

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

Unless otherwise stated, analyses in this report were based upon data from the period 9 March 2010 – 8 March 2011; all AFP cases considered had an onset on or after 9 March 2010 through 8 March 2011.

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 2011 (i.e., <10% missed children in 2 SIAs by the end of 2011). The indicator will be monitored during the course of the year and will be given a final assessment for each relevant country at the end of 2011. In the interim, immunization performance for these countries was assessed for this report using independent monitoring data, when available, from SIAs conducted over the previous 12 months (9 March 2010 – 8 March 2011). 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 with available monitoring data during the previous 12 months (9 March 2010 – 8 March 2011). If the country being assessed had one polio SIA, no polio SIAs, or had polio SIAs with no available monitoring data in the specified period, please see Parts B and C below.

Step 1:

The country was first assessed using national-level independent monitoring data, pooled from monitored areas, from the two most recent SIAs conducted during the previous 12 months (9 March 2010 – 8 March 2011). 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 was used for this assessment. If only house to house or only out of house monitoring was conducted in a given SIA, the percentage of missed children obtained was used for the assessment.

The percentage of missed children from each of the two SIAs being assessed was scored based upon the following criteria: **strong (<10% missed children), intermediate ($\geq 10-14\%$ missed children), or weak ($\geq 15\%$ missed children).** Once each percentage was graded, the 12-month immunization indicator was scored as indicated below:

If SIA #1 was	AND	If SIA#2 was	Then, the 12-month immunization indicator was
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 12-month immunization indicator, it was considered to have **WEAK IMMUNIZATION PERFORMANCE**. The analysis of supplemental indicators was conducted; however, the results were not considered for the immunization performance assessment.
- b) For countries with a score of **intermediate** for the 12-month immunization indicator, the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - were then considered as follows:

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

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

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

If Pol3 was	AND	Zero Dose OPV was	Then, IMMUNIZATION PERFORMANCE was
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 12-month immunization indicator, the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - were then considered as follows:

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

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

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

If Pol3 was	AND	Zero Dose OPV was	Then, IMMUNIZATION PERFORMANCE was
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 with available monitoring data in the previous 12 months (9 March 2010 – 8 March 2011).

Step 1:

The country was first assessed using national-level independent monitoring data, pooled from monitored areas, from the sole SIA conducted during the previous 12 months (9 March 2010 - 8 March 2011). 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 was used for this assessment. If only house to house or only out of house monitoring was conducted in a given SIA, the percentage of missed children obtained was used for the assessment.

The percentage of missed children being assessed from the sole SIA was scored based upon the following criteria: **strong (<10% missed children), intermediate (10-14% missed children), or weak (≥15% missed children)**. Once the percentage was graded, the 12-month immunization indicator was scored as indicated below:

If the sole SIA was	Then, the 12-month immunization indicator was
Strong	STRONG
Intermediate	INTERMEDIATE
Weak	INTERMEDIATE

Step 2:

- a) For countries with a score of **intermediate** for the 12-month immunization indicator, the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - were 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 was graded, immunization performance was assessed as indicated below:

If Pol3 was	AND	Zero Dose OPV was	Then, IMMUNIZATION PERFORMANCE was
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 12-month immunization indicator, the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - were 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 was graded, immunization performance was assessed as indicated below:

If Pol3 was	AND	Zero Dose OPV was	Then, IMMUNIZATION PERFORMANCE was
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 with no independent monitoring data in the previous 12 months (9 March 2010 – 8 March 2011).

Step 1:

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

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

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

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

If Pol3 was	AND	Zero Dose OPV was	Then, IMMUNIZATION PERFORMANCE was
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 was first assessed regarding one of the Major Process Indicators for surveillance (i.e., the proportion of sub-national areas with NPAFP rates ≥ 2) within the previous 12 months, 9 March 2010 – 8 March 2011. NPAFP rates were only calculated for sub-national areas where the population was $\geq 100,000$. When sub-national NPAFP rates were used, they were based upon upper 90% confidence limits. A state or province was considered to have a rate within an acceptable range if the upper 90% confidence limit was ≥ 2 .

