TANZANIA ESSENTIAL HEALTH INTERVENTIONS PROJECT

TEHIP “Interventions”
- An Overview -

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Introduction

TEHIP was designed to test how and to what extent evidence can guide decentralized planning of the health sector at District level. From the outset, the evidence set included burden of disease, cost effectiveness, health system capacity, and community voice. At the time the project was designed, it was anticipated that there was a need for three novel tools to handle the burden of disease, cost-effectiveness and community voice evidence sources for District Level. However, the years of integrating research and development in close connection with District (now Council) Health Management Teams drew attention to the need for several additional tools for the District Planning Tool Kit in Tanzania. The Burden of Disease Tool and the Community Voice Tool have been developed as planned. The Cost-Effectiveness Tool has been designed but left on the shelf due to the need to introduce some new precursor tools that had not been foreseen. These include the District Cost Information Tool, the District Health Expenditure Mapping Tool (both of which have been developed and applied) and a District Intervention Coverage Tool that is under development. Also, for the health system capacity, a number of innovations and new tools have evolved including the District Integrated Management Tool, the District Health Mapping Tool, The Community Ownership Strategy, and Strengthening Health Management and Administration. All together, these tools and strategies can be seen as major “interventions” into the capacities of the TEHIP supported districts and must be understood in that sense when comparing the performance of such districts with those with conventional approaches to planning and resource allocation.

This document provides a short profile of each of these “interventions”, giving a one to two page summary of the background, purpose, content, timeline and current status of each. This overview organizes and presents these interventions under two categories: those that are technical planning tools, and those that are supportive interventions or strategies.
Planning Tools

District Burden of Disease Profile

Background
TEHIP was designed to test how and to what extent evidence can guide decentralized planning of the health sector at District level. From the outset, a core source of evidence was to include burden of disease. The design of TEHIP included the use of sentinel district demographic surveillance systems for two purposes: 1) to monitor the impact of the TEHIP “interventions”; and 2) to provide the burden of disease evidence for the annual planning cycles. Demographic or Mortality Surveillance Systems follow large samples of populations (typically in excess of 80,000) with continuous monitoring at household level of all migrations, births, deaths, and causes of death. It was foreseen that if this Burden of Disease approach to evidence based planning worked well, recommendations could be made to extend the network of districts hosting demographic surveillance systems into a National Sentinel Surveillance (NSS) System. Since 1992, Morogoro Rural had a functioning mortality surveillance system funded by DFID and implemented by the Adult Morbidity and Mortality Project (AMMP). AMMP agreed to provide data from the Morogoro Rural Mortality Surveillance System to TEHIP in return for TEHIP providing financial support to the District for health interventions. Furthermore, TEHIP and AMMP agreed to co-finance and co-manage the introduction of a full DSS in Rufiji District. It was also agreed at the inception of TEHIP that the burden of disease information would use evidence based on cause specific mortality according to the DALY proxy of YLLs (Years of Life Lost) with standard DALY age weighting and discounting.

Purpose
- To document the burden of disease for priority setting and to quantify changes in the burden of disease to monitor the impact of the TEHIP “interventions”;
- To provide the burden of disease and related evidence for the annual planning cycles;
- To contribute to the development of a National Sentinel Surveillance system.

Content
It was quickly recognized by TEHIP that the type of data produced by DSSs is relatively well understood by epidemiologists and demographers at National level, but not very relevant to District level planners. It was decided to develop a tool through which such complex data could be processed into a printed, graphical format suitable for quick comprehension of the key content by District health planners. The main innovation of TEHIP was to express the burden of disease data, not in terms of disease, but in terms of intervention addressable shares of the burden of disease. These graphical images are published annually in a document called the Burden of Disease Profile.

The purpose of the Burden of Disease Profile is to simplify, package, and communicate complex information on vital statistics and the local burden of disease in a practical and readily accessible format for planning purposes. It is intended solely for use by Council Health Management Teams. This information is intended for consideration as part of the situation analysis for the annual District Health Planning cycle. Almost all the information is provided in a graphical format with short explanatory captions and a minimum of text to
provide a “picture” of the current disease burden and demographic profile. This sentinel profile is updated annually.

