ASSESSMENT OF CURRENT HEALTH INFORMATION SYSTEMS AND THEIR ABILITY TO MEET LOCAL GOVERNMENT NEEDS

Republic of the Philippines

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ACRONYMS

ADB	Asian Development Bank
AIP	Annual Investment Program
ANC	Antenatal Care
ARI	Acute Respiratory Infection
AusAID	Australian Agency for International Development
BHS	*Barangay* Health Station
BHW	*Barangay* Health Worker
BIHC	Bureau of International Health Cooperation
BNS	*Barangay* Nutrition Scholar
BSPO	*Barangay* Supply Point Officer
CAR	Cordillera Autonomous Region
CBDSS	Community-Based Disease Surveillance System
CBMIS	Community-Based Monitoring and Information System
CDC	U.S. Centers for Disease Control and Prevention
CDD	Control of Diarrheal Disease
CDLMIS	Contraceptive Distribution and Logistics Management Information System
CDS	Contract Distribution System
CHC	City Health Center
CHO	City Health Office
CQI	Continuous Quality Improvement
DBM	Department of Budget and Management
DFHSIS	Decentralized Field Health Service Information Service
DoH	Department of Health
DOTS	Directly Observable Treatment, Short Course
EPI	Expanded Program for Immunization
EU	European Union
FETP	Field Epidemiology Training Program
FHSIS	Field Health Service Information System
FIC	Fully Immunized Child
FP	Family Planning
FPS	Family Planning Service
GTZ	German Society for Technical Cooperation
HC	Health Center
HIS	Health Information System
HIV/AIDS	Human Immunodeficiency Virus/Acute Immune Deficiency Syndrome
HKI	Helen Keller International
HO	Health Office
HSRA	Health Sector Reform Agenda
ICHSP	Integrated Community Health Services Project
IDSCP	Infectious Disease Surveillance and Control Program

IHZ	Interlocal Health Zone
IRA	Internal Revenue Allotment
IT	Information Technology
ITR	Individual Treatment Record
JICA	Japan International Cooperation Agency
JSI	John Snow, Inc.
JSI/FPLM	John Snow, Inc./Family Planning Logistics Management Project
LAN	Local Area Network
LCE	Local Chief Executive
LDIP	Local Development Investment Program
LGC	Local Government Code
LGU	Local Government Unit
LPP	LGU Performance Program
MBO	Management by Objective
MFHSIS	Modified Field Health Service Information System
MGP	Matching Grant Program
MHC	Main Health Centers
MHO	Municipal Health Office
MOOE	Maintenance Operating and Other Expense
MSH	Management Sciences for Health
MWRA	Married Women of Reproductive Age
NEC	National Epidemiology Center
NES	National Epidemiology Service
NESSS	National Epidemic Sentinel Surveillance System
NGAS	New Government Accounting System
NGO	Non-Governmental Organization
NSO	National Statistics Office
PHC	Primary Health Care
PhilHealth	Philippine Health Insurance Corporation
PHN	Public Health Nurse
PHO	Provincial Health Office
PLS	Procurement and Logistics Service
PPA	Potential Problem Analysis
QA	Quality Assurance
RHU	Rural Health Unit
RITM	Research Institute of Tropical Medicine
SA	Situational Analysis
SARS	Severe Acute Respiratory Syndrome
SOW	Scope of Work
STD	Sexually Transmitted Disease
TA	Technical Assistance
TB	Tuberculosis
TCL	Target Client List
TT	Tetanus Toxoid

UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WAN	Wide Area Network
WFP	Work and Financial Plan
WHO	World Health Organization

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EXECUTIVE SUMMARY

The United States Agency for International Development (USAID)/Philippines commissioned an assessment of existing information systems in the interest of stimulating the use of health information by the local government units which are responsible for allocating budget for health services. The review was undertaken in the Philippines between April 27 and May 17, 2003. One week was spent in the field interviewing local government officials, health system personnel and volunteers, and observing their use of information and information systems.

OBSERVATIONS AND CONCLUSIONS

The team focused on information systems that are in current use nationwide, or on those systems that have the potential for widespread use. The following six types of information systems were found in use at local government facilities and at health offices:

- Service delivery and morbidity
- Target and at-risk identification
- Surveillance
- Logistics
- Accreditation
- Financial management

Some fifteen specific systems and tools spread across these categories were identified and described. There is overlap and duplication among the systems, and simple procedural changes would improve targeting and risk assessment.

Additionally the team was briefed on two information systems in the convergence sites, which pilot test implementation of the Government of the Philippines health reform agenda. These systems depend on health reform institutional changes and are not comparable to the systems used elsewhere in the world.

Despite their flaws, the systems used routinely nationwide cover the basic data needed for management, at least in municipalities; in general, the data collected seemed to be of acceptable quality. In only one of seven facilities visited by the team was the basic target client list, the origin of most of the routinely reported data, maintained poorly. First contact providers know how to use coverage indicators to monitor their performance, and many use this tool.

The local government health office, in the municipality, city, or province, uses the information reported by its facilities to monitor program activities and to justify requests to the local government for supplemental budget, particularly for essential drugs. More innovative health officers also use the same information to plan and obtain funding for specific local projects.

In short, the team found little evidence that the information systems need to be modified in order to stimulate use of information to prioritize health services. There are local health officers who already use existing information effectively to make health care and financing a local priority. However, those who are not currently using the information systems may require training and mentoring in management skills and advocacy. Even Pangasinan, one of the health reform convergence sites, continues to use the standard information systems to feed into its management through the use of an objective style of planning and monitoring.

A short list of performance indicators, against which local governments could compare themselves, could provide a basis for prioritizing and increasing health funding and could lead to an exchange of local expertise. The terms of comparison, the indicators themselves, should be determined by the implementers, namely, the mayors and local health officials.

The system that is used nationwide to collect integrated, multi-program data from facilities is called the Field Health Service Information System (FHSIS). It has been used for more than a decade, and during that time the number of programs whose data are included has dwindled. The multi-program sector wide data that the FHSIS supplies, appears to be little used above the local government level. In fact, the team could not identify a natural home within the Department of Health (DoH) to support such sector wide monitoring.

If there is no responsibility for sector wide monitoring of basic performance indicators, then there's a gap, especially in the context of devolution, when health managers must decide how to allocate insufficient resources. It would seem to be in everyone's interest to have a common set of performance indicators: local government and health officials and the department of health and health reform implementers.

RECOMMENDATIONS

The recommendations emerge from the preceding *Observations and Conclusions* section. They build on the systems that are already is in place and do not require reengineering systems. They fall into six main categories. A complete list of recommendations is in the table at the end of this summary.

1. Client and risk identification

- Better Use of FHSIS Target Client Lists (TCLs)

- Most sites visited seem to have good routine coverage and are able to reach out to those who do not avail of service. Recommendations in this category are directed towards improving the use of existing tools for targeting.

2. Regular review of indicators

- Better use of aggregate FHSIS and vertical program data
- Improving the use of routinely reported data for monitoring and action planning

3. Other information systems issues

- Denominators and systems best practices with respect to financial and logistics systems

4. Local Government Unit (LGU) performance monitoring with minimal set of indicators

- Steps to initiate regular review of indicators
- Steps to start routine health sector performance monitoring by LGUs and others

5. Strengthening LGU management skills and information use

- Identifying and supporting local innovations in use of information for management

6. Coordination with partners

- Sustainability
- Partnership between mayors and health officers, and among national partners

In summary, the recommendations build on information systems that already exist. There is no need for major reengineering of systems or procedures.

Complete Recommendations

1. Client and Risk Identification: Better Use of FHSIS TCLs

- Include all children less than one year of age in TCL by review of birth vital events register.

- Add women to Maternal or Family Planning (FP) TCLs, when their pregnancy becomes known to a Barangay Health Worker (BHW) or when an unmet FP need is identified.

- Add women discharged from hospital for incomplete abortions to family planning TCLs.

- Persons using private service should be on the TCL, with a notation indicating that they are "covered" but receiving services elsewhere.

- Use annual census and master lists to confirm TCLs.

- Determine the relative advantage of Community Based Monitoring and Information System (CBMIS) risk identification over TCL risk identification, by counting how many new individuals were added to TCL through CBMIS house to house surveys.

- Review the BHWs' capacity to capture community information when the BHWs serve a large number of families.

- Local disease surveillance, like that in the Community Based Disease Surveillance System (CBDSS), could be used to advantage in many municipalities.

- Identify would-be family planning clients during family planning counseling sessions conducted by Rural Health Units (RHUs), prior to approval of marriage licenses.

2. Regular Review of Indicators: Better Use of Aggregate FHSIS and Vertical Program Data

- Calculate and review basic indicators from FHSIS data already collected at each level (e.g., FIC, Antenatal Care [ANC], Tetanus Toxoid [TT]) or change in disease cases from the same period in previous years. Feedback results to reporting institutions

- Compare indicators for consistency (e.g., measles and FIC, TT and ANC, immunization coverage and incidence of vaccine preventable diseases)

- Adopt the DFHSIS definition of TT protection which should include all women with 5 doses, not simply those who receive immunization.

3. Other Information Systems Issues

- **Denominators**

  - Negotiate with others in the reporting chain regarding population figures.

  - Option to use local denominators for local review.

  - Use the number of clients who are eligible for public services as an effective target for measuring performance.

- **Accreditation Systems**

  - Determine whether two systems are needed. If not, combine best elements of both.

- **Logistics and Financial System**

  - Logistics, financial, and planning information are closely tied in devolved settings. These may be linked with other municipal data systems. Systems need redesign, but many stakeholders involved. Identify best practices and build from there on the best approach for systems.

- **Hospital data**

    - Hospital data should be consolidated with primary care data at the earliest aggregation stage possible.

4. LGU Performance Monitoring with Minimal Set of Indicators: Steps to Initiate Regular Review of Indicators

- Local Chief Executives (LCEs), LGUs, Health Offices (HO), DoH, National Epidemiology Service (NES), and Health Sector Reform Agenda (HSRA) should collaborate on defining simple indicators for LGU performance.

- Regular review of performance

- At national level, find an institutional home for gathering and disseminating this information.

5. Strengthening LGU Management Skills and Information Use for Local initiatives

- Support and facilitate identification and propagation of best practices

    - LGU to LGU mentoring
    - Benchmarking to high performance LGUs
    - Chronic disease management and risk identification via genogram

- Support innovation at local level with small grants

- Innovative financing

    - Cost recovery at facilities

    - Rationalization of procurement: bulk procurement via LGU pooling and prequalified suppliers

    - Qualification as PhilHealth provider

    - Indigent enrollment in PhilHealth

    - Hospital private beds

6. Enhance Management Skills

- Train health staff in use of

- Health indicators for service delivery management
- Use of information for health advocacy to LGU officials
- Representation of information (e.g., graphs and maps)

- Train LGU and health staff in management by objective techniques

  - Include policy formulation, strategic and action planning, monitoring, Continuous Quality Improvement (CQI), self-assessment, supportive supervision and peer review.

- Strengthen supervisory skills to identify and support poorly performing areas. Involve DoH representative in monitoring

- Train LGU financial managers in techniques of health sector cost analysis and activity-based budgeting

7. Coordination with Partners: Sustainability

- Collaboration among LGU Leagues including mayors, governors and other health sector personnel

- Collaboration at national level among partners, other projects, donors, LGUs, and DoH to promote consistent approaches and sustainability after intervention completion.

I. CONTEXT, METHODOLOGY, AND LIMITATIONS OF METHODOLOGY

BACKGROUND

In the early 1990s, the Philippines devolved management and financing of the public sector, including the health sector, to Local Government Units (LGUs), which are led by elected officials. USAID/Philippines identified the need to review existing health information systems "to make them more responsive to the local needs of the community and give LGUs the means to plan their individual health intervention. This will help empower the LGUs to better manage and provide basic services." The complete Scope of Work is included as Annex B.

The review was conducted between April 27 and May 16, 2003. The team consisted of a Filipino physician experienced in LGU health sector management and two expatriate information systems specialists with international experience in health-related information systems. A debriefing was provided to USAID on 15 May, 2003.

Information is only worth the cost of collection, analysis, and dissemination when it leads to improved planning, more efficient financing, and better monitoring and supervision, which combine to produce improvements in quality of care and patient outcomes. Information systems are inextricably intertwined with their use for management decision making. Therefore, this review of health sector information systems that serve the LGU has focused on the information systems themselves, the individuals and groups who use the information, and the management functions in which decision makers use the information.

CONTEXT: HEALTH SECTOR DEVOLUTION

In the early 1990s many countries were discussing, planning, and preparing for the decentralization of health services. While some countries are still in the preparation phase, or are involved in an incremental process of gradually decentralizing certain functions, the Philippines, on the other hand, implemented Republic Act No. 7160, or the Local Government Code (LGC), in 1991. The LGC "mandated the transfer of functions of selected national government agencies such as health, education, agriculture and social service to the local government units – city, provincial and municipal levels."[1] The LGC, almost overnight, devolved public sector financial and management responsibilities down to the Local Government Units (LGUs) at provinces, cities, and municipalities.[2] This quickly moved the discussion from "what to do," to "how to do," and, with time, to "how to improve."

When devolution became a reality, the health care infrastructure, including personnel and facilities, and the supporting information systems were already in place. The change was that

[1] http://www.doh.gov.ph/hsra2/ - General Introduction

[2] *Barangays* are also LGUs, headed by a *Barangay* Captain. While the focus of this review has been on municipalities, cities, and provinces, the *Barangays* often play a significant role, especially in social mobilization and in contributing resources.

it was suddenly under new management. Local Chief Executives (LCEs), governors and mayors, head this new management; they are usually not familiar with public health issues, and are unaccustomed to assigning priorities toward the achievement of public health goals.

The central office of the DoH assists the LGUs with funds, the Internal Revenue Allowance (IRA),[3] along with Tuberculosis (TB) drugs, vaccines, and contraceptives; however, the LGUs must secure the remaining funds needed for public health services. The LGU health officers, whose job had been to simply implement centrally made plans, added new responsibilities for determining local health sector policies and priorities, planning how to meet them, and advocating to the LCE for the implementation of funds. Skilled use of good information by the LGU health officers is a key ingredient in accessing resources to improve health status in the decentralized setting.

METHODOLOGY FOR INVESTIGATING INFORMATION USE AT LGUs

To carry out the tasks outlined in the Scope of Work the team visited a number of sites and interviewed as many persons as possible involved in the generation and utilization of health data.

In the city of Manila, meetings were held with directors and senior officers at the DoH: specifically, at the National Epidemiology Center (NEC), the Procurement and Logistics Section (PLS), and the Bureau of International Health Cooperation (BIHC), the office handling internationally-assisted projects and programs. Also interviewed were officers at USAID/Philippines, Management Sciences for Health (MSH) personnel implementing the Matching Grants Program, the Infectious Disease Surveillance and Control Program (IDSCP), and Helen Keller International (HKI).

Site visits included 3 regions, 5 provinces, 4 cities, 3 municipalities, 2 RHUs, 2 city Health Centers (HC), and 3 *Barangay* Health Stations (BHS). Persons interviewed included municipal mayors, a DoH regional director, Provincial Health Officers (PHO), City Health Officers (CHO), Assistant CHOs, city epidemiologists, health center physicians, public health nurses, midwives, and various BHWs. Annex A provides a complete list of Persons Contacted during this assignment.

[3] The IRA is a general allocation and does not specify the amount designated specifically for health services. The LGU must allocate funds for health versus other competing demands.

Table 1: Sites Visited and Persons Interviewed

Region	Province / Chartered City	Municipality / Component City	Institution / Facility	Persons Interviewed
Cordillera Autonomous Region (CAR)			Regional HO	Regional DoH Director, Deputy, and Representative
	Baguio City		City Health Office	Assistant CHO City Epidemiologist
			Pacdal HC	Physician, Nurse, Midwife
	Benguet		Provincial HO	PHO, FHSIS Head, DoH Rep
		La Trinidad	Municipal LGU, HO	Mayor, Municipal Health Office (MHO), Public Health Nurse (PHN)
			Puguis BHS	Midwife
Region I	La Union		Provincial HO	PHO, Provincial Administrator, FHSIS Chief
		Naguilian	Municipal HO	MHO, Midwife
		San Fernando	City HO	CHO, City Legal Officer
	Dagupan		City HO	CHO, Assistant CHO
	Pangasinan		Provincial HO	PHO, Provincial Population Officer, FHSIS Head
		Basista	Municipal LGU, HO	Mayor, MHO
			Anambonga BHS	Midwife, BHW, BSPO
Region VII	Cebu City		City LGU, HO	City Administrator, General Services Officer, Mayor's Information Technology (IT) Consultant, CHO, Assistant CHO, Chief Nurse, Nurse Epidemiologist / FHSIS Head, CDLMIS Manager
			Talamban HC	Physician, Nurse
	Cebu	Cordova	Municipal LGU, HO	Mayor, MHO, PH Nurse
			Gabi BHS	Municipal Midwife, BHW

The interviews were conducted with persons representing all levels of the health care system to obtain information on forms used, who filled out the forms, who checked for accuracy, and to whom they were submitted; frequency of submission; feedback if any; problems encountered in their use; and the perceived usefulness to the generating unit, of the forms and of the data provided. Points of consolidation were identified as well as the extent of the consolidation. Inquiries were made regarding compliance of reporting units and the timeliness of submission and sanctions, if any, for non-compliance.

The issue of information access by, and usefulness to the LCEs was addressed by asking health personnel about the format of the report and if they included the LCEs in the reporting loop. The mayors were asked if they had access to, or were provided any information by, the health personnel in their jurisdiction; and, if so, whether they found the information useful.

The interview technique was open-ended. Team members took notes and compared their impressions after the interviews. The team looked for innovation in the use of information such as use of positive deviance and best practices.

