FINAL REPORT ON THE 2003 DATA QUALITY AUDIT

SIERRA LEONE

This document has been produced with the financial assistance of European Union (EU). The view expressed herein can in no way be taken to reflect the official opinion of European Union.

SEPTEMBER 2004

Table of contents **Page**

1 Executive Summary 1
2 Introduction.....3
3 Findings – Data Accuracy 7
4 National Level – Findings and Recommendations 9
5 District Level – Findings and Recommendations 15
6 Primary Health Units (PHUs) Level – Findings and Recommendations 18
7 Core Indicators 23

APPENDICES

Appendix 1 – List of people met
Appendix 2 – Core indicators table
Appendix 3 – National Performance Indicators
Appendix 4 – Districts Quality of System Indices
Appendix 5 – PHU Quality of System Indices

FINAL. This document has been produced with the financial assistance of European Union (EU). The view expressed herein can in no way be taken to reflect the official opinion of European Union.

ACRONYMS

AD	Auto Disposable
AEFI	Adverse Events Following Immunization
CHC	Community Health Center
CHO	Community Health Officer
CHP	Community Health Post
DMO	District Medical Officer
DOR	Drop Out Rate
DPT	Diphtheria, Pertussis and Tetanus
DQA	Data Quality Audit
EPI	Expanded Programme on Immunization
HMIS	Health Management Information System
ICC	Interagency Coordinating Committee
JRF	Joint Reporting Form
M&E	Monitoring and Evaluation
MCHP	Maternal Child Health Post
NR	Not Relevant
PHU	Primary/Peripheral Health Unit
SLBS	Sierra Leone Broadcasting Services
TBA	Traditional Birth Attendant
TT	Tetanus Toxoid
VDC	Village Development Committee
VF	Verification Factor

FINAL. This document has been produced with the financial assistance of European Union (EU). The view expressed herein can in no way be taken to reflect the official opinion of European Union.

1 Executive Summary

The overall conclusion of the DQA team is that Sierra Leone has a robust system in place for reporting immunization information. There is general consistency of data and, in the districts sampled by the audit team, a strong indication of supervision at all levels. However the system requires improvement in some areas to ensure that it operates optimally.

We have highlighted below some of the key issues that require management attention. We have categorized these under system design, denominators, monitoring and evaluation and recording practices (vaccine store management).

System Design

EPI reporting systems are not integrated with other Health Management Information Systems (HMIS) at all levels.

EPI reporting systems should be integrated with other HMIS to reduce workload on reporting units and enhance coordination between the various health sectors

Denominators

The denominators currently in use are based on the 1985 census adjusted for estimated growth rates. Tonkolili, Port

Loko, Kenema and Bombali Districts reported coverage rates greater than 100% for some antigens, which may imply the denominators used are inaccurate.

The denominators need to be re-evaluated especially after the planned national census

Monitoring and evaluation

Vaccine wastage is not computed and monitored at all levels.

Both closed and open vial wastage should be monitored at all levels

Recording Practices (vaccine store management)

Most of the PHUs visited did not maintain a ledger book to monitor the receipts and issues of vaccine and other immunization supplies

Vaccine and other immunization supplies ledgers should be acquired and updated with all receipts and issues to facilitate monitoring of wastage.

.

2 Introduction

The DQA is a tool developed by WHO to evaluate the quality and precision of vaccination reporting, monitoring and evaluation systems and vaccination data (but not the quality of medical service delivery). It also, calculates core indicators, in particular, the verification factor and the quality of system index. The main objectives of the DQA are to:

- Assess the quality, accuracy and completeness of administrative immunization reporting systems,
- Audit the number of DPT3<1 given to infants in a specific calendar year and then estimate the national verification factor (VF, recounted/reported vaccinations) for use in the allocation of vaccine fund shares,
- Provide practical feedback to health staff on the quality of reported data.

The DQA was undertaken in Sierra Leone from 30 August 2004 to 11 September 2004 by external auditors James Karanja and Emmah Mathu of PricewaterhouseCoopers, accompanied by national auditors Festus Amara (Monitoring and Evaluation Officer) and Joseph Abu (Logistician). There are thirteen districts in Sierra Leone all of which were eligible for sampling. The four randomly selected districts were Kono, Bombali, Western Urban and Moyamba. There were no logistical problems encountered in the four selected districts. In each of the districts six health units and a reserve were selected randomly. In Western Urban district we could not obtain authorization to visit one of the selected health units since it is managed by the police . At the time of sampling no authorization problems had been foreseen by the District Medical Officer but subsequently it proved difficult to obtain clearance and as result we visited the reserve unit.

A debriefing meeting was held on Saturday, 11 September 2004 at the Ministry of Health and Sanitation headquarters

FINAL. This document has been produced with the financial assistance of European Union (EU). The view expressed herein can in no way be taken to reflect the official opinion of European Union.

with the members of the Interagency Coordinating Committee (ICC). The meeting was chaired by the Honorable Minister of Health and Sanitation of Sierra Leone, Ms Abator Thomas. A comprehensive list of persons met during the DQA including those present in the debriefing session is included in Annex I of this report.

