

**SUPERVISION WORKSHOP  
CONSULTANCY REPORT**

Lusaka, Zambia

October 5-11, 1997

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## ACRONYMS

BASICS	Basic Support for Institutionalizing Child Survival
CBoH	Central Board of Health
DHMT	District Health Management Team
FAMS	Financial and Accounting Management System
HMIS	Health Management Information System
IMCI	Integrated Management of Childhood Illness
UCI	Universal Childhood Immunization
USAID	United States Agency for International Development

## **PURPOSE**

The purpose of this trip was to participate in a supervision workshop organized by the health management information (HMIS) system development team for core HMIS trainers.

## **HMIS BACKGROUND**

As part of the health sector reform in Zambia, the health management information system is being redesigned with a principal intent to make information which is collected immediately useful for the management of services at the level at which it is collected. To this end, self-assessment forms have been drafted for district health management teams (DHMTs), district hospitals and district health centers. The purpose of the workshop was to discuss how supervision could be integrated into the new HMIS as it is entering the final development stage before "rollout" in January 1997.

## **THE WORKSHOP**

The workshop was organized by the principals in the HMIS development project. These include Drs. Jaap Koot and Marietta Wiebenga, consultants from the Netherlands, Mr. Charles Mundale, from the monitoring and evaluation section of the Central Board of Health (CBoH), Ms. Mimi Church, an information systems consultant from the USA, and Ms. Anne Young, from the Zambia USAID mission and a resident of Lusaka. They were joined in conducting the workshop by various persons who have been involved in development and training for the introduction of the HMIS and financial and accounting management system (FAMS). The agenda is included in Appendix A.

### **Day 1 - Monday, October 6**

The morning session covered a review of HMIS use in the 14 initial districts. Recent difficulties which have arisen were discussed, particularly systems problems, as were long-term problems which are yet to be solved. The session also addressed the self-assessment forms as they have been developed to date. Discussions about how to use the forms, and potential problems that may be identified with them, were approached in group sessions.

The afternoon session began with a discussion of the group work from the morning. This was followed by a session on the use of problem solving techniques by Joyce Tembo of the Quality Assurance Unit within the Monitoring and Evaluation Unit of the CBoH. A handout summarizing the steps in problem solving can be found in Appendix B.

## **Day 2 - Tuesday, October 7**

The first 90 minutes of the session were spent in a presentation on supervision skills and methods which included a case study. A copy of a handout which covers the topics discussed is included in Appendix C. This was followed by working groups which were comprised of district, regional/provincial and central level personnel who discussed how supervision from these respective levels was conducted. It was clear that the most active supervision was being conducted at the district level. In spite of many operational difficulties, it is clear that many districts are doing a credible job of supervision. In the discussion process, the districts quickly identified their own problem areas and possible ways to tackle these problems. By contrast, the regional/provincial and central level participants seemed far less active and innovative, with the problem of providing feedback occupying considerable time. Some districts provided only written or only verbal feedback which, they realized, was often unsatisfactory. The weakness of the DHMTs in providing technical skills for the supervision team was repeatedly pointed out.

During these sessions, repeated references were made to the supervision checklists. A member of the HMIS team had encountered the continued use of an obsolete checklist being unproductively used and felt strongly that general guidelines, rather than checklists, should be used in supervision. In the appendixes are checklists and guidelines from two districts which the HMIS team felt were good examples of a less structured approach to supervision. The Masaiti district checklist, which can be found in Appendix D, is still evolving in content. In the district, administrative supervision is often done at a different time from clinical supervision. The Mongu district calls its checklist, which can be found in Appendix E, "Standardized Guidelines;" this contains a bulleted list of structural items with some inclusion of process indicators. In both district lists there are efforts to determine knowledge about various technical protocols, but they do not spell out what items the health worker should know. Neither checklist makes an effort to observe health worker performance.

The afternoon session was devoted to an explanation of the "Triple A" or "3A" forms (assessment, analysis, and action). These forms are to be completed quarterly by hospitals, health centers and DHMTs and can be found in Appendixes F, G and H. Small groups were formed to discuss various supervision activities to be built around the 3A format. The intent is to help these levels to analyze the data that they have been collecting and to use it to strengthen the services that they provide. Various suggestions were made by the groups for changes and clarifications. It was interesting to note that district members of several groups were quite unenthusiastic about the 3A, seeing it as yet another form to fill out.

## **Day 3 - Wednesday October 8**

The morning was spent in a captivating demonstration of the HMIS computer program. With its tabular and graphic display, it is likely to put a new understanding and appreciation for information into district health teams. Further discussion was carried out on the subject of health flags—indicators that problems are present which may require more expertise than is routinely

available. Indicators relevant to the contracts with the Health Boards were identified. This was followed by a discussion on working with political and community elements and how they might be involved in the supervision process.

After lunch, the workshop continued with a discussion of the importance of feedback to the health centers and how this would be implemented. The final part of the workshop dealt with the “rollout” phase and how this would be undertaken.

## **DISCUSSIONS WITH THE HMIS DEVELOPMENT TEAM ON SUPERVISION**

As the workshop progressed, it became of increasing concern that the technical aspects of health care, particularly at the facility level, would not receive much attention during supervision using the proposed approach. From the standpoint of the Zambia Child Health Project this was of considerable concern since the proposed 3A self-assessment approach would not support even key elements of the IMCI training. This concern would apply to other clinical areas as well, such as reproductive health, malaria and TB. Another major concern was that if DHMTs were encouraged to develop their own supervisory instruments on an ad hoc basis, as was done in Masaiti and Mongu, the core technical areas might not even have minimal criteria set (as with the Masaiti checklist for the cold chain). This concern was underscored by the completion of a review of the Zambia UCI program. This report emphasized the need for improved standards and guidelines to bridge the gaps identified during the review.

Discussions were carried out with the HMIS team about these concerns. There was an acceptance by the HMIS team that a supervisory list, which they prefer to call guidelines, is needed and appropriate. One of the items which they had previously identified for inclusion in this was the “Observing the Health Worker” module developed by BASICS in conjunction with the CBoH. A series of core questions were worked out by the author, drawing on the supervision checklist which was developed in March 1997 with the Central Board of Health and subsequently used by three urban Lusaka districts. In discussion with the HMIS team, they offered to incorporate these core indicators into a revised form of the 3A self-assessment instrument. This could form the basis of the DHMT’s supervisory assessment of the health facility as well as the facility’s own assessment of their work. The HMIS team offered to provide the resulting draft form to the author by e-mail (there was not sufficient time for them to work on it immediately, as they were leaving as a group to review the use of the HMIS in several districts where it is already in use).

## **REVIEW OF THE HEALTH CENTER 3A SELF ASSESSMENT FORMS**

Before departing to district locations, the team provided a revised 3A form which incorporated suggestions made on the process of supervision in earlier discussions. This was an opportunity to review this instrument in considerable depth, which had not been possible during the

workshop. The author's comments on this document, as received on October 8, 1997, are in Appendix I. The following paragraphs are a summary of these comments.

The initial section on conduct of the supervision visits generally describes the process in a comprehensive manner. There were questions on the author's part about some sections which were vague or areas which seem to have been omitted. This is particularly true of guidelines relating to some technical areas and particularly clinical services.

Major concerns developed as section 7A of the 3A self-assessment form was reviewed in detail. One of these major concerns involves the use of incidence data for diseases such as malaria, pneumonia and diarrhea to identify problems which may be addressed by health center personnel. If incidence had increased or decreased over the previous year's figure, then a health "flag" indicated that a problem was present. Obviously, the health center staff have little control over the incidence of these diseases; the focus, therefore, should be on case management of the persons who present with these conditions. About the only circumstance in which incidence data might be useful would be if there were specific program objectives set out for an activity, and these numbers were indicators used to monitor progress toward achieving the objectives. This could be the case for the number of family planning acceptors which, as set out in the 3A form, indicated only if the number decreases with respect to previous values; not if it remains the same.

A form to help the health centers identify their problems, and which would also serve as a component of the supervision visit, is clearly a good idea. The author's concern is that, as now constituted, the 3A form is unlikely to do either. Furthermore, making it more complex greatly increases its chance of being ignored or used haphazardly (Burnham's Law: the degree of complexity increases the chance of failure to the fourth power).

As part of the discussion, the author also agreed to draw up a list of what he saw as core indicators. This list can be found in Appendix J.

## **NEXT STEPS**

The HMIS team has offered to forward, by e-mail, the revised 3A form and the author will endeavor to provide comments as quickly as possible. It is important that the BASICS project, particularly in Zambia, be actively engaged in the selection of clinical indicators, since this will be the instrument with which IMCI-trained districts will be supervised. This instrument will be part of the "rollout" of the HMIS system which is slated to begin in January 1997, and which will begin in the IMCI districts. There is little time left to make the changes that are needed.

## **ALTERNATIVES**

Consideration should be given by the BASICS project as to what alternatives there may be if the 3A form cannot fully reflect the technical and clinical components which are required to sustain improved child health services in the areas in which the project is working. The issues of supervision are critical to the sustainability of improved child health programs. Supervision provides an ongoing assessment of case management as well as structural issues, such as the cold chain and the drug management system, to assure the DHMT, regional and central levels that services of acceptable quality are being provided. This is the “assurance” of quality assurance. At the same time, careful assessment provides the opportunity for teaching and support of health workers to maintain services at the level at which they were trained. How this environment is to be created and sustained is vital to maintaining the Zambia Child Health Initiative.

**APPENDIXES**

**APPENDIX A**  
**Agenda for HMIS Supervision Workshop**

**Programme for Preparatory Meeting for  
HMIS/FAMS/ITG Follow-up Visits  
6-8 October 1997**

**Monday 6 October**

**Morning:** *Chairperson Mr. B Sikateyo*

9 00 hr	Opening remarks and introduction of participants	Mr. B. Sikateyo
9.30 hr	Review of results from August visits; review newsletter	Dr. Jaap Koot
10.00 hr	Unresolved issues of FAMS, HMIS and ITG, burning questions	Dr Jaap Koot
10.45 hr	Tea	
11.00 hr	Self Assessment Forms (HC, Hospital and District)	Ms. Mimi Church
11.45 hr	Use of Graphs in Supervision	Ms. Tabo Mubonda
12.00 hr	Practical Exercise on Self Assessment	Ms. Anne Young
13.00 hr	Lunch	

**Afternoon:** *Chairperson Ms. Mtonga*

14.00 hr	Plenary Discussion on Exercise on Self Assessment	
15.30 hr	Tea	
15 45 hr	Review Quality Assurance Techniques for Problem Solving	Ms. Joyce Tembo
17 00 hr	End of day 1	

**Tuesday 7 October**

**Morning:** *Chairperson Dr. Simwanza*

9 30 hr	Role of a supervisor	Dr. Gil Burnham
10 00 hr	Vision on supervision: LAP, DART in supervision	Dr. Jaap Koot
10.15 hr	Tea	
11.30 hr	Experiences from Mongu, Masaiti, Nchelenge and Lusaka in structured supervision	
12.30 hr	Lunch	

**Afternoon:** *Chairperson Dr. Janet Sikasote*

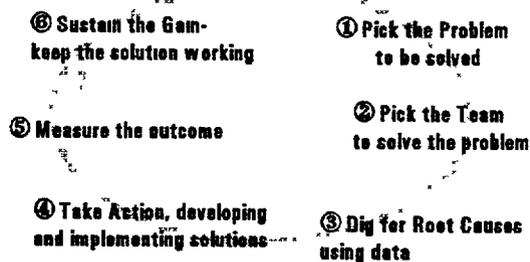
13.30 hr	Introduction to the triple A form	Dr. M Wiebenga
14.00 hr	The role of check lists and QA standards in supervision	Dr. Jaap Koot
14 30 hr	Tea	
14 45 hr	Small group discussion on supervision guidelines <ul style="list-style-type: none"> <li>- Supervision visit (the visit itself)</li> <li>- Preparation and feed-back of supervision</li> <li>- The triple A form in relation to self-assessment</li> <li>- The triple A form in relation to checklists</li> <li>- Personal Coaching in supervision</li> </ul>	
15.45 hr	Report on small group discussion and proposed changes to documents	

**APPENDIX B**  
**The Problem-Solving Cycle**

# The Problem Solving Cycle

- Problems solving begins with a commitment to improving quality
  - planning for the long-term
  - planning for on-going support
- Problem identification needs tools to find problems
- Problem identification tools include—
  - checklists
  - guidelines
  - procedures
  - standards
  - other data collection methods
- In some way the problem needs to be measured
- To solve problems you need to know—
  - where you are now
  - where you want to be
  - the direction you intend to go
  - shared with all concerned in the process

**Think about problems solving  
as a cyclic process  
with six or more steps**



- ① **Problem identification—pick the problem to be solved**  
*selection criteria—*
  - problem is important and is seen to be important
  - support for change can be assured
  - this is a “high volume” problem, so changes will make an impact
  - there are risks associated with not addressing it
  - you are the “owner” of this problem
- ② **Pick the team to solve the problem**
  - criteria for team - know and involved in process
    - are part of the process
    - have responsibility for the process
    - or are affected by the process
  - they have the skills and resources needed to solve the problem
  - building and directing the team for quality problem solving
- ③ **Dig for root causes using data —**  
*analyzing the problem, defining the problem—*
  - what do you know about the problem?
  - what more do you need to know to solve the problem?