Health reforms in Tanzania expect Districts to move beyond just managing diseases, to managing health systems from a perspective of health equity. In all societies, the poor carry the heaviest burden of disease. It is difficult for health systems to accurately target the poor. But it is possible to target major components of the Burden of Disease (BOD) and thus increase equity in resource allocation with more emphasis on the poor. For districts, this means a greater focus on cost effective interventions that address the largest shares of the burden of disease. In Africa, 80% of the BOD comes from premature mortality. The causes of this mortality also cause most of the disability that makes up the remaining 20%. Therefore we can use mortality as a guide to setting priorities based on the burden of disease. Since most mortality occurs at home or outside of health facilities, we cannot rely on conventional, health facility based, Health Management Information Systems’ attendance data as the source of information on the burden experienced by communities and households. Instead we use household derived demographic and mortality surveillance data from the National Sentinel Surveillance System for understanding the real burden in various parts of the country.

In the profile we also convert disease specific mortality into intervention addressable shares of the total burden of disease and present this in a pictorial format as follows:

Distribution of the total household burden of disease:
- By broad causes (e.g. Communicable; Non-Communicable; and External causes);
- By main causes (e.g. Communicable; Perinatal, Maternal, Nutritional; etc.)
- By broad age groups (e.g. under-fives, five and over, and women of child-bearing age);
- By cost-effective interventions available to CHMT’s and rural district health services;
- And
- By individual conditions addressed by each of nine cost-effective intervention strategies.

The above information is essential for identifying the most important health intervention priorities (as opposed to disease priorities) and in allocating appropriate and proportionate resources for the support of selected interventions at district level.

The BOD Profile also provides additional graphical information for planning the health system such as:
- Distribution of births and deaths:
  - By month and season;
  - By place of birth or death;
  - By health seeking behaviour in the condition leading to death.

Finally, the profile recognizes that there has not been a national census in Tanzania since 1988. We therefore provide a demographic breakdown of the sentinel population structure by age and sex, current fertility and age specific mortality rates. These can be applied to the current district populations to predict the numbers of births, deaths, infants, under-fives, pregnancies, etc. to be expected at district level in the next planning year.

**Timeline**
Annual updates of the Burden of Disease Profile have been provided to the CHMTs immediately prior to the annual planning cycle every year starting in November 1997.
Specific profiles for Rufiji were not available until November 2000, and for the preceding years, Rufiji used the Profiles from Morogoro Rural as their sentinel.

**Current Status**

Evidence from another tool (District Budget Mapping Tool) that integrates data from the Burden of Disease Tool indicates that Rufiji and Morogoro have, since 1997, started to allocate their resources consistent with the pattern of the burden of disease, whereas this was not the case prior to 1997.

The Ministry of Health has decided to establish a National Sentinel Surveillance System based on demographic and mortality surveillance. Rufiji DSS and Morogoro DSS are core members. Discussions are expected shortly on the use of the Burden of Disease Tool in the NSS. WHO has also provided funding to extend the use of these tools to other DSS sites in Africa through the INDEPTH Network of DSS sites. The Rufiji DSS has developed a long-term strategic plan. Current copies of the strategic plan and District Burden of Disease Profiles are available from TEHIP.
District Health Expenditure Mapping

Background
The District Health Expenditure Mapping Tool has been developed by the Ministry of Health’s Tanzania Essential Health Interventions Project (TEHIP) in response to a District need and demand for a one-page summary and one-page graphical "picture" of their comprehensive, annual Comprehensive Council Health Plan (CCHP). This tool is intended to help Districts understand the accumulated total financial resources they have budgeted (or expended) in their plan; the respective sources from which they expect their revenue; and the major interventions and activities to which these funds are allocated.