LIMITATIONS

The time available for the review was limited. Of the three weeks allotted, one week was spent in travel outside Manila. While the remaining time was divided among additional Manila-based meetings and travel within Manila, documentation, review, preparation of the team observations, and drafting the report were often carried out simultaneously in Manila.

The review coincided with the advent of the Severe Acute Respiratory Syndrome (SARS) phenomenon and ongoing national and international efforts to control it. Therefore, it was sometimes difficult for the team to schedule meetings with members of the National Epidemiological Center (NEC), a key implementer of many of the relevant information systems.

Site visits to locations selected by USAID, were scheduled during the first three days of the team presence in country. While the team witnessed a great deal of innovation at these sites, they may have been presented an overly positive view of the true situation. The timing of the visits did not allow enough time for the team to inventory existing systems and to decide which ones would be interesting to observe before the visits occurred.

II. OBSERVATIONS

REPORTING CHAIN: NODES, INFORMATION FLOW, AND COMPLIANCE

Health workers, clinical practitioners, service delivery managers, non-medical technical staff, facilities, and other institutions in the health sector, both public and private, routinely report on their activities and services, as well as on the health status of their clients. In general, the information flow conforms to the classic model of management in a centralized health service delivery system: data move from peripheral persons and institutions to the center. Under the previous centralized health system, devolution reports went directly from community-based health workers to first contact facilities to the local health office, to DHOs located at the first level referral center, onwards to provincial, regional, and national offices. Large chartered cities reported directly to the region and included public hospitals among the reporting facilities. As a result of devolution, the district hospital was eliminated from this reporting chain; now they report to the province as an independent unit. In addition, municipal and city health offices (CHO) began to forward the reports that were previously submitted to the DoH, to the local LGU.

Diagram 1 below shows a simplified view of the information flow in the public health sector, from community-based workers[4] through the first contact facilities, *Barangay* Health Stations (BHS) and Rural Health Units (RHU), to the MHO, and then to the provincial, regional, and national offices. Cities have a somewhat different reporting flow with City Health Centers (CHC) instead of RHUs. Depending on the degree of urbanization, the CHCs may not have BHSs. Chartered cities, which are large cities, report directly to the region. In some large cities, several city health centers are grouped together, with one serving as a core, or mother facility for shared resources. In this structure, the city is divided into service delivery areas, and reports may flow through the core facility where data are aggregated and then sent to the CHO.

Private facilities and providers while not formally included in this flow, in principle, report to their local city or municipal health office. Local health officers said that while private providers may actively report cases in an outbreak, like dengue, public health officers often must visit the private sector providers to request information. TB was often cited as an example where better exchange of information between public and private providers would improve patient care. If a private patient begins treatment without a prior positive sputum exam, he becomes ineligible for free medication that is supplied by the national DoH. This sometimes happens when private patients realize that they cannot afford the drugs.

The diagram below shows the effect of superimposing a decentralized administrative structure on an existing centralized system. Reports intended for use in a centralized system have simply been diverted to local administrative units. There has been little guidance provided to LCEs,

[4] There are also variations in the distribution of health workers. In some areas there are no *Barangay* Supply Point Officers (BSPO). *Barangay* Health Workers (BHW) and *Barangay* Nutrition Scholars (BNS) are always present.

mayors or governors, who normally had no background in public health[5], to interpret these reports. Local health officials apparently rarely used the data in their own planning except for targeting and coverage, were ill-prepared to tailor information to the needs of LCEs.

Devolution disrupted existing information flows in the health sector. One of the most severe dislocations affecting health service delivery and information flow resulted from dismantling the district system, in which the district hospital served as a local first-level referral facility and the repository of local technical expertise. These hospitals no longer receive reports from the municipalities in their catchment areas and now report directly to the province. They are no longer in the information and service delivery loops that previously connected them with outpatient facilities. Provinces selected to pilot test health reforms, called convergence provinces, are reinstalling the district hospital to the former key position in these loops; initial implementation of this Interlocal Health Zone (IHZ) approach is particularly active in Negros Oriental, Pangasinan, and Misamis Occidental provinces.

There are a number of health sector reporting systems which have a large amount of data flowing through them. Many of these systems existed before devolution and have not been revised to bring their contents into accord with the new decentralized management needs. The proportion of data that are actually used appears small when compared with the amount of data flowing through the system. Consequently, there is little feedback to reporting units.

The team was unable to determine the reporting completeness in the systems reviewed, so it was not possible to assess the quality of data using this simple criterion. What is clear is that data are reported late to regional and national DoH offices. The national Annual Report for 2000 has still not been produced. Late and incomplete data from peripheral reporting nodes contribute to extensive data aggregation and reporting delays. However, the provinces, cities, and municipalities visited by the team appeared to have relatively complete and up to date data. For example, most FHSIS officers said that their reporting nodes submitted quarterly forms within one month of the conclusion of the quarter. The team observed that reports were returned more rapidly if job performance ratings included adherence to reporting schedules.

Since devolution, LGUs have not been required to follow the reporting regimens requested by higher levels. LGU officers informally acknowledged that they sometimes withhold reports when negotiating differences with more central reporting levels. The national and regional offices are quite conscious that they must rely on the good will of the LGUs to submit reports. Even when reports are required in exchange for supplies, as in the logistics system for contraceptive supplies, the supplies are often replenished based on previous consumption patterns when reports had not been submitted.

[5] National DoH officers sometimes describe consulting with LGUs for their input which seems to mean health officers in LGUs only and not other public or elected officials.

Diagram 1: Public Sector Health Reporting Nodes

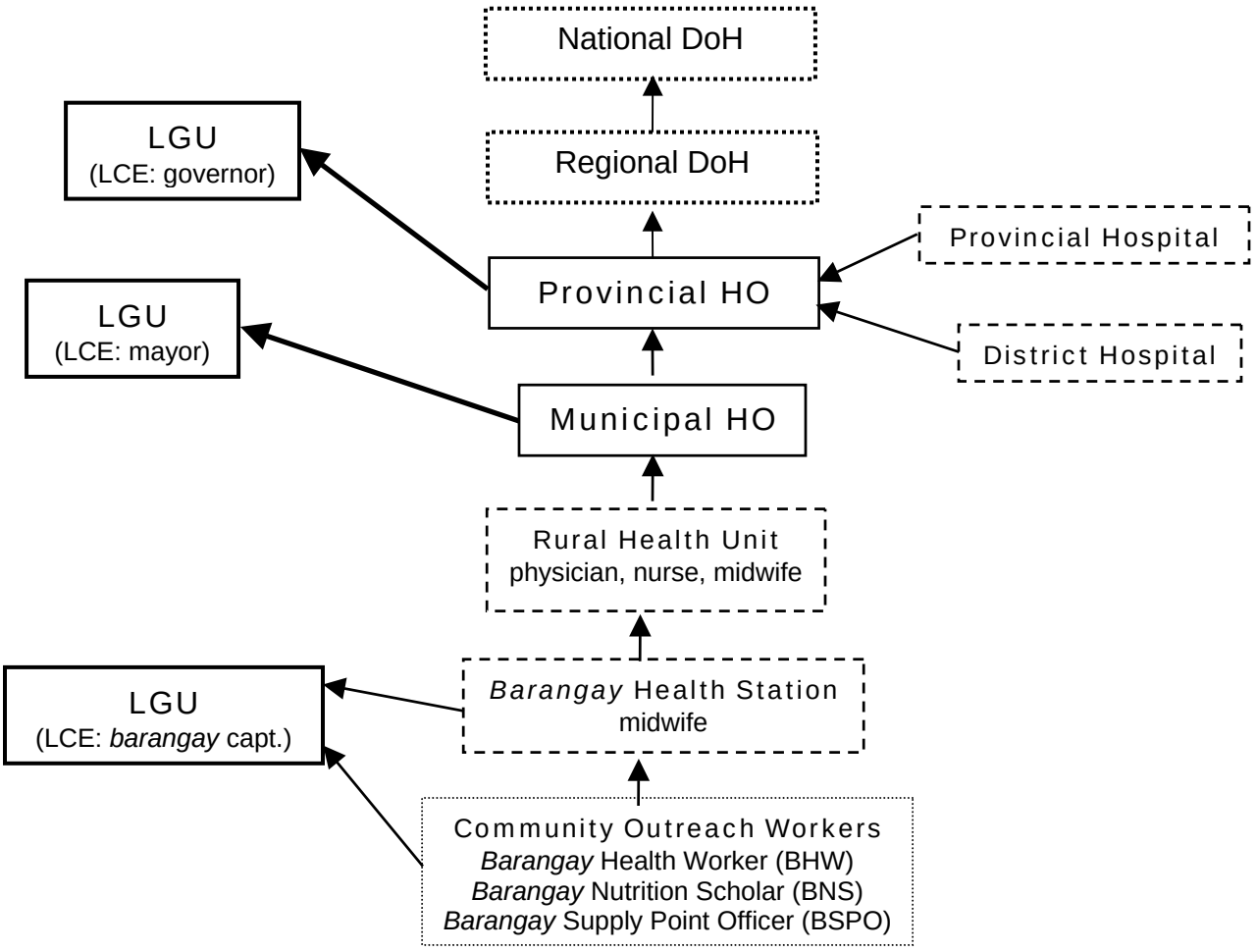

Table 2 enumerates the facilities and administrative units involved in the reporting system. As the table shows, a large number of institutions, more than 1600 municipalities, cities, and provinces, rely on the information reported through this system. If the system does not produce reliable information, the decisions made on the basis of the information may be inappropriate and result in inefficient use of resources. Attempts to improve the information system, if made independently at each institution, are more inefficient than are collaborative efforts to identify common needs and potential solutions.

Table 2: Public Health reporting facilities and administrative units - 2001

Name	Number
Region	16
Province	84
City	
Chartered	16
Component	72
Municipalities	1,507
Barangays	42,277
RHUs / CHCs	2,405*
Hospitals (Public)	644*
Hospitals (Private)	1,172*
Barangay Health Stations	15,045

Source: National Epidemiology Center – 2001
*DoH, Table 11, p. 14. from Primary Health Care (PHC) -1997

Responding to the new responsibilities introduced with devolution and health reforms, some local health offices have begun to improvise and integrate health information into local management processes. Some of these local systems innovations provide examples of best practices.

EXISTING INFORMATION SYSTEMS

To create the inventory of existing information systems mandated in Task 2 of the SOW, the team's observations focused on information systems needs and flows that are assumed nationwide and which collect information on PHC service delivery, environment, and human and capital resources, as well as morbidity and mortality data (FHSIS and vertical programs); logistics (Contraceptive Distribution and Logistics Management [CDLMIS]; vertical programs; local LGUs); and finance (health sector and local LGUs). The team did not observe two pilot test information systems that have been developed and implemented specifically in support of the HSRA. Systems descriptions were derived from DoH documentation and briefings and implementing program officers.

At the end of this section, Tables 3 and 4 provide a summary of the systems discussed below, along with an assessment of their strengths and weaknesses.

Field Health Service Information System

An important component of any health information system includes the capability of recording and reporting the activities and services of health facilities as well as on the health status of the clients. The recording of this information necessarily takes place at the facility or point-of-

service delivery; reporting extends through the various levels of the health care delivery system.

The Field Health Service Information System (FHSIS) was initially developed by the DoH in 1990 and was modified in 1996. The 1996 version, referred to as the Modified FHSIS (MFHMIS), is the official version and will be the focus of this presentation. There is also a Decentralized FHSIS (DFHSIS) version which was developed in 2001, and which is currently being pilot tested in three cities and three municipalities. The following discussion will highlight the changes in the "newer" devolved version. The older original version was found in use at the Talamban Health Center and is apparently in use throughout Cebu City. While this is unusual, some reference will be made to the Talamban implementation of the older version.

Target Client Lists

In the FHSIS, collection begins with filling out the Individual Treatment Record (ITR), a daily register of client visits. The assessment team found that all facilities recorded visits in the more complete client histories organized in family folders. Only a few facilities chose to fill out the ITR in addition to the family folders in order to provide a sequential record of visits. Information from daily client visits is transferred to the Target Client Lists (TCL), which record key details of the visit for each of four programs: maternal care, family planning, child care (including the Expanded Program on Immunization (EPI), nutrition, and Vitamin A), and disease control (including Directly Observable Short Course (DOTS), in the DFHSIS). TCLs are maintained at each reporting facility, including BHSs, RHUs and city HCs.

Program Service Monitoring

The next step in reporting the FHSIS is to fill out the monthly FHSIS report format. These monthly reports are filled out for each reporting facility and then aggregated into a single report at the MHO or CHO, before sending it on to the respective province or region. The report gives the number of clients from the TCL with a specified level of treatment, those presenting a specified condition or disease, or those adopting a desirable health behavior. The data for maternal care, family planning, child care, EPI and various disease control services are found in the copy of Form M in Annex E, Information Systems Forms (page 9). A similar Form Q (refer to page 10, Annex E), is used to report quarterly on the same data, including data on dental care.

The equivalent reports under the devolved DHFSIS have been modified in content, form and procedure. The changed procedure is such that the facility continues to fill out a monthly form with the MHO/CHO, but the information is aggregated and forwarded on a quarterly basis. This change results in a smaller number of forms being processed. The change in form for the monthly report, Form PM-M (refer to Annex E, pages 11-12) is such that the monthly data for all months are entered in columns on the single form. This represents a significant improvement, because the facility recording the data can easily compare the figures from month-to-month, or among quarters, for the entire year period. The change in the quarterly

form, Form PM-Q1 (refer to Annex E, pages 13-15), provides detailed data by facility, rather than only an aggregate number for the municipality or city. Equivalent reporting forms for the province, Form PM-Q2 (refer to Annex E, page 16) and region, Form PM-Q3 (refer to Annex E, pages 17-19) are processed and forwarded upward in the system. This allows the province or region to compare performance among facilities, as well as among municipalities or cities. Finally, the change in form content has resulted in a reduction in the amount of data being collected. Maternal care was reduced to only two datum; the number of family planning methods was reduced; all other services except for EPI were omitted from child care; dental care was omitted; and TB indicators were improved to cover DOTS while other disease control indicators were omitted. These data collection changes reduce the amount of data recorded and processed. The important question is whether the remaining data are sufficient to satisfy user needs at the provincial, regional and central levels.

Other FHSIS Reporting

Additional MFHSIS reporting takes the form of three additional annual reports. The Vital Statistics Report, A1 (refer to Annex E, page 20), provides demographic and health resource information, environmental information, and data on births and mortality. The Notifiable Diseases Report, A2 (refer to Annex E, page 21), provides morbidity figures, by sex and age group for thirty-four notifiable diseases. The Mortality Report, A3 (refer to Annex E, page 22), provides mortality figures by cause of death, sex and age group. These three reports provide basic input (A1) and outcome (A2 and A3) information, and represent a relatively minor burden in recording and processing, since they are submitted on an annual basis. The DFHSIS has expanded and modified their annual reporting formats to ensure they are consistent with the changes in the quarterly reports.

Vertical Program Reporting

The data which are reported through the MFHSIS are designed to monitor the overall performance of the health care system, but do not provide the detailed information which vertical programs, such as the Family Planning Services (FPS) or EPI, may need to identify reasons for poor performance or for lack of compliance with specific treatment strategies. The original FHSIS included forms for more than twelve different programs, but many were omitted as official components to the MFHSIS. While it was difficult to recreate how the original FHSIS operated, the team assumed that some program forms may have been used to aggregate the data that went into the FHSIS form.

It is clear that the purpose for modifying the FHSIS was to simplify and reduce the reporting requirements placed on the facilities. The problem with this strategy was that many of the vertical health service programs stated that the detailed data and reporting forms were required for monitoring and management purposes. As a result, the programs continued to require that the forms be completed by the facilities and processed up the system through all the various levels.

The assessment team was not able to investigate the situation with program reporting in the level of detail that may be necessary. It appears, however, that there is not currently a consistent means for collecting and utilizing this type of information. With health reform devolution, the central level programs lost the authority to require reporting from the LGUs. Most LGUs continue to collect program specific data and process reports up to the provincial or regional offices, but there seems to be considerable variation in content and form. In some areas, such as in Pangasinan, where the provincial health and population offices are strong, the team found innovative and effective collection and use of program specific data. What was missing was a mechanism for other health system services to learn from these innovations. While there may be some indication that the central level offices and programs are requesting more information than they actually need, it is clear that this kind of information continues to play a key role at the service delivery level.

Disease Surveillance and Control

Three disease surveillance and control systems were identified: the National Epidemic Sentinel Surveillance System (NESSS), the Community-Based Disease Surveillance System (CBDSS), and HIV/AIDS Surveillance System.

1. **National Epidemic Sentinel Surveillance System (NESSS)**
   The NESSS is a hospital-based information system operating in hospitals with an approximately two hundred-bed capacity, a functioning laboratory, and communications facilities. The system operating principle involves early data capture, analysis, outbreak investigation and control measures. Two categories of diseases are included:

   - Laboratory diagnosed:
     cholera, hepatitis A, hepatitis B, malaria, typhoid fever

   - Clinically diagnosed:
     dengue hemorrhagic fever, diphtheria, measles, meningococcal disease, neonatal tetanus, non-neonatal tetanus, pertussis, rabies, leptospirosis

The above diseases have been identified because each causes high morbidity and mortality; can cause epidemics; and can be prevented and accurately diagnosed.

The NESSS employs two types of surveillance:

- Passive – in which the health unit receives disease reports from private practitioners, individuals, and other health units; and

- Active – in which the unit contacts reporting sources at regular intervals to obtain disease reports

The NESSS is supported by the national laboratory at the Research Institute of Tropical Medicine (RITM), the Centers for Disease Control and Prevention (CDC), the Polio Referral Laboratory in Australia, and the World Health Organization (WHO).

