A . Qasem & Co

An associated firm of

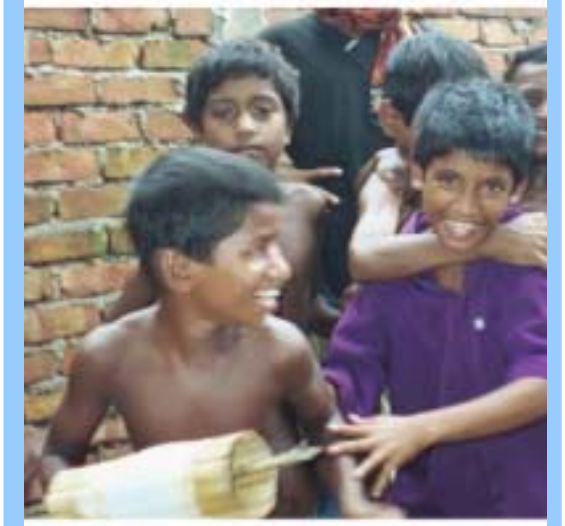
PRICEWATERHOUSECOOPERS

GAVI

THE GLOBAL ALLIANCE FOR VACCINES & IMMUNIZATION

REPORT ON THE 2003 DATA QUALITY AUDIT (DQA) OF THE YEAR 2002

BANGLADESH

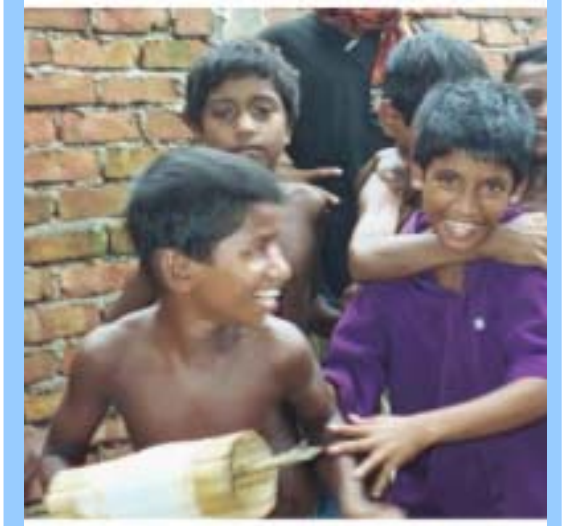


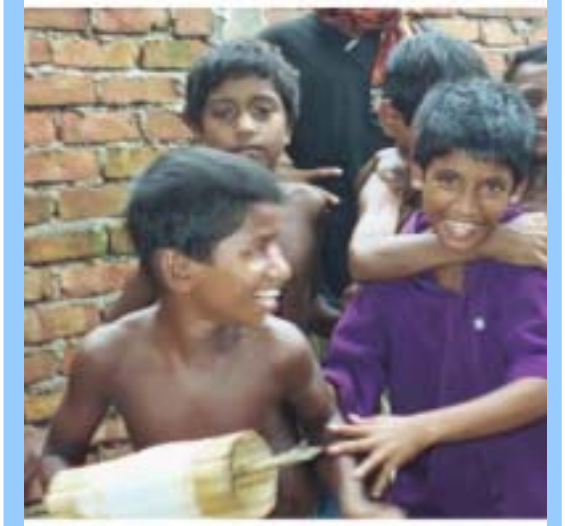
A.Qasem & Co is pleased to submit herewith itsreport on the 2003 DQA by our office in:

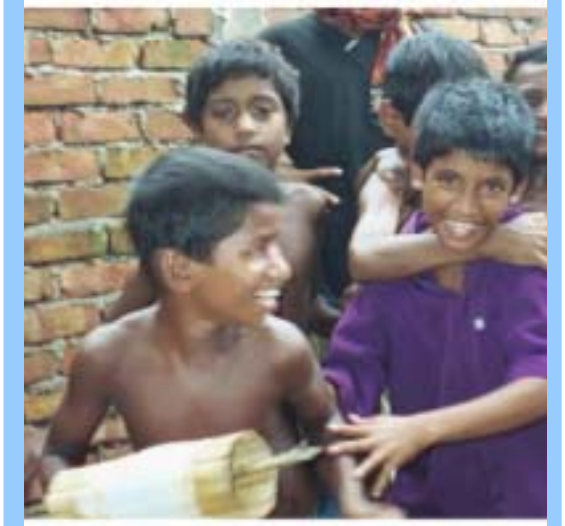
Bangladesh.

(Dhaka, 30 September 2003)

Index







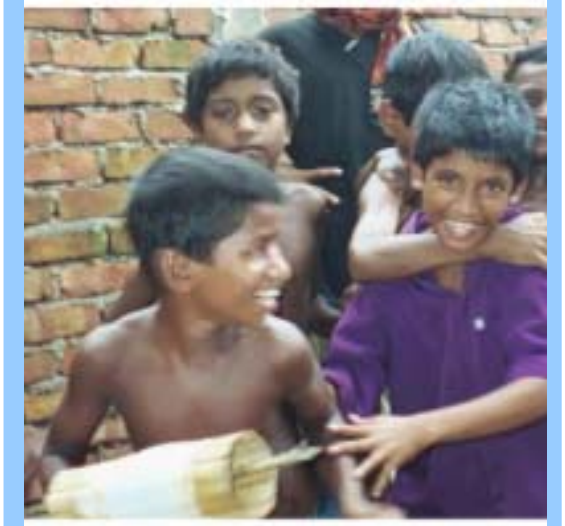
Introduction

From September 8 to 22 of 2003, A. Qasem & Co, PricewaterhouseCoopers' member firm in Dhaka, performed a follow-up on the 2002 GAVI Data Quality Audit in Bangladesh. Together with a team of internal auditors from the national EPI office, we assessed the quality of EPI data and systems and audited the reported number of doses of DPT3<1 administered in the year 2002, through visits to a random sample of health care facilities and administrations, including:

- The national EPI HQ
- Four district level administrations: Sylhet, Moulvibazar, Jessor and Jhenidah. These districts were randomly sampled from the list of sixty-four districts (4 districts were considered non-eligible for the DQA).
- Eight upzilla (sub-district) level administrations (two in every selected district): Bianibazar, Sylhet City Corporation, Moulvibazar Municipality, Kulaura, Jhenidah Sadar, Moheshpur, Jessore Sadar and Sharsha.
- Twenty-four health Unions (three in every upzilla, including hospitals, health units and any other facility where vaccines are administered).

In all these administrations special attention was paid to the state of implementation of the recommendations brought forward by the 2002 DQA. As the 2002 DQA reported discrepancies between reported vaccinations and vaccinations recorded in the EPI Child Register, we systematically recounted and compared registers, tally sheets and reports for DPT3<1, DPT1<1 and Measles<1 (see Appendix V).

The findings of this audit are included in this report and will also be discussed during a debriefing meeting with the ICC, which exceptionally has been scheduled after the normal DQA period in order to feed back to all stakeholders on the findings of the study.



Summary of findings and conclusions

Verification Factor

The Verification Factor, which compares recounted to reported DPT3<1, was 96% based on a recount of the tally sheets. This result is in-line with the 2002 result of 97%.

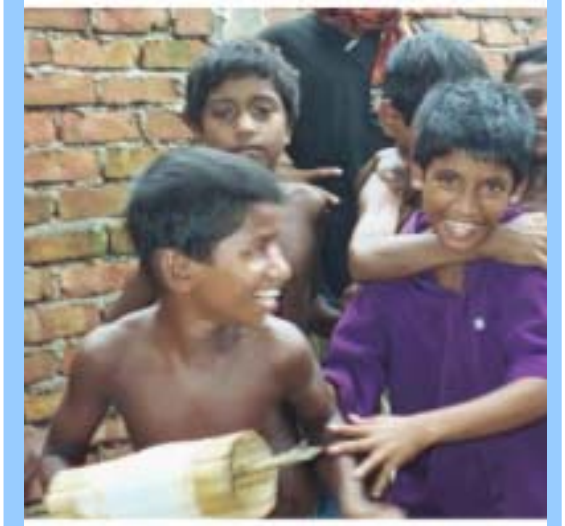
In order to investigate whether discrepancies between reported vaccinations and vaccinations recorded in the EPI Child Register persist, the audit teams also recounted vaccinations in the child registers. The Verification Factor based on a recount of the registers was 86%, also above the 80% threshold set by GAVI. The recount of other antigens (DPT1<1 and Measles<1) did not reveal any major discrepancies between the registers and tally sheets.

The system and the data it produces were therefore deemed reliable.

Quality of the System Index

- QSI at the national level: 80.40 %
- Average QSI for 4 districts: 87.90 %
- Average QSI for 8 upzillas: 87.10 %
- Average QSI for 24 health units: 82.45 %

Nothing has come to our attention that leads us to believe that the current reporting system is not reliable. However, we have pleasure in reporting minor recommendations where we believe it is appropriate for management to consider improvements in certain areas.



National context

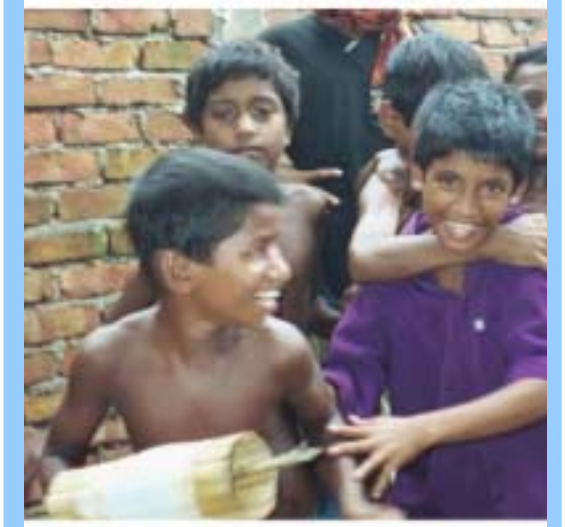
The Ministry of Health and Family Welfare in collaboration with the Ministry of Local Governments Rural Development and Cooperatives (LGRD & C) and other Governmental and Non-Governmental Organizations (NGOs), and private providers has been running the EPI programme since 1979. It is a vital programme within the national health care structure, and reporting and supervision are integrated at national, district, upzilla, union and ward health facility levels.

The programme is currently overhauling its reporting system to improve the information that reaches the national HQ (separating “under one doses” from “over one doses”, among other improvements). As the new report formats were introduced together with the Hep B vaccine in 2003 in 6 districts and 1 city corporation, a mix of “old” and “new” reports can be found in the field for the year 2003. The number of reported DPT3<1 on the Joint Reporting Form for the year 2002 was based on the old system and was consistent with the national tabulations for 2002.

National denominators for surviving infants and women of child bearing age (CBA) are based on the last census. In 2002 however, the denominators at the district, upzilla and health unit (union) level were set by using the higher of the national level calculated figure vs. that obtained from ‘geographical reconnaissance’ (GR) method.

Acknowledgements

We would like to take this opportunity to express our appreciation for the co-operation afforded to us by EPI, WHO and DGHS during the DQA. We especially thank Dr. Mohd. Mahbubur Rahman, Dr. Md. Lutfor Rahman, Dr. Sunil Kumar Das, all Civil Surgeons of the districts concerned and all EPI staff at all levels.



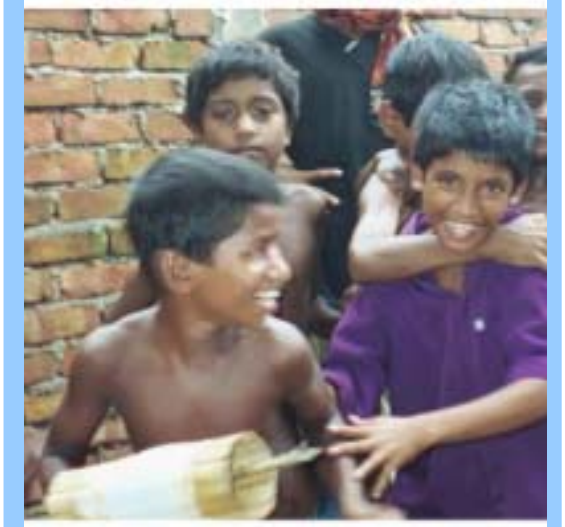
Background

Bangladesh is one of the countries supported from the immunisation services of the fund established by the Global Alliance for Vaccines and Immunization (GAVI). This fund has been established to assist eligible countries to strengthen routine childhood immunisation programmes. As funding levels are linked to the number of third dose DPT vaccinations delivered to children under the age of one year (DPT3<1), countries are being encouraged to strengthen their reporting systems. The data quality audit (DQA) tool has been developed by World Health Organization (WHO) to assess the quality of vaccination systems and improve their administrative, reporting, evaluation and monitoring systems. Bangladesh last year hosted a first DQA. Some important issues were raised in the DQA report, and this special study follows up on those issues.

Objectives of this Special Study

This special study was deemed necessary to investigate the reasons for differences observed during the 2002 DQA between reported vaccinations and vaccinations recorded in the EPI Child Register (cf. LATH Report p.18: Comparison of reported versus registered annual DPT1 in 2001 in 5 Wards). It should determine whether such discrepancies persist, and if so investigate their reasons and materiality. To meet these goals, we:

1. Performed a DQA using the WHO methodology, in 8 Upazillas and 24 health units. A national verification factor was calculated.
2. Performed “child surveys“ at health unit level, in two randomly selected health units per district, and we checked for consistency the child cards of 10 children who have them, against the Child Register.
3. Performed the child health card exercise at health unit level, and compared the results with last year’s (cf. p.13 LATH Report).
4. Assessed the level of implementation of Recommendations from the 2002 DQA.



Our approach

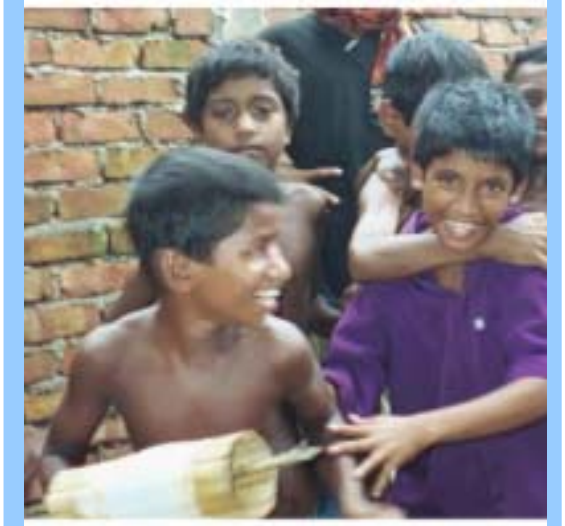
Our approach was to apply the DQA methodology developed in 2000 by WHO. The team members of A.Qasem & Co, associated firm of PricewaterhouseCoopers (PwC), were from Bangladesh, in the interest of cultural and linguistic proximity, acceptance by auditees, ease of travel, and cost-effectiveness. PricewaterhouseCoopers is a federation of partnerships, and we have therefore worked through this network in order to build up our teams. In the DQA, PwC applied country-by-country training, in which the quality assurance manager for each region travelled on-site to train both the PwC teams and the national counterparts.

Summary of work done

Two audit teams were formed, comprising one A. Qasem auditor and one national auditor. The teams worked together at National level and then split up, each visited two districts, 4 upzillas and, 12 health units.

We carried out the tasks detailed in the DQA methodology, which included among others:

- Random selection of 4 districts, 8 upzillas (DQA: sub-districts) and 24 health units.
- Discussion of the immunisation system in place including system design, denominator issues, recording, reporting and storage practices, monitoring and evaluation
- Recount from tally sheets and child registers of vaccines administered for DPT3<1, DPT1<1 and Measles at health unit level, and comparison of recorded with reported figures at all administrative levels
- Review of the cold chain at all administrative levels and vaccine supply and stock procedures in place
- Review of the procedure for reporting and investigating AEFI at all administrative levels
- Performance of the Child Health Card exercise or observation of a vaccination session
- Performance of the Child Card Survey (where ever applicable)
- Carried out the follow up of the 2002 DQA recommendations.



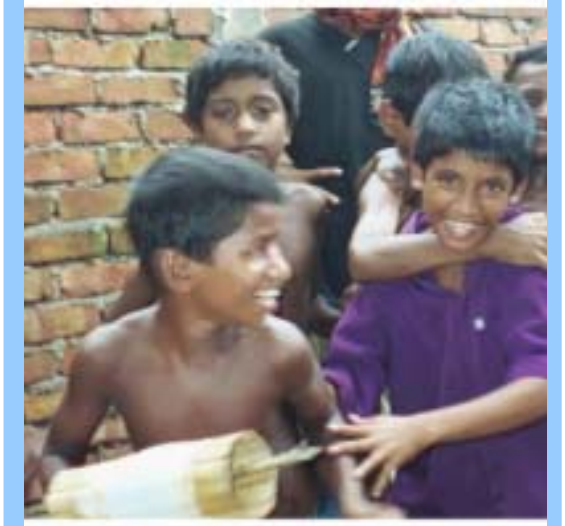
Mobilisation

Prior to commencement of the DQA, the team comprising of WHO, PwC and A.Qasem & Co briefed officers of the Expanded Programme on Immunisation (EPI) and Ministry of Health and Family Welfare (MOHFW) on the objectives, purpose and methodology of the exercise. During the same sessions, the EPI and (MOHFW) briefed the team on the national context, including major public health and vaccination and immunisation issues and policies.

The team for the DQA 2003 was composed of:

Name	**Title**	**Location**
Mr.Faruk Uddin Ahammed, FCA	External Auditor, A.Qasem & Co	Dhaka, Bangladesh
Mr. Obed Pandit, ACA	External Auditor, A.Qasem & Co	Dhaka, Bangladesh
Dr.K.M. Alamgir (MO,EPI)	National Auditor	Dhaka, Bangladesh
Dr. Iqbal Ansary Khan (MO,EPI)	National Auditor	Dhaka, Bangladesh
Mr. Jan Grevendonk	PwC trainer / QA manager	Dhaka, Bangladesh
Dr. Lara Wolfson	Trainer , WHO	WHO, Geneva

The Logbook provides the details of individuals visited during the DQA.



National – findings and recommendations

Strong points

(1) EPI has well designed reporting formats for all levels and the staff at all levels are aware of the procedures for reporting.

(2) There is a system of monthly meetings at district and upzilla levels that serves as a strong tool for monitoring and supervision.

(3) Target setting through door-to-door search activities and geographical reconnaissance leads to high degree of community interaction and more reliable denominators.

(4) Recording system of vaccines is in place at the vaccine stores.

Areas for improvement

We feel that improvements are needed in the following areas:

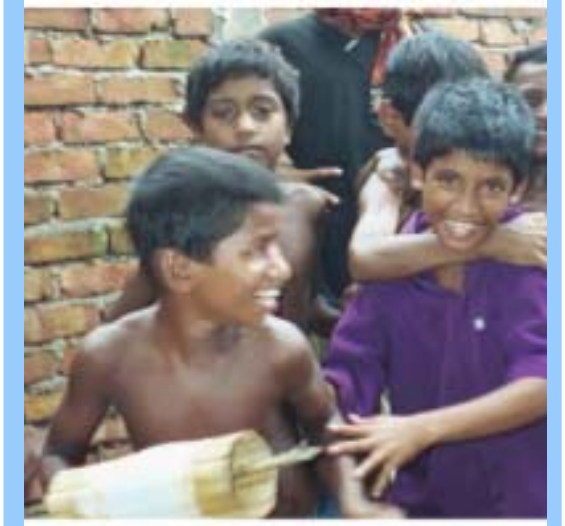
(1) Denominators used for the calculation of vaccination coverage at all levels should be consistent;

(2) Procedures should be developed to calculate and monitor vaccine wastage;

(3) Recording system of vaccine stocks should be designed in such a way that the expiry dates/batch no/lot no of the closing stocks can be known instantly from the vaccine ledger.

(4) Stock recording system should be devised in such a way that the actual position of stock on-hand could be known instantly from the vaccine ledger.

The details are provided in the *findings and recommendation section* at each review level.