- clarifying the steps in the process
- select or set appropriate standards to measure the problem and progress toward solving it
- gathering data about the problem with existing data from H I S
  - you may need to collect information in a special survey
  - it may be necessary to change the self-assessment or supervision checklist to get the needed information
- use QA tools to display magnitude
  - analytic tools (bubble charts or cause and effect diagrams)
  - statistical tools (checklists, graphs, run charts, Pareto diagrams)
- Determine the root cause—
  - then make the problem statement -
    - \* the problem statement should be objective, not vague
    - \* it should not contain blame
    - \* should not contain a cause
    - \* it should not contained a proposed solution

- ④ **take action - determine the destination, map out the route**
  - develop and implement solutions
  - does the team need to add other people at this point which can increase the chance of success?
  - determine destination
    - set objectives - select the standards to be attained if not already done
    - develop solutions to strengthen weak steps in the process being improved or does entire process need replacement?
  - develop strategy to implement the solutions
  - monitor your progress
    - select the indicators which measure your progress so you will know when success has been reached
- ⑤ **Measure the outcome—what has been achieved?**
  - check your results
  - what change do the data show?
  - did we reach our objectives?
    - yes we did → now get ready for another quality problem
    - not quite → then plan a new approach for the same problem
- ⑥ **sustain the gam—keep the solution working**
  - examine the solution and its implementation
    - can it be further improved?
    - can it be further simplified?
  - standardize the approach
    - n the same solution be used elsewhere?
  - share your success with others

**APPENDIX C**  
**Introduction to Supervision**

# Introduction to Supervision

## Definition of supervision

- "over view" a need for wide vision
- is it checking up?
- is it helping out?
- it is a *process*
  - a way of doing things
  - not a list of results or "outputs"
- to be effective means a change in primary emphasis—

Traditional	New
inspector	facilitator
investigator	coach
auditor	teacher
evaluator	manager of change
controller	helper
judge	supporter
examiner	counselor
boss	listener
overseer	communicator

## Role of supervisors as a communicator



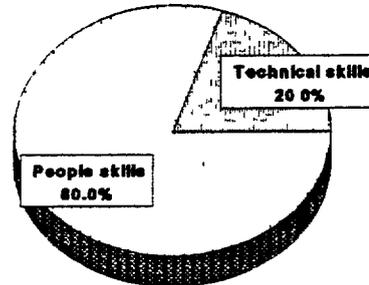
## Purpose of supervision

- Assure the public (our patients) that they will receive good services
- Help maintain standards
- Promote growth of health workers (identify those ready for promotion)
- Communication up and down the system
- teaching/training (on-the-spot) (identify needs for longer training)
- Identify problems before they get out of hand
- problem solving: helping health team to solve problems
- Supervision is an essential part of the health system
- coordinating and supporting health workers
- with health reforms: reforms in the way supervision is to be conducted
- change in the role of the district supervisor—requires a change in the health worker as well
  - from being dependent on supervisors to solve problems to taking charge and solving own problems with help from supervisors
- Supervising is helping and supporting
  - supervising is getting things done through people
- it is the link between health goals of the nation and the health worker who makes it happen

## Being a Good Supervisor

- how does one become a good supervisor?
  - accidental discovery trial and error — unfortunate
  - studying and mastering the skills of supervision
  - supervisors are ordinary health workers but with more determination than ordinary*
- What skills are needed by the district supervisor?
  - 2 types: Technical and people skills
- The good supervisors has the right balance between both
  - people-skills: getting things done through people (80%)
    - The end product of supervision is people—
    - People: *the health providers*
    - People: *the patients*
    - People: *the next level up*
  - technical skills (20%)
    - Supervising health workers takes skills—
    - Clinical*
    - Administrative skills*
  - combined together they make the supervisor —
    - a problem identifier
    - a problem solver
    - and someone who can teach these skills

## Supervisor's Skills



## Basic principles of supervision

- ① leadership is major part of being a supervisor
  - supervisor needs the respect of health workers based on his or her management skills and technical ability
- ② Delegation
  - a supervisor cannot do everything himself or herself
  - delegation and important part of building people (capacity building)
- ③ Building up people (empowerment)
- ④ Willingness to learn
  - many new skills are needed over time
  - "I not only can use all the brains I have, but I know how to borrow from others."
- ⑤ Planning
  - how is supervision to be carried out in the coming year?
    - Supervision schedule
  - what are the educational/training needs?
    - Training schedule
  - how does staffing need to be adjusted during the year?
    - Staffing or manpower plan
  - the District Action Plan
    - What changes does this require in my area of responsibility?

### ⑥ Organizing

- how to put the various schedules and plans into action?
- what resources will you need?
  - transport, stationery, other personnel training to be scheduled
- what can you do yourself, what must be delegated
  - span of control—how much can you manage
  - clear responsibilities
  - you and your team (DHMT) are in charge

### ⑦ Directing

- assigning responsibilities
- steering the district services in the right direction to achieve district and national goals
- increase emphasis on weak areas
- clinical skills (technical competence)
  - finding the level of performance
  - observing deficits in clinical skills
  - use this finding to carry out spot training
- to direct well, one must lead well
  - giving out orders is not enough
  - one must lead and motivate

### ⑧ Coordinating

- many things have to happen at the correct time
- too many supervisors at the same time is not good
- too few supervision visits can discourage staff
- training and work shops must be coordinated
- holiday schedules must be coordinated
- distribution of drugs and vaccines
- supervisor is the key person to coordinate these

### ⑨ Controlling

- things started must be followed up
- plans seldom happen the way we think
  - alternatives must be selected
- resources protected
  - must achieve our best with what we have
- moving up in the system, controlling less important.

### Carrying out the supervision visit

*purpose is to help the health worker provide better care*

- Two major components
  - administrative
  - clinical
- Objectives of the visit
  - problem identification
    - importance of a systematic approach
    - already identified problems
    - previously unidentified problems
  - problem solving
    - facilitating facility problem solving
    - taking problems to the district for solution
  - communication
    - DHMT to health facility
    - facility to DHMT
    - the "assurance" in quality assurance

### Supervision starts long before the visit

- establishing the supervision system
  - designation of who will go
  - record keeping
  - feedback practices
  - establish the method of evaluation/assessment

- the process—the way things are done
- the content—what is done
- the "checklist" — reminder of things to check on
  - self-evaluation
  - outside assessment — or both (ideal)
  - consider other methods
  - health worker interviews
  - exit interviews
  - community interviews ("diagnosis")
- types of questions to be included?
  - locally appropriate
  - emphasize the process wherever possible
  - try to measure clinical performance
  - whatever method—it must be flexible
  - things can be added when needed
  - things can be deleted when no longer needed
- making the annual supervision schedule
- communicating this, sticking to this

### Before the Supervision visit

- 1 before leaving for supervision
  - review the workplan for the health unit to be visited
    - objectives
    - targets
2. Review the health statistics of the facility to be visited
- 3 Review reports from previous supervision visits
  - note problems to be followed up
  - things the DHMT was supposed to do
- 4 Note issues or changes in procedures
  - which need to be communicated to health workers
- 5 Think about the supplies and equipment to be delivered

### Conducting the visit — things that need to be done

the order may vary

when you arrive—

- 1 Private interview with in-charge
  - general status of health centre since previous visit
  - problems he or she identifies such as
    - personnel (including pay, absenteeism)
    - facilities (buildings, water, latrines)
    - drugs and supplies
    - outreach activities
    - relationship with the district team
    - relationship with the community
    - interaction with non-government health personnel or facilities
    - other problems he or she identifies
2. Assess general appearance of facilities (walk about)
3. Make a general technical assessment using the various check lists
  - ensures a systematic approach
  - HIS self-assessment forms
  - other checklists: can emphasize qualitative data
  - may need specialized check list if "flags" appear

*note strengths and weaknesses evident:*
4. Discuss perceptions of services and activities conducted with community leaders.

*note strengths and weaknesses in perceptions*
5. Discuss findings with health centre team (feedback) and

facilitate problem solving session using the problem solving cycle

*Areas identified during the assessment for improvement*

6 Action plan for correction of facility-based problems identified by staff & supervisor  
*actions for health centre staff      actions for you to do*

7 Discuss progress toward meeting targets and objectives in the health centre annual workplan  
*topics discussed*

8. Further problems identified by health centre staff in discussion—

9. Spot training carried out—  
*Subjects covered*

10 Status of problems identified on previous visit—  
*problems solved      problems remaining*

11 Items to follow-up on next supervision visit—

12 Date for the next visit

#### **After the visit**

1. Address emergency issues arising from the visits
2. Get routine "matters arising" attended
3. Get the report finished and posted or sent
4. Share findings with other colleagues in the DHMT

#### **Why health workers lose motivation**

- Comments on the case study
  - lack of interest and support from the DHMT Only criticism  
if things are going well, this needs to be commended or recognized  
supervisors can spend too much time on the problems, ignoring successes
  - plans for replacement in position should be made early if possible
  - being passed over is a major de-motivator
  - being supervised by a less-qualified person is a de-motivator (JK)
  - although money is a motivator in some situations, there are situations where it is not, when other needs are stronger
  - Not having the ability for a job is a powerful de-motivator (Boniface)
  - health workers like to feel like individuals or partners or members of a team  
when this breaks up and they lose this feeling, they lose motivation

#### **What do people want from an organization?**

- Need to be aware so you can address these as supervisors
- importance of these needs varies by background and educational achievement
- things which are important to some are not to others
  - able leadership than can be respected and admired
  - adequate working conditions, space, air
  - acceptance as a member of a group
  - recognition as an individual or partner, rather than

just part of the "system"

- fair treatment relative to that received by others
- reasonable job security
- individual activities and results are recognized
- knowledge of the organization's policies, rules and regulations
- recognition for special efforts or good performance
- respects for individual religious, moral, and political beliefs
- assurance that all other are doing their share of the work
- fair monetary compensation

#### **Why people quit their jobs**

- lack of recognition usually the number one feel what they do is not appreciated
- lack of advancement. being in a dead-end job, no professional growth
- Money: not just absolute amounts, but relative to other people
- Too many bosses: unclear line of authority to whom are they responsible?
- Personality conflicts
- being under qualified: feel over their heads
- being overqualified or over-capable: bored, lack of interest in work.

**APPENDIX D**  
**Masaiti District Supervision Checklist**

# MASAITI DISTRICT

## SUPERVISION CHECKLIST

<u>TOPIC</u>	<u>CHECKLIST</u>	<u>COMMENTS</u>
<u>GENERAL</u>		
- Treatment protocols	- Storage - treatment charts displayed knowledge	
- Prescription Register	- Proper diagnosis - Proper prescriptions	
- Consultation	- Quality of history taking - quality of clinical examination	
<u>MALARIA</u>		
- Knowledge of staff	- On danger signs and treatment malaria - On preventive and promotive strategies - On concepts of malaria in community	
- Knowledge of community	- Documented group discussions with HNHs	
- Malaria control strategy HNHs	- Written policy made at RHC with HNHs - Present - Quality of contents of document - Implementation of document	
- Availability of inputs	- for health education	
<u>MALNUTRITION</u>		
- Knowledge of staff	- On treatment of malnutrition and micro-nutrients deficiency - On preventive and promotive strategies	
<u>MANAGEMENT BY CONSENSUS</u>		
- Staff meetings	- Frequency (monthly) - Documented minutes - Implementation of decisions - Follow up of failures	
✓ - HNH meetings	- Frequency (monthly) - Documented minutes - Implementation of decisions - Follow up of failures - No of function at HNHs/Total formed	
<u>FINANCIAL MANAGEMENT</u>		
- Medical fees	- Recording and accounting - Submission to the District	

MANAGEMENT OF HUMAN

RESOURCES

- Clinical Lessons
  - Frequently
  - Topics covered
  - Knowledge on topics presented
- Discipline and motivation
  - Guide improved staff attitude/ discipline made by RHC
  - Time table for staff in place
  - Staff discipline (List of attendance of staff)
- Staff levels
  - Incentives to community volunteers
  - Staff level at Institution
  - No of CHWs and No reporting
  - No of TBAs and No reporting
  - Type and No of community volunteers

INFRASTRUCTURE

- Cleanliness
  - In the Institution
  - The surroundings
- Maintenance building
  - Involvement of community in maintenance
  - Status health centre
  - Status staff houses
- Sanitation
  - rehabilitation as per Action Plan
  - type and No of pit latrines at the clinic/catchment area

LOGISTICS AND SUPPLIES

- Transport
  - No and status bicycles at the Health Centre
  - Written local transport policy available
  - Transport system in place for referral
- Availability and supplies
  - Drug kits
  - Additional drugs
  - Presence of expired drugs
  - Medical supplies
  - Stationery and office equipment
  - Cleaning materials
- Stores Management
  - Goods stored adequately
  - Proper records of stock keeping
  - Frequency stock counts (monthly)

HEALTH INFORMATION SYSTEM

- Statistics (Institution)
  - correct compilation
  - timely submission
  - proper analysis
  - Action taken upon analysis

17

- Statistics HNHs
- Presence of a file specifically for HNHs  
relevance data collected
- proper analysis
- Action taken upon analysis
- timely submission
- Storage of Data
- All present and kept nicely

PLANNING

- Action Plan of present
- Knowledge about strategies/tasks
- Overall implementation of Action Plan

MATERNAL HEALTH

- Family Health corner
- Routine checking of ANC/US cards at consultations
- Functioning FH corner
- Family Planning
- Technical knowledge of staff on
- FP methods
- Comments of staff/community on the FP methods
- Approach of staff towards the community
- Involvement of men in discussion H/E
- Antenatal care
- Attendance antenatal clinics and consultations
- Quality ANC consultations by staff/attitude
- Quality of HE
- Knowledge of staff on danger signs/ complications and treatment
- Identification of untrained women
- assisting deliveries
- Training of TBAs
- Handling of obstetric complication
- No of maternal deaths
- Postnatal care
- Availability of inputs
- Quality of PNC consultations
- Inputs for obstetrical care

STD/AIDS

- Health education
- Assess quality of HE messages
- Activities with youths/schools
- activities with risk groups
- Availability of inputs
- Educational maternal on HIV/STD
- Distribution of condoms

TB

- Case Management
  - Knowledge about district TB policy
  - Keeping of TB register
  - Quality TB contract and defaulter tracing
- Availability of inputs
  - Distribution of Dots
  - Educational material on TB

#### SCHOOL HEALTH

- General
  - No of schools in catchment areas
  - Time table for school visits
  - No of schools visited
- Screening and immunisation
  - which diseases screened for and results
  - How many children vaccinated
  - No of schools with good sanitation
- HE
  - Group discussions in schools
  - H/E undertaken in schools

#### COMMENTS

**APPENDIX E**  
**Mongu District Supervision Guidelines**

## STANDARDISED GUIDELINES FOR SUPERVISION ON SPECIFIC PROGRAMMES

### 1. Malaria Control Programme

- Compare planned and implemented activities in a given quarter
  - Procurement of bednets
  - Bednets actually sold to the community
- Assess knowledge of qualified staff on diagnosis of Malaria
- Determine whether standard Case Management provided in the Integrated Technical Guidelines are being followed
- Establish whether proper instructions are given on the administration of drugs (eg. chloroquine)

### 1. Reproductive Health

- Registers:
  - Family planning Register
  - Safe Motherhood register
  - Delivery register
  - (separate registers for outreach activities)
- Check on the correctness and accuracy of entering of information in the appropriate columns. Also the understanding of the data being entered in the above registers
- Screening room:
  - Adequate space
  - Examination couch
  - Determine privacy
  - cleanliness
- Delivery room
  - delivery preparedness
  - cleanliness
  - records of monitoring labour
- Contraceptives
  - stock levels (expiring date - received - used - balance)
- Tetanos toxoid
  - Assess knowledge of schedule to administer T.T
  - Determine whether schedule is followed
  - Assess knowledge on protected pregnancies against tetanus
  - Correctness on tallying
- Antenatal Care:
  - Assess whether supermarket approaches is practised.
- ✓ • Vitamin A:
  - Assess whether the schedule is followed on lactating mothers (within 4 weeks after delivery)

### 2. Child Health

- Child register
  - entering/filling in of the columns
    - eg. \*immunisation column
    - \*weight / codes used for recording growth
    - \*tally sheets
    - \*fully immunised %
- Vaccines
  - register / stock control card
    - stock level (expiring date - received - used - balance - wasted)
  - cold chain maintenance
    - temperature chart - thermometers (1 in - 1 out) - maintenance chart
  - assess knowledge on the management of vaccines by all staff.
- Essential equipment audit to conduct static and outreach activities
- Assess the ORT corner
- Assess the use of the integrated technical guidelines
- Community:
  - assess the knowledge on the program
  - assess the involvement in the program
- Promotive:
  - What activities are being conducted

### 3. TB / Leprosy

- Registers.
  - correctness of data filled in
  - diagnosis properly done
  - any defaulters? Traced? Outcome?
  - (A defaulter is someone who didn't receive treatment for 14 consecutive days during the intensive phase or 2 consecutive months during the continuation phase)
- Follow up:
  - Are sputums routinely collected at 2 - 5 and 8 months (for sputum + cases) (necessary for cohort analysis and cure rates)
  - Are specimen bottles available
  - Are drugs available - no stock outs (these can be carried by the supervisory team)
  - Any hypersensitivity reactions noted?
- DOTS
  - Assess the knowledge on DOTS
  - Is this programme conducted
- Any preventive or promotive activities done?