Purpose
- To provide basic analyses of budget and expenditure to check against priorities (burden of disease), norms and standards;
- To reduce complexity of CCHP budgets for CHMT planners;
- To provide a graphical display of complex numeric information;
- To provide summary information on resource source and allocation for both budgets and expenditures;
- To guide CCHPs to be more comprehensive in capturing all potential sources of revenue;
- To assess CCHP implementation (budget vs expenditure);
- To facilitate accountability and transparency

Content
The tool is based on a matrix relating activities to financial resources such that these health sector allocations can be determined at a glance. The tool calculates both the proportional shares of investment and the absolute per capita budget or expenditure in the Comprehensive Council Health Plan in terms of all funding partners, and in terms of all core essential health interventions and health system support activities. In anticipation of the National Sentinel System of demographic surveillance sites for burden of disease estimates, it also integrates a District Burden of Disease Profile to provide a graphical comparison of the intervention addressable disease burden and the intervention priorities as selected and reflected in District Health Plan budgets and expenditures. The tool further calculates the relative shares for curative vs. preventive/promotive expenditure; capital vs. recurrent expenditure; and direct support for health service delivery vs. general health system support. Finally, the tool provides additional basic statistics and specific graphs for the newly introduced Sector Wide Approach (SWAp) Council Health Basket Grant portion of the District Health budget and expenditure.

The tool integrates information from the District Burden of Disease Profile and the District Cost Information System. It also maps the costs of the in the EDP kit to the various interventions, but does not allocate salaries to particular interventions. The proportional share of budget/expenditure for interventions therefore includes only those funds that can be directly apportioned to the specific interventions.

Planning and budgeting for the health sector for typical Tanzanian Districts of several hundred thousand population is a complex undertaking (Tanzania Ministry of Health, 1998). One of the most detailed components of any district health plan is the budget. District budgets often exceed 25 pages of detail and can contain in excess of a thousand budgeted
items or activities, with hundreds of sub-totals, and dozens of major line items. These budgets are often built up from detailed operational activities and aggregate to total figures that typically run to hundreds of millions of Tanzanian shillings. At the end of the process it is difficult for Council Health Management Team (CHMT) members, and even the District Health Planning team itself, to have a good “feel” for the proportional content of their own budgets and plans. Since resource allocation within budgets reflects, to a large extent, the priorities of the District Health Plan, it is important that the district health planners can examine the final product of their plan in terms of how they have actually allocated their limited resources. Moreover, it is important at the end of the fiscal year, for the planners to be able to apply the same analysis to see whether the planned allocations were achieved in actual expenditure allocations. This need prompted TEHIP to start working in 1997 together with the CHMTs of Morogoro Rural and Rufiji Districts to develop a simple tool for analyzing District Health Plan budgets and expenditures.

**Timeline**
The tool has been in continuous evolution since 1997, and has been piloted for four years in Rufiji and Morogoro Rural Districts. It is issued annually as computer program on diskette at the commencement of the District Planning cycle in November.

**Current Status**
Over the period of piloting, a number of additional needs and uses for the District Health Expenditure Mapping Tool have emerged and have been incorporated in the tool. The tool has now been adapted for national use and will be piloted at district level in 2001 in all districts of Tanga and Kagera Regions, and will be applied by TEHIP at National level to analyse all remaining comprehensive district health plans for the 2002 fiscal year. Based on any final modifications emerging from this experience, it will be rolled out for District use in all districts for the 2003 fiscal year. Zonal training centers will likely be used for the roll out. The National Sentinel Surveillance System and the Burden of Disease Tool will provide the burden of disease profiles for the District Health Expenditure Mapping tool.
District Cost Information System

Background
Cost effectiveness analysis is one of the evidence sets that TEHIP had originally planned to implement through a planning tool. However it quickly became evident that districts had no knowledge of the fixed or variable costs of the interventions they offer, nor any idea of the effective coverage of services. These are two essential ingredients of the incremental cost effectiveness tool that TEHIP had designed. Therefore efforts were placed initially on developing a District Cost Information System. Coopers and Lybrand (now PriceWaterhouseCoopers) were retained to analyze current district costing instruments, and propose a framework for developing a tool that would provide the kind of information necessary for estimating incremental cost effectiveness. A prototype tool was developed and tested in a spreadsheet format. Although this gave proof of concept, it was insufficiently robust to use at rural district level. We then commissioned a database programmer to redesign the tool for an MS Access database format with custom data entry screens that could be managed easily at district level. This tool was then introduced to both districts and is managed by the District Health Accountants.

Purpose
➢ To assist improvements in technical efficiency by providing Council Health Management Teams with annual feedback on the per patient/case cost of essential health interventions at individual health facility level.

