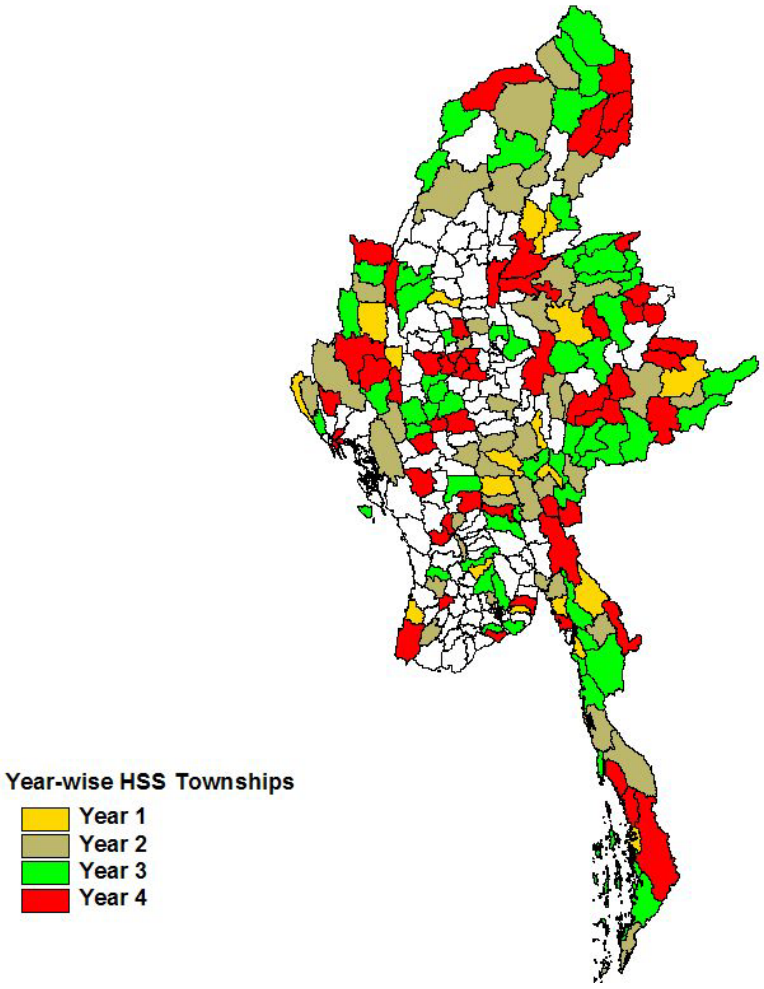
GUIDELINES FOR HEALTH SYSTEM ASSESSMENT

Myanmar June 13 2009



Map: Planned Priority Townships for Health System Strengthening 2008 - 2011

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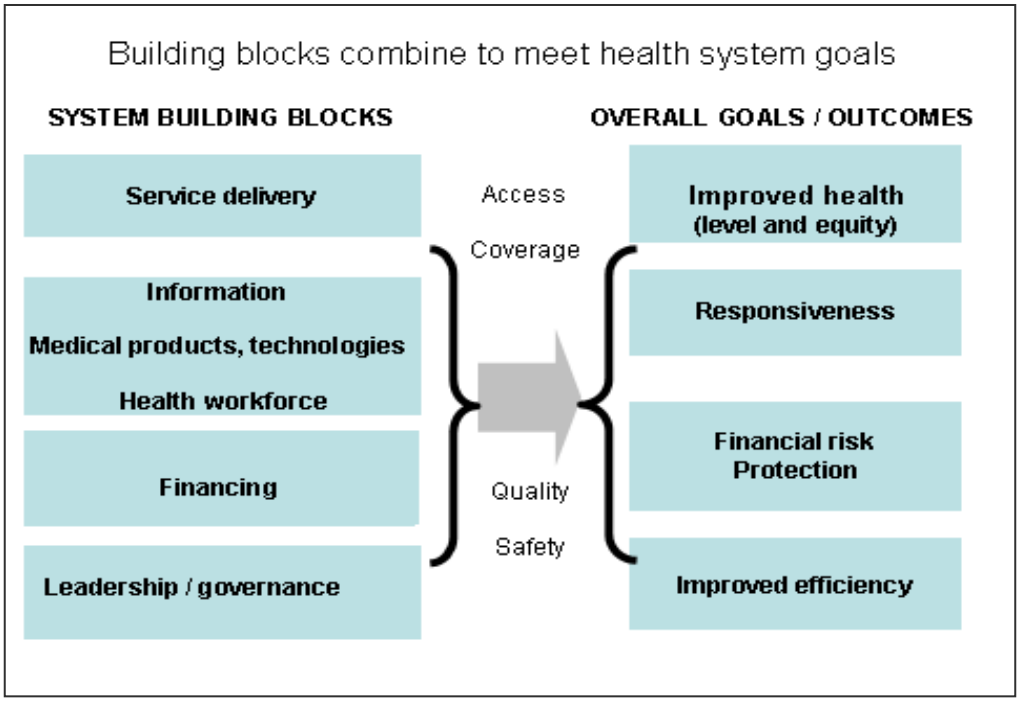
Section 1 Introduction and Background

In 2008, an independent review committee recommended an award of a health system strengthening grant through the Global Alliance for Vaccines and Immunization. This grant was subsequently approved by the Board of GAVI in 2008. A central strategy in strengthening health systems was the development of Township Coordinated Health Plans. In order to have a Township Coordinated Health Plan based on identified needs, the strategy proposes a baseline health system assessment in each Township.

