

PRICEWATERHOUSECOOPERS 



FINAL REPORT ON THE 2003 DATA QUALITY AUDIT

THE STATE OF ERITREA

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SEPTEMBER 2004





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1 Executive Summary



The overall conclusion of the DQA team is that the immunization reporting system of the State of Eritrea is comparatively strong and requires improvement in a few areas only. The Verification Factor (VF) of 0.9996 is an indication that there was a high level of consistency between the primary immunization records found at the health facilities/units and reports found at upper levels such as the Zones and the National Level.

The key issues requiring management attention are highlighted below and categorised as system design, denominators, monitoring and evaluation, data processing and vaccine store management.

System Design

The standard reporting forms from the health facilities and zones to the national level did not allow for calculation/reporting of vaccine wastage in 2003. Consequently, the vaccine wastage rate calculation at the national level did not take into account vaccine wastage from all reporting units. The formula used to compute the wastage was reported doses administered/doses used (at national level). This implies that the vaccine wastage calculated and reported by the national level was incorrect. However, we noted that the Health Management Information Systems (HMIS) Unit of the

Ministry of Health (MOH) have already redesigned the forms to include regular reporting of vaccine wastage in 2004.

The HMIS Unit should ensure that the new forms are distributed to all health facilities carrying out EPI activities. To be correct, wastage calculation at national level should include the wastage of all reporting units (including doses damaged), not only reported doses administered/doses used, as was the case in 2003.

Denominators

There is some inconsistency in the bases used to arrive at the denominator values for infant immunisations. The national level bases its denominator on the number of surviving infants – being the definition recommended by the World Health Organization (WHO). However, the zones use childbirths recorded. Resultantly, the national and zonal levels work with different targets.

Denominators should be harmonised for use at all levels of reporting. These should be based on the number of surviving infants as opposed to childbirths recorded, as adopted by the zones.

Monitoring and evaluation

Although the national level and some zones monitor drop-out rates, there was a general weakness in monitoring this core indicator at the health facility level. One zone and 18 health facilities did not monitor drop-out rates.

Drop-out for DTP1-3 or other drop-out measures should be closely monitored at all levels. These can be displayed on the same charts or tables as those of immunisation coverage.

Data Processing

Although the HMIS at the national level and all the zones visited had computerised systems for storage and retrieval of immunization data, none of these levels had a written

backup procedure. The Head of HMIS at the national level reported that backups are done on a monthly basis.

A backup policy should be developed and documented. Backup is necessary at short intervals (recommended, weekly) in order to minimise the amount of data or information lost in the event of a computer breakdown or other disaster.

Vaccine Store Management

An improvement in vaccine store management is required mainly at the health facility level. Sixteen out of the 24 health facilities visited did not have complete ledger books (EPI Stock Forms) for 2003. Two out of these 16 health facilities had no system in place for keeping track of vaccine stocks. Additionally, 15 out of the 24 health facilities visited did not have a system to keep stock of syringes.

Vaccine ledger books (EPI Stock Forms) should be acquired and updated with all receipts and issues. All

health facilities should also maintain records of syringes supplied and utilised.

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) and also, to calculate indicators relating to performance in the design and implementation of immunisation data reporting, 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 immunisation reporting systems,
- Audit the number of DTP3<1 doses 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 the State of Eritrea from 23 August 2004 to 7 September 2004 by external auditors Dickson Lihanda and Ahmed Farah of PricewaterhouseCoopers, accompanied by national auditors Filli Said Filli (EPI Manager) and Rezene Araya (EPI National Logistician). There are six zones or “zobas” (the equivalent of districts for purposes of reporting) in the State of Eritrea. All six zones were eligible for sampling. The four randomly selected zones were:

- Debub (x 2);
- Gash Barka; and
- Northern Red Sea.

A zoba is politically the equivalent of a province and as such will normally have a large number of health units (60 on average). Zones are further divided into sub-regions. However, for purposes of EPI reporting, these sub-regions are largely non-functional and only serve in some instances as a collection point of health facility reports for

onward transmission to the zone level. The next level of data analysis from the health facility level is therefore the EPI zonal office. It is on this basis that the audit team considered the zones to be “districts” for EPI administrative purposes.

A debriefing meeting was held with the Interagency Coordinating Committee (ICC) on Tuesday, 7 September 2004 at the Ministry of Health Headquarters in Asmara, Eritrea. A comprehensive list of persons met during the DQA including those present at the debriefing session is included in Annex I of this report. The conclusions of the discussion during the debrief meeting are summarised as follows:

- There is an effective EPI system functioning in the country.
- Although the country scored a high verification factor, there are certain qualitative areas that require management attention. The auditor’s recommendations were well received.