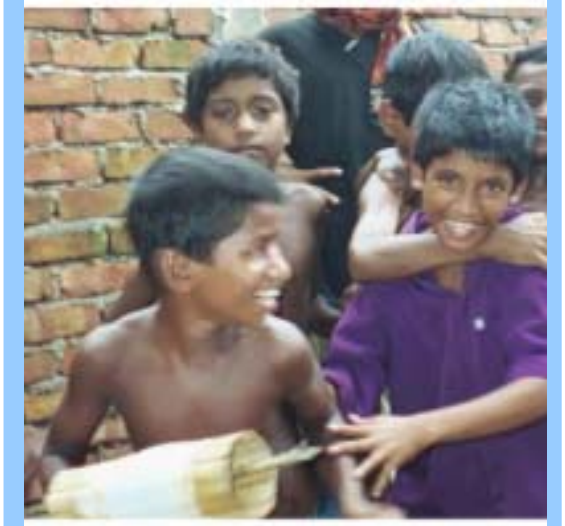


Information/data flow and organization of EPI for the country

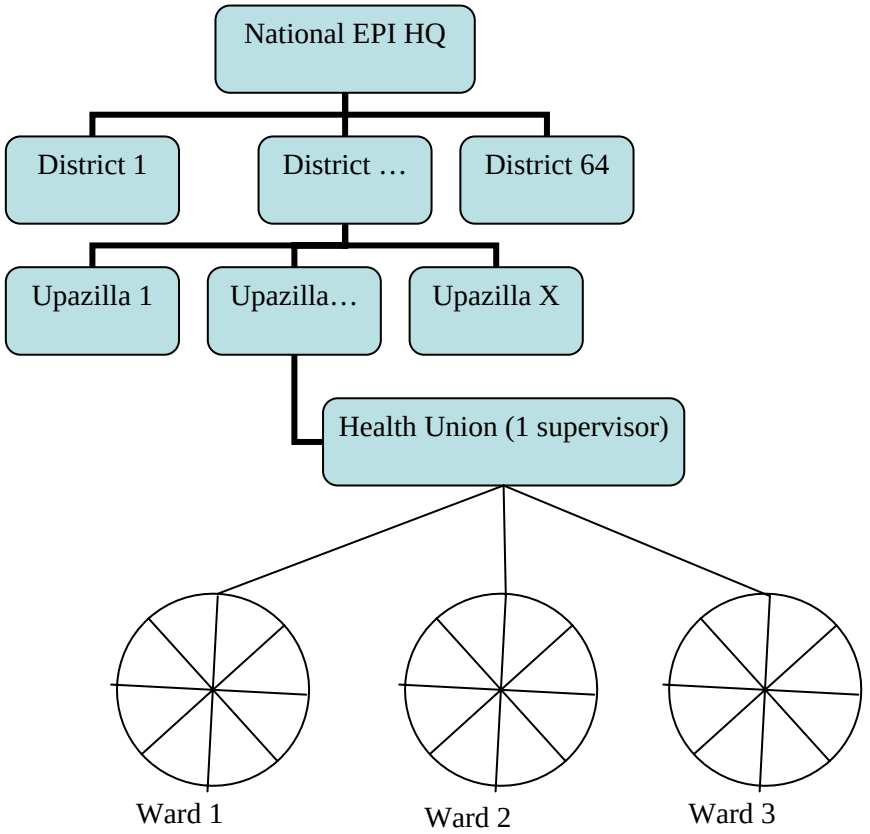
The Health System in Bangladesh is organized into districts (Zila's), sub-districts (Upazilla's), Health Unions and Wards. There are 64 districts, each with a number of sub-districts. Every sub-district controls a number of health unions, which are not necessarily physical structures. Rather, they are groupings of 3 wards each under the control of 1 supervisor. Some sub-districts are "city corporations", public companies that control all urban services from water and electricity to health services. In these cases the organisation is slightly different.

Every Ward is serviced by one vaccinator (HA/FWA) who administers the immunizations in 8 outreach locations per ward. Monthly sessions are organized in every location. This gives the vaccinator the time to perform door-to-door searches for newborns on the days before the session. This number, together with the defaulters from the previous month's session, constitutes the session target.

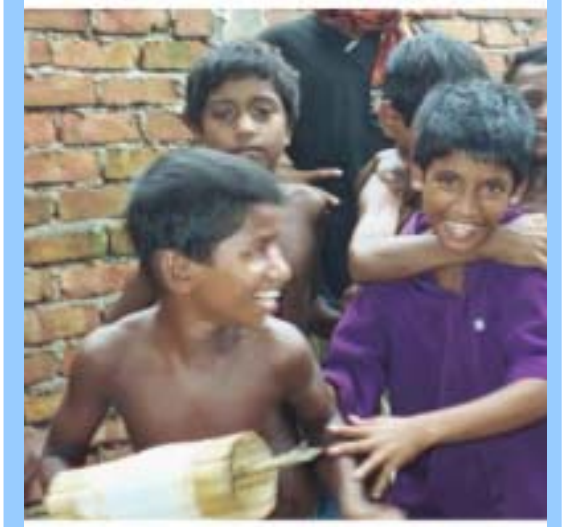
Except for NGOs like SSKS, the vaccinators use the "EPI Newborn Child Registration & Vaccination Information" register to register the child and subsequent immunisations given to the child. During house visits or at first vaccination, an "EPI Card" is issued by the HA/FWA. All vaccinations are recorded on a daily tally sheet, which contains a set of three copies. The original copy is sent to the Upazilla together with the vaccine carrier and any un-used vaccine following each session, the second copy is sent to the union's supervisor and the third copy remains in the tally book. The union supervisor compiles the data of three wards and submits a union report to the Upazilla by the 3rd of the following month. The EPI Technician compiles the Upazilla's monthly report and mails this to the district by the 7th of the following month. The district's deadline for reporting to the national EPI Program Manager is by the 15th of the following month.



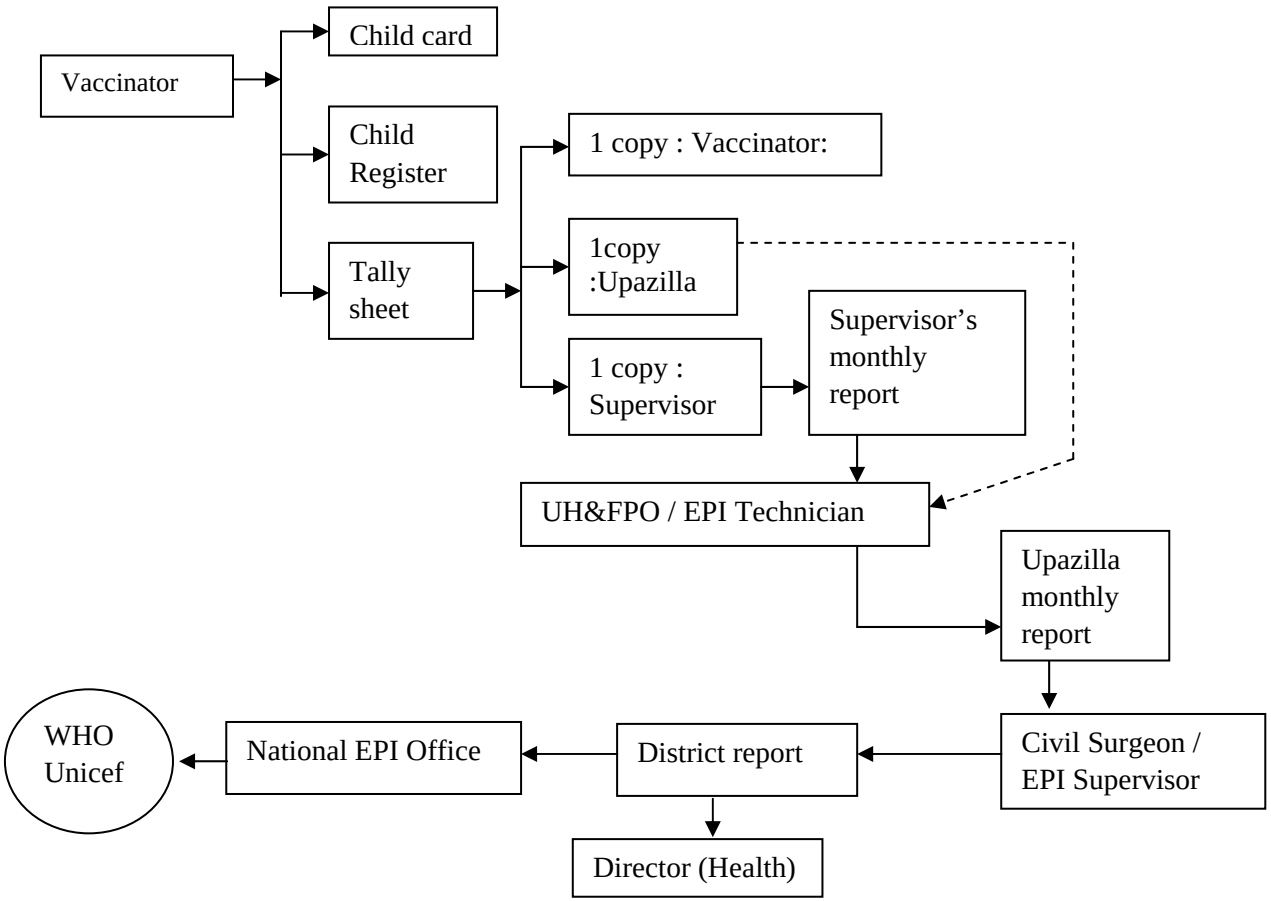
Organisation:

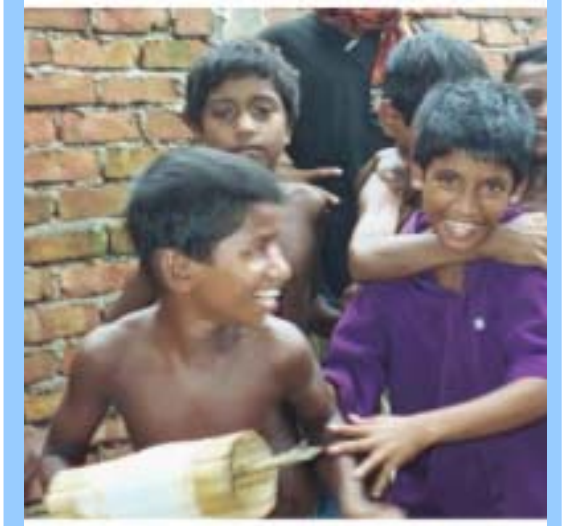


1 Ward: 1 vaccinator, 8 outreach locations



Flow of information:





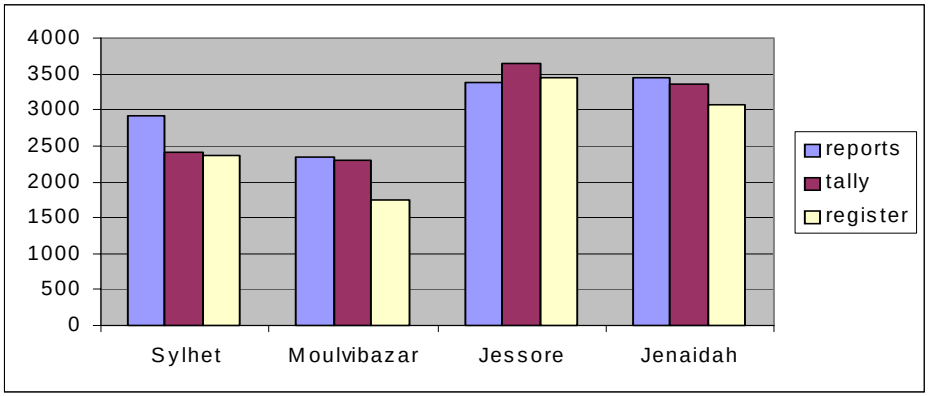
For the DQA, the Health Union level corresponds to the Health Unit, as this is the first place where a monthly report is made. The difficulty is that the Health Union does not normally correspond to a physical entity. Last year's DQA was performed at the sub-district level, inviting all staff from the selected Health Union to the Upazilla office. This year, the audit teams instead visited the supervisor of each selected Health Union, and attended one outreach session per Health Union.

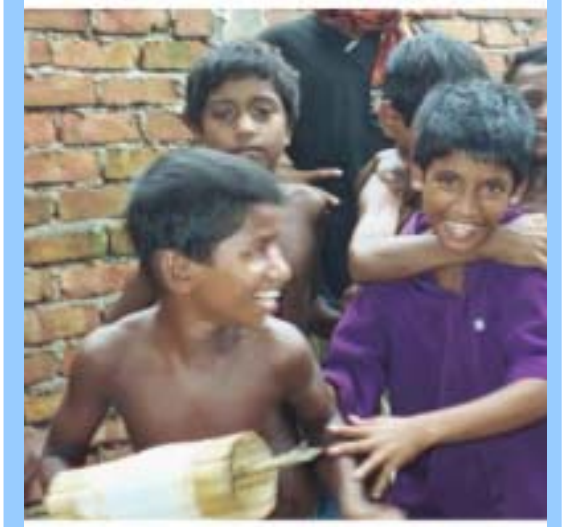
Verification Factor

The verification factor is calculated based on data collected during the DQA (recounted / reported vaccinations) and is a measure to verify the reported performance at national level. It compares the number of vaccinated doses of DPT3<1 recounted from the health centre tally sheets or register to the vaccinations that were reported to the higher levels. The verification factor for the audit year 2002 is **96%** based on a recount from tally sheets and **86%** based on a recount from the child registers.

Overall, data consistency at all levels was good, except for the case of Jessore, where the tabulation found in the district was significantly higher than the tabulation found at national level (under reporting).

The audit teams collected information on DPT 3. This information is summarized in the following table for each of the selected districts:



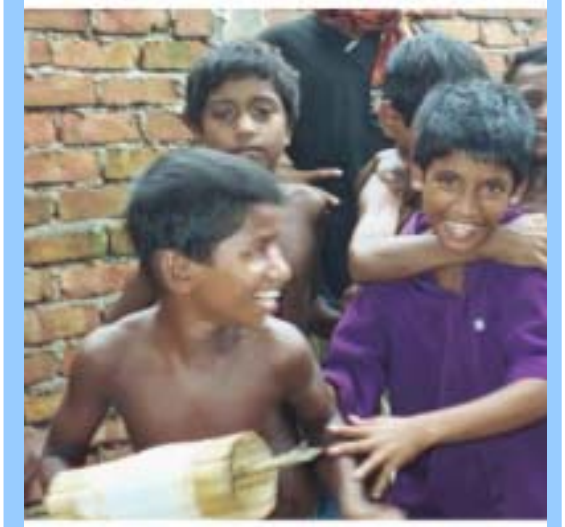


Quality of the System Index

QSI at national level:	80.4 %
Recording practices	4.29 / 5.0
Storing and reporting	4.00 / 5.0
Monitoring and evaluation	4.17 / 5.0
Denominator	3.13 / 5.0
System design	4.23 / 5.0

System design (score: 4.23 / 5.0)

Issue observed	1. The reporting forms do not allow for the calculation of vaccine wastage. 2. Reporting and recording formats do not allow for the recording of immunisations given to migrating children. 3. Injection safety policy is yet to be introduced.
Recommendation	1. The report forms should provide the information necessary for calculation of the vaccine wastage (doses used versus administered and discarded). 2. Reporting and recording formats should allow for the recording of immunisation given to migrating children. 3. National injection safety policy should be introduced soon.
EPI management comments	

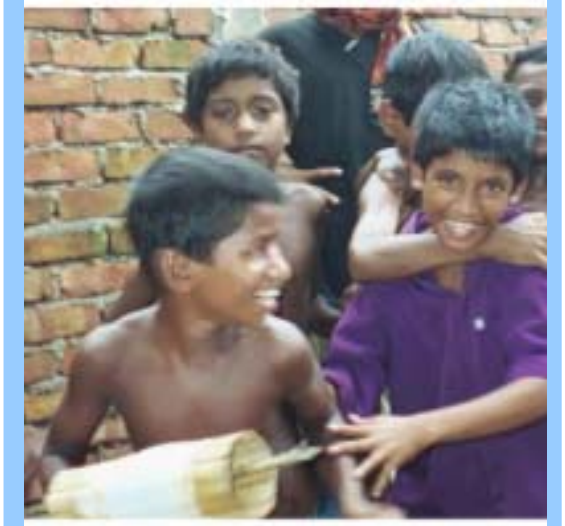


Denominators (score: 3.13/ 5.0)

Issue observed	1. Different denominators for numbers of surviving infants were in use in 2002, as the National level used census data where as districts calculated their own denominators using the 'geographical reconnaissance' (GR) method, which involves health workers undertaking a head count on an annual basis. Districts, upzillas and unions used the higher of the two figures (the national level calculated figure vs. that obtained from GR) in 2002. 2. The national policy is to vaccinate women of child-bearing age, so no denominator was set at the national level for pregnant women for 2002. 3. No breakdown of infant immunisations was known between fixed, outreach and mobile strategies at the national level.
Recommendation	1. The number of infants for immunization should be consistent among national, district and HU levels. If different numbers exist, a consensus should be found on the right/most appropriate number to use. 2. Knowing the percentage of infant immunisations per strategy would be helpful for the EPI management to focus resources.
EPI management comments	

Monitoring and Evaluation (score: 4.17/ 5.0)

Issue observed	1. No system exists for reporting the amount of wasted vaccine (open and closed vials). The calculation of wastage and monitoring of wastage does not take place at any level including the national level. 2. The system does not allow for monitoring of individual district stock outs at the national level.



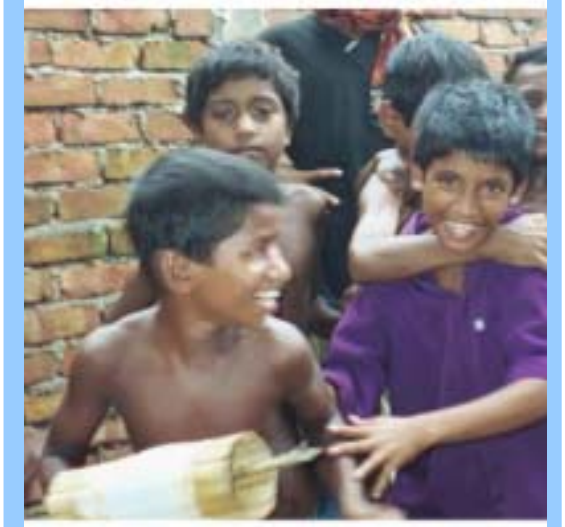
Recommendation	1. There should be a reporting and monitoring system of vaccine wastage. 2. The national EPI vaccine store should record vaccine distributions and usage per individual district in order to monitor vaccine stock outs at the district level.
EPI management comments	

Storing and reporting (score: 4.0 / 5.0)

Issue observed	No written back up procedure has yet been set up for the computerized database at national EPI HQ. There is a risk of loss of data in the event of unexpected circumstances.
Recommendation	EPI management should introduce a back up policy at all levels where data are processed electronically.
EPI comment	

Recording practices (score: 4.29 / 5.0)

Issue observed	1. Batch/lot numbers of the vaccines are not recorded in the vaccine ledger. 2. No routine physical inventory of vaccines or vaccine commodities are carried out.
Recommendation	Batch/lot numbers of the vaccines should be recorded in the vaccine ledger and at every year end physical verification and count should be made.
EPI management comment	



Vaccine wastage rates

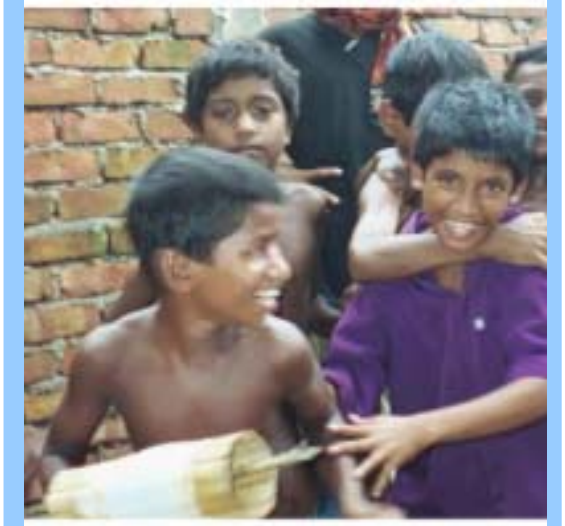
Overall vaccine wastage rates cannot be calculated because of the lack of information provided by the reporting system. As no routine physical checks of vaccines or vaccine commodities are carried out it is difficult to verify if any differences/discrepancies exist between the physical stocks and the ledger balance (system wastage). However system wastage at central level was reported to be 0.

