

MSH Final Results Review – Mozambique Integrated Management of Childhood Illness

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Preface

The National Integrated Management of Childhood Illness Program (IMCI) of the Ministry of Health of Mozambique (MOH) has an overall objective to assist the Child Health Section of the Department of Community Health of the MOH to improve the quality of childcare in the health system, leading to the reduction of morbidity and mortality of neonates, infants, and children, within the context of the overall goal of the National Integrated Health Plan (five-year plan). Under this objective, Management Sciences for Health (MSH) contributes to the following intermediate result:

✓ **Improved performance of management systems of organizations and programs**

USAID/Mozambique supports management strengthening of IMCI activities by providing field support funds to MSH's Management and Leadership (M&L) Cooperative Agreement.

This final report provides information for USAID/Mozambique regarding MSH's IMCI management strengthening activities for purposes of its reporting requirements to closeout 2003-2004.

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Introduction

Mozambique's Childhood Illnesses Burden

Mozambique's infant mortality rate as of March 2004 is about 197 per 100 births under 5 years of age (*USAID Country Health Statistical Report, Mozambique, March 2004*). Malaria is the principle cause of infant morbidity and mortality while respiratory infections, anemia, malnutrition, measles and other vaccine preventable diseases take the consecutive toll. Current health sector resources in Mozambique are inadequate to meet the challenges of childhood illness throughout the country. Implementation of existing policies and strategies to fight these diseases is compromised by a lack of adequately trained human resources, particularly at the district level. Furthermore, there is a substantial gap in knowledge regarding optimal policies and programs to address transmission of childhood illness, prevention, and case management.

The relatively recent introduction of the Integrated Management of Childhood Illnesses (IMCI) Program in Mozambique, by the World Health Organization, requires extensive training and refresher training for all senior health care staff and institutionalization of IMCI in educational institutes that train health care providers. Challenges include new drug regimes and changes in treatment methodologies associated with IMCI practices. There is also a lack of educational materials, namely a standard set of IMCI manuals in Portuguese, available in the health sector.

MSH/M&L Support

Mozambique's IMCI Program of the Ministry of Health of Mozambique (MOH) has an overall objective to assist the Child Health Section of the Department of Community Health of the MOH to improve the quality of childcare in the health system, leading to the reduction of morbidity and mortality of neonates, infants and children, within the context of the overall goal of the National Integrated Health Plan (five-year plan).

MSH/M&L assisted the National IMCI Program in Mozambique by providing logistics support to the development of management systems and educational materials for training medical and para-medical staff in IMCI. This support did not include technical assistance, but rather fiscal and administrative support to contract specialists to update and produce manuals and attend meetings; as well as printing, reproduction and shipping of materials to provinces. M&L ensured that USAID funds were managed in accordance with USAID rules and regulations. This administrative and logistic support was carried out with the help of an M&L Management Unit in Mozambique consisting of both technical advisors in administration and logistics and local support staff in office management.

MSH/M&L's technical role in the National IMCI Program was to provide coordination support to IMCI Health Team activities, as defined by the MOH, and to ensure that selected MOH provincial level personnel were adequately trained in the use of the IMCI data base system that will support accurate decision-making in selected provinces. The M&L Local Advisor in Data Base Management conducted a data base needs assessment in selected provinces, provided adequate training in the use of the IMCI data base, conducted follow up visits and provided a final evaluation plan to the MOH.

1. Strengthening IMCI Training

M&L contributed to strengthening of IMCI training among health care providers in Mozambique at the central and provincial level through provision of logistics support to produce IMCI training manuals, train medical and para-medical facilitators and trainers in IMCI, and establish IMCI curriculum in select schools of public health and medical faculties.

Overview of Activities

- Logistics support provided to develop, reproduce and disseminate IMCI training and reference manuals for medical and para-medical staff in selected provinces
 - Logistics support provided for training of IMCI trainers and facilitators in selected provinces
 - Logistics support provided to establish a process for incorporating revised IMCI curriculum in selected schools of public health and medical faculties in selected provinces
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Training IMCI trainers and facilitators and establishing a process for the introduction of IMCI curriculum in public health schools and medical faculties depends on availability of IMCI training manuals, adequate logistics support for training of IMCI facilitators and trainers, and an agreed upon process for introduction of IMCI curriculum in public health schools.