2.1 Background

The State of Eritrea, through the EPI programme, serves a target population of 107,015 (based on local administration surveys as the country has not undertaken a census in the past). The health care delivery system is divided into six (6) Zones. The country has achieved certain milestones in its EPI Programme in the recent past. Examples of these milestones include receiving approval from the Vaccine Fund for the introduction of a new vaccine DPT-HepB that was launched in January 2002. In 2003, AD syringes for BCG vaccine became available through UNICEF and are now widely utilised.

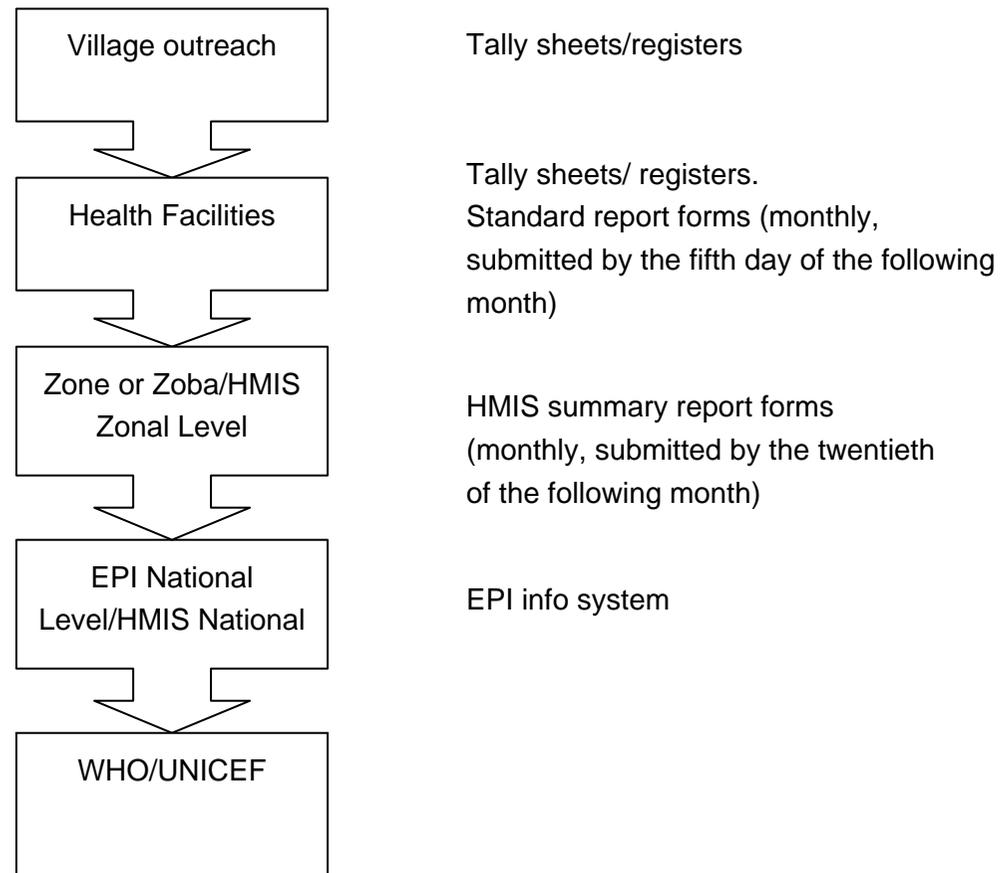
The country carries out its immunisation program using fixed and outreach strategies. Tally sheets, under-five child registers and Tetanus registers (for pregnant mothers) are the primary immunisation records used for both strategies.

Immunisation performance reports are included in the monthly standard report forms, which are prepared by the health facilities based on the tally sheets and register records and submitted to the EPI Coordinators/EPI Focal

Persons who are the administrative heads at the zonal level. The information is processed at the zone in conjunction with the zonal HMIS offices, while soft copies of the analysis are submitted to EPI/HMIS national level for further consolidation and analysis.

The flow of information in the EPI program is shown in the diagram overleaf:

Information/data flow and organisation of EPI in the State of Eritrea



3 Data Accuracy – Findings

3.1 Verification Factor

In simple terms the verification factor is a quantification of the accuracy of reported data. Its basic formula is:

Immunisations recounted

Immunisations reported

The State of Eritrea achieved a verification factor of 99.96% placing it above the 80% threshold at which an immunisation reporting system is deemed to be reliable. We have provided comments below on the various categories of error that normally affect the verification factor.

Missing Information

Most of the health facilities had retained all or most of the tally sheets for the previous reporting periods. Additionally, the registers were up to date. As such the

recounted figures were in most cases consistent with the reported figures. This, in turn, contributed to the high verification factor.