Health Systems Framework

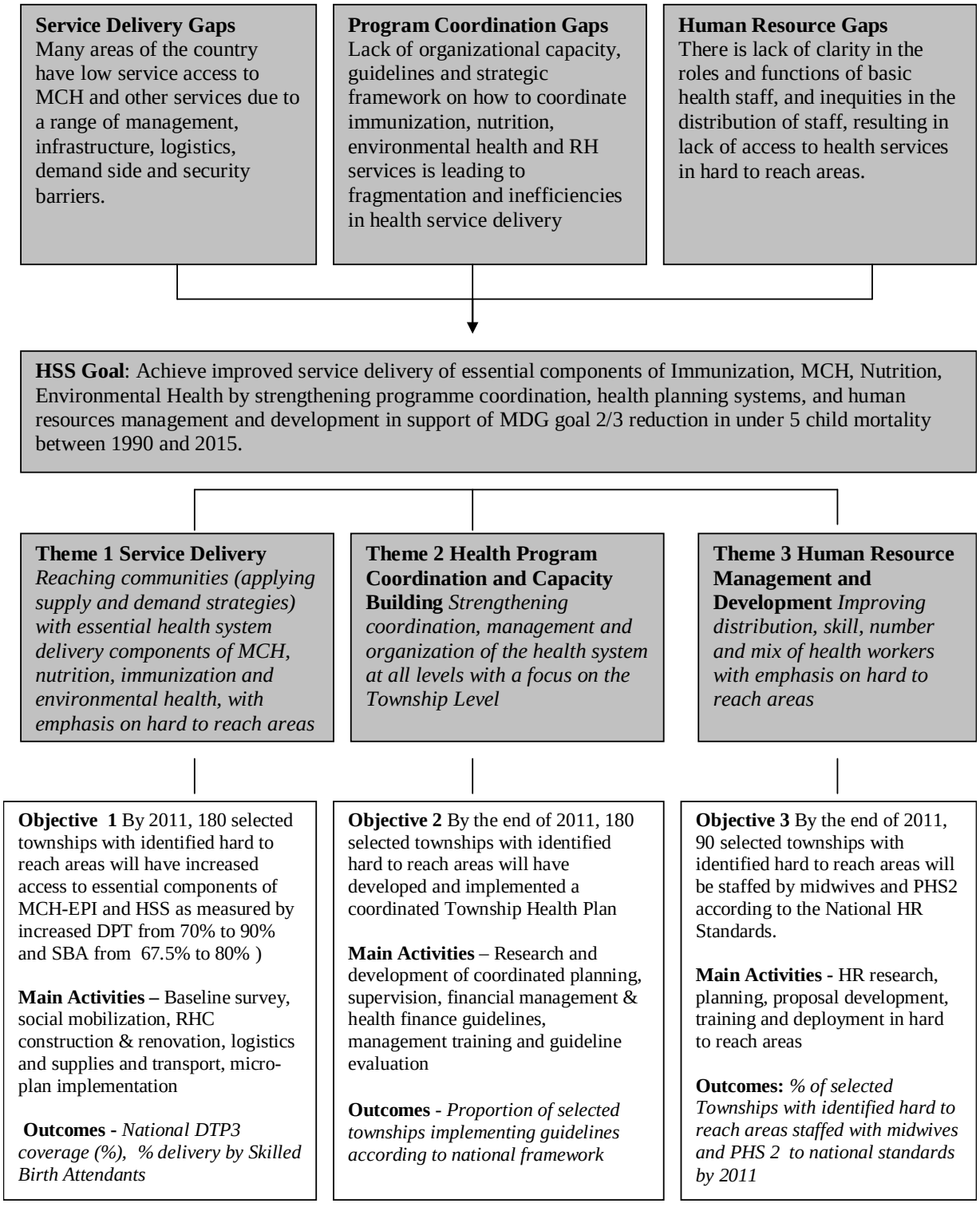
The health systems framework describes how system “”building blocks” interact to effect the equity, responsiveness and efficiency of health care services.

Figure 1 WHO Health System Building Blocks



In the health system strengthening framework developed in Mandalay in 2008, this same interaction between system components was examined. The following figure from the HSS strategy describes program goals, themes, objectives outcomes and main activities. In particular, the Myanmar framework is based on the central concept of the Township Coordinated Health Plan, which provides the focus for input of all health system resources and strategies.

Figure 2 Health System Strengthening Framework Myanmar Mandalay 2008



During development of the health system baseline assessment methodology in Nay Pyi Taw in February 2009, and following testing of the assessment guidelines in May of the same year, the following system areas were identified for description and analysis of health system gaps and bottlenecks at the Township level:

1. Health Management and Planning, including
2. Mapping hard to reach areas
3. Human Resource Management
4. Health Finance and Financial Management
5. Community Participation
6. Hospital Assessment
7. Essential Drugs & Equipment
8. Infrastructure
9. Data Quality and Service Quality

Monitoring and Evaluation Framework

A HSS monitoring and evaluation framework has been designed in order to provide a focus for the health system assessment and Township Coordinated Health Plans. The two tables below outline the M & E framework. *Impact indicators* measure morbidity and mortality. *Outcome indicators* measure health program coverage (e.g. ante natal care, immunization, delivery by trained staff). *Output indicators* measure health system capacity to provide program coverage (e.g. human resource distribution, functioning of planning and financing systems, infrastructure and drugs and supplies.) One of the functions of the health system assessment is to establish a clear baseline for health system strengthening investment (see section 6 Links to Coordinated Township Health Planning).

Table 1 Impact and Output Indicators

Impact and Outcome Indicators *(morbidity, mortality and program coverage)*
1. Township DTP3 coverage (%)
2. Number / % of districts achieving ≥80% DTP3 coverage (National)
3. Delivery by Skilled Birth Attendants (HSS targeted Townships)
4. Rate of ORT Use of <5 children (Township)
5. % of 6-59 months children having Vitamin A during past 6 months (Township)
Output Indicator *(health system capacity)*
1. % of townships have developed and implemented coordinated plans according to national framework
2. Number/% of RHC visited at least 6 times in the last year using a quantified checklist (supervision)
3. Number of managers/ trainers / BHS trained for MEP at each level per year (management training)
4. Proportion of RHCs with no stock out of essential supplies in the last 6 months (availability, service access, utilization, quality)
5. No of RHC and sub RHC renovated and/or constructed per year, including improved drinking water and sanitation facilities
6. % of selected Townships with identified hard to reach areas staffed by midwives and PHS2 according to the National HR Standards.(In one RHC, 5 midwives and 5 PHS 2, 1 Lady Health Visitor and 1 Health Assistance. Each rural sub centre should have one midwife and 1 PHS2)
7. % of Townships implementing Community based health insurance scheme

8. % Townships with active health committees
9. % Townships have coordinated MCH package of services (ANC, TT, Nutrition, BF, BS and VCCT) and IMCI

Section 2 Health System Assessment

Objectives of the Health System Assessment

The objective of the health system baseline assessment is the following:

(a) To identify health system needs and gaps, with a particular focus on hard to reach areas
(b) To provide a baseline for measuring impact of health system and program investments
(c) To provide the evidence base for the development of a Township Coordinated Health Plan

These guidelines, that were developed and tested in Nay Pyi Taw Myanmar in January 2009, aim to provide the opportunity for scale up of health system baseline assessment in 2009 and 2010 in all Townships that are recipients of health systems strengthening grants from all sources. The baseline assessments will assist with targeting of health system resources to the hardest to reach areas of Myanmar.