2.1 Background

The Expanded Programme on Immunization (EPI) in Sierra Leone is governed by the National Policy on Immunization dated November 2002.This document is prepared to serve as a guide for all government health personnel as well as multilateral and non-governmental organizations carrying out EPI services in Sierra Leone.

The general goal of EPI is to reduce morbidity and mortality attributed to vaccine preventable diseases and thus improve the quality of life of the children and women of Sierra Leone. The primary target age group for EPI activities is children aged less than one year and women of childbearing age (15 – 49 years).

The Government of Sierra Leone has the overall responsibility for planning, implementation, monitoring and evaluation of immunization services. Immunization is under the direct management of a programme manager appointed by the Ministry of Health and Sanitation. The programme manager is supported by other staff at national level and by the District Health Teams headed by the District Medical Officers at District level. The services are provided by Peripheral Health unit staff such as Midwives, Community Health Officers or Assistants, Dispensers and Maternal and Child Health Aides.

Service delivery utilizes both static and outreach strategies, particularly in underserved areas.

The under fives card is the primary instrument for documentation of routine vaccinations. Under one and Tetanus Toxoid registers are maintained at the PHU level to

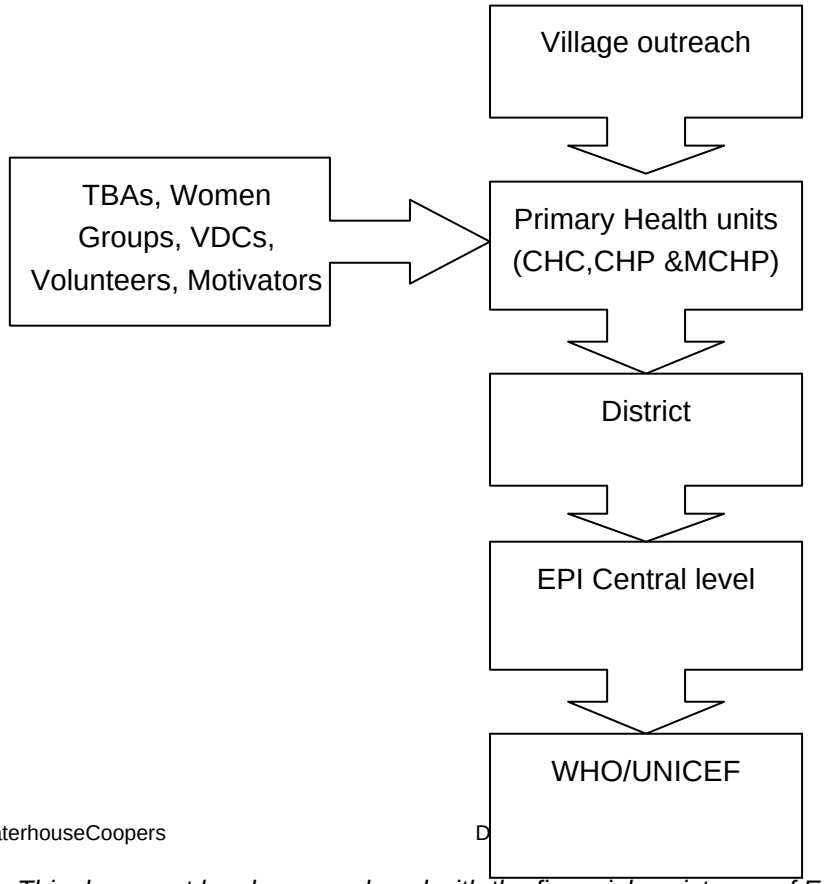
record the vaccination history of an individual. In addition, during each immunization session a tally book is used to capture all immunizations given in a particular day. This information is subsequently summarized to form the basis of the monthly PHU report to the district. All reports are due at the district level by the fifth day of the subsequent month.

At the District Level, all PHU reports are summarized and submitted to the Central level by the tenth day of the subsequent month.

The Central level consolidates and analyses all district monthly reports for reporting to stakeholders.

The Flow of information in the EPI program is shown in the diagram below.

Information/Data Flow and Organization of EPI in Sierra Leone



Tally books/ under one register

Tally books / Under one register
Tetanus Toxoid Register
Monthly report forms (submitted by the fifth day of the following month)

Monthly District Summary (submitted by the tenth day of the following month)

National Tabulation
Reports to GAVI, UNICEF, WHO

FINAL. This document has been produced with the financial assistance of European Union (EU). The view expressed herein can in no way be taken to reflect the official opinion of European Union.

3 Data Accuracy – Findings –

3.1 Verification Factor

The verification factor is a quantification of the data accuracy and its basic formula is:

$$\frac{\text{Immunizations recounted}}{\text{Immunizations reported}}$$

Sierra Leone achieved a verification factor of 98%. Generally there was a high consistency of data maintained at all levels. Some of the errors noted can be attributed to:

Transcription errors

There were minimal transcription errors noted in the reporting process. As a result there were fewer differences between the National tabulation, district tabulation and reports found at the district and PHU level.

Missing Information

The use of the tally book enhanced retention of information and as such, in most of the PHUs visited there was no information missing for previous and current audit periods.