Transcription errors

There were very minimal transcription errors noted in the reporting process.

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 JRF and National Tabulation Figures

The latest national tabulation provided to the auditors showed the number of DTP HepB3<1 doses administered as 72,029. This is similar to the number reported in the JRF and was reproduced from an archive file. This is because the JRF figure was extracted after achieving 100% completeness of reporting. Therefore, there were no cases of late reporting.

3.2.2 Comparison of health facility reports found at the zone (district) and zonal tabulation

The zonal tabulations, in most cases, mirrored the health facility reports. Data entry into the HMIS system was therefore accurate. We noted however that in Dehub Zone, the software had a bug that doubled the January and February 2003 immunization numbers. This bug was clearly explained and demonstrated to the auditors upfront. HMIS should take measures to debug the system in this respect.

District	Tabulation	Reports at the Zone	Variance
Dehub	21,003	21,003	-
Gash Barka	18,604	18,724	120
Northern Red Sea	6,198	6,198	-

3.2.3 Comparison DTP3/ Other Antigens

Other antigens are reported using the same forms as those of DTP3<1.

3.2.4 Inflation/fraud statement

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

4 National Level – Findings and Recommendations

4.1 System Design

- 4.1.1 There is no written procedure/process for submission of aggregate reports of Adverse Events Following Immunization (AEFI) from the health facilities to the zones and ultimately to EPI National Level.

Recommendation 1:

EPI Central should design a standard form to be submitted together with the monthly report form. Zero reporting should be encouraged where there are no cases to be reported.

Management Comments

Agreed.

- 4.1.2 The standard reporting form to the national level from the health facilities and zones does not allow for calculation of vaccine wastage.

Recommendation 2:

The form should be redesigned to include number of doses administered by the health facilities and number of vials used (including those wasted) at each level. The importance of this is for EPI National Level to monitor and calculate vaccine wastage for the country and for individual zones and similarly, for zones to monitor and calculate vaccine wastage for the health facilities.

Management Comments

Agreed.

- 4.1.3 The vaccine wastage rate computed at the national level is not done according to the correct calculation. The formula used to compute the wastage of 4.8% reported in the JRF is reported doses administered/doses used (at national level). It does not take into account vaccine wastage from all reporting units. The calculation should include both opened and unopened vials at all the administrative levels.

There is no adequate reporting mechanism to capture wastage as a result of unopened vials at all the reporting levels.

Recommendation 3:

Correct wastage calculation at national level should include the wastage of all reporting units (including doses damaged), not only reported doses administered/doses used. The calculation should include both opened and unopened vials at all the reporting levels.

Management Comments

Agreed.

4.2 Denominators

- 4.2.1 For the year 2003, the denominator values for infant immunisations found at the zones visited were not the same as those used at the national level. Differences noted are: Debub Zone – 27,198 Vs 27,800 found at national level; Northern Red Sea– 17,057 Vs 15,935 found at national level; and Gash Barka – 23,148 Vs 21,617 found at national level.

Recommendation 4:

Denominators should be harmonised for use at all levels of reporting. These should be based on surviving infants as opposed to childbirths recorded as adopted by the zones.

Management Comments

Agreed.

- 4.2.2 The process of target-setting (children and pregnant women) is deficient in that the proportion

of infants per strategy type (fixed, outreach, mobile) is not set at national level nor is it cascaded down to zonal and health facility levels.

Recommendation 5:

There is a need to determine the number of infants per strategy type for planning purposes. Individual zones and health facilities should also be encouraged to monitor the same.

Management Comments

Agreed.

4.3 Monitoring and Evaluation

- 4.3.1 Although there is a map of the country at the EPI National Office, it is not updated with performance indicators, namely coverage, drop-out, and population not immunized.

Recommendation 6:

The map of the country should be updated to show performance per zone.

Management Comments

Agreed.

4.4 Data Processing

- 4.4.1 There is no written procedure for dealing with late reporting at EPI National level.

Recommendation 7:

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

Management Comments

Agreed.

- 4.4.2 There is no written back-up procedure. In addition, back-ups are done on a monthly basis as opposed to the weekly backup recommended by GAVI.

Recommendation 8:

A backup policy should be developed and documented. Back up is necessary at short intervals (recommended, weekly) in order to minimise the amount of data or information lost in the event of a computer malfunction or disaster.

Management Comments

Agreed.