For each country, the proportion of sub-national areas with NPAFP rates ≥ 2 within the previous 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 sub-national NPAFP rate analysis, it was considered to have **WEAK SURVEILLANCE PERFORMANCE**. The analysis of sub-national specimen adequacy and the supplemental indicator was conducted; however, the results were not considered for the surveillance performance assessment.
- b) For countries with a score of **intermediate** for the NPAFP rate analysis, the proportion of sub-national areas that achieved $\geq 80\%$ adequate specimens and genetic sequence data of WPV isolates were considered as follows:

Proportion of sub-national areas that achieved $\geq 80\%$ adequate specimens within the previous 12 months was scored according to the following criteria: **strong (100% of sub-national areas with $\geq 80\%$ adequate specimens), intermediate (80-99% of sub-national areas with $\geq 80\%$ adequate specimens), or weak (<80% of sub-national areas with $\geq 80\%$ adequate specimens)**. Because the denominators of the sub-national adequate specimen proportion calculations were sometimes small, an area was considered to have achieved the target proportion if the upper 90% confidence interval for the area's proportion contained 80%.

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

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

If Adequacy was	AND	Genetic Evidence was	Then, SURVEILLANCE PERFORMANCE was
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 NPAFP rate analysis, the proportion of sub-national areas that achieved $\geq 80\%$ adequate specimens and genetic sequence data of WPV isolates were considered as follows:

Proportion of sub-national areas that achieved $\geq 80\%$ adequate specimens within the previous 12 months was scored according to the following criteria: **strong (100% of sub-national areas with $\geq 80\%$ adequate specimens), intermediate (80-99% of sub-national areas with $\geq 80\%$ adequate specimens), or weak (<80% of sub-national areas with $\geq 80\%$ adequate specimens)**. Because the denominators of the sub-national adequate specimen proportion calculations were sometimes small, an area was considered to have achieved the target proportion if the upper 90% confidence interval for the area's proportion contained 80%.

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 was graded, surveillance performance was assessed as indicated below:

If Adequacy was	AND	Genetic Evidence was	Then, SURVEILLANCE PERFORMANCE was
Strong		Little	STRONG

Strong
Intermediate
Intermediate
Weak
Weak

Some
Little
Some
Little
Some

INTERMEDIATE
INTERMEDIATE
INTERMEDIATE
WEAK
WEAK

COUNTRIES WITH RE-ESTABLISHED WILD POLIOVIRUS TRANSMISSION

Angola

Immunization Performance Assessment

The Major Process Indicator for immunization for Angola for 2011 refers to SIAs conducted during the entirety of the year (i.e., <10% missed children in all districts of Luanda, Benguela, and Kwanza Sul during each SIA in 2011). The indicator will be monitored during the course of the year as SIA data become available and will be given a final assessment at the end of 2011. In the interim and since other provinces in Angola have had WPV cases in 2010/2011, the assessment of Angola’s immunization performance for this report took into consideration the SIA performance for the previous 12 months (9 March 2010 – 8 March 2011) in all of the country’s provinces where SIAs were conducted in addition to performance in the districts of the provinces of Luanda, Benguela, and Kwanza Sul.

Step 1:

Angola was first assessed using district-level independent monitoring data from all SIAs conducted in Luanda, Benguela, and Kwanza Sul during the previous 12 months (9 March 2010 - 8 March 2011). For a given SIA, if both house to house and out of house monitoring were conducted in the district, the highest percentage of missed children between the two was used for this assessment. If only house to house or only out of house monitoring was conducted in a given SIA, the percentage of missed children obtained was used for the assessment. If a district did not conduct an SIA in the 12-month time frame or monitoring data were unavailable, it could not be included in the assessment described below.

For each district in the three aforementioned provinces, the performance of each SIA conducted in the previous 12 months was scored according to the percentage of missed children as follows: **strong (<10% missed children), intermediate (10-14% missed children), or weak (≥15% missed children)**. If a district had ≥1 weak SIAs, the district was labeled as a “weak district”. The number of “weak districts” was tallied and divided by the total number of districts being analyzed from the three aforementioned provinces. If all of the SIAs conducted in a district had <10% missed children, the district was labeled as a “strong district”. The number of “strong districts” was tallied and divided by the total number of districts being analyzed from the three aforementioned provinces.

