Nepal Family Health Program
Technical Brief #19

Program Management Information System

NFHP Field Officer conducting an interview with an FCHV utilizing a checklist.

BACKGROUND

The Nepal Family Health Program (NFHP) has included a wide range of activities focusing on family planning, maternal, neonatal and child health as well as cross-cutting areas including health commodity logistics and behavior change communications. In addition to ongoing support for mature program areas, under NFHP new work was begun, for example: community-based maternal and neonatal care (CB-MNC); using zinc in the management of diarrhea; a pilot neonatal effort (the Morang Innovative Neonatal Intervention, co-funded by Saving Newborn Lives), and Community and Health Facility as Partners.

To better track information and measure the performance of project activities, NFHP developed a computer-based integrated management information system (MIS). The system has also been used for results reporting to USAID. This system evolved from an earlier, simpler system designed for child health interventions, predating NFHP. The NFHP MIS approach can be adapted and integrated across various intervention areas, using common monitoring tools and data management software.

WHY IS THE MIS IMPORTANT?

Data is increasingly being recognized as an organizational resource. While periodic special studies can provide rich data, there is a need, on an ongoing basis, for process and outcome data to track program performance. Monitoring information is a critical input to managerial decision-making. Decision makers, planners and managers need high-quality data both to monitor on-going activities and to plan future activities.

NFHP has implemented a self-explanatory and menu-driven computer-based MIS which provides easy retrieval of relevant data. As a result, there has consistently been up-to-date program performance data available on NFHP activities.

In addition to data generated by project staff, the program has been actively engaged with the Ministry of Health and Population (MOHP) in further development of the government's Health Management Information System (HMIS). For example, NFHP staff have worked with the MOHP to revise the HMIS, incorporating several indicators previously only tracked in the project MIS. This has included pneumonia cases treated by Female Community Health Volunteers (together with results from the third-day follow-up visits made for such cases). The new HMIS also reports on the availability at FCHV level of four key program commodities (condoms, pills, Cotrimoxazole-P and oral rehydration salts [ORS]).

Health facilities now report quarterly on availability of seven key commodities (condoms, oral pills, ORS packets, injectables, iron tablets, Vitamin A tablets and Cotrimoxazole-P) in their stores.

Key Achievements

- Regional NFHP Monitoring and Evaluation Officers were trained in the use of the computer-based monitoring system.
- A feeling of ownership of program data has increased in the field offices due to their role in data verification and data entry and in actual use of data for monitoring their own performance.
- Field offices can produce data tables as required by the program.
- Increased use of monitoring data in district and field offices for planning and feedback purposes has been documented.

INDICATORS AND THEIR SOURCES

NFHP has complex information needs due to its diverse areas of focus. Thus, the sources of information used are fairly broad and include the government HMIS, Logistics Management Information System (LMIS), Demographic Health Survey (DHS), NFHP's own monitoring system (MIS), client exit interviews, and special studies. However, the core information reported annually is collected through the NFHP-MIS. The NFHP-MIS includes information from all levels: from FCHVs, health facilities (HFs), hospitals, and district public health offices. As part of a strategic review process, indicators were developed and defined in coordination with NFHP stakeholders. Related data on these indicators were reviewed regularly and annual performance targets have been agreed upon with USAID. The following are NFHP reporting indicators and their data sources. These are for NFHP core program districts (CPDs) unless otherwise noted.

Indicator	Definition	Source of Data
Under five mortality (national)	Number of deaths per 1000 live births	DHS
Total fertility rate (National)	Average number of children that would be born to a woman during her childbearing years at current rates	DHS
Contraceptive prevalence rate (National)	Percentage of married women of reproductive age using modern contraceptive methods	DHS
Commodities available at health facilities	Percentage of health facilities (PHCCs, HPs, SHPs) that maintain availability of 7 commodities all year	LMIS
Commodities available at community level	Percentage of FCHVs who have 3 or 4 key commodities available	Annual FCHV survey & NFHP-MIS
Pneumonia treatment	Number of pneumonia cases in children (age 0-60 months) treated by community health workers (FCHVs, MCHWs, VHWs) and in health facilities in districts where community-based pneumonia treatment has been initiated	NFHP Monitoring Record
Quality of pneumonia treatment	Percentage of children presenting to health workers (FCHVs, MCHWs, VHWs) with pneumonia symptoms who receive appropriate treatment where community-based pneumonia treatment has been initiated	NFHP Monitoring Record
FCHVs services reflected in HMIS data	Percentage of health facilities reporting FCHV service data (separately) through HMIS	HMIS
Treatment of night-blind pregnant women	Number of pregnant night-blind women treated with Vitamin A	NTAG records
ORT use in children under 5	Percentage of children (under 5 years) with diarrhea in preceding 2 weeks who received oral rehydration salt therapy or increased fluids	DHS
Measles vaccination coverage	Percentage of children who received measles vaccination by 12 months of age	HMIS
Pneumonia treatment	Percentage of expected pneumonia cases in children (0-59 months) treated by community health workers and health facilities in core program districts where community-based treatment has been initiated	NFHP Monitoring Record
Districts offering postabortion Care (PAC) services	Number of hospitals or PHCCs offering PAC services	NFHP Monitoring Record
HMG/NGO coordination	Number of CPDs holding RHCC meetings in their districts at least quarterly	NFHP Monitoring Record
Couple years of protection	Annual protection against pregnancy afforded by contraceptives distributed in CPDs	HMIS
Health facility supervision	Percentage of PHCCs and HPs that receive a quarterly supervision visit by DHPO staff	NFHP Monitoring Record
Couple years of protection (National)	Annual protection against pregnancy afforded by contraceptive distributed	HMIS
Reporting of LMIS data by health facilities (National)	Percentage of functioning HFs (PHCCs, HPs, and SHPs) reporting data by 2 months from end of quarter	LMIS
Vitamin A supplementation coverage (National)	Percentage of children (6-59 months) who received a Vitamin A capsule during the preceding distribution round	Mini-survey
HMG purchase of contraceptives	Percent increase in HMG budget contribution to the purchase of family planning commodities	GON budget