Methods of the Health System Assessment

There are 4 main **research instruments** for the health system assessment:

1. *A facility and management questionnaire* for Townships and RHCs
2. Infrastructure and *essential drug and equipment questionnaires and inventories.*
3. *Mapping* of hard to reach areas
4. Use of questionnaires and registers for assessment of *data quality and quality of services* at household level.

Surveyors will need to apply a range of **research methods** in order to collect and analyse the health system information. These include the following:

1. Collection and analysis of quantitative health system data (e.g. *infrastructure , human resources ratios, population data, essential drugs lists* etc)
2. Conducting of in depth interviews with health staff regarding *availability and accessibility of services* (hard to reach areas, human resource issues and motivation, management and planning supervision etc)
3. Conducting of Focus Group Discussion (FGD) with Township Health Committee in order to understand more deeply issues effecting community participation and THC function.

The surveys will be conducted in all Townships targeted for health system strengthening, starting with 20 Townships in 2009. Please refer to schedule of Surveyor teams below for details of roles and functions of team members.

It should be noted that there are limitations of this health system assessment. These include the following:

1. A health system assessment is an investment of time and resources. This being the case, data collection and analysis should be prioritized according to the criteria that the information can be utilized for development of the Township Coordinated Health Plan.

2. Surveyor teams will not be able to collect all information during field visits due to shortage of resources and time. Completion of infrastructure and essential drug and equipment inventories will require follow up action by the TMO and Health Committee. In order to manage this limitation, formats can be sent to the township in order to get the details for infrastructure, human resource and essential drugs and equipment inventories one or two weeks ahead of the actual field survey. During the survey, this data can be verified by the surveyors' team.

3. Data quality and service quality assessments will only sample a small number of households in selected RHCs. The sample is not representative of the Township and the results cannot be generalized. However, the DQA and service quality assessment will enable the survey team to detect issues of quality that can be followed up with more detailed research.

4. Hard to reach areas will be mapped during the Township workshop. But it may not be possible to map in detail all areas of the Township. The focus of the mapping assessment for this reason is limited to hard to reach areas. This will assist the surveyors and Township Health Committee to identify targeted areas in the Township for health system strengthening (human resource placement, construction or renovation, transport etc).

For a more detailed assessment of lessons learned from the testing of the assessment guidelines, please refer to Figure 10

The Contents of the Health System Survey

The health system surveyor toolkit is included in a single excel spreadsheet file that includes the following a questionnaire, inventory tables and template for analysis and report writing. The template covers the following system areas:

1. Cover Sheet
2. Health Management and Planning
3. Mapping hard to Reach
4. Human Resources
5. Health Finance and Financial Management
6. Community Participation
7. Hospital Assessment
8. Essential Drugs & Equipment
9. Infrastructure
10. Data Quality and Service Quality
11. Summary Report

All spreadsheets have attached tables for variables for analysis, data entry, responses to questionnaires and format for summary report.

Membership and Preparation of Surveyor Teams

Surveyor Teams will include:

4 Persons from central level (surveyors from DOH and DHP)
2 Representatives from State and Division Level (surveyors from DOH and DHP)

The Township Medical Officer, members of Township Health Committee and some Township Health Personnel will help the team in assessment of township health system by arranging a meeting with BHS, as well as all responsible persons for store management, members of Township Health Committee and also arrange sites for conducting DQA.

Before undertaking the HSS assessment, all members of the team would have undertaken a pilot test or training in the methodology of conducting the assessment. The terms of reference of the surveyor team are as follows:

The central level surveyors will lead the assessment with participation of a State or Division representative. The TMO and a member of the Township Health Committee with act as advisers and coordinate data collection in specific areas. The table below provides an example of how the roles and function of the team could be coordinated (example only).

Table 2 Roles and Functions of HSS Surveyor Team Members

Central Level	Team leader, Report Writer
Central Level	Management & Planning, HR and Mapping
Central Level	Quality assessment, health financing, and community participation
State or Division	Quality assessment, community participation and drugs and equipment
Township Medical Officer	Adviser Drugs and equipment, infrastructure and management and planning
Township Health Committee	Adviser community participation

It is expected that there will be 5 teams to conduct the assessments. An orientation meeting of 1 day will be required before the teams depart to brief all members on objectives, methods, roles and functions, schedule and process for report writing and follow up.

The Schedule for conducting a HSS Assessment

It is envisaged that a HSS assessment would take place according to the following schedule over a 5 day period:

DAY 1: TOWNSHIP Travel to site and meet with TMO and Township Health Committee members, Station Medical Officers, THO, THA, THN, HA (1) and all Health Assistants. On this first day, a meeting can be convened at the Township Hospital. The Township Medical Officer can present the Township health map and identify the hard to reach areas.

After all the surveyors are familiar with the Township situation, the surveyor team can divide into five small groups.

Group 1 One surveyor will meet with TMO + one person from budget section for financing and financial management
Group 2 One surveyor will meet with TMO, office staff and Group of HAs from RHC for infrastructure and human resources
Group 3 One surveyor will meet with medical store responsible for drugs and equipment
Group 4 One surveyor will meet with THC members for community participation in FGD
Group 5 Two surveyors will meeting with the larger group of HAs from the RHCs for planning and more detailed hard to reach mapping.
It is on the basis of the hard to reach mapping exercise that RHCs can be purposefully selected for conducting the lower level assessments over the following 4 days.

DAY 2: RHC 1 and DQA
RHC 1 Travel to the first RHC and meet there with sub Rural HC staff. This site would have been purposively selected based on the TMO's assessment of “hard to reach classification.” At this site, two activities would be conducted. These are the facility questionnaire for RHC and mapping of hard to reach areas with sub HCs (morning) and DQA (afternoon) (1 day).

At present almost all health centers has their own area mapping which represents its area coverage, villages and some land markings. Yet there is no in-detail data for hard to reach area such as how many villages could not be reached by midwife, reasons and how people living in those areas are being taken care of for their health problems, their socio-economic status, other social barriers of accessibility. Facility assessment and identifying hard to reach areas can be done in the morning and DQA can be done in the afternoon. As the surveyors are going to stay at the township for five days they can stay overnight at

the village for completion of the DQA. Due to issues of feasibility, only the three villages close by should be selected for conducting DQA.