Over reporting

No examples of over-reporting were observed, nor did anything come to our attention, which would suggest that immunisation data was deliberately over-reported.

3.2 Other points noted

3.2.1 Differences between the JRF and National Tabulation

The latest national tabulation shows the number of DPT3<1 doses administered as 129,068 while the JRF figure is 129,131- hence a difference of 63 doses. This is attributed to transcription error.

3.2.2 Comparison of health unit reports found at the district and district tabulation

Differences between the district tabulation and the health unit reports found at Kono district are attributed to the late receipt of the December 2003 reports, which were not processed in the tabulation. Late reports are incorporated in the following months tabulation.

District	Tabulation	Reports at district	Variance
Kono	11,433	11,515	82
Bombali	13,188	13,188	-
Western Urban	16,049	16,049	-
Moyamba	10,312	10,312	-

3.2.3 Comparison DPT3/ Other Antigens

Other antigens are reported in the same forms and tally books as those of DPT3<1. Consequently, there was consistency in the data recounted/reported for other antigens.

3.2.4 Inflation/fraud statement

There was no evidence of inflated or “creative” reporting that came to our attention.

4 National Level – Findings and Recommendations

4.1 System Design

4.1.1 EPI reporting systems are not integrated with other Health Management Information Systems (HMIS) at all levels.

Recommendation 1

EPI reporting systems should be integrated with other HMIS to reduce workload on reporting units and enhance coordination between the various health sectors.

Management Comments

The EPI Programme management has prepared a draft reporting format that has been circulated to the EPI Technical Committee and the Directorate of Planning and Information of the Ministry of Health and Sanitation for approval and harmonization into the general Health Management information System. This will be implemented soon.

4.1.2 There is no official written regulation regarding the reporting of immunization data from the PHUs, covering what, where and when to report etc

In addition there are no written instructions for report forms currently in use regarding how to fill the forms, who to sign the forms, how to distribute and archive the reports.

Recommendation 2

The EPI Central should draft a formal written regulation regarding the reporting system i.e. PHU, District and National level. This regulation should cover such aspects as reporting deadlines, persons responsible for signing the forms, distribution and archive of reports etc.

Management Comments

The Ministry has discussed the draft report with WHO and UNICEF and plans are under way to write these regulations. These regulations would be distributed to district Health Management Team and PHU in-charges and shall be included into the EPI Policy Document.

4.1.3 There is no written procedure within the EPI programme for dealing with late reporting.

Recommendation 3

A written procedure for late reporting should be put in place and implemented.

Management Comments

District Medical Officers had been informed that they should submit late reports specifying the month so that district and national tabulations could be updated every month

4.1.4 District report forms do not have a space for reporting the number of PHUs, which would help to monitor completeness of reporting. Currently there are new forms being designed for EPI reporting which incorporate monitoring of completeness.

Recommendation 4

The new District report forms should be adopted as soon as possible to allow for monitoring of completeness of PHU reporting.

FINAL. This document has been produced with the financial assistance of European Union (EU). The view expressed herein can in no way be taken to reflect the official opinion of European Union.

Management Comments

The EPI summary form will be modified to include additional column for numbering PHU reporting, as this will determine completeness of reporting
The EPI summary form will be modified to include additional column for numbering PHU reporting, as this will determine completeness of reporting

Management Comments

The planned national census will be conducted in December this year and the denominator issues will be soon addressed at all levels

4.2 Denominators

4.2.1 The denominators used in the country are based on the 1985 census adjusted for estimated growth rates. Tonkolili, Port Loko, Bombali and Kenema districts reported coverage rates >100% for some antigens. This may imply that the denominators used are inaccurate.

Recommendation 5

The denominators need to be re-evaluated especially after the planned national census.

4.3 Monitoring and Evaluation

4.3.1 Tabulations produced at the EPI Central office were not dated. It is therefore difficult to determine the sequence of preparation and the latest updates of any tabulation.

Recommendation 6

All tabulations should be dated

Management Comments

The management has provided a ledger to enter date of receipt of all reports. Date of processing of data will also be maintained

4.3.2 System and global vaccine wastage was not monitored at all levels. 22 of the PHUs visited did not monitor vaccine wastage.

Recommendation 7

Both closed and open vial wastage should be monitored at all levels.

In addition, report forms at all the reporting levels should be designed to allow for calculation of vaccine wastage.

Management Comments

The draft-reporting format that is under review will capture vaccine wastage rate. PHU, staff district teams and central staff will be trained on how to calculate vaccine wastage rates

4.4 Storing and Reporting

4.4.1 There are no written procedures for data transfer and back-up. Currently there is no network at the EPI office hence data is transferred between the various computers on an ad hoc basis to guard against data loss. No back-ups are stored offsite.

Recommendations 8

A back-up and data transfer policy should be developed, documented and implemented. .

Back ups should be done at short intervals (say, weekly) in order to minimise the amount of data or information lost in the event of a computer breakdown or disaster

Management Comments

A meeting has been held with all district medical officers to develop data transfer policy. This has started in Moyamba district though slow for the other districts due to decentralization process. Hard copies are available and information shared with donor partners in electronic form.

