

Federal Ministry of Health
Directorate General of Primary Health Care
**Expanded programme on Immunization
(EPI)**

EPI Plan for 2004 – 2005

Khartoum, July 2003

Preamble:

The Government of Sudan, along with its development partners, intends to improve the immunization coverage, strengthen the EPI program, and decrease death and disability from EPI targeted diseases. An EPI review which was undertaken in the 2001 has pointed out to some weaknesses: weak management of EPI at the state and provincial levels, insufficient logistic capacities such as shortage of transportation means, inappropriate use of the safety injections materiel, inadequate supervision and insufficient training as well as aging and poor cold chain system.

A strategic 5 year-plan has been developed to improve EPI coverage in Sudan. Targets for improved coverage (Table 1) have been developed and micro-plans have been developed at the state level.

Table 1: Target for EPI vaccine coverage (%) in Sudan 2003-2008.

Vaccine	2003	2004	2005	2006	2007	2008
BCG	74	80	90	92	92	92
OPV3/DTP3	75	85	90	92	92	92
MCT	70	75	80	85	87	90
TT	45	50	55	60	65	70

*Target coverage for hep B and Hib begins in 2004 and is contingent on availability of combination vaccine with these vaccines.

The principal prospects of the five-year plan include: Infrastructure strengthening, management strengthening, quality assurance, technical development within EPI, commitment and coordination. Priorities include training of staff, ensuring safety of injections and safe disposal of harmful waste, reinforcing the cold chain and enhancing the managerial capacities.

Vaccination coverage:

The Reported DPT3 coverage rate in Sudan was 65.4 % for the year 2000 and increased to 70.5% for the year 2001 and was declined once again to 64% in 2002. There has been no independent assessment of coverage levels in recent years. Sudan received support from GAVI in October 2002 to improve EPI coverage.

The main achievements in the biennium (2002 – 2003) include the followings:

- Finalization of the micro-plans of all localities in the country using polio eradication experience.
- Revision and updating of the immunization policy and practice

- Production of immunization guidelines and training manuals in Arabic.
- Strengthening of EPI infrastructure and system by providing new cars to the states (46), new cold chain equipment (\$1.8 millions) and communication means with the support of WHO, UNICEF, Rotary International and through the support of the government of Japan (GoJ).
- Conduction of six MLM courses targeting 23 states and 110 localities EPI operation officers.
- Revision of the MNT program and implementation of the second phase in the 29 new high-risk localities identified.
- Endorsement of measles control plan by the IACC and selling the proposal to different partners for funding.
- Implementation of the scheduled SIAs' for the year 2002 and spring 2003.
- Better involvement of professional associations in EPI activities e.g. creation of what is called "Child Forum" with the Sudanese Pediatrics Association.
- Conduction of planned joint supportive supervision with all partners (EPI, WHO & UNICEF).

In spite of the accelerated inputs and progress achieved in implementing the five-year plan, the year 2002 had witnessed a decline in the EPI coverage rate. The OPV₃/ DPT₃ coverage rate was

dropped from 70.7% in the year 2001 to 64.3% in the year 2002 and it was also the same trend for BCG and measles. This can be attributed to the following:

- Cessation of multi-antigen acceleration campaigns – a key strategy implemented in the previous years.
- Abrupt drop in EPI coverage rate in two densely populated, previously well performing states, namely Khartoum and North Darfur states due to high drop outs (poor utilization). The OPV₃/ DPT₃ was dropped from 92% in 2001 to 76% in the year 2002 in Khartoum state, and as well from 84% in 2001 to 36% in the year 2002 in North Darfur state.
- Re-surgent insecurity in western part of Sudan beside the long-standing conflict in south Sudan.

Nevertheless, some opportunities and windows for better performance in the year 2003 were leashed to improve the EPI coverage, and could be summarized as follows:

- Availability of GAVI fund and starting the implementation of the routine micro-plans at district levels.
- Renewal and rehabilitation of the cold chain

- The logistic support made available to transport and communication systems.
- Establishment of budget lines to boost routine immunization in 10 states in the country.

Specific Objectives for 2004 – 2005:

1. Raise immunization coverage among children < 1 year to > 85% by 2005 for all EPI targeted diseases
2. Achieve certification of polio eradication by the year 2005
3. Reduce measles morbidity and mortality by 60% and 40% respectively by year 2005
4. Reduce incidence of NNT to less than 1 /1000 live births by the year 2005
5. Integrate Hep B vaccine into EPI by the year 2004

Strategies:

1. Strengthen management at all levels.

2. Reinforce coordination and community involvement
3. Reinforce logistic capacities of the EPI
4. Ensure sustainable financing for EPI
5. Ensure vaccine quality and regular supply

Priorities for 2004 – 2005:

1. Strengthen program management at all levels;
2. Implementation of localities micro-plans;
3. Ensure effective vaccine management at all levels;
4. Ensure existence of a quality reporting system;
5. Enhance implementation of supportive supervision at all levels.