### 5. Sexually Transmitted Diseases

- Syndromic approach to STD management used?
- Drugs: available (expiring date - received - balance - stock outs)
- Contacts treated?
- Any preventive or promotive activities done?

(( ( DOTS ))

- Assess the knowledge on the % C's of communication about STD's

## 6. HIV / AIDS

- WHO - criteria: -assess knowledge  
-used for diagnosis?
- Counselling: -skills available?  
-pre- and post counselling done?
- Any preventive or promotive activities done?

## 7. Essential Drug Programme

- FAMS stock control cards:-correctness of entered data  
-FEFO /FIFO  
-Maximum levels indicated? (3 months)  
-Physical counting done monthly?  
-Expired drugs ? Overstocks?  
(collect them to the district pharmacy)
- Prescriptions habits: -Are protocols followed (eg. check malaria & diarrhoea)  
-Take a sample of 40 OPD cases and calculate the % of clients that received antibiotics
- Accountability on drugs: -Compare the No. of malaria cases with the drugs consumed
- Client information: -endpoint information check on 2 clients if they know how to take the drugs correctly

### □ Financial Accountability:

- Userfee: -deposited for the past quarter?  
-receipt book matches with OPD register?  
-Assess knowledge on who is exempted from paying  
-HCCS?
- Imprest -collected monthly?  
-countercheck if items bought can be found at the HC  
-which items were bought for the CHV / TTBA?
- Health passports: -Available  
-Accountability

### □ Food Supply

- Register: (received - issuing - balance)
- Distribution: -quantities given to patients correct?  
(mealie meal: 500 g - rice. 200g - cooking oil: 50 ml - meat/beans/groundnuts: 150 g  
- sugar. 80 g)

### 1□ Clinical Care

- Registers: -OPD & IPD
- Records: History - Physical examination - Vital Signs - Diagnosis - Treatment Chart
- Average duration of stay (should not be more than 5 days)

- Emergency trays: -preparedness  
-knowledge

### 3. Water & Sanitation

- Minimum Physical Standard at the centre
  - Water well
  - Latrines: - HC: 3  
- Staff houses - each household should have one
- Compare the planned and achieved (water well, VIP / TBL / ordinary latrine)
  - Taking into consideration the three levels:
    1. Mobilization
    2. Collection of funds, purchase of materials and delivery to site
    3. Actual construction of wells
- Any water samples taken
- Supervisor to enlighten Health Centre Staff on good qualities of safe water and excreta disposal facility.
  - qualities of good water:** clear and sparkling / free of suspension and dissolved impurities / free from contamination / colourless / Palatable
  - qualities of good excreta disposal:** must provide privacy / free from smell which are unpleasant / free from flies / safe to use / easy to construct / easy to clean and maintain / must not contaminate user / must protect user from bad weather
- Supervisor to make a community visit and see what has been done.

Cost-sharing activities: - water well. 3500 K per pkt of cement + stones and sand  
(contributions community) TBL 3500 K for 1 pkt of cement + all other materials  
VIP: done at HC according to plan

**APPENDIX F**  
**3A Form (Health Center Self-Assessment Form)**

# Supportive Supervision Guidelines

## **1. Problem statement**

More and more health care managers realize that supervision is a crucial part of quality assurance in health care. Most health workers operate in small teams in health centres, small hospitals or in the District Health Management Teams (DHMT). Daily work pressure, routine activities, and lack of communication make it difficult for health workers to maintain the quality standards of work. Refresher courses and seminars may help to improve theoretical knowledge, but - as we know by now - have very little impact on working practices. People need on-the-job training, reflection on practical issues and exchange of experiences to remain sharp and (self-) critical. Supervision visits have been established to provide this practical support. DHMT members supervise health staff in health centres and hospitals and provincial, regional and national staff supervise DHMTs. \*

In the past, supervision in the health sector has often been unstructured and not aimed at problem solving. Too often it has been an ad-hoc "police" type of supervision: control and fault finding.

Several efforts have been undertaken to make supervision work better. Some districts have developed checklists for supervision by DHMT members. Under the auspices of the IMCI programme a 14 page checklist has been developed and pre-tested in Lusaka Province. The supervisory processes in this document draw on experiences using checklists in Lusaka Province, Nchelenge District, Mongu District and Masaiti District.

The reporting and assessment forms developed under FAMS and used in Western and Northern Provinces offered the Provincial Medical Offices the opportunity for a structured supervision. Experiences from these supervision processes have also been incorporated in this document.

## **2. Mission Statement for Supportive Supervision**

The aim of supervision is to empower the supervised health worker so that he or she can improve performance. Some supervision tools aim at giving the health worker insight into his or her strengths and weaknesses and guidance in planning for improvement of performance. Other supervision tools aim at analysis of critical factors causing health problems and planning for action to tackle these problems. Another important aspect of supervision is on-the-job training to improve clinical and technical skills of health workers, so that patients receive the best possible care. The aim of training supervisors is to provide them with the necessary skills and attitude to facilitate such an "empowering supervision".

### **3. HMIS and other problem solving tools: QA and HIPPOPOC**

In the new HMIS a number of tools have been introduced to stimulate close monitoring of activities

- Self-assessment form
- Health flags (public health flag and curative care flag)
- Graphs (ANC and Vaccination, disease trend monitoring)

These tools indicate areas requiring further investigation and show alarm signals. The HMIS tools as such do not indicate solutions, but should trigger discussion of the problems.

The Quality Assurance (QA) unit has developed a variety of tools for solving problems. The QA tools bring the HMIS data to life and make them useful in problem solving and planning. The *Assessment, Analysis, and Action Guidelines* (triple A) describes a QA problem solving process that can be used with the HMIS indicators. The problem solving process should take place within the Health Centre and hospital teams, and between health facility staff and DHMT members. The most appropriate moment for the DHMT to discuss the problems identified by health institutions is during the regular supervision.

Problem solving is an essential part of the HIPPOPOC planning model, which was introduced in 1993 at the beginning of the health reforms. This problem solving process uses the technique of making a causal tree (“but why” questions). QA uses similar techniques and often calls it a “Bubble Chart”. In the QA process described in the triple A guidelines this technique is also recommended. The weakness of the HIPPOPOC planning model was that the identification of problems was based more on gut feeling than on rational data. The QA tools link the problem warnings of HMIS and the planning of HIPPOPOC.

During the problem solving cycle additional data requirements may be identified. For example, data may be needed to confirm or rule out suspected causes of problems, or to assist in setting the priority of feasible interventions. The HMIS is intended as a problem identification tool. While it may provide some of the data required during the problem solving process, it may also be necessary to collect additional data.

### **4. The Triple A guidelines and supportive supervision**

The triple A guidelines provide a context for problem solving during supervision visits. “Triple A” stands for Assessment Analysis and Action. (It is not a coincidence that this title is similar to the title of Module XI in the HMIS training; it tackles the same issues, using the same principles.) The triple A guides the analytic discussion from problem warning to problem solving. The format is not a checklist as such, though elements from checklists have been integrated into the guidelines. In the triple A document the examples of how to apply the guidelines use the HMIS self assessment form. In practical supervision, health centre staff, community members, and the DHMT may identify other problem areas; the triple A guidelines and problem solving cycle can be applied to these problems as well.

## Supportive Supervision Guidelines

In both this document on supervision and in the triple A guidelines the focus is on supervision of the Health Centre by the DHMT. The tools and principles can be used in other supervisory or problem solving contexts.

The triple A guidelines can be used by the staff of the health facility to discuss within the team the problems identified during the self-assessment. The DHMT can use the guidelines during the quarterly supervision visit, especially to discuss the action points and the district's contributions to solving the problems.

In weaker institutions the supervision team and health facility staff can complete the triple A process together during the supervision visit

The Regional Health Office can use these guidelines for supervision of the district teams as well. (Or guidelines that include other issues that may relate only to district planning.)

### **5. The supervision process**

#### **5.1. Planning for the supervision**

- ***Composition of the supervisory team***

At least two District Health Office members should conduct supportive supervision at each Health Centre. At least one of the supervisors should be an experienced health worker with clinical skills. Accounts staff should accompany the supervisory team whenever necessary.

Organize supervision teams and rotate the leadership in the teams. All members of the DHMT should participate in supervision, not only the top managers.

- ***General preparation of the DHMT members who participate in supervision***

To enable integrated supervision, each quarter DHMT members should share information and ideas on each technical programme and on managerial issues in order to update knowledge of the services we are offering (DHMT technical workshop).

Use standardized guidelines for supervision on specific technical programmes and update them quarterly, or regularly. These guidelines can be used in a systematic manner where the supervisors identify problem areas.

It is mandatory that all supervisors have good knowledge of the Integrated Technical Guidelines for Frontline Health Workers.

- ***DHMT preparation for each supervisory visit***

Documents to be used by DHMT members during preparation for the next supervision visit:

- quarterly self assessment reports
- health centre (and district) action plan
- feedback reports on previous visits
- report forms HIA 1 and HIA.2
- updates on technical guidelines by CBoH

Fixed supervisory schedules (dates) have to be communicated well in advance to allow time for Health Centres to organize:

- patients that need extra attention (if an experienced clinician is part of the supervisory team)
- quarterly health centre reports for the quarter and month just completed
- reserve time for the supervisory team (e.g. avoid collision with the Health Centre outreach programme)
- meetings with Health Centre Advisory Committee (HCAC) and community members

Study the Health Centres' action plans for the forthcoming quarter so that the supervisory team can bring materials and provide other logistic support for the Health Centres (e.g. bring materials when a training of TBAs is due).

Consultations with the district accountant and the stores officer should be done well in advance to make the logistic support more efficient. (Always take supplies. If communication is possible through telephone or radio, ask what the requirements are.)

- ***Health Centre preparation for each supervisory visit***

Documents to be prepared in advance of the next supervision visit:

- report forms HIA.1 and HIA.2
- monthly charts
- quarterly self assessment reports
- updates to health centre action plan
- review responses to feedback reports from previous visits

The health centre staff should analyse the self assessment form and prepare action points to address problem areas. The staff should also meet to discuss, brainstorm and prepare action points to address other problems that have been identified

Community and HCAC members should be invited well in advance of the supervisory visit.

- ***Frequency of the supervisory visits***

Regular supervision is done on a quarterly basis, for at least one whole day. Health Centres with specific identified problems will receive additional support

during the following weeks. Whenever appropriate DHMTs can decide to make extra unscheduled visits to the health institutions

- ***Personal Coaching***

There is a need to pay special attention to the service delivery (including clinical) skills of health staff. This requires assessment of the knowledge and skills of health workers and provision of on-the-job training (coaching) where necessary

Instruments for the assessment of health worker knowledge and skills in each of the key health interventions are being developed, as has been done in the IMCI programme. Where a health worker is found to have problems, either in understanding or performance, the supervisor will need to provide immediate coaching. These instruments are designed for use by experienced clinicians, nurses and environmental health technicians. Where a DHMT does not have sufficient staff with advanced levels of clinical knowledge and experience, they should involve hospital staff in clinical supervision.

Assessment and coaching are time consuming and should not be rushed during a routine supervision. The Integrated Technical Guidelines offer excellent reference material for technical standards to be achieved.

DHMTs should use other ways to improve clinical skills of staff, for example by discussing clinical topics during district meetings where Health Centre staff are invited or by publishing newsletters or other information material for health workers.

## ***5.2. The Visit***

- ***Documents used during the supervision***

Streamline supervision by sharing well-prepared written reports between supervision team and Health Centre staff. Reports to be shared are

- the adjusted version of the action plan of the Health Centre,
- the agreement between DHMT and Health Centre after the latest supervision visit and
- the completed self-assessment form.

- ***Focus of the supervision***

The main focus of the supervision is on:

- Review of the action plan of the previous quarter, the self-assessment report and any other problems identified by health workers or DHMT. The triple A guidelines provide a context for problem solving during this process.
- Improvement of clinical and technical skills of health workers.

Rules for a supportive approach are:

- To focus on activities, not on persons: NO FAULTFINDING
- To apply active empathic listening,

- To respect Health Centre workers as equal partners
- To show openness for constructive criticism from the side of health workers
- To co-ordinate tasks among supervisors in the team
- To involve community representatives as equal partners
- MIND YOUR LANGUAGE

- ***The supervision step by step***

1. Meet the In Charge of the Health Centre.
2. Brief the In Charge on the objectives of the supervision visit and special points of attention.
3. In larger health institutions the In Charge selects health workers who should participate throughout the supervision visit.
4. The supervision team performs a general assessment (details in following bullet point)
5. The supervision team meets with the Health Centre representatives; the In Charge chairs the meeting. This meeting has three main items of business:
  - (a) Discuss the action plan and followup to agreements reached during previous supervisory visits.
  - (b) Discuss the self assessment and other analytical tools applied by the Health Centre staff. The visiting team makes other observations if necessary. QA problem solving tools, like those in the triple A guidelines, are applied. HMIS analytic tools like graphs and maps are applied as well.
  - (c) Discuss any other problems identified by health workers and DHMT.
6. After this meeting a general staff meeting takes place where the outcome of the previous visit report is discussed, as well as the findings of the present assessment.
7. The visiting team and the In Charge of the Health Centre meet with representatives from the Health Centre Advisory Committee and/or the Neighborhood Health Committees and analyses problems.
8. A written agreement is made on actions to be undertaken by different parties (Health Centre, community and DHMT)

- ***General Assessment***

Before the supervisory team can discuss the findings of the self-assessment, the team has to assess whether the basic conditions for operating and improving the facility are met.

