REPUBLIC OF ANGOLA
Ministry of Health

EMERGENCY PLAN TO INTERRUPT POLIO TRANSMISSION AND IMPROVE IMMUNIZATION IN ANGOLA 2012

Luanda, January 2012

EXECUTIVE SUMMARY

After the reintroduction and re-establishment of wild poliovirus transmission in 2006, Angola has travelled a long road to protect its population from the scourge of polio. A number of immunization campaigns have been carried out and routine immunization coverage has been improved to raise the immunity level of the population. Moreover, surveillance has been intensified to detect the transmission chains of the disease. Since 2011, the results have been clear, largely thanks to implementation of the Polio Emergency Plan, which was commenced in the second half of 2010 and continued in 2011.

The number of cases of wild poliovirus (WPV) reported nationwide fell from 33 in 2010 to 5 in 2011; the number of infected provinces decreased from 9 to 2 (Kuando Kubango and Uige); and infected municipalities fell from 18 to 2 (Menongue in Kuando Kubango and Quimbele in Uige). The start date of the paralysis stage in the most recent case of WPV (Quimbele) was 7 July 2011, so more than six months have passed without any new cases of polio being reported in Angola. For the first time since 2006, no cases of polio have been reported in Luanda or Benguela for a period of more than a year.

This Emergency Plan has been prepared jointly by the technical team of the Ministry of Health and the inter-agency technical team of the EPI, and approved by the Inter-Agency Coordination Committee. It continues the activities of 2011 designed to close as quickly as possible the gaps that still exist and maintain the gains made with the aim of interrupting polio transmission in Angola once and for all in 2012.

The plan comprises four components:

(1) ***Interrupting WPV transmission***: includes holding three high-quality National Immunization Days (NIDs) against polio and 2 Sub-NIDs, depending on the epidemiological situation. It also involves intensifying epidemiological surveillance and water treatment and promoting hand washing.

The plan focuses on intensive actions in Luanda and barrier measures along Angola's northern border with the Democratic Republic of Congo.

(2) ***Increasing routine immunization***: the plan aims to intensify routine immunization with all the antigens in 61 municipalities at high risk of polio using outreach and mobile teams. It also involves training EPI managers at the provincial and municipal levels, gradually training the staff of the health units, strengthening the cold chain and management of vaccines for the introduction of new vaccines (PCV13 in 2012 and rotavirus in 2013). Special attention will be given to improving the quality and use of routine immunization data.

(3) ***Combating measles and maternal and neonatal tetanus***: includes strengthening epidemiological surveillance, investigating and responding to outbreaks. In order to increase the immunity level of the population, the third phase of the national tetanus vaccination campaign will be carried out, targeting women of childbearing age.

(4) ***Communication and social mobilization***: encompasses advocacy to maintain the engagement and active participation of the national, provincial, municipal and communal

authorities, as well as communication to and social mobilization of families, communities and civil society organizations to protect health and achieve the goals set in the plan. Specific activities will be implemented in Luanda Province and the border municipalities.

The total cost of the plan is 4,717,004,272 kwanzas (47,170,043 USD) and will be covered by funds from the government and the EPI partners.

EMERGENCY PLAN TO INTERRUPT POLIO TRANSMISSION AND IMPROVE ROUTINE IMMUNIZATION ANGOLA 2012

"Free Angolan children from the scourge of polio"

1. Introduction

The Emergency Plan to Interrupt Polio Transmission in Angola, developed by the government and its partners in the second half of 2010, has been fully implemented. As a result, there has been a 90% reduction in infected municipalities and an 85% reduction in the number of cases of WPV. In addition, the Polio Eradication Initiative (PEI) has acquired a new dynamic, increasing the engagement of the provincial governments, placing responsibility for the organization, financing, implementation and evaluation of the campaigns with the municipal and communal administrations, and promoting the active participation of the community.

In 2011, in the context of administrative decentralization to the municipal level, a new impetus was given to routine immunization activities, the mobile and outreach teams were revived, and the cold chain was strengthened with the municipal administrations providing more continuous and a greater proportion of funding than the previous year, the remainder of the funding comprising contributions from partners.

In 2011, there were major measles outbreaks in Angola.

This Emergency Plan has been prepared jointly by the Ministry of Health team and the inter-agency technical team of the EPI. It provides continuity to the 2011 plan and aims to maintain the gains made and close the gaps that still exist, with the aim of interrupting polio transmission in Angola once and for all.

2. Analysis of the situation

Angola has travelled a long road to free Angolan children from the scourge of polio, from 1999, when the country recorded its largest outbreak of polio, with a total of 1,117 reported cases and 113 deaths, to 2011, when just five cases were reported. During that period, more than 50 supplementary polio immunization campaigns were implemented, the active surveillance of AFP cases was improved and routine immunization was strengthened.