DAY 3: RHC 2 and DQA

RHC 2 Travel to the second RHC and meet there with sub Rural HC staff. This site would have been purposively selected based on the TMO's assessment of "hard to reach classification." At this site, two activities would be conducted. These are the facility questionnaire for RHC and mapping of hard to reach areas with sub HCs (morning) and DQA (afternoon) (1 day).

DAY 4: RHC 3 and DQA

RHC 3 Travel to the third RHC and meet there with all sub rural HC staff. This site would have been randomly selected based on easily accessible RHCs. At this site, two activities would be conducted. These are the facility questionnaire for RHC and mapping of sub RHCs (morning) and DQA (afternoon). (1 day)

DAY 5: DATA ENTRY

Data analysis and presentation of preliminary findings to TMO and/or Health Committee and planning of follow up actions required to complete the assessment. (Finalize report and make report recommendations for coordinated health planning and HSS investment)

DAY 6: REPORT WRITING

Each surveyor can then draft a 2-3 page report on the specific system area. The report is then integrated by the team leader with a summary report (see section 5 for details).

Section 3 Guidelines for Health Mapping of Hard to Reach Populations

The purpose of health mapping is the following:

1. To identify hard to reach areas and target populations
2. To identify barriers to access (*physical access, social access, economic access*) to hard to reach populations
3. To identify health system resources and actions required to reach these populations.

The target facility for health mapping for hard to reach populations is at the sub rural health centre. It is this level of the health system that can describe and detect unreached populations at the household level.

In most instances, sub RHCs already have hand drawn maps. A form should be sent (see Table 1 of "Health Management & Planning") identifying hard to reach areas. Staff can use existing hand drawn maps or develop one in order to graphically represent hard to reach areas and populations. It is not necessary to map easy to access areas. It is important to map and analyse village tracts that are hard to reach.

Information that is required in the maps should be:

- State, Division, Township, RHC, sub RHC, Village Tract
- Target populations (pregnant women and children under 5)
- Estimated number unreached for EPI and ANC/delivery services.
- Households
- Roads and main features of area.

Table 1 and guidelines for mapping should be sent by the TMO requesting mapping from all hard to reach areas in Township before the assessment takes place. On the first day of the assessment at the Township, a workshop could be organized with all RHCs. Those invited to the workshop should include the HA, LHV, and a midwife from the hard to reach sub health centre. The workshop could proceed according to the following steps:

STEP 1 Central level health system surveyors outline the objectives and processes of the workshop, and techniques for hand mapping of coverage areas. The central surveyors also explain the concept of "health system barriers" to participants.

- Physical barrier (relates to geographic distance)
- Social barrier (relates to issues of social communication)
- Economic barrier (relates to cots of services or travel for either health staff or community member)

It is important to note that not all hard to reach areas are distant geographically. Due to economic barriers (e.g. cost of services) or social barriers (e.g. language) some populations very close to facilities may be at high risk of not accessing the services.

STEP 2 TMO presents the overall Township map, identifying hard to reach areas and the main barriers relating to availability and accessibility of services.

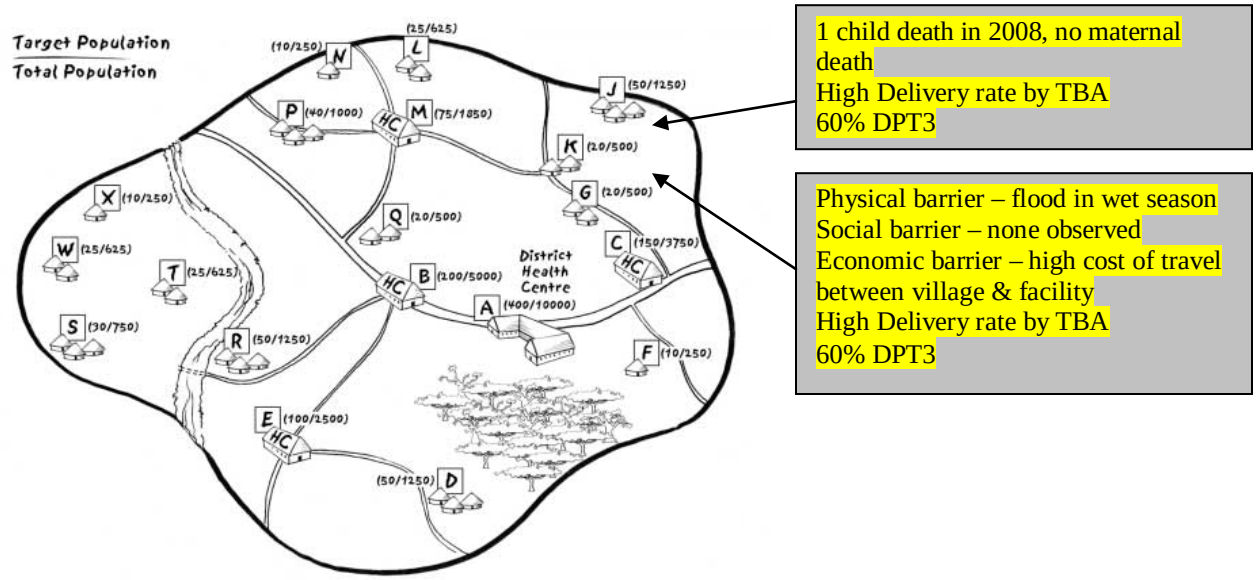
STEP 3 Workshop participants, following instructions from facilitators, hand draw RHC maps identifying hard to reach areas, and smaller scale maps of the specific hard to reach areas within the RHC (sub RHC level).

STEP 4 Each RHC then presents the map identifying (with cards) the following:

- Hard to reach areas or unreached with estimated no. villages and populations
- Barriers (physical, social, economic)
- Pockets of low coverage for EPI, SBA or child mortality

Figure 3 Sample of Health Mapping

Sample 1 Mapping Target Population, Health Coverage and Barriers



STEP 5 Commence a group discussion on hard to reach or unreached areas. Suggested discussion points include:

- What is the estimated numbers of hard to reach villages
- What is the estimated total population in hard to reach areas
- Analyse classifications at the local level – are these unreached or hard to reach?
- How does staff access the area? (road, bicycle other, cart, walk)
- What is the time of travel?