2. **Community-Based Disease Surveillance System (CBDSS)**
   The CBDSS functions on a pilot basis and is based in a local government health facility with access to a laboratory. It relies on community sources and the FHSIS for specific disease reports. The same operating principles adopted by the NESS are applied to this system.

3. **HIV/AIDS Surveillance System**
   The HIV/AIDS Surveillance System is limited to eight cities in the Philippines and is designed to monitor population groups considered to be at high risk for HIV/AIDS. These groups include commercial sex workers, both registered and freelance, their clients, males with sexually transmitted diseases (STDs), and injecting drug users.

   The HIV/AIDS Surveillance System employs two methods (tests are done twice per year):

   - Behavioral Surveillance – which is aimed at identifying disease prevalence and changes in risk behavior; and

   - Sero-surveillance – which tests blood samples of high risk HIV/AIDS target groups.

Community-Based Targeting of At-Risk Populations

One of the shortcomings of the FHSIS, and of other facility-based reporting systems, is that they only report on clients who arrive at the facility. With increased priority being placed on identifying and reaching marginalized or hard-to reach populations that do not avail themselves of the existing health care delivery system, it becomes important to develop tools which extend beyond the immediate facilities. While promotional mass media campaigns can help to reach out to these populations, the only certain method to identify the at-risk population is through a community-based approach.

Community-Based Monitoring and Information System

Under the USAID-funded Matching Grant Program (MGP), Management Sciences for Health (MSH) assisted in the development of a methodology for house-to-house surveys for identifying unmet needs for family planning, immunization, and vitamin A services. The methodology involves a comprehensive master-listing of a *barangay* by a team comprised of *barangay* health workers and midwives over a period of approximately two weeks and was originally carried out in only a few of the more problematic *barangays* in those municipalities

or cities participating in the MGP. For all households on the master list, information is recorded which allows for risk identification in each of the three service areas. This risk identification is then used by the BHS team to develop intervention strategies for "capturing" the at-risk client, including the use of "call slips" encouraging the client to present at the facility on a prescribed date.

During the assessment site visits, the team found positive reactions from health workers involved with CBMIS. It seemed to motivate staff and act as a catalyst for developing and applying good action planning and follow up. That enthusiasm has led to some municipalities or cities wanting to implement the methodology in all of their *barangays*. There was general consensus that, where the CBMIS was implemented, there was significant success in reaching the at-risk population. However, it was not clear, how many "new" clients were being found through master-listing. There was also consensus that the methodology is very resource intensive in terms of personnel time and materials requirements. At the current time, it does not appear to be replicable and sustainable beyond the pilot applications in the MGP LGUs.

The selection of the name for the CBMIS is unfortunate, because the use of the term "monitoring" implies that it can be used as an ongoing survey tool for monitoring program accomplishments. Several LGUs talked in terms of repeating the master-listing survey on an annual basis. There is concern that staff tend to focus on the routine monitoring uses while losing sight of its basic purpose of identifying strategies for reaching at-risk clients. Management Sciences for Health acknowledges that the survey could not be carried out on a regular basis due to resource constraints.

Pangasinan Experience

During the team site visits, it was noted that the CBMIS development grew out of work carried out by the Provincial Population Office in Pangasinan beginning in the mid-1990s. Currently they are implementing an annual master-list survey which, by 2003, will cover a total of 1333 *barangays* in 47 municipalities and in two component cities. The survey is based on a three-part form (refer to pages 23-25, Annex E), where Part A identifies risk factors for all married women of reproductive age (MWRA), and Part B identifies those MWRAs with an unmet family planning need. In Part C, a two-part code is entered on a monthly basis for each MWRA: a letter code for the type of method used and a numeric code indicating action taken, such as resupply referral or counseling. Until recently this data has been aggregated by the *barangay* and municipality or city using an Excel spreadsheet. The Futures Group is now working with them to test an SPSS application, which provides more sophisticated analysis of the data.

One must hasten to add that the Pangasinan population program is well organized and well staffed with about 1700 BSPOs, and has benefited from significant external donor support. It is also one of the convergence sites for testing health reforms; these sites are acknowledged as being among the most progressive and capable in the country. The team found no additional example of similar conditions that approximated the model situation found in Pangasinan. It

serves, however, as a good example of what can be accomplished when strong capacity and sufficient resources are joined.

Other Approaches

The CBMIS work has demonstrated the importance of developing intervention strategies based on a survey of all households in a *barangay,* as opposed to working only with those persons who arrive at a facility. The approach was overly burdensome to the point of being impractical for expansion to a large number of areas or for periodic repetition, and therefore, was limited in scope to family planning, vitamin A and immunization services. It may, however, be practical to combine aspects from other approaches which could reduce the implementation burden, while allowing for a broader range of programmatic areas to be included in the development of intervention strategies.

Helen Keller International, with USAID funding, has been providing information systems reengineering and management support to selected LGUs. Based on a management cycle approach which includes assessment, planning, training, implementation, monitoring, supervision, and evaluation, a process was developed to better target groups using cluster surveys from the Field Epidemiology Training Program (FETP) standard for EPI sampling. This approach is believed to be community-based because it uses the entire community population as the base rather than the population of facility users only. The approach has been used successfully to target pockets of high risk households.

The TCLs discussed under the FHSIS have the potential for fulfilling the need for a total population-based targeting tool. The assessment team's experience with the field TCLs is that, the target is based on at least one client visit to the facility. The targeting ensures that clients are in full compliance with the indicated follow-up and treatment. In some cases a facility would state that the list only included clients who had visited the facility, while others indicated that the BHWs are fully aware of the situation in their assigned areas, and would add women or children whose condition (such as a pregnancy or birth) would require basic services.

Because the TCL is a tool that exists and is universally used in the Philippines, it would be practical to build upon this tool as opposed to creating a new one. However, it is useful to understand the extent to which the current TCLs do not reach the total population of the facility's catchment area. An effort should be made to systematically compare the results of the CBMIS with the TCLs from the same *barangay*, in order to determine the extent to which new clients are actually being found. The HKI cluster surveys used for targeting could also be compared to the *barangay* TCLs to determine whether there are a significant number of households in the survey sample that are not found on the lists.

In those cases where the TCLs are not capturing all of the targeted clients, steps should be taken to improve this situation. One approach would be to develop and maintain an updated household master list of basic information such as sex, age and condition (such as pregnancy) for each member of the household. There is some indication that such a master list concept is

already in use in many *barangays*. Each TCL can then be periodically crosschecked with the master list to assure that all appropriate persons are included.

Facility Assessment and Certification

The above description of information systems has focused on collecting information related to health system outputs in the form of activities carried out and services delivered, as well as on outcomes in the form morbidity and mortality rates and levels of protection. However, to better understand health system performance and to develop strategies for system improvement, it is necessary to also monitor the resources available. Assessing the infrastructure, personnel, and processes in place at the facilities helps to provide a measure for comparison and for the identification of areas for improvement.

Under the LGU Performance Program (LPP), a Situational Analysis (SA) tool was developed to assess a facility's capacity, stated in terms of trained personnel and availability of required supplies and equipment. The information is used by LGUs to develop comprehensive plans and to target resources to raise substandard facilities to a minimum standard. This initial SA tool has expanded and evolved into what is now called the Sentrong Sigla Certification Program.

The assessment and certification of health facilities is done by national agencies, namely, the Department of Health (DoH) and the Philippine Health Insurance Corporation (PhilHealth).

Sentrong Sigla (the new facility certification program) specifies standards in several different facility areas including core public health services, basic curative care services, facility, environment and systems, and regulatory services, as well as focusing on processes and procedures. Three different levels of certification are provided for under Sentrong Sigla: Level 1–Basic Certification, Level 2–Specialty Certification, and Level 3–Certification of Excellence. Incentives for raising certification levels include the use of special SS seals, banners and trophies, as well as financial incentives linked to the Matching Grant Program.

1. **Sentrong Sigla**
   Since all rural health units in municipalities and health centers in cities are administered by the LGUs, the DoH no longer determines the quality of services provided. The Sentrong Sigla Certification Program objectives are to raise the level of quality of services and to ensure that facilities are client-friendly. The following are the requisites for accreditation:

   - Client-friendly infrastructure and amenities
   - Services include all DoH impact programs and disease surveillance
   - Desirable and friendly attitudes of health workers
   - Skilled personnel complement
   - Equipment includes capability for sputum microscopy
   - Available essential drugs, medicines and supplies
   - Functional Health Information System (HIS) including referral system
   - Community intervention through skilled BHWs

Compliance with all of the requisites entitles the unit to fund which can be used for development, such as purchase of additional equipment or training. Accreditation can be withdrawn if standards are not maintained.

There is a separate certification which is used by PhilHealth, the health reform insurance scheme, for the indigent population. The PhilHealth certification process is more rigorous than that of Sentrong Sigla, particularly in the area of facility infrastructure and laboratory capability. The incentives for PhilHealth certification are also more attractive than Sentrong Sigla, because PhilHealth covers only patients (capitation or fee for service) of a certified facility. The potential for additional financial remuneration for drugs in certified facilities is also being considered.

2. PhilHealth

- All LGU RHUs/HCs with a laboratory and a medical technologist may apply for accreditation with PhilHealth if the LGU has enrolled its indigent constituents under the Medical Indigency Program. This program sets unit capitation funds according to the number of employees. The fund can be used for the health facility only.

- RHUs / HCs without laboratory and medical technologists may apply for accreditation with PhilHealth if the LGU has enrolled all or part of the indigent population with PhilHealth, under the Medical Indigency Program; it may be entitled to capitation funds under the following conditions:

    - The RHU/HC is part of an inter-local health system.

    - The RHU/HC has an existing referral system with a laboratory facility owned and managed by the LGU, under the same inter-local health system.

    - The RHU/HC is located at a reasonable distance from the referral facility, as determined by the Accreditation Committee.

In both instances, compliance with requirements must be sustained in order to maintain the accreditation and entitlement to capitation funds.

Facility certification could be useful information for determining quality of services, but it is not clear whether LGUs are using this information for planning investments. Both the Sentrong Sigla and PhilHealth accreditation systems are relatively new which has led to confusion between the two separate but similar certification programs.

Commodity Distribution and Logistics Management Information System

A prerequisite to any discussion of procurement and logistics information systems is an understanding of two different supply strategies. The full supply strategy operates on the assumption that all program needs must be met and all clients must be provided with the product that they require. The rationing strategy acknowledges that there are not sufficient resources to meet the requirements of all clients, and therefore, it is necessary to make decisions regarding which clients will receive the free product and which clients must purchase the product, or do without.

Through the early 1990s, contraceptive commodities and other drugs and medical supplies were procured centrally by the DoH and distributed out to the regions, provinces and chartered cities, urban health center and rural health units. Pills and condoms were distributed to the *barangay* health stations. However, by the end of 1991 the system was in such disarray that was considered non-functional in terms of knowing what was happening to products at the lower levels.

Contraceptive Distribution and Logistics Management Information System (CDLMIS)

Beginning in 1991, with USAID funding provided to the DoH and to the JSI/FPLM project, work began on development of a new separate distribution and logistics system for contraceptives. During much of the 1990s, John Snow, Inc. (JSI) provided total financial support and staff to operate the computerized system. Beginning in 1999, there was a gradual reduction in JSI support for the CDLMIS and, at the same time, CDLMIS operations were transferred from the DoH Family Planning Service (FPS) to the Procurement and Logistics Service (PLS).

The CDLMIS has matured into a successful system for planning and controlling contraceptive distribution and logistics. Much of this success came from the development of simple, user-friendly forms, and staff training in their proper use at all levels of the system. The assessment team found that use of the Contraceptive Order Forms (refer to Annex E, page 26) continues to be the basis for determining requirements and for ordering supplies in the facilities. At the request of the DoH, its use has been expanded to include essential drugs and commodities for support of TB, vitamin A, Acute Respiratory Infections (ARI), and Diarrhea Disease Control (CDD) programs but was done on a pilot basis only.

Other Procurement and Logistics Issues

Just as many of the requirements for and movement of contraceptives are controlled and managed by the central level Family Planning Program, other key programs, such as EPI and TB, are responsible for ordering and providing the required products for the health facilities. A Contract Distribution System (CDS) has been implemented within the PLS to use the private sector for more efficient transportation to the local facilities. It appears that the procurement and logistics systems are functioning efficiently.

Under health reform devolution, the burden of procurement and supply has shifted to the LGUs. The procurement and funding of essential drugs previously managed by the DoH, is now the responsibility of the provinces, cities, municipalities and, in some cases, *barangays*. Even with some DoH support, the supply of essential drugs is seldom more than 30 percent of actual requirements. A Philippine contraceptive self-reliance initiative is currently being pilot tested in Pangasinan; there are similar pressures on other program-specific drugs and supplies.

As procurement is pushed to lower levels of the health system, unit costs increase due to the loss of economies of scale. New coordinated procurement strategies are needed to offset this tendency. With tighter budgets, medicines and supplies previously treated as full supply items may be subject to rationing. This has potentially serious ramifications for the quality and effectiveness of health care services. Consideration must be given to balance the tradeoffs between full supply and rationing strategies, with consideration given to reduced or subsidized pricing versus free distribution to fewer clients.

Over the next several years, it is anticipated that the drug and supply procurement and logistics situation will be quite fluid, with multiple funding and procurement sources, and distribution channels. The LGUs, municipalities, and charter cities will need to assume greater responsibility and control of the procurement and logistics processes. All LGUs visited by the team are struggling with inadequate funds for drugs, commodities, and supplies. Some LGUs have begun to experiment with innovative procurement and fund-raising schemes. While they seem to be coping with the current situation, more flexible systems may be required to better manage the LGUs' expanding role in procurement.

Financial Management Information Systems

Generally, the responsibility for overall LGU income and expenses resides with the offices of budget, treasury and audit. The treasurer submits an estimate of expected income through the finance cluster to the mayor. This health sector estimated figure then is incorporated into the budget prepared by the LGU executive department, which is responsible for compiling all the proposed budgets of the individual departments, after each department has provided justification.

The annual budget of each department is supported by a Work and Financial Plan (WFP) and information provided in the following documents:

- Plantilla of personnel for regular employees and a listing of casual employees
- Annual Procurement Plan for supplies and materials of the Maintenance Operating and Other Expenses plan (MOOE)
- Proposals for capital outlay are specified as follows:
    - Annual Investment Program for projects (AIP)

- Local Development Investment Program for equipment (LDIP)

In practice, most Local Chief Executives (LCE) rarely consider the Annual Investment Programs (AIP) and the Local Development Investment Programs (LDIP) of individual departments, but rather use their own priorities to establish budgets. Understandably, the approach of the LCEs can potentially affect the delivery of services. Strong advocacy by health officers is necessary to argue their case with the LCE.

Under the New Government Accounting System (NGAS), which is currently being piloted in a few areas in the country, LGUs are mandated to calculate their financial ratios on a regular basis using procedures such as the Acid-Test Ratio and Debt-Equity Ratio, among others.

The national government Department of Budget and Management (DBM) is required to review and approve the 20 percent development component of the LGU budget. The budgets of municipalities and component cities are approved by the provincial *Sanggunian*, or provincial legislature, before implementation. The mayor can implement budgets of special and highly urbanized cities, after enactment by their respective city councils and subsequent signature.

The assessment team did not have an opportunity to explore in depth the financial management information systems, but they are important given the complex and changing environment of funding sources and expenditure categories. Since the LGUs had their own accounting and finance systems in place at the time of devolution, the systems will need to be or have been modified to meet the demands created by devolution. The information presented regarding health system inputs monitoring (infrastructure, personnel, drugs and supplies) are important, but it is in the financial management system where these separate inputs are brought together to form a single picture.

Just as it is important for health service providers to plan and program service delivery activities and to monitor their results, adequate resources must be provided to budget and account for them. The LGUs must monitor income received from different levels and sources including in-kind resources as well as donations. They must budget and control expenses, using not only standard accounting categories such as personnel or medicines, but also establishing fixed cost centers representing programs and services directed at specific health objectives.

Financial management concerns at both the city and municipality, and the CHO and MHO levels, require closer scrutiny to determine which functions are currently in place and which management practices are missing or inadequate. It would be preferable if this examination includes other concerns beyond the immediate needs of the health sector, in order to avoid the creation of a separate single purpose system. Identification of local best practices is an excellent way to begin.

Management Information Systems in the Context of Health Reforms

With reference to section I. Context: Health Sector Devolution of this report, this section will discuss the effects of devolution on local health sector management.

When devolution was enacted in the early 1990s, existing health sector managers were asked to perform new tasks for which they were ill-equipped due to lack of training or experience. While mid- and senior- level managers may have experience in organizing immunization campaigns, vehicle pools, supply distribution, and other program operational activities, they usually have little experience or training in health systems management. Managers whose careers have been spent in a highly centralized system that may not reward independent thinking, have no idea how to approach tasks such as prioritizing different programs within the health sector, devising innovative financing schemes, or persuading non-technical LGU officials to invest resources in health.

In the late 1990s, the Health Sector Reform Agenda (HSRA)[6] articulated a set of principles to guide systematic reform of health care management to improve the management of health care resources and the health of the Filipino people. The HSRA is the blueprint for how to deliver, regulate, and fund good health care. Its five pillars identify five major health sector areas at the core of reform:

- Hospital Systems – including establishing the Interlocal Health Zone (IHZ), based on agreements among LGUs to share the use of existing district hospitals
- Public Health Systems – including increasing investment in the public health sector
- Local Health Systems – including advocacy and training for LGU officers in health sector management and financing
- Health Financing – including increasing attractiveness of national health insurance
- Health Regulation – including improving regulatory mechanisms

[6] The DoH has an interesting web site: http://www.doh.gov.ph/hsra2/ which includes information on the status of reforms.

