REPUBLIC OF CHAD
MINISTRY OF PUBLIC HEALTH
SECRETARIAT OF STATE
SECRETARIAT GENERAL
DIRECTORATE GENERAL FOR HEALTH SERVICES
DIRECTORATE OF HEALTH, REPRODUCTION AND IMMUNIZATION
IMMUNIZATION DIVISION

Emergency plan to interrupt the spread of wild poliovirus in Chad
July-December 2012

June 2012

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Abbreviations

SIAs	Supplementary Immunization Activities
BIEC	Bureau d'Information Education et Communication
BMGF	Bill and Melinda Gates Foundation
bOPV	Bivalent oral polio vaccine
HESU	Head of Epidemiological Surveillance Unit
IACC	Inter-Agency Coordination Committee
C4D	Communication for Development
CDC	Centre for Disease Control and Prevention
EPITSC	EPI Technical Support Committee
DGHA	Director General of Health Activities
HD	Health District
RHD	Regional Health Director
TAG	Technical Advisory Group
PEI	Polio Eradication Initiative
IMB	Independent Monitoring Board
IMC	International Medical Corps
IST	Inter-country Support Teams of the World Health Organisation
SNIDs	Subnational Immunization Days
NIDs	National Immunization Days
LQAS	Lot Quality Assurance Sampling
CDP	Chief District Physician
MICS	Multiple-Indicator Cluster Survey
MPH	Ministry of Public Health
WHO	World Health Organisation
NGO	Non-Governmental Organisation
OCHA	Office for Coordination and Humanitarian Affairs
EPI	Expanded Programme on Immunization
AFP	Acute Flaccid Paralysis
WPV	Wild PolioVirus
CAR	Central African Republic
SSEI	Integrated Epidemiological Surveillance Service
tOPV	Trivalent Oral Polio Vaccine
UNICEF	United Nations Children's Fund
UNFPA	United Nations Population Fund

CONTEXT

During the year 2011, Chad notified a total of 132 cases of WPV, including three cases of WPV3 and 129 cases of WPV1, making it the most infected country in Africa. During this year, the country organised 11 SIAs.

Since January 2012, 4 cases of WPV1 have been notified (63 cases notified for the same period in 2011). Chad and Nigeria are the two African countries which have notified most cases of polio this year. At global level in 2012, just four countries notified cases of wild poliovirus: Afghanistan, Pakistan, Nigeria and Chad.

The Ministry of Health of Chad has already drawn up two national emergency plans since June 2011 to stem the crisis underway; this version is the third. These national reference plans are regularly monitored by the external technical committees (Technical Advisory Group (TAG) and the Independent Monitoring Board (IMB)).

As part of the follow-up of the implementation of the global PEI, Chad, which is one of the four countries with re-establishment of wild poliovirus transmission, is regularly invited to the meetings of the IMB. The most recent meeting was held in London in May 2012.

The TAG, which met in February 2012, recommended the evaluation of the national emergency plan, then being implemented, and its expansion for the following semester.

In order to respond to this recommendation, the Ministry of Health of Chad and its partners held a three-day workshop in Dandi (Hadjer Lamis) to draft the new emergency plan. This was drawn up jointly by the Ministry of Health (EPI, Surveillance, BIEC) with the participation of partners from various levels of the WHO, UNICEF, CDC, the BMGF and the NGO International Medical Corps involved in immunization.

The list of participants is in the appendix.

1.1 EPIDEMIOLOGICAL SITUATION

The country has notified four cases of WPV since the beginning of the year, all WPV1, with the date of the most recent case being 26 April 2012 in the district of Bol, in the region of Lac. On 10 March 2011, no cases of WPV3 had been notified for more than a year. The WPV1 virus in circulation came from the same bloodline from Nigeria that was detected in Chad in September 2010. The notified case is an orphan virus, implying defective monitoring of AFP, as the most recent confirmed case of WPV in the region of Lac dates back to 10 May 2010.

Table 1: Monthly development of number of cases of WPV and compatible cases reported over the last 12 months (week 24)

Jun 11
Jul 11
Aug 11
Sep 11
Oct 11
Nov 11
Dec 11
Jan 12
Feb 12
Mar 12
Apr 12
May 12
Jun 12

Positives
Compatibles

Table 2: Epidemiological situation over the period January – 17 June 2012 (week 24)

Distribution of cases of wild poliovirus and compatible cases in 2012 at week 24
4 WPV1
9 compatibles

Map 1: Evolution of the distribution of districts on the basis of risk: January – 17 June 2012 (week 24)

High risk
Moderate risk

The update of the risk analysis carried out on the same variables as those used in the previous emergency plans shows a favourable development.
The number of districts assessed as high risk falls from 53 to 19, while the number of moderate-risk districts rises from 8 to 42. There are no low-risk districts.
The comparison of certain key indicators when drawing up the three emergency plans shows the following evolution:

Table 3: Evolution of indicators comparing the period January – June 2011 and 2012.

INDICATORS	January – June 2011	January – June 2012
Number of WPV	93 Type 1 3 Type 3	4 type 1
Number of districts infected	20/61	3/61
Number of regions infected	12/22	3/22
Number of regions with Tx AFP <2/100 000	3/22	1/22
Number of regions with inadequate stools (rate <80%)	6/22	8/22
Regions with stool transfer times <=5 days from the date on which the 2nd sample was taken to the date of arrival at the laboratory	0/22	2/22
Regions with stool transfer times <=3 days from the date on which the 2nd sample was taken to the date of arrival at central level	5/22	18/22
Regions with enterovirus rates > 10	11/22	8/22

Updating of risk districts (total 61)	53 high risk 8 medium risk 0 low risk	19 high risk 42 medium risk 0 low risk

Routine EPI
From 15 March to 30 April 2012, the Ministry of Public Health in Chad organised an external review of the EPI, with the support of its partners, together with an immunization coverage survey. This evaluation showed a very low immunization cover, linked to the following major factors:

• Poor access for immunization services (gross immunization cover Penta1: 55%; non-immunized children 19%; mothers with no TT1 11%)
• High proportion of undocumented immunizations (vaccination card retention: 49% with children and 39% with the mothers).
• High drop-out rates (Penta1-Penta3 at 24% and> 10% in 17 regions).
• High proportions of invalid doses: Penta3 42 % (23% of OPV3 valid compared to 52% of OPV3 in gross doses; 76% TT2 gross compared to 60% valid).
• Very poor ability to reach children under one year old: coverage of children < 1 year in OPV3 valid doses with cards (9%).
• Low protection of children at birth (6%) and of mothers against tetanus (9%).
• Inadequacy of the implementation of the advanced and mobile strategies and the service range.
• It also showed poor data quality – administrative data vastly superior to survey data.
These inadequacies in immunization cover can explain the major recurrent epidemics in the country.