Content
The tool is a custom designed database that is managed at District level by the District Health Accountant. Information is entered from health facility patient registers. This includes the sex, age group, in/out patient status, repeat patient status, diagnosis, and drugs, surgical procedures, and laboratory tests prescribed. The database holds the costs of all drugs and procedures, as well as the fixed costs of the health facility buildings, inventory and staff. When analyses are required, custom reports can be chosen from a menu which provide costs per patient, per intervention, per facility, per month, or year. It allows comparisons between facilities, between levels of facilities (eg. Dispensary or Health Centre). Its primary intention is to identify technical efficiency in the delivery of essential clinical and public health interventions.

Timeline
The tool is still in development. The prototype tool was introduced and staff trained to pilot it in 1998. Total patient data for 1999 for two health centers and 5 dispensaries in Rufiji have been entered and fixed cost inventories have been maintained.

Current Status
The labour costs of entering total data are in excess of what is required to estimate the intervention and facility costs. The tool is being redesigned to operate on a sample of attendances selected across all the months in a given 12 month period in all facilities. This will be validated against the total 1999 data and if found to work, will be introduced for prospective use.
District Health Service Mapping

Background
TEHIP has provided professional, in-house Geographic Information Systems (GIS) support for TEHIP research. For this, accurate maps of both districts were produced, and all health facilities in both districts were mapped using Global Positioning Satellite systems (GPS). This was used to map trends in utilization of health facilities using routine HMIS data from the Districts. It was found at the Research Feedback meetings that these maps made a significant impression on the CHMT and were highly valued. The maps accumulated huge amounts of tabular numeric data into single pictures from which the important management issues could easily be seen. They asked how they could obtain such abilities. Conventional GIS software and skills cannot practically be made available at sub-national level. However WHO and UNICEF have developed a stripped down, public domain GIS for health workers which has the potential to bring the basic functions of GIS database management and data mapping into the hands of people with minimal computer skills. We therefore decided to pilot this approach to see if it could enhance the utilization of HMIS data at District level.

Purpose
➢ To pilot a single, practical, affordable computerized tool for CHMTs that would allow data entry, data management, data mapping, data analysis and data reporting for HMIS data at District level.

Content
Health Mapper Tanzania is a free software application that allows mapping down to ward administrative level of all roads, rivers, villages, administrative boundaries, health facilities, schools along with associated attribute data such as HMIS data for health facilities. It also provides a practical front-end data entry system for data, and a practical report generator. Finally it allows the communication of program data entered at District level to Regional and National level without loss or aggregation.

Timeline
CHMTs (DMOs and HMIS staff) from all districts in Morogoro Region were trained along with respective staff from the Regional and National level in a two day workshop that covered the basics of computers, Windows Operating System and Health Mapping in December 2000. In June 2001, we visited all the districts, installed the software on CHMT Computers and provided refresher training.

Current Status
The pilot districts are entering year 2000 HMIS data from a range of selected HMIS indicators, on their own, and logging any practical difficulties they encounter. They will then transfer the data to Regional level, who in turn will transfer it to TEHIP for checking. We will do a follow-up once all data has been submitted, and work with WHO Geneva to revise the software if and as required. Based on this experience, decisions will be taken regarding what recommendations should be made for next steps.
Community Voice

Background
TEHIP was designed to test how and to what extent evidence can guide decentralized planning of the health sector at District level. From the outset, the evidence set included burden of disease, cost effectiveness, health system capacity, and community voice. For community voice, new tools for dialogue were needed to bring the dimension of demands as expressed from community level into the more needs based evidence generated from the system itself. It was also recognized that utilization of essential health interventions would depend much on bridging views at the community level in the planning process. The tool selected to raise the community voice in the planning process was Participatory Action Research (PAR) that is expected to become a routine tool in the planning and management tool kit of District planners.

Purpose
- To identify community-based strategies that ensure appropriate utilization and increased effectiveness of essential health interventions and that increase the effectiveness of the processes through which they are planned;
- To develop approaches for introducing community preferences in the health and development process
- To develop household survey schemes and schedules to monitor coverage, access, and user satisfaction

Content
PAR intends to facilitate and empower the community, assist them to take a strong interest and have a large voice for expressing their concerns. Initially, a research team and cooped members of the CHMT of Morogoro Rural and Rufiji through the PAR approach will facilitated the creation of a procedural framework for identifying felt needs of communities be fed into (communicated) to the district planning process. This process would then be documented in a guide (tools) that would be applicable in other communities.