Reporting Adverse Events Following Immunization (AEFI)

A system is in place for the aggregate monthly reporting of AEFI. Guidelines also exist for the appropriate procedure to follow on a facility basis and community basis.

Availability and completeness of reports

For all 64 districts a complete set of 12 monthly reports was available for both the audit year and the year previous to the audit year.



District – findings and recommendations

District context

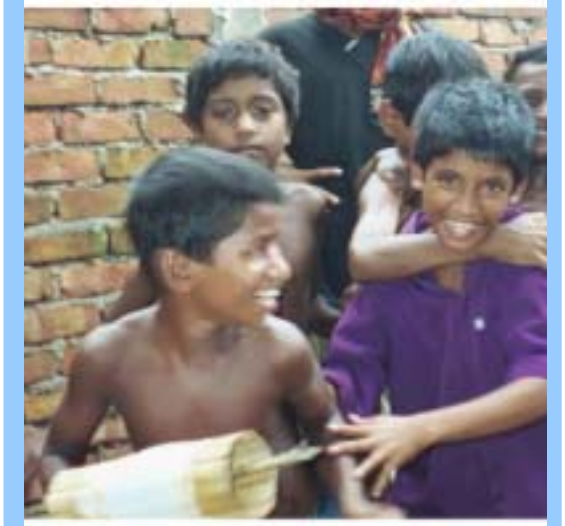
Bangladesh has 64 districts. Out of these 64 districts 4 districts (Sylhet, Moulvibazar, Jhenidah and Jessore) were selected randomly for the DQA. A new report format was introduced in the 6 districts and 1 city corporation where Hepatitis B is being introduced, implementing some of the recommendations which were made after the 2002 DQA. Since one of the goals of the present study was to follow up on those recommendations, it was decided to randomly select 2 districts with the "old" format (Sylhet and Jhenaidah) and 2 with the "new" format used from 2003 (Jessore and Moulvibazar). At the district level, the Civil Surgeon of the district is the overall officer in charge of the health sector the EPI district supervisor is responsible for the compilation and reporting at the district level. Each upzilla sends their monthly report to the districts.

Data accuracy

Consistency between data at national level and data at district level was rather good. Only in Jessore, the tabulation found at district level (59,589) was significantly higher than the one found at national level (55,080). No indications were found that data was deliberately altered to improve the reported numbers.

Quality of the System Index

Average QSI at district level:	87.9% (range between 83.9% and 93.5%)
Average score recording:	4.58/ 5.0



Average score storing and reporting: 5.0 / 5.0

Average score monitoring and evaluation: 3.9 / 5.0

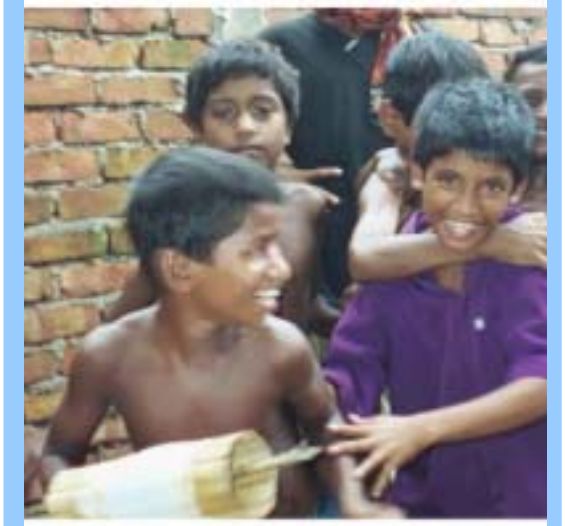
Average score demographics and planning: 4.7 / 5.0

Recording

Issue observed	1. No dates were stamped or written on the upzilla reports in 2002 as they were received at district level regularly in Sylhet, and never in Jessore and Jhenidah in 2002. 2. Temperature charts and six-disease report forms were not sufficiently available in Sylhet. 3. With the exception of Jessore, there was no system for recording expiry dates and batch numbers in the district stock ledger in 2002.
Recommendation	1. District staff should promptly write or stamp the date of receipt on incoming reports. 2. All forms should be made available in all the HUs, as a minimum requirement for high quality reporting. 3. There should be a system of recording of expiry dates and batch/lot numbers in the district stock ledger.
EPI management comments	

Storing and Reporting

Issue observed	1. The storage spaces at the district vaccine stores are inadequate.
Recommendation	1. The storage spaces at the district vaccine stores should be increased.



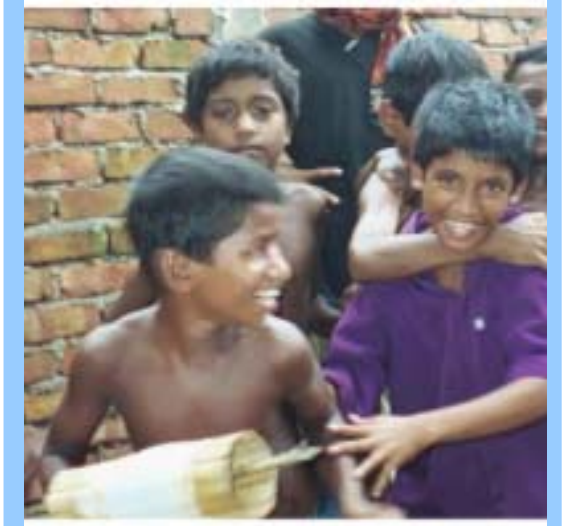
EPI management comments	

Denominators

Issue observed	1. There are inconsistent vaccination target rates between National and District levels, as noted in the National Level Quality System Index. 2. The proportion of imminisations per strategy type is not defined for the district level. 3. The national policy is to vaccinate women of child bearing age, hence no targets were available for pregnant women at the district level.
Recommendation	1. A consistent vaccination target rate should be set up for all levels. 2. The percentage of immunisations should be defined for each type of strategy.
EPI management comments	

Monitoring and Evaluation

Issue observed	1. There is no monitoring of vaccine wastage 2. No annual report is published at district level. 3. There is no monitoring of upzilla vaccine stock-outs. A shortage of BCG diluent occurred in Moulvibazar in 2002.
Recommendation	1. Vaccine wastage should be recorded and monitored. 2. Annual reports should be issued and distributed to the people concerned.
EPI management comments	



Vaccine wastage rates

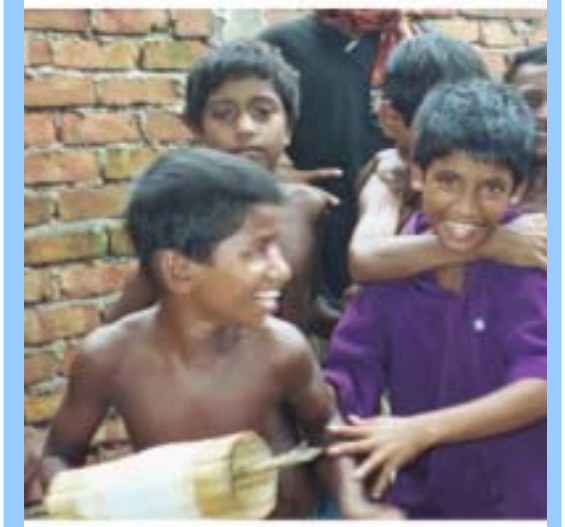
No system wastage was reported at district level. No wastage could be calculated, as the required information is not available in the reports.

Reporting Adverse Events Following Immunisation (AEFI)

An aggregate reporting system is in place.

Completeness and availability of reports

No problems of availability or completeness were observed. However, the EPI offices of Sylhet, Jessore and Jhenidah do not stamp or write the dates of receipt of report from the upzillas it was not possible to observe the timeliness of the reports.



Upzilla (Sub-District) – findings and recommendations

Upzilla context

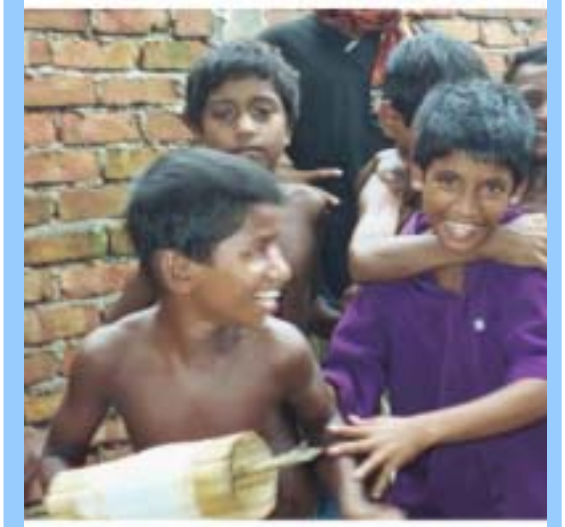
In every district, 2 upzillas were selected randomly. In this way 8 upzillas were selected (Bianibazar, Sylhet City Corporation, Moulvibazar Municipality, Kulaura, Jhenidah Sadar, Moheshpur, Jessore Sadar and Sharsha). As mentioned above, at the upzilla level, the Upzilla Health and Family Planning Officer of the upzilla is the overall officer in charge of the health sector. The EPI technician is responsible for the compilation and reporting at the upzilla level.

Data accuracy

Data consistency between data found at district level and upzilla level was overall very good. No indications were found that data was deliberately altered to improve the reported numbers.

Quality of the System Index

Average QSI at upzilla level:	87.1% (range between 80.6% and 92%)
Average score recording:	4.43 / 5.0
Average score storing and reporting:	5.0 / 5.0
Average score monitoring and evaluation:	3.9 / 5.0
Average score demographics and planning:	4.8 / 5.0

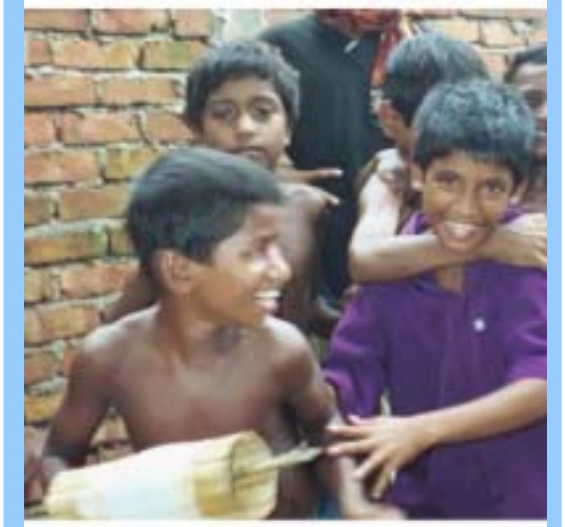


Recording

Issue observed	1. No HU supervisor's reports were available in Jhenidah and Jessore for the year 2002. 2. No dates were stamped or written on the union (health unit) reports in 2002 as they were received at upzilla level. 3. Temperature charts and six-disease report forms were not sufficiently available in the upzillas of Sylhet district. 4. With the exception of Jessore Sadar and Sharsha, there was no system for recording expiry dates and batch numbers in the upzilla stock ledgers in 2002.
Recommendation	1. Upzilla staff should promptly write the date of receipt on incoming reports. 2. All forms should be made available to all the upzillas, as a minimum requirement for high quality reporting. 3. There should be a system of recording expiry dates and batch numbers in the upzilla vaccine stock ledger.
EPI management comments	

Storing and Reporting

Issue observed	The storage spaces at the upzilla vaccine stores are inadequate.
Recommendation	The storage spaces at the upzilla vaccine stores should be increased.
EPI management comments	

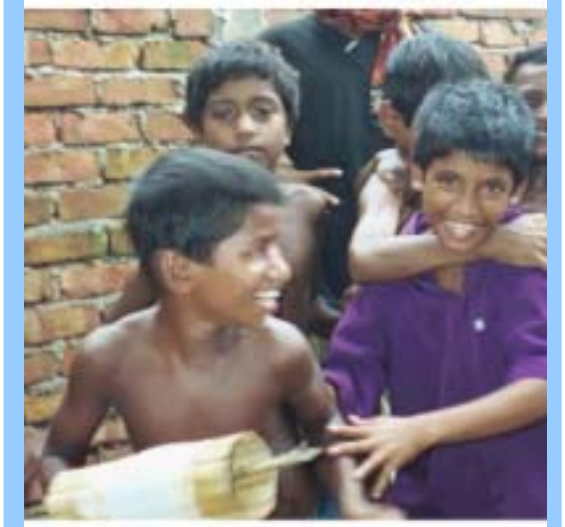


Denominators

Issue observed	There are inconsistent vaccination target rates between National and upzilla levels, as noted in the National Level Quality System Index.
Recommendation	A consistent vaccination target rate should be agreed upon for all levels.
EPI management comments	

Monitoring and Evaluation

Issue observed	1. No monitoring of vaccine wastage is practiced. 2. Drop outs, in percentage or number, were not tracked or displayed anywhere in Jhenidah Sadar and Moheshpur Upazilla Offices. 3. Shortage of manpower and vehicles for monitoring and supervision activities.
Recommendation	1. Drop outs should be tracked and the up-to-date figures displayed in Upazilla Offices. 2. Vaccine wastage should be recorded and monitored. 3. Adequate manpower and vehicles for monitoring and supervision activities should be made available to the HUs.
EPI management comments	



Vaccine wastage rates

No wastage could be calculated, as the required information is not available in the reports. No system wastage was reported at district level.

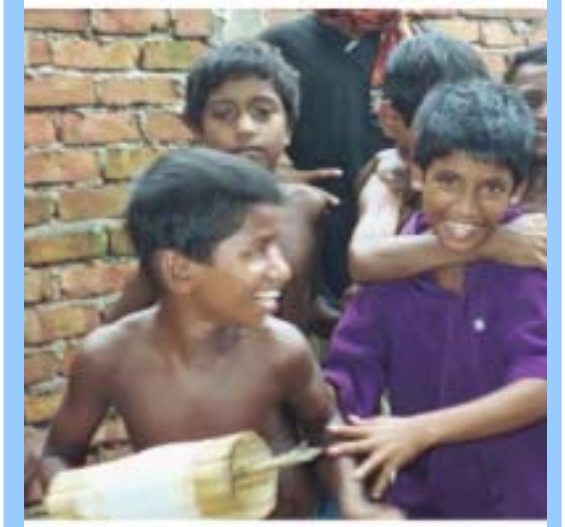
Reporting Adverse Events Following Immunisation (AEFI)

An aggregate reporting system is in place.

In Kulaura upzilla an AEFI complaint box has been installed and is supposed to be kept under lock and key. We found it to be kept open, however, (the door of the box was not closed), and it seemed that it was not in use.

Completeness and availability of reports

As for the District level, no problems of availability or completeness were observed. However, the upzilla offices do not stamp or write the date of receipt of report from the Health Units it was not possible to observe the timeliness of the reports.



Health Units – findings and recommendations

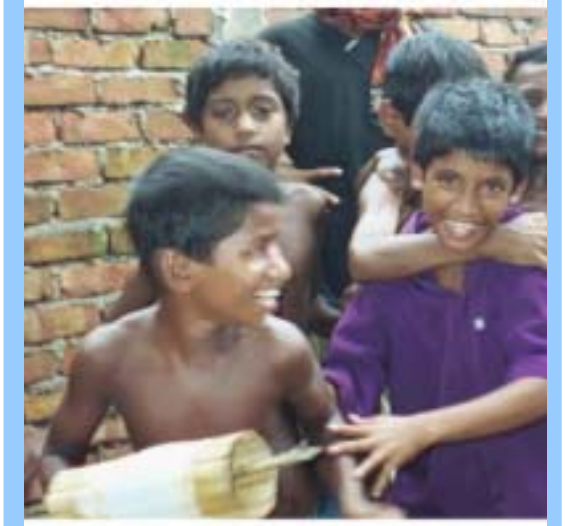
Health Unit context

City Corporations and Municipalities under the Ministry of Local Government and Rural Development and Cooperatives (LGRD & C) in collaboration with NGOs and the private sector are responsible for providing vaccinations in urban areas. At present EPI services in rural areas relies on an administrative system of 64 districts, 460 Upazillas, around 4,500 unions, 13,500 wards and 108,000 sub-blocks within the wards. Each sub-block has an EPI outreach site where routine EPI services are provided once a month.

Data accuracy

Apart from the exceptions noted in paragraphs 1 to 4 below, at health units, tally sheets and registers were available for a recount of reported data. We were able to perform recounts of the vaccinations in tally sheets/register and noted the consistencies and inconsistencies between recounted and reported numbers.

1. The monthly reports at health unit level were not available in Jhenidah and Jessore for the year 2002.
2. An NGO named Sylhet Samaj Kallan Sangsta (SSKS) did not use the child register supplied by EPI in 2002 but rather used their own ESP cards from which it was not possible to recount the numbers. Tally sheets of 2002 could not be provided to us.
3. One of the vaccinators in Bianibazar admitted that he had filled in five tally sheets showing that vaccines (including 10 doses of DPT 3) were given, when in fact no vaccines were given on those days and no entries were made in the register.
4. In UHC Moulvibazar no entries for DPT 2, DPT 3 and Measles doses were made in the Child Registers in 2002, but there was a record of DPT 1 doses.

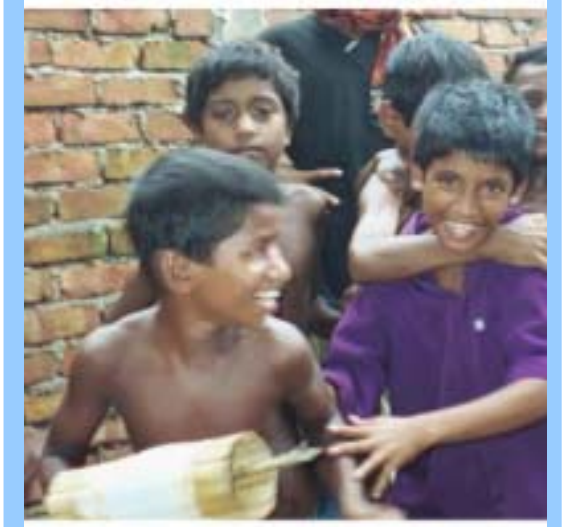


Quality of the System Index

Average QSI at health unit level:	82.45% (range between 28.60% and 95.00%)
Average score recording:	4.86 / 5.0
Average score storing and reporting:	3.81 / 5.0
Average score monitoring and evaluation:	3.38 / 5.0

Recording

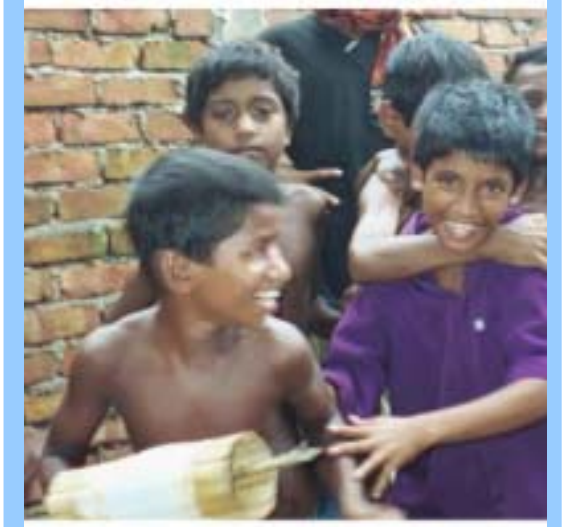
Issue observed	1. In Jhenidah Sadar Upazilla the Health Workers used only two Tally Sheets instead of three sheets. As a result, no copy of the Tally Sheet were given to the Supervisors. 2. Child and mother registers are kept by the vaccinators at their residences. 3. Children's full addresses were not written in the registers in Sylhet and Moulvibazar. 4. In two of the HUs of Bianibazar and Kulaura 3 children aged over one year were given DPT 3 and recorded in the register, but the corresponding recording in the tally sheets was under the designation for children of under one year. 5. The health workers in Sylhet and Moulvibazar did not record clearly in their register the children who were "out-siders" (i.e. who received some vaccine doses from other sites, or migrated from other areas, or were not in the HU's target population).