No cases of polio were detected between 2001 and 2004, but WPV was reintroduced to Angola, from India, in 2005. Two cases of poliovirus have also been imported into the country: one case of type-1 WPV in 2007 and one of type-3 WPV in 2008. Type-3 WPV transmission is

now considered to have been eradicated, as no further cases of this serotype have been isolated since 2008.

The persistent transmission of WPV since 2006 has resulted in Angola being classified as a country with re-established transmission of poliovirus. The main sources of the cases in Angola have been the provinces of Luanda and Benguela, which are densely populated provinces with environmental sanitation problems.

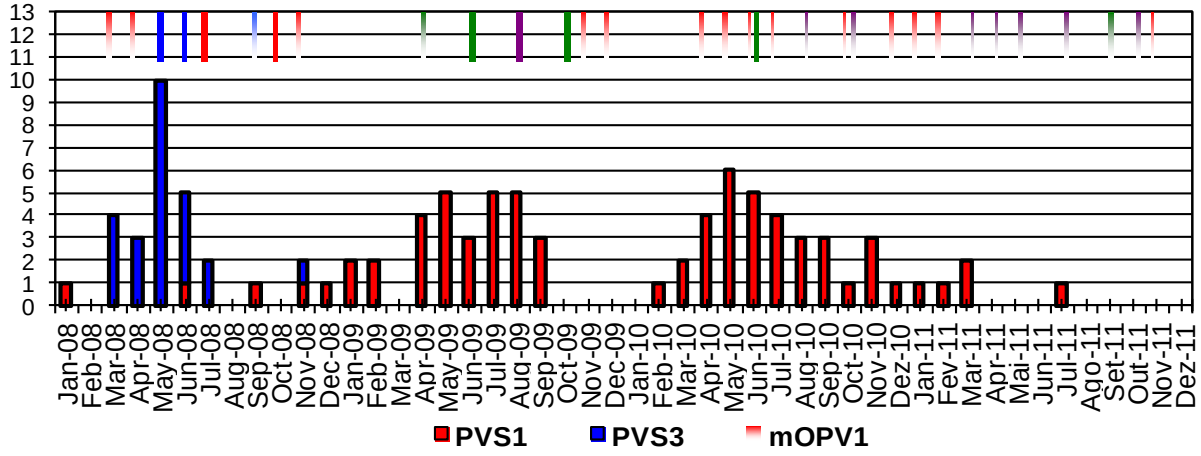
In the period from 2007 to 2009, persistent transmission of type-1 WPV was highly localized in the Luanda-Kwanza Sul-Benguela corridor. The greatest incidence of cases was observed between April and July. In 2010, the geographical pattern changed, with transmission spreading to an additional seven provinces, namely: Bié, Bengo, Cabinda, Huambo, Luanda Norte, Lunda Sul and Uige. It also extended beyond the national borders, infecting the municipality of Kamonia in the Democratic Republic of Congo, across the border from Angola's Lunda Norte Province.

Between 2010 and 2011, the number of WPV cases reported nationwide decreased from 33 in 2010 to five in 2011. The number of infected provinces fell from 9 to 2 (Kuando Kubango and Uige), and infected municipalities from 18 to 2 (Menongue in Kuando Kubango and Quimbele in Uige). For the first time since 2006, no cases of polio have been reported in Luanda or Benguela for a period of more than a year. The start date of the paralysis stage in the most recent case of WPV (Quimbele) was 7 July 2011, so more than six months have passed without any new cases of polio being reported in Angola.

Genetic sequencing of the WPV cases detected in 2011 has confirmed that no orphan viruses have been isolated; the Menongue-Kuando Kubango index case was imported from Benguela and the other three cases of WPV were part of the local transmission chain. The genetic sequencing of the Quimbele-Uige cases (border with DR Congo) was similar to cases from Kimvula-Bas Congo (DR Congo), which would suggest that it was imported from DR Congo.

Figure 1 shows the distribution of cases of WPV from 2008 to 2011, according to virus serotype; it also presents the immunization campaigns conducted in the same period.