2. IMPLEMENTATION OF THE EMERGENCY PLAN

2.1 ACHIEVEMENTS

In the global strategic plan 2010-2012, the objective laid down for Chad was to stop the spread of WPV by 31 December 2010. This objective has not been achieved.

The second emergency plan underway laid down this objective for the end of June 2012. Up to epidemiological week 24, four cases were confirmed.

The partners operating in Chad recognise that this emergency plan has been followed better than the previous one.

Table 5 presents the level of achievement of the specific objectives and milestones of the emergency plan of the first half of 2012.

Components	Table 5 -ACHIEVEMENTS NATIONAL EMERGENCY PLAN JANUARY-JUNE 2012							
	Specific objectives	Level of achievement			MILESTONES	Level of achievement		
		Total	Partial	Not achieved		Total	Partial	Not achieved
SIAs	Hold 3 NIDs with bivalent OPV vaccine in January, March and April, and 2 SNIDs in May and June 2012.				Hold 3NIDs with bivalent OPV vaccine in February, March and April and 2 SNIDs in May and June 2012.			
	Reduce to < 5% the proportion of non-immunized children in all districts by the end of June 2012, verified by LQA, in high-risk districts.				Reduce to <5% the proportion of non-immunized children in 60% of the districts in February, 80% in March and 100% in April.			
	Organise documented responses for all cases of WPV outside planned campaigns				During each campaign, sweep 100% of areas with more than 10% of missed children and document the sweep			
Surveillance	Achieve and maintain for each region a rate of non-polio AFP ≥ 2/100000 for all regions by the end of June 2012.				By June 2012, the regions of Borkou, Tibesti and Ouaddaï will have achieved a rate of non-polio AFP ≥ 2/100000 and the regions of Chari Baguirmi, Ndjamena, Salamat, Tandjilé will achieve 80% of samples taken within 14 days. The other regions maintain established performances.			
	Improve the quality of samples arriving at the laboratory (predicted percentage of adequate stools ≥ 80% and transport time from the periphery ≤ 3 days).				Reduce time taken to transport samples to no more than 3 days from the periphery to the central level in 100% of districts by the end of April 2012.			
EPI	Increase by at least 10% immunization cover in OPV3 in 10 HDs at high risk of polio circulation by 30 June 2012.				Increase by at least 10% immunization cover in OPV3 in 5 HDs at high risk of polio circulation by April 2012 and 10 HDs by June 2012			
Communication	Train and mobilise 60% of the political, traditional				Train and mobilise 30% of the political, traditional and religious			

	and religious leaders in the fight against polio in their community				leaders in the fight against polio in their community by March 2012 and 60% by June 2012			
	Train and mobilise 70% of the traditional and religious leaders, associations/NGOs and social mobilisers in SIA activities				Train and mobilise 35% of the traditional and religious leaders, associations/NGOs and social mobilisers in SIA activities by March 2012 and 70% by June 2012			
Coordination & monitoring	Hold meetings of the EPITSC and IACC every week with minutes distributed at all levels and to all partners				By March 2012, all meetings of the EPITSC and IACC will have minutes distributed at all levels and to all partners.			
	Set in place an operational accountability system at all levels and with all partners.				Set in place an operational accountability system at all levels and with all partners by April 2012.			

As regards the level of achievement of the 94 activities of the plan, 41 (44%) were fully achieved, 31 (33%) partially achieved and 22 (23%) not achieved (table 6).

Table 6: Status implementation of the activities of the emergency plan 2012 (January – June)

ACTIVITIES	**2012**		
Level of achievement	**Total**	**Partial**	**Not achieved**
SIAs	9/15 (60%)	6/15 (40%)	0
AFP surveillance	12/21 (57%)	5/21 (24%)	4/21 (19%)
Routine EPI	6/27 (22%)	11/27 (41%)	10/27 (37%)
Communication	10/20 (50%)	5/20 (25%)	5/20 (25%)
Coordination/monitoring	4/11 (36%)	4/11 (36%)	3/11 (28%)
TOTAL	**41/94 (44%)**	**31/94 (33%)**	**22/94 (23%)**

2.1.1 SIAs

In 2012, the following SIAs were organised:

- In January, a national immunization monitoring campaign (with the exception of Borkou and Tibesti) against measles together with tOPV. In total, 2,270,772 (111.57%) of children between 6 and 59 months were immunized against measles. For tOPV, the provisional data show that 1,746,221 (107%) of children from 0-59 months were immunized (data missing for the regions of Batha, Guera, Wadai, Dar Sila, Salamat, Wadi Fira).

- February, March, April: 3 NID campaigns (bOPV):

During these campaigns, the total number of children immunized of less than five years old increased gradually: February – 3,259,567, March – 3,367,339 and April – 3,656,701.

- May and June: 2 SNIDs May (bOPV) and June (tOPV).
* For 8/21 regions, the sedentary population of 0-5 years and the nomadic population of 0-15 years were targeted. These regions immunized respectively 1,893,632 and 1,864,346 sedentary citizens.
* For the 11/21 additional regions, only the immunization of the nomadic population between 0-15 years (high-risk population) was carried out.
* The total nomadic population immunized was 370,569 4 May and 342,721 to June (provisional data).
* Vitamin A and mebendazole were distributed in certain regions during the SIAs of May and June.

Strengths:
* SIAs synchronised within three days throughout the territory.
* SIA dates set were observed (with the exception of the one in the month of March, which was delayed by 15 days).
* The evaluation of the SIAs by the independent monitoring and LQA in certain high-risk districts presented in Table 7 shows a certain improvement in the quality of the campaigns in time; however, since April 2012, there has been a stagnation in the proportion of immunized children assessed by the IM at around 94% and for the LQA, 45% of the 22 districts assessed are still not accepted with an immunization coverage rate reaching at least 90%.