4.5 Quality Index

The quality of system index at national level was on overall 83% with the specific areas having scored as follows:

System Design – 3.85/5.00

Recording Practices – 5.00/5.00

Storing/Reporting – 3.00/5.00

Monitoring and evaluation – 4.44/5.00

Denominators – 4.00/5.00

5 Zonal (District) Level – Findings and Recommendations

5.1 Denominators

5.1.1 The basis of establishing the target number of children is not consistent from national to zone and health facility levels. All zones and health facilities use recorded births whilst the national level uses the number of surviving infants (cf. 4.2.1).

Recommendation 9:

The official WHO definition of the denominator for child immunization coverage is the estimated number of surviving children (or infants) at age one in a target area. This should be used consistently in all zones.

Management Comments

Agreed.

5.1.2 The proportions of infants per strategy type were not known for all the zones selected (cf. 4.2.2).

Recommendation 10:

There is need to determine the number of infants per strategy type for purposes of planning.

Management Comments

Agreed.

5.2 Monitoring and Evaluation

- 5.2.1 There was no monitoring of health facility vaccine wastage at all the selected zones. We understand that the new standard forms for monthly reporting designed by HMIS have a provision for vaccine wastage reporting (cf. 4.1.2 and 4.1.3).

Recommendation 11:

Zones should monitor health facility vaccine wastage for upward reporting to the national level so as to correctly compute the country's vaccine wastage. The new forms designed by HMIS should be rolled out to facilitate the reporting process.

- 5.2.2 The Gash Barka Zone does not record and monitor reporting timeliness for its health facilities immunization.

Recommendation 12:

Timeliness and completeness of health facility reporting should be monitored in all zones.

Management Comments

Agreed.

- 5.2.3 In Gash Barka Zone, there was no up-to-date monitoring of immunization drop-out-out rates.

Recommendation 13:

Drop-out for DTP1-3 should be closely monitored. This can be displayed on the same charts or tables as coverage.

Management Comments

Agreed.

- 5.2.4 There is a need to strengthen supervision activities in Gash Barka Zone. The frequency of monitoring is not apparent and no supervisory reports are filed.

Recommendation 14:

A written supervision schedule for visiting health facilities should be developed. Reports specifying core indicators observed should then be filed following supervisory visits.

Management Comments

Agreed.

5.3 Data Processing

- 5.3.1 There is no system for monitoring the receipt/issuing of injection supplies (Syringes) in Gash Barka.

Recommendation 15:

All syringe stocks should be monitored through a stock ledger, which should be regularly updated and reconciled to physical stocks.

Management Comments

Agreed.

- 5.3.2 Although all the zones and Health Centers are aware of the reporting deadlines, there is no procedure/system for dealing with late reporting (cf. 4.4.1) and our earlier question on late reporting.

Recommendation 16:

National guidelines should be developed for dealing with late reporting

Management Comments

Agreed.

- 5.3.3 All the selected zonal offices visited were equipped with computers. However, none of these zones had written back-up procedures.

Recommendation 17:

Back-up policies should be developed and documented to guard against loss of important data and information in the event of a computer malfunction or other disaster.

Management Comments

Agreed.

6 Health Centers – Findings and Recommendations

6.1 Monitoring and Evaluation Practices

- 6.1.1 In all the 24 health facilities visited, there was no monitoring of vaccine wastage. In addition, there were no records on the dates, reasons and amounts of vaccines discarded/written off during 2003 (cf. 5.2.1).

Recommendation 18:

At the health unit level, global vaccine wastage should be calculated and reported on a monthly basis. Global wastage corresponds to the wastage of opened (administered wastage) and unopened vials.

Management Comments

Agreed.

- 6.1.2 In 12 out of 24 health facilities visited there was no map showing the catchment areas including the outreach stations.

Recommendation 19:

There is a need to provide the health facilities with sketch maps of their catchment areas. Alternatively, health facilities should take the initiative to draw the maps and plot the strategy types for the various locations on these maps. These maps should then be displayed in the office.

Management Comments

Agreed.

- 6.1.3 Eighteen out of the 24 health facilities visited did not monitor immunization drop-out.

Recommendation 20:

Drop-out for DTP1-3 should be closely monitored. This can be displayed on the same charts or tables as coverage.

Management Comments

Agreed.

- 6.1.4 Six out of 24 health facilities visited did not have an up-to-date chart or table on display showing the number (or in percentage) of child vaccinations by month for 2003.

Recommendations 21:

Health facility staff should be encouraged to monitor immunization coverage. Charts or tables prepared should be prominently displayed to act as visual aids on the performance of the health facilities.

Management Comments

Agreed.

- 6.1.5 One out of the 24 health facilities visited did not have an orderly filing system. As a result some of the tally sheets had either been misfiled or misplaced. This was attributed to rotation of staff responsible for keeping such records.