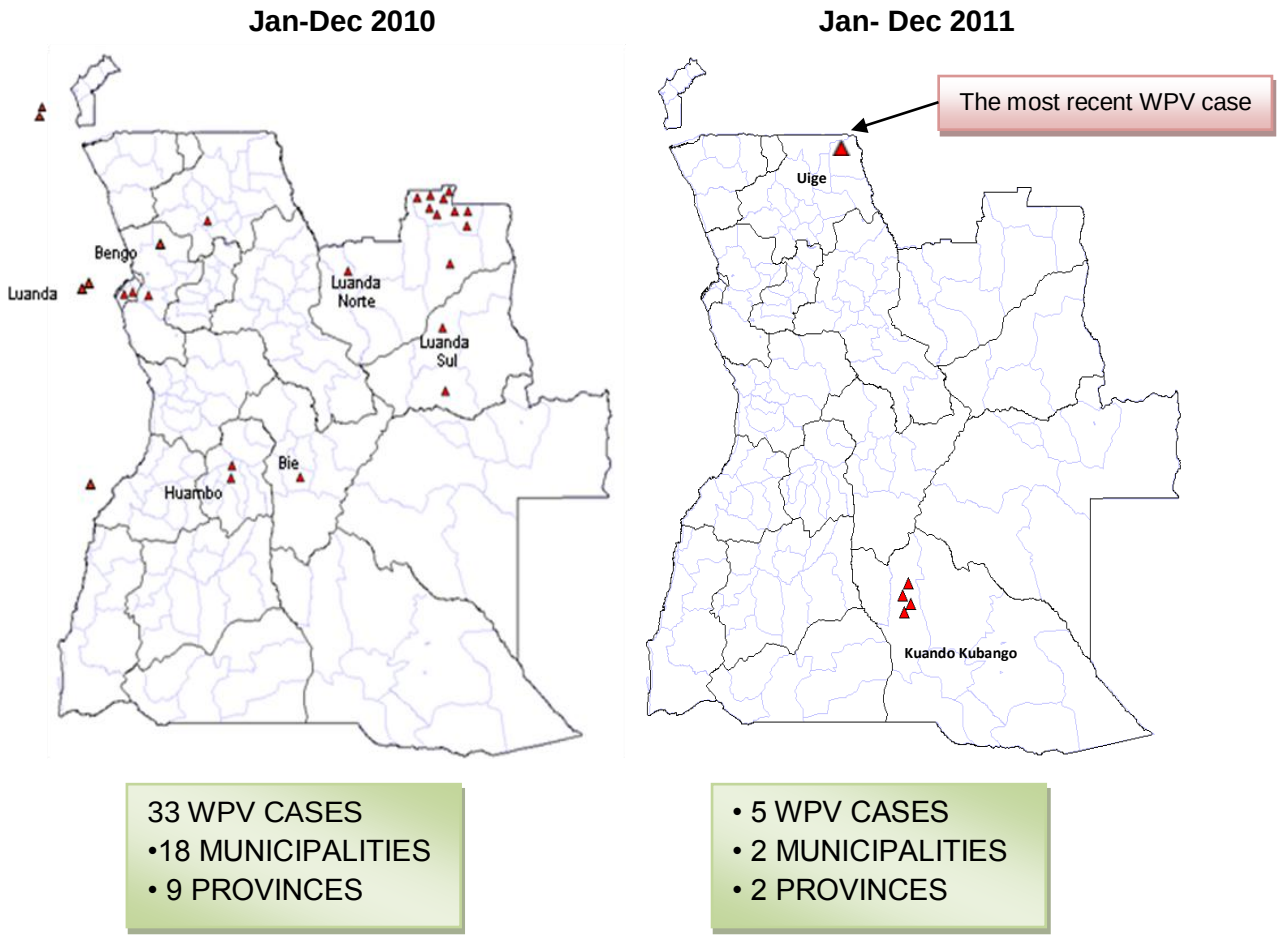
Fig. 1 Incidence of polio according to virus serotype. Angola, 2008 - 2011



As can be seen in figure 1, the immunization campaigns from 2008 to 2011 began after the first quarter, i.e. months after the first cases of the year were reported. In 2011, a more preventive approach was adopted with the immunization campaigns beginning in January, which contributed to reducing polio transmission. There was an improvement in the quality of the immunization campaigns in Luanda and a reduction in the pockets of unvaccinated children as a result of the recruitment of vaccinators assigned to specific blocks and an increase in the number of vaccinators in many districts of the province.

The maps below (fig. 2) show the distribution of polio cases by province in the 2010-2011 period. The 2011 map shows a concentration of transmission in the municipality of Menongue in Kuando Kubango and one case in the municipality of Quimbele on the northern border of Uige with the Democratic Republic of Congo, where there is still considered to be active transmission of WPV-1.