Table 7: Summary of the Independent Monitoring (IM) and LQA data

	IM		**LQA**	
Month	**% districts monitored**	**% Children immunized**	**Number of districts monitored**	**% of districts accepted at 90%**
February	81%	94%	25	28%
March	79%	94%	22	41%
April	59%	88%	24	50%
May	59%	93%	22	50%
June	59%	93,6%	22	55%

* Regional revision of micro-plans (November 2011) progressively implemented. Major cartography work carried out in N'Djamena with the support of OCHA, and revision of the micro-plan of the region of Lac in April.
* Notable progress on the identification of populations at risk and the geographical location of these.
* Organisation of the survey of populations at risk in certain problematic areas.
* Significant improvement in tools: charts for the immunization teams, revision of the scorecard with a breakdown of the age ranges of immunized children, their vaccination status ("zero dose") and special populations.
* Systematic post-SIA feedback and assessment at national and regional levels, in a standardised format since March.
* Dynamic analysis of socio-epidemiological data collected during the SIAs in May and June at a reduced interval (15 days) and addition of population at risk.
* Immunization of population at risk with expansion of age of immunized populations.

The cross-border immunization activities were carried out between:
* Sudan (West Darfur) and Chad (Ouaddai) in April 2012 for the synchronised campaign and the surveillance of AFP.
* The CAR and Chad with the assistance of the NGO MSF.
* Nigeria and Chad in April and May, including the immunization of repatriated persons (480 children between 6 and 15 years).

2.1.2 REINFORCING NATIONAL CAPACITY

Several training workshops and status meetings were held during the first half of 2012:

- Surveillance:
* Assessment meeting of 15/21 regions, training of 22/22 bureau heads, training of 105/143 surveillance focal points.

* Creation of a plan to reinforce epidemiological surveillance in line with the recommendations of the TAG of February.

* Qualitative improvement of the analyses of the weekly retro-information bulletin for the districts.
- Communication:
* Communication training in February for the 22 regional focal points.

2.1.3 PARTNERSHIP

2.1.3.1 Reinforcement of national capacity and harmonisation of interventions between the partners.

On 1 February, a meeting held by the Ministry of Health with the attendance of the partners reviewed human resources needs in both qualitative and quantitative terms. This HR plan has not been fully implemented due to administrative constraints and the lack of availability of resources.

In addition to central level support teams, additional external personnel consisting of 98 international and national consultants were deployed:

*WHO: epidemiologists: 4 international and 20 national, 1 national sociologist, 7 administrative staff.
* UNICEF: epidemiologists (4 international, 4 national), "Communication for Development" communicators (C4D) (2 international and 43 national) plus others are currently being recruited.
* CDC: 6 STOP up to 15 June (18 planned for 1 July), 1 international epidemiologist.
* BMGF: 6 international consultants contracted for 3-5 months.

2.1.3.2 Financial support

In addition to the government's contribution, the financing of the SIAs (operations and vaccines), the partners have provided technical and logistical support in general, the organisation of the assessments

of the SIAs by independent monitoring and LQA as well as the technical and financial support of the external review of the EPI (10 international participants).

2.1.3.3 Technical support and advocacy:

Various figures have come to visit the country and lend their support to national efforts to eradicate polio. These are:
* Visit of the UNICEF Goodwill Ambassador for polio, Miss Mia Farrow.
* Participation in the launch ceremony of the month of April of the Executive and Regional Directors of UNICEF.
* Audience of the Chairman of the TAG with the President of the Republic to present him with the conclusions of the meeting of the TYPE of February.
Additional technical support, not scheduled at the meeting of the TAG of the month of February, have been made available to the programme:
* A coordinator of operations and SIAs at central level WHO (6 months).
* CDC technical missions.
* Regular monitoring visits of the reference focal points to the respective organisations for Chad (WHO, UNICEF, CDC, BGMF) have been carried out since January.

2.1.4 COMMUNICATION

The assessment of the implementation of the activities of this plank shows the following:
* 100% of the Regions and Districts have held a consultation meeting in line with the directives of the MPH.
* 100% of the leaders and authorities of the capitals of the Districts and the Regions participated in the District and Region feedback.
* 100% of the politico-administrative, religious and traditional leaders at regional level were involved in the official launch of each SIA.
* 100% of the leaders who took part in the advocacy meeting held mobilisation meetings at the level of their respective base.
* A database of the NGOs/associations has been created, remains to be completed and put onto a map.
* Negotiation process carried out with CELIAF, GUIDE, SCOUT, the contractualisation remains to be carried out.
* 100% of the regions held at least one orientation session for school inspectors on SIAs prior to each tour.
* Training on "Communication for Development" (C4D) carried out for the 22 focal points of the regions in N'Djamena by an international consultant, the training remains to be carried out in the regions, districts and areas of responsibility.
* In 31 districts where there are community relays, these carry out home visits prior to SIAs, but this effort is not made for routine EPI or surveillance.
* Raising awareness of the identification of cases of AFP among heads of village/sub-district, traditional healers, marabouts and clinicians by NGOs in the high-risk districts.
* The 3115 public announcers work in all areas of responsibility, but do not all have megaphones and generally work only before NIDs.
* Irregular meetings of the social mobilisation sub-committee (fewer than 10 meetings for the period).

2.1.5 COORDINATION, FOLLOW-UP AND ACCOUNTABILITY

The Inter-Agency Coordination Committee IACC met three times under the chairmanship of the Minister for Public Health (two of these with minutes).

The Expanded Programme on Immunization Technical Support Committee, EPITSC, met weekly and regularly; however, the documentation of these meetings remains inadequate. The validation and follow-up of the monitoring indicators measuring the involvement of the governors has not been put into place either.

National directives issued by the Ministry of Health were distributed in March and May for the SIAs.

Two sub-office coordinator roles (South and Mao) have still not been filled since the beginning of the year. These posts are responsible for the coordination of a total of 9 regions, including Lac and Logone, which are very high-risk regions.
The Governors and the other administrative authorities at periphery level have committed to the fight against polio in general and have systematically chaired the launch ceremonies for the SIAs.