In conclusion, routine immunization will remain as a real challenge in the context of a country like Sudan, with unstable polity and underlining peace building and conflict resolution.

But, we are confident that Sudan with the current level of support of different partners will, at the end, achieve the global, regional and national predetermined objectives despite all constraints mentioned.

		When	By Whom	Secure of fund			Indicators
				WHO	UNICEF	GAVI	
Objective 1	By 2005 achieve and sustain an immunization coverage of not less than 83% for DPT3, OPV3, BCG and measles vaccine for children under one year of age and 45% coverage of TT₂ + among pregnant women.						
Product	Improved EPI coverage at locality level.						
Activity 1	Improving EPI services		F-EPI/ S-EPI				
A/C	Updating of locality micro-plans for 2005	Q1	S-EPI				No. complete micro- plans/ proposed
A/C	Establish new 200 fixed posts and 800 outreach, and assure the sustainability of 2004 posts and mobile teams.	Q2	F-EPI/ S-EPI			1000	No. fixed & outreach established/ proposed
A/C	Continuing tracking defaulters and reducing missed opportunities in all EPI posts according to the guidelines.	Q1 – Q4	S-EPI				% of posts that follow their defaulters
A/C	Ensure regular supply of vaccines and consumables in all EPI posts and follow the stock-out at all levels.	Q1 – Q4	F-EPI/ S-EPI		1000	1000	% of localities that had stock-out
A/C	Motivation of NGOs and private sector to participate in immunization services specially in hard to reach areas	Q1 – Q4	F-EPI/ S-EPI				No. of NGOs that work in targeted areas
A/C	Print and distribute 1,000,000 children cards, 1500 register books, 2000 reporting forms & 2000 monitoring charts to all	Q1	F-EPI			100	No. of printed cards, register books & monitor charts

	levels to complete the required stock for the whole year						
A/C	Conduct TOT courses for the 157 state EPI officers to be responsible for training of providers at the state level.		F- & S-EPI			20	% of trained / proposed
A/C	Monitoring the perfect use of monitoring charts at the locality and health facilities levels	Q1 –Q4	F-EPI				% of posts that perfectly use monitoring charts
	Motivate the states /localities/posts according to special quality indicators by Provide Incentives to the well performing localities	Q1 –Q4	F-EPI			5	No. of states /localities/posts that motivated
Activity 2	Strengthen reporting and notification system and followup for the monthly coverage data		F/S. EPI				
A/C	Achieve 98% completeness & timeliness for monthly reports	Q1 –Q4	F/S. EPI				% completeness &timeliness achieved
A/C	Achieve 100% regular monthly feedback	Q1 –Q4	F-EPI				% feed back achieved
A/C	Conduct a regular DQA to monitor the quality of data & reporting system		F-EPI				DQA report available
A/C	Update,print & distribute the vaccinator manual (2 nd verssion) for all EPI posts	Q2	F-EPI			15	% the manual distributed
A/C	Conduct an EPI coverage survey for all antigens by the end of 2005 in 2 states (S.D arfur, Gadarif)	Q4	F-EPI			10	Survey report
Activity 3	Increase coordination of immunization activities among national, provincial officials and among other partners						
A/C	Continue organizing the EPI week 4 times/year to markit the EPI massages through difrent media	Q1 – Q4	F-EPI			40	No. EPI week that organized
A/C	Continue promoting the EPI workers to distribute EPI massages & conduct social mobilization seminars for mothers during the immunization sessions or during waiting for medical services	Q1 – Q4	S-EPI				No.EPI posts that conduct social mobilization seminars/total EPI posts
A/C	Working with the school health education program to use the pupils as amedia for distribution of immunization masseges among the families.	Q3	F/ S. EPI				No. schools that involved in distribution of EPI massages