Previous to MSH/M&L there was no such set of upgraded and comprehensive manuals for care of child health aspects in Mozambique. Such lack of available materials made it difficult to upgrade the curriculum of most training institutes. With logistic support from MSH/M&L, manuals were developed in the areas of IMCI pre-service training, IMCI emergency, triage and assessment training, new malaria drug policy and macro nutrients, HIV and prevention of mother to child transmission, counseling and care for children suffering from HIV/AIDS, and caring for children with severe infection or malnutrition. These manuals were produced after reviewing and updating existing manuals and determining the need for new manuals with a panel of experts.

MSH/M&L also provided necessary logistic support for development of an appropriate train-the-trainer program for health care delivery personnel to serve as both trainers and facilitators in public health education schools and other health institutions. Training was carried out in Gaza, Sofala, Nampula, Zambezia, Niassa and Manica provinces.

Logistics support was also provided to introduce new IMCI curriculum in select schools of public health and medical faculties in six provinces. M&L provided logistics support to contract a local physician to work on the technical design of introducing this curriculum with the MOH Community Health Department. M&L also coordinated the involvement of a BASICS contracted consultant to work with the MOH in reviewing, updating and introducing the IMCI curriculum to ensure it is in alignment with international WHO guidelines.

Results – Development, reproduction and distribution of IMCI training and reference

manuals

- Logistics support was provided to make available six Integrated Management of Childhood Illnesses training manuals in print and electronic format:

Preservice

Caring for a Child with a Severe Infection or Malnutrition

IMCI Emergency, Triage & Assessment

Malaria Drug Policy and Macro Nutrients Initiative

HIV and Prevention of Mother-to-Child Transmission

Counseling and Caring for Children Suffering from HIV/AIDS

Each manual has two parts: learner and tutor. It is estimated that 80% of clinical staff in each of the six provinces (Gaza, Sofala, Nampula, Zambezia, Niassa, and Manica) receiving the manuals will use the learner section of the manuals as reference. This includes doctors, nurses, medical technicians and other health personnel. Around 12 to 18 teachers from the six provinces will use the tutor section of the manuals to provide instruction in provincial health institutes.

Two of the six manuals have been distributed to the provinces. The remaining four manuals will be distributed to the provinces using WHO and UNICEF funding. Distribution was postponed due to delays in revising the manuals related to unavailability of MOH and hospital specialists to review the manuals.

Results – Training of IMCI facilitators and trainers in selected provinces

- Logistics support was provided for training IMCI trainers in the Faculty of Medicine and Paramedical Schools and facilitators in IMCI Emergency Triage & Assessment in the provinces of Gaza, Sofala, Nampula, Zambezia, Niassa, and Manica.

M&L provided logistics support for completion of a training plan and for the conduction of three regional workshops, bringing together participants from six provinces. The workshops' objective was to train selected members of the provincial health staff as facilitators and trainers who could provide district wide training to peripheral health staff. Sixty-five health personnel from the central and provincial levels were trained.

Results – IMCI curriculum established in schools of public health

- Logistics support was provided for IMCI curriculum development workshops that established a process for the incorporation of revised IMCI curriculum into schools of public health and medical faculties in six provinces.

Initial contact was established with curriculum boards of schools of public health and

medical faculties. Discussions focused on introducing the revised IMCI curriculum and holding trainings for facilitators of IMCI training. Three regional workshops were held to facilitate curriculum changes at the institutions. All attending institutions committed to updating their existing curriculums by including the new IMCI training manuals. M&L provided the logistics support to contract the local physician who took primary responsibility of these coordination and facilitation activities under the direction of the MOH Community Health Department.

Challenges

- A lack of available IMCI specialists in Mozambique led to delays in recruiting personnel to revise the IMCI training manuals. Four of the six IMCI training manuals are printed and ready for distribution, but have not been distributed due to delays in commencing manual revisions. Agreement was reached by USAID/Mozambique, MOH and M&L that dissemination of manuals will take place with funding from UNICEF and WHO.
- A lack of available IMCI specialists in Mozambique led to delays in contracting a local physician to provide technical assistance for introduction of IMCI curriculum in schools of public health and medical faculties. The workshops and introduction of curriculum were complete by the M&L project end date, August 2003. However, the planned monitoring and evaluation of these workshops did not take place as enough time had not passed to conduct necessary monitoring.