- Have the catchment area and catchment population been defined and are the numbers of target groups known?
- Have the registers been kept properly and have reports been produced according to the guidelines? (Through a register review it is possible to assess the quality of diagnosis and treatment and the quality of preventive health contacts.) Have the graphs (ANC, EPI, and disease trends) been made and updated regularly? Do the numbers on the tally sheets, registers, reports and graphs match?

- How is the Health Centre team functioning? Is the work schedule maintained according to plan? Is the outreach conducted according to plan?
  - Have the workers done the self-assessment and have they discussed how they together can solve the problems they have identified? Are all individuals contributing to planning and implementation?
  - How is the Health Centre being run? Is it clean? Are all necessary supplies available and are stock kept according to the instructions? (See supplies and stock requirements in triple A guidelines.) How is the cold chain? (Fridge temperature between 0° and 8°; fridge temperature chart filled in twice daily; sufficient stock of paraffin)
- ***Community involvement during the supervision***

Including community visits and participation in the supervision process can help increase community involvement in improving health status.

Health Centre Advisory Committee members should be present and participate during a part of the supervision (This will enhance empowerment and help them know their rights, roles and responsibilities.) If possible members from Neighbourhood Health Committees or Village Health Committees should be present as well.

- ***Completion of the supervision***

Make a written agreement between Health Centre staff and DHMT on action points to be tackled by both parties during the forthcoming quarter.

### ***5.3. The Follow-Up***

- ***Tasks after the supervision visit***

After each supervision visit *the entire supervision team* will write a feedback report. The feedback report should include the following topics: Objective of supervision / Review of previous recommendations / General findings / Strong points / Weak points / General assessment and comments on self assessment / Recommendations for the Health Centre and the District. This report should be sent to the Health Centre and other members of the DHMT.

*The DHMT* also gives a general feedback at the District Integrated Meeting (when DHMT meets with representatives from all Health Centres) where performance of different Health Centres is compared.

*The Health Centre should use the results of the self-assessment and problem analysis to update the annual action plan. The Health Centre must submit the main changes in the action plan for the following quarter to the District Health Office during or after the quarterly supervision. These action plans help the DHMT to plan support to the Health Centre, and serve as a tool to be used during preparation of next supervision visit. The action plan can also be used for honoring claims from Health Centre staff.*

# Assessment, Analysis and Action: Triple A Guidelines

## Quality Assurance problem solving applied to HMIS data

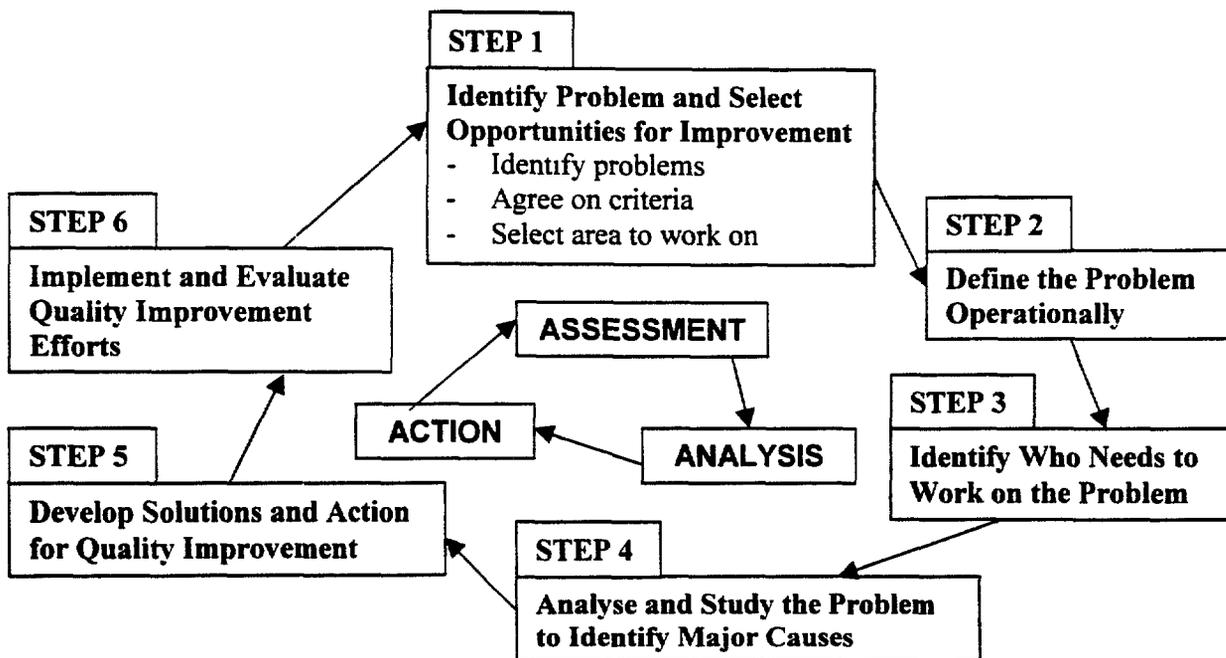
### 1. The Triple A Guidelines

The triple A guidelines focus on the processes of assessment, analysis, and action. This process forms a cycle, with the results of actions becoming the focus of assessment, analysis, and further refinement of action during the next cycle. This process is also known as the problem solving cycle in Quality Assurance (QA).

The triple A guidelines focus on the following six steps that lead from assessment to action. (In the larger QA cycle these are steps 5-10.)

1. Identify the problem
2. Define the problem
3. Choose the team to work on the problem
4. Analyze and study the problem to identify major causes
5. Develop solutions and actions
6. Implement and evaluate quality improvement efforts

#### PROBLEM SOLVING CYCLE (STEPS 1-6)



#### Step 1. Identify the problem

The subject for investigation and problem solving may arise from the HMIS self assessment process or from other problem identification techniques, like brain storming, experience, observations, suggestion boxes and complaints from clients.

The examples used in this document are drawn from the HMIS self-assessment form (HIQ.1) because each Health Centre will use this problem identification technique quarterly. The self-assessment form has numbered questions that cover the six main areas for health interventions and managerial issues. The self-assessment questions are answered by determining whether the indicator signals "Further investigation: yes/no". The triple A form concentrates on those questions that are answered by "Further investigation: yes"

### ***The QA Problem Grouping Criteria***

The QA problem solving process identifies three major categories of root causes.

1. **Beyond control** or sphere of influence. These are causes that no one can control, like the weather. Or they may be causes over which the Health Centre has very limited control, like staffing, housing, emoluments, etc. The Health Center can take few actions besides bringing these problems to the attention of higher level management.
2. **Easy to tackle.** These are called "low lying fruit" because they are easy to pick off. An example is following routine stock control procedures to ensure an adequate supply of drugs and supplies.
3. **Difficult to tackle.** These are difficult to tackle because more research is necessary to verify that they are indeed root causes or because the action to address them is complex and requires time.

These problem groupings should be applied to the major areas of investigation, as well as to the root causes identified within each area. The groupings can be used to prioritize the actions. In practice, if a "low lying fruit" is identified, this problem can be tackled first, because it is easier and faster to make quality improvements. The effects of the action can be observed, and the problem solving cycle begins again if the problem remains.

During the problem identification step, these criteria can be used to select which problems to analyse at first, and which aspect of the problem to tackle.

### ***Pitfalls in Problem Identification***

It is important that the supervisory team uses its technical expertise here. Though a number of indicators on diseases may show "no investigation" because they are not outside the expected range, there may be a problem because figures deviate substantially from the figures in other health facilities. The supervisory team should have the comparison of data between health facilities at hand when discussing the information with health staff. Coverage figures also may show "no investigation" because they are above the threshold. However excessively high coverage rates, like 180%, should be investigated.

In addition it is important to remember that indicators are derived from raw and aggregated data, and problems in collection of these data can distort an indicator. If the results of an indicator seem intuitively incorrect, a review of the data collection instruments may uncover the problem.

### ***Step 2: Define the problem***

In this step problem is described and related facts assembled. The problem should be described in measurable, operational terms. If the problem is not measurable it will be difficult to know when the problem has been solved.

Five questions can help describe the problem

***Question 1: What is the problem? Or what is not functioning as we desire?***

Example Low immunization coverage for fully immunized

***Question 2 How do we know it is a problem? What information do we have to substantiate the existence of the problem or deficiency?***

Example: Out of the expected target of 80%, we could only cover 30 %.

***Question 3 What are the effects on the population we serve?***

Examples: Epidemics from immunisable diseases like measles: and the case fatality rate is high in unimmunised children.

***Question 4: How long has the problem existed? How frequently does it occur?***

Example: Since the 2<sup>nd</sup> quarter of 1997

***Question 5: How will we know when the problem is solved? What is the desired state?***

Example: When the coverage is 80% or higher. We may also set intermediate targets that are then raised until the national target is achieved.

### ***Step 3: Choose the team to work on the problem***

Choose the team to work on the problem: identify specific individuals, and determine whether others need to be involved. Considering the following questions can assist this process.

- Who works within the process containing this problem?
- Who is affected by the problem?
- Who has authority over the problem?
- Who has the technical expertise to help understand the problem?

### ***Step 4: Study and analyse the problem***

QA has developed a variety of analytic tools for problem solving, including bubble charts, flow charts, and fish bone diagrams. The examples used in this document apply the bubble chart technique to areas identified for investigation through the quarterly self-assessment. QA experts also recommend that a framework be used during analysis to prompt investigation into all factors that might influence health care provision. The most commonly used QA framework is called the four Ms: Machinery, Manpower, Methods and Materials.

The HMIS analytic framework distinguishes two main sets of factors influencing health care provision. On the one hand there are the community factors, which

determine the demand for services, and on the other hand there are the service delivery factors, which reflect the constraints in service delivery. The health care providers can have the greatest influence on the second group of factors, which relate to service delivery. Discussions with health care providers during the supervisory visits tend to concentrate on the service delivery factors. It is very important to discuss the community factors with representatives from the community (Health Centre Advisory Committee, Neighbourhood Health Committee, etc)

The causal tree, or bubble chart, goes deeper into the “but why” type of questions. A number of factors are listed, but others can be added and should be identified during the analytic process.

- Community factors:
- Socio-economic factors
  - Natural Resources
  - Others like cultural, demographic
- Service delivery factors:
- Availability
  - Accessibility
  - Acceptability
  - Quality of supplies
  - Staff performance

Questions are identified for verification with data collected through the HMIS and from other sources. The data used during this process should be verified and reviewed as described in Step 1, Pitfalls in Problem Identification. In the examples that follow (from page 13 through to page 22) specific relevant questions are mentioned, not with the aim to limit the questions to be asked, but with the aim to be a reminder in the discussion. In the actual problem solving process, other questions should arise and be recorded and included in the analytic process. Review of relevant immunisation, ANC, and disease graphs, as well as maps, should be included in this problem analysis process. After bubbling the team should validate the theories that have been brain stormed.

The questions identified must be analysed further, using relevant data, to determine which actually contribute to the problem. These are called the root causes of the problem. When the root causes of the problem have been identified, these causes must be further analysed with the problem grouping criteria described earlier, to decide which causes should be tackled. Additional prioritisation criteria may also include feasibility scoring, as used in the HIPPOPOC planning process, and potential for impact. Some problems may need action by other levels of management or the community; even in these cases the Health Centre can take some action, for example, by motivating the other party to take action.

Most of the problems are not easily solved (e.g. increase of incidence of disease). The action points are those interventions that are feasible to be undertaken during the coming quarter. Both health centre and DHMT responsibilities should be mentioned here. These action points enter in the action plan for the coming quarter (which is an update of the annual action plan of the health centre and district).

### ***Step 5: Develop solutions and actions***

In this step action points or interventions are developed to address each of the root causes. Prioritise interventions and choose appropriate solutions which are workable and can give quick results. The *HMIS Indicators Manual* and *Integrated Technical Guidelines* include suggestions for responses to problems. Several techniques for prioritising actions have been mentioned above, the QA prioritisation model described in Step 1, and the HIPPOPOC model described in Step 4.

The actions, and the root causes that they address, may be organised in a matrix to show their relationships and priorities clearly. The self-assessment form has such a matrix on its last page, where facilities are asked to describe the actions to address problems identified

### ***Step 6: Implement and evaluate***

After prioritising the actions, implement the solutions using the PDCA Tool:

P- Plan. How you will implement the activities? Make an action plan.

D- Do: Carry out the actual activities.

C- Check. set intermediate indicators to monitor process of implementation.  
Is the intervention working or not?

A- Act: Correct any shortfalls and if necessary go back to "P".

### ***Intermediate targets***

The new HMIS offers the possibility to set adjusted intermediate targets. The targets listed on the self-assessment form are national targets or targets set by the DHMT. In many cases health institutions are not able to reach the targets set, because of various reasons. This offers the institution the possibility to set realistic targets for itself, which should be reached within a set period of time, following the action points of step 5. For example: health centre A has a percentage of supervised deliveries of 23%. The health centre makes an action plan of improving of the maternity ward, of constructing a mother shelter, and of training TBAs. The health centre sets a target of reaching a percentage of 30% in one year's time. This is still below the national target, but a considerable improvement. Setting the intermediate target allows health institutions to plan realistically and measure progress. Intermediate targets should be listed on the self-assessment form next to their action points.

## ***2. How to use the triple A guidelines***

When the triple A guidelines are used to respond to problems identified during self-assessment, step 4 guides in asking the critical questions to identify the root causes of the problem. This step is best undertaken with team brainstorming. The questions can be written in the form of a bubble chart on the flip chart or piece of paper. The questions are then investigated using data to identify the root causes. Each root cause identified, along with the actions to address it and any intermediate targets, should be listed on the last page of the self-assessment form.

The following examples show possible responses to investigation of each of the self-assessment questions, as well as several other areas of investigation that may arise.