- Are there pockets of low EPI coverage, low delivery by SBA, or under 5 child mortality in the last 12 months? Locate on the map.
- What are the main barriers to access (physical barrier, social barrier, economic barrier – see figure below)
- What is health system resource or strategy is required to reach the population?

STEP 6 As a follow up activity, the TMO can send forms and map guidelines to all identified hard to reach areas. For the Township Coordinated Health Planning, this can then be consolidated into a Township wide hard to reach health map.

Figure 4 Frameworks for Analyzing Barriers for Hard to Reach Areas

Analyzing Accessibility Barriers for Hard to Reach Areas

Barriers can be classified according to the following categories:

A. Economic barriers: Cost of travel or cost of services may be factors that inhibit the accessibility of the services to the population. On the other hand, cost of travel to more remote areas can also affect availability of services by preventing health staff from travelling.

B. Social barriers: In some locations, there may be language barriers to social communication. Perhaps the knowledge of the population regarding health care may affect their willingness to utilize services. Patient perceptions of attitude of health staff or quality of services may also effect utilization. For category A and B, it may mean that the hard to reach population is in fact located very close to facilities. That is, hard to reach does not mean the same as "lives a long way from the facility."

C. Physical barriers: Mountain areas, seasonal flooding, poor roads and lack of public transport systems may all be factors effecting availability and accessibility of services.

By analyzing gaps in this way with hard to reach mapping, surveyors and health managers can assist to identify the main health system gaps effecting population health. They can then answer the following questions in the analysis:

What are the main health systems gaps effecting health service accessibility, availability and utilization at the Township?
What are the main health system investments that would make a difference to health service accessibility, availability and utilization in this Township?

Answering these two questions will assist central, division and state planners, as well as Township Health Committees, to provide a **strategic direction** for the Coordinated Township Health Plan.

Section 4 Guidelines for Data Quality Audit and Quality Assessment

Data Quality Audit

For the monitoring and evaluation strategy of the MOH, the main outcome indicators are measured through the health management information system (HMIS). Examples include DPT3 coverage and delivery by trained health personnel. One of the main strategies for measuring the effectiveness of the health management information system is to make an assessment of the accuracy of the data recorded. There are many reasons for inaccurate data collection and analysis. These include the following:

- Incorrect recording in health facilities
- Incomplete recording of immunizations form, for example, exclusion of the private sector, or errors with the way that data are transferred to and collated nationally.
- During intensive immunisation campaigns designed to immunize all children, administrative data can also incorrectly record new immunizations in children who have previously been immunized.
- Errors might also arise in the measurement of the denominator due to outdated censuses, incomplete population registries or inaccurate population projections.
- Incentives leading to over-reporting of the performance indicator.

There are three major ways to conduct an assessment of data quality (DQA). These are:

1. Implementing coverage surveys
2. Checking for consistency of data between registers and the community level
3. Checking for consistency of data between registers and health information reporting.

For the purpose of this base line assessment for health system strengthening, both the second and third options have been selected. The main reasons for this selection were to provide the health system surveyors the opportunity to undertake limited household surveying for the purpose of both DQA and for undertaking some assessment of health service quality.

Checking for consistency of data between registers and the community level

The method for conducting DQA is as follows:

1. Randomly select a RHC from the list of RHC in the Township
2. From the patient outpatient register, view the total number of AN cases, deliveries, EPI and TT and under 5 child consultation in the previous 3 months. See the table below for an example.

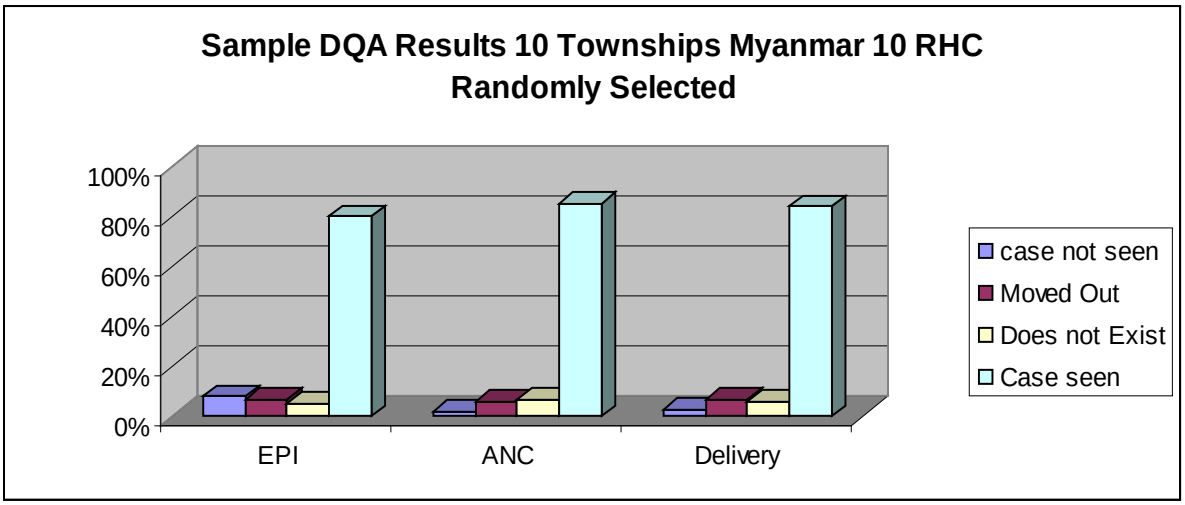
Table 3 Data Quality Audit Sample (community)

	Total cases (up to 20)	10% of cases
1. Total No. of AN cases –	30	3
2. Total No. of deliveries –	10	1
3. Total No. of DPT 3 –	34	3
4. Total No. of TT 2 –	30	3
5. Total No. of <5yr general clinic attendance	150	15
Total	254	25