Through PAR steps, activities have been undertaken ranging from:
- community entry and sensitization,
- community reflective activities,
- identification of individuals, groups, associations and their potentials for implementation of community participation activities,
- dialogue on aspects of facilitation local planning, formulation of strategies
- actions to promote a holistic response (inter-sectoral partnership) for community planning for action.

Timeline
Due to funding constraints, this component did not start until January 2000 and now is funded entirely through the District Health Budget under the Planning line item. The Districts fund the professional training component in PAR through contracting out to the Ifakara Health Research and Development Centre. Once sufficient knowledge of the PAR process has been transferred, it is expected that Districts will be able to continue to introduce and assimilate this application, at lower cost.
Current Status
Community members have shown unexpected capability for appraisal, analysis and planning. Community members analyzed, ranked and scored problems and opportunities, as they perceived them. They worked out strategies to mobilize needed resources for their preferences. The approach permits equity and true democratization in that people of different economic, gender, education and age categories have equal opportunities and freedom to express concerns, preferences and contribution in solving priority problems and critical analysis of hindering factors to their development including issues in leadership structures. All initial study villages have developed draft zero of village action plan and are asking the local government to respond.
Supportive Interventions and Strategies

District Simulated Basket Funding

**Background**
Certainly the most potent TEHIP intervention contributing to both the process impacts and to the ultimate health impacts has been the financial contribution to District Health Plans. In 1996 it was recognized that almost all of the District health budgets was composed of personnel emoluments, essential drugs and vaccines. There was very little cash funding around which to plan new activities. In order to test innovations in the planning process it was important to inject some funding. The World Development Report estimated that low-income countries such as Tanzania would need to spend about $12 USD per capita in order to deliver a minimum package of essential health interventions to 80% of those in need. Given the annualized value of infrastructure and trained staff plus a recurrent expenditure of $4.50 USD, we estimated that Tanzania had a standing investment of about $8 USD per capita per year. TEHIP felt that an incremental increase of another $2 USD would not be out of reach for policymakers if it could be demonstrated that such an investment would actually result in a 20-30% reduction in the burden of disease as predicted by the World Bank. Therefore TEHIP made available a contribution of up to $2.00 USD per capita per year to Morogoro Rural and Rufiji Districts starting in 1997 (about 700,000 people). There were relatively few conditions. The primary condition was that the CHMTs would need to show that the funding was being invested consistent with the evidence from the local burden of disease, and that it was being spent towards supporting, directly or indirectly, interventions that were known to be cost effective (i.e. less than $140 USD/DALY). There was also a ceiling placed on the use of funds for rehabilitation of health facilities, DMO’s Office support and transport. In this way, it was anticipated that the approach would foreshadow certain basic features of the SWAp Health Basket funding to District Councils and provide useful experiences to the MOH.

**Purpose**
- To generate experience with a simulated basket approach to non-directive funding of a District Health Plan;
- To determine how much incremental funding a CHMT could handle;
- To provide a realistic planning opportunity and challenge to CHMTs.

**Content**
Although districts consistently budgeted and planned on the basis of the $2.00 USD incremental funding put on offer as simulated basket funding, after four consecutive years, neither district had been able to spend up to that limit. The combined average incremental per capita spending from the TEHIP funds made available in each of the fiscal years 97/98, 98/99, 99/00 and 00/01 was $0.57, $0.89, $1.37 and $0.86 respectively (including $0.25 from SWAp basket in 00/01). The accumulated average annual contribution of TEHIP was $0.92 per capita. However, despite spending less than half of the available simulated basket funding, the Districts still made remarkable progress in training up and introducing new interventions such as IMCI, ITNs, Syndromic Management of STDS, and TB DOTS as well as making substantial improvements in management, administration, communications and supervision, not to mention significant improvements in quality of health facility infrastructure. This was achieved with less than 1 USD per capita, when combined with the TEHIP planning tools. The experience also confirms that in the initial year or so, a SWAp
Basket fund contribution of between $0.50 and $0.70 is reasonable and could be assumed to result in good progress if accompanied by basic capacity building and planning tools as described elsewhere in this catalogue.