4.5 Recording Practices (Vaccine Store)

We noted that there is proper maintenance of records of vaccine receipts and issues. Other immunizations supplies such as syringes, registers, cards etc are also well recorded.

4.6 Quality of System Index

The quality of system index at national level was on overall 73.6% with the specific areas having scored as follows:

System Design – 2.31/5.00

Recording Practices – 5.00/5.00

Storing/Reporting – 3.00/5.00

Monitoring and evaluation – 4.17/5.00

Denominators – 4.00/5.00

5 District Level – Findings and Recommendations

5.1 Demographics/Planning

5.1.1 The proportions of infants per strategy type (i.e. static, outreach etc) were not known for Kono District.

Recommendation 9

Having the number of infants per strategy type helps in resource allocation and for other planning purposes. These proportions therefore need to be determined and utilized in planning and service delivery.

Management Comments

The draft format of reporting is stratified by strategy type, which will be implemented next year. Training has been planned for collection of such information at district and PHU levels

5.2 Monitoring and Evaluation

5.2.1 There were no updated charts/tables of the current year immunization coverage and drop-out rate (DPT1<1 and DPT3<1) displayed in Western Urban.

Recommendation 10

An up-to-date chart/table of the current year immunization coverage and drop-out rate of DPT1<1 and DPT3<1 should be displayed to facilitate proper monitoring of the vaccination program.

Management Comments

Immunization coverage will be monitored at all level by providing monitoring charts to all PHUs which will monitor immunization coverage. DPT1, and DPT3 drop out rate will be regarded as key indicators but other antigens also will be monitored

5.2.2 The timeliness of PHU reporting was not monitored in Kono and Western Urban districts. In addition Kono district did not monitor the completeness of health unit reporting.

Recommendation 11

Each district should devise a system of monitoring the timeliness and completeness of PHU reporting.

Management Comments

All districts will be provided with a ledger to enter receipt of all reports received from PHUs to determine completeness and timeliness

5.3 Storing and Reporting Practices

5.3.1 Although all the Districts and health units are aware of the reporting deadlines, there is no uniform procedure/system for dealing with late reporting. For instance, in some of the districts late reports are cumulated in the subsequent months totals whereas in others they are submitted as a separate report to the Central level. However, we noted that in Western Urban, late reports were not submitted to the central level.

Recommendation 12

National guidelines should be developed for dealing with late reporting.

Management Comments

Guidelines will be developed for dealing with late reporting. In the interim, M & E officers have been informed to submit late report for the following month highlighting PHUs that reported late.

5.4 Recording Practices (Vaccine Store)

5.4.1 During the visits to PHUs in Bombali and Kono districts, we noted that immunization forms were not sufficiently available during the year. The PHUs therefore had to improvise the reporting forms and in some instances information was omitted from the improvised forms.

Recommendation 13

The district should monitor the supply of immunization forms to avoid stock outs so that data accuracy and consistency are not compromised.

Management Comments

Although decentralization is in progress, the programme management will print adequate forms and distribute to districts for use by PHUs.

5.4.2 Though all the selected districts were equipped with computers, none of these were being utilized for data processing. Manual tabulations were therefore submitted to the National level. This is mostly attributed to lack of computer skills at the district level.

Recommendation 14

Districts should be encouraged to prepare computerized tabulations to enhance data accuracy. In addition, district staff should be equipped with the necessary data processing and data analysis skills.

Management Comments

The decentralization packages included computer training of all District Health Management Team DHMTs)

FINAL. This document has been produced with the financial assistance of European Union (EU). The view expressed herein can in no way be taken to reflect the official opinion of European Union.

6 Primary Health Units (PHUs) Level – Findings and Recommendations

6.1 Selection of PHUs

DISTRICT	PHUs SAMPLED
Kono	Peyima, Kissy Town/Kombayende, Keinsay, Jaiama Sewafe, Small Sefadu, Kondewakoro/Kpeteme
Bombali	Kagberay, Masuba, Yainkassa, Mapaki, Kolisokoh, Makama
Western Urban	ORT Center, Macauley Street, King Harman Road Hospital, Ross Road, Family Clinic, Wellington Clinic
Moyamba	Yankissa, Moyeamoh, Moyamba junction, Mokassie, Mano, Yoyema

In total, 20 health units were ineligible for sampling in the four districts. This was attributed to the following reasons:

- Inaccessibility – bridges and roads cut off due to the heavy rains (7)
- Mobile Clinics [1](9)
- Clinics closed down (2)
- PHU staff admitted in Hospital (1)
- Special authorization required (refugee camp) (1)

The Total number of PHus per district is as follows hence 20 non eligible HU's have a negligible effect on the VF

Kono	55
Moyamba	69
Western Urban	52
Bombali	65

1 Although mobile clinics were considered ineligible, Kondewakoro was listed as a PHU that had reported for two months, and hence was eligible for selection. Upon its selection, the district officers informed us that for those months, it was still operating as an outreach of Kpetema PHU. They therefore advised us that if we wanted to recount those particular months, then we could do it from Kpetema. Upon arrival at Kpetema, we found out that those two months reported related to mobile clinics conducted by a certain NGO, and not an outreach as we had been informed. All the other months it functioned as an outreach of Kpetema and reported as such. We could therefore not recount the two months data. We however asked the quality questions to the "parent" PHU. You will therefore note that although the quantitative data is missing, but quality questions are answered.