The percentage of “weak districts” and “strong districts” was considered to obtain the 12-month district immunization indicator.

If the percentage of “weak/strong districts” was	Then the 12-month district indicator was
If 100% of districts were “strong districts”	STRONG
If >0 - ≤50% districts were “weak districts”	INTERMEDIATE
If >50% of districts were “weak districts”	WEAK

Step 2:

Angola was next assessed using province-level independent monitoring data from all SIAs conducted in all provinces (except Luanda, Benguela, and Kwanza Sul) during the previous 12 months (9 March 2010 - 8 March 2011). For a given SIA, if both house to house and out of house monitoring were conducted in the province, the highest percentage of missed children between the two was used for this assessment. If only house to house or only out of house monitoring was conducted in a given SIA, the percentage of missed children obtained was used for the assessment. If a province did not conduct an SIA in the 12-month time frame or monitoring data were unavailable, it could not be included in the assessment described below.

For each province being analyzed, the performance of each SIA conducted in the last 12 months rolling was scored according to the percentage of missed children as follows: **strong (<10% missed children),**

intermediate (10-14% missed children), or weak ($\geq 15\%$ missed children). If a province had ≥ 1 weak SIAs, the province was labeled as a “weak province”. The number of “weak provinces” was tallied and divided by the total number of provinces included in the analysis. If all of the SIAs conducted in a province had $< 10\%$ missed children, the province was labeled as a “strong province”. The number of “strong provinces” was tallied and divided by the total number of provinces included in the analysis.

The percentage of “weak provinces” and “strong provinces” was considered to obtain the 12-month provincial immunization indicator.

<p>If the percentage of “weak/strong provinces” was If 100% of provinces were “strong provinces” If $> 0 - \leq 50\%$ provinces were “weak provinces” If $> 50\%$ of provinces were “weak provinces”</p>	<p>Then the 12-month provincial indicator was STRONG INTERMEDIATE WEAK</p>
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Step 3:

The 12-month district and provincial immunization indicators were combined as follows to obtain the 12-month immunization indicator.

If district was	AND	If province was	Then, the 12-month immunization indicator was
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 4:

- a) If Angola received a score of **weak** for the 12-month immunization indicator, it was considered to have **WEAK IMMUNIZATION PERFORMANCE**. The analysis of supplemental indicators was conducted; however, the results were not considered for the immunization performance assessment.
- b) If Angola received a score of **intermediate** for the 12-month immunization indicator, the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - were then considered as follows:

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

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

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

If Pol3 was	AND	Zero Dose OPV was	Then, IMMUNIZATION PERFORMANCE was
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) If Angola received a score of **strong** for the 12-month immunization indicator, the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - were then considered as follows:

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

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

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

If Pol3 was	AND	Zero Dose OPV was	Then, IMMUNIZATION PERFORMANCE was
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.

Chad

Immunization Performance Assessment

The Major Process Indicator for immunization for Chad for 2011 refers to SIAs conducted during the entirety of the year (i.e., $< 10\%$ missed children in greater N'Djamena and in the southern and eastern WPV transmission zones during each SIA in 2011). The indicator will be monitored during the course of the year as SIA data become available and will be given a final assessment at the end of 2011. In the interim and since other provinces in Chad have had WPV cases in 2010/2011, the assessment of Chad's immunization performance for this report took into consideration the SIA performance for the previous 12 months (9 March 2010 – 8 March 2011) in all of the country's provinces where SIAs were conducted in addition to performance in the districts of the provinces of N'Djamena and the southern and eastern WPV transmission zones.

