas with NPAFP rates >2), the supplemental indicators - the national proportion of adequate stool specimens and genetic sequence data of WPV isolates - are then considered as follows:

Proportion of adequate stools: >80% (Strong), 65-80% (Intermediate), <65% (Weak)

Genetic sequence data: little evidence of missed chains of WPV transmission (Little), some evidence of missed chains of WPV transmission (Some)

Once each supplemental indicator is graded, surveillance performance is assessed as indicated below:

If Adequate Stools is	AND	Genetic Evidence is	Then, SURVEILLANCE PERFORMANCE is
Strong		Little	INTERMEDIATE
Strong		Some	INTERMEDIATE
Intermediate		Little	INTERMEDIATE
Intermediate		Some	INTERMEDIATE
Weak		Little	WEAK
Weak		Some	WEAK

- c) For countries with a score of strong for the Major Process Indicator for surveillance (i.e., the proportion of sub-national areas with NPAFP rates >2), the supplemental indicators - the national proportion of adequate stool specimens and genetic sequence data of WPV isolates - are then considered as follows:

Proportion of adequate stools: >80% (Strong), 65-80% (Intermediate), <65% (Weak)

Genetic sequence data: little evidence of missed chains of WPV transmission (Little), some evidence of missed chains of WPV transmission (Some)

Once each supplemental indicator is graded, surveillance performance is assessed as indicated below:

If Adequate Stools is	AND	Genetic Evidence is	Then, SURVEILLANCE PERFORMANCE is
Strong		Little	STRONG
Strong		Some	INTERMEDIATE
Intermediate		Little	INTERMEDIATE
Intermediate		Some	INTERMEDIATE
Weak		Little	WEAK
Weak		Some	WEAK

COUNTRIES WITH RE-ESTABLISHED WILD POLIOVIRUS TRANSMISSION

Angola

Immunization Performance Assessment

The Major Process Indicator for immunization for Angola refers to SIAs conducted during the entirety of 2010 (i.e., <10% missed children in all districts of Luanda, Benguela, and Kwanza Sul during each SIA in 2010). The indicator can be given a final assessment in this report due to these three provinces having had three SIAs between 1 January and 30 September 2010. However, many other provinces have had WPV cases in 2010. Angola’s immunization performance for this report is assessed as described below.

Step 1:

Angola is first assessed regarding the Major Process Indicator for immunization (i.e., <10% missed children in all districts of Luanda, Benguela, and Kwanza Sul during each SIA in 2010). The Major Process Indicator for immunization is scored as indicated below:

If the indicator is met	Then, the Major Process Indicator is
Yes	STRONG
No	WEAK

Step 2:

- a) If Angola receives a score of weak for the Major Process Indicator for immunization (i.e., <10% missed children in all districts of Luanda, Benguela, and Kwanza Sul during each SIA), it is considered to have **WEAK IMMUNIZATION PERFORMANCE**. The analysis of supplemental indicators is conducted; however the results are not considered for the immunization performance assessment.
- b) If Angola receives a score of strong for the Major Process Indicator for immunization (i.e., <10% missed children in all districts of Luanda, Benguela, and Kwanza Sul during each SIA), the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - are then considered as follows:

Routine Pol3 coverage of: $\geq 90\%$ (Strong), 75-89% (Intermediate), $< 75\%$ (Weak)

National zero dose OPV coverage of: ≤ 5 (Strong), 6-9% (Intermediate), $\geq 10\%$ (Weak)

Once each supplemental indicator is graded, immunization performance is assessed as indicated below:

If Pol3 is	AND	Zero Dose OPV is	Then, IMMUNIZATION PERFORMANCE is
Strong		Strong	STRONG
Strong		Intermediate	STRONG
Strong		Weak	STRONG
Intermediate		Strong	STRONG
Intermediate		Intermediate	STRONG
Intermediate		Weak	STRONG
Weak		Strong	STRONG
Weak		Intermediate	STRONG
Weak		Weak	INTERMEDIATE

Surveillance Performance Assessment

The surveillance performance assessment is conducted as described for the importation belt/importation countries.

Chad

Immunization Performance Assessment

The Major Process Indicator for immunization for Chad refers to SIAs conducted in the second half of 2010 (i.e., <10% missed children in greater N'Djamena and in the southern and eastern WPV transmission zones during each SIA in the second half of 2010) and will be given a final assessment at the end of 2010. In the interim, since 1 July 2010 a single round of SIAs has been conducted in each of Chari Baguirmi (greater N'Djamena), Logone Occidental (southern WPV transmission zone) and Logone Orientale (southern WPV transmission zone) with independent monitoring. These geographic areas are included in the Major Process Indicator stated above. The independent monitoring data from these SIAs were used to assess Chad's immunization performance for this report as described below.