The HSRA is being piloted tested in fifteen provinces and their corresponding regions.

Table 3: Convergence Provinces

Region	Province
Region 1	Pangasinan
Region 2	Nueva Vizcaya
Region 3	Bulacan
Region 4	Palawan
Region 5	Catanduanes
Region 6	Capiz
Region 7	Negros Oriental
Region 8	Southern Leyte
Region 9	Zamboanga del Sur
Region 10	Misamis Occ
Region 11	South Cotabato
Region 12	North Cotabato
Region 13	Agusan del Sur
CAR	Ifugao
NCR	Pasay City

The convergence provinces were selected based on their perceived ability to successfully implement the HSRA. Each site may implement the HSRA according to its own specifications. The objective is to begin the devolution process in sites which could serve as innovative, learning models for replication and extension to other area. The team observed operations in the convergence province of Pangasinan, which also serves as a test site for implementation of a contraceptive self-reliance system. The provincial and municipal health offices exemplary use of evidence-based decision-making has incorporated routine HIS sector analysis and planning, with innovative alignment of hospital, program, and LGU financial systems.

The complicated aspects of this pilot testing are coordinated by the Bureau of International Health Cooperation (BIHC) which is responsible for coordination of several donor-funded health systems programs: the Integrated Community Health Services Project (ICHSP), implemented by the Asian Development Bank (ADB) and the Australian Agency for International Development (AusAID), and the Local Health Systems Development Component of German Support to the Philippines Health Sector (GTZ). BIHC also coordinates and guides the activities of bilateral and multilateral donors that support programs in the convergence provinces. Other donor activities coordinated by BIHC include: The World Bank, European Union (EU), and Japan International Cooperation Agency (JICA). Consequently all donor-assisted information systems efforts which aim to improve communication between LCUs and LGU medical officers will be coordinated through the BIHC.

Integrated Community Health Services Project (ICHSP)

ICHSP, implemented by ADB and AusAID, was approved in 1994 to develop support systems for the health sector devolution and to strengthen the skills of LGUs to more effectively manage the health sector. The project is implemented in the same HSRA convergence sites; systems development and testing has proceeded in six sites, four of which are ADB-funded and two are AusAID-funded. Replication of these systems to seven new convergence provinces has begun. The project is scheduled for completion in December of 2003.

Initial ICHSP plans called for the development of six information systems designed for the LGU level and below:

- Integrated health planning
- RHU/Hospital management information system
- Health finance
- Health referral
- Human resource planning
- Beneficiary

Of these systems, the first four on the list are considered sufficiently mature and ready for replication elsewhere.

The initial designs of the systems were based on a high level of IT infrastructure, including Local Area Networks (LAN), Wide Area Networks (WAN), and broadband connections. This approach was eventually found to be infeasible, but a comprehensive redesign of the systems has not yet occurred. Meanwhile, each system has been partially redesigned to simplify and allow for wider use of manual procedures.

The RHU/Hospital Management Information System was initially intended to provide the structure for FHSIS operations. Unfortunately, this design premise changed when automation was scaled back.

ICHSP has been active in a variety of geographic and programmatic areas. For example, the team observed the use of sturdy oversize forms for graphing immunization performance and identifying service targets by the BHSs and RHUs. The German Society for Technical Cooperation (GTZ) reported that ICHSP developed a technique for preparing local health accounts at the provincial level and modeled on the national health accounts. GTZ plans to extend this methodology to the municipal level.

It is anticipated that ICHSP will be evaluated in the near future. The lessons learned from this evaluation will contribute to understanding the complexities, pitfalls, and opportunities in implementing information systems in support of health reform.

Local Health Systems Development Component of GTZ

GTZ began working in the convergence province of Southern Leyte in March, 2002 and is expected to continue for a maximum of ten years. The project works within the framework established by the Health Sector Reform Agenda (HSRA) and emphasizes four components for local health systems strengthening:

- Health Plus – focused on pharmaceuticals
- Family Planning and Reproductive Health
- Health Insurance – as implemented by PhilHealth
- Integrated Local Health Systems

A Memorandum of Agreement was recently signed that links five municipalities in an Interlocal Health Zone (IHZ) structure and based at the former district hospital in Sogod.

The project plans to use a sample survey methodology to establish baseline needs and periodic follow-up surveys to monitor change. The following information areas are included in the baseline survey:

- client satisfaction
- health insurance coverage
- service utilization
- other health sector indicators
  - contraceptive prevalence rate
  - immunization coverage
  - health expenditures

The survey will produce statistically valid results at the IHZ level, and then, feed into implementation at the LGU level (both provincial and municipal). The baseline survey has been completed, with results expected in the third quarter of 2003.

While the Local Health Systems Development project is in its initial stages, the lessons learned from using and testing planning and monitoring survey methodologies are expected to be informative. The survey-based information systems are not intended to replace existing routine information systems, as were the ICHSP systems.

Table 3: Information System Function, Data Source, and Reporting Line

Information System	Function/Content	Data Collection/Source	Aggregation, Reporting	Comment/Observations
Vital Events	Birth and Death Municipal Registers	Issuance of birth and death certificates by municipality (incentives to register)	Source of some FHSIS TCL data and FHSIS annual delivery and mortality data	Most LGUs visited have credible vital events registries; self-reporting completeness is variable, especially in private care seeking, transient or remote populations
Medical Records	Medical record, including vital signs	Family folders with forms for each family member exist; may use program-specific forms (e.g., MCH, FP)	Used by care providers for patient management and source for completing TCLs	Medical records appeared well kept even when TCLs out of date
Field Health Service Information System (FHSIS) – Target Client Lists	Maintain key client data for maternal care, child care (including EPI, nutrition, and vitamin A), family planning, disease Control, and dental	Data collected (usually daily) at the facility (BHS, RHU) by midwife or PHN by reviewing clinical histories from client visits	TCLs maintain current on continuous basis, reporting through FHSIS Monthly Reports	Under decentralized FHSIS nutrition, leprosy, dental and CDD omitted; TB modified for DOTS
FHSIS – Monthly, Quarterly	Report key client data for maternal care, child care, EPI, nutrition, family planning, disease control, and dental	Midwives and PHNs collect data by reviewing TCLs and summarizing on the monthly form	Data are aggregated at the RHU/MHC to include BHS data; data reported quarterly up to province, region and central; aggregated at each level	For the MFHSIS the Quarterly report has same form as monthly; DFHSIS provides columnar reporting for comparisons; DFHSIS dropped additional data

Information System	Function/Content	Data Collection/Source	Aggregation, Reporting	Comment/Observations
FHSIS – Vital Statistics Report	Provides background data on city and municipality including demographic, environmental, birth and mortality	Information maintained at MHO/CHO and updated annually; birth and mortality from Vital Statistics Register	Reported to province, region and central; disaggregated one level down maintained throughout reporting	In DFHSIS, natality provided from BHS data as well as Civil Registry
FHSIS – Notifiable Diseases Report	Provides notifiable disease data by disease, sex and age groupings	Data are collected from communicable disease reports and tabulated on an ongoing basis at the RHU/MHC	Annual reports generated by the RHU/MHC and sent to province and/or region, and then to central DoH; information remains disaggregated at RHO/CHO level	DFHSIS has two forms, the second of which includes detail for each week of the year
FHSIS - Mortality Report	Provides mortality data broken down by cause, sex and age groupings	It is not clear the data source but it is most likely the civil registry	Annual reports generated by the RHU/MHC and sent to province and/or region, and then central DoH; information remains disaggregated at RHO/CHO level	This Report does not appear in the DFHSIS documentation; was some indication the FHSIS include annual tabulation of general disease morbidity
Vertical Programs	Vertical program reporting appears more detailed; information for maternal care, child care, EPI, nutrition, family planning, disease control, and dental	Data are collected at the facility but form and content varies significantly among LGUs	Individual programs have reporting requirements for the flow of service and status details; report to central program offices	Vertical forms were included in original FHSIS but dropped from the modified version

Information System	Function/Content	Data Collection/Source	Aggregation, Reporting	Comment/Observations
Pangasinan Family Planning Monitoring	Detailed, three-part form tracks master listing, risk identification, unmet need, and monthly status and service delivery	Master listing, risk and unmet need data through annual survey and continuous update; monthly status and service data recorded on form by BSPO in *barangay*	Data from *barangay* forms entered into computer at provincial population office; analysis performed and reports sent to region and central levels	Pangasinan Family Planning was most sophisticated program system reviewed (possibly due to high level of support over several year period)
Community-Based Monitoring and Information System (CBMIS)	Provides vaccination and vitamin A supplementation status for children, TT vaccination status, FP unmet need, and contraceptive use status	Data from all families collected via survey by Midwives and BHWs in select b*arangay*, usually on one-time basis	Data is analyzed by b*arangay* health team; at-risk women and children identified for priority targeting during intervention planning	Good for motivation in work planning but resource intensive and may not be practical for repetition or replication on larger scale
Community-Based Disease Surveillance System (CBDSS)	Provides data on selected diseases for outbreak investigation and action (LGU-based)	Reports from residents and private health providers	Data are aggregated at LGU level and reported to higher DoH level	Only operational at a few pilot sites
National Epidemic Sentinel Surveillance System (NESSS)	Provides information on selected diseases and data for investigation and action (sentinel health facility-based)	Active data collection from hospitals and private health providers	Data are aggregated at sentinel site level and reported to regional DoH epidemiologist	Only at seven sentinel sites in seven cities

Information System	Function/Content	Data Collection/Source	Aggregation, Reporting	Comment/Observations
Contraceptive Distribution and Logistics MIS (CDLMIS)	Provides basic information on contraceptive stock levels, use rates, and restocking requirements	Contraceptive order form records stock on hand, quantity used in period, quantity and amounts required and delivered at facility (BHS, RHU, HC).	Reports from BHS aggregated to data from RHU or HC; municipal data reported to province and city data to region for re-supply; aggregate data reported to DoH	Developed and operated with extensive support, but now seems to be functioning independently within the DoH Procurement and Logistics Service
Logistics for Other Programs	Not reviewed in detail	Not reviewed in detail	Not reviewed in detail	EPI, TB and vitamin A programs have similar procedures for determining requirements and tracking supplies
Logistics at LGU Level	Not reviewed in detail	Not reviewed in detail	Not reviewed in detail	Increased variation in funding, procurement and distribution increasing burden on LGU ability to manage effectively and efficiently
Sentrong Sigla Certification	Not reviewed in detail.	Not reviewed in detail	Not reviewed in detail	Provides for good quality assurance (QA) process but may be too complex (i.e., requiring significant TA and training)
PhilHealth Certification	Not reviewed in detail	Not reviewed in detail	Not reviewed in detail	Rigorous standards, particularly for lab equipment, but provides qualification for insurance reimbursement

Information System	Function/Content	Data Collection/Source	Aggregation, Reporting	Comment/Observations
Integrated Community Health Services Project (ICHSP) - joint ADB and AusAID	Information systems for health reform implementation in convergence sites	Six sub systems planned: - integrated health planning - RHU/hospital management information system - health finance - health referral - human resource planning - beneficiary (Top four ready for replication)	LGU level highest reporting level; presumed aggregation at appropriate levels in reporting chain	Initial system implementation based on overly optimistic assessment of IT infrastructure; retrofitting manual procedures has taken time; subsystems being replicated; project completes late 2003 and will be evaluated in near future
GTZ Local Health Systems Development Component	Information systems for health reform implementation in convergence sites	Baseline collection and monitoring on sample survey basis: - client satisfaction - health insurance - utilization Sector Indicators: - contraceptive - prevalence rate - immunization coverage - health expenditures	LGU level highest reporting level; potential to correlate and stratify characteristics at client level	Project began implementation in March 2002, potential for extension to 2012; main focus on HRSA implementation; IS to support this; baseline survey complete, with results expected in 3rd quarter 2003

Table 4: Strengths and Weaknesses of Existing Information Systems

Information System	Strengths	Weaknesses
Field Health Service Information System (FHSIS)	Familiar system which is accepted and used throughout the public health care system. TCLs provide potential for good detection of at-risk clients	Aggregated report forms contain raw data, not indicators. They are not immediately useful for monitoring. Does not address need for detailed program information by central level or facilities or HO levels.
Vertical Program Reporting	Some detail in program reporting important for operational decision-making at local level	Not clear that central level programs need the detail of information requested. No consistency in program reporting formats used at the facility level
Disease Surveillance and Control	The NESSS provides rigor and precision for infectious disease detection. The CBDSS, if expanded, has potential for detecting/investigating more diseases at earlier time.	NESSS may not provide timely and complete detection due to sentinel nature.
Community Based Monitoring and Information System. (CBMIS)	CBMIS provides useful example of benefits in focused risk targeting and intervention follow up. Pangasinan model provides example of effectiveness of CBMIS under ideal resource conditions.	CBMIS too resource intensive for periodic use or significant expansion. CBMIS does not link or relate to appropriate TCLs.
Facility Assessment and Certification	Sentrong Sigla based on sound QA approach. PhilHealth certification provides positive incentives through link to health care insurance coverage of costs.	Sentrong Sigla is complex and will require significant training and technical assistance.

Information System	Strengths	Weaknesses
Procurement and Logistics Information System (CDLMIS and CDS)	CDLMIS provides good example of well designed, effective procurement and logistics system. CDS provides private sector efficiencies to product distribution.	Need for integrated procurement and logistics system at central level. Need for procurement and logistics system oriented to local needs. Impact of contraceptive self-reliance approach uncertain.
Financial Management Information Systems	A well functioning financial management system provides overview of all resource inputs. A system for budgeting and tracking expenses by cost centers (programs) provides better control over programming activities.	
Integrated Community Health Services Project (ICHSP)	Comprehensive set of information systems to support management in areas of planning, service delivery, referral, and finance in HSRA model. Project will be evaluated in near future.	Unrealistically high level of IT infrastructure assumed; required simplification and retrofitting of information systems to manual procedures.
Local Health Systems Development Component of GTZ	Survey-based methodology captures private sector utilization and consumer health care expenditures.	Limitations of survey methodology in ongoing monitoring and implementation not yet known.

MANAGEMENT FUNCTIONS AND DATA REQUIREMENTS

To complement the preceding discussion of inventory and analysis of health information systems, and to complete the analysis suggested in task 3 of the SOW, "Examine the strengths and weaknesses of the existing systems in meeting local health information needs," the team prepared a list of information needs at each system level, focusing on the LGU level.

Barangay Health Station / Rural Health Unit / Health Center Level

- **Identification/follow-up/monitoring of targets**
  Targets groups should be specified according to category, location, movements into or out of the service area, and utilization of services.

- **Target risk identification**
  Different target group categories may have different risk factors (e.g., age-related maternal risks, hypertension, or malnutrition in children).

- **Monitoring performance**
  The service unit should monitor service quantity, and time, and be able to identify negative slippages.

- **Identification of and comparison with standards of performance**
  All units must know and agree to performance standards.

Municipality / City / District / Provincial Health Office Level

- **Monitoring performance of service units**
  This allows measurement of individual service unit performance, as well as comparison with other units. Then the performance of all units in the aggregate can be measured.

- **Determining and monitoring resource allocation**
  Resources must be distributed judiciously, according to priorities based on realistic criteria.

- **Measurement of impact**
  The outputs of service units will be weighed against desired states of health, as in evaluating EPI coverage and the incidence of EPI diseases.

- **Forecasting**
  Estimates of target numbers projections allow for future resource planning, or for changes in resource allocation priorities due to in increased vaccine requirements or in reassignment of personnel, for example.

- **Preparation of Reports to Local Chief Executives (LCEs)**
  LCEs may not be routinely included in the reporting and feedback loop in the health information system. In the context of health reform devolution, the main responsibility for health rests with the LGUs. This may require the modification of regular health reports so they are more concise and easily usable by the LCEs.

- **Advocacy**
  Health personnel need to prepare adequate and persuasive information in order to convince other sectors to join the cause for health.

Local Government Unit Level

- **Allocation of resources for health**
  The health sector competes with all other sectors for the same scant LGU resources. Therefore, LCEs need hard data to support their decisions regarding resource distribution, or to acquire new ones for the health sector.

- **Enactment of health policies**

Typical health policies are administrative orders within the LGU, or ordinances to ensure compliance with health requirements, or to foster desirable health behavior. These must be taken into account when the LGU is required to redistribute resources from other sectors to health, or to ensure coverage of the total population with specific health services as mandated by these policies.

- **Advocacy for health**
  The LCE and the LGU can be strong advocates for general health services as well as specific key health activities such as immunization, HIV/AIDS, or the plight of street children.

- **Building networks for health**
  The LCEs are in the best position to attract new partners for the health sector, which can also attract new resources, such as through improved networking with medical schools, health non-governmental organizations (NGO), and private businesses.

- **Benchmarking with other LGUs**
  Advanced or more mature LGUs can choose to act as a model for less mature LGUs, helping them increase their capacity through mentoring and establishing performance benchmarks.

Central DoH Level

- **Setting standards of performance**
  As the prime mover for health programs, the DoH sets the standards for all service units in order to establish and maintain a specific desirable level of health care services the population. For example, the DoH will insist on minimum vaccine coverage rates to ensure herd immunity of target groups and prevent infectious disease outbreaks or epidemics.

- **Monitoring performance**
  In consonance with central DoH standards setting for service delivery, there also should be a system for monitoring performance to ensure minimum standards and to identify problem areas.

- **Determining optimum national resource allocation**
  Accepting that resources will never be sufficient, the DoH must also judiciously allocate national level financial resources.