Step 1:

Chad was first assessed using district-level independent monitoring data from all SIAs conducted in the provinces in N'Djamena and in the southern and eastern WPV transmission zones during the previous 12 months (9 March 2010 - 8 March 2011). For a given SIA, if both house to house and out of house monitoring were conducted in the district, the highest percentage of missed children between the two was used for this assessment. If only house to house or only out of house monitoring was conducted in a given SIA, the

percentage of missed children obtained was used for the assessment. If a district did not conduct an SIA in the 12-month time frame or monitoring data were unavailable, it could not be included in the assessment described below.

For each district in the aforementioned provinces, the performance of each SIA conducted in the previous 12 months was scored according to the percentage of missed children as follows: **strong (<10% missed children), intermediate (10-14% missed children), or weak (\geq 15% missed children)**. If a district had \geq 1 weak SIAs, the district was labeled as a “weak district”. The number of “weak districts” was tallied and divided by the total number of districts included in the analysis. If all of the SIAs conducted in a district had <10% missed children, the district was labeled as a “strong district”. The number of “strong districts” was tallied and divided by the total number of districts being analyzed from the three aforementioned provinces.

The percentage of “weak districts” and “strong districts” was considered to obtain the 12-month district immunization indicator.

If the percentage of “weak/strong districts” was	Then, the 12-month district indicator was
If 100% of districts were “strong districts”	STRONG
If >0 - \leq50% districts were “weak districts”	INTERMEDIATE
If >50% of districts were “weak districts”	WEAK

Step 2:

Chad was next assessed using province-level independent monitoring data from all SIAs conducted in all provinces (except the provinces in N’Djamena and in the southern and eastern WPV transmission zones) during the previous 12 months, 9 March 2010 - 8 March 2011. For a given SIA, if both house to house and out of house monitoring were conducted in the province, the highest percentage of missed children between the two was used for this assessment. If only house to house or only out of house monitoring was conducted in a given SIA, the percentage of missed children obtained was used for the assessment. If a province did not conduct an SIA in the 12-month time frame or monitoring data were unavailable, it could not be included in the assessment described below.

For each province being analyzed, the performance of each SIA conducted in the previous 12 months was scored according to the percentage of missed children as follows: **strong (<10% missed children), intermediate (10-14% missed children), or weak (\geq 15% missed children)**. If a province had \geq 1 weak SIAs, the province was labeled as a “weak province”. The number of “weak provinces” was tallied and divided by the total number of provinces included in the analysis. If all of the SIAs conducted in a province had <10% missed children, the province was labeled as a “strong province”. The number of “strong provinces” was tallied and divided by the total number of provinces included in the analysis.

The percentage of “weak provinces” and “strong provinces” was considered to obtain the 12-month provincial immunization indicator.

If the percentage of “weak/strong provinces” was	Then, the 12-month provincial indicator was
If 100% of provinces were “strong provinces”	STRONG
If >0 - \leq50% provinces were “weak provinces”	INTERMEDIATE
If >50% of provinces were “weak provinces”	WEAK

Step 3:

The 12-month district and provincial immunization indicators were combined as follows to obtain the 12-month immunization indicator.

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If district was	AND	If province was	Then, the 12-month immunization indicator was
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 4:

- a) If Chad received a score of **weak** for the 12-month immunization indicator, it was considered to have **WEAK IMMUNIZATION PERFORMANCE**. The analysis of supplemental indicators was conducted; however, the results were not considered for the immunization performance assessment.
- b) If Chad received a score of **intermediate** for the 12-month immunization indicator, the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - were then considered as follows:

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

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

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

If Pol3 was	AND	Zero Dose OPV was	Then, IMMUNIZATION PERFORMANCE was
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) If Chad received a score of **strong** for the 12-month immunization indicator, the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - were then considered as follows:

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

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

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

If Pol3 was	AND	Zero Dose OPV was	Then, IMMUNIZATION PERFORMANCE was
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.