**Application of the guidelines**

<i>Self-assessment form (specify question)</i>	<i>HMIS analytic framework and Causal tree</i>		<i>Examples of specific questions arising during bubbling process Questions marked with * are explained further under the table</i>
Further investigation = yes	Community factors	Socio-economic	
		Natural Resources	
		Others	
	Service Delivery factors	Availability	
		Accessibility	
		Acceptability	
		Quality of supplies	
		Staff performance	

*Items to be checked are listed below each set of questions*

<i>Self-assessment form Q1 Malaria</i>	<i>HMIS analytic framework and Causal tree</i>		<i>Examples of specific questions arising during bubbling process</i>
Number of malaria cases exceptionally high or low Further investigation = yes  NB: also look at incidence rate and disease trend graphs!	Community factors	Socio-economic	CQ available in community (CHW)?
		Natural Resources	Seasonal climate compared to last year?
		Others	Use of bed nets? Preventive activities? * Development of resistance?
	Service Delivery factors	Availability	
		Accessibility	
		Acceptability	
		Quality of supplies	Anti-malarials available? *
		Staff performance	Diagnostic skills? * Standard Case management? *

- Preventive activities.  
discuss with Neighbourhood Health Committees malaria control strategy, both public health (controlling stagnant water) and personal protection (bed nets, impregnated curtains, spraying)
- Anti-malarials:  
are second line drugs available?
- Diagnostic skills:  
History, vomiting? Convulsions?  
Examination: temperature taken? Lethargy or unconsciousness? Neck stiffness?
- Standard case treatment.  
correct indication for second line anti-malarials?  
Proper instructions to the patient on administration of drugs

<i>Self-assessment form Q 2 Antenatal Care</i>	<i>HMIS analytic framework and Causal tree</i>		<i>Examples of specific questions arising during bubbling process</i>
Proportion of ANC attendance too low? Further investigation = yes	Community factors	Socio-economic	
		Natural Resources	
		Others	tTBA programme?
	Service Delivery factors	Availability	Distances to clinics, supermarket approach?
		Accessibility	Outreach programme, long queues/waiting periods?*
		Acceptability	Female staff available?
		Quality of Infrastructure?	ANC screening facility? Privacy?
Staff performance	Midwifery skills? * Knowledge of staff?*		

- Outreach programme:
  - antenatal care systematically in outreach programme?
  - Community sensitization on risk factors of pregnancy?
- Midwifery skills:
  - physical examination. check for BP, anaemia, oedema, weight, abdominal palpation?
- Knowledge of staff
  - Risk factors identified? (Review register)
  - Knowledge of Safe Motherhood Register?

<i>Self-assessment form Q 3 Tetanus Protection</i>	<i>HMIS analytic framework and Causal tree</i>		<i>Examples of specific questions arising during bubbling process</i>
Percentage of pregnancies protected against tetanus too low? Further investigation = yes	Community factors	Socio-economic	
		Natural Resources	
		Others	ANC attendance in general?
	Service Delivery factors	Availability	School health programme?
		Accessibility	Outreach programme?
		Acceptability	
		Quality of supplies	Availability of vaccines, needles and syringes?
Staff performance	Knowledge of vaccination schedule? *		

- Knowledge of staff
  - TT status checked and correct action taken? Talled correctly?
  - Knowledge of Safe Motherhood Register?

<i>Self-assessment form Q 4 Deliveries</i>	<i>HMIS analytic framework and Causal tree</i>		<i>Examples of specific questions arising during bubbling process</i>
Is the proportion of supervised deliveries too low? Further investigation = yes	Community factors	Socio-economic	Local traditions? Compare with other facilities?
		Natural Resources	Distance from communities to health care providers incl tTBAs?
		Others	Transport facilities?
	Service Delivery factors	Availability	Delivery room? Maternity ward? *
		Accessibility	Mother shelter? Referral Possible? *
		Acceptability	Female trained staff?
		Quality of supplies	Equipment, drugs? Water?
		Staff performance	Use of partogramme? * Post-natal care? *

- Delivery equipment recommended:
  - Chittle forceps, episiotomy scissors, suture needles, needle holder, artery forceps, cord scissors, ring (sponge) forceps, tooth forked forceps, neonatal musk extractor
  - Delivery bed, light (e.g hurricane lamp)
- Consumables recommended:
  - linen/cloth to dry baby, gauze/cotton wool, plastic sheeting, cord clamps/ties, suture material, maternity pads, IV giving sets, disinfectant, syringes, needles, gloves
  - partogrammes
- Partogrammes:
  - Filled correctly
  - BP and foetal heart beat checked propriately?
  - Vaginal examination done and recorded?
- Referral:
  - Radio communication with district hospital available?
  - Transport available or possibility to arrange transport? District support?
- post natal care:
  - check for anaemia, vagina and perineum, abdomen, breasts, BP
  - give Vit A (within four weeks after delivery)
  - give Family Planning advice.

<i>Self-assessment form Q 5 Family Planning</i>	<i>HMIS analytic framework and Causal tree</i>		<i>Examples of specific questions arising during bubbling process</i>
Is the new number of family planning clients decreasing? Problem = yes  NB: local target may be higher <sup>1</sup>	Community factors	Socio-economic	Local beliefs?
		Natural Resources	
		Others	Availability of contraceptives in community?
	Service Delivery factors	Availability	Outreach programme. available to all, regardless of marital status, age, and partner's consent?
		Accessibility	Supermarket approach? *
		Acceptability	Privacy for clients
		Quality of supplies	All contraceptives available? *
Staff performance	Staff with sufficient knowledge?		

- Supermarket approach:
  - FP services available for mothers who come with babies, or who come for post-natal control?
  - TT provided to women who come for FP?
- Check expiry dates of contraceptives
- Review FP revisit ratio and total visits to make sure these are stable or rising.

<i>Self-assessment form Q 6 STD cases</i>	<i>HMIS analytic framework and Causal tree</i>		<i>Examples of specific questions arising during bubbling process</i>
Is the number of STD cases exceptionally high or low? Further investigation = yes  NB. Compare incidence with other health facilities !	Community factors	Socio-economic	Community sensitization?
		Natural Resources	
		Others	Condom distribution in community? Preventive activities? *
	Service Delivery factors	Availability	
		Accessibility	Obstacles of religious or social nature to provide care?
		Acceptability	Privacy of consulting rooms?
		Quality of supplies	Drugs and condoms available? Lab facilities?
Staff performance	Knowledge treatment protocols? *		

- Preventive activities:
  - Health promotion? Sex education in schools?
  - Home based care activities?
- Treatment protocols:
  - Is syndromic treatment for STDs applied as described in *Integrated Technical Guidelines*?
  - Is AIDS counselling done? Is counsellor trained?

<i>Self-assessment form Q 7 Child Pneumonia</i>	<i>HMIS analytic framework and Causal tree</i>		<i>Examples of specific questions arising during bubbling process</i>
Is the number of pneumonia cases among under fives exceptionally high or low? Further investigation = yes  NB: Compare incidence with other facilities!	Community factors	Socio-economic	
		Natural Resources	Climate changes?
		Others	CHW activities?
	Service Delivery factors	Availability	
		Accessibility	Child clinic with integrated case management?
		Acceptability	
		Quality of supplies	Availability of drugs?
Staff performance	Diagnostic skills? * Prescription habits?*		

- Diagnostic skills:  
History: how many days?  
Examination: raise shirt, count breaths, look for indrawings.
- Prescription habits: over prescription of antibiotics? (should be less than half of children)

<i>Self-assessment form Q 8 Child diarrhoea</i>	<i>HMIS analytic framework and Causal tree</i>		<i>Examples of specific questions arising during bubbling process</i>
Is the number of diarrhoea cases among under fives exceptionally high or low? Further investigation = yes  NB. Compare incidence with other facilities!	Community factors	Socio-economic	Water storage?
		Natural Resources	Clean water sources?
		Others	Epidemics of some kind? (Dysentery, Cholera)
	Service Delivery factors	Availability	ORS corner?
		Accessibility	Integrated child clinics?
		Acceptability	Waiting times
		Quality of supplies	ORT corner? *
	Staff performance	Diagnostic skills? * Prescription habits? *	

- ORT corner functional if:
  - table, seating for mother and child
  - potable water in sufficient supply
  - 2 large cups (500 ml), 2 medium cups (250 ml)
  - 1 tablespoon (10 ml), 1 teaspoon (5 ml)
  - ORS sachets in sufficient supply
  - ORT register completed
- Diagnostic skills:
  - History: how many days? Blood in stool?
  - Examination: observation of drinking? Skin pinch abdomen?
  - Prescription habits: Each child should get ORS Over-prescription of antibiotics?
  - Vitamin A given if indicated?

Assessment Analysis and Action Triple A Guidelines

<i>Self-assessment form Q 9 Immunizations</i>	<i>HMIS analytic framework and Causal tree</i>		<i>Examples of specific questions arising during bubbling process</i>
Is the coverage of fully immunized too low? Further investigation = yes	Community factors	Socio-economic	Planting/harvesting time? Rainy season?
		Natural Resources	
		Others	Target group well defined?
	Service Delivery factors	Availability	Outreach programme? Implemented according to schedule?
		Accessibility	Seasonal road conditions?
		Acceptability	Waiting times?
		Quality of supplies	All vaccines available? Cold Chain? *
	Staff performance	Knowledge of schedule?	

- Cold Chain
  - fridge temperature between 0° and 8°
  - fridge temperature chart filled in twice daily
  - sufficient stock of paraffin

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<i>Self-assessment form Q 10 Underweight</i>	<i>HMIS analytic framework and Causal tree</i>		<i>Examples of specific questions arising during bubbling process</i>
Is the proportion of underweight children too high? Further investigation = yes NB: District target is required here!	Community factors	Socio-economic	Poverty, specific groups?
		Natural Resources	Draught, flooding, etc ?
		Others	Epidemics? Diseases? * Health education CHWs?
	Service Delivery factors	Availability	Outreach programme? *
		Accessibility	
		Acceptability	
		Quality of supplies	Availability of HEPS?
		Staff performance	Health education practices? * Health promotion activities? Follow up of at-risk children? *

NB: Underweight in children can be caused by various factors

- nutritional disorders
- diseases (e.g. diarrhoea, TB, AIDS)
- small children (maybe genetic, or due to disease or nutritional disorder in the past)
- Health education:
  - Is breast-feeding only during first six months promoted?
  - Is advice given on type and frequency of weaning food (cf. ITG)?
- Follow up of at-risk children
  - programme for home visits?
  - Register for at-risk children (chronically ill, orphans, below lower line losing weight)?

<i>Self-assessment form Q 11 CHWs</i>	<i>HMIS analytic framework and Causal tree</i>		<i>Examples of specific questions arising during bubbling process</i>
Are there too few CHWs to meet community needs? Further investigation = yes NB: District target!	Community factors	Socio-economic	Community Support to CHW?
		Natural Resources	
		Others	Neighbourhood Health Committee active?
	Service Delivery factors	Availability	Plans for training?
		Accessibility	Dropouts of CHWs?
		Acceptability	Health promotion by CHW?*
		Quality of supplies	CHW drug kits available?
		Staff performance	Relation HC staff and CHWs?

- Health Promotion activities in the community include:
  - sanitation promotion: construction of VIP latrines, waste disposal
  - safe water supply: construction of bore-holes, shallow wells

Assessment Analysis, and Action Triple A Guidelines

<i>Self-assessment form Q 12 tTBAs</i>	<i>HMIS analytic framework and Causal tree</i>		<i>Examples of specific questions arising during bubbling process</i>
Are there too few trained traditional birth attendants? Further investigation = yes	Community factors	Socio-economic	Local traditions with regard to deliveries? Role of TBAs in general?
		Natural Resources	
		Others	Community knowledge on maternal risk factors?
	Service Delivery factors	Availability	Training plans?
		Accessibility	Drop-outs among tTBAs
		Acceptability	Fee paying or support to tTBAs?
		Quality of supplies	TBA kit provided?
Staff performance	Supervision of tTBAs		

<i>Self-assessment form Q 13 Drug Kits</i>	<i>HMIS analytic framework and Causal tree</i>		<i>Examples of specific questions arising during bubbling process</i>
Are too many or too few drug kits being used? Further investigation = yes	Community factors	Socio-economic	
		Natural Resources	
		Others	Specific disease patterns?
	Service Delivery factors	Availability	
		Accessibility	Logistics?
		Acceptability	
		Quality of supplies	
Staff performance	Stock keeping? Prescription habits?		

- Push system often causes unbalance between health facilities. Some receive too many kits, some too few Flexibility is necessary!

<i>Self-assessment form Q 14 Drugs In Stock</i>	<i>HMIS analytic framework and Causal tree</i>		<i>Examples of specific questions arising during bubbling process</i>
Are critical drugs in stock? Problem = yes	Community factors	Socio-economic	
		Natural Resources	
		Others	Epidemics?
	Service Delivery factors	Availability	Logistics a general problem? Out of Stock of vitamin A or TB drugs?
		Accessibility	Extra buffer supplies available next to the kits?*
		Acceptability	
		Quality of supplies	Drugs expiring? *
		Staff performance	Stock keeping? Prescription habits?

- Extra supplies
  - It is recommended that health centres have second line anti malarials (pyrimethamine-sulfa tabs)
  - Health centres in the IMCI programme should have gentamycin
  - Health centres with maternity ward should have IV giving sets, ergometrin and IV anticonvulsants
- Expiring of drugs:
  - Does facility follow FEFO (first expiring first out)?
  - Is district taking back unused drugs for redistribution?

<i>Self-assessment form Q 15 Work load</i>	<i>HMIS analytic framework and Causal tree</i>		<i>Examples of specific questions arising during bubbling process</i>
Was daily workload within acceptable range? Further investigation = yes	Community factors	Socio-economic	
		Natural Resources	Seasonal variation attendance?
		Others	Epidemics? Community sensitization? *
	Service Delivery factors	Availability	Enough staff posted?
		Accessibility	Sick leave or holidays?
		Acceptability	Other staff problems?
		Quality of supplies	Drugs available?
Staff performance	Salary problems? Clinical lectures? Study time? *		

- Workload is not only determined by patient contacts!
  - What amount of time is spent on community activities, e.g. meeting neighbourhood health committee, school health programme, community seminars?
  - What time is spent on activities with regard to environmental health?
- Staff performance:
  - Is time spent on clinical lectures, or study using materials provided to improve quality?

<i>Self-assessment form Tuberculosis</i>	<i>HMIS analytic framework and Causal tree</i>		<i>Examples of specific questions arising during bubbling process</i>
Is the proportion of TB patients under treatment who have NOT taken drugs for more than one month more than 10% NB: Only for TB treatment centres	Community factors	Socio-economic	Support from family and community?
		Natural Resources	
		Others	
	Service Delivery factors	Availability	Distance from health centre?
		Accessibility	Supermarket approach to TB treatment? DOTS?
		Acceptability	
		Quality of supplies	Availability of TB drugs? *
Staff performance	Follow up of defaulting patients? Sputum control at 2, 5 and 8 months done? Knowledge of DOTS?		