Recommendation 22:

In health facilities, such as large hospitals, where there is frequent rotation of duty by members of health staff, a more permanent member of staff should be appointed to take ownership of storage and retrieval of immunization and, indeed, other health information. Otherwise, there should be specific handover procedures to ensure accountability of the documents.

Management Comments

Agreed.

6.2 Vaccine Store

6.2.1 Sixteen out of 24 health facilities visited did not have complete vaccine ledger books (EPI Stock Forms) for 2003. Some of the EPI Stock Form leaflets had been misplaced or misfiled. Two out of these 16 health facilities had no system in place for keeping track of vaccine stocks. We also noted that although the EPI Stock Forms have a provision for recording vaccine expiry dates and batch numbers, 13 out of the 24 health facilities visited did not utilise this provision and hence did not keep track of such details.

Recommendation 23:

Vaccine ledger books should be acquired and updated with all receipts and issues. Additionally expiry dates, batch numbers, damaged and discarded vaccines should be monitored through these ledgers. Information in these ledgers should

be utilised in periodically reconciling physical and book stocks.

6.2.2 In 15 out of the 24 health facilities visited there was no system of keeping stock of syringes. The explanation often given was that this was the responsibility of the various pharmacies that supply syringes to the health facilities. Pharmacies, in most cases, supply to a number of health facilities and therefore their records may not capture the consumption of individual health facilities.

Recommendation 24:

Health facilities should maintain their own record of syringes supplied to and utilized by them. Those health facilities that rely on the pharmacy for record keeping should ensure that they also maintain copies of these records.

Management Comments

Agreed.

6.2.3 *In 5 out of the 24 health facilities visited, the vaccine wastage rate was negative. This implies that the facilities immunized more people than the vaccines doses they handled in 2003. The likely explanation of this is that, although the EPI Stock Forms appear complete for the entire audit year (by month), not all vaccine receipts may have been recorded. There was also one health facility that had a vaccine wastage rate of 509%, which is considered unrealistic. This is also an indication of incomplete record keeping.*

Recommendation 25:

Health facility staff should be encouraged to accurately record all vaccine stock movements on the EPI Stock Forms.

Management Comments

Agreed.

7 Core Indicators

7.1 Safety

7.1.1 *Reporting of adverse events following immunisation*

There is no written procedure/process for submission of aggregate reports of Adverse Events Following Immunization (AEFI) from the Health Centers to Zonal level and to National Level.

Recommendation 26:

The EPI National office (in collaboration with the National HMIS office) should design a standard form to be submitted together with the routine monthly report form. Zero reporting should be encouraged where there are no cases to be reported.

Management Comments

Agreed.

7.1.2 *Monitoring of Syringe Supply*

The EPI National office monitors the receipts and issues of syringe supplies. However, there was no system in place for monitoring these supplies at all the Health Facilities and in one of the zonal offices visited.

Recommendation 27:

All the Health Facilities and the Zone offices should monitor syringe supplies. This can be done in the same ledger book as that of vaccine store supplies.

Management Comments

Agreed.

7.2 Wastage

7.2.1 Global Wastage

Health centres compute wastage based on open-vial. However not all the centres visited monitored and reported this wastage. In addition most of the health centres did not keep track of receipts and issues of vaccine supplies. This appeared to be a problem of lack of training on the part of the responsible Ministry of Health personnel.

Recommendations 28

The EPI National office should ensure that relevant training is provided to the responsible health officials on how to maintain the vaccine stock ledger. Health Units should compute wastage and report to national level as required.

Management Comments

Agreed.

7.2.2 System Wastage

Wastage occurring within the vaccine store due to losses of unopened vials could not be estimated. This is attributed to lack of complete data on vaccine stocks at all the reporting levels.

The wastage reported in the 2003 JRF of 4.8% takes into account only the open vial wastage reported (as noted in 4.1.3). It therefore does not accurately reflect the real wastage in the country.



Recommendation 29:

There is a need to keep accurate records on vaccine stocks at the National, Zone and Health Facility level.

Management Comments

Agreed.

7.2.3 Changes From Last DQA

Being the first DQA in the State of Eritrea, there were no prior year recommendations.