2.1.6 CURRENT SITUATION IN THE 4 PRIORITY INTERVENTION ZONES IDENTIFIED IN THE EMERGENCY PLAN JANUARY-JUNE 2012

When the emergency plan for the first half of 2012 was drawn up, in parallel to the reinforcement of the whole of the programme on the territory, four priority intervention zones were identified:
Zone 1: N'Djamena
Zone 2: Lac region
Zone 3: East Logone, West Logone, Mandoul and Tandjilé
Zone 4: Ouaddai, Wadi-Fira, Dar Sila, Salamat, Moyen Chari regions

To date, the situation for these areas looks as follows:

Zone 1: N'Djamena –

SIAs: Notable efforts in micro-planning (OCHA supplied maps of the city) and the development of charts for the teams. There has been a slight increase in the number of immunization teams outside households, which were unfortunately not sufficiently active or supervised to be able to cover the markets and passage points properly. It is worth noting the ongoing involvement of the Governor of N'Djamena and of the Sultan, particularly in the mobilisation of the partners and population. Cases of resistance were reported during the SIAs and were generally handled well by the local authorities. Communication is not effective to maintain the continued commitment and support of the parents, who do not understand the need for successive SIAs.
Surveillance: surveillance performances are still not optimal, particularly in the proportion of samples taken within 14 days following paralysis, which is still below 80%. Raising awareness among clinicians must be continued and community surveillance has not yet been implemented.

Zone 2: Lac region–

SIAs: Micro-planning reviewed in April and implemented since the month of May. A few initiatives for activities with the border countries have been developed (Nigeria) and these are to be expanded. Supervision remains insufficient and one of the major reasons for this remains the dispersal of the populations and extremely difficult, time-consuming and expensive access. The dry season also appears to be a factor limiting access for a certain section of the population.
Surveillance: community-based surveillance has not yet begun.

EPI: It is not been possible to implement multi-antigen acceleration interventions.

Zone 3: East Logone, West Logone, Mandoul and Tandjilé

SIAs: The analysis of the data available to understand the epidemiological time delay and the resources invested has not been carried out. The intensity of the immunization activities in this region over the six-month period seems to be the major reason for this.
The sociological survey has been carried out and its conclusions are currently being written up.
The inclusion of nomads in the micro-plans and their migratory movements has been carried out, and their specific immunization organised in May and June.

Surveillance: although the rate of non-polio AFP is generally high, the percentage of samples taken within 14 days is particularly low (75%) in the region of East Logone.

Zone 4: Regions of Ouaddaï, Wadi Fira, Dar Sila, Salamat, Moyen Chari

SIAs: Efforts to improve micro-planning have been made, notably cross-border activities with Sudan. External participants, such as the Army or NGOs (IMC), have supported past SIAs, but the results of the evaluation assessments do not show sufficient performance, particularly with LQAS systematically

rejected at < 90% for all districts of Ouaddaï, Wadi Fira, Dar Sila and Salamat. The limiting factors are an insufficiency of structures and healthcare staff, poor supervision and access problems.
EPI: The accelerated immunization activities have not been carried out, due to timetable clashes.

Surveillance: community surveillance outside SIAs is not yet underway.

2.2 CHALLENGES AND CONSTRAINTS

For each of the components of the programme, many challenges and constraints have been identified.

2.1.1 SIAs

* The absence of children during vaccinators' visits and non-re-attendance of households remain the major reason for non-immunization.
* Despite the importance of the data collected, there is a poor analysis of the data available and collected during and after the SIAs, particularly at periphery level.
* Quality of the independent monitoring data is variable and unsustainable. Additional assessments by the LQA show that the qualitative performance of the SIAs is variable and not consolidated over the months.
* The supervision of the respect of the micro-plan and the vaccinators remains one of the major causes of the qualitative inadequacy of the SIAs.
* Vaccinator training is not always optimal and its supervision insufficient.
* Despite the addition of extra out-of-household teams in transit areas, their performances are questionable, often because of their passivity. This is particularly true in N'Djamena.
* The ability to adapt the micro-plans to local reality is underdeveloped.
* The failure to manage the target populations, which can also vary depending on the seasons, complicates the provision of vaccines and is often the cause of stock-outs.
* The delay in financial evidence from the regions has caused delays in the transfer of funds and their availability at district level. The regularisation of this situation did not become effective until May 2012.
* The role of communication in vaccinator support is not effective and requires evaluation.

2.2.2 SURVEILLANCE OF AFPs

* Despite efforts made, 8 of the 22 regions of the country still have an inadequate level of collection of stool samples (80% of the samples must be collected within 14 days after the start of paralysis).
* The high number of compatible cases (9) validated by the expert committee in 2012 is alarming in a context in which the programme is supposed to stop transmission.
* Community-based surveillance remains sub-optimal, just 6% of AFP cases are reported by the community and most of them during SIAs during the active search process.
* Although the weekly analysis of epidemiological data is carried out, it does not always reach periphery level and the taking of corrective actions is delayed.
* The evaluation of the retrograde cold chain has not always been implemented. The technical support earmarked has not been available.

2.2.3 ROUTINE EPI

As previously mentioned, the recent external evaluation of the EPI identified the major causes of poor immunization cover in the country:
* There is poor accessibility and use of immunization services.
* The advanced strategy and mobile activities are not systematically carried out.
* The national EPI policy document drawn up in 1999 has not yet been updated.
* The target populations are not properly established and the administrative data are inadequately managed.
* Human resources are insufficient at all levels and particularly at the central EPI.
* There is no human resources management and no systematic training tools.
* The supervision or monitoring activities are underdeveloped.

* The cold chain is not uniformly operational and not supervised.
* The management of the vaccines at all levels is hit and miss and the use of the recognised management tools insufficient, causing frequent stock-outs in the districts.

COMMUNICATION AND SOCIAL MOBILISATION

* The collection, analysis, follow-up and evaluation of the communication and social mobilisation activities are insufficient, because these data do not allow the campaign underway to be adjusted and do not really measure the impact of the communication.
* The involvement of the community at the most peripheral level remains insufficient, particularly as regards planning.
* The communication plan on nomads is not drafted at district and delegation level.
* The underlying reasons for certain cases of concealing children and absence of parents in households are not documented.
* There is not enough awareness among the hard-to-access populations, including nomads and insular populations.
* The tools for supervising relays and monitoring communication activities are not systematically available and used.
* The communication component of the community-based surveillance needs to be improved.
* There is a delay in the funding of the integrated communication plan.
* For the latest SNIDs of May and June, the communication funds arrived late.
* For the time being, communication is focused mainly on SIAs and does not yet take account of either surveillance or routine monitoring.
* Existence of a cell for Communication within the EPI, but with no trained personnel.