Recommendation	1. All 3 copies of the tally sheet should be used and distributed properly. 2. After the completion of the year, Child and mother registers should be kept in the upzilla health complex and properly filed. 3. Children's addresses should be recorded properly and fully in the register. 4. If vaccine doses are given to children over one –year, this must be recorded correctly on the tally sheet. 5. Proper recording should be made in the registers in order to track "out-siders" as described above.
EPI management comments	

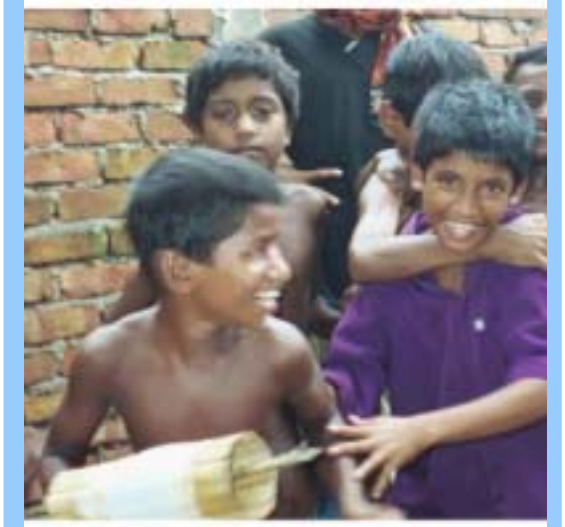
Storing and reporting

Issue observed	1. No health unit supervisor's reports were available in Jhenidah and Jessore for 2002. 2. SSKS in Sylhet does not return unused vaccines daily to the vaccine store, but rather keeps the vaccine in their normal refrigerator with other medicines.
Recommendation	1. All HU reports should be prepared, and one copy should be retained at HU for future reference. 2. Unused vaccines should be returned daily to the upzilla/city corporation vaccine store.
EPI management comments	



Monitoring and evaluation

Issue observed	1. There was no target number of infants and pregnant women for fixed sites (generally, the highest individual provider). 2. No awareness of new births in the target area and no attempt to follow-up to ensure that all children are immunised in fixed sites. 3. No vaccine wastage calculated and monitored. 4. No monitoring of drop-out rates at fixed sites. 5. No mechanism in place to track defaulters in fixed sites. 6. Shortage of manpower for monitoring and supervision. 7. SSKS in Sylhet and Moulvibazar charge Taka 10 (US $ 0.17) as a “service charge” for vaccine doses.
Recommendation	1. Target numbers of infants and pregnant women should be set for all HUs. 2. Vaccine wastage should be calculated and investigated to identify causes. Immunisation coverage rates and drop-out rates should be calculated. 3. All HUs should have a mechanism / procedure to track defaulters. 4. Adequate manpower should be made available for monitoring and supervision. 5. No money should be charged for providing vaccines.
EPI management comments	



Drop-out rates

Information is available at the HUs, with the exception of the fixed sites.

Vaccine wastage rates

Wastage rates could not be calculated.

Reporting Adverse Events Following Immunisation (AEFI)

There was no formal written reporting line for AEFI at the HU level.

Availability of reports

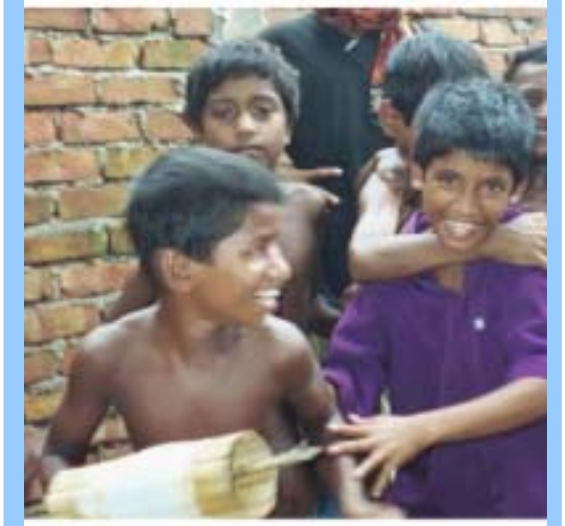
In 12 health units, copies of the monthly reports could not be retrieved.

Coverage/change in DPT3 reported

Information available at the HU except fixed sites.

Observation of Session / Child Health Card Exercise

In vaccination sessions at the HUs we found that the vaccinators were aware of the vaccination calendars. During the sessions observed, the proper vaccinations were given to the infants that were brought to the session. In addition to observing the sessions we conducted child health card exercises. All the vaccinators participating in



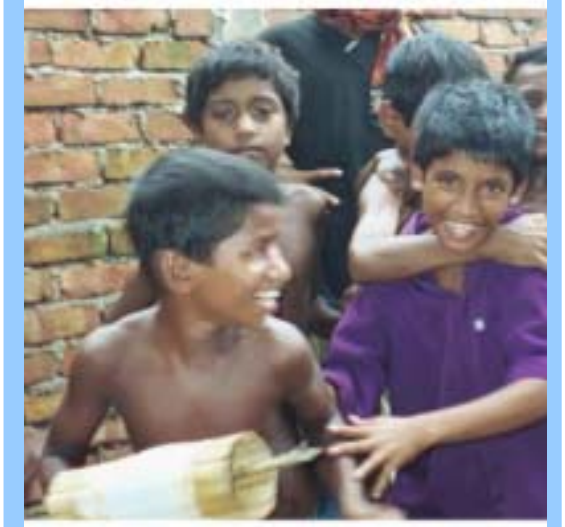
the exercise got perfect marks in the exercise. It was observed that all the vaccinators had a good understanding of the vaccination calendars.

Child Card Survey

As the discrepancies between registers and tally sheets were mostly less then 20%, the child card survey was performed in only 2 HUs. In these 2 HUs in Moulvibazar district – namely **Routhgown** and **Sadar UHC** – the discrepancy between the tally sheets and the child registers was 20% and 100% respectively. It should be mentioned that in **Gohal Bari** HU of Kulaura upzilla a discrepancy of 30 % was measured, but as we had conducted a child card survey in Routhgown HU of same upzilla, an additional child card survey was not required for Gohal Bari.

Issues observed

1. In Routhgown there was a perfect match of DPT doses recorded in the 10 cards surveyed and the child registers, i.e. all 10 infants and their DPT doses as recorded in the cards were also found in the register.
2. In UHC Moulvibazar the names of all 10 infants were found in the register. The record of DPT 2 and 3 doses given were found in the child cards but no entries of DPT 2 and 3 doses were found in the child register.



Follow-up of the DQA 2002 for the audit year 2001

Investigation of discrepancies

The 2002 DQA reports discrepancies between tally sheets and registers, based on the recount of registers in 5 wards within one of the selected districts. We conducted a more complete recount of 3 antigens in all 3 wards of every selected Health Union, and as discussed earlier could not confirm these discrepancies. Therefore, an investigation into the reasons for these discrepancies becomes less relevant. However, the first title in this section addresses a number of concerns raised in the 2002 report that could be related to data inconsistency.

As for the implementation of the recommendations made following the 2002 DQA, the auditors feel that significant progress has been made, even if implementation was not completed for all districts. Details follow below.

1. **Issue:**

   How are daily targets for immunisation sessions set for the Health Assistants and Family Welfare Assistants (HAs/FWAs)?

   Observation:

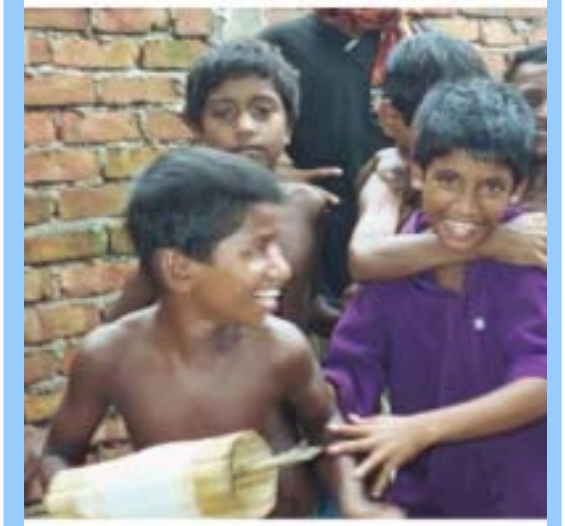
   The policy is that each HA/FWA sets session targets for each outreach site based on home visits conducted during the day previous to the session day, to which drop-outs from previous sessions are added.

2. **Issue:**

   Examine the official policy, and any ambiguities, especially the follow-up of drop-outs.

   Observation:

   No material ambiguities were observed.



3. **Issue:**

   Examine through interview and observation the application of the policy.

   Observation:

   The vaccinators were aware of the policy and were applying it.

4. **Issue:**

   Observe whether targets are recorded during immunisation sessions, or after.

   Observation:

   During our visits we observed that targets were set before the sessions.

5. **Issue:**

   Perform a cross-check of figures reported by the Unions, with the recorded figures in the HA/FWA EPI Child Registers.

   Observation:

   Our observations in this regard are presented on page14 of this report.

6. **Issue:**

   Calculate any discrepancies.

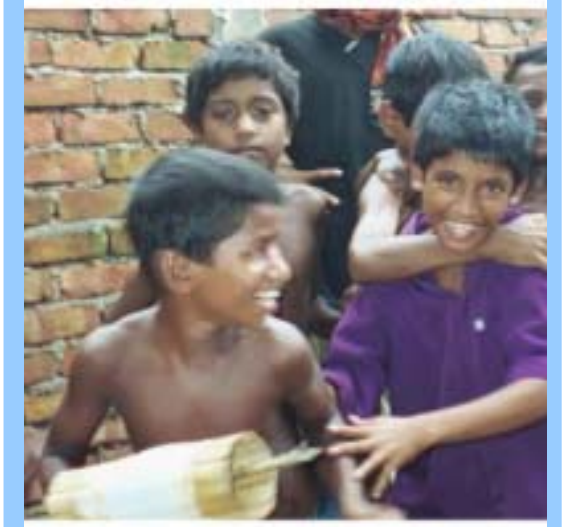
   Observation:

   Our observations in this regard are presented on page 14 of this report.

7. **Issue:**

   Check whether BCG, DPT1 and Polio1 doses are systematically recorded in the Wards' registers, whether or not the child was vaccinated in another (e.g. the mother's) Ward at birth.

   Observation:



The register does not provide space for recording whether a child received vaccine doses in other wards. However, in the HUs of Sylhet City Corporation, the identification "O/S", meaning "outsider", is used for this purpose.

8. **Issue:**

   Assess level of implementation of recommended segregation of DPT doses (children under and over one year).

   Observation:

   The recommendation to segregate doses given to children over one from the doses given to children under one is being implemented in a phased approach. Specifically, new reporting forms and formats are distributed in the districts where Hepatitis B is being introduced. At the time of the audit, this was the case in 6 districts. Hence, non-segregation remains a problem in the majority of the districts, and one cannot be sure whether reported DPT3 corresponds to infants only, but this problem will be phased out gradually as the new reporting system is implemented in all districts.

   In two of the HUs 3 children aged over one year were given DPT 3 and recorded in the register. However, the corresponding record in the tally sheets was entered under the designation for children of under one year.

9. **Issue:**

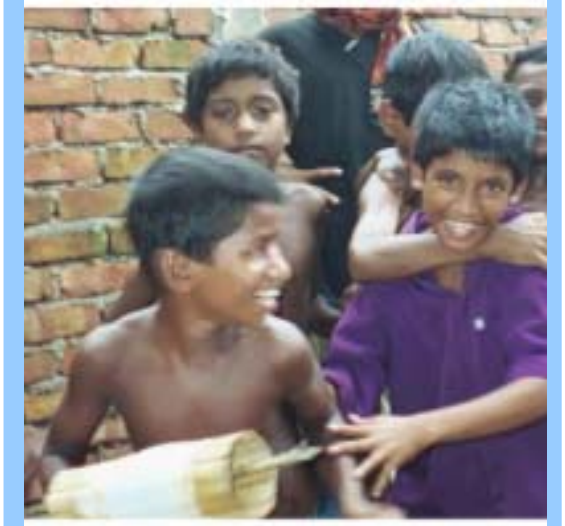
   Cross-check with National Policy and Guidelines document whether policy has been revised to take account of this recommendation.

   Observation:

   Follow-up of the 2002 recommendations are given in the following section "Assessment of Implementation of Recommendations DQA 2002".

10. **Issue:**

    Denominators: in addition to the Quality Questions, discuss at national level whether the data used to compute denominators for target populations of children, pregnant women and women of child bearing age have been revised/up-dated following the 2002 DQA. Check for consistency and level of



implementation at the lower levels, including whether new figures appear on pre-printed reporting forms and whether targets have been revised. Ask HAs/FWAs whether their targets have been revised.

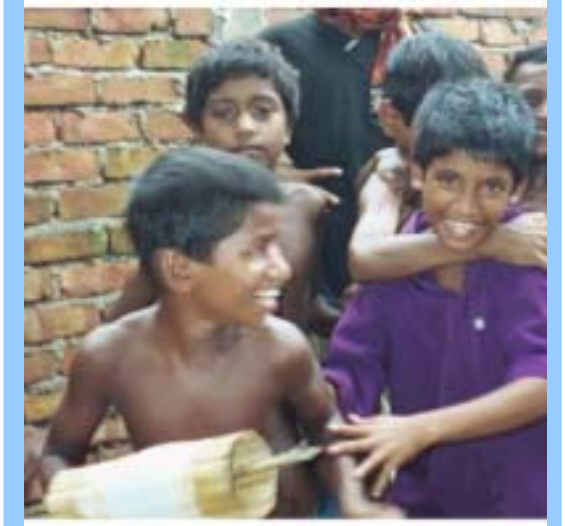
Observation:

The policy on denominators has been revised. From 2003 all districts, upzillas and HUs have been asked to follow the GR approach, described in the National level Quality of the System Index section under "Denominators".

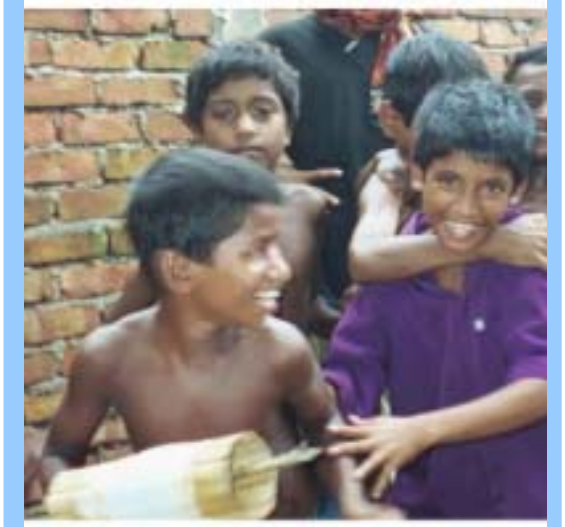
Assessment of Implementation of Recommendations DQA 2002

Euro Health Group (EHG), Deloitte and Touche Tohmatsu, Emerging Markets Group and Liverpool Associates in Tropical Health (LATH) conducted the first DQA in Bangladesh from 29th October to 14th November 2002 and made the following recommendations. We conducted follow-up procedures to observe how far the recommendations are implemented.

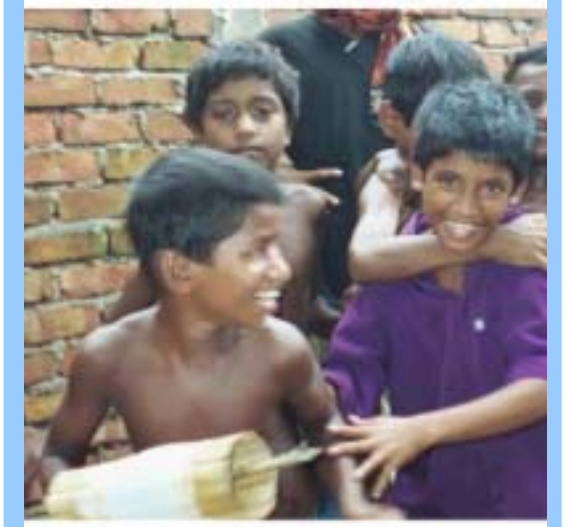
Last year's recommendation	Latest position
Recording practices	
• Ensure that a proper 'handing over' process takes place before staff are transferred	There is a system to hand over the charges when staff is transferred from one duty station to another. During DQA 2003 we observed in all 4 districts that a proper handing over process took place and all related documents were available.



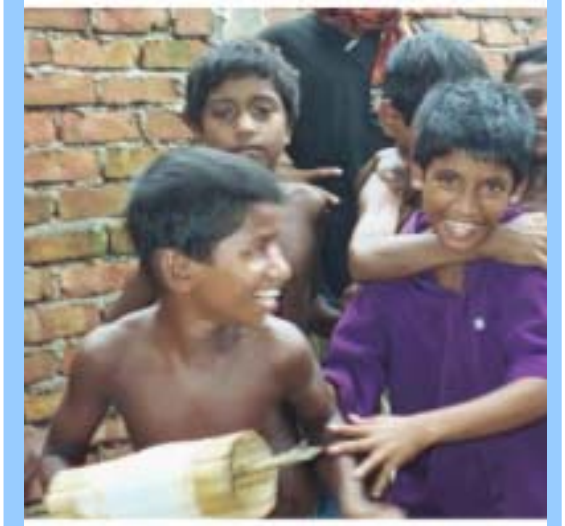
•	Review all reporting formats (tally sheets, monthly reporting forms, child register) to ensure that the right information is captured and reported , i.e. separated TT2+ for pregnant women and women of child bearing age, immunisations for children <and> 1 year of age, recording of immunisation given to migrating children in the child register, wastage	The new reporting formats (as introduced in 6 districts) ensure that the right information is captured and reported, i.e. separated TT2+ for pregnant women and women of child bearing age, immunisations for children < and > 1 year of age. But the formats does not allow for the recording of immunisations given to migrating children in the child register, nor do they provide for reporting vaccine wastage.
•	Review the flow of information from reporting units (e.g. NGOs, DCC, etc) to ensure a uniform procedure for reporting	The flow of reporting units from NGOs and City Corporations in the 4 districts visited in 2003 was uniform except in SSKS where a child register was not maintained in 2002.
•	Ensure that completeness of reporting (i.e. percentage of HUs, reporting in a given period) and not just availability is captured at national level.	No monitoring of completeness of HU reporting is done at national level. Out of 24 visited HUs, in 12 HUs of Jhenidah and Jessore Districts the EPI supervisors did not prepare their monthly reports. Here, EPI upzilla technicians prepared monthly reports based on Daily Tally Sheet sent by Health Workers.



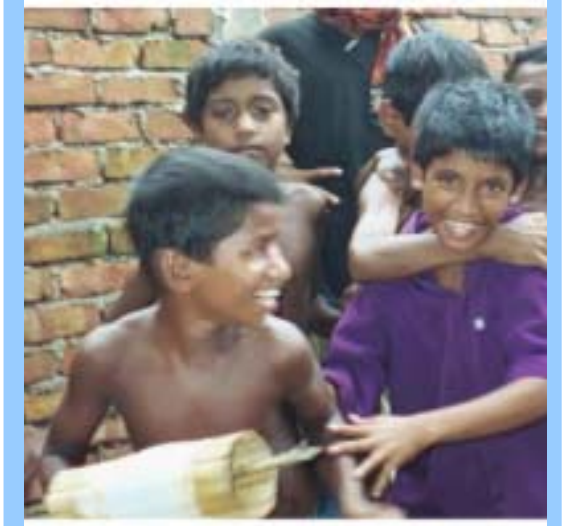
•	Ensure that batch number and expiry dates are captured in the vaccine control ledgers and that regular physical stock checking takes place, i.e. at the national level at least on an annual basis, and with more frequency at lower levels.	**At National Level:** ➢ Only expiry dates are mentioned in the vaccine control ledger. ➢ No physical inventory is taken at the end of year. **At District Level:** ➢ In Jessore and Moulvibazar districts, expiry dates and batch/lot numbers were mentioned in the vaccine control ledger. ➢ No physical inventory is taken in any of the 4 districts. **At Upazilla Level:** ➢ In Kulaura, Jessore Sadar and Sharsha upazillas, expiry date and batch/lot numbers are mentioned. ➢ No physical inventory is taken in any of the 8 upzillas. **At Health Union Level:** Not applicable as no stock is maintained there.