Both NFHP and USAID/Nepal agreed on the above indicators to be routinely reported to USAID. In addition, NFHP collects and tracks other indicators. Of the total NFHP 20 indicators, seven are derived from NFHP monitoring records; the others come from HMIS, LMIS, and special surveys.

PROCESS

Each month, NFHP field officers review the current month's data and develop a monitoring schedule for the next month. They select HFs and Community Health Workers (CHWs) who need technical support or have never received technical support in the past from NFHP. If possible, NFHP field officers visit HFs or CHWs jointly with a District Public Health Office (DPHO) supervisor. During the technical support visit the field officers complete the relevant monitoring tool (checklist) which consists of gathering information through interviews, record reviews, observation etc., after which any necessary support—such as on-the-spot coaching, commodity re-supply, etc.—is provided. At the end of each month, NFHP field officers complete data summary sheets and write a report in a standard format. The reports are then sent to NFHP regional field offices, where the data is entered using the data entry screen (Figures 1). The regional Monitoring and Evaluation (M&E) Officer analyses the data contained in the summary sheet and generates tables which are shared with field officers to use for program improvement. A copy of the table is also sent to NFHP Kathmandu. NFHP Kathmandu then incorporates all data received from regional field offices into the central database.

Although some data is available in the HMIS, it is only possible to obtain it periodically. The NFHP monitoring system provides the additional data required for reporting to USAID/Nepal. The monitoring data can be periodically compared with the HMIS to cross check and verify. One important component of this system is the field monitoring checklist, which is divided into three categories:

- Community health worker checklist
- Health facility checklist
- District level checklist

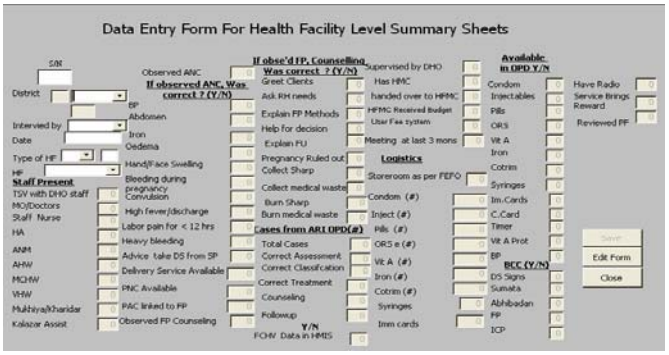
SUMMARY SHEETS

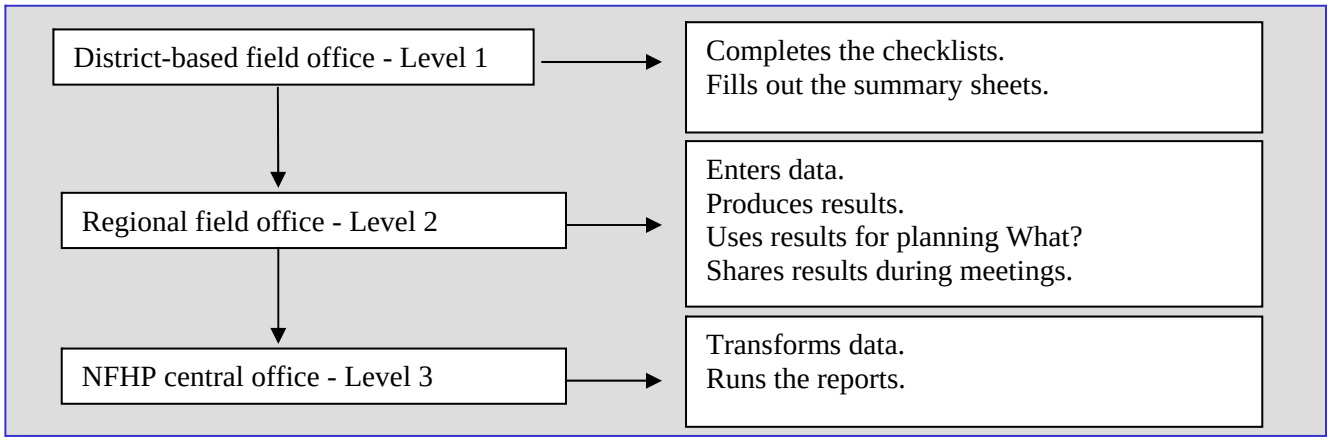
All the information gathered, for each monitoring checklist, is summarized and sent monthly, by the district-based field staff, to the regional field offices. Data from the summary sheets is then entered into the NFHP-MIS for further analysis. Along with the data gathered from the NFHP monitoring system, data from LMIS, HMIS, and other sources are also analyzed and used to improve the program activities.