2. Strengthening IMCI Management Information Systems

M&L provision of technical and logistics support to central and provincial level staff in use of the Integrated Management of Childhood Illnesses data base to access childhood illness results and data of the MOH Child Health Program contributed to strengthening the existing and underutilized IMCI Management Information System.

Overview of Activities

- Technical and logistics support provided to conduct initial data base assessments, perform technology upgrades and assess training needs in the provinces of Gaza, Sofala, Nampula, Zambezia, Niassa and Manica.
- Technical and logistics support provided to train selected staff of the MOH Community Health Department at the central and provincial levels in effective use of the IMCI database for data entry and access to increase the ability of MOH personnel to make informed decisions based on existing data.

The MOH has an IMCI database available in the provinces of Gaza, Sofala, Nampula, Zambezia, Niassa and Manica that was not being maximized for decision making. The need for training in use of the IMCI database at the provincial level of the Ministry of Health was identified as very necessary for accurate decision making and planning of further IMCI strategies in the country. The database existed in a poorly managed manner, without cohesive supervision of data entry and access, thus rendering little information for planning and evaluation of IMCI activities. Strengthening the database maintenance and use at the central and provincial level was identified by the MOH as one of the key parameters for successful continuation of IMCI strategies in Mozambique.

Results – IMCI data base assessment is conducted, technology upgrades are complete and a training plan is developed

- Initial data base assessments, technology upgrades and training plans for data base use were conducted in the provinces of Gaza, Sofala, Nampula, Zambezia, Niassa, Manica and Inhambane by the M&L local professional data base manager.

The IMCI database is today in an Access database, a more advanced system than the FoxBASE software priorly used. The majority of technology upgrades were software and hardware related; installing Microsoft Access, adding memory and storage capacity to computers in the provinces.

M&L also provided logistics and coordination support to the MOH, USAID/Mozambique and BASICS to ensure the BASICS contracted consultant, whose responsibility was to ensure the database captured the most pertinent clinical data for decision making, was in contact with the appropriate MOH counterparts and had access to all necessary database forms and components.

Results – Selected staff of the MOH Department of Child Illnesses are trained in IMCI

database use

- IMCI database training sessions were conducted in seven provinces, with two to three participants per province. Training included database navigation, data entry and access of existing data, and generation of reports. Participants were given a database user manual, produced by the M&L local professional database manager for future reference.
- One round of follow up visits was conducted after the training by the local professional database manager. Some provinces experienced additional technology constraints with damaged and infected computers. In these instances the database was reinstalled for use.
- An evaluation plan for provincial level training has been written and finalized.

Prior to M&L involvement, there had been no direct training for IMCI database use in the provinces. Inhambane province was not originally included in the agreed upon M&L workplan, but time allowed to expand assessments and trainings to this province.

Challenges

- Many provinces either lacked necessary computer equipment to run the IMCI database or had damaged computers.
- MOH personnel in the provinces had competing professional priorities and could not always attend the scheduled IMCI database trainings. This reduced the total number of participants trained.
- Some participants at the provincial level viewed the primary purpose of the IMCI database to be for reporting to the central level, not for using data to make better informed decisions.
- The process of sharing information across all levels of the healthcare system is not well established.
- Due to trainings having to be delayed to accommodate participant schedules, there wasn't ample time within the project timeframe, September 2003 through August 2004, to monitor and evaluate the provincial level trainings. An evaluation plan has been finalized and left with the MOH to implement six months after the trainings, planned for January/February 2005.