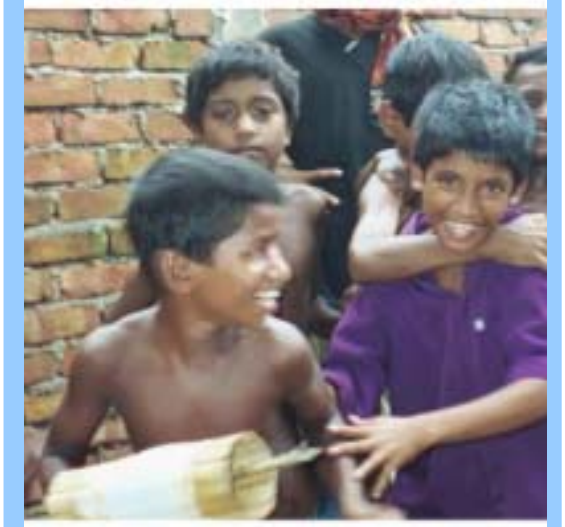
•	Ensure the availability of all forms (child card, tally sheets books, child and women registers, monthly reporting forms) for recording and reporting.	No shortage of forms were remarked in Moulvibazar, Jessore and Jhenidah but as reported earlier there was a shortage of temperature charts and six-disease report forms in Sylhet.
•	Use supervisory visits to strengthen knowledge on the vaccination schedule, monitoring the correct completion of the vaccine ledger, calculation of wastage, proper maintenance of the registers, etc.	Supervisory visits were organised but no calculation of vaccine wastage was done at any level. In Moulvibazar UHC and Sylhet SSKS child registers were not maintained properly.
•	Ensure timeliness of reporting and review the deadliness for reporting at each level if necessary	Monthly meetings serve as a strong tool to ensure timeliness of reporting. But no date of receipt is written or stamped on the upzilla reports in Sylhet, Jessor and Jhenidah. In none of the 8 upzillas was date of receipt written or stamped on the HU reports received by the upzilla.
Storing / Reporting		
•	Improve the level of data integrity at national level by ensuring that all data received are entered, missing reports are obtained and that and internal check is undertaken of data entered.	An internal check system on the data received from the District Offices prior to computer entry, has not been introduced.
•	Strengthen the storage and filing of tally sheets and monthly reports at Upazilla level. All records should be stored for the duration of time stipulated in the national policy.	Steps have been taken by the national office in this regard, and in all 8 upzillas visited all required documents were available.



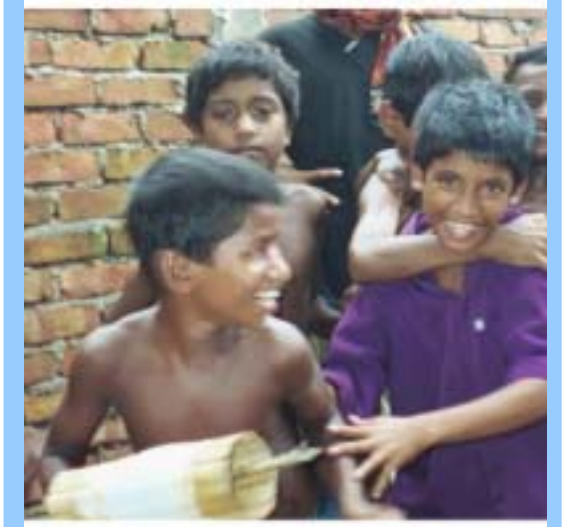
•	All monthly reports should be signed and dated by the In- Charge of the Union, Upazilla and District, and signed and dated on receipt at Upazilla, District and National levels.	As the EPI offices of Sylhet, Jessore and Jhenidah do not stamp or write the dates of receipt of reports from the upzillas, it was not possible to observe the timeliness of these reports. At none of the 8 upzillas was the date of receipt of HU reports written or stamped.
•	Encourage Upazillas to graphically display presentations of their performance and drop out.	Implemented in Sylhet, Moulvibazar and Jeessore but not in Jhenidah District or its Upazilla Offices.
Monitoring / Evaluation		
•	Monitor the accuracy of recording in the child register versus the reported figures.	Not yet implemented in the 4 districts.



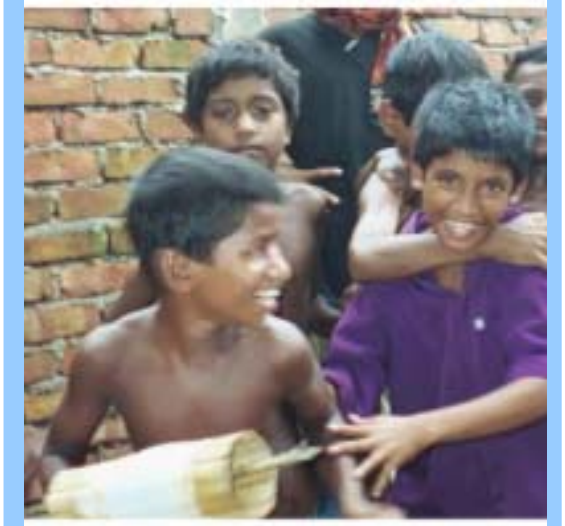
•	Review the issue of denominators and target setting, particularly the relevance of using session targets for health workers when the information is not evaluated or used.	Different numbers of surviving infant denominators were in use in 2002, as the National level used census data whereas districts calculated their own denominators using the 'geographical reconnaissance' (GR) method, which involves health workers undertaking a head count on an annual basis. Districts, upzillas and unions used the higher of the two figures (the national level calculated figure vs. that obtained from GR) in 2002. From 2003 all districts, upzillas and HUs have been instructed to follow the GR method. The use of session targets is highly relevant. The policy is that each HA/FWA sets a target for each outreach site based on home visits and drop-outs from previous sessions. This ensures a high level of community interaction, facilitates defaulter tracking and leads to realistic micro-targets.
•	Monitor the completeness and timeliness of reporting.	Monitored through monthly and weekly meetings.
•	Ensure that TT2+ is monitored at all levels as well as other selected antigens.	Monitored through monthly and weekly meetings.



•	Encourage the staff in the Districts and Upazilla levels to monitor immunisation performance, i.e. charts, and encourage a process of analysis and interpretation of the information rather than the mere collection of data. Encourage the display of monitoring charts of antigens at National, District and Upazilla levels.	Implemented in Sylhet, Moulvibazar and Jeessore but not in Jhenidah District or its Upazilla Offices.
•	Encourage regular written feedback from all levels, which should include some analysis of the data provided. EPI may need to assist the districts/Upazilla's in developing different feedback formats. From the national level, consider a simple mechanism for routinely reporting to the district, i.e. on a quarterly basis.	The National Office is receiving monthly feedback reports as per prescribed format. No other reporting system showing analysis of data is implemented as yet.
•	Ensure that realistic schedules of supervision are made with reports on the outcome of each supervisory visit, and that a record of the key issues is left with the District/ Upazilla/ Union and used for follow-up.	Supervisory visits are made as per schedule but no reports were available.
•	Encourage the Districts/ Upazillas to develop supervisory checklists that can be used for supervision. Focus on-the-job training utilizing the District's/ Upazilla's/Union's own data.	Although there is a prescribed supervisory checklist in the EPI training manual, the checklist has not been used in practice.
•	Encourage the completion of 'annual reports' at least at district level.	District Offices prepare a consolidated report from January to December for each year.
System design		



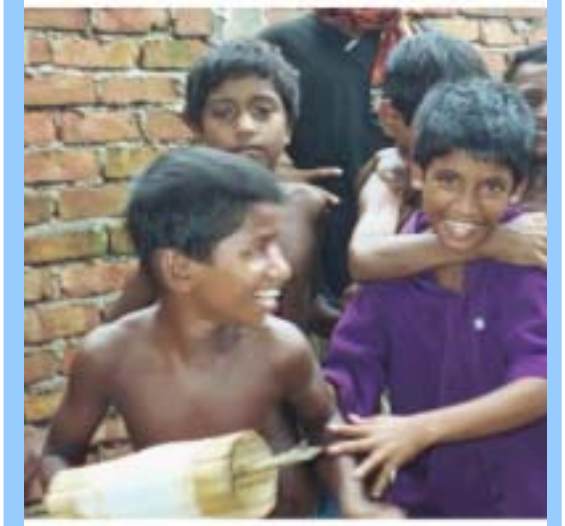
•	The current reporting formats do not include a space for reporting of Adverse Events Following Immunisation (AEFI), reporting of wastage from un-opened vials (expiry, breakage, cold chain failure, etc) of vaccines, TT2+ for women of child-bearing age and the over 1 category of children, number of health units reporting in a given period. EPI are in the process of introducing various new reporting formats to coincide with the introducing of Hepatitis B injection. It would be a good opportunity to carefully review the current reporting formats together with the needs of the national programme and only include what is essential and used.	Separate reporting system and formats of AEFI were available. Reporting of wastage from un-opened vials (expiry, breakage, cold chain failure etc.) of vaccines have been introduced in the 6 districts together with new report formats.
•	Review procedures, information needs and use (with UMIS), denominator/targets, 'migration', reporting, flow of information, storage of data, wastage, AEFI, injection safety, etc. in order to define clear national policies and guidelines. Include in an 'Operational Manual' and disseminate widely with training.	Various programmes and micro planning are being introduced and disseminated through intensive training programmes.
•	Ensure that the policies developed on AEFI reporting and vaccine and injection safety are implemented.	There is a policy on AEFI which is under the consideration of a review committee.



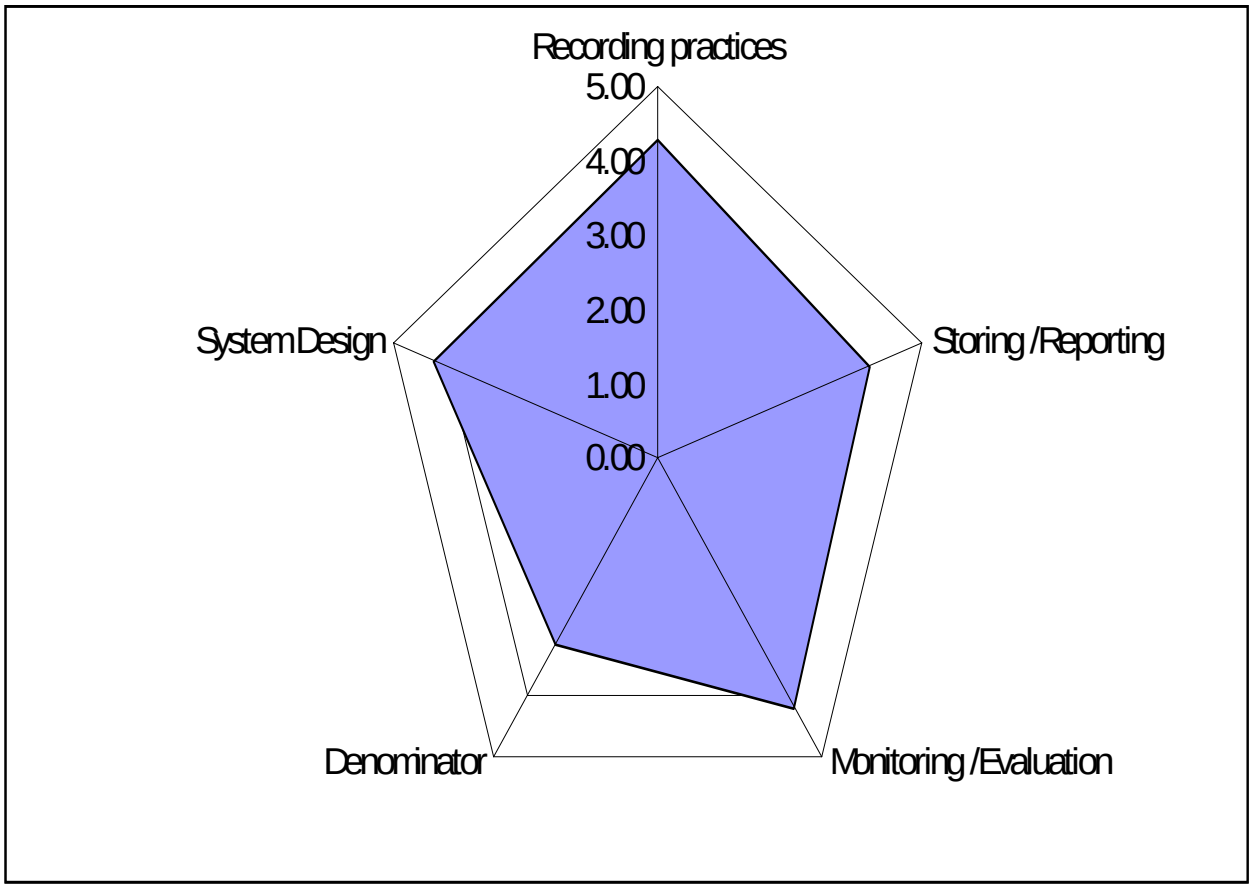
•	Review the current computerised system for the collection of immunisation data at EPI HQ. As EPI INFO is used for the logistics system consider using the same system for immunisation data with modifications to the reporting format. Ensure that written procedures are available for routine entry, management of the data files, back up, and internal quality checks and controls. Ensure that sufficient staff are trained on the computer systems in use.	No written back up policy is available.
•	Ensure more active involvement of EPI Government staff in the programme.	The audit team enjoyed cooperation from the EPI government staff at all levels.

Wrap-up

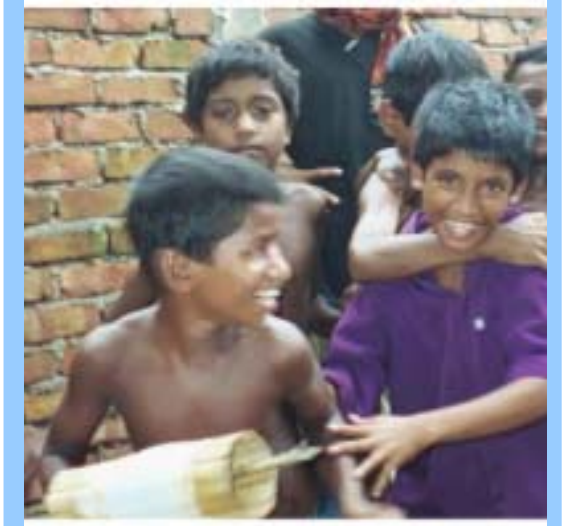
A debriefing on the preliminary results of the DQA will be given for EPI managers, UNICEF and WHO representatives. At the time of the writing, this meeting has not been scheduled, pending sharing of the draft report with the national EPI, the GAVI Secretariat, and WHO in Geneva.