- TB drugs: TB drugs should be available for the patients on treatment with at least one month extra stock

<i>Additional question Water and Sanitation</i>	<i>HMIS analytic framework and Causal tree</i>		<i>Examples of specific questions arising during bubbling process</i>
Is the number of households with access to safe water too low? NB: District or local target and threshold.	Community factors	Socio-economic	Paying for water a problem?
		Natural Resources	Availability of water in the area?
		Others	
	Service Delivery factors	Availability	Distances to safe water points?
		Accessibility	Water always available or drying up?
		Acceptability	
		Quality of supplies	Quality of water *
Staff performance	Knowledge about actual situation? *		

- 
- Quality of water:
  - Is sampling done?
  - Does the health centre have a stock to treat contaminated water?
- Knowledge about actual situation:
  - HC staff should perform survey annually, in collaboration with Neighbourhood Health Committees, village leaders and Department of Water Affairs

**APPENDIX G**  
**Hospital Draft Self-Assessment Form**

# HEALTH CENTRE QUARTERLY SELF ASSESSMENT

District: \_\_\_\_\_  
 Health Centre: \_\_\_\_\_

Form HIQ.1  
 quarter \_\_\_\_\_ in year \_\_\_\_\_

The Health Centre quarterly assessment indicators were selected to provide insight into the accessibility, cost and cost-effectiveness of care, as well as utilisation and health status. They include curative and preventive services (1-10), community participation (11-12), drugs and supplies (13-14), and performance (15)

### Instructions for completing form.

First complete the Self-Assessment Tables (form HIQ.2) for the quarter, and use them to enter the Numerator, Denominator, and Indicator Value for each question. For questions regarding cases of disease seen, if the Indicator Value is outside the Expected Range there may be a problem. For other questions, if the Indicator Value is below the Threshold Value there may be a problem. Enter Yes or No to indicate whether there is a problem.

Analyse the problems for questions that have a Yes answer. At the end of this report, indicate the cause of problems and the corrective actions to be taken, including support requested from the District, for each question with a Yes answer.

Question	Numerator	Denominator	Indicator	Target	Threshold or Expected Range	Problem (Yes/No)
<b>Malaria</b>						
1 Is the number of new malaria cases exceptionally high or low? (Data source: HIQ.2 Table 2a)	$\frac{\text{Number of new cases this quarter}}{\text{Number of new cases in same quarter last year}}$	$\frac{\text{Number of new cases in same quarter last year}}{\text{Number of new cases in same quarter last year}}$	$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	<none>	85 - 115%	_____
<b>Maternal Health</b>						
2 Is the proportion of pregnant women who seek antenatal care at health institutions too low? (Data source: HIQ.2 Table 3a)	$\frac{\text{Number of first antenatal attendances}}{\text{Expected number of pregnancies}}$	$\frac{\text{Expected number of pregnancies}}{\text{Expected number of pregnancies}}$	$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	90%	80%	_____
3 Is the proportion of pregnancies protected against tetanus too low? (Data source: HIQ.2 Table 3b)	$\frac{\text{Number of pregnancies protected}}{\text{Expected number of pregnancies}}$	$\frac{\text{Expected number of pregnancies}}{\text{Expected number of pregnancies}}$	$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	80%	70%	_____

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Question	Numerator	Denominator	Indicator	Target	Threshold or Expected Range	Pr (Y)
4. Is the proportion of deliveries supervised by a trained provider too low? (Data source: HIQ 2 Table 3c)	$\frac{\text{Number of deliveries supervised}}{\text{Expected number of deliveries}}$	Expected number of deliveries	$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	rural 50% urban 80%	Rural 40% Urban 70%	—
5. Is the number of new family planning clients decreasing? (Data source: HIQ 2 Table 3d)	a) $\frac{\text{Number of new family planning clients}}{\text{Number of new family planning clients}}$	b) $\frac{\text{Number of new family planning clients last quarter}}{\text{Number of new family planning clients}}$	change a-b	over 0 (or higher district target)	below 0	—
<b>AIDS / STD</b>						
6. Is the number of new STD cases exceptionally high or low? (Indicator is statistically reliable only if Health Centre has a catchment population of more than 10,000) (Data source: HIQ 2 Table 2b)	$\frac{\text{Number of new cases this quarter}}{\text{Number of new cases in same quarter last year}}$	Number of new cases in same quarter last year	$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	<none>	85 - 115%	—
<b>Child Health</b>						
7. Is the number of new pneumonia cases among under 5s exceptionally high or low? (Indicator is statistically reliable only if Health Centre has a catchment population of more than 10,000) (Data source: HIQ 2 Table 2c)	$\frac{\text{Number of new cases this quarter}}{\text{Number of new cases in same quarter last year}}$	Number of new cases in same quarter last year	$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	<none>	85 - 115%	—
8. Is the number of new diarrhoea cases among under 5s exceptionally high or low? (Data source: HIQ 2 Table 2d)	$\frac{\text{Number of new cases this quarter}}{\text{Number of new cases in same quarter last year}}$	Number of new cases in same quarter last year	$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	<none>	85 - 115%	—

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Question	Numerator	Denominator	Indicator	Target	Threshold or Expected Range	P
9. Is the coverage of under 1s with the full series of immunisations too low? (Data source: HIQ.2 Table 4a)	$\frac{\text{Number fully immunised}}{\text{Expected number of children reaching age 1 during quarter}}$		$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	80%	70%	—
10. Is the proportion of children under 5 who are underweight too high? (Data source: HIQ.2 Table 4b)	$\frac{\text{Number below lower line}}{\text{Number weighed in the quarter}}$		$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	District target	District threshold	—
<b>Human Resources</b>						
11. Are there too few active Community Health Workers to meet community needs? (Data source: HIQ.2 Table 5)	$\frac{\text{Number of active CHWs}}{\text{Catchment population 1000}}$		$\frac{\text{Numerator}}{\text{Denominator}}$	2	District threshold	—
12. Are there too few active trained Traditional Birth Attendants to meet community needs? (Data source: HIQ.2 Table 5)	$\frac{\text{Number of active TBAs}}{\text{Catchment population 1000}}$		$\frac{\text{Numerator}}{\text{Denominator}}$	1	District threshold	—
<b>Drugs / Supplies</b>						
13. Are too many Health Centre kits being used? (Data source: HIQ.2 Table 6a)	$\frac{\text{Number of kits opened}}{\text{Number of patients attended 1000}}$		$\frac{\text{Numerator}}{\text{Denominator}}$	1	1.2	—
14. Were critical drugs ever out of stock? (Data source: HIQ.2 Table 6b)			$\frac{\text{Number of times drug was out of stock}}{\text{Denominator}}$			
Chloroquine				0	out of stock	—
Paracetamol				0	out of stock	—
Pen V				0	out of stock	—
Oral Contraceptives				0	out of stock	—
<b>Performance</b>						
15. Was the daily staff load for curative and preventive care within acceptable range? (Data source: HIQ.2 Table 7)	$\frac{\text{Number of patient contacts}}{\text{Number of qualified staff} \times 65}$		$\frac{\text{Numerator}}{\text{Denominator}}$	District target	District threshold	—

For each problem detected, describe corrective actions and indicate any assistance requested from the dist

Completed by: \_\_\_\_\_  
Title: \_\_\_\_\_

Signature: \_\_\_\_\_  
Date: \_\_\_\_\_



**APPENDIX H**  
**District (DHMT) Self-Assessment Form**

## DISTRICT HEALTH MANAGEMENT TEAM QUARTERLY SELF ASSESSMENT

District: \_\_\_\_\_

Form DQ.1  
quarter \_\_\_\_\_ in year \_\_\_\_\_

The District quarterly assessment indicators were selected to provide insight into the accessibility, quality, and cost-effectiveness of care, as well as utilisation and health status. They include curative and preventive services (1-13), finances (14-15), human resources (16-17), drugs and supplies (18-19), and performance (20-22).

### Instructions for completing form.

First complete the Self-Assessment Tables (form DQ.2) for the quarter, and use them to enter the Numerator, Denominator, and Indicator Value for each question. For questions regarding cases of disease seen, if the Indicator Value is outside the Expected Range there may be a problem. For other questions, if the Indicator Value is below the Threshold Value there may be a problem. Enter Yes or No to indicate whether there is a problem.

Analyse the problems for questions that have a Yes answer. At the end of this report, indicate the causes of problems and the corrective actions to be taken, including support requested from the Region, for each question with a Yes answer.

Question	Numerator	Denominator	Indicator	Target	Threshold or Expected Range	Problem? (Yes/No)
<b>Malaria</b>						
1. Is the number of new malaria cases exceptionally high? (Data source: DQ 2 Table 2a)	$\frac{\text{Number of new cases this quarter}}{\text{Number of new cases in same quarter last year}}$		$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	<none>	85 - 115%	_____
<b>Maternal Health</b>						
2. Is the proportion of pregnant women who seek antenatal care at health institutions too low? (Data source: DQ 2 Table 3a)	$\frac{\text{Number of first antenatal attendances}}{\text{Expected number of pregnancies}}$		$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	90%	80%	_____
3. Is the proportion of pregnancies protected against tetanus too low? (Data source: DQ 2 Table 3b)	$\frac{\text{Number of pregnancies protected}}{\text{Expected number of pregnancies}}$		$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	80%	70%	_____

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Question	Numerator	Denominator	Indicator	Target	Threshold or Expected Range	Problem (Yes/N)
4 Is the proportion of deliveries supervised by a trained provider too low? (Data source DQ 2 Table 3c)	$\frac{\text{Number of deliveries supervised}}{\text{Expected number of deliveries}}$	Expected number of deliveries	$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	rural 50% urban 75%	rural 40% urban 65%	_____
5. Is the number of new family planning clients decreasing? (Data source DQ 2 Table 3d)	a) _____ Number of new family planning clients	b) _____ Number of new family planning clients last quarter	change a-b	over 0 (or higher district target)	below 0	_____
<b>AIDS / STD</b>						
6 Is the number of new STD cases exceptionally high? (Data source DQ 2 Table 2b)	$\frac{\text{Number of new cases this quarter}}{\text{Number of new cases in same quarter last year}}$	Number of new cases in same quarter last year	$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	<none>	85 - 115%	_____
<b>Tuberculosis</b>						
7. Is the TB cure rate too low? (Data source DQ 2 Table 2e)	$\frac{\text{Number of TB patients cured (negative smear)}}{\text{Number of newly diagnosed patients in same cohort completing treatment period}}$	Number of newly diagnosed patients in same cohort completing treatment period	$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	70%	60%	_____
<b>Child Health</b>						
8 Is the number of new pneumonia cases among under 5s exceptionally high? (Data source DQ 2 Table 2c)	$\frac{\text{Number of new cases this quarter}}{\text{Number of new cases in same quarter last year}}$	Number of new cases in same quarter last year	$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	<none>	85 - 115%	_____
9 Is the number of new diarrhoea cases among under 5s exceptionally high? (Data source DQ 2 Tables 2d)	$\frac{\text{Number of new cases this quarter}}{\text{Number of new cases in same quarter last year}}$	Number of new cases in same quarter last year	$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	<none>	85 - 115%	_____
10. Is the coverage of under 1s with the full series of immunisations too low? (Data source DQ 2 Table 4a)	$\frac{\text{Number fully immunised}}{\text{Expected number of children reaching age 1 during quarter}}$	Expected number of children reaching age 1 during quarter	$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	80%	70%	_____

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Question	Numerator	Denominator	Indicator	Target	Threshold or Expected Range	Problem? (Yes/No)
11 Is the proportion of children under 5 who are underweight too high? (Data source DQ 2 Table 4b)	Number below lower line	Number weighed	$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	District target	District threshold	_____

**General Medical**

12 Does your Action Plan include specific interventions for each of the top 5 diseases among under 5s? (Data source DQ 2 Table 2f)	1 _____	1 _____
	2 _____	2 _____
	3 _____	3 _____
	4 _____	4 _____
	5 _____	5 _____

13 Does your Action Plan include specific interventions for each of the top 5 diseases among 5s and older? (Data source DQ 2 Table 2g)	1 _____	1 _____
	2 _____	2 _____
	3 _____	3 _____
	4 _____	4 _____
	5 _____	5 _____

**Finances**

14 Did the district overspend or under spend on the levels hospital, health centre and community. District office? (Data source Accounting Department)	District Office expenditure	Total expenditure	$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	district office 5-15%	Expenditure for one or more of the levels outside the permitted range	_____
	Hospital expenditure		$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	hospital 20-40%		
	Health Centre and community expenditure		$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	Health Centre and community 45-65%		

15 Did the district overspend on - allowances - emergency drugs - fuel - capital investment (Data source Accounting Department)	expend allowances	Total expenditure	$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	allowances max 20%	Expenditure for one or more items over maximum percentage	_____
	expend emergency drugs		$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	emergency drugs max 4%		
	expend Fuel		$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	fuel max 15%		
	expend Capital Inv		$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	capital inv Max 10%		

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Question	Numerator	Denominator	Indicator	Target	Threshold or Expected Range	Problem? (Yes/No)
<b>Human Resources</b>						
16 Are there too few active Community Health Workers to meet community needs? (Data source DQ 2 Table 5)	$\frac{\text{Number of active CHWs}}{\text{Catchment population 1000}}$	Catchment population 1000	$\frac{\text{Numerator}}{\text{Denominator}}$	2	District threshold	_____
17 Are there too few active trained Traditional Birth Attendants to meet community needs? (Data source DQ 2 Table 5)	$\frac{\text{Number of active TBAs}}{\text{Catchment population 1000}}$	Catchment population 1000	$\frac{\text{Numerator}}{\text{Denominator}}$	1	District threshold	_____
<b>Drugs / Supplies</b>						
18 Are too many Health Centre kits being used? (Data source DQ 2 Table 6a)	$\frac{\text{Number of kits opened}}{\text{Number of patients attended / 1000}}$	Number of patients attended / 1000	$\frac{\text{Numerator}}{\text{Denominator}}$	1	1 2	_____
19. Were critical Health Centre or hospital drugs ever out of stock? (Data source DQ 2 Table 6b)			Number of times drug was out of stock			
Chloroquine			_____	0	out of stock	_____
Paracetamol			_____	0	out of stock	_____
Pen V			_____	0	out of stock	_____
Amoxicillin			_____	0	out of stock	_____
Benzyl Penicillin			_____	0	out of stock	_____
Oral Contraceptives			_____	0	out of stock	_____