Conclusion

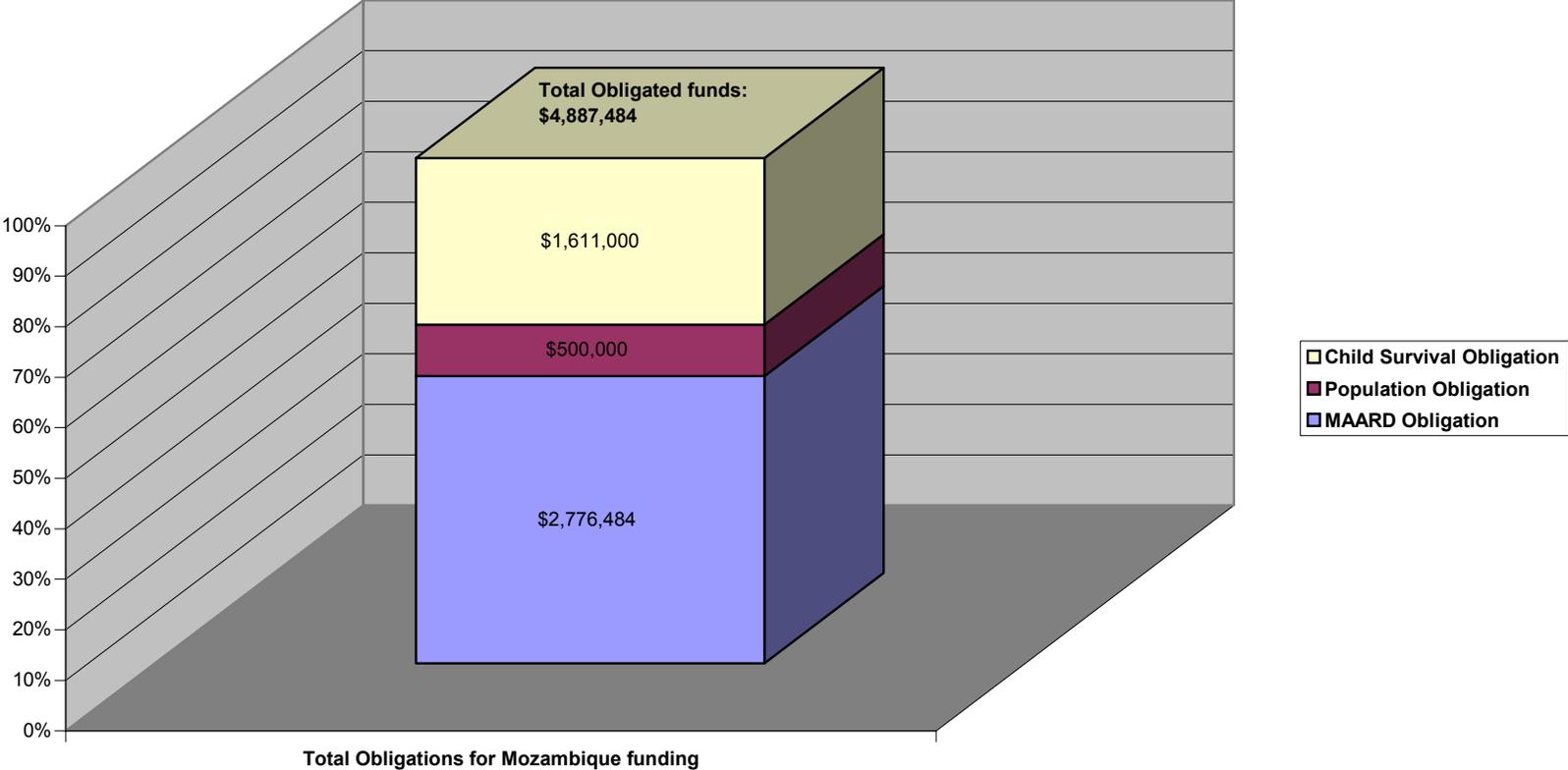
MSH/M&L provided logistics and technical support to the MOH Child Health Department from September 2003 through August 2004 to 1) strengthen IMCI training, and 2) strengthen the IMCI management information system. The MOH today is using WHO guidelines for IMCI training and has updated IMCI training manuals in Portuguese available for use within the MOH and within schools of public health and medical faculties. There is also a commitment on the part of schools of public health and medical faculties to integrate IMCI training in school curriculums. Seven provinces also have access to the IMCI management information system and have been trained to both collect and enter information and to access and use information for decision making.

Challenges faced in providing support to the MOH included difficulties in recruiting qualified IMCI staff for trainings and revision of manuals, scarce human resource capacity within the MOH Child Health Unit at the provincial level, and limited resources within the MOH for monitoring and evaluation of activities.

Recommendations for future direction are to continue efforts to strengthen IMCI training in schools of public health and medical faculties, to continue making available relevant IMCI training materials in Portuguese, to continue encouraging regular use of the IMCI database not only for collecting data but for planning and evaluation purposes, to build MOH central and provincial capacity in monitoring and evaluation of IMCI activities, and to expand IMCI strategies to other provinces.