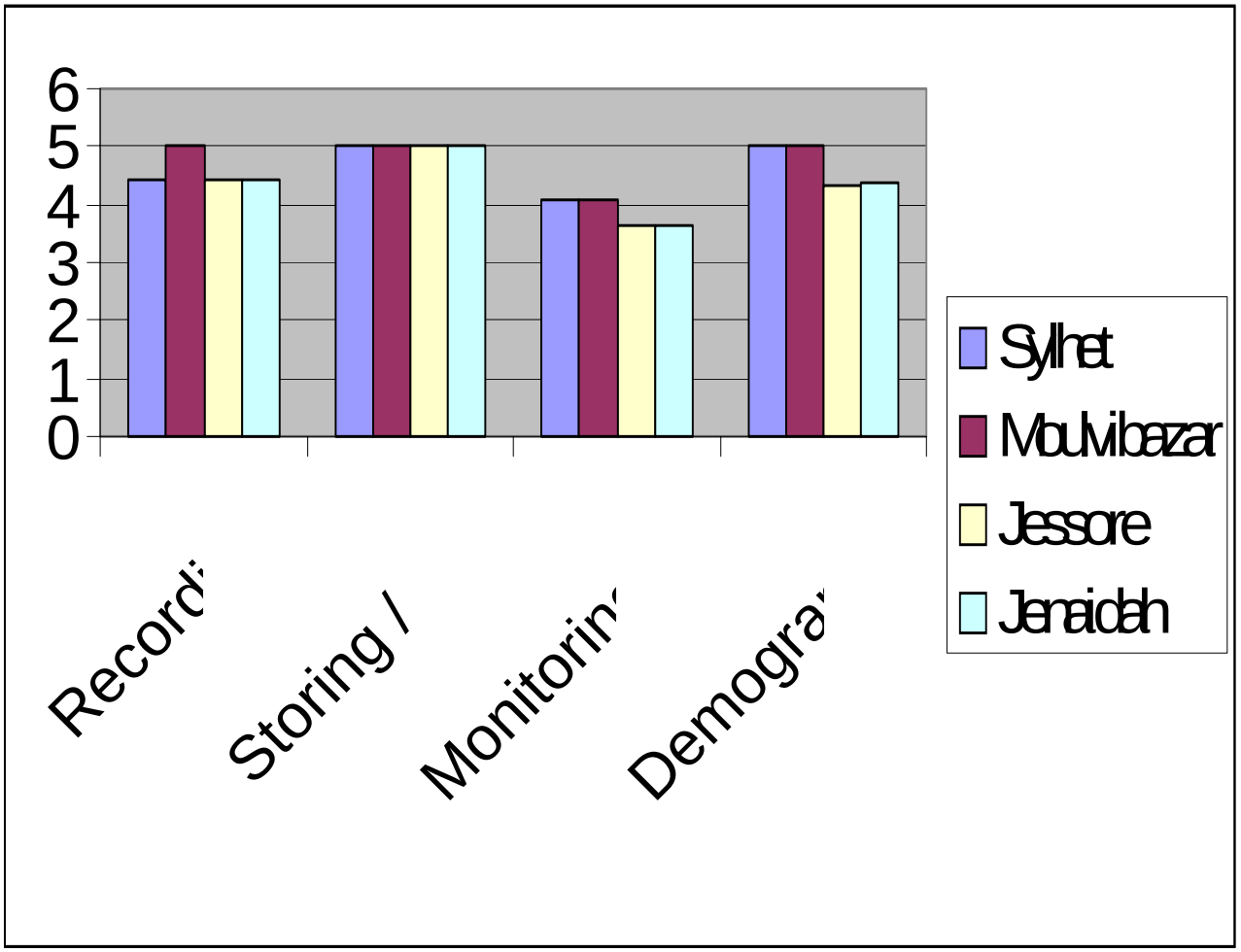


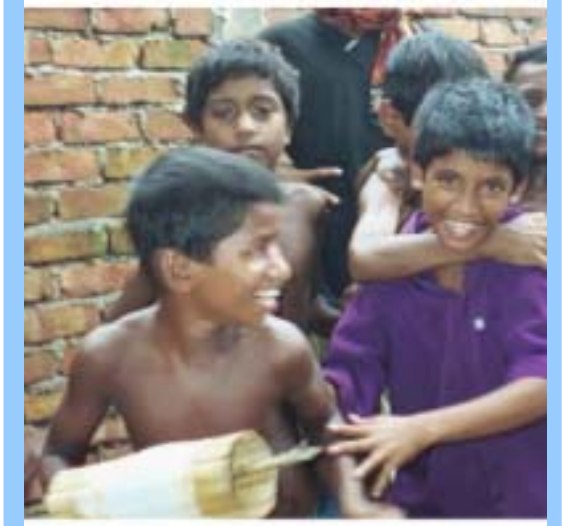
APPENDIX I. NATIONAL PERFORMANCE INDICATORS



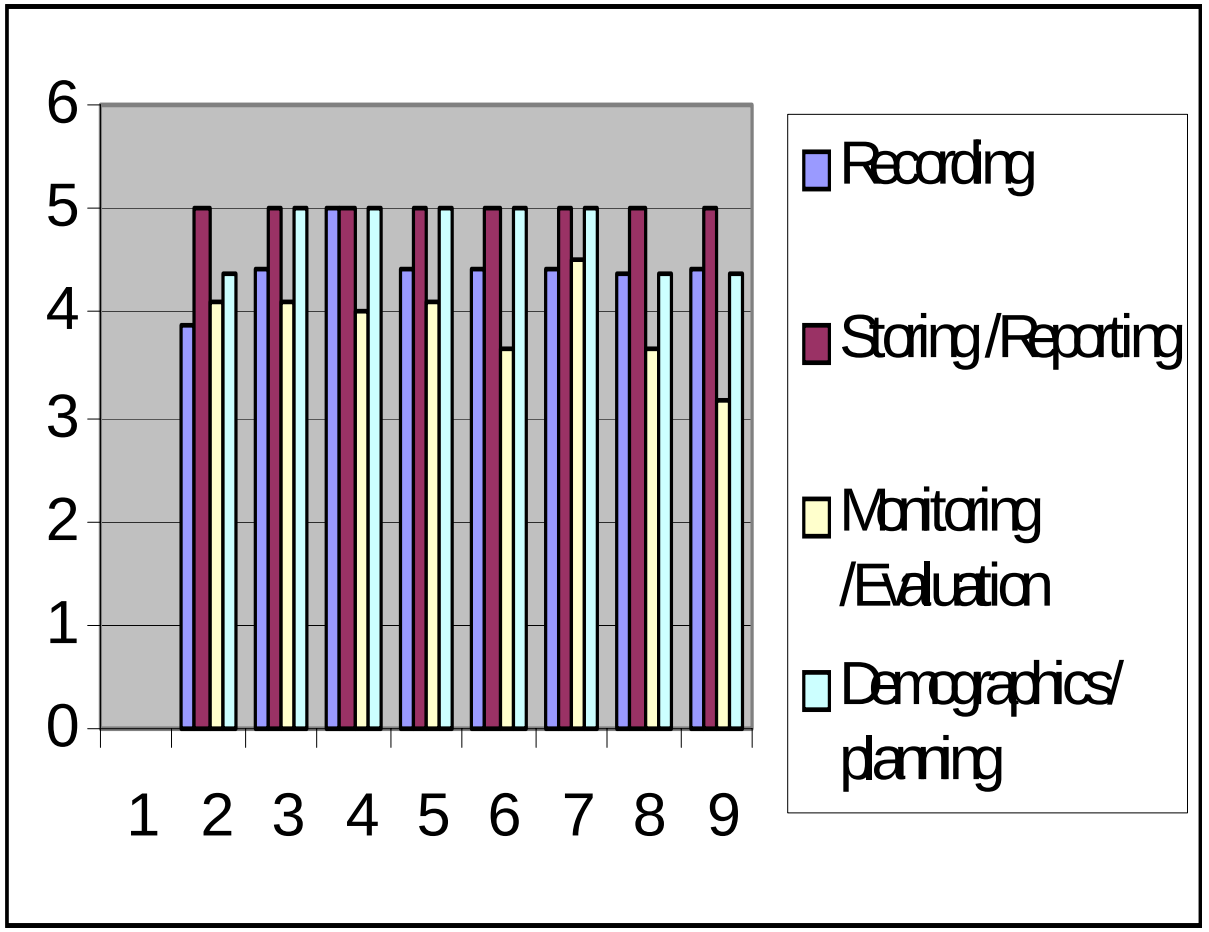
APPENDIX II. DISTRICT PERFORMANCE INDICATORS

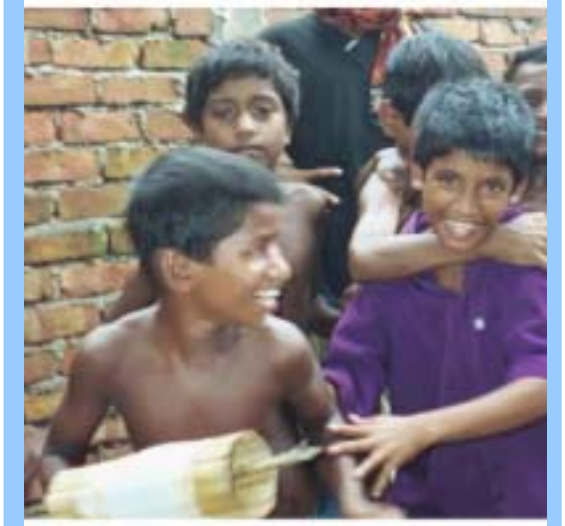




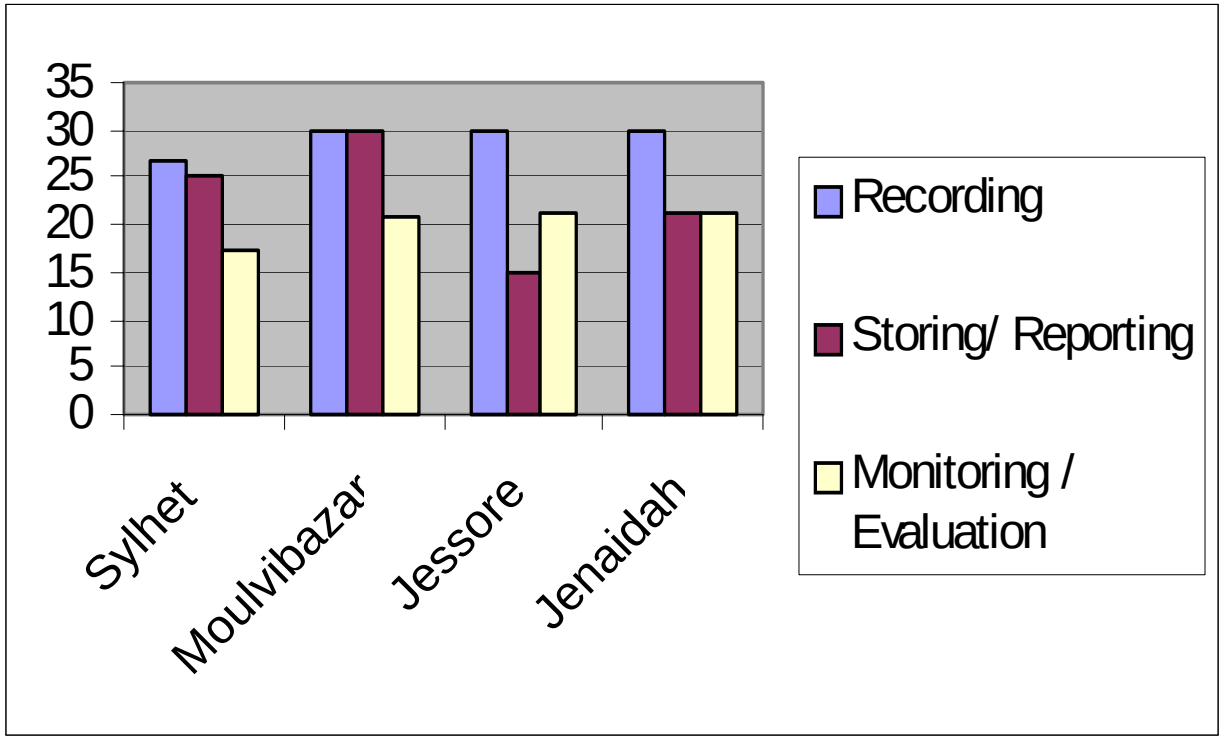


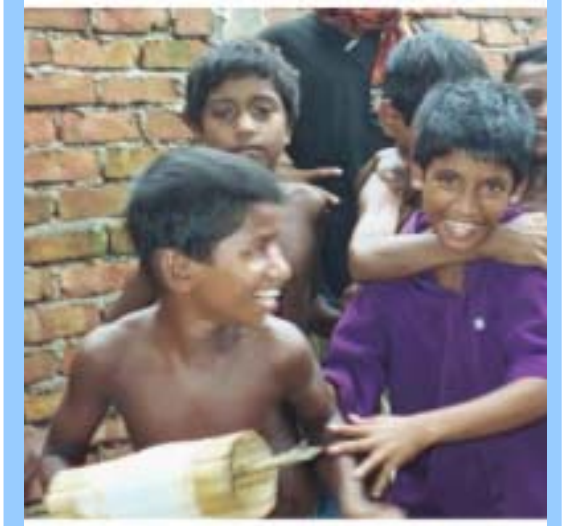
APPENDIX III. UPZILLA PERFORMANCE INDICATORS



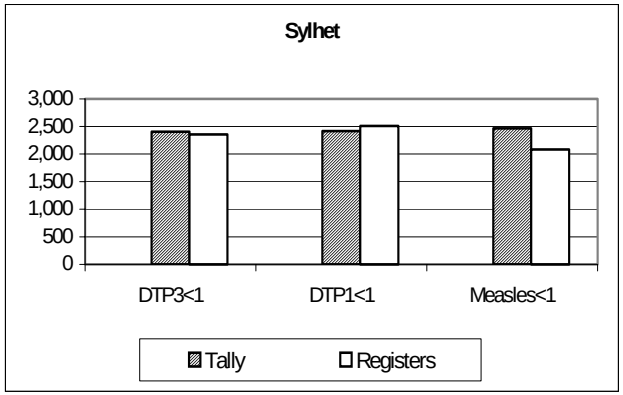


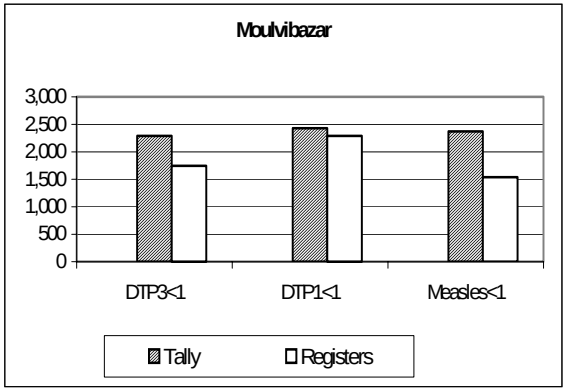
APPENDIX IV. HEALTH UNIT PERFORMANCE INDICATORS

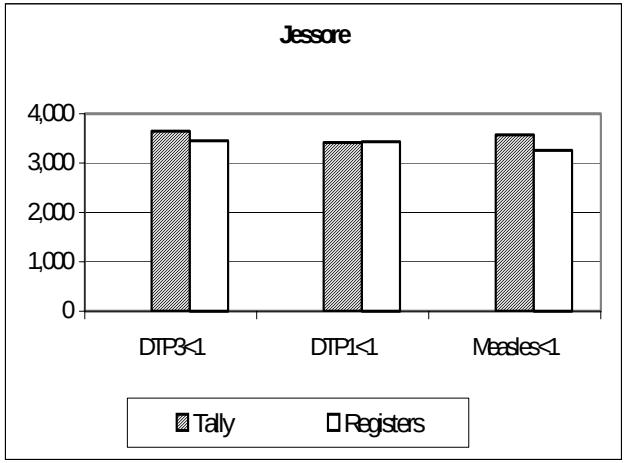


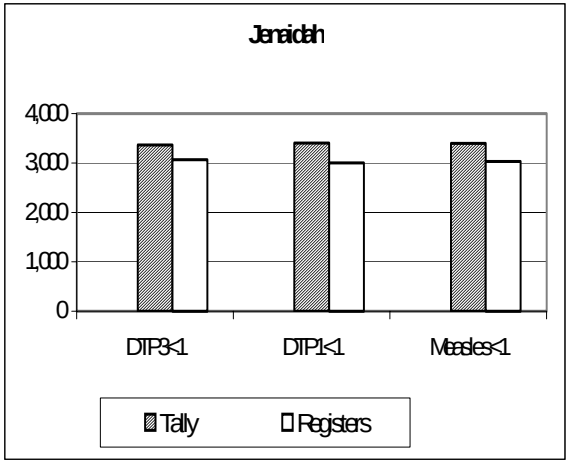


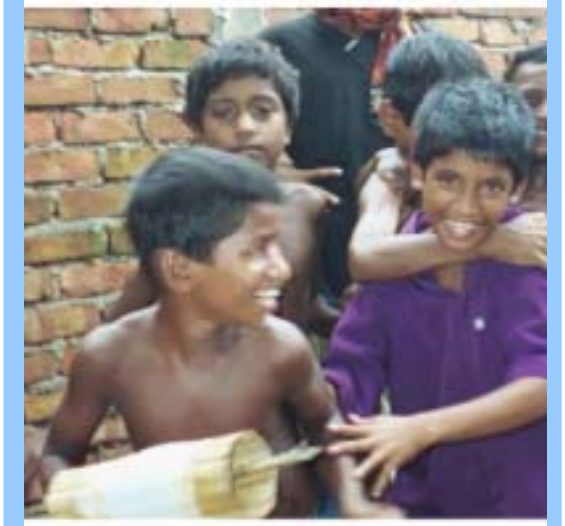
APPENDIX V. RECOUNTED DOSES: TALLY VS REGISTER











APPENDIX VI. EPI MANAGEMENT COMMENTS

Government of the People's Republic of Bangladesh
Directorate General of Health Services
Expanded Programme on Immunization
Mohakhali, Dhaka-1212.

Memo no-DGHS/EPI/GAVI/DQA/07/Part-3/2091 Date: 6/11/07

To

Mr. Kamal Hasan
Chartered Accountants
Al-Qamar & Co.
Dilkusha C/A Dhaka - 1000.

Subject: EPI Management Comments on GAVI Data Quality Audit
Invitation date of presentation to Technical Sub Committee.

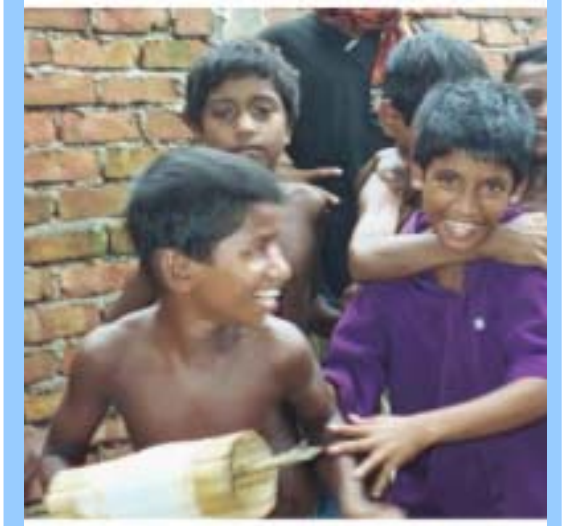
The undersigned is pleased to thank you for sent draft report (DQA). We are very happy with the quality and thoroughness of work done. Observations are valid. We have noted the recommendations for further action.

We have decided the tentative date of presentation to Technical Sub Committee Meeting will be held on 09/11/07 at 10 A.M. with EPI Sub Conference

Thanking you

Deputy Director, EPI
&
Programme Manager, CSI & LCC
EPI HQ, DGHS, Mohakhali, Dhaka

Page 3 of 3



EPI Management Comments are listed below stepwise:

QSI at National level:

System Design

EPI Management Comments:

1. The Mid-level managers are already oriented regarding vaccine wastage calculation through regional residential microplaning workshop all over the country.

   EPI is developing a format for calculation and reporting vaccine wastage.

2. EPI is developing a national guideline for registration, vaccination, recording& reporting of migratory children.

3. National policy for injection safety is sent for cabinet approval . The proposal has been sent to MOH&FW and now it is under process.

4. NGO policy for EPI vaccination is to be finalized.

Denominators issues:

EPI Management Comments: Denominators issues are already solved from 2003 as per G.R updating and in city corporation and Municipality/Pourashava last population census projected value is to be taken as denominator.

Monitoring and Evaluation:

EPI Management Comments: EPI HQ is developing AICS(Automatic Inventory Control System) which is under consideration.

Storing reporting:

EPI Management comments: EPI HQ is trying to take necessary steps in this regard.

Recording Practices

EPI Management Comments: EPI HQ already instructed the concerned personnel to take necessary steps for maintaining good ledger & recording practices.

QSI at District level

Recording :

EPI Management comments : EPI HQ officials will monitor the recommendation made by the DQA team in this regard.

Storing & Reporting

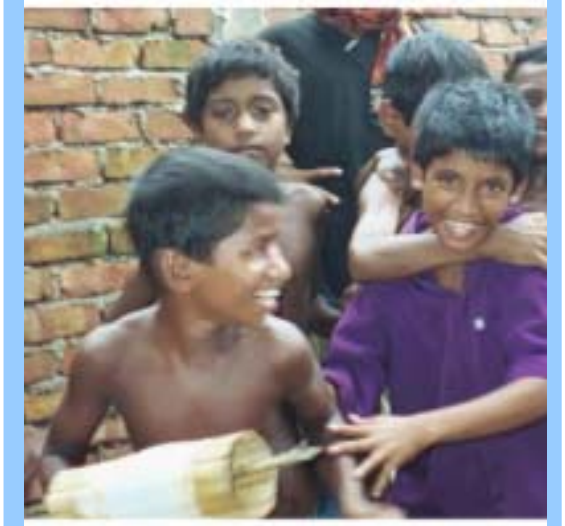
EPI Management comments: EPI HQ is trying to take necessary steps in this regard.

Denominators issues:

EPI Management comments: Denominators issues are instructed to solve according to GR or census.

Monitoring & Evaluation:

Page 2 of 3



23/11 15 8AM 11:45 FAX

Management comments: 1.All EPI officials are already assigned for greater districts for properly& regularly monitoring& supervision of the assigned districts.

QSI at Up-zilla level

Recording:

EPI Management comments: Instructions from EPI HQ have been sent to the Upzilla managers & EPI HQ officials assigned for the Districts who monitor it .

Storing / Reporting :

EPI Management comments: The issue of inadequate storage facility will be raised on ICC meeting to utilize the GAVI fund for new construction of storage space at the national, districts and upzilla levels .

Denominators issues : Same as before.

QSI at HU level (Union):

Recording :

EPI Management Comments: Proper instructions are sending regarding this .

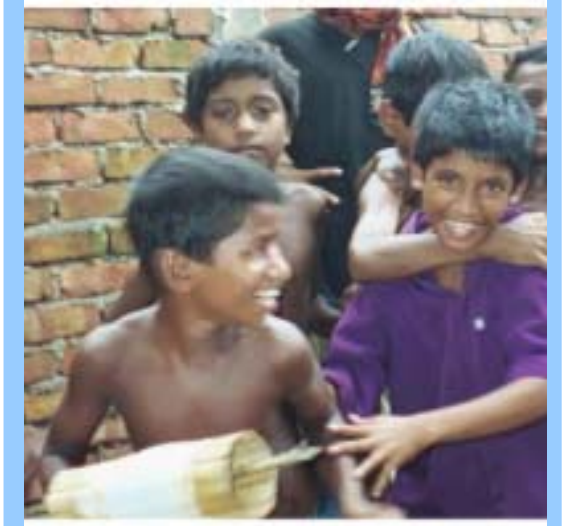
Storing & Reporting:

EPI Management Comments: Assigned EPI HQ officials Districtwise are responsible to look after .

Monitoring/Evaluation:

EPI Management Comments: First line& Second line supervisors are directed to monitor /evaluate concerned HUs.