3. Select 10% of the total cases for field visits (= 25 Total selected cases) (Note: If field visits cases are found to be few(50)cases for a mw at HTR area, 50% of total field visits have to be taken =25 total selected cases)
4. Select from the 3 closest villages to the facility. Although this introduces some bias into the assessment, it is also necessary to consider the practical aspects of the assessment.
5. Randomly select the cases from the list in the register for the three villages close by to the facility. This needs to be done by first selecting the sampling interval. The sampling interval = the total numbers of cases divided by the sample size. In the case of EPI, it would be 34/3 which equals 11. This means every 11th EPI consultation is selected for field visit at the home.
6. Once the sample has been selected for the indicators (or selection from the above table), the home is visited to confirm the services were provided.
7. The results can be coded the following way:
    i. Case not seen
    ii. Temporarily or permanently moved out
    iii. Name does not exist
    iv. Case Seen
8. Results are analyzed in the following way:
    i. > 90% accuracy = Excellent
    ii. 80% - 90% = Very Good
    iii. 70% - 80% = Good
9. In terms of follow up action, it should be noted that there are many reasons for data inaccuracy (as noted above). What findings can potentially highlight (apart from very good data accuracy) is the need for supervisors to undertake closer monitoring of data recording and analysis, OR for the need to undertake more in depth coverage surveys at a later date.
10. Data from 10 Townships or more can then be aggregated into national DQA results. Figure 5 gives an example of what the results may reveal. It is important to note that DQA results cannot be generalized for the Township – the sample is too small. However, scaling up the DQA methodology to all Townships using

random selection of cases will generate a clearer picture of data quality generally in Myanmar.

Figure 5 Example of Aggregated DQA Results 10 Townships



Checking for consistency of data between registers and health information reporting

Using the same data sample, it is now possible to match the data from registers with data from the health information system. An example table is provided below, demonstrating an 88% match between register and health information report.

Table 4 Data Quality Audit Sample (health information system)

Table 4 Match Between Register and RHC/Sub RHC Report		
	Seen in Register	Seen in HIS report
No of TT cases	5	4
No of AN Cases	5	3
No of Deliveries	5	5
No of EPI	5	5
No Child Consultations	5	5
TOTAL	25	22
Level of Match between HIS and Registers	88	

Assessing Service Quality

When undertaking data quality audit at household level, it also provides the opportunity to make some assessments of the quality of the services provided.

There are various ways to assess quality of services. These include:

1. Analysis of health outcomes
2. Observations of health service provision and competencies of health staff
3. Community perceptions of the quality of care
4. Analysis of objective indicators of care

Analysis of health outcomes can be detected through the health information system and coverage surveys. Observations of competencies of staff are beyond the capacity of this assessment. However, it is possible as part of the HSS assessment to undertake limited assessments of community perceptions of care and of some objective indicators of quality.

Five areas have been selected for assessment:

1. Ante natal care
2. Delivery care
3. Child Immunization
4. Tetanus immunization
5. Under 5 child care

An example of a community perception question and objective indicator is provided below:

OBJECTIVE INDICATOR OF PERFORMANCE

Did the midwife use a glove during delivery?	Yes	No
Did the midwife use CDK during delivery?	Yes	No

SUBJECTIVE PERCEPTION OF PERFORMANCE

Were you satisfied with the health service performance?		Yes	No
Communication skills of the staff:	Good	Fair	Bad

As with Data Quality Audit, it is important to note that service quality assessments cannot be generalized for the Township – the sample is too small. However, scaling up the service assessment methodology to all Townships using random selection of cases will generate a clearer picture of service quality issues in Myanmar.

Section 5 Guidelines for Analysis and Report Writing

Qualitative System Analysis: The questionnaire format is linked to the analysis and report writing. Each system area has a corresponding set of variables (indicators to be measured), which are mostly related to the system area being assessed and the indicator in the M & E framework. The following example from health planning system area provides an illustration of the link between health system area, variable, research question and analysis.

Figure 6 Example of Analysis of Planning System

MANAGEMENT & PLANNING				
System Area	Main variable	Questions	Main Findings	Main Recommendations and Strategies
Planning System	Level of Integration of planning	7. What are the main barriers to integrated planning?	Vertical program budegting comes from central level. These programs are managed as budgets. There are som many different projects and budegts lines and there is no system for coordinating them. Also we do not have enough trained management staff to manage the coordination. The Township health Committee is not accustomed to have a strong coordination role.	**There needs to be investment in management capacity building for the Township health committee. There need to be clear planning guidelines on how to coordinate all the different projects into a single plan.**

In relation to the *health system category* of health management and planning, the main *system area* being examined is the planning system. The *specific variable* being measured is the level of integration of planning. *Main findings* relate to the causes of low levels of integration or planning (or high levels if an opposite result is observed). *Recommendations and strategies* (from either the TMO or surveyor team) relate directly to the findings observed.

For *health infrastructure*, variables to be measured included transport, power, water and sanitation and the infrastructure status of Rural Health Centres. For *human resources* variables include numbers, distribution, retention, skill mix, motivation and professional development. For *health financing*, variables include sources of finance, financial allocation, budget utilization and barriers to implementation of health financing schemes. Refer now to Book 2 (Health Surveyor Tools), which provides more details on health system categories and variables to be assessed during the survey.

Quantitative Data Analysis: Much of the data is quantitative and can be managed through computer data entry. A data entry template can be constructed in SPSS or Epi-info program. Examples include hard- to-reach data (e.g. cost of travel, distance of travel, mode of travel), human resource and population numbers and infrastructure condition. Through coding of Townships and consistency in coding of variables, it will be possible to build up a single data base on the health system that will provide a national picture of health system gaps as the assessments scale up. However, to be feasible, there will need to be consistency in data bases (i.e. similar coding and data entry templates) and consistency in management of the data bases.

Reporting: For each health system category (8), there are up to 10 variables. This being the case, it will be important to prioritize results into a health system category analysis and a summary health system report. Figure 7 demonstrates how a system report can be made. In a summary report it is important to see how system factors interact to effect availability, accessibility and utilization of services in the Township.

Availability of services refers to the observation that health services infrastructure, human resources and essential drug and equipment for example exist in adequate supply. An example of non availability of services is absence of human resources or RHC in a hard to reach or unreached area of the Township.

Figure 7 Making a System Report

System Report - Management & Planning

Summary of Main Findings: The Township has a set of program and project activity plans with objectives and targets. However, none of these plans are fully costed, and most plans are organized on vertical lines. Health system areas that required improved planning include human resource and infrastructure development in some unreached areas, and strengthening of the health financing strategies at the Township level (trust Funds and Drug Revolving Funds).
Suggestions Action for follow up for Coordinated Township Health Planning: Capacity building programs should be conducted for Township Health Committees to ensure that one local authority representative is responsible for health planning. Clear guidelines should be developed for coordinated Township Planning. By 2010, there should be a single coordinated Township Health Plan that includes objectives, targets, activities and costs from all sources. There should be a clear focus in this plan on health financing schemes and infrastructure development in unreached areas.