Fig. 2 Geographical distribution of WPV cases. Angola 2010 - 2011



General risk of not detecting and/or interrupting WPV transmission

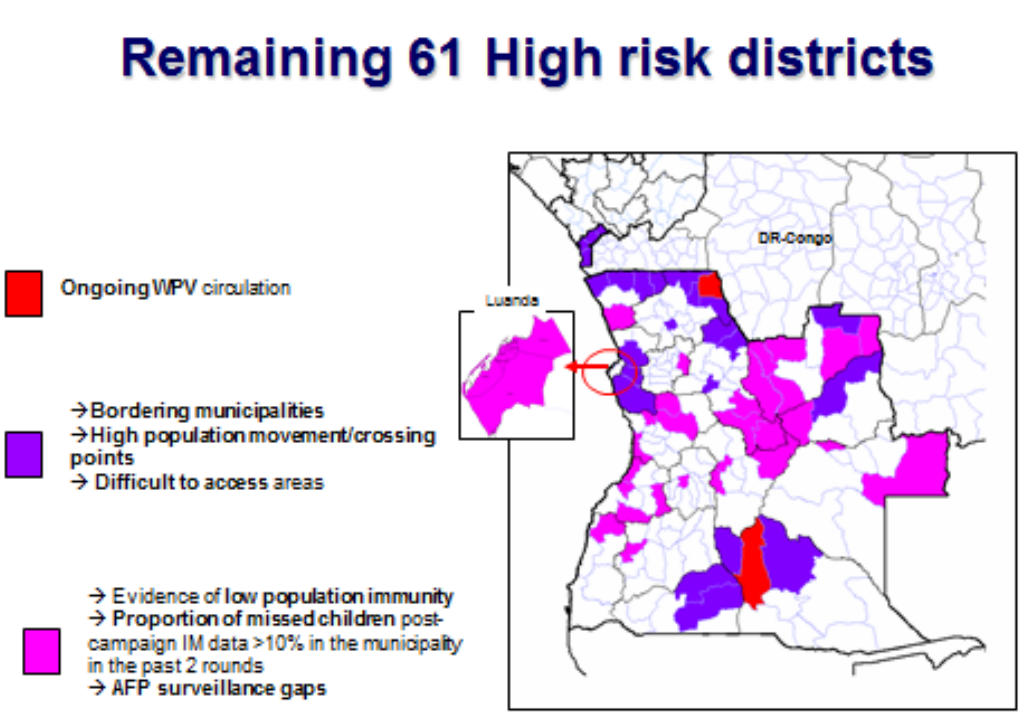
Of the 18 provinces in the country, only Zaire and Malange have not reported any cases of polio since the reintroduction of WPV in 2005; the other provinces are more vulnerable and have reported cases.

The analysis of the risk at the municipal level carried out at the end of 2011 identified 61 municipalities at high risk of polio (see list in Appendix 1).

10 indicators are taken into account when analysing this risk:

1. Border areas with active circulation of WPV
2. High population movements in areas of high polio risk
3. Population density
4. Vaccination coverage of OPV3 in the last three years
5. Non-polio AFP rate in the last three years
6. Cases of WPV in the last three years
7. Number of months since the last confirmed case of WPV
8. Number of immunization campaigns since the last confirmed case of WPV
9. Proportion of children not vaccinated in the last two campaigns, estimated by post-campaign independent monitoring
10. Number of compatible polio cases

Fig. 3 Angola: 61 high-risk municipalities at the end of 2011



3. Main problems and priorities for 2012

3.1 Polio immunization days

Main problems

- Reduction of the level of involvement of some provincial and municipal authorities and health workers.
- Inadequate recruitment and training of vaccinators and supervisors in some districts and municipalities, mainly in Luanda; some vaccinators and supervisors are very young students, recruited outside the area of residence, who only receive short, largely non-participatory training.
- Absence or insufficient use of diagrams of the areas of coverage and mapping of areas with unvaccinated children.
- Insufficient implementation of post-campaign corrective actions (catch-up activities, management of vaccines and materials, etc.).

Priorities for action in 2012

- Advocacy to increase the involvement of authorities, health workers and non-governmental organizations
- Improve the quality of the campaigns with a focus on Luanda and municipalities on the border with DR Congo: community-based micro-planning, adequate recruitment and training of immunization teams
- Implement post-campaign corrective actions based on the results of the independent monitoring and LQAS studies

3.2 Epidemiological surveillance of immunization-preventable diseases

Main problems

- Limited active searching of cases in the health units and community
- Shortcomings in data management and feedback
- Insufficient training and supportive supervision
- Shortcomings in the planning of active surveillance
- Delays in the sending of samples to the central level
- Insufficient human resources at the central level
- Lack of means of transport

Priorities for action in 2012

- Intensify active surveillance in high-risk areas, particularly in Luanda Province and provinces bordering with DR Congo
- Train surveillance staff and focal points in the health units and in the community
- Supervise human resources at all levels
- Provide means of transport

3.3 Routine immunization

Main problems

- Shortcomings in the planning and management of human and financial resources for immunization activities by outreach and mobile teams.
- Shortcomings in the management of vaccines and materials and resultant stock shortages or over-stocking.
- Insufficient training/refreshing of immunization staff.
- Failings in the organization of the service offered by fixed immunization services (lack of daily immunization, immunization times and not following up those who miss appointments).
- Insufficient cold chain equipment and maintenance.
- Lack of reliable population data and shortcomings in the quality of immunization data.
- Insufficient good-quality supporting supervision.
- Lack of means of transport to implement mobile teams and supervision.