Step 1:

Chad is first assessed regarding the Major Process Indicator for immunization (i.e., <10% missed children in greater N'Djamena and in the southern and eastern WPV transmission zones during each SIA in the second half of 2010). The Major Process Indicator for immunization is scored as indicated below:

If the indicator is met	Then, the Major Process Indicator is
Yes	STRONG
No	WEAK

Step 2:

- a) If Chad receives a score of weak for the Major Process Indicator for immunization (i.e., <10% missed children in greater N'Djamena and in the southern and eastern WPV transmission zones during each SIA in the second half of 2010), it is considered to have **WEAK IMMUNIZATION PERFORMANCE**. The analysis of supplemental indicators is conducted; however the results are not considered for the immunization performance assessment.
- b) If Chad receives a score of strong for the Major Process Indicator for immunization (i.e., <10% missed children in greater N'Djamena and in the southern and eastern WPV transmission zones during each SIA in the second half of 2010), the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - are then considered as follows:

Routine Pol3 coverage of: $\geq 90\%$ (Strong), 75-89% (Intermediate), $< 75\%$ (Weak)

National zero dose OPV coverage of: ≤ 5 (Strong), 6-9% (Intermediate), $\geq 10\%$ (Weak)

Once each supplemental indicator is graded, immunization performance is assessed as indicated below:

If Pol3 is	AND	Zero Dose OPV is	Then, IMMUNIZATION PERFORMANCE is
Strong		Strong	STRONG
Strong		Intermediate	STRONG
Strong		Weak	STRONG
Intermediate		Strong	STRONG
Intermediate		Intermediate	STRONG
Intermediate		Weak	STRONG
Weak		Strong	STRONG
Weak		Intermediate	STRONG
Weak		Weak	INTERMEDIATE

Surveillance Performance Assessment

The surveillance performance assessment is conducted as described for the importation belt/importation countries.

Democratic Republic of the Congo (DRC)

Immunization Performance Assessment

The Major Process Indicator for immunization for DRC refers to SIAs conducted during the entirety of 2010 [i.e., <10% missed children in each SIA in Orientale and North and South Kivu (and all provincial capitals)]. The indicator can be given a final assessment in this report based upon results obtained during a SIA conducted in both North and South Kivu in September 2010 which included independent monitoring. The independent monitoring data from these SIAs were used to assess DRC's immunization performance for this report as described below.

Step 1:

DRC is first assessed regarding the Major Process Indicator for immunization [i.e., <10% missed children in each SIA in Orientale and North and South Kivu (and all provincial capitals)]. The Major Process Indicator for immunization is scored as indicated below:

If the indicator is met	Then, the Major Process Indicator is
Yes	STRONG
No	WEAK

Step 2:

- a) If DRC receives a score of weak for the Major Process Indicator for immunization [i.e., <10% missed children in each SIA in Orientale and North and South Kivu (and all provincial capitals)], it is considered to have **WEAK IMMUNIZATION PERFORMANCE**. The analysis of supplemental indicators is conducted; however the results are not considered for the immunization performance assessment.
- b) If DRC receives a score of strong for the Major Process Indicator for immunization [i.e., <10% missed children in each SIA in Orientale and North and South Kivu (and all provincial capitals)], the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - are then considered as follows:

Routine Pol3 coverage of: $\geq 90\%$ (Strong), 75-89% (Intermediate), $< 75\%$ (Weak)

National zero dose OPV coverage of: ≤ 5 (Strong), 6-9% (Intermediate), $\geq 10\%$ (Weak)

Once each supplemental indicator is graded, immunization performance is assessed as indicated below:

If Pol3 is	AND	Zero Dose OPV is	Then, IMMUNIZATION PERFORMANCE is
Strong		Strong	STRONG
Strong		Intermediate	STRONG
Strong		Weak	STRONG
Intermediate		Strong	STRONG
Intermediate		Intermediate	STRONG
Intermediate		Weak	STRONG
Weak		Strong	STRONG
Weak		Intermediate	STRONG
Weak		Weak	INTERMEDIATE

Surveillance Performance Assessment

Step 1:

DRC is first assessed regarding the Major Process Indicator for surveillance, (i.e., the proportion of sub-national areas with NPAFP rates > 2 within the last 12 months). NPAFP rates are only calculated for sub-national areas where the population was $\geq 100,000$. Because there is a specific Major Process Indicator for DRC that targets NPAFP > 2 , assessment is based on the reported values, not upon upper 90% confidence limits.