6.2 Recording Practices

6.2.1 In one of the PHUs visited the current under one child register was not found and as such the vaccination history of the children could not be ascertained. In another PHU, the current Tetanus Toxoid register was not available.

Recommendation 15

Child and TT registers should be maintained and updated immediately to track vaccination history and vaccine defaulters.

Management Comments

Adequate registers will be provided to all PHUs staff and training will be conducted on data collection, reporting and defaulter tracing.

6.2.2 20 out of the 24 PHUs visited did not maintain a ledger book to monitor the receipts and issues of vaccine and other immunization materials. Currently the PHUs use a requisition book which does not capture issues.

We also noted that 11 PHUs did not record the batch and/or the expiry dates of vaccines.

Recommendation 16

Vaccine and other immunization supplies ledgers should be acquired and updated with all receipts and issues to facilitate monitoring of wastage. Additionally the expiry dates, batch numbers, damaged and discarded vaccines should be monitored through these ledgers.

Management Comments

Vaccine and other supplies ledger will be developed printed and distributed to all PHUs so that vaccine supplies and issue can be

determined by PHU staff in an effort to know utilization and vaccine wastage rate.

6.2.3 In 9 of the PHUs visited, staff taking the Child Health Exercise did not get a perfect score for DPT1, DPT3 and Measles. A review of the under one registers in some of these PHUs revealed instances of premature immunizations being administered. This could imply gaps in the health workers' knowledge of the immunization schedule for children 0 – 11 months.

Recommendation 17

Registers should be reviewed by the PHU in-charge and also by the district supervisors to ensure that premature immunizations are not administered. Any skills/knowledge gaps identified should be addressed immediately

.

Management Comments

Refresher training of PHUs staff will be conducted on EPI every year as new innovation is always the challenge of EPI; thus this will prevent premature vaccination of children

6.3 Storing and reporting

Generally all the monthly reports for 2002 and 2003 were properly stored and available except the 2002 reports for one PHU, which were lost during relocation.

6.4 Monitoring and Evaluation

6.4.1 In 2 out of 24 health units visited, there were no maps showing the catchment areas including the outreach villages.

Recommendation 18

All PHUs should be encouraged to draw and display maps of their catchment areas showing the strategy type.

	Management Comments	**Management Comments**
	The DHMT and the programme management will ensure that all PHUs develop maps showing their catchments area	**The training component will include calculation of coverage and drop out rates for all PHUs staff involved in Immunization activities**
6.4.2	One PHU did not have an up-to-date chart/table showing coverage and drop-out rates for the current year. *Recommendation 19* *Staff should be encouraged to calculate and display coverage and drop-out as a means of monitoring their performance.*	

7 Core Indicators

7.1 Safety

7.1.1 Surveillance of adverse events

Section 10.6 of the National Policy on Immunization (November 2002) states that “Adverse Events Following Immunization shall be reported immediately to the supervisor or surveillance team for appropriate action…….. All cases of AEFI shall be reported and investigated.”

During the visits to the PHUs we noted that the staff were aware of the reporting requirements for AEFI. However, the AEFI forms were not available in PHUs in Western Urban and Kono districts.

Recommendation 20

There is a need to ensure that AEFI investigation and reporting procedures are harmonized in all the districts.

Management Comments

The surveillance unit of the Ministry of Health and Sanitation has been informed to monitor AEFI and this is part of the integrated disease surveillance system now in progress

7.1.2 Monitoring of Syringe Supply

There was adequate monitoring of syringe supplies i.e. receipts and issues at the National and District levels. However, at PHU level syringe issues were not recorded. See further comments in section 6.2.2

7.2 Global and System Wastage

Wastage is not reported in the Joint Reporting Form (JRF) because vaccine wastage is not monitored at all levels. See further comments and recommendations in section 4.3.2. The individual PHU wastage (for the PHUs where it could be calculated) is shown in the table below:

PHU	District	Wastage
Keinsay	Kono	3.70%
Jaima Sewafe	Kono	18.20%
Small Sefadu	Kono	50.40%[2]
ORTC	Western Urban	7.40%
Macauley Street	Western Urban	4.00%
King Harman Hospital	Western Urban	7.90%
Wellington	Western Urban	-2.40%
Yankissa	Moyamba	6.20%
Moyeamoh	Moyamba	0.30%
Mano	Moyamba	4.10%
Yoyema	Moyamba	50.70%[3]

7.3 Completeness of reporting

All districts submitted their monthly summaries to the EPI Central office for processing.

7.4 Changes from the last DQA

Being the first year of DQA in Sierra Leone, there were no prior year recommendations.

[2] The high wastage reported for small Sefadu may be due to inaccurate records as the Health Unit Does not monitor wastage

[3] Yoyema recorded a high wastage since its refrigerator was not functioning for most of the year. Hence any unused vaccines were discarded at the end of the day.