2.2.5 COORDINATION, MONITORING AND ACCOUNTABILITY

* There is no improvement as to the monitoring of the commitment of the Governors, as the indicators have still not been distributed.
* The low numbers of the central EPI team has not changed and the number of non-functional ZRs has not fallen.
* The documentation of meetings at central level remains a major shortcoming and the monitoring of the recommendations of the meetings, particularly of EPITSC, is made more difficult by this.
* The functioning of the communication (created) and technical (still to be created) sub-committees remains to be initiated.
* Inexistence of an accountability system for Ministry of Public Health staff at all levels.

3. ZONES AND POPULATIONS OF INTERVENTION AND OBJECTIVES

3.1 PRIORITY INTERVENTION ZONES

The evaluation of the emergency plan of the first half of 2012 shows that despite efforts made and progress, residual problems persist in certain areas of the country. Four areas have therefore been selected, on the basis of geographical criteria (proximity to Nigeria), the development of health infrastructure and the presence of special hard-to-access populations. Nomadic and insular populations are also high-risk populations due to their poor immunity status, their mobility and difficult accessibility. As previously, the Minister for Health is to publish Directives specific to each of these regions or populations.

Zone 1: Region of Lac

Challenges due to problems of geographical accessibility, presence of a large number of islets and encampments, constant movement and mixing of populations from neighbouring countries (Nigeria, Niger and Cameroon).
The sub-optimal community-based surveillance, active surveillance limited by the presence of many non-functional zones and difficulty in accessing functional zones (no outboards or helicopters).

For SIAs and the routine EPI, the challenge is the continual increase of the target population due to refugees and displaced persons, noting that WPVs are generally imported via this region.

Zone 2: East Logone, West Logone, Mandoul and Tandjilé

This area has been the epicentre of the epidemic and is the site of many cases of immunization refusal. It is a region with very high rainfall, where cases of WPV are usually identified during the rainy season. It has a border with CAR, where there are problems of insecurity.

Zone 3: Ouaddai, Wadi-Fira, Dar Sila, Salamat, Moyen Chari regions

Almost all of the regions of this zone are characterised by a level of security lower than other regions/zones. This insecurity leads to problems with accessibility and mobility due to limitations on the use of vehicles. There are many refugee camps. It should be noted that the most recent cases of WPV3 were notified in this zone.
In general, it is worth noting a low percentage of samples taken within 14 days and insufficient community-based surveillance.

SIAs experience implementation problems, LQAS in general rejected most of the districts.

Zone 4: N'Djamena, Chari-Baguirmi

Challenges relate to demography, epidemiology, SIA quality, clinician commitment and human behaviour.

The capital concentrates around a third of the national population, with a high population density. It is the crossroads of many trade routes. This zone suffers from an ineffective AFP surveillance system with poor clinician participation, and the inconsistent nature of the SIAs, a lack of micro-planning and efforts to cover crossing points and markets. In this zone, supervision is not effective and localised resistance to immunization persists.
Chari-Baguirmi, a vast region adjoining Ndjamena, shows poor performances in surveillance and the routine EPI.

3.2 OBJECTIVES

3.2.1 GENERAL OBJECTIVE
To halt the spread of wild poliovirus by the end of December 2012.

3.2.1 SPECIFIC OBJECTIVES

SIAs
* To carry out SNIDs in association with the third and fourth phases of the MenAfricVac campaign with bivalent OPV vaccine.
* To hold 2 SIAs with bivalent OPV vaccine during the final quarter of 2012.
* To reduce to less than 5% the proportion of non-immunized children, verified by Independent Monitoring.
* To ensure that no region experiences stock-outs of OPV during SIAs.

Surveillance of AFPs
* To reduce the time taken to notify cases of AFP and collect samples to achieve the indicator of adequate stools ≥ 80% for all regions.
* To increase the proportion of the number of follow-up examinations at 60 days, particularly in the East.
* Each hot case will be the subject of a response within 72 hours of their notification.
* In each zone of responsibility of the three priority intervention zones, to identify and use the community relays in the AFP surveillance network.

Routine EPI
* To recover at least 80% of non- and/or insufficiently immunized children of 0-11 months in 32 selected health districts (94,450/118,062 children)

Communication and social mobilisation
* Awareness and commitment in the fight to eradicate poliomyelitis on the part of 60% of the members of the Government (40), members of Parliament (188), Governors (22) and religious leaders (66).

Awareness and commitment to contribute to routine immunization activities, SIAs and community surveillance by 20% of community-based associations/local NGOs (273), traditional leaders (716) and religious leaders (183).

Coordination, monitoring and accountability
* All of the planned coordination meetings of IACC, EPITSC and sub-committees and cross-border meetings will be organised as planned with minutes available within 48 hours.
* The reinforcement of human resources is effective, with additional staff as a polio focal point recruited within the EPI and all vacant posts at UNICEF and the WHO filled.
* The budget of the emergency plan indicates the available funds for each strategy at the level of the government, the partners and the gap.
* A system of accountability is established for each level of the Health system for EPI and polio activities.

4. STRATEGIC AXES AND ACTIVITIES

4.1 MILESTONES OF THE EMERGENCY PLAN

SIAs
* For the 2 SNIDs in association with MeninAfricVac and the NIDs of November and December, all districts justify the use of resources earmarked in the micro plan.
* All districts with independent monitoring will have less than 5% of children missed.
* For the NIDs, all districts rejected at less than 90%, 70%, 50% by the LQA will set in place corrective actions, which will be documented.

AFP surveillance
* By December 2012, the regions of Hub East (Dar Sila, Borkou Tibesti and Ouaddai), of Hub de Mongo (Guerra), of Hub de Moundou (Mayo Kebbi Esst) and of Hub de Sarh (Moyen Chari) will achieve 80% taken within 14 days, whilst the other regions maintain their established performances.
* To implement the plan to reinforce AFP surveillance in 80% of the districts before October 2012 and 100% by the end of December 2012.

EPI
* 94,450 children out of 118,062 children identified of less than one year old who are insufficiently immunized/or not reached will have had their Penta 3 and their anti-measles vaccine.
* Each zone of functional responsibility of the 32 districts selected will have organised three rounds of five-day immunization accelerations.
* Each of the 32 districts selected will have organised three EPI monitoring meetings for action with all of health centre managers (RCS).
* Each of the 32 districts selected will have organised three rounds of EPI supervision in all zones of functional responsibility (489).