Priorities for action in 2012

- Intensify routine immunization through outreach and mobile teams using all the antigens in 61 municipalities with high numbers of unvaccinated children
- Train and supervise human resources at all levels
- Expand the cold chain and increase the vaccine storage capacity
- Improve the quality and management of data
- Strengthen interpersonal and mass communication
- Strengthen means of transport

3.4 Border areas

Main problems and constraints

- Shortage of or shortcomings with health units
- Insufficient staff and level of qualification
- Lack of means of transport
- Difficult access and large distance to provincial or municipal bases

Priorities for action in 2012

- Advocacy to increase the trained personnel in the health units in border areas and expand the community health network with the participation of traditional leaders
- Equip health units in border areas with cold chain equipment
- Support from helicopters of the armed forces and national police in difficult-to-access areas

3.5 Communication and social mobilization

Main problems

- Lack of tools and actions that promote greater participation of churches, local organizations and NGOs in interpersonal communication to promote the immunization campaigns
- Insufficient information and communication to promote demand for and use of vaccination services
- Full potential of data from surveys and research in the community on reasons for non-vaccination not exploited for action

Priorities for action in 2012

- Develop communication and mobilization tools and activities based on the results of investigations and surveys
- Strengthen the participation of churches and local organizations in interpersonal communication through:
  - Mapping the location of organizations
  - Participation in the selection of activists
  - Participation in the social mobilization micro-planning process

4. Lessons learned

The aim of the 2012 Emergency Plan is to interrupt the remaining WPV transmission chains based on the lessons learned from the 2010-2011 efforts.

Four of those lessons are of fundamental importance for the approach of the 2012 plan, given their operational implications.

1) Ownership of the Polio Eradication Initiative (PEI) by the national, provincial and, above all, municipal and communal authorities is essential to prioritize and achieve high quality in the actions;

2) The holding of regular meetings of the Inter-Agency Committee, coordinated by the Minister or Deputy Minister of Health, as well as good collaboration between the partners, makes it possible to guide and support the activities and finance them in a consensual way;

3) Implementation of the new community-based approach - including coordinating the preparation, implementation and evaluation of the campaigns by the provincial governors and municipal administrators, and the local recruitment of vaccinators, supervisors and mobilizers - is fundamental to improve the quality of the campaigns;

4) The financial decentralization process has made operational funds available at the local level and has facilitated timely implementation of the planned activities.

5. Objectives

- Interrupt the transmission of wild poliovirus in Angola by the end of 2012.

- Reduce morbidity and mortality due to immunization-preventable diseases.

6. Specific objectives

6.1 Eradication of polio

1) Reduce to below 5% the number of children not vaccinated during campaigns against polio in the 61 priority municipalities (independent monitoring and LQAS data);

2) Achieve a non-polio AFP rate of > 2/100,000, < 15 years and a timely sample rate of > 80% in 100% of municipalities with a population of > 50,000 inhabitants;

3) Achieve 95% use of treated water and hand washing in 200,000 families in the critical areas of 5 municipalities in Luanda Province.

6.2 Routine immunization

1) Achieve 90% average national routine vaccination coverage with all the EIP antigens;

2) Achieve at least 80% coverage in all municipalities in the country;

3) Reduce by 50% the number of unimmunized children in the 61 priority municipalities;

4) Safely introduce the PCV13 vaccine nationwide.

6.3 Combating measles and maternal and neonatal tetanus

1) Achieve at least 80% TT coverage in women of childbearing age during the third round of the national tetanus vaccination campaign in all municipalities in the country;

2) Achieve a reporting rate of suspected cases of measles of > 2/100,000 in 80% of municipalities with a population of > 50,000 inhabitants, and blood samples for 80% of suspected cases;

3) Investigate 100% of outbreaks and organize response actions.

6.4 Advocacy, communication and social mobilization

1) Develop a practical advocacy, social mobilization, communication, public information and capacity-building strategy based on the results of investigations and surveys;

2) Practical strategies developed between families (beneficiaries) in 29 municipalities of the 61 priority municipalities on the border between DR Congo and Luanda.

7. Strategies and key lines of action

a. High-quality polio immunization campaigns

Implement three phases of high-quality National Polio Immunization Days using the b-OPV vaccine, and two phases of Sub-National Immunization Days according to the epidemiological situation. The strategies and priority lines of action are:

- Expand the scope of the community-based campaign to include all districts in Luanda and other priority provinces or municipalities, transferring responsibility for micro-planning and control of the local participatory recruitment of vaccinators and supervisors to communal administrators, heads of residents' associations and traditional leaders (sobas).