Democratic Republic of the Congo (DRC)

Immunization Performance Assessment

The Major Process Indicator for immunization for DRC for 2011 refers to SIAs conducted during the entirety of 2011 [i.e., <10% missed children in each SIA in Orientale and North and South Kivu (and all provincial capitals)]. The indicator will be monitored during the course of the year as SIA data become available and will be given a final assessment at the end of 2011. In the interim and since other provinces in DRC have had WPV cases in 2010/2011, the assessment of DRC’s immunization performance for this report takes into consideration the SIA performance for the previous 12 months rolling (9 March 2010 – 8 March 2011) in all of the country’s provinces where SIAs were conducted in addition to performance in the districts of Orientale and North and South Kivu provinces.

Step 1:

DRC was first assessed using district-level independent monitoring data from all SIAs conducted in Orientale and North and South Kivu provinces during the previous 12 months (9 March 2010 – 8 March 2011). For a given SIA, if both house to house and out of house monitoring were conducted in the district, the highest percentage of missed children between the two was used for this assessment. If only house to house or only out of house monitoring was conducted in a given SIA, the percentage of missed children obtained was used for the assessment. If a district did not conduct an SIA in the 12-month time frame or monitoring data were unavailable, it could not be included in the assessment described below.

For each district in the three aforementioned provinces, the performance of each SIA conducted in the previous 12 months was scored according to the percentage of missed children as follows: **strong (<10% missed children), intermediate (10-14% missed children), or weak (≥15% missed children)**. If a district had ≥1 weak SIAs, the district was labeled as a “weak district”. The number of “weak districts” was tallied and divided by the total number of districts being analyzed from the three aforementioned provinces. If all of the SIAs conducted in a district had <10% missed children, the district was labeled as a “strong district”. The number of “strong districts” was tallied and divided by the total number of districts being analyzed from the three aforementioned provinces.

The percentage of “weak districts” and “strong districts” was considered to obtain the 12-month district immunization indicator.

If the percentage of “weak/strong districts” was If 100% of districts were “strong districts”	Then, the 12-month district indicator was STRONG
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If >0 - ≤50% districts were “weak districts”	INTERMEDIATE
If >50% of districts were “weak districts”	WEAK

Step 2:

DRC was next assessed using province-level independent monitoring data from all SIAs conducted in all provinces (except Orientale and North and South Kivu provinces) during the previous 12 months (9 March 2010 - 8 March 2011). For a given SIA, if both house to house and out of house monitoring were conducted in the province, the highest percentage of missed children between the two was used for this assessment. If only house to house or only out of house monitoring was conducted in a given SIA, the percentage of missed children obtained was used for the assessment. If a province did not conduct an SIA in the 12-month time frame or monitoring data were unavailable, it could not be included in the assessment described below.

For each province being analyzed, the performance of each SIA conducted in the previous 12 months was scored according to the percentage of missed children as follows: **strong (<10% missed children), intermediate (10-14% missed children), or weak (≥15% missed children)**. If a province had ≥1 weak SIAs, the province was labeled as a “weak province”. The number of “weak provinces” was tallied and divided by the total number of provinces included in the analysis. If all of the SIAs conducted in a province had <10% missed children, the province was labeled as a “strong province”. The number of “strong provinces” was tallied and divided by the total number of provinces included in the analysis.

The percentage of “weak provinces” and “strong provinces” was considered to obtain the provincial immunization indicator.

If the percentage of “weak/strong provinces” was	Then, the 12-month provincial indicator was
If 100% of provinces were “strong provinces”	STRONG
If >0 - ≤50% provinces were “weak provinces”	INTERMEDIATE
If >50% of provinces were “weak provinces”	WEAK

Step 3:

The 12-month district and provincial immunization indicators were combined as follows to obtain the 12-month immunization indicator.

If SIA performance #1 was	AND If SIA performance #2 was	Then, the 12-month immunization indicator was
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 4:

- a) If DRC received a score of **weak** for the 12-month immunization indicator, it was considered to have **WEAK IMMUNIZATION PERFORMANCE**. The analysis of supplemental indicators was conducted; however, the results were not considered for the immunization performance assessment.

- b) If DRC received a score of **intermediate** for the 12-month immunization indicator, the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - were then considered as follows:

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

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

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

If Pol3 was	AND	Zero Dose OPV was	Then, IMMUNIZATION PERFORMANCE was
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) If DRC received a score of **strong** for the 12-month immunization indicator, the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - were then considered as follows:

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

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

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

If Pol3 was	AND	Zero Dose OPV was	Then, IMMUNIZATION PERFORMANCE was
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.