- **Facilitating establishment of health networks**
  The DoH has the primary responsibility of enlisting the help of all health stakeholders, both nationally and internationally, as during vaccine and pharmaceutical procurement from offshore sources, or in obtaining technical and other forms of international assistance.

- **Providing mechanisms for sharing current best practices**
  The DoH must carefully monitor the use of new approaches to health throughout the country in order to validate their effectiveness and ensure the results are shared with other service units.

- **Providing health service units with results of special projects**
  Experiences of the numerous donor-funded special health projects throughout the country need to be studied and more efficiently shared more efficiently so that improved approaches and services may benefit others, especially in terms of innovations in health care and in public health impact.

- **Identifying health advocates**
  Changes in health behavior can be facilitated by health advocacy of well-known and credible personalities, as typified by UNICEF's use of special envoys or advocates for specific health programs.

CORRESPONDENCE BETWEEN EXISTING DATA SYSTEMS AND FUNCTIONAL MANAGEMENT REQUIREMENTS

The following matrix shows how the functional management requirements for data, as enumerated in the section above, can be satisfied by the use of existing health data systems.

Table 5: Management Functions and Information Use

Functional Information Use	Information Needed	Data Needed	Information Source	Gaps in Data or Quality	Missed Opportunities for Use

Functional Information Use	Information Needed	Data Needed	Information Source	Gaps in Data or Quality	Missed Opportunities for Use
BHS / RHU / HC **Target Identification / Follow-up Monitoring**	Persons Services needed Services rendered	EPI, ANC, FP, TB clients (TB clients only in DFHSIS) Local priority program target list	FHSIS: TCL	Client lists may be incomplete	Include clients who have not availed of service at facility
Target Risk Identification	Persons (unmet need)	EPI, ANC, FP EPI, FP FP Disease surveillance	FHSIS: TCL CBMIS Pangasinan FP CBDSS		Community based need/ risk identification
Performance Monitoring	Persons (remaining unserved)	EPI, ANC, FP, TB clients	FHSIS: TCL		CQI; reaching hardest to reach
Identification and comparison with performance standards	Rate / ratio / proportion accomplishment target	Service aggregation and population	FHSIS; Vertical programs	Questionable completeness; population denominator uncertain	Routine self-assessment or supervision

Functional Information Use	Information Needed	Data Needed	Information Source	Gaps in Data or Quality	Missed Opportunities for Use
Municipality / City / District / Province					
Performance Monitoring	Rate / ratio / proportion accomplishment target	Service aggregation Population	FHSIS; vertical programs	Questionable completeness; population denominator uncertain	Routine self-assessment or supervision
Determining and monitoring resource allocation	Drugs and supplies Human resources Capital resources Financial Estimates of: Need Cost of meeting need	Preventive and curative care demand estimate Resources need estimate	FHSIS; vertical programs; hospital vital events; logistics; finance	Questionable completeness; population denominator uncertain; availability of financial data	
Impact Measurement	Morbidity Mortality	Disease data	- as above - Sentinel surveillance Surveys	Questionable completeness and consistency; hospital and OPD disaggregated	
Forecasting	Drugs and supplies performance targets; expected demand	Preventive and curative care demand estimate	- as above -	- as above -	
Report Preparation for LCE	Indicators	Health status Performance indicators	- as above -	Too technical	Advocacy with LCE
Advocacy	Health service gaps	Estimates	- as above -	Incomplete or questionable	Other health stakeholders

Functional Information Use	Information Needed	Data Needed	Information Source	Gaps in Data or Quality	Missed Opportunities for Use
Local Government Unit **Resource Allocation for Health**	Financial; Need quantification by sector; Resources available from DoH	Preventive and curative care demand estimate; cost of meeting demand	FHSIS; vertical programs; hospital vital events; finance; logistics DoH central	Availability of financial data; Questionable completeness; hospital and OPD disaggregated	
Health Policies Enactment	Current performance Unmet service need Feasibility estimates of policy implementation (cost and performance)		FHSIS Vertical programs Hospital Vital Events Finance Logistics		Strategic plans not in place
Health Advocacy	Health Status Service unit performance Gaps		Health Officer Report	Too technical	
Building Health Networks	Service delivery gaps Special health problems Stakeholders outside formal health sector		Mayor's Directory		Improved quality of care, resource utilization
Benchmarking with Other LGUs	High performance LGUs		League of Municipalities / Cities / Provinces		Sharing best practices

Functional Information Use	Information Needed	Data Needed	Information Source	Gaps in Data or Quality	Missed Opportunities for Use
Central / Regional DoH					
Setting Performance Standards	Current performance Unmet service need Feasibility estimates of improvement (cost and performance)	Preventive and curative care demand estimate; Incremental cost of meeting new standards	FHSIS; Vertical programs; Hospital Vital Events; Finance; Logistics	Questionable completeness and timeliness; Population denominator uncertain	Rationale not well communicated to service units
Performance Monitoring	Rate / ratio / proportion Accomplishment Target	Service aggregation Population	- as above -	- as above -	Routine self-assessment or supervision
Determining Optimum National Resource Allocation	Drugs and supplies; Human resources; Capital resources; Financial Estimates of: Need; cost of meeting need	Preventive and curative care demand estimate; Resources need estimate	- as above -	- as above - Availability of financial data	
Health Worker Networks	Service delivery gaps Special health problems Stakeholders outside formal health sector		- as above -	- as above -	
Mechanisms for Sharing Current Best Practices	Current performance comparisons Best practices		Sharing amongst Leagues of Municipalities, Cities, and Provinces		
Providing Health Service Units with Results of Special Projects	Special projects and results		DoH central office		
Health Advocates Identification	Credible personalities				

This matrix shows the value of the existing information systems, particularly the FHSIS TCLs and aggregation forms, and the vertical programs and logistics systems at the point of first

contact for the BHSs, the RHUs, and HCs. The fact that data are used at the point-of-collection provides a basic level of quality assurance.
At the LGU Health Office simple aggregation is done with limited monitoring by the program, and there is comparison of data among reporting units. The team was provided with examples of Health Office data collection and use for technical management functions. The technical information systems have been in place for a long time, and health workers and managers know how to use them for operational management.

However, there were problems noted with reports to the LCE. The data, if provided, are often too technical, and lack graphs or geographic background. Health Office advocacy in the LGU suffers from a similar problem. Proceeding on from the core local technical management functions, the staff capability to use information for non-operational and non-technical application diminishes rapidly. While the data are often available, the skills to use information for advocacy, policy formulation, and strategic planning are lacking.

MUNICIPAL HEALTH OFFICERS, MAYORS, AND HEALTH INFORMATION

Task 1 of the Scope of Work (Annex B) includes identification of "…the MINIMUM basic health information needs for management of the health system by the LGU," which will be discussed in this section.

Information to support LGU management of the health system serves two main purposes: (1) routine monitoring of an annual operational plan, which addresses common primary health care programmatic concerns, such as maternal health, immunization, nutrition, vitamin A distribution, and disease prevention and control; and (2) developing and implementing innovative approaches to health financing, indigent care, and community outreach; these activities may require additional information to plan and monitor. The information required to manage these innovations depends on the exact nature of the activity and are usually LGU-specific based on unique needs.

Given this situation, the team identified standard indicators that are widely used for health sector management, based on the National Health Objectives. However, they acknowledge that these indicators might not work in all settings or may not meet the needs of more innovative managers. Some sixty illustrative indicators are distributed into categories that cover the standard areas of health system management: preventive and curative service delivery; health finance; drugs and supplies; human resources; facilities and equipment; and performance (which combine data from the five preceding categories). This classification is similar to that used in the introduction to DFHSIS training module noted previously. The LGU could then select the indicators appropriate for its situation.

The team selected a general illustrative approach for the following reasons:

- Few of the existing reports include indicators; the bulk of the information flowing through the system is in the form of raw data. There is no standard report that

consolidates information from different reports and systems to show indicators of overall performance.

- Most of these indicators can readily be calculated from data that already flow through the system. There would be no need to introduce a new information system. Because this approach builds on what already exists, the incremental cost of implementation would be smaller. Moreover, as the Management Functions and Information Needs matrix shows, tools that rely on existing information are being used at the service delivery level, the point of collection, which helps to improve the quality of the data.

- The most sensitive and specific indicators depend on the maturity and objectives of the program. For example, if few women use antenatal care, as in parts of Mindanao, antenatal coverage needs improvement; if coverage is high, the standards become higher and the objective may change to focus on the mean number of visits per pregnancy, or the proportion of women seen in the first trimester. Therefore, given the geographic and demographic diversity in the Philippines, a single set of indicators could not satisfy every LGU's needs.

- Defining a minimum indicator set for general use by MHOs to communicate with mayors could not be accomplished by the team during their three week assignment. It would require the active participation of local experts, both Municipal Health Offices (MHOs) and mayors, in order to ensure ownership and consensus building.

USAID/Philippines asked the team to find another approach, focusing on municipalities, which would produce a shorter list of indicators that could be used by MHOs in communicating health sector needs to mayors. To identify such an approach, the team interviewed mayors and MHOs.

Mayors take very different approaches to managing their resources, and to maintaining and improving the well-being of their municipalities. Information from interviews with two mayors of small municipalities illustrates the extremes.

- In Cordova, the mayor encourages the LGU management team to adopt Management by Objective (MBO) practices. He emphasized the importance of good comprehensive information to support multi-sectoral strategic and action planning, and routine monitoring (a proactive approach). However, he acknowledged that this is a slow process that will reach fruition long after his term is completed. In this case, identification of a limited number of transparent indicators would respond to his management approach. These indicators may be derived from more detailed and technical information systems; these information systems may also supply more detail as needed.

- In La Union, the mayor appeared interested in and possessed basic knowledge of health sector issues, as evidenced by his familiarity with the concept of Safe Motherhood. He

described his main problems with prioritizing needs and funding. However, he expects the MHO to identify problems and solutions, and to bring them to his attention. The persuasiveness with which the MHO makes the case will determine the priority. This type of reactive management is reported to be much more common than the proactive approach of the Cordova mayor. It is the MHO's task to have persuasive, evidence-based plans, and budgets for the mayor and LGU to consider. This approach requires specific and often detailed information that will vary for each plan.

The approaches to information collection and utilization by two dynamic MHOs show a similar diversity in approach.

- In Basista, the health team has undertaken a strategic planning exercise and developed a briefing kit, complete with a vision, goals, and objectives (stated in terms of measurable indicators of improvement) to facilitate this process. The indicators were collected through the routine DoH systems, the MFHSIS, and other vertical programs. This approach is similar to the MBO approach of the mayor of Cordova, mentioned above. However, this MHO is unusual in that it has won awards for excellence and cautioned the team that it should not be compared to other MHOs because it has ample human resources. It employs a large number of midwives sufficient to staff a 24 hours a day facility; it also has adequate committed BHWs to maintain a ratio of 1 BHW:30 households.

- In San Fernando, the LGU department heads work as a team, identifying and acting on specific problems. The team met with the MHO and the municipal attorney, who was also actively and knowledgably engaged in health care issues. The municipality has initiated a number of projects, including construction of lying-in facilities in outlying areas. The female mayor is particularly supportive of women's health activities. She demands routine service information, even immunization, disaggregated by gender. (The team did not know of any medical or cultural reason to suspect gender discrimination in this area of the Philippines). But this is the information that the MHO must supply (and does) to win the confidence of the LCE. The LCE accomplishes this task by improvised use of the FHSIS system to obtain relevant data to respond to the mayor's interests. Another good tool, the CBMIS, is useful for providing data to identify related unmet family planning demand information.

The first approach, Basista, requires broad sector-wide information, so that the LCE and LGU can take decisions as a team; this is the type of information provided by the indicators suggested by the implementation team. The second example, San Fernando, requires the MHO to monitor the health situation carefully, and have access to detailed information for problem identification and development of solutions. A comprehensive list of indicators would be useful for this type of problem-solving and might be a rather lengthy list.

Briefly, the team agreed that it would be useful to have common indicators for LGU routine monitoring. However, it is unable to establish a rational basis for recommending one indicator

set over another. In fact, too much information is already collected at the service delivery points and aggregated upwards. Imaginative MHOs/CHOs usually collect the data they need to persuade the LCE of the important priorities and to suggest a solution. The experience of local implementers should guide specification of basic routine indicators.

REPORTING TO THE LOCAL CHIEF EXECUTIVE (LCE)

In general, the Local Chief Executive (LCE) has not been included in the FHSIS or other programs reporting. AS has been previously stated, LCEs have difficulty understanding the technical reports unless they are also a health professional. It is reasonable to assume that previous academic professionalism and work experience can influence receptivity such that an engineer-mayor would most likely favor infrastructure, a health person would look at the health sector, or an accountant would pay attention to the financial health of the LGU.

From a management perspective, reports are necessary and must contain information to help measure progress of services and identify new problem arise. These reports are helpful when received on a regular basis, either monthly or quarterly, but should be available when the need for specific information arises.

The following may be helpful for health officials to consider when working with the Local Chief Executive (LCE):

- The LCE should have a basic knowledge of the health sector including a familiarization with national values and goals, strategies of the DoH, potential impact of programs, and the local health scene.

- A regular report for the LCE might include the following:

  - An analysis of the local situation, including standards of performance as well as positive and negative deviances. Negative deviances must be explained.

  - Recommendations which outline alternative courses of action and a Potential Problem Analysis (PPA) for each course.

- An explanation of the following relationships may be helpful to ensure attention and cooperation of the LCE:

  - FIC to incidence of EPI diseases and to infant mortality rates

  - Antenatal care to maternal deaths and to infant mortality rates

  - Health status and health resource allocation to mortality

  - Areas with low program coverage to geographic accessibility

  - Incidence of communicable diseases to areas of high population density

  - Diarrhea incidence to availability and quality of water and food

- Maternal morbidity rates and mortality to family planning practices
- Availability, quality and accessibility of health services to overall morbidity and mortality rates
- Health policies and health status
- Morbidity and mortality to the extent and magnitude of resource allocation
- Best practices, as examples from other areas

III. CONCLUSIONS

Existing Information Systems

The team observed a number of working information systems that work that have the potential for country-wide replication at the local LGU level. These systems cover the basic data necessary for municipal management:

- Service delivery and morbidity – FHSIS and vertical programs
- Target / at risk identification – Pangasinan FP, CBMIS, TCL
- Surveillance – CBDSS and NESS
- Logistics – CDLMIS, Vertical programs
- Accreditation – Sentrong Sigla, PhilHealth
- Financial management – internal accounting, LGU financial system

Information use at first provider contact (information capture)

The team noted significant overlap, over reporting and over systematization of reporting in their site visits. Some of the overgrowth could be cleared away by using risk identification techniques and the TCLs more effectively. Service providers know how to use "their" individualized systems even though this may vary from place to place. TCLs are usually more current for those clients presenting for services, and are more comfortable with contacting clients for missed services. The health system is designed to serve and follow-up those clients who seek care. All facilities visited struggle with the question of how to expand services to address unmet need and identify high risk groups; hence there is a great deal of interest in systems like the CBMIS.

All BHSs/RHUs/CHC interviewed knew how to use the monthly cumulative target vs. accomplishment graph for estimating immunization coverage; the information was found to be current in many places. Most understood that the same technique can be applied to other data, such as prenatal coverage. The concept of using information for managing and improving service is also understood, even among midwives. However, there was no evidence that disease patterns were systematically analyzed or reviewed below the Health Office level, although the appropriate response to a notifiable disease seemed to be known by most first line care givers.

Information use at the Health Office

At the Health Office (MHO or CHO) level, these same systems, however flawed, provide the information needed to ensure service delivery and monitoring. The question asked is always regarding how accurate are the data. While this varies from facility to facility, the quality of data captured seemed good. TCLs complete aggregation forms in a timely fashion. The main

point of difficulty is with the establishment of denominators, which are assigned to the LGU by the DoH, based on National Statistics Office (NSO) projections from the 1995 census. From the tables the team examined, it appears that these projections are done using an intercensal growth rate based on the LGU's own rate, not on a national rate. Local officers dispute the counts: sometimes too high, sometimes too low. Because of the uncertainty regarding denominators, it can sometimes be difficult to compare performance among areas.

In terms of advocacy and communicating with the LCE, all Health Officers interviewed actively campaign with the LCE/LGU for essential drugs procurement budgets. HOs estimate and know the shortfall (usually around 30 percent of drugs needed can be supplied), and have a silent rationing policy to try to get the drugs to the neediest. The existing information systems supply the data needed for essential drugs technical monitoring and advocating at the LGU for funds. When used by innovative MHO, existing data has been more managed to provide information necessary to educate the mayor and LGU, and to persuade them to allocate supplemental funds for health.

Health information for the LGU

The team was asked to prepare a minimum data set that could be used by Health Officers to communicate with the LCEs, and did so. A set of illustrative indicators was provided, along with national standards, from which a locally appropriate selection could be made. USAID asked the team to provide a second option, but the team has been unable to develop a more compelling rationale and indicator set than that initially offered. The team strongly recommends that the true experts, the Health Officers, LCEs, and LGUs, be consulted for development of this alternative option.

The team agrees that it would be useful to have a short list of indicators that form a basis for discussions between mayors, MHOs, and LGUs. It would be most useful if the mayors were invested in health sector performance, because of peer comparison pressure. For example, a group of LGUs, mayors and HOs could agree on a set of performance indicators and publish their results. This effective collaboration could stimulate a new process of health sector advocacy through the League of Mayors.

Health information in the context of the Health Sector Reform Agenda (HSRA)

The team was briefed on two information systems used to support projects implementing health reforms in the convergence provinces which serve a very different purpose from the other systems reviewed in this report. They support the operation of a referral network, centered on a hospital that serves several municipalities (the IHZ service delivery model). The HSRA focuses on insurance, local financing and procurement, and the integration of information from these support functions with service delivery information and with local LGU procedures. However, replication of these systems beyond the convergence sites is not yet possible because the health reform management changes are incomplete.