Communication and social mobilisation
* 30% of the members of the Government (40), of the members of Parliament (188), of the Governors (22) and religious leaders (183) are informed, made aware and have committed to the fight to eradicate polio in the 22 regions by September 2012.
* 10% of the community-based since local NGOs (273), the traditional leaders (716) and religious leaders (183) are informed, made aware and have committed to make their contribution to achieving routine immunization activities, SIAs and community surveillance by September 2012.

Coordination, monitoring and accountability
* By July 2012, all of the planned coordination meetings of IACC, EPITSC and the sub-committees will be held as scheduled with minutes available within 48 hours and distributed to all levels and all partners.
* By October 2012, a cross-border meeting will be held for the neighbouring countries of Lac and another with CAR and Cameroon.
* By August 2012, all of the planned recruitment at Central EPI level, the Hubs and Agencies will have been carried out.
* For each strategy, the final version of the emergency plan indicates the funds available at the level of the government, partners and the gap.

* By August 2012, and operational accountability system will be developed and set in place at all levels of the programme.

4.2 STRATEGIES, ACTIVITIES, PERSONS RESPONSIBLE, TIMETABLE

The activities which will be developed to achieve the specific objectives defined above are grouped by strategic axis. These activities are designed to contribute to the achievement of the general objective, which is to halt the spread of WPV by the end of December 2012. The details of these activities are presented in the Excel table in the appendix.

5. MONITORING AND EVALUATION

As for the previous plan, the procedure described below will carry out the monitoring and evaluation:
* The monitoring team (surveillance, SIAs, routine EPI, communication, coordination and logistics) must ensure that for each plank, the necessary tools are available and used (for example forms, reports and registers) and that a regular data-collection methodology (process indicators) exists.
* The EPI Coordinator must submit a report to the EPITSC on a monthly basis taking stock of the level of implementation of the activities of the plan. The report must contain an evaluation of the process indicators compared to the results anticipated and an analysis of achievements, constraints and challenges in implement in the plan.
* Those responsible on a national level at the Ministry of Health of Chad (DGAS, DSRV, Coordinator of the Directors of EPI and SSEI), the WHO, UNICEF, CDC and other key partners will meet every two months for an assessment of the progress or constraints in the imitation of the Plan, and to make recommendations on the situation.
* A final evaluation of the plan will be carried out in December 2012

Table with target of indicators enabling monitoring:

	Expected level
<u>SIAs</u>	
Proportion of Districts rejected at LQA having documented corrective actions within two weeks.	80%
Proportion of children missed in households and outside households by independent monitoring.	5%
<u>Routine EPI</u>	
Number of days of stock-outs of vaccines at HC level	0
Proportion of district and health centre staff trained	60%
Proportion of districts with an updated micro-plan	100% (32/32)
Number of children of less than one year immunized	94,450
Immunization cover in the target districts	80%
Abandonment rate	10%

Proportion of planned supervision visits carried out	80%
Surveillance	
Proportion of weekly visits to priority 1 sites	100%
Proportion of regions with an adequate stool rate >80%	95%
Proportion of follow-up examinations carried out within 60 days of the start of paralysis	100%
Proportion of cases of AFP notified by the community relays	20%

6. BUDGET

Table 8: Synthesis of emergency plan budget

Synthesis of budget			
Headings	CFA	USD	%
AFP surveillance	23 500 000	47000	1.8
PEV de routine	418 725 000		32.7
SIAs	577368000	1154736	45.1
Communication	254780000	509560	19.9
Coordination	6000000	12000	0.5
Total	1 280 373 000	1 723 296	100.0

*

APPENDICES

Appendix 1: List of participants

N°	Forename and surname	Position	Organisation
1	Djabar Hamid	Director SRV	MPH Chad
2	Cherif Baharadine	EPI Coordinator	MPH Chad
3	Mahamat Ali Acyl	SSEI Coordinator	MPH Chad

4	Mahamat M Gamar	Head of service BIEC	MPH Chad
5	Pierre Kandolo Wenye	IVD focal point	WHO Chad
6	Richelot Ayangma	IVD surveillance manager	WHO Chad
7	Camille Lukadi	IVD logistics provider	WHO Chad
8	Emmanuel Ngadjadoum	Data manager	WHO Chad
9	Frédérique Marodon	Head of SIAs	WHO Chad
10	Jude Tuma	Epidemiologist	WHO Chad
11	Liliane Boualam	Polio focal point	WHO Geneva
12	Sylvain Djimmanbar	Head of EPI	UNICEF Chad
13	Andry Ramananarivo	Moundou communication hub coordinator	UNICEF Chad
14	Serigne Ndiaye	Epidemiologist	CDC
15	Jean Marc Olivé	Polio consultant	BMFG
16	Apoorva Mallya	Polio focal point	BMFG
17	Sami Aliou	Director of Programmes	IMC

Appendix 2: Strategies, activities, persons responsible, timetable and budget

N°	Supplementary immunization activities strategies/activities	Persons responsible	July				August				Sept				October				November				December				Budget	
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Total (CFA)	TOTAL ($US)
Strategy 1: Improving the planning and implementation of the SIAs																												
1.1	Updating the micro-plans before each visit at the level of the zones of responsibility	Central EPI / DRS/MCD																										0
1.2	Ensuring the monitoring of the effective implementation of the micro-plans																											0
1.3	Holding 2 NIDs and 2 SNIDs in association with MeninAfricVac, involving the NGOs in their zones of intervention	MPH/WHO/ UNICEF															SIA, 19-21		SNID, 3-12			SIA, 23-25	SNID, 5-14				577368000	1154736
Strategy 2: Improving the quality of the monitoring of the SIAs																												
2.1	Carrying out the independent monitoring in the high-risk districts	Hub coordinator and NGO																										0
2.2	Carrying out the LQAS and feeding the results into actions	DSR/ MCD /RCS																										0
2.3	Documenting SIA feedback meetings at national level	EPI central																										0
Strategy 3: Reinforcing activities to reach the nomadic population																												
3.1	Updating the list of nomad encampments with the involvement of the local authorities, nomad representatives, representatives of the Ministry of Cattle, the SSEI and the NGOs for the implementation of the SIAs for this population.	EPI/DSR/ MCD																										0