The proportion of sub-national areas with NPAFP rates > 2 within the last 12 months was scored according to the following criteria: strong (100% of sub-national areas with NPAFP rates > 2), intermediate (80-99% of sub-national areas with NPAFP rates > 2), or weak ($< 80\%$ of sub-national areas with NPAFP rates > 2).

Step 2:

- a) If DRC receives a score of weak for the Major Process Indicator for surveillance (i.e., the proportion of sub-national areas with NPAFP rates > 2), it is considered to have **WEAK SURVEILLANCE PERFORMANCE**. The analysis of supplemental indicators is conducted; however the results are not considered for the surveillance performance assessment.
- b) If DRC receives a score of intermediate for the Major Process Indicator for surveillance (i.e., the proportion of sub-national areas with NPAFP rates > 2), the supplemental indicators - the proportion of provinces with $> 80\%$ adequate stool specimens and genetic sequence data of WPV isolates - are then considered as follows:

Proportion of provinces with $> 80\%$ adequate stool specimens: $> 80\%$ (Strong), $\leq 80\%$ (Weak)

Genetic sequence data: little evidence of missed chains of WPV transmission (Little), some evidence of missed chains of WPV transmission (Some)

Once each supplemental indicator is graded, surveillance performance is assessed as indicated below:

If Adequate Stools is	AND	Genetic Evidence is	Then, SURVEILLANCE PERFORMANCE is
Strong		Little	INTERMEDIATE
Strong		Some	INTERMEDIATE
Weak		Little	WEAK
Weak		Some	WEAK

- c) IF DRC receives a score of strong for the Major Process Indicator for surveillance (i.e., the proportion of sub-national areas with NPAFP rates >2), the supplemental indicators - the proportion of provinces with >80% adequate stool specimens and genetic sequence data of WPV isolates - are then considered as follows:

Proportion of provinces with >80% adequate stool specimens: >80% (Strong), ≤80% (Weak)

Genetic sequence data: little evidence of missed chains of WPV transmission (Little), some evidence of missed chains of WPV transmission (Some)

Once each supplemental indicator is graded, surveillance performance is assessed as indicated below:

If Adequate Stools is	AND	Genetic Evidence is	Then, SURVEILLANCE PERFORMANCE is
Strong		Little	STRONG
Strong		Some	INTERMEDIATE
Weak		Some	WEAK
Weak		Little	WEAK

Sudan

Immunization Performance Assessment

The Major Process Indicator for immunization for Sudan refers to SIAs conducted during the entirety of 2010 (i.e., <10% missed children in each state during each SIA in 2010). The indicator can be given a final assessment in this report based upon independent monitoring data collected during SIAs conducted in several states between 1 January and 30 June 2010. No SIAs were conducted in Sudan between 1 July and 30 September 2010. Sudan's immunization performance for this report is assessed as described below.

Step 1:

Sudan is first assessed regarding the Major Process Indicator for immunization (i.e., <10% missed children in each state during each SIA in 2010). The Major Process Indicator for immunization is scored as indicated below:

If the indicator is met	Then, the Major Process Indicator is
Yes	STRONG
No	WEAK

Step 2:

- a) If Sudan receives a score of weak for the Major Process Indicator for immunization (i.e. <10% missed children in each state during each SIA in 2010); it is considered to have **WEAK IMMUNIZATION PERFORMANCE**. The analysis of supplemental indicators is conducted; however the results are not considered for the immunization performance assessment.
- b) If Sudan receives a score of strong for the Major Process Indicator for immunization (i.e. <10% missed children in each state during each SIA in 2010), the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - are then considered as follows:

Routine Pol3 coverage of: $\geq 90\%$ (Strong), 75-89% (Intermediate), $< 75\%$ (Weak)

National zero dose OPV coverage of: ≤ 5 (Strong), 6-9% (Intermediate), $\geq 10\%$ (Weak)

Once each supplemental indicator is graded, immunization performance is assessed as indicated below:

If Pol3 is	AND	Zero Dose OPV is	Then, IMMUNIZATION PERFORMANCE is
Strong		Strong	STRONG
Strong		Intermediate	STRONG
Strong		Weak	STRONG
Intermediate		Strong	STRONG
Intermediate		Intermediate	STRONG
Intermediate		Weak	STRONG
Weak		Strong	STRONG
Weak		Intermediate	STRONG
Weak		Weak	INTERMEDIATE

Surveillance Performance Assessment

The surveillance performance assessment is conducted as described above for the Democratic Republic of the Congo. Because there is a specific Major Process Indicator for south Sudan that targets NPAFP>2, assessment is based on the reported values, not upon upper 90% confidence limits.