Sudan

Immunization Performance Assessment

The Major Process Indicator for immunization for South Sudan refers to SIAs conducted during the entirety of 2011 (i.e., <10% missed children in each state during each SIA in 2011). The indicator will be monitored during the course of the year as SIA data become available and will be given a final assessment at the end of 2011. In the interim, the assessment of Sudan’s immunization performance for this report took into consideration the SIA performance for the previous 12 months (9 March 2010 – 8 March 2011) in all of Southern Sudan’s states.

Step 1:

Southern Sudan was first assessed using state-level independent monitoring data from all SIAs conducted in all states during the previous 12 months (9 March 2010 - 8 March 2011). For a given SIA, if both house to house and out of house monitoring were conducted in the province, the highest percentage of missed children between the two was used for this assessment. If only house to house or only out of house monitoring was conducted in a given SIA, the percentage of missed children obtained was used for the assessment. If a state did not conduct an SIA in the 12-month time frame or monitoring data were unavailable, it could not be included in the assessment described below.

For each state, the performance of each SIA conducted in the last 12 months rolling was scored according to the percentage of missed children as follows: **strong (<10% missed children), intermediate (10-14% missed children), or weak (≥15% missed children)**. If a state had ≥1 weak SIAs, the state was labeled as a “weak state”. The number of “weak states” was tallied and divided by the total number of states included in the analysis. If all of the SIAs conducted in a state had <10% missed children, the state was labeled as a “strong state”. The number of “strong states” was tallied and divided by the total number of states included in the analysis.

The percentage of “weak states” and “strong states” was considered to obtain the 12-month immunization indicator.

If the percentage of “weak/strong states” was	Then, the 12-month immunization indicator was
If 100% of states were “strong states”	STRONG
If >0 - ≤50% of states were “weak states”	INTERMEDIATE
If >50% of states were “weak states”	WEAK

Step 2:

- a) If Southern Sudan received a score of **weak** for the 12-month immunization indicator, it was considered to have **WEAK IMMUNIZATION PERFORMANCE**. The analysis of supplemental indicators was conducted; however, the results were not considered for the immunization performance assessment.
- b) If Southern Sudan received a score of **intermediate** for the 12-month immunization indicator, the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - were 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 was graded, immunization performance was assessed as indicated below:

If Pol3 was AND Zero Dose OPV was Then, IMMUNIZATION PERFORMANCE was

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) If Southern Sudan received a score of **strong** for the 12-month immunization indicator, the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - were then considered as follows:

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

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

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

If Pol3 was	AND	Zero Dose OPV was	Then, IMMUNIZATION PERFORMANCE was
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.

COUNTRIES WITH ENDEMIC WPV TRANSMISSION

Afghanistan

Immunization Performance Assessment

The Major Process Indicator for immunization for Afghanistan for 2011 refers to SIAs conducted during the entirety of the year (i.e., <10% missed children during at least six SIAs in each of the 13 conflict-affected districts with persistent transmission in the Southern region). The indicator will be monitored during the course of the year as SIA data become available and will be given a final assessment at the end of 2011. In the interim, the assessment of Afghanistan’s immunization performance for this report took into consideration the SIA performance in the 13 aforementioned districts for the previous 12 months (9 March 2010 – 8 March 2011).

Step 1:

Afghanistan was first assessed using district-level independent monitoring data from all SIAs conducted in the 13 aforementioned districts in the previous 12 months (9 March 2010 – 8 March 2011). For a given SIA, if both house to house and out of house monitoring were conducted in the district, the highest percentage of missed children between the two was used for this assessment. If only house to house or only out of house monitoring was conducted in a given SIA, the percentage of missed children obtained was used for the assessment. If a district did not conduct an SIA in the 12-month time frame or monitoring data were unavailable, it could not be included in the assessment described below. The data were assessed to determine if among the SIAs being analyzed there were <10% missed children during at least 6 SIAs in each of the 13 districts. The 12-month immunization indicator was scored according to the following criteria.