**Timeline**
The $2.00 per capita per annum was on offer from 1997 to 2000. When the SWAp Basket funding of $0.50 per capita was introduced in 2001, the funding offered from TEHIP was reduced by the amount of the basket.

**Current Status**
The unspent District level funds from the first four years of TEHIP have been rolled over into a no-cost extension phase for an additional two years between 2001 and 2003 at progressively lower levels as the SWAp basket increases. This way the Districts will not experience any reduction of funding as the TEHIP project phases out.
Strengthening District Health Management and Administration

**Background**
This integrated strategy progressively evolved to respond to the often-stated observation that District Councils (incorporating the CHMT) often fundamentally lack the appropriate capacity for Planning, Management, Administration and thus implementation skills for improved health service delivery. The strategy that TEHIP has used to address this incorporates two specific tools. The first of these is the *Strengthening Health Management in Districts and Provinces*, a WHO strategy incorporating a set of tools and techniques to strengthen health management. The second is *Ten Steps to a District Health Plan: A workbook for CHMTs*, developed by the Iringa Primary health Care Institute in collaboration with the Nijmegen Institute for International Health. Essentially, this is a ready-to-use, user-friendly, guided summary of the Ministry of Health National District Health Planning Guidelines.

TEHIP added to these tools, are a number of complementary or nested strategies to address the CHMT stated desires for: (a) computer skills; (b) upgrading in the use of prevailing government administrative and financial procedures; (c) upgrading the CHMT office management; (d) addressing routine maintenance activities for health facilities (see Community Ownership of Health Facilities) and health equipment (e.g. cold chain equipment, solar, vehicles, radio equipments).

**Purpose**
To strengthen the CHMT team structure and its associated health planning, management, administration and overall implementation capacity.

**Content**
The “Strengthening Health Management (SHM) modular training course is concerned with increasing the confidence and skills of CHMTs. Its approach to starting a sustainable process of management development is based on the actual working situation, abilities and needs of a district. It was developed by WHO to fill the frustrating gap between what is taught in formal management training courses and what actually happens in practice. It comprises three training modules each composed of a workshop, implementation period and supervisory follow-up.

**Module 1** focuses on problem identification, problem analysis, strategy development and formulation of action plans. These are then implemented for a three to four months period.

**Module 2** reviews and assesses the experience of participants in implementing their plans and in analysing achievements and constraints. Lessons learned are reviewed, problem statements are reformulated and strategies are reviewed and revised. The relationship between the strengthening of management and the implementation of technical programmes is also analysed at this stage using a tool called the *health system matrix*. Participants then draw up a revised or a new action plan to be implemented over the next six to seven months.
Module 3 is the advanced review workshop and takes participants through further review and reformulation and introduces them to a more comprehensive format for planning actions. The new format places greater emphasis on developing ways of monitoring achievements. The formulation of clear statement objectives is also introduced in this module.

At the end of the third implementation period, a final review meeting takes place. In the SHM process, the most important training does not take place at seminars or workshops but at the actual field based place of work at the CHMT office involving not only the formulation of practical action plans but most importantly, the actual implementation. The whole process takes between 15 and 18 months.

The Ten Steps to a District Health Plan is a workbook which contains handouts which provide simplified theoretical basis for every step in the health planning process as well as facilitation notes for guiding the facilitator throughout the production of district health plans together with the CHMTs. It is essentially a distillate of the national guidelines, the most important modifications being simplification of the planning process and maintaining a clear line throughout the entire process: every step builds upon the previous step and prepares for the next step. Overall, this is aided by the use of a summary sheet that follows closely the steps taken during and throughout the entire process.

Complementary strategies:

Computer applications and training. Assistance was provided to guide the appropriate selection and ordering of computer equipment in both the CHMT office and the district accounts office. Training in all basic aspects of Introduction to Computers/DOS; Introduction to Windows; wordprocessing, spread sheets, and e-mail were done using local private sector companies in a cost effective and sequential manner. This strategy allowed the CHMT to plan, implement and finance additional/revision training as required.

