National Health Management Information System (HMIS)  
(Pakistan)

An Overview:
A functioning Management Information System (MIS) is an essential tool for strengthening planning and management systems. A countrywide facility-based Health Management Information System (HMIS) was developed in Pakistan in the early 1990s. This effort was initiated by the Basic Health Services Cell, now the national HMIS Cell of Ministry of Health. Provincial Health Departments also fully shared this participatory development process. International agencies like USAID, UNICEF and WHO extended both technical and financial support. Ultimate objective of this initiative is to assist mid- and senior health managers in making informed decisions. Subsequently, the Family Health Projects of the World Bank supported the establishment and institutionalization of HMIS in all the provinces. This system has now been implemented in a phased manner and more than 90% primary health care facilities report under this system.

Till June 2001, 117 districts (out of total of 120 districts) have sent their data to the National HMIS Cell. HMIS data flow directly from the peripheral health facilities to the District Computer Centers, then to the Provincial Computer Centers. Ultimately, the information reaches the National HMIS Cell on computer diskettes where it is analyzed through HMIS software and also through Statistical Package of Social Sciences (SPSS).The data is analyzed at the district level but seldom at the facility level. National consolidation, analysis and the feedback of this data is being delayed due to time and the distance involved between health facilities and the Provincial or the National HMIS Cell. District managers transmit information to the provincial level without establishing a feedback loop with the facilities.

A parallel community based information system has also been developed in 1994, which is functioning under the National Program for Family Planning and Primary Health Care (NPFP&PHC). In addition there are several other information systems specifically geared to the needs of vertical programs such as EPI, TB, AIDS, Malaria etc., which are not fully integrated into HMIS. However, the software for NPFP&PHC is based on the same parameters that of HMIS software.

The objective of National HMIS is not only to record information on health events but also to monitor the availability of critical items of first level care facilities. This entails monitoring availability of drugs, contraceptives, functionality of equipment, repair and maintenance of facilities and utilities. HMIS has the capacity to provide information on monthly / quarterly and annual basis on the above mentioned items. HMIS findings should be used for improving the quality and coverage of care, for the detection and control of diseases through regular and timely reporting and to ensure the availability of critical items in FLCFs.

HMIS is designed to provide information on service related indicators such as facility utilization rate, referrals, immunization, maternal care and family planning. In
addition, it also provides information by age on 18 priority diseases. National HMIS Cell has produced several feedback reports derived from National HMIS Data.

Despite these concerted efforts lot more remains to be done. The responsibility to oversee all aspects of the information system, starting from data collection and ending with appropriate use of the information generated has not been explicitly assigned to any department or unit particularly at the District level. The quality of data needs improvement. Link between different types of information is to be establish at various levels and there is scant use of information for planning and assessment of health services. Reports generated by the facility based HMIS receives low priority, monitoring is poor and facility staff look upon HMIS as an additional workload.

The scope of the current information system is however, limited to the first level care facilities only and no data from inpatient/hospital, private care facilities or from the health facilities other than Provincial Health Departments are captured.

Recently a project PC1 Strengthening of SAP-Monitoring & Evaluation System at Federal Level (The HMIS/MOH Component)? has been finalized by Federal SAP Secretariat where these HMIS are being partially addressed.

SIGNIFICANT PROBLEMS AND CONSTRAINTS

Most of the time, planning and management decisions are taken without relevant information and there is culture of non-evidence based decision making.

Excessive quantity of data is now being collected with little being analyzed particularly provincial and district levels.

Due to week vital event registration system, information on mortality and health status indicators are difficult to obtain.

Persistent multiple information systems organized through public health programs.

Reporting is often delayed and incomplete.

POLICY DIRECTIONS 2001-2005

Following are the challenges being faced by National HMIS and strategies proposed to address these issues.

1. To institutionalize National HMIS both at the Federal and Provincial levels by mobilizing necessary technical and logistics support.
2. To maintain the Existing Infrastructure of HMIS by Improving:
   a. Data Analysis Capacity.
   b. Data Usage Skills.
   c. Software Improvement.
   d. Data Dissemination and Publication.

HMIS DESIGN REVIEW PROCESS

The current structure of National HMIS was created in early nineties where as its implementation in the FLCF was completed in 1996. Since than the districts have started reporting. Where the information from the FLCFs is being sent on HMIS forms to the District HMIS Cell for onward transmission to Provincial/ National HMIS Cells in the meantime.

After several years of its implementation there is a growing concern amongst the Provincial Health Departments and also with the National Program Managers that to
make it more responsive to the information needs of its multiple stakeholders, certain alterations/ modifications in the existing structure of the system are very much required. To address this demand an elaborate plan has already been developed by the National HMIS Cell in coordination with the Provincial HMIS Cells. This plan aims to organize series of Provincial and National consensus building workshops on HMIS-Design Review. This would in-turn be an effort to develop a sense of ownership among various implementing partners. This effort would also enable us to integrate multiple health information systems-presently in practice in field.

To pursue this objective National HMIS Cell has already organized five Workshops on HMIS System Design Review, namely one for each Province and one for National Program Managers. This was based on the fact that the finally designed HMIS is developed through an active participation of all its stakeholders and not by a group of experts at National level. Recommendation from all these workshops/ meetings have been documented and from these a Work Document has been developed for a final consideration and adoption during a national workshop scheduled February 2002.

Till now, the emerging consensus is that to keep this exercise meaningful and focused National HMIS should contain bare minimum, essential and core information where as the bulk of program specific information may still be collected through national programs with a possibility of integration at the software level. Like wise some core information from LHW?s program has been recommended to be incorporated in the facility based HMIS Monthly Report Form whereas leaving extensive integration at the district level through an integrated software.