However, availability of services does not necessarily mean that services are accessible. ***Accessibility*** refers to the capacity of the population to access the service. For example, infrastructure and health staff and essential drugs may be available in the area, but the population may not be able to access the services due to financial constraint or inability to communicate with the health staff. This can lead to low ***utilization*** of services. High utilization however does not necessarily mean high impact. The services are required to be of sufficient ***quality*** to ensure that there is public health impact. These definitions and examples illustrate the interaction between health system service components or "building blocks." This interaction between health system building blocks should be analyzed in the summary report.

The main questions you can ask in a summary report are as follows:

1. *What are the main health system BARRIERS (up to 5 barriers) for improvement of maternal and child health services? 2. What are the main RECOMMENDATIONS for the Coordinated Township Health Plan?*

Use the following checklist to assist you to summarize the main factors effecting universal coverage -

Availability of Services: What is the general analysis of availability of services in this Township? What are the main factors effecting availability?

Accessibility of Services: What is the general analysis of accessibility of services in this Township? What are the main factors effecting accessibility?

Services Utilization: What is the general analysis of utilization of services in this Township? What are the main factors effecting utilization?

Quality Services: What is the general analysis of quality of services in this Township? What are the main factors effecting quality?

An example is provided of a summary health system assessment in Figure 8.

Figure 8 Making a Summary Health System Assessment Report

Summary Health System Assessment Report EXAMPLE Township X

1. What are the main health system BARRIERS (up to 5 barriers) for improvement of maternal and child health services?

1. The main barrier to health service accessibility and availability are geographic barriers to access and limited financial capacity of the population and of the health services. 20% of the villages are hard to reach, and half of these villages can be reached only by walking. In the wet season the villages are not accessible.
2. In terms of *human resources*, there are large inequities in human resource distribution, with some midwife populations reaching 1:10,000, which is way above the national standard of 1:5000.
3. In terms of *financial management*, over 90% of recurrent expenditure at the Township level is on salaries. Lack of operational costs is leading to high health costs for population and limited staff travel to remote areas. Although a large percentage of the population has *health insurance* cover, the benefits cover very few interventions, once again leading to high health costs for the poor population.
4. There is also major transport and infrastructure barriers to access and availability – many locations have no facility and few health staff have the transport means to reach the remote areas.
5. Discussion with the THC and the population during DQA indicates that the poor population in remote areas has a poor knowledge of risk factors for maternal and child illness.

2. What are the main RECOMMENDATIONS for the Coordinated Township Health Plan?

1. ***Human Resources***: Develop a human resource plan for filling vacant posts and request filling of the post to Division Health Director.
2. ***Financial Management:*** (a) Develop a coordinated plan for the Township and identify health resources from alternative sources.(b) Expand the population covered and health benefits for the very poor through research and development of a stronger health financing plan (with seed grant from another source)
3. ***Infrastructure and Transport:*** In order to improve availability of services in remote areas, a detailed infrastructure and transport plan needs to be developed for remote areas.

Figure 9 Table of Contents of Health System Report

Figure 9 Table of Contents of Health System assessment

Table of Content Township Health System Assessment

1. Summary Report (2 page)
    a. *Township Profile (population, health facilities, demographic, geographic – half page)*
    b. *Summary of health system barriers and recommendations for Township Coordinated Health Plan)*
2. Meetings conducted
3. Objective of Assessment
    a. *To establish a baseline assessment for health system assessment*
    b. *To guide development of the Township Coordinated Health Plan*
4. Main Findings
    a. *Health Management and Planning (1 or 2 page)*
    b. *Mapping hard to Reach*
    c. *Human Resources*
    d. *Health Finance and Financial Management*
    e. *Community Participation*
    f. *Hospital Assessment*
    g. *Essential Drugs & Equipment*
    h. *Infrastructure*
    i. *Data Quality and Service Quality*
5. Annexes
    a. *Maps and Tables*
    b. *Complete M & E Baseline Framework for Township Plan*

Figure 10 provides details on lessons learned from the trial of the health system assessment methodology in Lewe and Ngapudaw Townships in May 2009. Even though the assessment methodology was adapted following the trial, these lessons learned from early implementation should be taken into account when conducting future assessments.

Figure 10 Lessons learned from the Health System assessment Trial

LESSONS LEARNED FROM THE TRIAL OF THE HEALTH SYSTEM ASSESSMENT

1. **Managing the scope of the assessment** - It possible to go into great detail in a health system assessment, as it covers all aspects of the health system. However, there are time and resource constraints. So it is important to prioritize data collection that will provide the best guide for development of a Township Coordinated Health Plan. Only collect and analyse information that is needed for this purpose. So there are three options for conducting a health system assessment: (1) *Conducting a comprehensive assessment covering all system areas (2) Conducting a limited assessment focusing on priority system areas (eg. hard to reach, essential drugs and finance) (3) Incorporating the assessment into the planning meeting to develop the Coordinated Township Health Plan*

2. **Monitoring and Evaluation Baseline** – Ensure that the information that is collected and analyzed is included in the monitoring and evaluation framework

3. **Management and Planning** – For the overview of health status, it is important to refer to both the MDG 4 (child mortality) and MDG 5 (maternal mortality) in order to provide a balanced assessment.

4. **Managing and analyzing data** – Whether at Township level, State and Division or Central level, responsibility should be clear for data management. A data manager should be organized for each system area to ensure that data is consistently collected and analyzed. If data is entered and analyzed in a different way, then data cannot be aggregated or compared between years or between Townships. For the same reason it is very important to have the same M & E baseline format and reporting structure.

5. **Defining Hard to Reach Areas -** It is important to note that not all hard to reach areas are distant geographically. Due to economic barriers (e.g. cost of services) or social barriers (e.g. language) some populations very close to facilities may be at *high risk* of not accessing the services. These "high risk" could for example be urban populations.

6. **Community Participation –** In order to understand more deeply the issues effecting the quality of community participation, it is of more value to adopt a focus group discussion approach with the Township Health Committee members if this can be arranged.