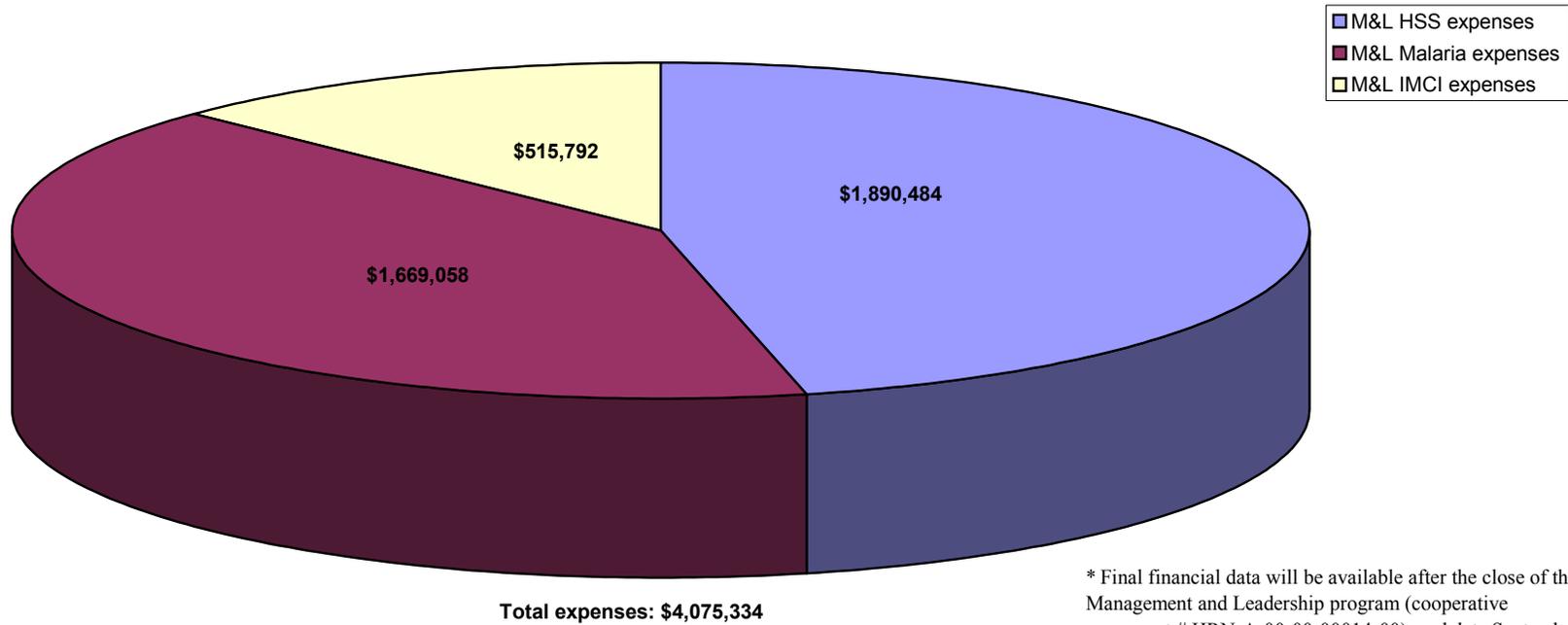
Appendix I - Financial Pipeline and Expenditures through October 2004 (page 1 of 2)

M&L Mozambique Funding



Appendix I - Financial Pipeline and Expenditures through October 2004 (page 2 of 2)

M&L Mozambique Financial Expenditures Through October 2004*



* Final financial data will be available after the close of the Management and Leadership program (cooperative agreement # HRN-A-00-00-00014-00), end date September 28, 2005.

Appendix II – Monitoring and Evaluation Plan

Intervention Name: Provision of management and leadership support to develop management systems and educational materials for training medical and para-medical staff in Integrated Management of Childhood Illnesses (IMCI).