A/C	Conduct a pilot "communication model" in 2 special population that had poor utilization for the EPI services in order to raise the usage & coverage rate	Q2	F/S. EPI			10	No. localities that implement that model
A/C	Support the development, production & distribution of EPI social mobilization materials and messages to be used at all EPI posts through different media	Q1 –Q2	F. EPI	3	2	5	No. printed messages distributed
A/C	Continue production of "EPI Itlala" quarterly which is used as educational ,social-mobilization & feedback tool	Q1 –Q4	F. EPI			8	No. Itlala that produced
A/C	Continue ICC meetings quarterly to discuss issues related to immunization funding and program planning and management	Q1 –Q4	F. EPI				No. meetings / year
A/C	Continue formulation of the EPI friendship organization in all states (10)	Q1 –Q4	F/S . EPI			10	No. organizations formulated/ proposed
A/C	Conduct 11 orientation meetings with locality governance & 23 orientation meetings with politicians and community leaders in order to get support to the programme	Q1 –Q4	S . EPI				No. of meetings conducted
A/C	Reinforce coordination between national & international NGOs at federal &state levels	Q1 –Q4	F/S . EPI				No. NGOs coordinated with
Activity 4	Strengthen planning & management capabilities of midlevel EPI staff		F/ S. EPI				
A/C	Conduct mid level EPI management training for 134 locality EPI officer in the 23 States.	Q3	F. EPI			30	No. trained / proposed
A/C	Concentrate in the 2005 training on priority subjects (data &reporting quality, vaccine management, micro-planning follow up, supervision, defaulter tracing & immunization safety).	Q3	F. EPI				No. courses that concentrated on these subjects / total courses done
A/C	Develop & distribute a national module on EPI supervision & EPI management skills	Q2	F. EPI				Availability of the module
	Revise &update the supervisory checklist to include the updated requirements	Q2	F. EPI				Updated supervisory checklist

A/C	Conduct an advance training course in supportive supervision for federal and state supervisors & formulation of a homogenous supervisory group	Q2	F. EPI			10	No. supervisors trained
A/C	Ensure that each locality had an annual supervision plan	Q1	F/S. EPI				No. localities that had supervision plan
A/C	Ensure the availability of supervisory log book in all EPI posts & motivate the providers to make use of the supervisory notice in that book	Q1 – Q4	S. EPI				No. post that had supervisory log book
	Develop a supervision monitoring programme to insure implementation of the supervision recommendations at all levels	Q1 – Q4	F/S. EPI				% recommendations that implemented / approved
A/C	Conduct 35 supervisory visits programmed as one visit/year for group 1 states, two visits/year for group 2 states & 3 visits /year for group 3 states	Q1 – Q4	F. EPI			30	No. visits implemented / planned for every level
A/C	Continues the use of perfect manager indicators to reward States & locality staff as good performance for motivations	Q1 – Q4	F. EPI				Monthly monitoring report available
Activity 5	Scientific perfection of EPI performance by promoting the scientific researches						
A/C	Provision of a high quality data base	Q1 – Q4	F/S. EPI			20	Available data base at the internal net
A/C	تقنية العمل في المعلومات وترسيخ مبادئ الإدارة الالكترونية.	Q1 – Q4	F. EPI			15	No. programmes implemented
A/C	Conduct 3 research /year (2)EPI cluster survey , DQA2	Q1 – Q4	F. EPI			15	No. researches that conducted
Activity 6	Reinforce transportation capacity to assure smooth supply & transportation of supervision and mobile teams						
A/C	Provision of 10 new cars for south states and 19 new cars for the surveillance in cooperation with the partners and donors	Q1 – Q4	F.EPI/ WHO/ UNICEF	300	300		No. cars provided

A/C	Continue the cooperation with the states to assure continuous maintenance of EPI cars	Q1 – Q4	F/S. EPI			35	% cars that maintained / failed
Activity 7	Ensure sustained financing of EPI activities						
A/C	Finishing the study of identification of EPI compressible cost that started 2004	Q1 – Q2	F. EPI				Report of the study
A/C	Develop the EPI FSP by the help of GAVI consultant	Q2	F. EPI/ GAVI				Development of the FSP
A/C	Build in phased long term commitment from the government	Q1 – Q4	F. EPI				
A/C	Mobilize the ICC to explore possibility of additional funding from donors	Q1 – Q4	F. EPI				Quantity of the additional fund
A/C	Create & established EPI budget line in 50% of the localities	Q1 – Q4	F/S. EPI				No. localities that established EPI budget
A/C	Continue linking the state funding support by there performance and implementation of the micro-plans	Q1 – Q4	F. EPI				Periodic reports for the % of funding provided & % of implementation / proposed funding support
A/C	Monitoring & supervision for the efficient use of the local resources and funding support	Q1 – Q4	F. EPI				No. Of deviations from allocated resources
Activity 8	Renew and expand the cold chain capacity						
A/C	Prepare the cold chain SOP & develop a computerized system for calcification & monitoring of the cold chain equipments	Q1 – Q2	F. EPI				Available SOP & computerized monitoring of the cold chain equipments
A/C	Renewal of cold chain equipment in 13 states (south & Darfur states) and preventive maintenance in another 13 states	Q1 – Q4	F. EPI	200	200	200	No. states that finishing the maintenance & renewal
A/C	Purchase and keep a buffer stock of cold chain spare parts and consumables	Q1 – Q4	F. EPI			100	Minimal stock of cold chain spare parts
A/C	Training of 5 federal cold chain technicians on CFC free by WHO consultant	Q3	F. EPI/WHO	✓			No. of trained cold chain technicians
	Conduct Refresher training for 23 cold chain technician in all	Q4	F/EPI			7	No. of trained cold chain