Strategy 4: Reinforcement of cross-border activities around Lake Chad																																		
4.1	Holding a cross-border planning meeting.	Ministries concerned/WHO/UNICEF, of the 4 border countries (Cameroon, Nigeria, Niger and Chad)																																0
4.2	Organising cross-border immunization activities between the four countries	MCD /RHC of the countries concerned																																0
	TOTAL																																**577368000**	**1154736**

N°	Coordination, monitoring and accountability strategies/activities	Persons responsible	July				August				Sept				October				November				December				Budget	
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Total (CFA)	TOTAL ($US)
Strategy 1: Improving the coordination of the partners																												
1.1	Holding IACC, EPITSC and sub-committee meetings as planned with minutes available within 48 hours	EPI director																									3500000	7000
1.2	Arranging and coordinating a cross-border polio meeting (CAR/Chad (East Logone Oriental, Mandoul, Moyen Chari)	Health Minister, WHO - AFRO																										0
Strategy 2: Reinforcing the commitment of the political and administrative authorities of the country and of the partners																												
2.1	Appointing additional staff as polio focal point within EPI	Minister for Public Health, Minister for Public Services																										0
2.2	Filling situations vacant at UNICEF and WHO – Hub coordinators, UNICEF polio focal point	REP UNICEF, AFRO, WR WHO																										0

Strategy 3: Establishing and accountability system for government personnel																																						
3.1	Developing a system of accountability for each level of the Health system for EPI and polio activities	Minister for Public Health																																				0
3.2	Ensuring that for each strategy, the budget of the emergency plan indicates the funds available at the level of the government, partners and gap	DGAS, WHO and UNICEF representatives																																				0
3.3	Final assessment of the polio emergency plan of July-December 2012	Minister for Public Health																																			2500000	5000
	TOTAL																																				**6000000**	**12000**

N°	Surveillance strategies/activities	Persons responsible	July				August				Sept				October				November				December				Budget		
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Total (CFA)	TOTAL ($US)	Source
Strategy 1: Reinforcing the implementation of the standard AFP surveillance procedures																													
1.1	Carrying out a monthly analysis of the reports of the surveillance heads of antenna and monthly feedback on the actual execution of planned visits via the retro-information bulletin	SSEI coordinator and SURV/WHO																									PM	PM	WHO
1.2	Effectively managing the sample kits at all levels (Central, intermediate and periphery)	SSEI admin and AA Hubs																									PM	PM	WHO
1.3	Ensuring the distribution of the retro-information bulletin in hard copy to all focal points and Hub RCSs	Hubs coordinator																									3 000 000	6000	WHO
1.4	Carrying out the response to hot cases within 72 hours in accordance with the directives without taking account of SIAs	Hubs coordinator and CASE																									2 000 000	4000	WHO/MI

Strategy 2: Reinforcing the monitoring of the circuits of stool samples at all levels						
2.2	Measuring and registering the temperature of samples of AFP as soon as they arrive at central level	Resp collect samples SSEI	PM	PM	WHO	
	Putting the focal points and CASEs into a telephone network to promote communication to ensure follow-up of notified AFP cases	SSEI coordinator	PM	PM	MPH	
2.2	Systematically analysing at Hub level time taken to transport samples from periphery level to central level and carrying out retro-information.	Hubs coordinator and CASE	PM	PM	WHO	
Strategy 3: Reinforcing capacity of surveillance actors at district level						
3.1	Training the surveillance focal points of the Moundou and Sarh hubs	SSEI COORDINATOR SURV/WHO	PM	PM	WHO	
3.2	Raising awareness among clinicians of AFP surveillance in Bongor, Doba, Moundou, Sarh and Abéché	Hubs	2 000 000	4000	WHO/MI	
3.3	Holding at least **one** status meeting per Hub	SSEI coordinator and Hubs	PM	PM	WHO	
3.4	Ensuring monthly supervision of the central level in the districts on the basis of the epidemiology	SSEI coordinator/ EPI WHO	PM	PM	WHO/MI	
Strategy 4: Reinforcing community-based surveillance						
4.1	Identifying the community relays/NGO agents in the ZR of the following regions: East Logone, Chari Baguirmi Lac and training them		4500000	9000	WHO	
4.2	Supervising the community relays/NGO agents in the ZR of the following regions: East Logone Oriental, Chari Baguirmi Lac and training them		12000000	24000	WHO	

Strategy 5: Availability of surveillance funds prior to activities																														
5.1	Facilitating the visa obtention circuit to draw up requests to the WHO in order to guarantee that funds are made available prior to the activities	SG MPH																										PM	PM	MPH
5.2	Drawing up requests for funding in due time and mobilising resources locally	SSEI coordinator																										PM	PM	MPH
	TOTAL																											23 500 000	47000	

N°	Routine EPI strategies/activities	Persons responsible	July				August				Sept				October				November				December				Budget		
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Total (CFA)	TOTAL ($US)	Source
Strategy 1: Reinforcing the cold chain and logistics																													
1.1	**Setting in place the system for vaccine distribution and other EPI imports based on contractualisation and ensure follow-up**	**Coordinator and LO EPI**																									30 000 000.00		
1.2	**Acquiring spare parts for kerosene refrigerators (3000 wicks, 1200 glasses and 180 burners)**	**EPI-PF UNICEF Coordinator**																											
1.3	**Supplying all CS of 32 DS identified with vaccine carriers and ice packs**	**EPI LOGISTICS**																									PM		
Strategy 2: Reinforcing the capacity of the actors																													
2.1	**Training a team of trainers at national level in MLM (EPI CENTRAL LEVEL,DSR,MCD FRAMEWORKS)**	**EPI coordinator, PF EPI/WHO and UNICEF**																									10 000 000.00		
2.	**Recruiting at least 100 paramedics for the health**	**EPI-UNICEF**																											