Page 3 of 3



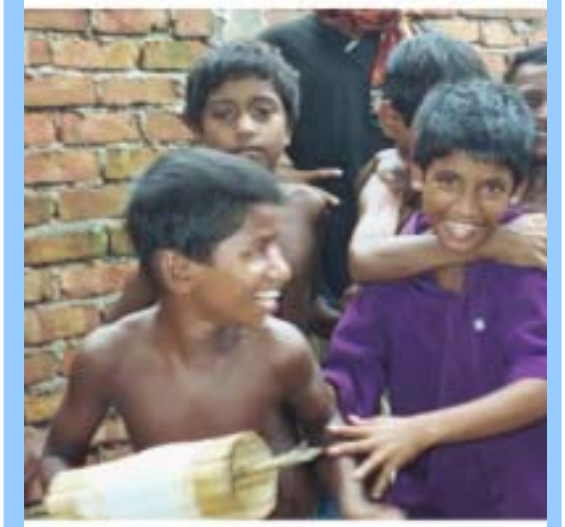
APPENDIX VII. CORE INDICATORS

BANGLADESH Immunization Core Indicators

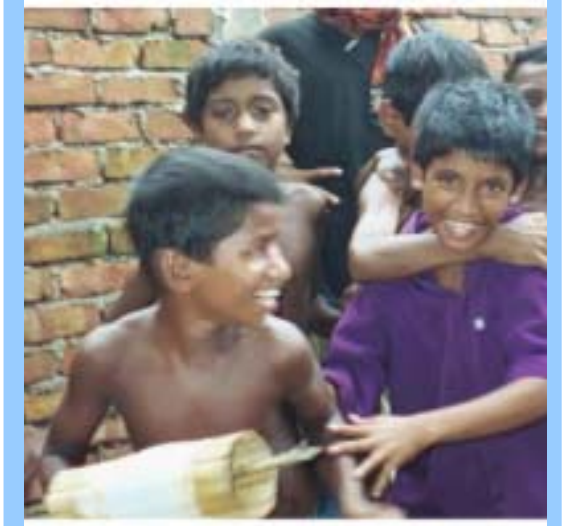
NATIONAL LEVEL

Number of districts in the country:	**JRF:** 64	**Reported at the time of the audit:** 64	**Comments**

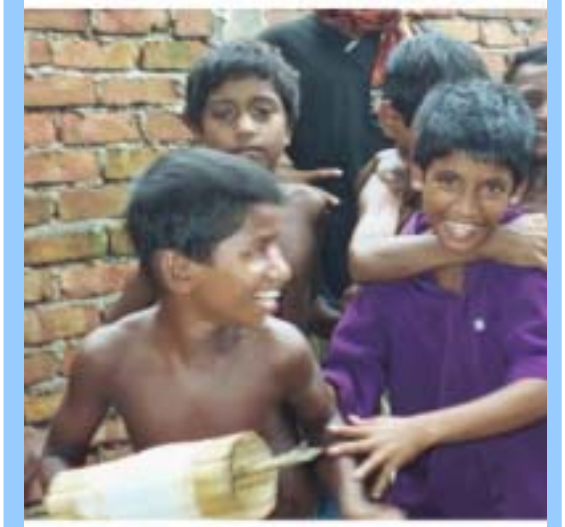
Core indicator	**JRF**	**Reported at the time of the audit**	
DISTRICTS WITH DTP3 COVERAGE >=80% N **(ADMIN, DTP3<1)**	57	60	
%	88%	96%	
DISTRICTS WITH MEASLES COVERAGE >=90% N **(ADMIN MEASLES<1)**	64	55	
%			



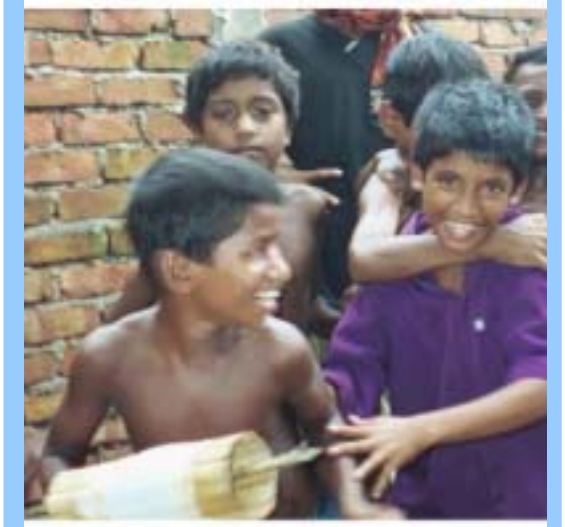
DISTRICTS WITH DOR < 10% **N** **(ADMIN, DOR DPT1 DPT3)** **%**	4	64	
COMMENTS			
Type of syringes used in the country*	AD and Non AD	AD and Non AD	
% of districts that have been supplied with adequate (equal or more) number of AD syringes for all routine immunizations (less OPV) during the year	9.4%	9.4%	
COMMENTS			



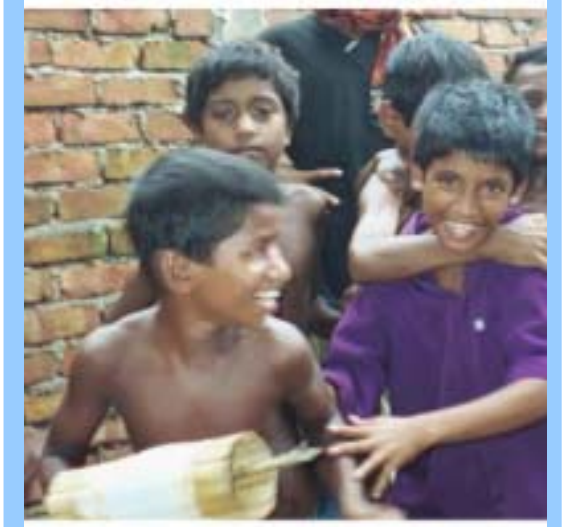
Core indicator	JRF	Reported at the time of the audit	comments
Introduction of Hepatitis B (yes /no when/ partially/ specify presentation)*	2003 In 6 districts and 1 city corporation	2003 In 6 districts and 1 city corporation	
Introduction of Hib (yes /no when/ partially/ specify presentation)*	Na	Na	
Country wastage rate of DTP	Na	Na	Overall vaccine wastage rates cannot be calculated because of the lack of information provided by the reporting system. As no routine physical checks of vaccines or vaccine commodities are carried out and it is therefore difficult to verify if any differences/discrepency exist between the physical stocks and the ledger balance (system wastage). However system wastage at central level was reported to be 0.
Country Wastage rate of Hep B vaccine	Na	Na	Not yet calculated



Country Wastage rate of Hib vaccine	Na	Na	
COMMENTS			
Interruption in vaccine supply (any vaccine) during the audit year at national stock		Na	
How many districts had an interruption in vaccine supply (any vaccine) during the audit year	Na	1	BCG Diluent water shortage in Moulvibazar.
COMMENTS			
% district disease surveillance reports received at national level compared to number of reports expected (routine reporting of VPD)	Na	100%	
% of district coverage reports received at national level compared to number of reports expected	Na	100%	This is not available.
% of district coverage reports received on time at national level compared to number of reports expected		100%	



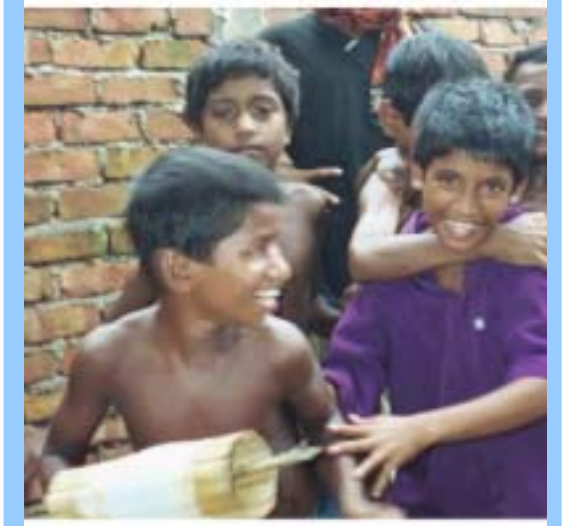
COMMENTS			
Number of districts which have been supervised at least once by higher level during the audit year		64	No formal reports on supervisory visits are prepared.
Number of districts which have supervised all HUs during the audit year	Na	All 4 districts visited supervised the Hus through the upzilla offices.	No formal reports on supervisory visits are prepared.
COMMENTS			
Number of districts with microplans Including routine immunization	21	In 4 districts visited microplans were available.	
COMMENTS			



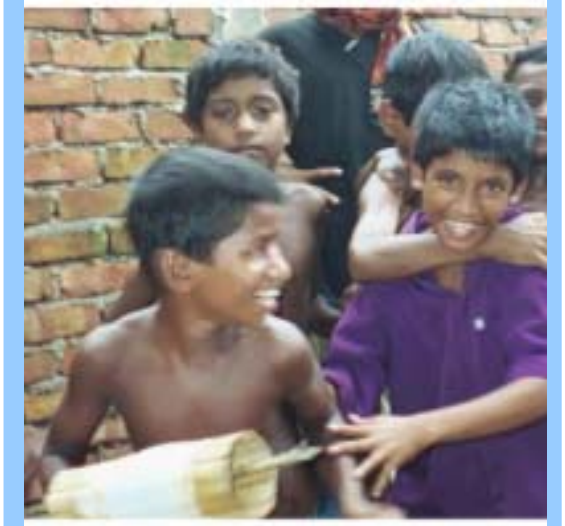
1. Sylhet District

Immunization core indicators at district level (refers to the year 2002)

Indicator	**Information at the national level**	**Information at the district level**
District DPT3 coverage N (last tabulation available) %	81,562 115%	81,839 94%
District measles coverage N (last tabulation available) %	77,788 110%	78,161 90%
District drop-out (DPT1-3)	1.95	1.99
Nr syringes supplied in 2002 to the district	Na	Na
Total immunization given in 2002 (less OPV)	410745 (BCG+ $DPT_{1,2,3}$ +Measles)	412000 (BCG + $DPT_{1,2,3}$ +Measles)
Nr district coverage reports received / sent	12 / 12	12 /12
Nr district coverage reports received on time / sent on time	12 / 12	12/12
Nr district disease reports sent (regular VPD reporting)	12 / 12	12 /12
Nr Upazila coverage reports received / sent		12 /12



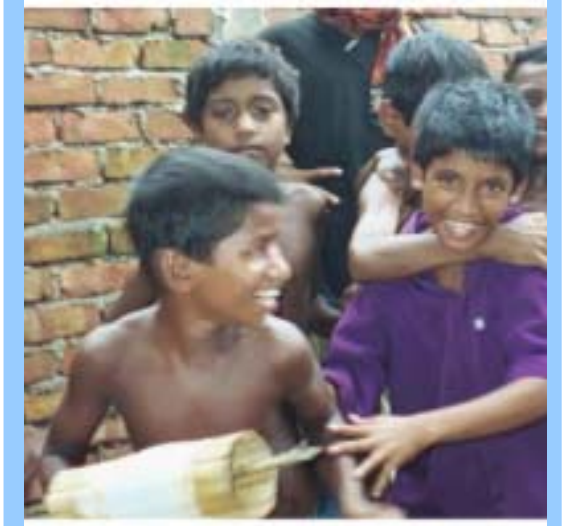
Nr Upazila coverage reports received / sent on time		12 /12
Any district vaccine stock-out in 2002?	No	No
If yes specify which vaccine and duration	Na	Na
Has the district been supervised by higher level in 2002	Yes, but no reports were available.	Yes, but no reports were available
Has the district been able to supervise all Upazilas in 2002	Yes, but no reports were available	Yes, but no reports were available
Did the district have a microplan for 2002	Yes	Yes



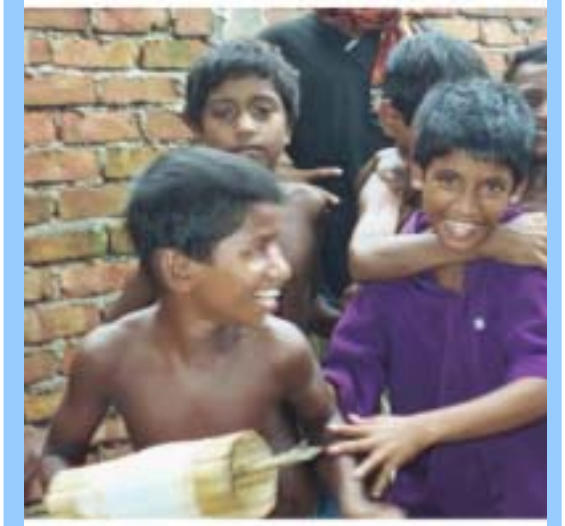
2. Moulvibazar District

Immunization core indicators at district level (refers to the year 2002)

Indicator	**Information at the national level**	**Information at the district level**
District DTP3 coverage N (last tabulation available) %	47090 106%	47404 103%
District measles coverage N (last tabulation available) %	46104 103%	46227 101%
District drop-out (DTP1-3)	1.6	0.32%
Nr syringes supplied in 2002 to the district	Na	Na
Total immunization given in 2002 (less OPV)	237337 (BCS+ $DPT_{1,2,3}$ +Measles)	238254 (BCS+ $DPT_{1,2,3}$ +Measles)
Nr district coverage reports received / sent	12 / 12	12 /12
Nr district coverage reports received on time / sent on time	12 / 12	12/12
Nr district disease reports sent (regular VPD reporting)	12 / 12	12 /12
Nr upazila coverage reports received / sent		12 /12



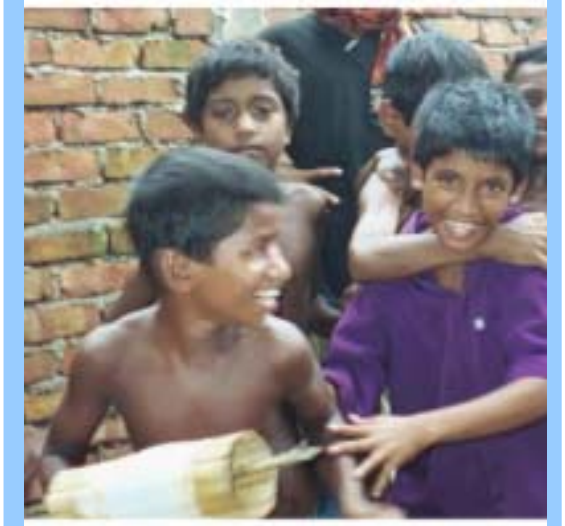
Nr upazila coverage reports received / sent on time		12 /12
Any district vaccine stock-out in 2002?	No information found	Yes. Diluent water shortage for BCG
If yes specify which vaccine and duration	No information found	Diluent water shortage for BCG From 25th December to 31st December 2002
Has the district been supervised by higher level in 2002	Yes, but no reports were available.	Yes, but no reports were available.
Has the district been able to supervise all Upazilas in 2002	Yes, but no reports were available.	Yes, but no reports were available.
Did the district have a microplan for 2002	Yes,	Yes



3. Jessore District

Immunization core indicators at district level (refers to the year 2002)

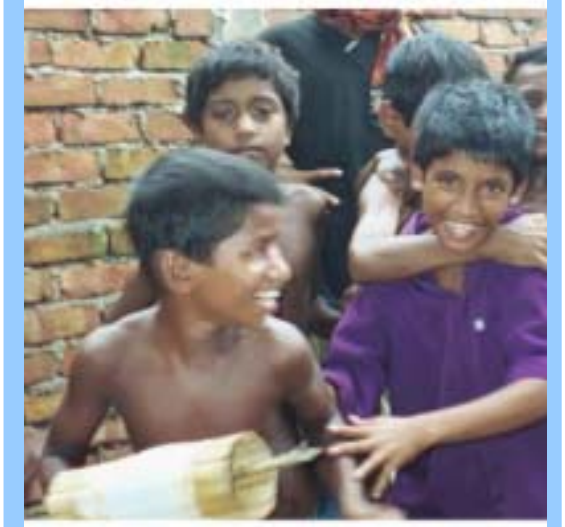
Indicator		Information at the national level	Information at the district level
District DTP3 coverage	N	55,080	59,589
(last tabulation available)	%	93.9%	100.4%
District measles coverage	N	57168	60,602
(last tabulation available)	%	97%	102.6%
Nr syringes supplied in 2002 to the district		NA	NA
Nr district coverage reports received / sent		12 / 12	12 /12
Nr district coverage reports received on time / sent on time		12 / 12	12/12
Nr district disease reports sent (regular VPD reporting)		12 / 12	12 /12
Nr upazila coverage reports received / sent			12 /12
Nr upazila coverage reports received / sent on time			12 /12
Has the district been supervised by higher level in 2002		NA	Yes
Has the district been able to supervise all Upazilas in 2002		NA	Yes
Did the district have a microplan for 2002		No	No



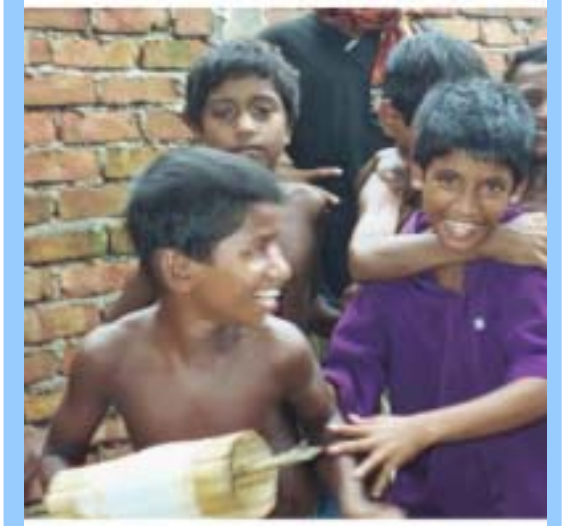
4. Jhenidah District

Immunization core indicators at district level (refers to the year 2002)

Indicator	Information at the national level	Information at the district level
District DTP3 coverage N (last tabulation available) 98%	39,698	40,247
District measles coverage N (last tabulation available) %	40599 107%	41,144
Nr syringes supplied in 2002 to the district	NA	NA
Nr district coverage reports received / sent	12 / 12	12 /12
Nr district coverage reports received on time / sent on time	12 / 12	12/12
Nr district disease reports sent (regular VPD reporting)	12 / 12	12 /12
Nr upazila coverage reports received / sent		12 /12
Nr upazila coverage reports received / sent on time		12 /12
If yes specify which vaccine and duration	NA	NA
Has the district been supervised by higher level in 2002	NA	Yes
Has the district been able to supervise all Upazilas in 2002	NA	Yes



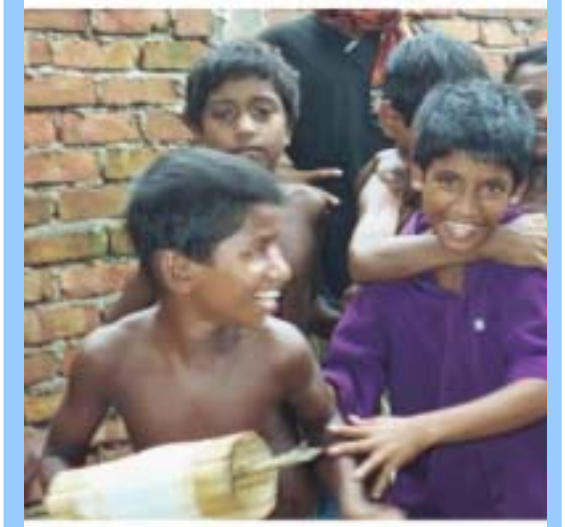
Did the district have a microplan for 2002	No	No



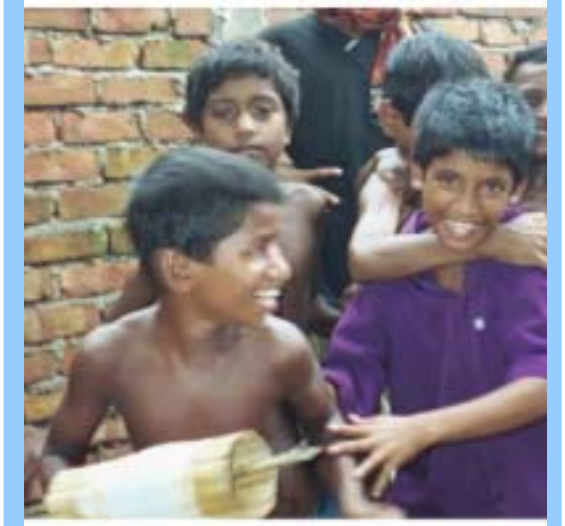
1. Sylhet City Corporation (Upzilla)

Immunization core indicators at UPAZILLA level (refers to the year 2002)

Indicator	**Information at the District level**	**Information at the UPAZILA level**
UPAZILA DTP3 coverage N (last tabulation available) %	3456 87%	3679 97.6%
UPAZILA measles coverage N (last tabulation available) %	2996 75%	3366 98.3%
UPAZILA drop-out (DTP1-3)	18.89	20.1%
Nr syringes supplied in 2002 to the UPAZILA	Na	Na
Total immunization given in 2002 (less OPV)	18844	20679
Nr UPAZILA coverage reports received / sent	12 / 12	12 /12
Nr UPAZILA coverage reports received on time / sent on time	12 / 12	12 /12
Nr UPAZILA disease reports sent (regular VPD reporting)	12 / 12	12 /12
Nr HU coverage reports received / sent		12 /12
Nr HU coverage reports received / sent on time		12 /12
Any UPAZILA vaccine stock-out in 2002?	No	No



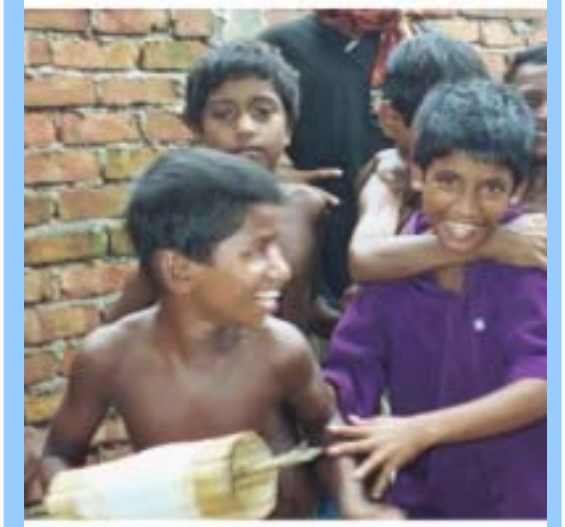
If yes specify which vaccine and duration	Na	Na
Has the UPAZILA been supervised by higher level in 2002	Yes, but no reports were available.	Yes, but no reports were available.
Has the UPAZILA been able to supervise all HUs in 2002	Yes, but no reports were available.	Yes, but no reports were available.
Did the UPAZILA have a microplan for 2002	Yes	Yes