	states to be responsible for the preventive maintenance at state level						technicians
A/C	Develop 2 zonal cold chain maintenance structure in Noth Kordufan and Kassla	Q3				40	No of cold chain maintenance structure
Objective 2	Establish a vaccine safety & management system						
Product	Assure the arrival of safe and efficient vaccine for the target population	Q1 – Q8					
Activity 1	Perfect estimation of needs ,purchase and receiving vaccines according to standards						
A/C	Proper estimation of vaccines according to the targets and proposed coverage		F/EPI				Annual Forecast
A/C	Purchase the new year vaccines in a time period not more than the 1 st of December of each year	Q2	F/EPI				Presence of the purchase order
A/C	Receiving vaccines and doing the custom clearance in not more than 2 hours from its arrival	Q1 – Q4	F/EPI				No of shipments that cleared in the proper time
A/C	Submission of the VAR to UNICEF in not more than 72 hours after the vaccine entered the primary store	Q1 – Q4	F/EPI				No of VARs that submitted to UNICEF in the proper time
Activity 2	Maintain controlled and safe vaccine stock according to the WHO standards	Q1 – Q8	F/EPI				
A/C	Vaccine stock insurance at insurance company	Q1 – Q8	F/ EPI			100	Presence of the assurance document
A/C	Continue the quarterly vaccine & syringes stock inventory at all levels						
A/C	Continue usage of the computerized system for issuing & control of the primary vaccine stock and the ware house	Q1 – Q8	F/EPI				
Activity 3	Assure the proper and on time transportation of vaccines to the targeted states	Q1 – Q8	F/ EPI				

A/C	Continuing the distribution of the vaccines and syringes in a form of panel	Q1 – Q8	FEPI				
A/C	Receiving the VAR from the states by 100% in not more than 72 hours from time of sending	Q4	FEPI			5	
A/C	Observe and record the temperature during the vaccine transport						
A/C	Contacting a transport company for vaccine transport to the states as pilot						
Activity 4	Decrease Wastage Rate	Q1– Q2	FEPI				
A/C	Monitor wastage rate at all level	Q1 – Q8	FEPI&Partner				
A/C	Monitoring vaccine handling during immunization session at all immunization posts	Q1 – Q8	Federal&SEPI				
Activity 5	Assure usage of safe vaccine and syringes .						
A/C	Conduct training sessions on immunization safety within the different training courses	Q1 – Q8	FEPI				
A/C	Revitalize the role of the National Regulatory Authority on vaccines.						
Activity 6	Achieve the primary cold store accreditation by the Year 2005	Q1 – Q8	FEPI				
A/C	Printing and distribution of the SOPs and monitoring its implementation at all levels	Q1 – Q8	FEPI			100	150
A/C	Monitoring for the periodic cold chain maintenance and insurance	Q1 – Q8	FEPI				
Objective 3	To achieve certification of polio eradication by 2005	Q1	FEPI				
Product	Sudan polio free certification has been achieved						
Activity	Maintain an international AFP surveillance standards at	Q2	FEPI			30	

	all levels						
A/C	Refresher training for 24 AFP surveillance officers at state level	Q3	FEPI				30
A/C	Conduct 1152 active visits by the AFP officers for the 366 selected sites (High / Medium / Low) at all levels	Q1 – Q8	FEPI				
A/C	Produce ,print & distribute an educational materials in Arabic and English for all localities						
A/C	Hold a coordination meeting with cross border countries for information exchange and SIA coordination	Q1	FEPI				
A/C	Conduct 4 meeting/year for the National Certification Committee	Q2	FEPI			10	
A/C	Implement 2 polio NID (5 rounds)	Q1 – Q8	FEPI				
A/C	Implement meeting with the OLS to organize the polio NIDs						
A/C	Evaluation of the AFP surviellance system by WHO consultants						
A/C	Laboratory control of the WPV and discard all the suspected samples	Q1 – Q8	FEPI				
Objective 4	Reduction of Measles morbidity and mortality by 60% and 40% respectively by year 2005.	Q1 – Q8	FEPI & Partners		188		4000
Product	Raising the immunity of the community & reducing the susceptible	Q1 – Q8	FEPI				
Activity 1	All the activities in objective (1)	Q1 – Q8	FEPI				
A/C	The same A/C in objective (1)	Q1 – Q8	FEPI				
Activity 2	Completion of the 3rd phase (Khartoum, White Nile) and implement the 4th phase (south states) July-September 2005						
A/C	Micro-planning for the targeted states (Khartoum, White Nile, south states)	Q1 – Q8	Federal & SEPI				