If <10% missed in <u>≥6</u> SIAs in each district (previous 12 months)	Then, the 12-month immunization indicator was
Yes	STRONG
No	WEAK

Step 2:

- a) If Afghanistan received a score of **weak** for the 12-month immunization indicator, it was considered to have **WEAK IMMUNIZATION PERFORMANCE**. The analysis of supplemental indicators was conducted; however, the results were not considered for the immunization performance assessment.
- b) If Afghanistan received a score of **strong** for the 12-month immunization indicator, the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - were then considered as follows:

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

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

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

If Pol3 was	AND	Zero Dose OPV was	Then, IMMUNIZATION PERFORMANCE was
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 immunization for India for 2011 is >95% population immunity to type 1 and type 3 polio in the persistent transmission areas of western Uttar Pradesh (UP) and central Bihar. Serosurveys will be conducted in 2011 and will be available for analysis in future reports. In the interim, immunization performance for India for this report was assessed using SIA independent monitoring data from the two most recent SIAs (January and February 2011) conducted in the aforementioned geographic areas in addition to the state of West Bengal.

Step 1:

India was first assessed using state-level independent monitoring data, pooled from monitored areas in Bihar and Uttar Pradesh, from two SIAs conducted in January and February 2011.

The percentage of missed children from each of the two SIAs from each state being assessed was scored based upon the following criteria: **strong (<5% missed children), intermediate (≥5-9% missed children), or weak (≥10% missed children)**. Once each percentage was graded, SIA performance was scored for Bihar and Uttar Pradesh, individually, as indicated below:

If SIA #1 was	AND	If SIA #2 was	Then, SIA performance was
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

The SIA performance for Bihar and the SIA performance for UP were considered together to obtain a SIA performance Bihar/UP score as described below.

If SIA Bihar was	AND	If SIA Uttar Pradesh was	Then, SIA performance Bihar/UP was
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:

India was next assessed using state-level independent monitoring data, pooled from monitored areas in West Bengal, from two SIAs conducted in January and February 2011.

The percentage of missed children from each of the two SIAs being assessed was scored based upon the following criteria: **strong (<10% missed children)**, **intermediate (≥10-14% missed children)**, or **weak (≥15% missed children)**. Once each percentage was graded, SIA performance was scored for West Bengal as indicated below:

If SIA #1 was	AND	If SIA #2 was	Then, SIA performance West Bengal was
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 3:

SIA performance Bihar/UP and SIA performance West Bengal were considered together to obtain the 12-month immunization indicator as described below.

If SIA Bihar/UP was	AND	If SIA West Bengal was	Then, the 12-month immunization indicator was
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 4:

- a) If India received a score of **weak** for the 12-month immunization indicator, it was considered to have **WEAK IMMUNIZATION PERFORMANCE**. The analysis of supplemental indicators was conducted; however, the results were not considered for the immunization performance assessment.
- b) If India received a score of **intermediate** for the 12-month immunization indicator, the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - were 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 was graded, immunization performance was 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) If India received a score of **strong** for the 12-month immunization indicator, the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - were then considered as follows:

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

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

Once each supplemental indicator was graded, immunization performance was 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.

Nigeria

Immunization Performance Assessment

The Major Process Indicator for immunization for Nigeria for 2011 is $> 80\%$ of children with ≥ 3 doses of OPV (per NPAFP data) in each of the 12 high-risk states (including the 8 persistent transmission states). The indicator will be monitored during the course of the year and will be given a final assessment at the end of 2011. In the interim, NPAFP data from the 12 high risk states from the previous 12 months (9 March 2010 – 8 March 2011) will be used to assess immunization performance for this report.