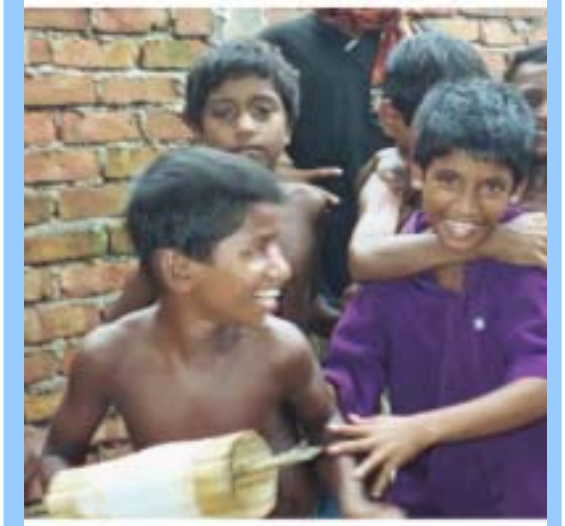
2. Binaibazar (Upzilla)

Immunization core indicators at UPAZILLA level (refers to the year 2002)

Indicator	**Information at the District level**	**Information at the upazilla level**
Upazilla DTP3 coverage N (last tabulation available) %	6355 106%	6328 103%
Upazilla measles coverage N (last tabulation available) %	6039 101%	6023 98.6%
Upazilla drop-out (DTP1-3)	-0.5%	-0.06%
Nr syringes supplied in 2002 to the upazilla	Na	Na
Total immunization given in 2002 (less OPV)	31475	31588
Nr upazilla coverage reports received / sent	12 / 12	12 /12
Nr upazilla coverage reports received on time / sent on time	12 / 12	12 /12
Nr upazilla disease reports sent (regular VPD reporting)	12 / 12	12 /12
Nr HU coverage reports received / sent		12 /12
Nr HU coverage reports received / sent on time		12 /12
Any upazilla vaccine stock-out in 2002?	No	No



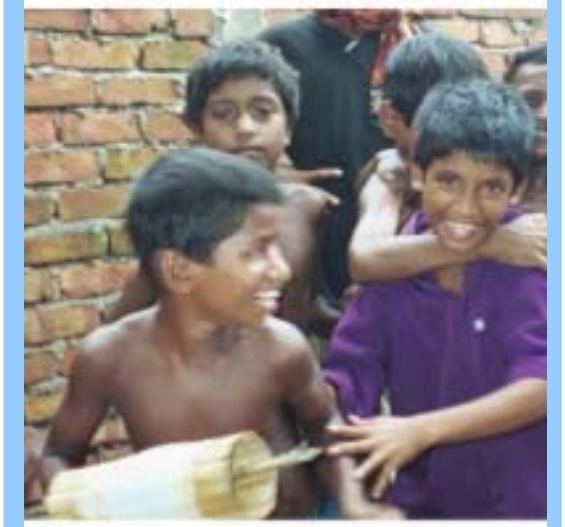
If yes specify which vaccine and duration	Na	Na
Has the upazilla been supervised by higher level in 2002	Yes, but no reports were available.	Yes, but no reports were available.
Has the upazilla been able to supervise all HUs in 2002	Yes, but no reports were available.	Yes, but no reports were available.
Did the upazilla have a microplan for 2002	Yes	Yes



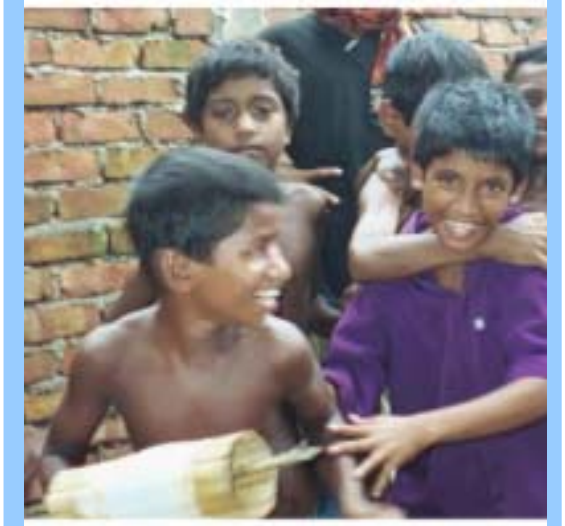
3. Moulvibazar Municipality (Upzilla)

Immunization core indicators at UPAZILLA level (refers to the year 2002)

Indicator	Information at the District level	Information at the upazilla level
Upazilla DTP3 coverage N (last tabulation available) %	1758 151%	1732 149%
Upazilla measles coverage N (last tabulation available) %	1859 160%	1851 159%
Upazilla drop-out (DTP1-3)	21.44%	13.3%
Nr syringes supplied in 2002 to the upazilla	Na	Na
Total immunization given in 2002 (less OPV)	10034	9721
Nr upazilla coverage reports received / sent	12 / 12	12 /12
Nr upazilla coverage reports received on time / sent on time	12 / 12	12 /12
Nr upazilla disease reports sent (regular VPD reporting)	12 / 12	12 /12
Nr HU coverage reports received / sent		12 /12
Nr HU coverage reports received / sent on time		12 /12
Any upazilla vaccine stock-out in 2002?	No	No



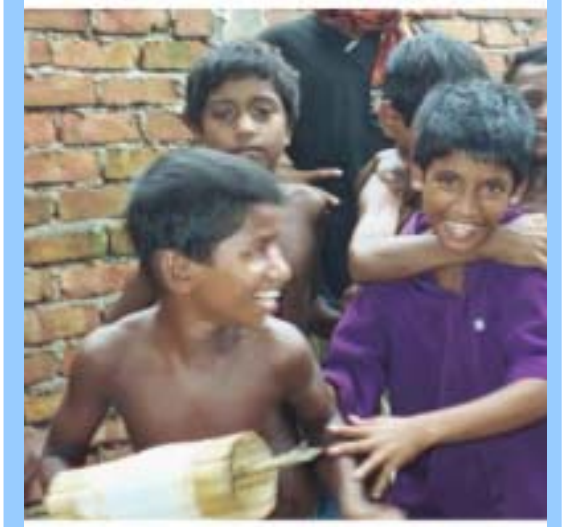
If yes specify which vaccine and duration	Na	Na
Has the upazilla been supervised by higher level in 2002	Yes, but no reports were available.	Yes, but no reports were available.
Has the upazilla been able to supervise all HUs in 2002	Yes, but no reports were available.	Yes, but no reports were available.
Did the upazilla have a microplan for 2002	Yes	Yes



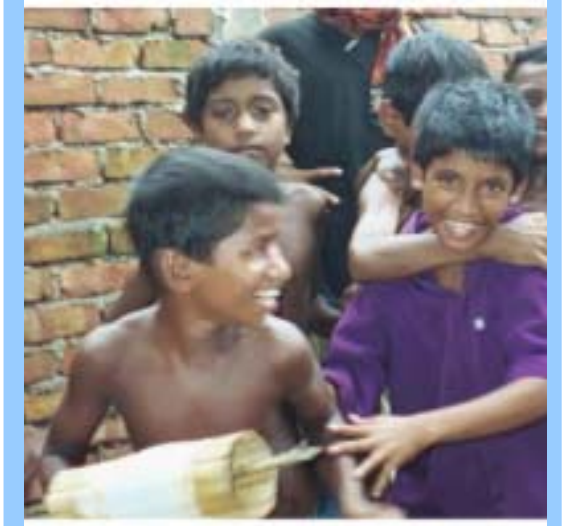
4. Kulaura (Upzilla)

Immunization core indicators at UPAZILLA level (refers to the year 2002)

Indicator	Information at the District level	Information at the upazilla level
Upazilla DTP3 coverage N	11809	11879
(last tabulation available) %	107%	100.46%
Upazilla measles coverage N	10936	10936
(last tabulation available) %	99%	92.48%
Upazilla drop-out (DTP1-3)	2.25%	-0.00%
Nr syringes supplied in 2002 to the upazilla	Na	Na
Total immunization given in 2002 (less OPV)	57993	58056
Nr upazilla coverage reports received / sent	12 / 12	12 /12
Nr upazilla coverage reports received on time / sent on time	12 / 12	12 /12
Nr upazilla disease reports sent (regular VPD reporting)	12 / 12	12 /12
Nr HU coverage reports received / sent		12 /12
Nr HU coverage reports received / sent on time		12 /12



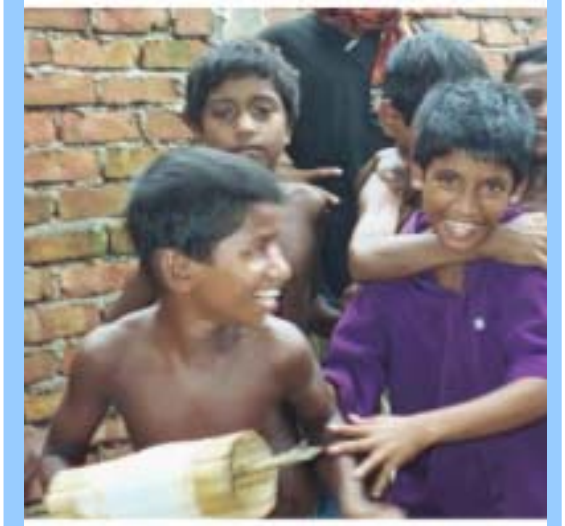
Any upazilla vaccine stock-out in 2002?	Yes. Diluent water shortage for BCG	Yes. Diluent water shortage for BCG
If yes specify which vaccine and duration	Not available	Diluent water shortage for BCG From 25th December to 31st December 2002
Has the upazilla been supervised by higher level in 2002	Yes, but no reports were available.	Yes, but no reports were available.
Has the upazilla been able to supervise all Hus in 2002	Yes, but no reports were available.	Yes, but no reports were available.
Did the upazilla have a microplan for 2002	Yes	Yes



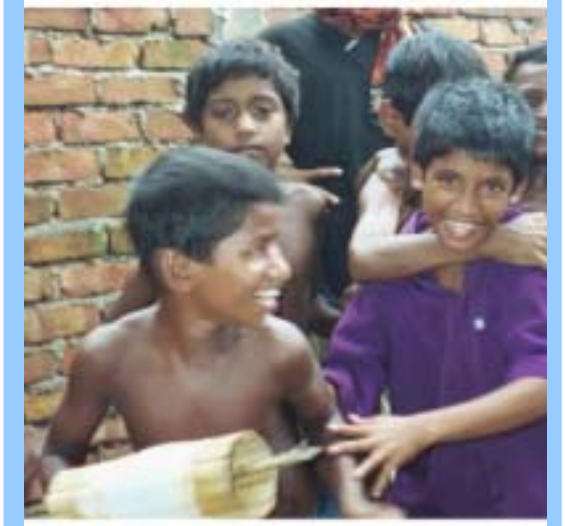
5. Jessore Sadar Upazila

Immunization core indicators at UPAZILLA level (refers to the year 2002)

Indicator	Information at the District level	Information at the Upazila level
District DTP3 coverage (last tabulation available)	11,120 104%	11,120 104%
District measles coverage (last tabulation available)	11,520 108%	11,520 108%
Nr syringes supplied in 2002 to the district	NA	NA
Nr Upazila coverage reports received / sent	12 / 12	12 / 12
Nr Upazila coverage reports received on time / sent on time	12 / 12	12 / 12
Nr Upazila disease reports sent (regular VPD reporting)	12 / 12	12 / 12
Nr HU coverage reports received/ sent	12 / 12	12 / 12
Nr HU coverage reports received / sent on time	12 / 12	12 / 12
Any upazila vaccine stock-out in 2002?	No	No
If yes specify which vaccine and duration	NA	NA
Has the Upazila been supervised by higher level in 2002	Yes	Yes



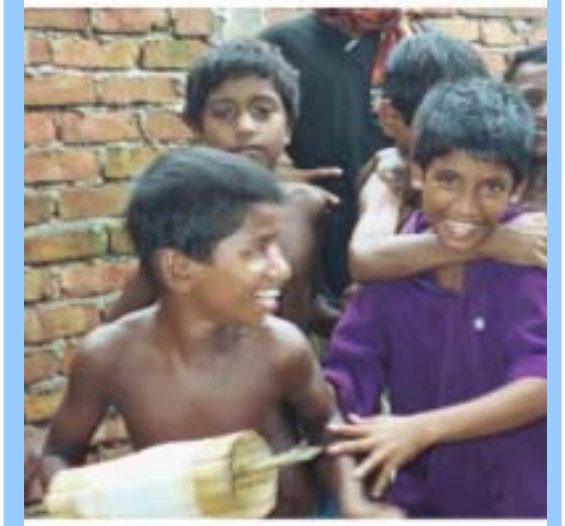
Has the Upazila been able to supervise all Upazilas in 2002	Yes	Yes
Did the Upazila have a microplan for 2002	No	No



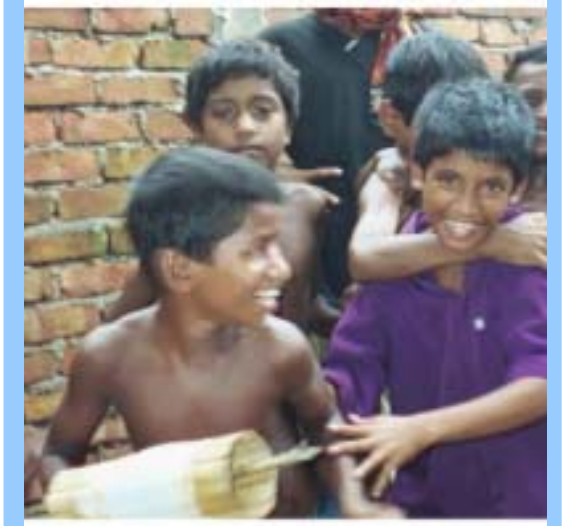
6. Sharsha Upazila

Immunization core indicators at UPAZILLA level (refers to the year 2002)

Indicator	Information at the District Level	Information at the Upazila level
District DTP3 coverage (last tabulation available)	7,344 101.3%	7,344 101.3%
District measles coverage (last tabulation available)	7,169 98.9%	7,169 98.9%
Nr syringes supplied in 2002 to the district	NA	NA
Nr upazila coverage reports received / sent	12 / 12	12 / 12
Nr upazila coverage reports received on time / sent on time	12 / 12	12 / 12
Nr district disease reports sent (regular VPD reporting)	12 / 12	12 / 12
Nr HU coverage reports received / sent	12 / 12	12 / 12
Nr HU coverage reports received / sent on time	12 / 12	12 / 12
Any upazila vaccine stock-out in 2002?	No	No
If yes specify which vaccine and duration	NA	NA
Has the Upazila been supervised by higher level in 2002	Yes	Yes



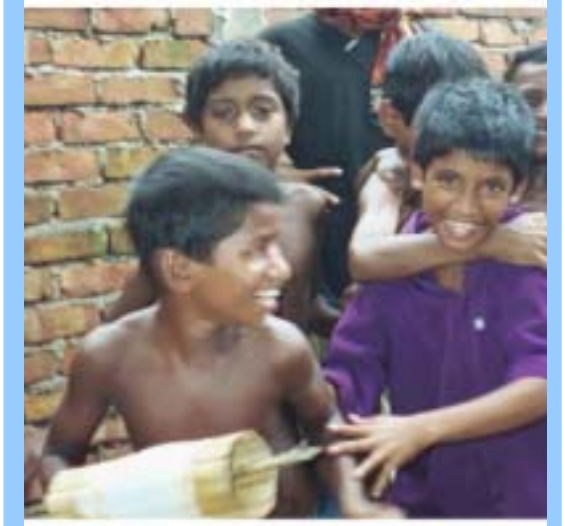
Has the Upazila been able to supervise all Upazilas in 2002	Yes	Yes
Did the Upazila have a microplan for 2002	No	No



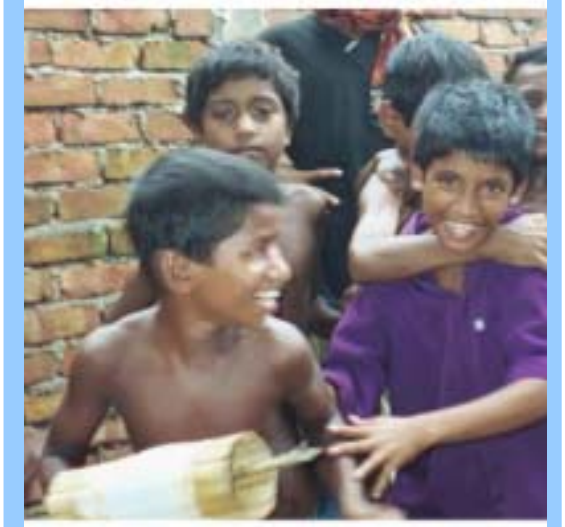
7. Jhenidah Sadar Upazilla

Immunization core indicators at UPAZILLA level (refers to the year 2002)

Indicator	Information at the District level	Information at the Upazila level
District DTP3 coverage (last tabulation available)	7,021 86%	7,021 86%
District measles coverage (last tabulation available)	7,740 94%	7,740 94%
Nr syringes supplied in 2002 to the district	NA	NA
Nr Upazila coverage reports received / sent	12 / 12	12 / 12
Nr Upazila coverage reports received on time / sent on time	12 / 12	12 / 12
Nr Upazila disease reports sent (regular VPD reporting)	12 / 12	12 / 12
Nr HU coverage reports received/ sent	12 / 12	12 / 12
Nr HU coverage reports received/ sent on time	12 / 12	12 / 12
Any upazila vaccine stock-out in 2002?	No	No
If yes specify which vaccine and duration	NA	NA
Has the Upazila been supervised by higher level in 2002	Yes	Yes



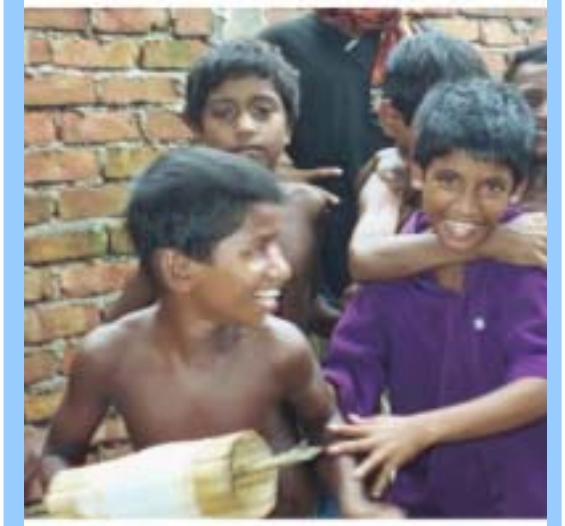
Has the Upazila been able to supervise all Upazilas in 2002	Yes	Yes
Did the Upazila have a microplan for 2002	No	No



8. Moheshpur Upazilla

Immunization core indicators at UPAZILLA level (refers to the year 2002)

Indicator	Information at the District level	Information at the Upazila level
District DTP3 coverage (last tabulation available)	7,213	7,290
District measles coverage (last tabulation available)	6,857	6,811 91%
Nr syringes supplied in 2002 to the district	NA (no supplied)	NA (no supplied)
Nr upiaila coverage reports received / sent	12/12	12/12
Nr upazila coverage reports received on time / sent on time	12/12	12/12
Nr district disease reports sent (regular VPD reporting)	12/12	12/12
Nr HU coverage reports received / sent	12/12	12/12
Nr HU coverage reports received / sent on time	12/12	12/12
Any upazila vaccine stock-out in 2002?	No	No
If yes specify which vaccine and duration	NA	NA
Has the Upazila been supervised by higher level in 2002	Yes	Yes



Has the Upazila been able to supervise all Upazilas in 2002	Yes	Yes
Did the Upazila have a microplan for 2002	No	No