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Question Performance	Numerator	Denominator	Indicator	Target	Threshold or Expected Range	Problem? (Yes No)
20 Was the daily staff load at Health Centres for curative and preventive care within acceptable range? (Data source DQ 2 Table 7a)	$\frac{\text{Number of patient contacts}}{\text{Number of qualified staff} \times 68}$	Number of qualified staff x 68	$\frac{\text{Numerator}}{\text{Denominator}}$	District target	District threshold	_____
21 Was the daily staff load at hospitals for OPD care within acceptable range? (Data source DQ 2 Table 7b)	$\frac{\text{Number of OPD attendances and reattendances}}{\text{Number of qualified staff} \times 68}$	Number of qualified staff x 68	$\frac{\text{Numerator}}{\text{Denominator}}$	District target	District threshold	_____
22 Was the daily staff load at hospitals for IPD care within acceptable range? (Data source DQ 2 Table 7c)	$\frac{\text{Number of admissions}}{\text{Number of qualified staff} \times 68}$	Number of qualified staff x 68	$\frac{\text{Numerator}}{\text{Denominator}}$	District target	District threshold	_____
23. Was the budget spent on 20/80 drugs outside the acceptable range? (Data source HIA 2 expenditure, 7 3 2, budget, 7 3 1)	$\frac{\text{Expenditure on 20/80 drugs}}{\text{One fourth of annual drug budget}}$	One fourth of annual drug budget	$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	20%	less than 15% or more than 25%	_____
24 Were too many Health Centre or hospital quarterly reports not submitted? (Data source DQ 2 Table 8)	$\frac{\text{Number of institutions submitting complete reports}}{\text{Total number of institutions that should have reported during the quarter}}$	Total number of institutions that should have reported during the quarter	$\frac{\text{Numerator} \times 100}{\text{Denominator}}$	100%	90%	_____

For each problem detected, describe corrective actions and indicate any assistance requested from the Central Board of Health

Completed by: \_\_\_\_\_ Signature \_\_\_\_\_  
 Title \_\_\_\_\_ Date \_\_\_\_\_

**APPENDIX I**  
**Comments on the 3A Self-Assessment Form**

October 9, 1997

Dear Anne, Jaap, Mimi, Charles, and Marietta,

I hope your travels to the field went well. Before leaving for Uganda I went through the Triple A form in further detail, and have included further comments. Also, I have left a copy with BASICS and suggested that they might contact you if they have comments. In discussing the HMIS with some of the technical people, I perceive a general perception that technical guidelines may not be adequately represented. In discussing this issue with the visiting EPI expert team I asked them to give me key indicators which they thought would best assess the adequacy or quality of EPI services being provided in a health centre. These are—

*1. outreach services*

number scheduled according to work plan/number actually carried out  
drop out rate DPT1→DPT3

*2. vaccine logistics*

number of days (% of time) in past x months that all vaccines were in stock and in date  
number of days in the past x months that the vaccine fridge was outside the safe range

*3. Quality of delivery*

supply of syringes and needles adeq for x months or o/s x days during last y months  
if possible to visit on immunization day observation of immunization technique

*4. Counselling* exit interviews with mothers to find out—

what % know when to bring their child back for the next immunization  
if more than one question could be asked of the mother, then find out—  
what reactions to vaccine might be expected by the mother  
what the child's weight was

I did follow up our discussion on malaria treatment, and found that there is a national policy on second line treatment, that Fansidar or 'SP' is in some centres, and should be in a wider number shortly. Since there are guidelines for this, it might be important to include in the supervision process.

Hopefully this and the following will be useful for the HMIS into which you all have put so much effort.

Best wishes

Yours sincerely,



gburnham@jhsph.edu

## Comments in the order in which the AAA is laid out

### 2. Mission statement.

This covers the importance of supporting the health worker, and focusing on facilitating problem solving. Another aspect which needs mention here is the role of supervision in assuring that the patient receives the best possible care achievable from that facility (the 'assurance' part of QA)

### 3. HMIS tools and HOPPOPOC

This is a good emphasis on use of data for decision making. Perhaps immediately after the 'but why' and bubble chart sentence you could make it clear that these methods only identify potential causes of the problems, they actual causes need to be verified with information

### 5.1 Planning for supervision

- *Composition of the supervisory team:*

Should this section also say something about taking along someone with clinical skills where possible, perhaps from the district hospital—much as you have said in the second sentence for accounts staff?

- *General preparation of the DHMT members who participate in supervision:*

Here it might help satisfy the concerns of the technical people if it were to read (2<sup>nd</sup> para)—

*Use standardized guidelines for supervision on specific technical programmes and update them quarterly, or regularly.* The concern here would be that national standards and programme specific standards are already developed and set out in the ITG which the DHMT can use without developing their own. To avoid difficulties which are bound to come up, the next sentence might satisfy most if it read *These standard guidelines can be used in a systematic manner where supervisors identify problem areas.* Even here there may be problems because there may be very good arguments for checking crucial areas at every visit. I would probably agree, with the proviso that these key indicators are clear and small in number.

- *Preparation for each supervisory visit*

This is a good section. The only suggestion might be the bringing along of any new technical guidelines or changes being made to programme methods or procedures.

- *Frequency of supervisory visits*

An entirely personal opinion here, but I would eliminate the *surprise visits* which gives yet again the inspection message. Instead *extra* or *unscheduled visits* might convey the intended idea.

- *Personal coaching*

This section is well done. Only a small suggestion that the supervisor may interview the health worker to determine his or her knowledge about providing care to patients with certain conditions or needs when there are no patients to be observed, and to use responses for personal coaching.

### 5.2 The supervision visit

- *Documents used during the supervision (visit):*

The standardized guidelines for supervision on specific technical programmes (pg ) should be included as one of the documents used.

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- *Focus of supervision:*

Perhaps at the beginning it should be mentioned that the focus is on enabling the staff to provide the best possible health care to people in their catchment area. Also an important focus is to support the health workers in solving problems detected by health workers, the community, or the supervisory team. And under the rules include the community as equal partners

- *The supervision step by step*

In 6 the QA problem solving tools could be included, since they are referred to elsewhere.

- *General assessment*

In this section should be included the standardized guidelines for supervision on specific technical programmes (pg 3). The third and fourth bullets seem vague and ill defined. These could be tightened up to ask specific questions. "Are all individuals performing and up to standard and contributing?" is likely to either not give you usable information, or have the potential for fault-finding or finger pointing. This is a question, along with other sensitive items, which should be discussed in privacy with the in-charge upon arrival. Again, "are all necessary supplies available and are stock kept according to the instructions?" may not be helpful, since the answer to this question, anyplace on the planet will be no.

### **5.3 the follow-up**

3<sup>rd</sup> paragraph. In the process of supervision there will doubtless be many items identified which require attention before the next visit. Some may be major, but many are likely to be minor. Do all of these need to be included in the revised action plan? If so, it is likely to be a cumbersome document with its utility compromised.

### **6. Checklists and supervision**

3<sup>rd</sup> paragraph. It is not appropriate to say checklists do not contribute to quality. What is appropriate to say is that the use of checklists is only part of the supervision process, that is, the problem identification part. If not coupled with the problem solving component, then it is ineffective. Strong problem solving capacity with weak problem identification won't work very well either, as the HMIS development team has noted. You should note that the CBoH checklist used in Lusaka was never distributed without the problem-solving context clearly set out, and that QA was involved from the beginning in development, so it would never be used as an inspection instrument. Further, everyone trained to use it were also trained in problem-solving at the same time (PS would you concur if KLM pilots stopped using checklists before takeoff?) In your list of checklists you did not include the UNICEF one from Nchelenge constructed by district health workers, and which doubled the level of health facility performance within the year.

### **7.0 The Triple A Form**

- *Column 3*

- Community factors are the three specified even worth including, in that the majority in the natural resources or socioeconomic are beyond the influence of the health system (or almost anyone else for that matter). These may lead health facilities down the wrong track and encourage them to conclude that there is nothing which can be done about a

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specific problem I would think leaving the health facilities to fill in whatever community factors they identified rather than specifying three categories would be more helpful

- Service Delivery Factors most people would classify acceptability and availability as part of the large question of access It seems hard to see the difference between (Q2) availability=distance to clinics while accessibility=outreach or acceptability=female staff availability In Q5 Availability=outreach programme could just as well =supermarket approach Also, I think *Quality of supplies* is really availability (or adequacy) of supplies Quality of supplies would seem to suggest properties of the supplies themselves

### Basic set-up of the form

Here I have major difficulties with the form as now set out, to be of help to the health centers in problem identification.

- *Q2 Malaria Number of malaria cases exceptionally high or low.* Compared with what? Last year? District levels? Neighbouring health centres? National? If it is the same as last year does it cease to be a problem (problem=no)? This is a disease whose incidence is always cycling, often for reasons poorly understood If a health centre was part of an impregnated bednet programme which had high coverage (>80%) then comparisons with other similar areas where there was not a bednet programme would provide valuable information. The availability of antimalarials, diagnostic skills or use of case management is going to have zero effect on incidence of malaria in Zambia, in other than those on chemosuppression

One could make this a worthwhile question by starting with number of malaria cases reported in the previous quarter (already itself a problem) and then breaking down this figure to such groups as—

- under 5 and over 5
- pregnant women
- chloroquine resistant
- complicated malaria (fits, change in consciousness, haemolysis/severe anaemia)
- persons requiring inpatient care

These are conditions for which something can be done either through advice in U5 or ANC clinics, better treatment, self treatment at onset of symptoms or community awareness If there is an active impregnated bednet programme (as is starting up in EP) then geographic or usage questions could provide “actionable” information.

- *Q2 Antenatal care. Proportion of ANC attendance too low?*

Again ANC attendance is *always* too low if it is not 100% Is this any visit? or coming in the 2<sup>nd</sup> trimester, or having a minimum of three visits? How to make this a useful question from which actions could be taken? One could start with the absolute attendance ever attended, 1,2,3 or 3+ visits Then find out from which of the *n* sectors of the catchment areas the women came (which would help access questions), merge the TT question into this, what proportion were identified as high risk, RPR status and treatment, malaria chemosuppression, or even specified weight gain? All of these (and other potential questions) would have specific actions which could be taken by the health centre staff

- *Q3 Tetanus protection. Percentage of pregnancies protected against tetanus too low?* Here again the answer is always problem=yes. The real question involves setting a specified objective for the reduction of unprotected pregnancies, and using this question as an indicator to monitor progress toward meeting this objective. Without a specific programme to address this already-identified problem, then this is likely to be a routinely filled out question unconnected to any activity.
- *Q4. Deliveries. Is the proportion of supervised deliveries too low?* Is “supervised” deliveries in a health facility, as col 4 implies? Do deliveries supervised by a tTBA count?—if so is there an information gathering system in place, or likely to become in place, which will provide this information? In any event, this is almost always going to be problem=yes. Again, without a target these numbers are not much help, and targets are pretty hopeless without a specific health centre programme for this specific objective or reducing unsupervised deliveries.
- *Q5 Family Planning. Is the number of new family planning clients decreasing?* Wait, wait. Is not our goal to be constantly increasing acceptor rates? This question would imply that no-change is an acceptable figure. How many new FP clients have been registered, and does this meet the health facility targets as the facility set out in its action plans would seem to be a more useful figure. If not, why not? This would be the problem identification from whence the problem solving could be applied to the programme and strategy which the facility has in place.
- *Q6. Is the number of STD cases exceptionally high or low?* This implies there is a “right” or expected number of STDs/1000 persons in the catchment area. Is this true? If there were a sharp fall off perhaps one could suspect access problems or success of programs. Is a comparison with another facility valid since STD sources are not distributed like mosquitos. And does the knowledge of treatment protocols clearly relate to cases seen? Again, it might be much better to start with the absolutely number of STDs seen. Not only could one examine how they were treated (Dx and Rx), by whom they were treated (training), and what type of IEC was available and condom availability. This indicator might be good for a large scale STD control programme, but probably of limited value for curative STD services.
- *Q7 Pneumonia* Although this question is not specified I assume it is “exceptionally high or exceptionally low.” If so, then it is unclear how the health centre can have an impact on the incidence of pneumonia. Two areas where there can be an intervention are mobilising mothers to bring children to the facility when they are having cough or difficulty breathing, and improving facility case management, including mothers’ subsequent home-nursing care. How can the pneumonia indicator be made to address these issues?
- *Q8 Diarrhoea. Number of diarrhoea cases exceptionally high?* It is hard to imagine many parts of Zambia where problem=yes. Again what control does a health facility have on diarrhoea incidence? Although intuitively water protection programmes should reduce incidence of diarrhoea, in fact this has been difficult to demonstrate on a population basis. Here the principle area for problem solving to address are weaknesses in the case management, as well as mothers’ activities.

- *Q9 Immunizations. Is the coverage of fully immunized too low?* Problems again Should not this be related to a target? In some situations coverage calculations for individual facilities are open to considerable error, since many in the catchment areas may choose to go elsewhere for many reasons Other indicators to be considered would be DPT1 as a measure of access to the system, and DPT1→DPT3 dropout rates as a measure of continuity Often coverage rates are probably better on a district basis than for an individual facility
- *Q10 Underweight. Is the proportion of underweight too high?* What are the criteria here? Minus 1WAZ, -2WAZ or -3WAZ? Again unless there is a target for comparison, problem will almost always =yes This will be interesting to document, though perhaps growth faltering would be a better indicator, but what is a health centre going to do about it in the absence of a programme? The small proportion of children who come regularly to U5 clinic may benefit from improved IEC about nutrition to their mothers, though this is likely to have little wider impact
- *Q11 CHWs. Are there too few CHWs to meet community needs?* If 1 1000 is the ideal level, then certainly everyone is going to fail. If it is related to a target for the health centre, then this could be helpful indicator More importantly is what are they doing, or what proportion have fulfilled the activity schedule set out for them in the previous quarter
- *Q12 tTBAs. Are there too few trained traditional birth attendants?* Is this question a good measure of what proportion of deliveries are attended by tTBAs? And is this ever-trained, or ever-trained and being supported with supplies by the health centres, or trained in the past x years? Is this still a priority in Zambia? In most places tTBAs have been disappointing If it is not a major component of safe-motherhood programmes, perhaps this space could be used for other indicators
- *Q13. Drug Kits. Are too many drug kits being used?* This seems a reasonable question for facilities using drug kits
- *Q14 Drug O/S. Are critical drugs out of stock?* Does this mean at the time of the self assessment? or for how many days in the quarter? Is this a yes if only one is o/s? How were the critical drugs decided? If children represent close to half of OPD visits, which they usually do, then it would seem appropriate to include the key paediatric drugs on the critical drug list These would include co-trimoxazole, the standard drug for pneumonia, ORS, and SP or fansidar as a second line antimalarial, a policy which has been in place for 1 year+ in Zambia. Now that anticonvulsants are added to the IMCI package for emergency use, this might also be considered for inclusion
- *Q15 Workload. Was daily workload within acceptable range?* A question I have is about calculation of this figure in the busier clinics where there are antenatal, U5 clinics and school or outreach sessions Are these included in the figure for number of qualified staff, and do attendance figures for these other services get factored in? How about time in outreach clinics which are generally not time-efficient?
- *Q16 Is the proportion of TB patients under treatment who have not taken drugs for more than one month more than 10%?* This is certainly a good indicator for a quarter-by-quarter basis An alternative for an annual assessment would be the treatment-completed ratio

**APPENDIX J**  
**Core Indicators by Category**

# Core indicators by category

(to be used as a stand-alone list or combined with the self-assessment checklist)

## 1. General Health Centre

**A. Facilities, grounds and buildings**  
cleanliness, toilets, maintenance, organization of patient records and stores

**B. Records, Reports and Wall charts**  
Information System

- Were the forms from the previous quarter returned to the DHMT on time?
- Are previous forms filed neatly and in consecutive order?