Strengthening of Government/district administrative and financial procedures:
These procedures are theoretically followed. Following an initial review of existing practices by the a professional finance and administrative manager. Weaknesses were identified and sequentially addressed through regular (2-3 times per year) advisory visits to examine the financial and administrative reporting structures and supportive documentation.

Upgrading CHMT office management: This training was provided by a professional office manager in response to observed weaknesses in basic office practices such as filing, communication, appropriate channeling of letters /communication follow up, etc. It also addressed good practice within the new computer equipment e.g. filing of documents, backups, e-mail, etc.

Introducing the concept of regular maintenance. This was identified by CHMTs as a weakness in regard to their vehicle fleet, health facility equipment, office equipments, communications, equipment, etc. Solutions to these problems were identified involving appropriate public/private sector mix, promoted through specific training and provision of tools in conjunction with the drawing up of appropriate service/maintenance contracts.
Timeline

Strengthening Health Management. Following a training of CHMTs by Iringa PHCI in December 1997 in district health planning, the CHMTs requested additional management and administrative training. This need was discussed with Iringa PHCI who identified the WHO modular course entitled Strengthening Health Management in Districts as an appropriate solution to address a wide range of commonly encountered management weaknesses including the necessary establishment of a CHMT team structure with regular organized meetings, action items and appropriate delegation of responsibilities to team members. Between May and September 1998 both CHMTs were facilitated through the first module by Iringa PHCI. This was done on-site at the CHMT offices and was followed up by a scheduled follow-up supervisory visit. The second module was conducted in October-December 1998 and this was followed up one year later in October - December, 1999 by an assessment of the impact of the SHM training. Lastly, in preparation for a potential expansion of this tool, Iringa PHCI undertook a full Swahili translation of the SHM workbook with appropriate copyright permission being granted by WHO.

10 Steps to Planning. Iringa PHCI facilitated both CHMTs of Rufiji and Morogoro Rural in the necessary steps involved in formulating a district health plan in December 1997 at their pre-planning sessions. This was repeated in December 1998 at the request of the CHMTs and focussed on specific steps in the process that the CHMTS still had problems with. This appeared sufficient to train the CHMTs in the methodology which they have used regularly ever since. The weakness in the 10 STEPS is identifying appropriate sources of information and evidence thus setting the priorities within the plan for budgetary allocation.

Complementary Strategies

Computer Skills. Computer equipment was first procured in March 1997 and further purchases extended up until June, 2001. The first training conducted by the Firm CT/BA took place in September 1998 and was followed up with further training events in September 1999, 2000 and 2001. The recipients for training included CHMT members, CHMT office staff and key co-opted CHMT members from the District Council such as the District Planning Officer, Treasurer, Accountants, etc.

Strengthening of District Council financial and administrative procedures. At the beginning of the Project, the accounting, purchasing and stores systems were reviewed at the two districts headquarters. It was found that there were laid down procedures for accounting, purchasing and stores systems at the District. There were however some weaknesses, in the implementation of internal controls especially with payments and stores procedures. No new systems were introduced but rather the weaknesses were defined in January/February 1997 and best practice explained to permit improvements to be developed progressively over the life of the project. These included: Weaknesses in the internal control regarding supporting documents for payments, stores control issues and supporting documents and non-maintenance control ledgers by accounts sections. In addition, the accountants were specifically trained in computer skills and the use of spreadsheets to produce accurate budgets and financial reports. Lastly, the reporting and budgetary controls skills of the accountants were upgraded through training in internal reviews/audits aimed to improve the overall quality of information.
Upgrading CHMT office Management. The Office Manager visited Rufiji in July 2000 and October 2000 and Morogoro in June 1999, April 2000 and June 2001 to upgrade the office secretarial staff in computer skills, office management, e-mail and filing systems.

Maintenance Training. Districts were exposed and introduced to the adoption of annual service contracts for such items as computers, solar systems and radios. These activities have been reflected in the DHPs. Districts have been encouraged to pursue local training options in computer techniques and simple repairs on the computers. Maintenance contracts with the computer supplier have been encouraged and renewed annually. In addition, two technicians were trained in solar and radio maintenance and provision of necessary tools and equipments addressed through the DHP. Since 1998, official drivers of district vehicles and motorcycles have been attending driving training courses and appropriate maintenance techniques. All these activities have been addressed and funded through the DHP.