8 APPENDICES

APPENDIX I – LIST OF PEOPLE MET

Name	Designation
Introduction, Briefing Meeting & National Level Audit	
Dr Zemui Alemu	Director, Family & Community Health
Filli Said Filli	EPI Manager
Rezene Araya	EPI Logistician
Debesai Haile	Project Officer, Health - UNICEF
Shashu Gebreselasi Michael	Head of HMIS - MOH
ICC Debrief meeting	
Berhane Ghebretensae	Director General Health services - MOH

Name	Designation
Dr Zemuri Alemu	Director, Family & Community Health
Goitom Mabrahtu	Director, DPC-MOH
Berhana Haile	F&RH - MOH
Filli Said Filli	EPI Manager
Rezene Araya	EPI Logistician
Aman Solomon	RCSE, CBHOP
Brikti Habtai	Project Officer, NUEW
Kristina Lantis	RH Advisor, USAID
S/R Tsega G/Michael	H.T - ERCS
Dr Ghirmay A/ Michael	FHA - WHO

Name	Designation
Dr Ivan F Camanor	Project Officer Health/Nutrition – UNICEF
Shashu Ghebreselase	Head of HMIS – MOH
Mekonnen Tesfagiorghis	HPO – MOH
Zonal audit - Debub	
Maaza Keleta	Family Health Coordinator
Lemlem Neguse	HMIS (Data Entry)
HU audit – Tekondae HF, Debub	
Birizaf G/yesus	Health Assistant
S/R Mehret Temanu	Health Assistant
HU audit – Segheneyti HF, Debub	

Name	Designation
Fekadu Asfaha	Nurse
Herity Kidane	Health Assistant
HU audit – Senafe Govt Hospital, Debub	
Yohannes Goshu	MCH Coordinator
Haben Berhane	MCH Nurse
HU audit – Adi-Keih MCH Clinic, Debub	
Zewdi Abarha	Health Assistant
T/Haimanot T/Michael	Associate Nurse
HU audit – Adi Quala Hospital, Debub	
Rozina Tewolde G/Mariam	H/asistant

Name	Designation
Mahari Teferi G/Zghhier	H/Assistant
HU audit – Kudo Felasi, Debub	
Tsehaie Zerae	Nurse
HU audit – Digsa Mini Hospital, Debub	
Lilly Mathai	Nurse
Ghebrewiwet G/AB	H/A
HU audit – Mendefera HF, Debub	
Rezene Kidane	Nurse
HU audit – Dekemhare HF, Debub	
Debesai Ghebrelibanos	EPI Coordinator

Name	Designation
HU audit – Adi GEbray, Debub	
Ghidei W/Sillasse	H/A
Mistlal O/Michael	H/A
HU audit – Debarua, Debub	
Mehari Ogbe	Nurse Midwife
Tekiaa G/Michael	H/A
HU audit – Enda Gherghis, Debub	
Abrhet Osman	Health Assistant
Hellen Haile	Nurse
Zonal audit – Northern Red Sea	

Name	Designation
Dr Ismail Mohamed-Jemal	Zonal Medical Officer
Weldeysus Belay	HMIS/IDRS Officer
Berhane Alemseghed	PHC Coordinator
HU audit – Dehile, N.R. Sea	
Zufan Habtezion	Health Assistant
Mulugeita Simon	Health Assistant
HU audit – Amaterre, N.R. Sea	
Daniel Hailemariam	Health Assistant
Abrahatsion Okbamariam	Health Assistant
Fessahaye Ghergish	Nurse

Name	Designation
HU audit – Robrobrio, N.R. Sea	
Medhanei Tewolde	Health Assistant
HU audit – Nakfa, N.R. Sea	
Tesfay Tesegai	Nurse
Alem Berhe	H/A
Latina Teclesenbet	Nurse
HU audit – Afabet, N.R. Sea	
Teshahiwat Kaleab	Nurse
Fiori Negash	H/A
HU audit – Kamchewa, N.R. Sea	

Name	Designation
Semere Araya	Nurse
Hassan Omar	First Aider
Zonal audit – Gash Barka	
Afeworki Berhe	PHC Coordinator
Dr Araya Berhane	Zonal Medical Officer
HU audit – Agordat, Gash Barka	
Mebrat Berhane	Health Assistant
Medhin Tsegay	Health Assistant
Mahdere Teklom	Nurse
HU audit – Haycota, Gash Barka	

Name	Designation
Hadish Fitwi	Health Assistant
Tsfay Beraki	Nurse
HU audit – Alebu, Gash Barka	
Saba Ogbay	Health Assistant
Weldemariam A/Michael	Health Assistant
Omer Salih	Health Assistant
HU audit – Engerne, Gash Barka	
Tsahaynesh Ghezai	Assistant Nurse
Musie Andebrahan	Assistant Nurse
HU audit – Tabeldia, Gash Barka	

Name	Designation
Kebrom Berhane	Health Assistant
G/yohanes Habtay	Assistant Nurse
HU audit – Keranakudo, Gash Barka	
Aleksander Tekeste	Assistant Nurse
Rahwa Taghes	Assistant Nurse