- Revise and adjust the training methodology and materials for immunization campaign team vaccinators and supervisors.

- Hold campaign preparation and evaluation meetings, led by high-level authorities.

- Post-campaign catch-up activities based on the results of the independent monitoring and documentation of the actions taken.

- Expand the representative LQAS surveys in the priority provinces and municipalities to ascertain the coverage achieved and identify geographical areas with low coverage in order to take corrective actions.

- Strengthen cross-border activities, including preparation and implementation of immunization days in border areas, coordination with local authorities in the neighbouring country, micro-planning, recruitment of volunteers, supervision and evaluation.

- Involve churches and NGOs in the mapping of areas with unvaccinated children as well as strengthening social networks in order to enhance their leadership and active participation during the campaigns.

- Devise tools that monitor social change in order to make adjustments to communication strategies and apply specific communication and social mobilization strategies in different contexts.

- Ensure technical support on the ground (national and international consultants, STOP teams and central team of the Ministry of Health) for the planning, preparation, implementation and evaluation of the campaign, in particular: (a) Participatory micro-planning from the district/block or village level; (b) preparation/updating of coverage diagrams, indicating the areas where there are unvaccinated children and/or difficulties of access; (c) training of team supervisors and immunization coordinators.

- Administer mega-dose vitamin A and Albendazol every six months.

b. Strengthening epidemiological surveillance of immunization-preventable diseases

- Improve the performance of epidemiological surveillance activities by:

- Intensifying active surveillance visits in the health units and community by improving transport logistics and communication.

- Weekly assessment of performance of the visits and strengthening supportive supervision to surveillance staff and focal points at the community level.

- Strengthening the community surveillance network in border municipalities with the participation of community leaders and support of volunteers from the CORE Group and Red Cross.

- Rapid assessment of surveillance in the highest-risk municipalities to determine the causes of low performance in the detection, reporting, investigation and/or sending of samples of cases of AFP, measles, neonatal tetanus and yellow fever in order to learn lessons applicable to other municipalities. The assessment will be focused on Luanda Province and provinces bordering DR Congo.

- Improving data management, periodic analysis and feedback.

- Quarterly meetings to coordinate and assess surveillance by sub-regions with the participation of operational staff and consultants.

- Ongoing training/refreshing of provincial, municipal and focal-point staff in health-unit and community surveillance.

- Improving the system for sending samples to the central level and laboratory, to achieve faster times and guarantee a reverse cold chain.

- Strengthening sentinel surveillance of paediatric bacterial meningitis and rotavirus.

c. Strengthening routine immunization

- Organize four rounds of intensification of routine immunization with mobile and outreach teams, particularly in the 61 municipalities at high risk of polio through: full application of the five components of the RED strategy and intensive support and monitoring in the management of human and financial resources, improvement of micro-planning, performance of visits by outreach and mobile teams, supportive supervision, strengthening the engagement of the community and its demand for services.

- Update the technical standards of the EPI, the records and reports of the information system and the vaccination cards.

- Ongoing training of health teams at the provincial and municipal levels using the standardized Mid-Level Managers (MLM) course.

- Basic training/refreshing in EPI standards and procedures for the operational staff of all

health units in the country.

- Improve the quality and frequency of supportive supervision for each level by teams from the Ministry of Health/Provincial Health Directorate and partners.

- Expand and strengthen the cold chain at all levels (cold stores at the central and provincial levels, chests and mini-chests, cool boxes, vaccine carriers and other equipment).

- Improve the quality, analysis and use for action of routine immunization data.

- Evaluation of national implementation of the EPI.

d. Combating measles

- Strengthen routine immunization against measles;

- Strengthen surveillance based on suspected cases of measles; Strengthen the laboratory for timely diagnosis and feedback; Outbreak investigation and response

- Improve management of data at all levels

e. Combating maternal and neonatal tetanus

- Strengthen routine immunization against tetanus;

- Strengthen community-based surveillance in suspected cases of neonatal tetanus

- Improve management of data at all levels

- Implement the national campaign for the immunization of women of childbearing age (15-49 years) using the concentration strategy in three phases:

    - Preparatory phase: updating and distribution of technical and mobilization materials, purchase of vaccine and materials, micro-planning, recruitment and training of personnel and strengthening of the cold chain.

    - Implementation phase: will last 10 days and will be subdivided into three periods, with the aim of optimizing the use of human and material resources:

        - ❖ Immunization of the female populations of schools, colleges, universities, etc.