COUNTRIES WITH ENDEMIC WPV TRANSMISSION

Afghanistan

Immunization Performance Assessment

Between 1 January and 30 September 2010, Afghanistan conducted up to six polio SIAs with independent monitoring in the geographic areas referred to in the Major Process Indicator for immunization (i.e., the 13 conflict-affected districts with persistent transmission in the southern region). While the Major Process indicator refers to SIAs conducted during the entirety of 2010, available data from the six SIAs conducted thus far were used to score the indicator.

Step 1:

Afghanistan is first assessed regarding the Major Process Indicator for immunization (i.e. <10% missed children during at least 4 SIAs in each of the 13 conflict-affected districts with persistent transmission in the southern region in 2010). The Major Process Indicator for immunization is scored as indicated below:

If the indicator is met	Then, the Major Process Indicator is
Yes	STRONG
No	WEAK

Step 2:

- If Afghanistan receives a score of weak for the Major Process Indicator for immunization (i.e. <10% missed children during at least 4 SIAs in each of the 13 conflict-affected districts with persistent transmission in the southern region in 2010), it is considered to have **WEAK IMMUNIZATION PERFORMANCE**. The analysis of supplemental indicators is conducted; however the results are not considered for the immunization performance assessment.
- If Afghanistan receives a score of strong for the Major Process Indicator for immunization (i.e. <10% missed children during at least 4 SIAs in each of the 13 conflict-affected districts with persistent transmission in the southern region in 2010), the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - are then considered as follows:

Routine Pol3 coverage of: $\geq 90\%$ (Strong), 75-89% (Intermediate), $< 75\%$ (Weak)

National zero dose OPV coverage of: ≤ 5 (Strong), 6-9% (Intermediate), $\geq 10\%$ (Weak)

Once each supplemental indicator is graded, immunization performance is assessed as indicated below:

If Pol3 is	AND	Zero Dose OPV is	Then, IMMUNIZATION PERFORMANCE is
Strong		Strong	STRONG
Strong		Intermediate	STRONG
Strong		Weak	STRONG
Intermediate		Strong	STRONG
Intermediate		Intermediate	STRONG
Intermediate		Weak	STRONG
Weak		Strong	STRONG
Weak		Intermediate	STRONG
Weak		Weak	INTERMEDIATE

Surveillance Performance Assessment

The surveillance performance assessment was conducted as described for the importation belt/importation countries.

India

Immunization Performance Assessment

The Major Process Indicator for 2010 for India is >95% population immunity to type 1 polio sustained in the persistent transmission areas of western Uttar Pradesh and achieved in the persistent transmission areas of central Bihar. Epidemiologic modeling has been done to estimate this; however the best estimate of target population immunity is through serosurveys. Surveys were conducted in August 2010, and preliminary analysis was presented at the November 2010 meeting of the India Expert Advisory Group. The immunization performance assessment was conducted as described below. Summary SIA independent monitoring data were also available from the two most recent rounds conducted in 2010,

Step 1:

India is first assessed regarding the Major Process Indicator for immunization (i.e., >95% population immunity to type 1 polio sustained in the persistent transmission areas of western Uttar Pradesh and achieved in the persistent transmission areas of central Bihar). The Major Process Indicator for immunization is scored as indicated below:

If the indicator is met	Then, the Major Process Indicator is
Yes	STRONG
No	WEAK

Step 2:

- a) If India receives a score of weak for the Major Process Indicator for immunization [i.e., >95% population immunity to type 1 polio sustained in the persistent transmission areas of western Uttar Pradesh and achieved in the persistent transmission areas of central Bihar], it is considered to have **WEAK IMMUNIZATION PERFORMANCE**. The analysis of supplemental indicators is conducted; however the results are not considered for the immunization performance assessment.
- b) If India receives a score of strong for the Major Process Indicator for immunization (i.e., >95% population immunity to type 1 polio sustained in the persistent transmission areas of western Uttar Pradesh and achieved in the persistent transmission areas of central Bihar), it is considered to have **STRONG IMMUNIZATION PERFORMANCE**. The analysis of supplemental indicators is conducted; however the results are not considered for the immunization performance assessment, given the focus on transmission in Bihar and Uttar Pradesh.