APPENDIX II - CORE INDICATORS TABLE

NATIONAL LEVEL

Indicator	JRF	REPORTED AT THE TIME OF AUDIT	Comments on Differences
Districts with DTP3 coverage $\geq 80\%$	1	1	
Districts with Measles coverage $\geq 90\%$	0	0	
Districts with DOR $< 10\%$	2	1	Difference because of timing difference between JRF reporting and the time of the audit.
Types of syringes used in the country	AD syringes	AD syringes	
Districts with AD syringes	ALL	ALL	

Indicator	JRF	REPORTED AT THE TIME OF AUDIT	Comments on Differences
Introduction of Hepatitis B	2002	2002	
Introduction of Hib	NO	NO	
Country wastage of DTP	4.8%	Not available	
Country wastage of Hep B vaccine	4.8%	Not available	
Wastage rate Hib	N/a	N/a	
Interruption in vaccine supply 2003		NONE	
Number of districts with interruption in vaccine supply 2003	0	0	
% district surveillance reports received at national level*	100%	100%	
% of coverage reports received at national level compared to number	100%	100%	

Indicator	JRF	REPORTED AT THE TIME OF AUDIT	Comments on Differences
of reports expected*			
% of coverage reports received on time at national level compared to the number of reports expected*		80%	
Number of Districts supervised at least once in 2003		3	
Number of districts which have supervised all HUs during the audit year	5	2	Timing difference.
Number of districts with Micro plans including routine immunisation	ALL	50%	Timing difference

DEBUD ZOBA

Indicator		Information at the National Level	Information at the District Level
District DTP3 coverage (last tabulation available)	N %	23,911 (88%)	23,911 (88%)
District measles coverage (last tabulation available)	N %	21,941 (81%)	21,941 (81%)
District drop-out (DTP1-3)		5%	5%
No syringes supplied in 2003 to the district		Not Available	Not Available
Total immunization given in 2003 (less OPV)		Not Available	Not Available
No district coverage reports received / sent		12/12	12/12
No district coverage reports received on time / 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		12/12	12/12

Indicator	Information at the National Level	Information at the District Level
No HU coverage reports received / sent on time	12/12	12/12
Any district vaccine stock-out in 2002?	Yes	Yes
If yes specify which vaccine and duration	BCG in February 2003	BCG in February 2003
Has the district been supervised by higher level in 2003	2 visits by EPI Manager and EPI National Logistician	2 visits by EPI Manager and EPI National Logistician
Has the district been able to supervise all HUs in 2003	All HUs have been visited at least once during 2003	All HUs have been visited at least once during 2003
Did the district have a microplan for 2003	Yes	Yes

GASH BARKA

Indicator		Information at the National Level	Information at the District Level
District DTP3 coverage (last tabulation available)	N %	18,540 (80%)	18,540 (80%)
District measles coverage (last tabulation available)	N %	16,493 (71.95%)	16,493 (71.95%)
District drop-out (DTP1-3)		3.8%	3.8%
No syringes supplied in 2003 to the district		Not Available	Not Available
Total immunization given in 2003 (less OPV)		109,724	109,724
No district coverage reports received / sent		12/12	12/12
No district coverage reports received on time / 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		12/12	12/12

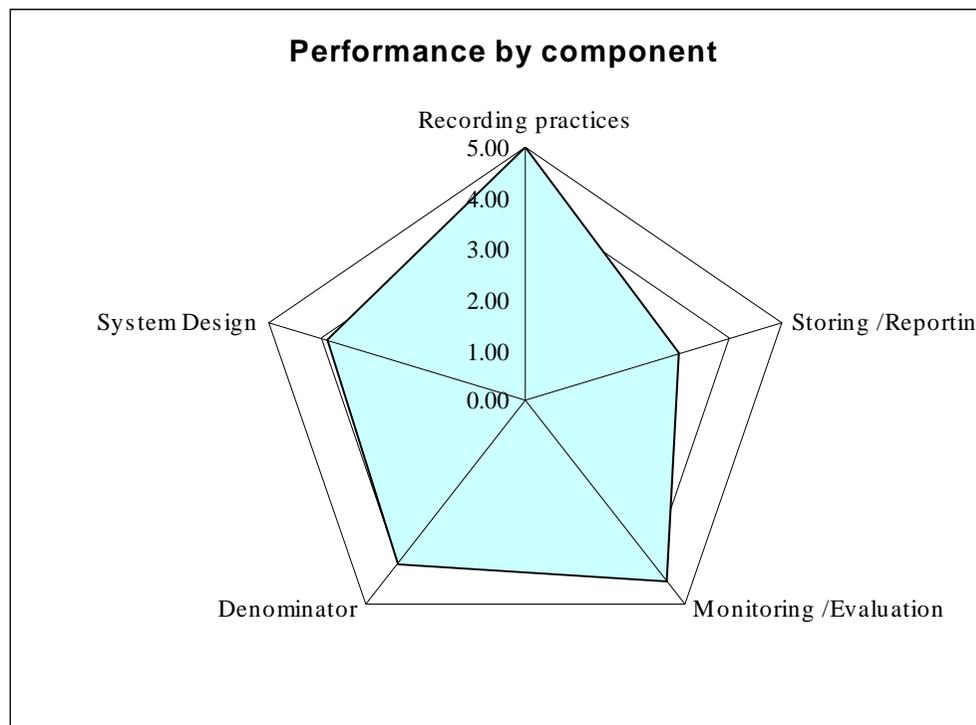
Indicator	Information at the National Level	Information at the District Level
No HU coverage reports received / sent on time	12/12	12/12
Any district vaccine stock-out in 2002?	Yes	Yes
If yes specify which vaccine and duration	Yes – BCG in February 2003	Yes – BCG in February 2003
Has the district been supervised by higher level in 2003	No	No
Has the district been able to supervise all HUs in 2003	No	No
Did the district have a microplan for 2003	Yes	Yes