        - ❖ Immunization at fixed and outreach posts in urban areas (seats of the municipalities)

        - ❖ Immunization of the rural population by mobile teams

    - Evaluation phase: independent monitoring of the highest-risk

municipalities,
processing and analysis of the results by commune and municipality.

f. Prevention of yellow fever

- Guarantee the availability of the yellow fever vaccine and strengthen routine immunization;
- Strengthen yellow fever surveillance at the national level: distribution of materials and training of personnel;
- Improve data management at all levels (adaptation of the database management program at the central level).

g. Advocacy, communication and social mobilization

- With the aim of maintaining the interest and engagement of the provincial governments in the Polio Eradication Initiative (PEI), as well as to ascertain the progress made, periodic advocacy visits will be made to the provincial governors of Luanda, Uige, Benguela, Kwanza Sul, Lunda Norte, and other provinces. These missions will be performed by the Minister of Health or the Deputy Minister of Health, accompanied by representatives of the WHO and UNICEF.

- The bi-monthly polio bulletin, which analyses the situation of the campaigns, routine immunization and surveillance at the municipal level, will be sent to the provincial governments to give visibility to the efforts and progress and document the challenges that remain.

- In order to shift responsibility to municipal and communal administrators, coordination/evaluation meetings before and after each immunization campaign will be promoted. They will have the participation of municipal administrators and those responsible for health.

- Production and dissemination of promotional and educational messages in Portuguese and national languages via radio and television. These messages will be based on the results of research carried out in urban and rural communities.

- Development of communication and mobilization tools and activities based on the results of research and surveys, in order to strengthen the participation of religious leaders and local organizations in interpersonal communication.

h. Supervision, monitoring and evaluation

- Teams of supervisors (Ministry of Health/partners) with geographical responsibilities, defined terms of reference and specific guidelines (checklists) will supervise and support activities by level:

- The central level will supervise the provincial level (quarterly), as well as the priority municipalities and a sample of health units and outreach teams.

- The provincial level will supervise the municipal level (bi-monthly or monthly in the case of high-risk municipalities) and a sample of health units and outreach teams.

- The municipal level will supervise (monthly) the health units and outreach/mobile teams.

- The supervision reports will be kept at the level supervised, with copies being sent to the provincial and national levels together with the reporting documentation.

- The active surveillance performance indicators will be monitored weekly/monthly. The active surveillance indicators will be weekly and the non-polio AFP rate and annualized timely sample rate will be analysed monthly. The routine immunization indicators will be monitored monthly (coverage will all the antigens, drop-out rate, number of unvaccinated children).

- In the second half-year, there will be a National EPI Evaluation addressing the programme's 'routine immunization' and 'surveillance of immunization-preventable diseases' elements.

- National follow-up and evaluation meetings will be held every six months.

8. Coordination of the plan

- At the central level: the EPI Inter-Agency Coordination Committee, chaired by the Minister or Deputy Minister of Health with the participation of directors of the external cooperation organizations and partners, is responsible for defining priorities, approving plans and budgets, coordinating and monitoring implementation of activities and providing guidance on adjustments. This Committee will meet weekly or bi-weekly.

- At the provincial level: the Provincial Health Coordinating Committees, chaired by the Provincial Governor, will be revived. They have the participation of municipal administrators, health managers and partners from civil society to coordinate, guide, monitor and adjust actions of the PEI, as well as to mobilize resources to ensure the full implementation of activities. This Committee will meet monthly or whenever necessary.

- At the municipal level: the Municipal/Communal Health Coordinating Committees, chaired by the municipal administrators, will be revived. They will have the participation of communal administrators, traditional leaders, health personnel and local civil society partners to coordinate and monitor implementation of the operational activities of the PEI. This Committee will meet monthly or whenever necessary.

These committees will be supported at each level by three sub-committees: technical, social mobilization and logistics.

9. Financing and sustainability of the plan

The activities contained in the plan will be financed with funds from the general state budget, supplemented by funds from international cooperation agencies and contributions from public and private enterprises and other partners.

In the context of administrative decentralization, the funds allocated to "primary healthcare" will be the basic source of sustainable funding for operational activities at the municipal level.

The acquisition of vaccines for supplementary and routine immunization activities, as well as social mobilization activities, will be covered by the government with the support of the partners.

The costs of cold-chain acquisitions at the provincial level will be covered by the respective provincial governments. Purchases at the municipal level will be paid for with municipal funds supplemented by resources contributed by partners.