MONITORING INFORMATION SYSTEM

Since the NFHP-MIS was developed using Visual Basic 6 and MS Access 2000, these two programs needed to be pre-installed prior to installing the MIS. Easy to load and use, the initial program launch displays four main options on the switchboard screen. If "Community Level Data Entry" is clicked, a screen for "Data Entry Form for Community Level Summary Sheets" appears. From this screen, data from the "Community Level Summary Sheets" can be entered. Similarly, if "Health Facility Level Data Entry" is clicked, a screen for "Data Entry Form for Health Facility Level Summary Sheet" appears (see below). From this screen, data from the Health Facility Level Summary Sheet can be entered.

Data Entry Screen for HF Level Summary Sheets

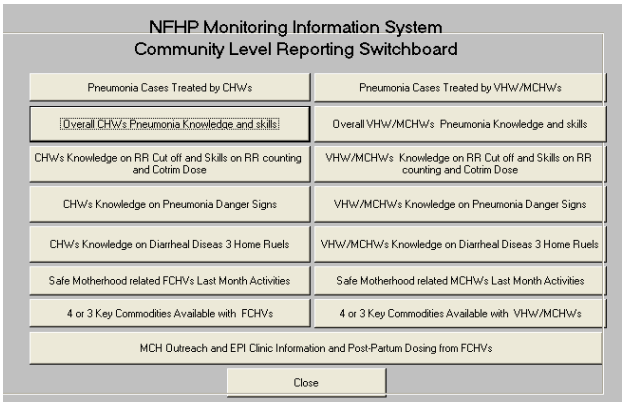




REPORT GENERATION

All reports can be generated for a given number of months. Output reports are classified into community level and HF level of which there are 15 and 14 reports respectively that can be generated (for a given range of dates) by core program districts (below). Each report can be viewed or printed in tabular format. These reports can be modified, changed, and reports can be added in accordance with future need.

Community Level Reporting Switchboard



The NFHP-MIS provides the required data from project indicators for reporting to USAID/Nepal. The majority of variables included in the NFHP-MIS are necessary for project performance monitoring to provide a more complete view of community-based health services. These are not possible to obtain only from HMIS and LMIS. They are:

- CHW knowledge and skills in management of acute respiratory infection and diarrhea.
- Pneumonia service coverage; percentage of expected pneumonia cases treated.
- HF staff knowledge and skills in family planning counseling.
- HF staff knowledge and skills in providing antenatal care services.
- Quality of services that CHWs provide for pneumonia treatment, including: consistent age, dose, and third-day follow-up.
- CB-IMCI cases assessed correctly at HFs.
- CB-IMCI cases treated correctly at HFs.
- Four key commodities available to FCHVs.
- Availability of informed choice poster at HFs.
- Supervision from district health staff provided to HFs.

CONLUSIONS

- If MIS data is easily available, retrievable and understandable, it will be used more frequently and consistently by program managers for planning future programs and modifying existing ones.
- The computer-based, menu-driven monitoring information system is self-explanatory and provides a mechanism for easy retrieval of needed information. This MIS, with a little revision, can be easily adapted for use in any community-based project in the world.

There are a number of NFHP-supported pilot interventions. Each of these pilot interventions has their own monitoring system. In the future, the data will be streamlined and more consistent if it is merged into a single monitoring system.

This technical brief is one of a series seeking to capture key lessons learned from the USAID/ Nepal bilateral project, the Nepal Family Health Program (367-00-02-00017-00), 2001 - 2007. The document was produced with support from the American people through the U.S. Agency for International Development. The views expressed in this document do not necessarily reflect those of USAID.

The Nepal Family Health Program is implemented by JSI Research & Training Institute, Inc., in collaboration with EngenderHealth, JHPIEGO, Johns Hopkins University/ Center for Communication Programs (JHU/ CCP), Save the Children, Nepal Technical Assistance Group (NTAG), Management Support Services (MASS), Nepal Fertility Care Center (NFCC) and, for a period, CARE and ADRA.

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