Surveillance Performance Assessment

The surveillance performance assessment was conducted as described for the importation belt/importation countries.

Nigeria

Immunization Performance Assessment

The Major Process Indicator for Nigeria for 2010 is <10% zero-dose children (per NPAFP data) in each of the 12 high-risk states (including the 8 persistent transmission states).

Step 1:

Nigeria is first assessed regarding the Major Process Indicator for immunization [i.e., <10% zero-dose children (per NPAFP data) in each of the 12 high-risk states (including the 8 persistent transmission states)]. The Major Process Indicator for immunization is scored as indicated below:

If the indicator is met	Then, the Major Process Indicator is
Yes	STRONG
No	WEAK

Step 2:

- a) If Nigeria receives a score of weak for the Major Process Indicator for immunization [i.e., <10% zero-dose children (per NPAFP data) in each of the 12 high-risk states (including the 8 persistent transmission states)], it is considered to have **WEAK IMMUNIZATION PERFORMANCE**. The analysis of supplemental indicators is conducted; however the results are not considered for the immunization performance assessment.
- b) If Nigeria receives a score of strong for the Major Process Indicator for immunization [i.e., <10% zero-dose children (per NPAFP data) in each of the 12 high-risk states (including the 8 persistent transmission states)], it is considered to have **STRONG IMMUNIZATION PERFORMANCE**. The analysis of supplemental indicators is not conducted.

Surveillance Performance Assessment

The surveillance performance assessment was conducted as described for the importation belt/importation countries.

Pakistan

Immunization Performance Assessment

The Major Process Indicator for immunization for Pakistan refers to SIAs conducted during the entirety of 2010 (i.e., <15% missed children during at least 8 SIAs in every district of the Quetta area and the persistent transmission districts and agencies of NWFP and FATA and <10% missed children during at least 4 SIAs in every town in Karachi) and will be given a final assessment at the end of 2010. Seven polio SIAs, with independent monitoring, were conducted in the Quetta area and the persistent transmission districts and agencies of NWFP and FATA and in Karachi between 1 January and 30 September 2010. The independent monitoring data from these SIAs were used to assess Pakistan's immunization performance for this report as described below.

Step 1:

Pakistan is first assessed regarding the Major Process Indicator for immunization (i.e., <15% missed children during at least 8 SIAs in every district of the Quetta area and the persistent transmission districts and agencies

of NWFP and FATA and <10% missed children during at least 4 SIAs in every town in Karachi). The Major Process Indicator for immunization is scored as indicated below:

If Quetta/NWFP/FATA indicator met	If Karachi indicator met	Then, the Major Process Indicator is
Yes	Yes	STRONG
No	Yes	WEAK
Yes	No	WEAK
No	No	WEAK

Step 2:

- a) If Pakistan receives a score of weak for the Major Process Indicator for immunization (i.e. <10% missed children during at least 4 SIAs in each of the 13 conflict-affected districts with persistent transmission in the southern region in 2010), it is considered to have **WEAK IMMUNIZATION PERFORMANCE**. The analysis of supplemental indicators is conducted; however the results are not considered for the immunization performance assessment.
- b) If Pakistan receives a score of strong for the Major Process Indicator for immunization (i.e. <10% missed children during at least 4 SIAs in each of the 13 conflict-affected districts with persistent transmission in the southern region in 2010), the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - are then considered as follows:

Routine Pol3 coverage of: $\geq 90\%$ (Strong), 75-89% (Intermediate), <75% (Weak)

National zero dose OPV coverage of: ≤ 5 (Strong), 6-9% (Intermediate), $\geq 10\%$ (Weak)

Once each supplemental indicator is graded, immunization performance is assessed as indicated below:

If Pol3 is	AND	Zero Dose OPV is	Then, IMMUNIZATION PERFORMANCE is
Strong		Strong	STRONG
Strong		Intermediate	STRONG
Strong		Weak	STRONG
Intermediate		Strong	STRONG
Intermediate		Intermediate	STRONG
Intermediate		Weak	STRONG
Weak		Strong	STRONG
Weak		Intermediate	STRONG
Weak		Weak	INTERMEDIATE

Surveillance Performance Assessment

The surveillance performance assessment was conducted as described for the importation belt/importation countries.

DIAGRAMMATIC VERSION