Step 1:

Nigeria was first assessed regarding the Major Process Indicator for immunization [i.e., >80% of children with ≥3 doses of OPV (per NPAFP data) in each of the 12 high-risk states (including the 8 persistent transmission states)] using NPAFP data from the previous 12 months (9 March 2010 – 8 March 2011). The 12-month immunization indicator was scored as indicated below:

% of states with >80% children with ≥3 doses of OPV	Then, the 12-month immunization indicator was
100% of states	STRONG
>50 - ≤99% of states	INTERMEDIATE
≤50% of states	WEAK

Step 2:

- a) If Nigeria received a score of **weak** for the 12-month immunization indicator, it was considered to have **WEAK IMMUNIZATION PERFORMANCE**. The analysis of supplemental indicators was conducted; however, the results were not considered for the immunization performance assessment.
- b) If Nigeria received a score of **intermediate** for the 12-month immunization indicator, the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - were 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 was graded, immunization performance was assessed as indicated below:

If Pol3 was	AND	Zero Dose OPV was	Then, IMMUNIZATION PERFORMANCE was
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) If Nigeria received a score of **strong** for the 12-month immunization indicator, the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - were 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 was graded, immunization performance was assessed as indicated below:

If Pol3 was	AND	Zero Dose OPV was	Then, IMMUNIZATION PERFORMANCE was
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.

Pakistan

Immunization Performance Assessment

The Major Process Indicator for immunization for Pakistan for 2011 refers to SIAs conducted during the entirety of the year [i.e., <10% missed children during at least 8 SIAs in the Quetta area and in the persistent transmission districts and agencies of NWFP and FATA and >90% of children with >6 doses of OPV in Sindh and Punjab (assessed in children with NPAFP 6-35 months of age)]. The indicator will be monitored during the course of the year and will be given a final assessment at the end of 2011. In the interim, the assessment of Pakistan’s immunization performance for this report took into consideration the SIA performance for each SIA conducted and NPAFP data collected during the previous 12 months (9 March 2010 – 8 March 2011) in the aforementioned geographic areas.

Step 1:

Pakistan was first assessed using independent monitoring data from all SIAs conducted in the previous 12 months (9 March 2010 – 8 March 2011) in every district of the Quetta area and the persistent transmission districts and agencies of NWFP and FATA. For a given SIA, if both house to house and out of house monitoring were conducted in the district, the highest percentage of missed children between the two was used for this assessment. If only house to house or only out of house monitoring was conducted in a given SIA, the percentage of missed children obtained was used for the assessment. If a district did not conduct an SIA in the 12-month time frame or monitoring data were unavailable, it could not be included in the assessment described below. The data were assessed to determine if among the SIAs conducted there were <10% missed children during at least 8 SIAs in each of the districts in the relevant geographic areas. SIA performance was scored according to the following criteria.

If <10% missed in ≥8 SIAs in each district (previous 12 months)	Then, SIA performance was
Yes	STRONG
No	WEAK

Step 2:

Pakistan was then assessed using NPAFP surveillance data from the previous 12 months (9 March 2010 – 8 March 2011) from Sindh and Punjab. The percentage of children among NPAFP cases aged 6-35 months from Sindh and Punjab, separately, having had >6 doses of OPV was calculated.

The vaccination performance was scored as indicated below:

If >90% of children had >6 doses of OPV in <u>both</u> Sindh and Punjab	Then, vaccination performance was
Yes	STRONG
No	WEAK

Step 3:

The SIA performance score and the vaccination performance score were combined as follows to obtain the 12-month immunization indicator score.

If SIA performance was		AND If vaccination performance was	Then, the 12-month immunization indicator was
Strong		Strong	STRONG
Strong		Weak	WEAK
Weak		Strong	WEAK
Weak		Weak	WEAK

Step 4:

- a) If Pakistan received a score of **weak** for the 12-month immunization indicator, it was considered to have **WEAK IMMUNIZATION PERFORMANCE**. The analysis of supplemental indicators was conducted; however, the results were not considered for the immunization performance assessment.
- b) If Pakistan received a score of **strong** for the 12-month immunization indicator, the supplemental indicators - routine Pol3 estimates and zero dose OPV histories - were then considered as follows:

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

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

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

If Pol3 was	AND	Zero Dose OPV was	Then, IMMUNIZATION PERFORMANCE was
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