2	**centres and 10 RHDs from the Sahelian band**	**coordinator**																													
2.3	**Training and/or recycling the RHDs of 32 DS to the EPI (micro-planning, cold chain, stock management, monitoring, etc)**	**EPI coordinator , PF EPI/WHO and UNICEF**																												38 250 000.00		
Strategy 3: Implementing immunization strategies (set, advance and mobile)																															
3.1	**Supporting micro-planning in 32 DS**	**EPI coordinator, PF EPI/WHO and UNICEF**																												PM		
3.2	**Organising three tours of accelerated immunization activities in 32 DS from July to September 2012**	**EPI coordinator, PF EPI/WHO and UNICEF**																												102 127 500.00		
3.3	**Reinforcing systematic immunization activities on the border (Lac) by putting permanent immunization posts along the border and along crossing points used by nomads**	**DSR-MCD**																												15 000 000.00		
3.4	**Developing appropriate strategies to find nomads**	**DSR-MCD**																												PM		
3.5	**Ensuring the immunization of nomads/mobile strategy in Batha, Kanem, Bar El Ghazal and Wadifira**	**DSR-MCD,PF EPI/WHO and UNICEF**																												60 000 000.00		
3.6	**Catching up on children of less than one year at polio SIAs (October and November 2012)**	**EPI coordinator, PF EPI/WHO and UNICEF**																												PM		
Strategy 4: Reinforcing the routine EPI data management system (monitoring, reviewed supervision)																															
1	**Ensuring regular formative supervision in 32 DS**	**EPI coordinator, DSR and**																												45 450 000.00		

		MCD																											
2	**Organising three monitoring meetings after each acceleration tour**	**EPI coordinator, PF EPI/WHO and UNICEF; DSR, MCD**																									75 397 500.00		
3	**Making available the adapted management tools of the programme**	**Coordinator, EPI logistician/ UNICEF**																									35 000 000.00		
4	**Revising the national immunization policy**	**EPI coordinator**																									7 500 000.00		
	TOTAL																										418 725 000.00		

N°	Social mobilisation activities strategies/activities	Persons responsible	July				August				Sept				October				November				December				Budget	
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Total (CFA)	TOTAL ($US)
Strategy 1: Advocacy																												
1.1	Make 02 communications on the polio situation in Chad and actions underway at a Council of Ministers and a parliamentary session	Minister for Public Health																									3850000	7700
1.2	Hold two advocacy meetings in favour of SIAs, routine immunization and surveillance in the 22 regions with the religious leaders and decentralised authorities	DSR/PF regional IEC																									3850000	7700
1.3	Ensure the monitoring of actions carried out at the level of districts rejected by the LQAS	SG Ministry of Public Health																									2500000	5000

Strategy 2: Social mobilisation																												
2.1	Hold two social mobilisation meetings in favour of SIAS, routine immunization and surveillance in the 22 regions and 61 districts with the community-based associations/local NGO, traditional and religious leaders	DSR/MCD/ PF IEC																									12200000	24400
2.2	Enter into contracts with 3 NGOs to raise awareness among the populations of immunization, detecting cases of AFP and the handling of cases of refusal by vaccinators and community actors identified and mobilised	COM/UNICEF																									3000000	6000
2.3	Carry out an analysis of the community actors and cartography (church, schools, associations, NGOs, Kalifs, clinicians etc.) at the level of the zone of responsibility in 2 high-risk districts	COM.UNICEF/DSR/District focal points IEC																									2 000 000	4000
2.4	Hold awareness meetings with religious and traditional leaders and nomadic pastors at district and responsibility zone level to encourage them to tackle the subject of immunization and community surveillance in their sermons and at assemblies	Health district, RCS/Prefecture/sub-prefecture																									1 830 000	3660
2.5	Holds orientation sessions for inspectors of primary schools, head teachers/directors of general education at secondary schools on SIAs, routine immunization and surveillance	Education delegation /District																									1 760 000	3520
Strategy 3: Local and inter-personnel communication																												
3.1	Hold a series of cascade training to bring the capacity of the IEC and RCS focal points, including supervisors, vaccinators and community and nomad relays, up to the required level on the C4D techniques applied to SIAS, routine immunization and surveillance	Soc Mob committee /delegation/District/ZR																									8050000	16100

3.2	Hold community dialogue by the religious and traditional leaders for heads of family and marabouts/traditional healers	RCS/ UNICEF consultant																													0
3.3	Arrange home visits by the community relays to households in the framework of the routine EPI/SIAs/AFP surveillance in the high-risk pilot zones (3 priority sites: the South (East Logone), Lac and the East (Ouaddai, Wadi Fira, Sila and Salamat))(10 Districts)	RCS																													0
3.4	Hold awareness-raising sessions among the heads of villages/sub-districts, traditional healers and marabouts, and clinicians on detecting cases of AFP in the high-risk districts	IEC-District focal point/RCS/ UNICEF consultant																													0
3.5	Carry out community VAD and dialogue by the nomad relays among their populations in the nomadic zones of the high-risk districts	RCS/ UNICEF consultant																													0
Strategy 4: Mass communication																															
4.1	Mobilise identified public announcers, who will be given megaphones, to spread messages about SIAs, routine vaccination and community surveillance in the sub-district/villages.	RCS/MCD																												78700000	157400
4.2	Broadcast radio programmes via 40 community radio stations throughout the territory (reportage, testimony, magazine, advertisements, etc.)	Soc Mob committee/UNICEF																												60000000	120000
4.3	Arrange awareness-raising events with well-known artists in 3 priority sites: the South (East Logone), Lac and the East (Ouaddai, Wadi Fira, Sila and Salamat)) and also in the districts involved in the campaigns with all five antigens	Soc Mob committee /UNICEF																												42000000	84000
Strategy 5: Follow-up assessment																															

5.1	Carry out an operational search to measure the impact of the communication efforts in the 4 Districts in the 3 priority high-risk pilot sites: the South (East Logone), Lac and the East (Ouaddai, Wadi Fira, Sila and Salamat))	Soc Mob committee /UNICEF																									30 000 000	60000
5.2	Analyse and give feedback on the monitoring/independent assessment in the high-risk district upper level of the zone of responsibility	UNICEF/MCD/ RCS consultants																										0
5.3	Hold supervision missions of the central level in 3 priority sites: the South (East Logone), Lac and the East (Ouaddai, Wadi Fira, Sila and Salamat)) in 4 high-risk districts	BIEC/EPI/UNICEF																									5 040 000	10080
5.4	Hold a meeting of the social mobilisation sub-committee on SIAs, routine vaccination and community surveillance every week	BIEC/EPI/UNICEF																										0
	TOTAL																										**254 780 000**	**509560**