10. Summary of the EPI budget for 2012

Component	Item	Amount in	Amount in AKZ
Campaigns	NID campaigns (3 phases)	$10,098,963	1,009,896,341
	Sub-national polio immunization days (2 phases)	$3,381,524	338,152,351
	Tetanus campaign	$3,352,635	335,263,500
	Communication and social mobilization	$3,015,479	301,547,936
	Sub-total	$16,833,122	1,683,312,192
Surveillance	Epidemiological surveillance	$1,700,000	170,000,000
	Purchase of vehicles and mopeds	$765,000	76,500,000
	Sub-total	$2,465,000	246,500,000
Routine immunization	Traditional vaccines	$10,065,194	1,006,519,398
	New vaccines	$12,707,550	1,270,755,000
	Cold chain	$1,859,318	185,931,800
	MLM training	$480,750	48,075,000
	Information system	$347,500	34,750,000
	Communication and social mobilization	$126,000	12,600,000
	Intensification of routine immunization	$1,298,259	129,825,882
	Sub-total	$26,884,571	2,688,457,080
Supervision, monitoring and evaluation	Supervision and monitoring	$740,810	74,081,000
	National meetings	$186,540	18,654,000
	National EPI evaluation	$60,000	6,000,000
	Sub-total	$987,350	98,735,000
OVERALL TOTAL		$47,170,043	4,717,004,272

11. Indicators of the polio transmission interruption process

Component	Process indicators	J	F	M	A	M	J	Jul-Sept	Oct-Nov
Supplementary polio immunization activities	Less than 5% of children not vaccinated in all priority municipalities during the 3 NIDs								
	Independent monitoring and LQAS surveys carried out in all priority municipalities								
	Advocacy visits made to the provincial governments of Luanda, Uige, Benguela, Kwanza Sul, Lunda Norte								
	164 municipal and communal administrators involved in the immunization campaigns (according to								
	Full application of the new campaign strategy in high-risk municipalities of Luanda, Uige, Benguela, Lunda Norte								
Epidemiological surveillance of AFP cases	All provinces and municipalities with more than 100,000 <15 years have reached a non-polio AFP rate of > 2/100,000 among children <15 years and a timely sample rate of >80%								
	Rapid surveillance assessments in Uige, Benguela, Kwanza Sul, Malange and Bengo								
	Strengthening of transportation and communication logistics in 12 priority provinces								
	Weekly monitoring of the performance of active surveillance.								
	Monitoring and control system for sending samples to the reference laboratory								
	Recruitment and training of community surveillance focal points completed in the 25 municipalities bordering DR Congo								

12. Indicators of the strengthening of routine immunization and timetable

Component	Milestone	J	F	M	A	M	J	Jul-Sept	Oct-Nov
Coverage of routine immunization among infants up to 1 year and pregnant women (TT)	90% national coverage (Polio3, Penta-3, Measles, BCG, yellow fever) among infants up to 1 year of age and 90% TT-2+ coverage								
	80% coverage across all municipalities (Polio3, Penta-3, Measles, BCG, yellow fever)								
	Intensification of routine immunization								
	50% reduction in the number of unimmunized children in the 61 priority municipalities								
Training of health personnel	MLM training at the central level and for monitors								
	MLM training at the provincial level								
	MLM training at the municipal level								
	Updating and printing of standards								
	Training of operational personnel								
	Training of cold-chain technicians								
Cold chain	Cold-chain inventory								
	Purchase of equipment lacking at the provincial and municipal levels								
	New functional central cold-chain room								
Introduction of the PVC13 vaccine	Social communication campaign								
	Distribution of the vaccine at the operational level								
	Introduction of the PVC13 vaccine								
Evaluation	National EPI evaluation								
	Half-yearly EPI evaluation meeting								
	Annual evaluation meeting								

Appendix 1:

List of municipalities at high risk of polio

Province	Municipality
Bengo	Dande
	Dembos
	Icolo e Bengo
Benguela	Benguela
	Chongoroi
	Ganda
	Lobito
Bié	Chinguar
	Cuemba
	Cunhinga
Cabinda	Belize
	Buco Zau
	Cabinda
	Cacongo
Cunene	Cuanhama
	Cuvelai
Huila	Lubango
Kuando Kubango	Cuchi
	Kuito Kuanavale
	Menongue
Kwanza Sul	Kibala
	Kilenda
	Libolo
	Sumbe
Luanda	Cacuaco
	Cazenga
	Ingombota
	Kilamba Kiaxi
	Maianga
	Rangel
	Samba
	Sambizanga
	Viana

Province	Municipality
Lunda Norte	Cambulo
	Capenda Camulemba
	Caungula
	Chitato
	Cuango
	Lucapa
	Xa Muteba
Lunda Sul	Cacolo
	Saurimo
Malange	Cambundi Catembo
	Luquembo
	Malange
	Marimba
	Massango
	Quirima
Moxico	Alto Zambeze
	Camanongue
Namibe	Camacuio
Uige	Buengas
	Maquela do Zombo
	Milunga
	Quimbele
	Uige
Zaire	Cuimba
	Mbanza Congo
	Noqui
	Nzeto
	Soyo
TOTAL	**61**