Field Health Service Information System

FHSIS is the only system that carries multiprogram data that is aggregated from the facility level to the national level. One limitation is that the FHSIS aggregate forms have no designated place for calculation or reporting of indicators. So the usefulness of these data is limited to more imaginative Health Officers.

The FHSIS appears to be an orphan above the LGU system level. Its history shows a progression from a broad multi-program reporting channel, modified to its current pared down version (MFHSIS) housed at the National Epidemiology Center (NEC). The NEC mandate focuses on disease surveillance, including prevention and control. NEC has produced a comprehensive matrix showing its use of information in public health surveillance; this matrix is included as Annex D. Most information needs are satisfied by the notifiable disease reporting and annual morbidity components of the FHSIS. Other program information, with the exception of immunization, is of little use in the NEC. Recently a third, decentralized information system, the DFHSIS, was pilot tested. It focuses on vaccine preventable diseases, and TB, with only multi-program data remaining being the family planning data. Expansion of the DFHSIS beyond the pilot test areas has not been determined.

There is a definite demand for routine multi-program information to monitor the health sector, especially in light of health sector devolution. The team found no systematic documentation or monitoring of the effects of devolution on health status. While data for some basic monitoring are collected, and much is of good quality, there has not been a performance review process to use the data, at any level of aggregation. LCEs, LGUs, Health Officers, DoH, NEC, and HSRA may choose to collaborate on defining simple indicators for LGU performance, and then to review performance.

IV. RECOMMENDATIONS

The predominant theme of the team recommendations is, “Build on what’s there” so that the recommendations do not propose major reengineering of the currently used systems and procedures.

CLIENT AND RISK IDENTIFICATION: BETTER USE OF FHSIS TCLS

Primary care providers understand how to use the TCLs to monitor and follow-up individual clients. However, in practice, an individual client is added to the TCL only when presenting for service at the facility. This eliminates individuals who may be known to the clinic and should be targeted, but do not present for service. It would be useful to have a list of all potential clients for each preventive service, regardless of where or whether they present for service. The TCL could be used for this purpose.

Individuals could be added to the preventive care TCLs as they become known to the clinic, and before they present for service. They can be identified through a variety of possible mechanisms, including the following:

- Add infants to EPI TCL when they are delivered by the midwife; when they become known through regular review of the birth register; or when the BHW identifies the infant as new in the area.

- Add women to maternal or FP TCLs when the pregnancy becomes known to the BHW, or when an unmet FP need is identified.

- Add women discharged from the hospital for incomplete abortions to FP TCLs.

- Persons using private services should added to the TCL with a notation indicating that they are "covered," but receiving services elsewhere. This note allows for coverage assessment from the private sector, and establishes a true service target of those who already use the public facility and for those who do not use it.

- Use annual census and master lists to confirm TCLs.

- Determine relative advantage of CBMIS risk identification with TCL risk identification, by counting the number of new individuals added to the TCL through CBMIS house-to-house surveys. The CBMIS can be a useful tool for risk identification, but health workers have reported that it is difficult to use. If it is to be successfully applied, more training and adaptation is required.

- Review the BHW capacity to capture community information, when the BHW serves a large number of families. Assumptions the BHWs' abilities to accurately report events and provide service should be tested.

- Local disease surveillance, such as the CBDSS, could be used to advantage in municipalities.

- Identify potential FP clients during family planning counseling sessions conducted by RHUs, prior to approval of marriage licenses.

REGULAR REVIEW OF INDICATORS: BETTER USE OF AGGREGATE FHSIS AND VERTICAL PROGRAM DATA

The FHSIS aggregation forms have no place for calculating indicators derived from the raw numbers that are reported on the form. Therefore, these forms may not be useful for self-assessment or monitoring. However, they could be used to monitor a standard set of indicators at all levels of the reporting structure.

- Calculate and review basic indicators from FHSIS data already collected, at each level (e.g., FIC, ANC, TT) to identify changes in disease cases from same periods in previous years. Feedback results to reporting institutions.

- Compare indicators for consistency (e.g., measles and FIC, TT and ANC, immunization coverage and incidence of vaccine preventable diseases).

- Adopt the DFHSIS definition of TT protection and include all women who have received five doses, not simply those who receive immunization.

OTHER INFORMATION SYSTEMS ISSUES

Denominators

There is unhappiness with setting denominator figures. The need for figures which are useful and credible at the point of aggregation and analysis cannot be overstated. There is no reason that several denominators for examining coverage, including official figures, local census and estimates, and population targeted for service delivery by the public health system, cannot be developed.

- Negotiate with others in the reporting chain to determine the population figure.

- Select the option of using local denominators for local review.

- Use the number of people who should present at a public service as an effective target for measuring performance.

Accreditation Systems

It was never clearly understood by the team the reasons for the existence of two accreditation systems in the Philippines: Sentrong Sigla and PhilHealth.

- It would be helpful to determine if two systems are needed or whether they could be combined using the best elements of both.

Logistics and Financial Systems

The review of existing logistical and financial systems revealed significant weakness in financial systems to support financial analysis and planning of health sector activities. The logistics, financial, and planning information systems are closely tied in a health sector devolution scenario and be more closely linked with other municipal data. While the systems need redesign, there are many stakeholders involved.

- Identify best practices, and from there build the best approach for these systems.

Hospital data

With the removal of the district hospital from the reporting chain, it is very difficult to associate hospital cases with a small area, and to consolidate inpatient and outpatient information. However, HSRA's establishment of Interlocal Health Zones (IHZs) puts the hospitals into the center of a small referral network.

- Hospital data should be consolidated with primary care data at the earliest aggregation stage possible.

LGU PERFORMANCE MONITORING WITH MINIMAL SET OF INDICATORS: STEPS TO INITIATE REGULAR REVIEW OF INDICATORS.

Monitoring the performance of the health sector, with the support of both mayors and HOs would be an excellent way to identify best practices and opportunities for benchmarking and LGU mentoring. It would also engage the interest of the community of mayors for better management of the sector.

- LCEs, LGUs, Health Officers, DoH, NEC, and HSRA should collaborate to define simple indicators for LGU performance.

- There should be regular review of performance.

- Find an institutional home for gathering and disseminating information at the national level.

STRENGTHENING LGU MANAGEMENT SKILLS AND INFORMATION USE

Many HOs are able to use information from existing systems for effective LGU health resources advocacy. Even Pangasinan, one of the convergence provinces, and its municipalities use existing systems to provide information for planning and monitoring HSRA implementation. Pangasinan uses this information for evidence-based strategic and action planning.

This, and other examples, suggests that the information available may be adequate but the gap may be to know how to use it skillfully. These recommendations point out opportunities for improving local use of information.

Local initiatives

A number of local initiatives have been developed for innovative uses of information.

- Support and facilitate identification and propagation of best practices
    - LGU to LGU mentoring
    - Benchmarking to high performance LGUs
    - Chronic disease management and risk identification via genogram
- Support innovation at local level with small grants
- Innovative financing
    - Cost recovery at facilities
    - Rationalization of procurement: bulk procurement via LGU pooling and prequalified suppliers
    - Qualification as PhilHealth provider
    - Indigent enrollment in PhilHealth
    - Hospital private beds

Enhance management skills

Reference to Table 5: Management Functions and Information Use, shows that serious gaps in management skills involving team work, strategic and action planning, and continuous quality improvement (CQI.) exist.

- Train health staff in use of:
  - Health indicators for service delivery management
  - Use of information for health advocacy to LGU officials
  - Representation of information (e.g., graphs and maps)
- Train LGU and health staff in management by objective techniques.
  - Include policy formulation, strategic and action planning, monitoring, CQI, self-assessment, supportive supervision and peer review.
- Provide supervisory skills for workers in poorly performing areas. Involve DoH representative in monitoring.
- Train LGU financial managers in techniques of health sector cost analysis and activity-based budgeting.

COORDINATION WITH PARTNERS: SUSTAINABILITY

Partnerships must be built from the beginning.

- Strengthen collaboration among LGU Leagues - mayors, governors, and other health sector personnel.
- Improve collaboration at the national level among partners, other projects and donors, LGUs, DoH, in order to promote consistent approaches and sustainability after intervention completion.

ANNEXES

A. Persons Contacted

B. Scope of Work

C. Documents Reviewed

D. Public Health Surveillance Activities at NEC

E. Information Systems Forms

ANNEX A

PERSONS CONTACTED

PERSONS CONTACTED

USAID/Philippines, Office of Population, Health and Nutrition
Dr. Wesley Dulawan, Project Development Specialist
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Jed Meline, Deputy Chief
Ephraim Despabiladeras, Project Management Specialist
Nelia V. Layco

DoH, National Epidemiology Center
Dr. Consorcia Lim – Quizon, Director, NEC
Dr. Troy D. Gepte, Head, Informatics Unit
Juan Lopez, Program Manager, Statistics and Surveillance
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DoH, Bureau of International Health Cooperation
Dr. Virginia Ala, Chief, Unified Project Management Division
Bonifacio B. Magtibay, Project Manager, Integrated Community Health Services Project

DoH, Procurement and Logistics Service
Joel N. Lazo, Procurement Service Section
Naomi C. Simon, Materials Management Service Section

Management Sciences for Health
Dr. Florante "Sonny" P. Magboo, Matching Grant Program Advisor
Dr. Cecilia Lagrosa-Manuel, Quality Assurance Advisor
Dr. Jose Rodriguez, Chief of Party

Helen Keller International/Philippines
Ellen E. Villate, Country Director
Dolly Realio, Monitoring and Evaluation
Emy Barquilla, Nutrition

GTZ
Deborah Carmina B. Sarmiento, Senior Technical Coordinator

Cordillera Administrative Region (CAR) Regional Health Office
Susan B. Cabalda, AO IV
Dr. Judith N. Allaga, Assistant Director
Dr. Teresita M. Bonoan, Regional Health Officer
Dr. Elvira Belingon, DOH/CAR, Medical Specialist

Baguio City Health Office
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Dr. Cecilia Flor Cascolan-Brillantes, City Epidemiologist , FHSIS Head

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Fe Laraya, Public Health Nurse II
Dr. Alfonzo Caluza, Medical Director

Benguet Provincial Health Office
Dr. Corazon Cabansag, Provincial Health Officer
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Amelia L.Cayap, Dietary Nutritionist II

La Trinidad Municipality, Benguet Province
Hon. Nestor B. Fongwan, Mayor
Dr. Editha M. Francisco, Municipal Health Officer
Edna L. Abalas, Public Health Nurse

Puguis Barangay Health Station, La Trinidad Municipality
Sonia Meyaen, Midwife

Naguilian Municipality, Province of La Union
Dr. Teofilo Dumaguin, Municipal Health Officer
Melba F. Delizo, Midwife III

La Union Provincial Health Office
Dr. Jose Ostrea, Provincial Health Officer
Geoffrey S. Tilan, Province Administrator, Office of the Governor

San Fernando City Health Office, Province of La Union
Dr. Eduardo Posadas, City Health Officer
Verselie E. Limos, City Legal Officer

Dagupan City Health Office, Province of Pangasinan
Dr. Rosario E. Chuchip, City Health Officer
Dr. Leonard Carbonell, Assistant City Health Officer

Pangasinan Provincial Health Office
Dr. Nemesia Y. Mejia, Provincial Health Officer

Pangasinan Provincial Population Office
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Loida Episcope, Program Officer II, MIS

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Anambonga Barangay Health Station, Municipality of Basista
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Cebu City Health Office
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Cordova Municipality Rural Health Unit, Province of Cebu
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Judelia Jumas, , Cordova Rural Health Midwife
Lyn Sanjiaro, Cordova Rural Health Midwife
Virginia Jalang, Cordova Rural Health Midwife

ANNEX B

SCOPE OF WORK

SCOPE OF WORK

Assessment of Current Health Information Systems And Their Ability to Meet Local Government Needs

Background:

The health information systems of the public health sector in the Philippines have evolved through the years. Prior to devolution, when the central Department of Health (DOH) was responsible for the delivery of primary health care, data and information from the field health offices (e.g. Field Health Surveillance and Information System [FHSIS]) emanated from the rural health units, which were submitted to the integrated provincial health offices. There are weekly, monthly and annual reports to be accomplished and take up much of the time of field workers just to accomplish. Reports are then forwarded to the regional DOH offices, which were in turn submitted to the central office. It took months before information from the field can be completed and analyzed. For the year 2000, the data gathered from the FHSIS are still to be completed as of this date.

Currently under the devolved set-up, where health services are decentralized to Local Government Units (LGUs) under the Local Chief Executives (LCEs) i.e. mayors and governors, field reports still emanate from the rural health units but are submitted to the LCEs for review. Then, it follows the same upward process. Some development-oriented LCEs make use of the information at the local level to improve health services. Most do not appreciate the reports as tools to help them improve health delivery. The reports are seen as voluminous and complicated and do not seem to serve its purpose of meeting local needs. Worse, some LCEs do not even bother reading them.

There are around seven health information systems currently in use in the public health sector. For major centers around the country, a system is in place for the fourteen notifiable diseases. Each of the major programs in the DOH has its own reporting documents e.g. for family planning, tuberculosis, etc. For contraceptive delivery and logistics management, there exists a system that needs modification with the ongoing USAID phase out of contraceptive procurement. For essential drugs, the DOH has its own monitoring system. Under the matching grants program- a USAID assisted project which helps LGUs improve management and provision of health services, the Community-Based Monitoring and Information System (CBMIS) has been set in place in around 20% of the barangays in participating LGUs. A pilot project- the Community Disease Surveillance System (CDSS), is being implemented in cities in southern Philippines.

There is an urgent need to review and analyze these various health information systems. Modification and simplification may need to be done to make them more responsive to the local needs of the community and give LGUs the means to plan their individual health intervention. This will help empower the LGUs to better manage and provide basic services.

With an improved management tool, LCEs will be better managers for the delivery of health services for their constituents.

Objectives:

1. To examine the strengths and weaknesses of the existing health information systems to meet the needs of local government units to better implement and manage health services.

2. To make recommendations for the improvement of existing information systems.

Scope of Work

Tasks:

1. **Identify factors that contribute to utilization of health information at large, medium and small cities and municipalities for planning and management of health services.**

   A number of factors contribute to the ability of LGUs to use health information for planning and management. These may be related to the information itself: its relevance, quality, and timeliness. These contributing factors may also be related to the role of information in the LGUs own management processes of planning and action-oriented monitoring. These factors will provide the framework for the review of strengths and weaknesses of existing health information systems in meeting local needs (task 3). These factors will guide discussions with LGUs themselves and analysis of the strengths and weaknesses of the systems.

   The identification of relevant information will include the MINIMUM basic health information needs for management of the health system by the LGU. Clear delineation will be drawn between the timeframes for different types of information, i.e. weekly, monthly, annually, etc. These minimum needs will focus on LGU management at different levels, in the context of the information required and produced by other health care providers within the LGU health system, i.e. the barangay health station, rural health unit/municipal health office, district hospital, and provincial hospitals.

2. **Inventory existing health information systems in place at the national, regional and local levels.**

   Numerous programs exist that collect data for use by the LGUs and the regional and national DOH offices. They can be disease specific (i.e. tuberculosis, family planning, Schistosomiasis) or more general in scope (FHSIS, CBMIS). Also, individual projects or donor programs may have developed information systems to meet their specific needs.

   An inventory of different systems currently in place is required. Each system should be identified as to what data it collects, in what manner and for what purpose. From the

overall list, key systems whose data is utilized at the LGU level should be identified for further examination in Task 3.

3. **Examine the strengths and weaknesses of the existing systems in meeting local health information needs.**

   Of those systems identified to focus most or be utilized by the LGUs (as opposed to national level), each should be examined to determine its strengths and weaknesses. Factors to consider are: 1) ease and cost of training and initiation, 2) ease and cost of implementation, and 3) ability to meet the basic needs for health information of LGUs

4. **Develop recommendations for a more simple, efficient, valuable and responsive health information system that can be applied by local government units to help improve and strengthen delivery of health services.**

   From this analysis, recommendations for potential development of a simple LGU health information system should be developed. The recommendations should be focused on simple, low cost systems that could be easily taken to nation-wide scale.

Deliverables:

1. Draft assessment report
2. Consultative meetings
3. Draft recommendation for USAID comments
4. Final report and recommendations

Estimated Performance Period: 3 weeks

Proposed Outline for the Evaluation/Deliverable

I. Background and Description of Existing Health Information Systems
II. Methodology of Assessment
III. Limitations of the Assessment
IV. Findings
V. Recommendations

ANNEX C

DOCUMENTS REVIEWED

DOCUMENTS REVIEWED

2002 Maternal and Child Health Survey: Final Report. Philippines National Statistics Office. nd.

2002 Family Planning Survey: Final Report. Philippines National Statistics Office. February 2003.

Decentralized Field Health Services Information System: Training Module. Department of Health, National Epidemiology Center, Infectious Disease Surveillance and Control Project.

HIV/AIDS Strategic Plan, 2002-2006. prepared for USAID/Manila by The Synergy Project / TvT Associates. July 2002.

Guide to Designing City and District Disease Surveillance Systems. National Epidemiology Center, Infectious Disease Surveillance and Control Project, and Management Sciences for Health. nd.

Health and Nutritional Situation of Mothers and Children: Pampanga, 1997. UNICEF, HKI, Omni, et al. nd.

National Objectives for Health: Philippines 1999-2004. Department of Health. Manila, 1999.

Sentrong Sigla: Enhancing Information Use for Managing Health Services. National Epidemiology Center and Management Sciences for Health. nd.

Various forms from FHSIS and other programs at facility and health office levels.