APPENDIX I - LIST OF PEOPLE MET

Name	Designation
National Level	
Dr Magnus Ken Gborie	EPI Programme Manager
Dr Waithira Gikonyo	Programme Coordinator UNICEF
Kedrick Kiawoin	Health/Nutrition Officer UNICEF
Dr Joakim Saweka	WHO Country Representative
Dr William Komakech	EPI Consultant – WHO
Dr Arthur Wiliams	Director, Hospital and Laboratory Services
Dr Al Hassan Seisay	Director, Disease Prevention Control
Marx Kanu	Administrator - EPI

Name	Designation
Sheik M Njai	National Operations Officer
Edson Turay	Cold Chain Officer
Festus Amara	Monitoring and Evaluation Officer
Joseph Abu	Logistician
Alex Gendemah	Assistant Logistician
Foday Kamara	Assistant Cold Chain Officer
Western Urban District	
Dr Amara Jambai	District Medical Officer
Aina Rose	District Monitoring & Evaluation Officer
Hassan Jalloh	District Operation Officer

Name	Designation
Moyamba District	
Dr J N Kandeh	District Medical Officer
Dr Sartie Kenneh	Medical Officer
Richard M Kaimbay	Monitoring and Evaluation officer
David Swaray	District Operation Officer
Bombali District	
Dr Samuel J Smith	District Medical Officer
S. A. Fode	District Operation Officer
Ibrahim Kabia	District Cold room Officer
Edmund Turay	Monitoring and Evaluation/Surveillance Officer

Name	Designation
Mohammed Conteh	District Social Mobilization Officer
Ibrahim Barrie	M & E Officer II
Sister Evelyn Bangura	Maternal & Child Health Aide Coordinator
Lansana Mansary	Supervisor Zone III
Samuel Tommy	Supervisor Zone I
Kono District	
Dr Momodu Sesay	District Medical Officer
Elizabeth K Lemon	DHS
Amara Moriba	District Surveillance Officer
Fedson E Kuti George	Monitoring and Evaluation Officer

Name	Designation
Mohamed Rogers	District Operation Officer
ICC DEBRIEFING	
Hon Ms Abator Thomas	Minister for Health and Sanitation
Dr P T Roberts	Director, Primary Health Care
Dr A J Moosa	UNDP Dec Spec
Dr M K Gborie	Progamme Manager EPI
Dr Sammi	Health Coordinator – UNHCR
Festus Amara	Monitoring & Evaluation Officer – EPI
Shot Macauley	Chairman P/P Rotary International
Waithira Gikonyo	Programme Coordinator – UNICEF

Name	Designation
Kedrick Kaiwon	Project officer – UNICEF
Dr Pascal Crepin	Technical Advisor – EU
Mr A Tall	Country Representative – UNICEF
Dr Noah Conteh	Director-General, Medical Services
Dr A Williams	Director, Hospital & Laboratory Services
Dr W Komakech	EPI Consultant – WHO
Alhaji U.N.S Jah	Social Mobilization – DPC/MOHS
Dr Duramani Conteh	Surveillance Coordinator – DPC/MOH
S M Njai	National Operations Officer
Joseph Abu	Logistician

Name	Designation
Dr E T Musa	Senior Medical Officer
Dr A L Seisay	Director, Disease Prevention Control
Mohamed Sandi	Director, Financial Resources
B C Terry	Surveillance – WHO
M A Ndolie	Surveillance – WHO
J Abass	Public Relations Officer MOHS
Dr C Kamara	Director Planning & Information Systems
Joseph Stanley	Reporter – SLBS

APPENDIX II - CORE INDICATORS TABLE

NATIONAL LEVEL

Indicator	JRF	REPORTED AT THE TIME OF AUDIT
Districts with DPT3 coverage >=80%	2	2
Districts with Measles coverage >=90%	3	3
Districts with DOR <10%	1	1
Types of syringes used in the country	AD & Non AD Syringes	AD & Non AD Syringes
Districts with AD syringes	13	13
Introduction of Hepatitis B	No	No
Introduction of Hib	No	No
Country wastage of DPT	ND	ND

Indicator	JRF	REPORTED AT THE TIME OF AUDIT
Country wastage of Hep B vaccine	NR	NR
Wastage rate Hib	NR	NR
Interruption in vaccine supply 2003		BCG (Early 2003) & DPT(November and December 2003)
Number of districts with interruption in vaccine supply 2003	DPT =5 Districts BCG= National	DPT =5 Districts BCG= National
% of coverage reports received at national level compared to number of reports expected*	100%	100%
% of coverage reports received on time at national level compared to the number of reports expected*		38%
Number of Districts supervised at least		ALL 13

Indicator	JRF	REPORTED AT THE TIME OF AUDIT
once in 2003		
Number of districts which have supervised all PHUs during the audit year	13	13
Number of districts with Microplans including routine immunization	13	13