7. **Hospital Function –** The high numbers of maternal deaths observed in the assessment highlights the importance of taking a comprehensive assessment of the health system if this is feasible. For this reason, a limited assessment of hospital function has been included, focusing on main indicators of function, mortality, and constraints in achieving high coverage of hospital are for women and children

8. **Essential Drugs and Equipment:** It is not possible to conduct a full inventory of essential drugs and equipment. So the list has been shortened so that an assessment can be made of the availability of critical life saving drugs & equipment for hospital, RHC and sub RHC.

9. **Data and Service Quality Assessment:** (a) Based on random selection, it may not be feasible to randomly select all villages for assessment. Conduct service quality check with 10 mothers who have children under the age of 5 in nearby villages of the midwife (household randomly select) (b) For data quality, it is important to contrast data between routine health reports and register data entry, and not just between register entries and community members.

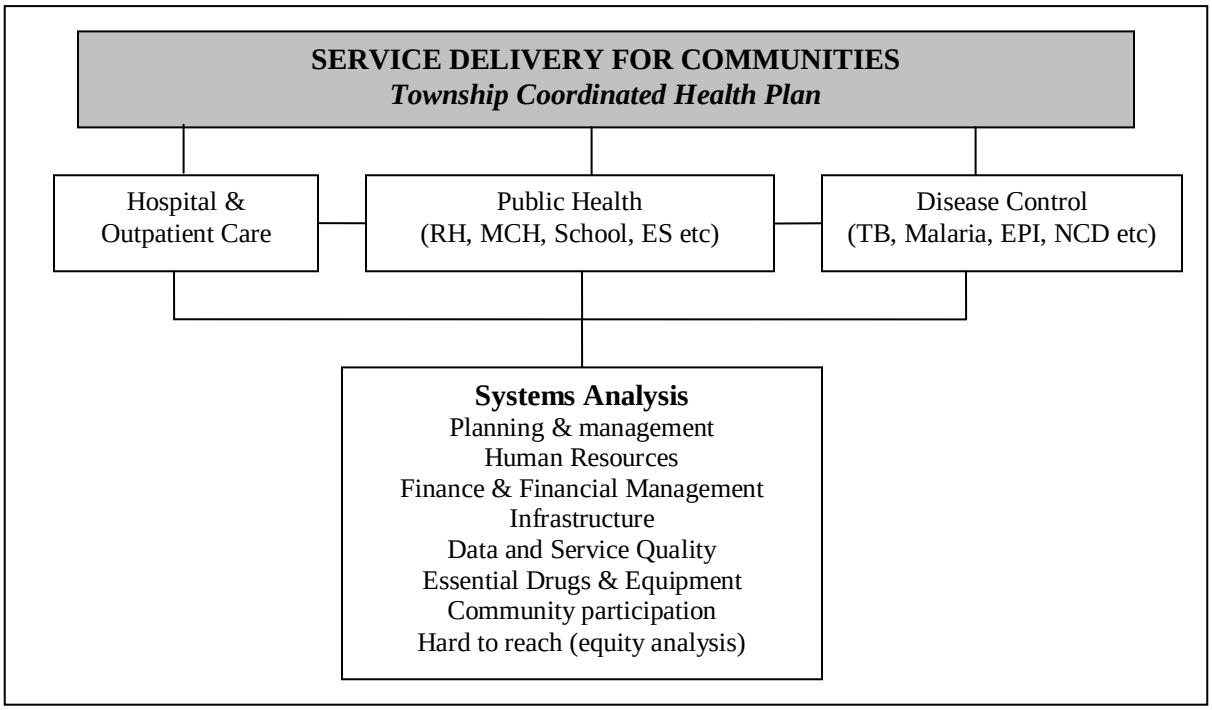
Section 6 Guidelines for Linking Health System Assessment to the Township Health Planning

Introduction: The central health system assessment teams will not be able to collect all information within the 5 day period. For this reason, clear instruction and advice will need to be provided to the TMO and THC for follow up assessment and data collection activities. Specifically this will involve:

- Obtaining all documentary and photographic evidence for required renovation and construction sites by the Township Health Committee
- Obtaining detailed mapping of all hard to reach areas and unreached areas
- Completion of inventories of equipment and essential drugs at all RHCs.

However, a detailed situation analysis of health systems will be required in order to develop evidence based Coordinated Township Health Plans. This baseline health system assessment would contribute in large part to the situation analysis component of the plan. An annual health system review of key strategic areas of the Coordinated Township Planning process (Hospitals, Disease Control and Public Health) would complement the baseline systems analysis and provide a comprehensive situation analysis for annual operational planning and longer term strategic planning. In other words, the baseline health system assessment could be updated annually as part of the annual planning process. Figure 11 below outlines the interaction between health systems and program analysis.

Figure 11 Links between Health Systems and Township Coordinated Health Planning



The main point about health system analysis is that it examines gaps in operations that cut across health programs and service delivery units. These “cross cutting themes” of health systems should

form an essential component for the situation analysis and strategy development of Township Coordinated Health Plans.

"Health financing and financial management" for example cut across strategic areas of hospitals, public health programs for maternal and child health and disease control programs for TB and malaria. The distribution and skill mix of human resources in a similar manner effects the functioning of the health care referral system, and primary care delivery of MCH and disease control programs. Making the transition from "management by project" to "management through systems" is therefore a critical step in achieving the following:

EQUITY Gaining wider reach of health program availability and accessibility through equity of distribution of health facilities, logistics and health human resources

EFFICIENCY Gains in efficiency can be made through improved coordination of health resources in the Township through health systems planning and wider stakeholder engagement (NGOs, private sector). Coordinated planning has the potential to reduce overlap of resources, and target these resources to service gaps in harder to reach areas.

EFFECTIVENESS As a result of equity and efficiency gains, improved health program coverage especially for hard to reach areas

SUSTAINABILITY Managing by system in contrast to managing by project can help to strengthen the self reliance and management capacity of the TMO and THCs.

***Monitoring and Evaluation Baseline*:** One of the purposes of a health system assessment is to establish a monitoring and evaluation baseline for health system strengthening investment. By completing this assessment, it should now be possible to enter the data into the M & E framework for the Township (refer to planning guidelines for detail).

***Coordinated Township Planning Objectives and Strategies*:** The main findings of the HSS assessment should guide the strategic approach of the Township Health Plan. When the plan is drafted, this plan should be reviewed against the main findings and recommendations of the assessment.

BOOK 2 DATA COLLECTION INSTRUMENTS