NORTHERN RED SEA

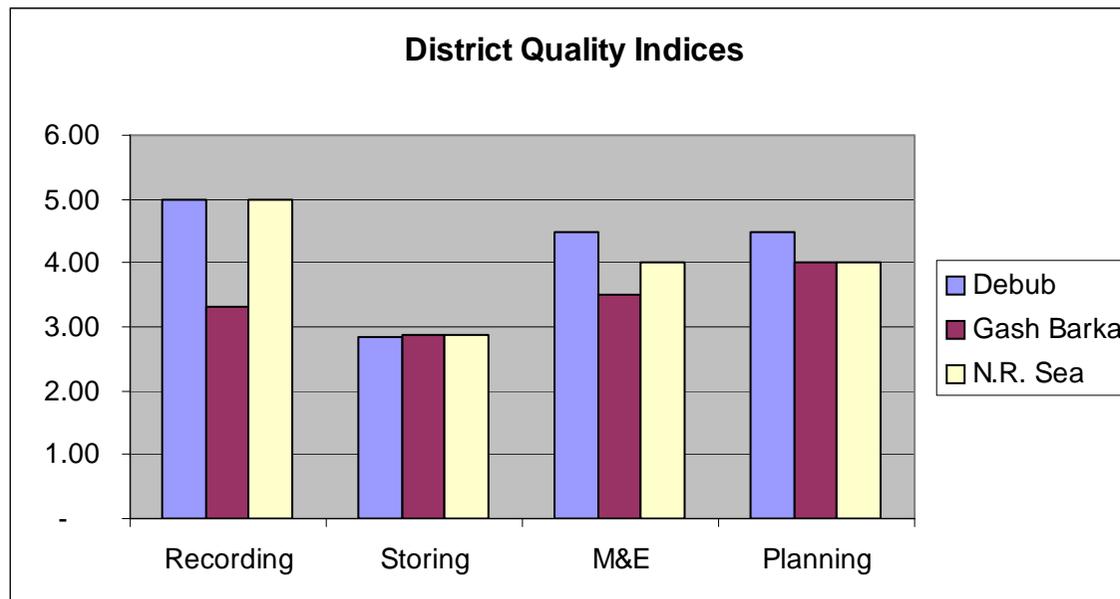
Indicator		Information at the National Level	Information at the District Level
District DTP3 coverage (last tabulation available)	N %	6,198 (36%)	6,198 (36%)
District measles coverage (last tabulation available)	N %	5,634 (33%)	5,634 (33%)
District drop-out (DTP1-3)		6.4%	6.4%
No syringes supplied in 2003 to the district		Not Available	Not Available
Total immunization given in 2003 (less OPV)		41,982	41,982
No district coverage reports received / sent		12/12	12/12
No district coverage reports received on time / 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		12/12	12/12

Indicator	Information at the National Level	Information at the District Level
No HU coverage reports received / sent on time	65%	65%
Any district vaccine stock-out in 2002?	Yes	Yes
If yes specify which vaccine and duration	BCG in February 2003	BCG in February 2003
Has the district been supervised by higher level in 2003	Yes – September 2003 Surveillance and another visit by HMIS during the first quarter.	Yes – September 2003 Surveillance and another visit by HMIS during the first quarter.
Has the district been able to supervise all HUs in 2003	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