Is there an immunisation monitoring chart correctly filled in and up-to-date showing—

- the number entered for measles vaccinations is the same as on the HIA-1?
- the cumulative numbers are added correctly, and
- the point is plotted correctly to correspond with the cumulative vaccinations
- current estimate of measles vaccination coverage

Is the first-antenatal-attendance monitoring chart displayed, correctly filled in and up-to-date showing—

- the number entered for first antenatal visits is the same as on the HIA-1
- the cumulative numbers are added correctly, and
- the point is plotted correctly to correspond with the cumulative visits and the month

**C. Review of the Outpatient Register for the past month**

- many children should have more than one diagnosis
- all children with diarrhoea should have ORT treatment
- half or less of children with cough/difficulty breathing typically need antibiotics
- review entries for neatness, consistency; use findings for teaching

**D. Services provided**

Are the following services available more than once weekly? (Supermarket)

- childhood immunisation
- antenatal care
- family planning

Is there a UCI outreach programme? If so, has it made its scheduled visits in the past quarter?

Is there a school health programme? If so, has it made its scheduled visits in the past quarter?

Was there a staff meeting held last month?

*If so there should be minutes of the meeting, including names of the participants*

Were there other health facility committees which met in the past 3 months?

*There should be minutes showing topics discussed*

## 2. Child health

Is there an ORT corner fully functional with the following present—

- table, seating for mother and child
- potable water (supply appears adequate)
- 2 large cups (500 ml), 2 medium cups (250 ml)
- 1 tablespoon (10 ml), 1 teaspoon (5 ml)
- ORS sachets (supply on hand should be adequate)
- the ORT register is complete

**Vitamin A**

- o do the records indicate target population being reached?

**E. Vaccine Supply and Cold Storage**

Has the vaccine refrigerator maintained an acceptable temperature, and is its present temperature between 0°C and 8°C?

Has the refrigerator temperature chart been filled out twice daily for the past month?

For how many days in the last 3 months does the stock books show each of these vaccines out-of-stock?

Measles \_\_\_ days, DPT \_\_\_ days, Polio: \_\_\_ days, BCG \_\_\_ days, TT \_\_\_ days

Is the vaccine stock book current?

Is a 2 week supply of fuel available?

What is the DPT1→ DPT3 dropout rate? \_\_\_\_\_ What was the dropout rate last year?

**F. Observation of Assessment of the Sick Child 2 Months to 5 Years (covers UCL, diarrhoea, ARI, nutrition, and malaria)**

o Does the health worker greet the mother?

Does the health work ask about or does the mother volunteer—

Does the health worker examine for—

**Danger signs**

- o not able to drink or breast feed?
- o vomits everything?
- o convulsions?

o lethargy or unconsciousness?

**Cough or difficulty breathing**

o for how many days?

- o raise the shirt?
- o count breaths?
- o look for chest indrawing?

**Diarrhoea**

- o for how many days?
- o is there blood in the stool?

- o offer fluid or observe breastfeeding?
- o skm pinch of the abdomen?

**Fever in the past 24 hours**

- o for how many days?
- o has Chloroquine been given at home for this illness?

o examine for stiff neck?

**Immunization**

o ask to see immunization care?

o due for vitamin A?

**Feeding (if under 2 yrs or very low weight)**

- o do you breastfeed your child?
- o if yes, how many times in 24hrs?
- o does the child take any other food?
- o if yes, what foods or fluids?
- o how many feedings per day?

For the child treated above—

**Drugs prescribed**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Does health worker correctly explain—**

- |                               |                                    |                                   |
|-------------------------------|------------------------------------|-----------------------------------|
| <input type="checkbox"/> Dose | <input type="checkbox"/> Frequency | <input type="checkbox"/> Duration |
| <input type="checkbox"/> Dose | <input type="checkbox"/> Frequency | <input type="checkbox"/> Duration |
| <input type="checkbox"/> Dose | <input type="checkbox"/> Frequency | <input type="checkbox"/> Duration |
| <input type="checkbox"/> Dose | <input type="checkbox"/> Frequency | <input type="checkbox"/> Duration |

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Does a health worker ask any open-ended questions to determine whether the mother understands how to give the medicines prescribed?

Does the health worker advise—

- Increase the frequency of meals or breastfeeding
- Reduce or stop other foods other than breastmilk
- Begin or increase the frequency of complementary foods
- Give food that is thicker or enriched (e.g. with sugar, oil, . . .)

Does the health worker advise on when to bring the child again?

Does the health worker advise mother to return with child immediately for

- Develops a fever or fever does not go away
- Drinking poorly (if child has had diarrhoea)
- Blood in the stool (if child has had diarrhoea)
- Breathing fast or difficult (if child has been coughing)
- Child becomes worse for any reason

### **3. Maternal health/Reproductive health**

#### **G. Review of the Antenatal Register for the past month**

Is the antenatal clinic register correctly filled in and up-to-date?

Are there notations in the antenatal register for high-risk pregnancies, and there are special follow-up activities specified for these women?

Have the following antenatal services taken place in the past quarter?

- outreach antenatal clinics?
- community participation regarding maternal care and referral?
- community discussions on danger signs of pregnancy and delivery?

Is there a register of RPR results for antenatal patients?

#### **H. Observation of Family Planning service delivery**

Did the health worker display the following actions

- greeted the patient in a friendly manner
- encouraged questions
- ensured privacy
- provided a health talk about family planning
- carried out screening or management of STDs

Were the following clinical procedures carried out?

- TT status checked
- if needed TT given
- blood pressure checked
- patient checked for anaemia
- legs checked for oedema or varicose veins
- weight checked
- abdomen palpated
- RPR done during this pregnancy

#### **I. Health Centres with a maternity facility**

##### **General observation**

Does the facility have the following—

- delivery room with necessary equipment in working order
- telephone or radio in working condition
- transport plans for patients referred to hospital
- adequate light (hurricane light minimum)

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Did this health centre maintain the following records for recent deliveries—

- partograms filled in properly for a selection of recent deliveries?
- blood pressure checked and recorder four-hourly during labour?
- foetal heartbeat checked hourly during labour?
- vaginal examination done four-hourly during labour?

#### J. Supplies and equipment for maternity and postnatal services

The following delivery equipment is present

- chitile forceps
- episiotomy scissors
- suture needles
- needle holder
- artery forceps
- cord scissors
- ring (sponge) forceps
- tooth forked forceps
- bag & mask for neonatal resuscitation
- neonatal mucus extractor
- clinical thermometer
- incinerator pit

The following consumables are present in adequate amounts for the deliveries which occur in this unit—

- linen/cloth to dry the baby
- gauze/cotton wool
- plastic sheeting
- cord clamps/ties
- suture material
- maternity pads
- IV giving sets
- disinfectant
- partogramme forms
- syringes
- needles
- gloves

#### K Observation of services in a postnatal clinic

The following activities were carried out by the health worker—

- checked the date of delivery by card and by asking the mother
- verified how many postnatal visits had been made after this delivery
- carried out a physical examination on the mother including—
  - abdomen
  - eyes/tongue
  - vagina
  - breasts
- blood pressure
- examined the baby for any abnormalities, colour, weight, activity

The following health education was provided to the mother—

- family planning
- immunisation
- breast feeding
- growth monitoring

## 4. Environmental Health

#### L. Sanitation and waste management

Does the environmental health technician know—

- the population of the catchment area?
- the number of households in the catchment area?
- the average number of persons per household?
- how many households have pit or VIP latrines?
- how many house holds have refuse pits?

Are there promotional programmes underway on excreta disposal in this area?

How many new pit latrines have been constructed through programmes in the past quarter?

How many health education meeting on hygiene has he held in the past month?

\_\_\_\_\_ (check diary for number)

Is there uncollected or undisposed waste lying around the area?

- if Yes, has the health worker suggested any alternative methods of disposal to the community?
  - if Yes, what is this alternative?
- 
- 

Is the excreta and waste disposal system at the health centre adequate and safe?

Is there a malaria control programme being conducted?

*If Yes, what is included in the programme?*

How many visits to the community has the health worker conducted in the past month in conjunction with a community representative to check on sanitation issues? \_\_\_\_\_

### **M. Water**

Does the health worker know—

- the number of households served by protected wells or boreholes?
- the number of households served by communal taps?
- the number of households with mains water connections?
- the number of villages with protected wells or boreholes?
- how many villages are within 0.5 km of a protected water source?

Does the health centre have a stock of water treatment chemicals for emergencies?

How many NGOs or cooperating agencies have water activities in this area? \_\_\_\_\_

*If these are present, does the health worker attend their meetings? (check diary)*

Is the health worker using any IEC materials about protection of water sources?

Has the health worker conducted any meetings about water supply sources with communities without protected sources? (Check the diary)

How many water sources has the health worker inspected in the preceding quarter about which he or she has written a report? \_\_\_\_\_

## **5. Malaria**

Is there an up-to-date treatment schedule (from ITG or elsewhere) to which health workers can easily refer which shows—

- current treatment for malaria including dosage by age or body weight?
- appropriate treatment for Chloroquine resistant malaria
- are drugs now in stock to treat both forms of malaria?

## **6. STDs/HIV/AIDS**

Have one or more of the staff been trained in the WHO syndromic treatment of STDs?

Have one or more of the health centre staff been trained as an HIV/AIDS counsellor?

Are condoms readily available—  
from the health centre?  
in the community?

## 7. TB

### N. Review of the Tuberculosis Treatment Register for the past month

Is the tuberculosis treatment register correctly filled in?  
*is data missing or incorrect? Explanations should be given for missing data*

How many TB patients have defaulted in the past 3 months? \_\_\_\_\_

Do records reflect that defaulters were visited at home?

How many sputum positive reports at two months were not followed up?  
 \_\_\_\_\_ (number)

Number of new patients started on treatment in the previous 3 months? \_\_\_\_\_

Number of patients completing treatment in past 3 months? \_\_\_\_\_

How many patients are receiving DOTS treatment? \_\_\_\_\_

### Essential drugs and supplies

#### O. Drugs and Contraceptives

	stock card present	days o/s last quarter
<b>Child health/Malaria</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	___ days
Chloroquine tabs	<input type="checkbox"/> Yes <input type="checkbox"/> No	___ days
Cotrimoxazole tabs	<input type="checkbox"/> Yes <input type="checkbox"/> No	___ days
ORS sachets	<input type="checkbox"/> Yes <input type="checkbox"/> No	___ days
Pyrimethamine-sulfa tabs	<input type="checkbox"/> Yes <input type="checkbox"/> No	___ days
Vitamin A capsules/tabs	<input type="checkbox"/> Yes <input type="checkbox"/> No	___ days
<b>Maternal health/Family Planning</b>		
Methylethylamine injection	<input type="checkbox"/> Yes <input type="checkbox"/> No	___ days
Condom	<input type="checkbox"/> Yes <input type="checkbox"/> No	___ days
Contraceptive pill	<input type="checkbox"/> Yes <input type="checkbox"/> No	___ days
Depoprovera	<input type="checkbox"/> Yes <input type="checkbox"/> No	___ days
<b>STDs/Tuberculosis</b>		
Benzathine penicillin	<input type="checkbox"/> Yes <input type="checkbox"/> No	___ days
Ethambutol tabs	<input type="checkbox"/> Yes <input type="checkbox"/> No 1 mo supply <input type="checkbox"/> Yes <input type="checkbox"/> No	___ days
Isoniazid + Ethambutol tabs	<input type="checkbox"/> Yes <input type="checkbox"/> No 1 mo supply <input type="checkbox"/> Yes <input type="checkbox"/> No	___ days

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Pyrazinamide	<input type="checkbox"/> Yes <input type="checkbox"/> No 1 mo supply <input type="checkbox"/> Yes <input type="checkbox"/> No	___ days
Rifina	<input type="checkbox"/> Yes <input type="checkbox"/> No 1 mo supply <input type="checkbox"/> Yes <input type="checkbox"/> No	___ days
<b>Other</b>		
IV Fluids and giving sets	<input type="checkbox"/> Yes <input type="checkbox"/> No	___ days
Ferrous Sulphate	<input type="checkbox"/> Yes <input type="checkbox"/> No	___ days
Folate	<input type="checkbox"/> Yes <input type="checkbox"/> No	___ days

If there is a maternity facility, the following drugs, at a minimum, will be present in adequate amounts for the deliveries which occur in this unit—

- procaine penicillin
- anticonvulsants
- lidocaine 2%
- antihypertensives
- BCG
- Vitamin A
- tetracycline ointment
- mebendazole
- amoxicillin
- ampicillin injectable

Are drugs handled in an appropriate manner?

- How are new drugs stocked when they arrive? (stock rotation)
- What do you do with expired drugs? (return to district)
- Are there any drugs on the floor? (none)

### Community Activities

How many NHCs are present in the health centre catchment area? \_\_\_\_\_

- how many are active? \_\_\_\_\_
- is this more or less than last year?

With how many NHCs did the health centre staff meet in the past quarter?

How many CHWs are present in the health centre catchment area? \_\_\_\_\_

- how many are active? \_\_\_\_\_
- is this more or less than last year?
- how many did the health centre provide support in the quarter? \_\_\_\_\_

With how many tTBAs is the health centre now working?