BOMBALI

Indicator	Information at the National Level	Information at the District Level
District DPT3 Coverage (Latest tablulation available)	96%	96%
District Measles Coverage(Latest tablulation available)	138%	138%
District Drop out (DTP 1 –3)	18.4%	18.4%
No of Syringes supplied in 2003 to the district	Information Outstanding	Information Outstanding
Total immunisations given in 2003(less OPV)	97,801	97,801
No of district coverage reports received/sent	12/12	12/12
No of district coverage reports received/ sent on time	12/12	12/12
No district disease reports sent (regular VPD reporting)	12/12	12/12
No HU coverage reports received/sent		Varies from month to month

Indicator	Information at the National Level	Information at the District Level
No HU coverage reports received/sent on time		Varies from month to month
Any district vaccine stock out	Yes	Yes
If yes specify vaccine and duration	DPT (November & December 2003)	DPT (November & December 2003)
Has the district been supervised by a higher level in 2002	Yes	Yes
Has the district been able to supervise all Hus in 2002	Yes	Yes
Did the District have a microplan for 2003?	Yes	Yes

WESTERN URBAN

Indicator	Information at the National Level	Information at the District Level
District DPT3 Coverage (Latest tablulation available)	42.1%	42.1%
District Measles Coverage(Latest tablulation available)	40.8%	40.8%
District Drop out (DTP 1 –3)	22.5%	Not monitored
No of Syringes supplied in 2003 to the district	Information Outstanding	Information Outstanding
Total immunisations given in 2003(less OPV)	108,055	108,055
No of district coverage reports received/sent	12/12	12/12
No of district coverage reports received/ sent on time	12/12	Timeliness not monitored
No district disease reports sent (regular VPD reporting)	12/12	12/12
No HU coverage reports received/sent		Not monitored

Indicator	Information at the National Level	Information at the District Level
No HU coverage reports received/sent on time		Not monitored
Any district vaccine stock out	Yes	Yes
If yes specify vaccine and duration	BCG(early 2003 for 2 months)	BCG (early 2003 for 2 months)
Has the district been supervised by a higher level in 2002	Yes	Yes
Has the district been able to supervise all Hus in 2002	Yes	Yes
Did the District have a microplan for 2003?	Yes	Yes

KONO

Indicator	Information at the National Level	Information at the District Level
District DPT3 Coverage (Latest tablulation available)	70%	70%
District Measles Coverage(Latest tablulation available)	68%	68%
District Drop out (DTP 1 –3)	-1.2%	-1.2%
No of Syringes supplied in 2003 to the district	Outstanding	333,600 (includes 180,000 for measles campaign)
Total immunisations given in 2003(less OPV)	68,008	68,008
No of district coverage reports received/sent	12/12	12/12
No of district coverage reports received/ sent on time	12/12	12/12
No district disease reports sent (regular VPD reporting)	12/12	Not known.

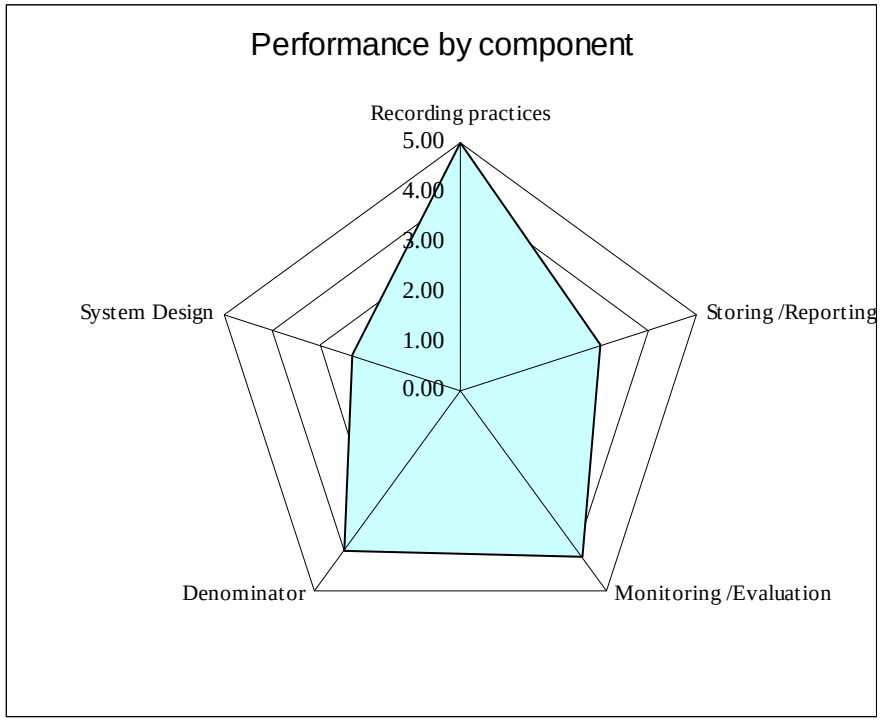
Indicator	Information at the National Level	Information at the District Level
No HU coverage reports received/sent		Not monitored
No HU coverage reports received/sent on time		Not monitored
Any district vaccine stock out	Yes	Yes
If yes specify vaccine and duration	DPT in November/December 2003	DPT in November/December 2003
Has the district been supervised by a higher level in 2002	Yes	Yes
Has the district been able to supervise all Hus in 2002	Yes	Yes
Did the District have a microplan for 2003?	Yes	Yes