A/C	Insure the availability of the required funding for the 3 rd and 4 th phases	Q1 – Q8	Federal & SEPI				
A/C	Insure the availability of the required vaccines, syringes and other requirements	Q2	FEPI			30	
A/C	TOT & refresher courses for the campaign providers	Q1	FEPI				
A/C	Conduct a social mobilization campaigns	Q1 – Q8	Federal & SEPI				
A/C	Campaign lunching	Q1 – Q8	FEPI				
Activity 3	Strengthen Measles surveillance System	Q1 – Q8	F & SEPI				
A/C	Training of the state EPI ,AFP and epidemiology personnel to increase the state capacity for measles surveillance & outbreak response .	Q1 – Q8	FEPI	10	10	20	
A/C	Printing & distribution of the measles surveillance manual to all northern states						
A/C	Early warning and preparedness for measles outbreak response	Q1	FEPI			5	
A/C	Improve Laboratory Surveillance Capacity	Q1	FEPI			10	
A/C	Implement measles case based surveillance in the northern states that conduct the campaigns	Q1 – Q2	FEPI			30	
A/C	Collect a blood sample from every reported measles case for confirmation	Q1 – Q8	FEPI				
Activity 4	Improve the proper case management for the confirmed measles cases						
A/C	Co-ordinate with IMCI & the pediatric association for measles standard case management protocol to train providers						
A/C	Assure the distribution of vit A in the case management , during routine and campaigns						
Objective 5	Reduce incidence of MNT to less than 1 /1000 live births by the year 2005	Q1 – Q8	Federal & WHO				25

Product	MNT cases have been reduced to less than 1 / 1000 LB in all localities in Sudan by the year 2005.	Q1 – Q8	SEPI & WHO				20
Activity 1	Raise routine immunization coverage (as in objective 1).	Q1 – Q8	SEPI				23
A/C	The same A/C in objective 1	Q1 – Q8	FEPI & WHO				In kind
Activity 2	Vaccinate all the WCBA (15-49 Y) in 8 high risk localities by 3 doses of TT vaccine 1 month apart between 1st & 2nd doses and 6 month between 3rd & 4th doses	Q2 – Q3	EEPI & Partners				In kind
A/C	Detecting the high risk localities for 2005	Q4 – Q5	FEPI & WHO				15
A/C	Micro planning for the targeted localities	Q3 & Q7	FEPI & Partners		20		
A/C	TOT & refresher courses for the campaign providers	Q1	FEPI				
A/C	Conduct a social mobilization campaigns in the targeted localities						
A/C	Implement 3 properly spaced TT rounds to all CBAW in all identified high risk localities by the end of 2005	Q2	FEPI	10			
Activity 3	Promote clean delivery and obstetric practice						
A/C	Support training and refresher courses of more village midwives in collaboration with RH	Q2	FEPI	5			
A/C	Develop and disseminate appropriate health and communication messages for the targeted communities						
A/C	Support promotion of clean delivery practices by providing clean delivery kits						
Activity 4	Introduce active surveillance of MNT						
A/C	Integrating MNT surveillance with active AFP & measles surveillance	Q1 & Q5	FEPI & RH				20

A/C	Conduct community-based surveillance for MNT in the high risk localities.	Q1 – Q8	FEPI & RH					10
A/C	Improve case investigation for MNT especially in the areas that conduct the campaigns	Q1 – Q8	FEPI & RH					3
Objective 6	Continue the integration HB vaccine into EPI to all northern states by the year 2004							
Product	HB vaccine has been fully integrated into EPI in all northern states	Q1 – Q8	FEPI					
Activity	Implement phase 1 of the introduction plan in Khartoum, Gezira and Blue Nile states.	Q1 – Q8	FEPI					
A/C	Distribute the updated cards, registration books to the targeted states	Q1	FEPI					
A/C	Training of the providers in the targeted states about the new vaccine							
A/C	Conduct a social mobilization campaigns & orientation meetings about the new vaccine							
A/C	Monitor and assess phase 1							