ANNEX D

PUBLIC HEALTH SURVEILLANCE ACTIVITIES AT NEC

PUBLIC HEALTH SURVEILLANCE ACTIVITIES AT NEC

	Identify	Report	Analyze and Interpret	Investigate and Confirm	Respond	Provide Feedback	Evaluate and Improve the System
Community Level Activities	**Use simple case definition to identify priority diseases or conditions in the community**	Know which health events to report to the health facility or other places and how to report them	Involve local leaders in observing and describing disease pattern and trends in the community	Support outbreak investigation activities such as informing the community about the problem, and mobilizing them to participate in case finding, collecting lab. Specimens, logistics and management	Assist health authorities in selecting response activities Participate in response activities Carry out comm. Health education	Give feedback to comm. members about reported cases and prevention.	Decide if public health action took place as planned Evaluate the community response to the public heath action.
Health facility and hospital in Barangay	**Use case definitions to identify priority diseases.** Basic diagnostic lab. Exam. Record information about suspected cases in individual. Treatment record, target client list, and pt. Charts. Have materials available to collect and transport stool, blood and CSF samples Identify comm. Key informants and data sources	Immediately report (call or fax) any dis. that crosses threshold i.e occurs in locations where it was previously absent Monthly EPI maternal health. And family planning indicators summaries Report and submit data gathered weekly to municipality	Aggregate data and summarize Review monthly, quarterly and annual data Compare with threshold and previous data	Participate in investigation of reported outbreak with municipality and provincial teams Mobilize comm. To assist in investigation Use investigation and lab. Results to confirm health. Problems and outbreaks Provide the results to clinical staff and pts.	Treat cases and contact according to standard case management guidelines Use infection control measures Implement prevention activities and public health. Response with municipality Mobilize comm. Involvement in the response Advocate for resources	Provide feedback to comm. Members about outcome of investigation and the prevention activities Conduct meetings with the comm. Routinely (every 6 months) Receive feedback bulletin from provincial and regional levels	Evaluate appropriateness of case management Evaluate routine detection and reporting of priority disease and conditions Take action to improve readiness for timely response to outbreaks Maintain contact with community to maintain preparedness and prevention activities Take action to improve reporting practices Monitor timeliness/completeness for reporting routine and case-based information

	Identify	Report	Analyze and Interpret	Investigate and Confirm	Respond	Provide Feedback	Evaluate and Improve the System
Municipality or rural health unit (RHU)	Review records of health facilities for suspected outbreaks Basic diagnostic lab exam Support health facility in knowledge /use in case def. Ensure capacity of health facilities to handle and transport lab specimens Receive quarterly health facility reports	Call to report immediately notifiable diseases to the PESU if cross threshold Ensure health facility staff fill up weekly forms and submit to municipality Submit weekly form to PESU Quarterly municipality report to province	Identify and immediately report any dis. condition that exceeds threshold Aggregate data form health facility reports Compare current data with previous periods Make conclusions quarterly about data	Initial investigation to determine if outbreak is occurring. Contact PESU to assist in full investigation Assist health facility to collect /package/store / transport lab spec. For confirmatory testing	Strengthen case management Collaborate with provincial level to design and implement prevention and control activities Mobilize comm. Participation in prevention and control program	Give health facilities regular f-back about routine surveillance, indicators, and control /prevention activities Receive and contribute to reports bulletins from higher levels	Evaluate surveillance activities within municipality level Monitor/ evaluate timeliness / completeness of reporting from health facilities in district

	Identify	Report	Analyze and Interpret	Investigate and Confirm	Respond	Provide Feedback	Evaluate and Improve the System
Province if city (PESU)	Identify outbreaks from surveillance data among municipalities Use local lab capacity to diagnose suspected cases Selected PESU act as NESS sentinel sites Receive quarterly municipality report to province	Support municipalities in reporting Ensure health facility and municipality staff knows when/how to report monthly. Quarterly and annually Produce monthly report by municipality and quarterly report and annual report by municipality Alert nearby areas and districts about suspected and confirmed outbreaks Weekly NESSS reports to NEC via phone, disk or email	Aggregate data from municipal reports Analyze data by person place time Make charts and graphs to display data and update Compare current data with previous periods Make conclusions about trends thresholds and analysis results Use denominators and cross-check denominator Monitor case fatality rates in municipality Identify and immediately report any disease condition that presents unusual trends Observe changes in trends during routine analysis of lab results	Arrange and lead investigation of reported cases or outbreaks in municipalities and province Assist municipalities in safe handling and transport of lab spec Decide if the reported outbreak is confirmed Report the confirmed outbreak to next level Develop and test hypothesis Investigate risk factors for suspected outbreak Investigate contacts of case of priority diseases. Map case investigations conducted to confirm outbreak Maintain communication with media during investigation Have an epidemic preparedness plan	Select or implement appropriate pub health response Plan community information and education activities with municipality and region Implement or improve prevention and control activities	Alert nearby areas about outbreaks Give f-back to municipalities about surveillance and response activities	Monitor / evaluate timeliness of response to outbreaks Monitor completeness and timeliness of reporting from municipalities Monitor routine prevention activities and modify as needed Ensure resources are available to conduct and sustain surveillance system (logistics, data management, training, supervision, communications Train health personnel in surveillance functions Monitor implementation of prevention and control activities Distribute information, education, and communication material

	Identify	Report	Analyze and Interpret	Investigate and Confirm	Respond	Provide Feedback	Evaluate and Improve the System
Regional	Identify outbreak occurring in region from provincial data Selected RESU act as NESS sentinel sites	Receive and encode quarterly report forms from provinces Distribute forms to cities and provinces Produce quarterly reports and annual reports Submit quarterly FHSIS report to central level Submit weekly NESSS report to central level	Aggregate data received from province reports Describe risk factors for priority disease or conditions among provinces	Arrange or back-up provincial investigations of reported cases or outbreaks Distribute specimen collection kits for special activities Provide lab support for investigation Establish / maintain a rapid response team for epidemics Test hypothesis about sources of health problems and outbreaks Establish / maintain an epidemic management committee Contact nearby areas to gather more data	Conduct training activities Conduct training for emergency activities convene epidemic response committee and plan response Assist provinces in planning regional and multiple province prevention and control program	Provide f-back to provinces about reporting, response and program activities Developed and disseminated regional bulletins Provide f-back to NEC about support and communication to regions	Monitor and evaluate timeliness of response to outbreaks in provinces and regions Monitor and evaluate program targets and indicators Central level activities
Central level (National)	Establish standard case def for priority and non-priority disease and threshold/triggers Adapt or define action thresholds Define and update surveillance needs and implement training for and other support to	Set policies and procedures for reporting priority diseases and syndromes for each level Report to WHO Include private sector lab in the report network Support and supervise reporting activities	Set policies and procedures for analyzing and interpreting data Provide appropriate denominators to each level Analyze map and stratify health problems by region and other variables	Set policies and procedures for health problems Receive and interpret lab results Collaborate with international authorities as needed during investigation Respond and investigate	Set policies and procedures for responding to case and outbreaks for priority disease and conditions Collaborate with health programs to plan and evaluate public health activities based on data Establish national	Give f-back about response activities to each level Report / disseminate results of outbreak response in bulletin / media / press release / briefing Give LGU regular, periodic f-back about	Establish policies and practices for supervising surveillance and response activities Establish and disseminate policies and procedures for monitoring surveillance and response activities Establish a national surveillance system coordination body in

	Identify	Report	Analyze and Interpret	Investigate and Confirm	Respond	Provide Feedback	Evaluate and Improve the System
	each level Establish steps for surveillance of sentinel pop Conduct special surveys as needed Select and setup sentinel sites as needed Advocate for adequate resources to support surveillance and response Set policies and procedures with national ref lab Use national ref lab for maintaining quality control and standards	throughout the system Develop and distribute surveillance forms to regions Report lab results from sentinel target sites Receive quarterly and annual reports from regions Produce quarterly report Produce annual report	Interpret trends form national perspective Define pub health analysis skills for each level of personnel in the system Provide training resources for analyzing and interpreting data	outbreak within 48 hours of notification as requested by RESU and PESU Maintain a stock of emergency drug / vaccine supplies at all times Process specimen from investigation and send timely results as required to each level Conduct trend analysis for epidemic prone diseases. Notify regional, international networks about confirmed outbreak Identify risk factors of outbreak Take part in epidemic response team Support lab confirmation activities: supplies / logistic/ transport spec Support investigation of reported outbreaks supplies / logistics / equipment / budget	plan for pre preparedness / response Establish and coordinate a rapid response team for epidemics Plan media response	routine control and prevention activities Produce epidemiology bulletin and distribute to epidemiology surveillance unit Develop and periodically distribute regional bulletin for epidemiology and public health	MOH Assess and monitor human resources for pub health Ensure high quality training materials are available for trainers at other levels of the system Train health personnel in surveillance and epidemic management Monitor and evaluate timeliness of response to outbreaks Monitor prevention activities and modify as needed-coordinate with disease control program as necessary Conduct regular supervisory visit (e.g. every 6 months) Monitor quality assurance for lab at lower level Ensure core budget for surveillance

ANNEX E

INFORMATION SYSTEMS FORMS

INFORMATIONS SYSTEMS FORMS

TCL-MC

CLIENT LIST FOR

DATE OF REGIS-TRATION (1)	FAMILY SERIAL NO. (2)	NAME (3)	ADDRESS (4)	PRENATAL CARE						
				AGE (5)	LMP/G-P (6)	EDC (7)	PRENATAL VISITS (DATE) (8)			RISK CODE/ DATE DETECTED (9)
							FIRST TRIMESTER	SECOND TRIMESTER	THIRD TRIMESTER	

MATERNAL CARE

TT VACC STATUS * (DATE RECEIVED) (10)	TETANUS TOXOID VACCINATION GIVEN (11)		DATE MICRONUTRIENT SUPPLEMENTATION (12)		PREGNANCY (13)		LIVEBIRTHS (14)			POSTPARTUM CARE		REMARKS (17)
			IRON	IODINE	DATE TERMI-NATED	OUTCOME	BIRTH WEIGHT (grams)	PLACE OF DELIVERY	ATTENDED BY	DATES OF POST PARTUM CARE HOME VISITS (15)	DATES OF PP CLINIC CHECK-UP BET. 4-6 WKS. Target/Actual(16)	

* prior to present pregnancy

EPISO Form

TCL-EPI

TARGET GROUP

DATE OF BIRTH (1)	FAMILY SERIAL NUMBER (2)	NAME OF INFANT (3)	NAME OF MOTHER (4)	ADDRESS (5)	DATE GIVEN VIT. A (6)

LIST FOR EPI

DATE IMMUNIZATION RECEIVED (7)											DATE FULLY IMMUNIZED (FIC) * (8)	REMARKS (9)
BCG	DPT1	DPT2	DPT3	POLIO1	POLIO2	POLIO3	ANTI-MEASLES VACCINE	HEPA B1	HEPA B2	HEPA B3		

FIC - child given BCG, DPT3, OPV3 and AMV before 1st birthday

FHSIS Form

TCL-FP

CLIENT LIST FOR FAMILY PLANNING

DATE (1)	FAMILY SERIAL NUMBER (2)	CLIENT'S NAME (3)	ADDRESS (4)	METHOD ACCEPTED (5)	TYPE OF CLIENT (6)	PREVIOUS METHOD (7)

CLINIC (NON-SURGICAL METHODS)

FOLLOW-UP VISITS (Upper Space: Next Service Date/Lower Space: Date Accomplished) (8)												DROP-OUTS (9)		AGE OF WIFE (10)	REMARKS (11)
JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	REASON	DATE		

TCL-DOTS

CLIENT LIST FOR

NAME (1)	AGE (2)	SEX (3)	ADDRESS (4)	LABORATORY RESULTS (Upper Space: Date/Lower Space:Result) (5)			DATE OF REGIS-TRATION (6)	TB CASE NUMBER (7)	CLASS OF TB DIAG. (P/EP) (8)	TYPE OF PATIENT* (9)
				1	2	3				

* N=New Cases; R=Relapse; TI = Transfer-in; TL = Treatment after lost; TF = Treatment Failure; O=Others

NTP-TB REGISTER

DATE START TX (9)	SPUTUM EXAMINATION RESULTS (Upper Space:Date of Exam. / Lower Space: Results) (10)						TREATMENT OUTCOME (Write exact date of last intake of drugs) (11)						REMARKS (12)
	BEFORE TX	END OF 2ND MO.	END OF 3RD MO.	END OF 4TH MO.	END OF 5TH MO.	>7 MO.	Cured	Tx Completed	Died	Failure	Lost	Trans. Out	

HIS (FHSIS) REPORT for the MONTH_____, YEAR:_____

Name of BHS:_____

City/Municipality of:_____

Projected Population of the Year:_____

HIS(FHSIS) Monthly Form **M**

MATERNAL CARE	NO.
Pregnant with 3 or more Prenatal visits (w/ at least 1 visit per trimester)	
Pregnant given TT2 plus	
Pregnant given Complete Iron dosage	
Postpartum (PP) w/ at least 1 PP visit	
PP mothers given Complete Iron dosage	
PP women initiated breastfeeding	
Breastfeeding mothers given Vitamin A	
Women 15-49 given iodized oil capsules	

FAMILY PLANNING		
METHODS	New Aceptors	Current Users
A. Condom		
B. Injection		
C. IUD		
D. LAM		
E. NFP		
F. Pills		
G. Male Ster.		
H. Fem. Ster.		

Prepared By: Date:

CHILD CARE	NO.
Fully Immunized Children (9-11 mos.)	
Infant given 3rd dose of Hepa B	
Infants seen at 4th month	
Infants exclusively breastfed up to 4th month	
Diarrhea cases given ORS (0-59 mos.)	
Pneumonia cases seen (0-59 mos.)	
Pneumonia cases given treatment (0-59 mos)	
Children (9-11 mos.) given Vit. A capsules	
Children (12-59 mos.) given Vit. A capsules	
Moderately underweight children (6-59 mos.)	
- Given food supplementation (New)	
- Receiving food supplementation	
- Rehabilitated	
Severely underweight children (6-59 mos.)	
- Given food supplementation (New)	
- Receiving food supplementation	
- Rehabilitated	

Number of infants given:			
DPT1		BCG	
DPT2		Measles	
DPT3		HepB1	
OPV1		HepB2	
OPV2		HepB3	
OPV3			

DISEASE CONTROL	NO.
LEPROSY: New cases diagnosed (dx)	
Completed treatment (tx)	
Continuing tx	
MALARIA: Confirmed	
Clinically dx	
Given tx	
TB: Symptomatics with sputum exam	
New sputum(+) initiated tx	
Old sputum(+) being re-treated	
X-ray(+) initiated tx	
SCHISTOSOMIASIS: Examined	
Positive	
Given tx	
RABIES: Animal bites seen	
Given post exposure immunization	
FILARIASIS: Cases	
Given tx	
STD: w/Vaginal Discharge	
w/Urethral Discharge (Male)	
w/Genital Ulcers (Male/Female)	

Received by: Date:

HIS (FHSIS) REPORT for the_____QUARTER, YEAR:_____

Municipality/City of : _____

Province of : : _____

Projected Population of the Year :

HIS (FHSIS) Quarterly Form

Q

MATERNAL CARE	NO.
Pregnant with 3 or more Prenatal visits	
Pregnant given TT2 plus	
Pregnant given Complete Iron Dosage	
Postpartum (PP) w/ at least 1 PP visit	
PP mothers given Complete Iron dosage	
PP women initiated breastfeeding	
Breastfeeding mothers given Vitamin A	
Women 15-49 given iodized oil capsules	

FAMILY PLANNING		
METHODS	New Acceptors	Current Users
A. Condom		
B. Injection		
C. IUD		
D. LAM		
E. NFP		
F. Pills		
G. Male Ster.		
H.Female Ster.		