MOYAMBA

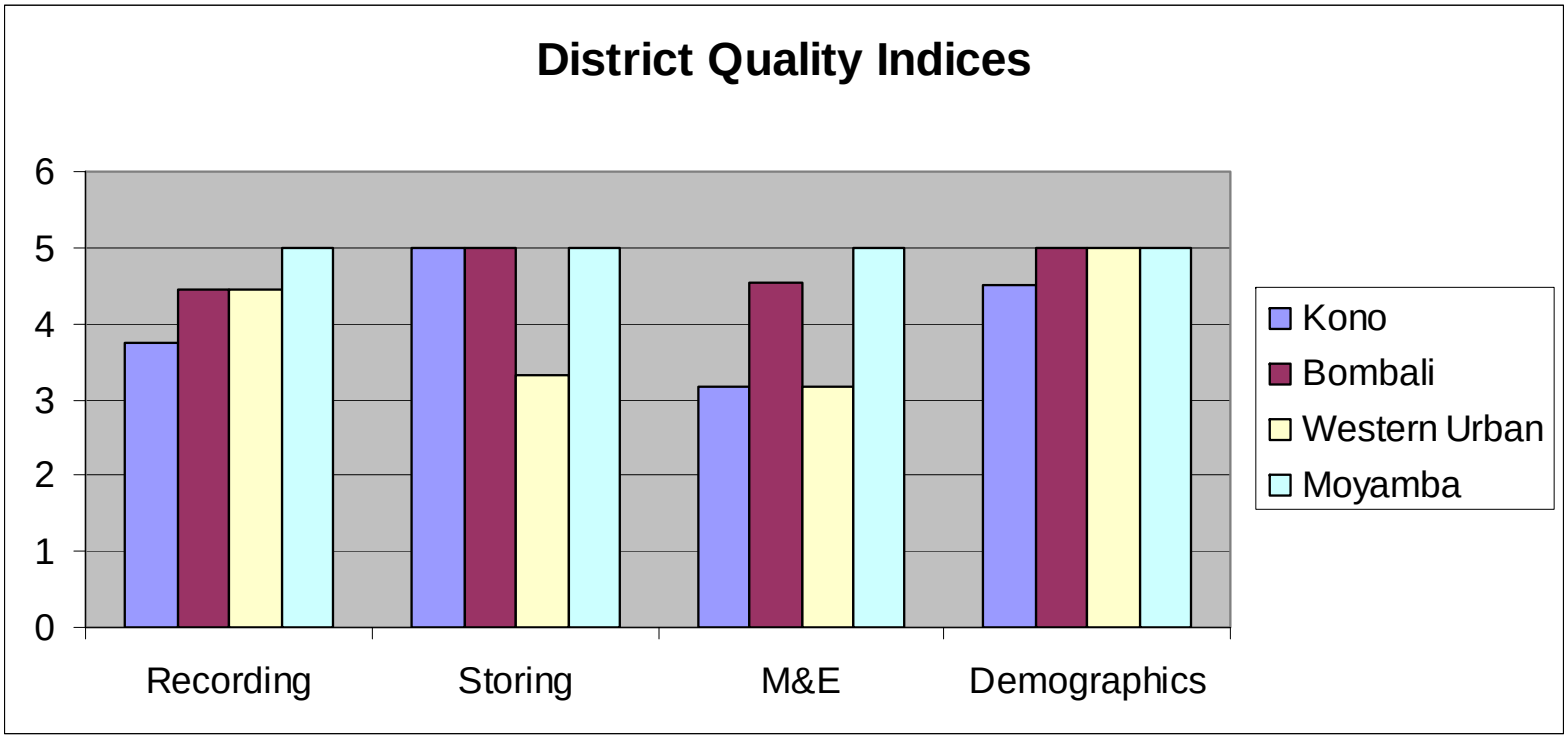
Indicator	Information at the National Level	Information at the District Level
District DPT3 Coverage (Latest tabulation available)	60.2%	59.3%
District Measles Coverage(Latest tabulation available)	75.4%	75.5%
District Drop out (DTP 1 –3)	10.5%	11%
No of Syringes supplied in 2003 to the district	Outstanding	Outstanding
Total immunisations given in 2003(less OPV)	70,106	70,170
No of district coverage reports received/sent	12/12	12/12
No of district coverage reports received/ sent on time	12/12	12/12
No district disease reports sent (regular VPD reporting)	12/12	12/12
No HU coverage reports received/sent		Varies on monthly basis

Indicator	Information at the National Level	Information at the District Level
No HU coverage reports received/sent on time		Varies on monthly basis
Any district vaccine stock out	Yes	Yes
If yes specify vaccine and duration	BCG Early 2003 for 2 months	BCG Early 2003 for 2 months
Has the district been supervised by a higher level in 2002	Yes	Yes
Has the district been able to supervise all PHus in 2002	Yes	Yes
Did the District have a microplan for 2003?	Yes	Yes

APPENDIX III – NATIONAL PERFORMANCE INDICATORS



APPENDIX IV – DISTRICT QUALITY INDICES



APPENDIX V - HEALTH UNIT QUALITY INDICES AVERAGE