Outcomes and Outputs	Indicators	Impact (result) indicators	Required Data	Result	Source of Data	Method and Frequency of Data Collection
<p>Outcome 1 Availability of training and reference material to medical and para-medical staff, and training of IMCI trainers and facilitators in selected provinces conducted and evaluated, and process of IMCI training is established in selected schools of public health.</p>	<p>% of health care givers using IMCI guide line correctly in the 6 provinces</p> <p>% of newly trained health care givers with adequate knowledge of IMCI guide lines</p>	<p>% of children receiving correct treatment practices according to IMCI strategies</p>	<p>Number of health care givers practicing IMCI guide lines appropriately over number observed</p> <p>number of health care givers graduated with appropriate knowledge of IMCI guide lines from public health schools</p>	<p><i>100% completed task</i></p> <p><i>Manuals produced and training sessions conducted and curriculum of schools being reviewed.</i></p> <p><i>There is no data at present on usage of IMCI guidelines or provider knowledge of IMCI guidelines due to time constraints.</i></p>	<p>Follow up and monitoring reports</p> <p>Curriculum review visit reports to public health schools</p>	<p>Six monthly evaluations and reporting</p> <p>Annual evaluation and reporting</p>
<p>Output 1.1: Logistic support provided to develop, reproduce and distribute IMCI training and reference manual for medical and para-medical staff in selected provinces</p>	<p>Number of manuals developed</p> <p>% of health education centers receiving manuals</p>	<p>% health cares givers having access to manuals</p>	<p>Number of manuals developed</p> <p>Number of manuals planned</p> <p>Number of health education centers with manuals and number of health centers identified for distribution of manual</p>	<p><i>100% provision of support</i></p> <p><i>All six manuals are produced, printed. 2 being distributed while 4 pending distribution. 100% of intended education centers</i></p>	<p>IMCI annual plan</p> <p>IMCI evaluation reports</p>	<p>Annual reporting</p>
<p>Output 1.2: Logistic support provided for training of IMCI trainers and facilitators in selected provinces</p>	<p>% of personnel trained for IMCI trainers and facilitators in 6 province</p>	<p>% health care givers received IMCI training</p>	<p>Number of personnel trained and number of personnel available for training</p>	<p><i>100% completed all training session planned were facilitated</i></p>	<p>IMCI annual plan</p>	<p>Annual reporting</p>

				<p><i>100% of staff identified for training were given adequate training</i></p> <p><i>Training of a minimum of 3 IMCI trainers and a minimum of 3 IMCI facilitators was completed in all six provinces.</i></p>		
<p><u>Output 1.3</u> Follow up and evaluation of IMCI training conducted in selected provinces, and process established for introduction of revised IMCI curriculum into schools of public health training</p>	<p>% health care givers using IMCI practices correctly</p> <p>% schools of public health with proper IMCI training</p>	<p>% health care givers with accurate knowledge of IMCI strategies</p> <p>% students receiving IMCI training during their formation</p>	<p>Number of health care givers practicing correctly the IMCI guidelines over number observed</p> <p>Number of public health school with IMCI training included in the Curriculum over schools surveyed</p>	<p><i>90% completed task</i></p> <p><i>100%, all identified schools for curriculum introduction have changed their curriculum to introduce new version of IMCI.</i></p> <p><i>The follow up and evaluation activities will not take place in the six provinces until a later date as the process to integrate new curriculum and establishment takes time.</i></p>	<p>Supervision and monitoring visit reports</p> <p>Monitoring and evaluation reports</p>	<p>Annual reporting</p>

Intervention Name: Provision of management and leadership support to develop management systems and educational materials for training medical and para-medical staff in Integrated Management of Childhood Illnesses (IMCI).						
Outcomes and Outputs	Indicators(Outcome)	Impact (result) indicators	Required Data	Result	Source of Data	Method and Frequency of Data Collection
<u>Outcome 2</u> Training of MISAU provincial level staff on IMCI data base entry and use to access childhood illness results and data of the MISAU Child health program	% of personnel trained for the IMCI data base management and use in the 6 provinces	Number of IMCI data analysis reports produced by the central and provincial staff Improved planning of IMCI interventions	Number of personnel trained and number personnel available for training IMCI evaluation data base	<i>90% of staff identified for training has completed successful training.</i>	DPS annual reports Data analysis records and evaluation reports	Annual reports Semi annual reporting
<u>Output 2.1:</u> Initial assessment of IMCI data in selected provinces and technology for information management is upgraded and completed and training plan for IMCI database use at the provincial level developed	Assessment report List of candidates identified and necessities of data training defined	Adequate IMCI data base management system and routine analysis reports	Number of provinces with IMCI data base, its completeness and quality, number of computers available for the work, quality of software needed number of essential staff indicated for training by DPS	<i>100% completed task Assessment report available with list of candidates and necessities of training.</i>	Information system data Physical evaluation DPS plan of actions	As per inspection visit
<u>Output 2.2:</u> Selected staff of MISAU department of child illness at the central and provincial levels is trained in the use of IMCI data base	Number of staff trained for use of IMCI data base	Adequate trained human resources	participant list and content of the training course	<i>16 candidates from 6 provinces.</i>	Training course report	As per training session