CHILD CARE	NO.
Fully Immunized Children (9-11 mos.)	
Infants given 3rd dose of Hepa B	
Infants seen at 4th month	
Infants exclusively breastfed up to 4th month	
Diarrhea cases given ORS (0-59 mos.)	
Pneumonia cases seen (0-59 mos)	
Pneumonia cases given treatment (0-59 mos)	
Children (9-11 mos.) given Vit. A capsules	
Children (12-59 mos.) given Vit. A capsules	
Moderately underweight children (6-59 mos.)	
- Given food supplementation (New)	
- Receiving food supplementation	
- Rehabilitated	
Severely underweight children (6-59 mos.)	
- Given food supplementation (New)	
- Receiving food supplementation	
- Rehabilitated	

DENTAL CARE			
Preschoolers provided curative dental tx			
Schoolers provided preventive|curative tx			
Pregnant provided preventive|curative tx			
Other adults provided curative tx			

DISEASE CONTROL	NO.
LEPROSY : New cases diagnosed (dx)	
Completed treatment (tx)	
Continuing tx	
MALARIA : Confirmed	
Clinically dx	
Given tx	
TB : Symptomatics with sputum exam	
New sputum (+) initiated tx	
Old sputum (+) being re-treated	
X-ray (+) initiated tx	
SCHISTOSOMIASIS: Examined	
Positive	
Given tx	
RABIES : Animal bites seen	
Given post exposure immunization	
FILARIASIS : Cases	
Given tx	
STD : w/Vaginal Discharge	
w/Urethral Discharge (Male)	
w/Genital Ulcers (Male/Female)	

Number of infants given:					
BCG		Measles			
DPT1		DPT2		DPT3	
OPV1		OPV2		OPV3	
HepB1		HepB2		HepB3	

Prepared by: Date:

Approved by MHO: Date:

Noted by Mayor's Office: Date:

FHSIS SUMMARY TABLE OF ACCOMPLISHMENT REPORT

CITY/MUNICIPALITY: _____
BARANGAY : _____
TOTAL POPULATION : _____ Year: _____
NAME OF MIDWIFE : _____

FHSIS Form **PM-M**

I. PRENATAL CARE	JAN	FEB	MAR	Q1 No.	APR	MAY	JUN	Q2 No.	JUL	AUG	SEP	Q3 No.	OCT	NOV	DEC	Q4 No.	Annual No.
Eligible Pop. :																	
1. PREGNANT WITH 4 OR MORE PRENATAL VISITS																	
2. WOMEN GIVEN AT LEAST 2 DOSES OF TT PRIOR TO DELIVERY																	
FAMILY PLANNING																	
1. *NEW ACCEPTORS*																	
CONDOM																	
INJECTION																	
I U D																	
L A M																	
Natural Family Planning																	
PILLS																	
2. *CURRENT USERS*																	
CONDOM																	
INJECTION																	
I U D																	
L A M																	
Natural Family Planning																	
PILLS																	

EPI	JAN	FEB	MAR	Q1 N1	Q1 Cum%	APR	MAY	JUN	Q2 N2	Q2 Cum%	JUL	AUG	SEP	Q3 N3	Q3 Cum%	OCT	NOV	DEC	Q4 N4	Q4 Cum%	Annual Total N
Eligible Pop.:																					
1. IMMUNIZATION < 1 YEAR :																					
BCG																					
DPT1																					
DPT2																					
DPT3																					
OPV1																					
OPV2																					
OPV3																					
MEASLES																					
HEPATITIS B1																					
HEPATITIS B2																					
HEPATITIS B3																					
2. FULLY IMMUNIZED CHILDREN (9-11 Months)																					

N1 = no. vaccinated during 1st Quarter
N2 = no. vaccinated during 2nd Quarter
Q1 % = N1/ Elig. Pop X 100
Q2 % = N1 + N2 / Elig. Pop. X 100
N3 = no. vaccinated during 3rd Quarter
N4 = no. vaccinated during 4th Quarter
Q3 % = N1 + N2 + N3 / Elig. Pop X 100
Q4 % = N1 + N2 + N3 + N4 / Elig. Pop. X 100
Total N = N1 + N2 + N3 + N4

TB - DOTS	New sputum (+) cases admitted to treatment 12-15 mos. ago (1)	No. completed treatment (2)	Completion Rate Col.2/Col.1 X 100 (3)	No. Cured (4)	Cure Rate Col.4/Col.1 X 100 (5)
Q1					
Q2					
Q3					
Q4					

Prepared by:

Date:

QUARTERLY CONSOLIDATION TABLE

PROVINCE: _____
CITY/MUNICIPALITY: _____
QUARTER: _____
YEAR: _____

FHSIS Form
PM-Q1

AREA (Barangay/Municipality)	TOTAL POP.	PRENATAL CARE		TB-DOTS				
		Preg. w/ 4 or more Prenatal Visits No.	Preg. given at least 2 doses of TT prior to delivery No.	New sputum (+) cases admitted to treatment 12-15 mos. ago	No. completed treatment	Completion Rate Col. 6/Col.5 X 100	No. Cured	Cure Rate Col. 8/ Col.5 X 100
1	2	3	4	5	6	7	8	9
TOTAL								

QUARTERLY CONSOLIDATION TABLE

PROVINCE: _____
CITY/MUNICIPALITY: _____
QUARTER: _____
YEAR: _____

FHSIS Form **PM-Q1**

AREA (Barangay/Municipality)	FAMILY PLANNING													
	NEW ACCEPTORS							CURRENT USERS						
	Condom	Inj.	IUD	LAM	NFP	Pills	TOTAL	Condom	Inj.	IUD	LAM	NFP	Pills	TOTAL
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
TOTAL														

QUARTERLY CONSOLIDATION TABLE

PROVINCE: _____
CITY/MUNICIPALITY: _____
QUARTER: _____
YEAR: _____

FHSIS Form **PM-Q1**

AREA (Barangay/Municipality)	EXPANDED PROGRAM ON IMMUNIZATION											
	BCG	DPT1	DPT2	DPT3	OPV1	OPV2	OPV3	MEASLES	FIC	HEPA B1	HEPA B2	HEPA B3
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
TOTAL												

FHSIS REPORT for the : _____ Quarter, Year : _____

City of: _____

Province of: _____

Projected Pop. of the Year: _____

FHSIS Form
PM-Q2

MATERNAL CARE	NO.
Pregnant with 4 or more Prenatal visits	
Pregnant given TT2 plus	

FAMILY PLANNING		
METHODS	New Acceptors	Current Users
A. Condom		
B. Injection		
C. IUD		
D. LAM		
E. NFP		
F. Pills		

EPI	NO.
Infants given: BCG	
DPT 1	
DPT 2	
DPT 3	
OPV 1	
OPV 2	
OPV 3	
Measles	
Hepatitis B1	
Hepatitis B2	
Hepatitis B3	
Fully Immunized Children (9-11 mos)	

TB CONTROL PROGRAM	NO.
New sputum (+) cases admitted	
to treatment 12-15 mos. ago	
Completed SCC	
Cured	

Prepared By: Date:

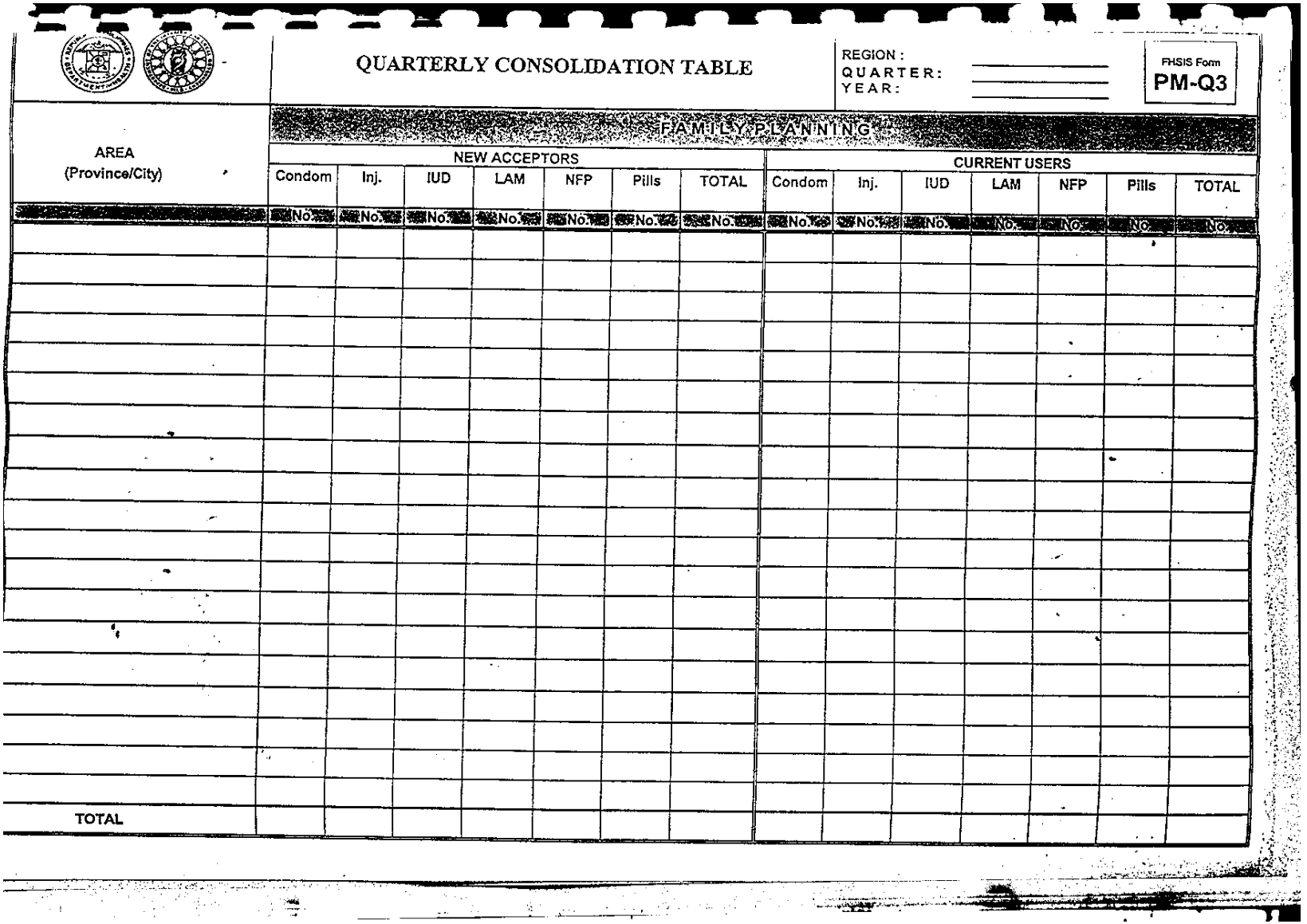
Approved by: Date:

QUARTERLY CONSOLIDATION TABLE

REGION : _____
QUARTER: _____
YEAR: _____

FHSIS Form
PM-Q3

AREA (Province/City)	TOTAL POP.	PRENATAL CARE		TB - DOTS				
		Preg. w/ 4 or more Prenatal Visits No.	Preg. given at least 2 doses of TT prior to delivery No.	New sputum (+) cases admitted to treatment 12-15 mos. ago No.	No. completed treatment	Completion Rate Col. 6/Col.5 X 100	No. Cured	Cure Rate Col. 8/ Col.5 X 100
1	2	3	4	5	6	7	8	9
TOTAL								



QUARTERLY CONSOLIDATION TABLE

REGION :
QUARTER:
YEAR:

FHSIS Form
PM-Q3

AREA (Province/City)	FAMILY PLANNING													
	NEW ACCEPTORS							CURRENT USERS						
	Condom	Inj.	IUD	LAM	NFP	Pills	TOTAL	Condom	Inj.	IUD	LAM	NFP	Pills	TOTAL
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
TOTAL														

QUARTERLY CONSOLIDATION TABLE

REGION : _____
QUARTER: _____
YEAR: _____

FHSIS Form
PM-Q3

AREA (Province/City)	EXPANDED PROGRAM ON IMMUNIZATION											
	BCG	DPT1	DPT2	DPT3	OPV1	OPV2	OPV3	MEASLES	FIC	HEPA B1	HEPA B2	HEPA B3
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
TOTAL												

HIS (FHSIS) Annual Report for the Year _____

Municipality / City of _____

Province: _____

VITAL STATISTICS REPORT

HIS (FHSIS) Annual Form 1

A1

DEMOGRAPHIC INFORMATION

Total POPULATION of City / Municipality					
Number of Barangays		**Number of Health Workers in LGU:**			
Number of BHSs		Doctors		Dentists	
No. of Households (HH)		Nurses		Midwives	
		Nutritionists		Engineers / Sanitary Insp.	
		Medical Technologists		Active BHWs	
		Dental Aides		Trained Birth Attendants	
		Non-Technical			

ENVIRONMENTAL

No. of HH with access to safe water Level I		No. of Food Establishments	
Level II	Level III	No. of Food Establishments w/ Sanitary Permit	
No. of HH with sanitary toilets		No. of Food Handlers	
No. of HH with satisfactory garbage disposal		No. of Food Handlers with Health Certificate	
No. of HH w/ complete basic sanitation facilities			

NATALITY

No. of Livebirths Male		Deliveries Attended		No. of Deliveries by Type and Place			
Female		By: Doctors			Home	Hospital	Others
Weight at Birth:		Nurses		Normal			
2500 grams & greater		Midwives		Others			
Less than 2500 grams		Trained Hilot		Type of Pregnancy		Normal	
Not Known		Untrained		Risk		Not Known	
		Others					

MORTALITY

Total Number of Deaths		Number of Maternal Deaths	No. of Infant Deaths	
Male		Number of Infant Deaths due to Neonatal Tetanus		
Female		Number of stillbirths (late fetal) this year		

Prepared by: Date:	Approved by MHO: Date	Noted by Mayor's Office: Date:

HIS (FHSIS) Annual Report for the Year _____

Municipality / City of _____

Province: _____

HIS (FHSIS) Annual Form 2

A2

NOTIFIABLE DISEASES REPORT

DISEASE	< 1		1 - 4		5 - 14		15 - 49		50 - 64		65 +		TOTAL	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
DIARRHEAS														
PNEUMONIAS														
Bronchitis / Bronchiolitis														
INFLUENZA														
MEASLES														
TB RESPIRATORY														
TB MENINGITIS														
TB Other Forms														
DISEASES OF THE HEART														
HYPERTENSION														
MALIGNANT NEOPLASM														
CHICKEN POX														
DENGUE FEVER														
MALARIA														
CHOLERA														
Typhoid and Paratyphoid														
VIRAL HEPATITIS														
RABIES (HUMAN)														
DIPHTHERIA														
TETANUS NEONATORUM														
NON-NEONATAL TETANUS														
POLIOMYELITIS														
WHOOPING COUGH														
GONORRHEA														
SYPHILLIS														
AIDS / HIV INFECTION														
LEPROSY														
SCHISTOSOMIASIS														
FILARIASIS														
MENINGITIS / ENCEPHALITIS														
LEPTOSPIROSIS														
POISONING (food/chemical)														
MENINGOCOCCEMIA														
Other Diseases of Unusual Occurrence														

Prepared by: Date:

Approved by MHO: Date:

Noted by Mayor's Office: Date:

HIS(FHSIS) Annual Report for the Year __________

Municipality / City of: ____________________

Province: ____________________

HIS(FHSIS) Annual Form 3

A3

MORTALITY REPORT

CAUSE	< 1		1 - 4		5 - 14		15 - 49		50 - 64		65 +		Total		Deaths w/ Medical Attendant
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	

Prepared by: Date:	Approved by MHO: Date:	Noted by Mayor's Office: Date:

PART A: MASTERLIST AND HIGH RISK CATEGORY IDENTIFICATION

Prepared by: _____ Date Start: _____

Barangay: _____ Date End: _____

ID No. (1)	Name of MWRA (First Name, Middle Initial, Last Name) (2)	Age (as of last b-day) (3)	Risk Conditions (please check)					High Risk? [Y=Yes] (9)
			Age Below 20 (4)	Age Above 35 (5)	4 births or more (6)	Child below 15 mos. (7)	Medical Cond. (see list below) (8)	

**Medical Condition: Treated for diseases such as tuberculosis, malaria, anemia, heart or kidney diseases, hypertension, liver or blood diseases or peptic ulcer, diabetes, asthma, goiter, etc.

Total High Risk: _____

PART B: UNMET NEED CATEGORY IDENTIFICATION

Yes	Soon/Yes	Later/No.				Unmet Need? [Y=Yes]
	Action 4=NHR 5=HR	No (If no. ask Q4)	Yes	No	Yes	
Action 1 (10)	Action 4/5 (11)	Action 2 (12)	(13)	Action 3 (14)	Action 6 (15)	(16)

Action 1: Give Information on ante-natal care and pregnancy mgt.
Action 2: Give information about services and refer to fixed clinic.
Action 3: Refer to clinic for counselling and give info. on switching.
Action 4: Inform about services in case she changes her mind.
Action 5: Inform on possible complications of high-risk pregnancy.
Action 6: a. Resupply client and remind client of next scheduled visit.

Total

PART C: FAMILY PLANNING MONTHLY SERVICE DELIVERY LEDGER

P - Pill	**FVS** - Litigation (female)	**O** - Others	Source of Supply/Method:
C - Condom	**MVS** - Vasectomy (male)	• Diaphragm/Spermicides	**B** - BSPO/MPO/PPO
Inj. - Injectables (DMPA)	**NFP** - Natural FP	• Abstinence/Withdrawal	**C** - Clinic (Health)
IUD - Intra-Uterine Device	**LAM** - Breastfeeding	• Rhythm/Calendar	**P** - Private (pls. Specify)

Monthly Service Delivery Ledger *(write month in the blanks below)*

(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)
P-6											
N-1	if preg-	nant									
N-2-	unmet	need									
P-3	not sat	isfied									
N-4	age hig	h risk									
N-5	high	Risk									
10											5

TOTAL NUMBER OF ACTION 2 CLIENTS

ins

CDLMIS CONTRACEPTIVE ORDER FORM

FACILITY _____ LOCATION _____
Barangay Municipality Pr

FACILITY IDENTIFIER [|] [|] [|] [| |] [| |] [|]

Pls. check box if it is an Emergency Order ☐

	BRAND	UNIT	(A) BALANCE END OF LAST DELIVERY	(B) ADJUSTMENTS (PLUS OR MINUS)	(C) TOTAL AVAILABLE [A + B]	(D) ACTUAL STOCK ON HAND NOW	(E) USED SINCE LAST DELIVERY [C - D]	(F) NO. OF MONTHS SINCE LAST DELIVERY		(H) ASL [G x 6]	(I) QUANTITY REQUIRED [H - D]	(J) EXCESS STOCK REMOVED	(K) STOCK DELIVERED	(L) ENDING BALANCE [D - J+K]	
1	Lo-Gentrol	cycle													
2	49mm Condom	piece													
3	CuT-380A IUD	piece													
4	DMPA Injectable	vial													
5															
6															
7															

SIGNED: _____
DELIVERY TEAM MEMBER

DATE: _____

EMERGENCY ORDER POINT

1. If your supply of any contraceptive falls to this level or below before the delivery team comes back, you must take your contraceptive supplies folder and stock count to the provincial or city health office and place an emergency order.
2. The provincial or city health office delivery team leader will issue to you your order. Make sure to ask for your copy of the COF and RIV.

_____
FACILITY REPRESENTA

DATE: _____

Note: Original Copy - Send this copy to the DOH Family Planning Service