Current Status
Following the introduction and use of the two tools [Strengthening Health Management] and [Ten Steps to a District Health Plan], combined with the progressive CHMT experience, appropriate connections have been made by CHMTs between the planning, implementation and monitoring of the annual plans. There has been an increasing realization that improvements need to be made to a number of complementary activities in order to promote and support fundamental improvements in health service delivery.

The two specific tools form an important part of the putative [CHMT Toolkit]. It is intended that these modular training sessions should become integral capacity building elements of the MOH Zonal Training Centre curriculum. The translation of SHM into Swahili and the proposed input into the [10 Steps to a district health plan] of appropriate use of evidence and information, represent two ongoing initiatives towards the goal of expanded roll-out to other CHMTs.
District Integrated Management Cascade

Background
The need for the District Integrated Management Cascade arose from the fact that it was logistically impossible for CHMTs to implement effective integrated supervision; and from observation that despite the implementation of HSR and the creation of CHMTs, communication and engagement of Front Line Health Workers (FLHWs) in HSR had been minimal. This strategy is designed to address further autonomy, decision-making, advocacy and involvement within the district health facilities and promoting arrangements of all FLHW towards the activities of the district health plan and HSR implementation. The objective is to improve quality of health services in the district by permitting a functional arrangement hierarchy below the CHMT which will facilitate distribution, supportive supervision, training, referral and monitoring of health activities taking place in their catchment areas as well as maintain maximum communications between health facilities staff and CHMTs.

Purpose
- To pilot a functional hierarchy below CHMT which will facilitate distribution, supportive and continuous supervision, training, referral and monitoring of health services taking place in respective catchment areas.
- To support optimal communications and feedback between health facilities and CHMTs.

Content
In order to address this priority need, communications between CHMTs and FLHWs must be dramatically improved. The CHMTs of Morogoro and Rufiji Districts formulated a system so as to delegate supervision and distribution activities to the Health Centres Through this system it was designed that all dispensaries within the catchment area are assigned to a co-ordinating health centre. In order to promote involvement and improve communications, each health centre was equipped with a radio. In addition, both CHMTs received radios in their respective offices and mobile radios for their motor vehicles. However, the Rufiji radio call was improvised with e-mail. Furthermore, to facilitate the movement between health facilities each of the co-ordinating health facility was supplied with a motorcycle.

Once communications with Health Centres was in place, CHMTs were able to promote a number of delegated activities to the Health Centres and full pilot work up resulted in specification of a range of activities which can be achieved at the sub DHMT level. These could include the following examples although others will no doubt be identified:

- **Supervision and training** e.g. follow up supervision after training in IMCI, STD, TB, EPI etc
- **Distribution and collection** e.g. delivery of drugs, ITNs, equipment etc.
- **Communications** e.g. community voice, Rehabilitation of health facilities, community concerns etc.
- **Case management** e.g. referral, collection of lab specimen and providing reports such as TB, B/S etc.
- **HMIS** e.g. Collection and supervision of facility level HMIS data, supply of HMIS/INDENT books CIS data, inventory of equipment etc.
➢ **Personnel** e.g. collection of salaries, arrangement of local transfer etc.

The creation of a facility cascade will undoubtedly create other uses/issues and TEHIP should promote this activity in order to explore and define the full potential of this tool. Each district identified the cascade zones. Morogoro district has 11 cascade catchment areas whereas Rufiji has 8, including ding the district headquarters. Cascade areas for Morogoro District are: Ngerengere, Tawa, Duthumi, Mgeta, Kibati, Turiani, Mvomero, Mkuyuni, Melela, Mvuha. Those for Rufiji are: Bungu, Kibiti, Ikwiriri, Mbweru, Muhororo, Nyaminywili, Nyamisati and Utete.

**Timeline**

The assessment of transport and supervision in the two Districts was done in the 3rd and 4th quarter of 1996. This clearly spelled out the problems of transport and inability of the DHMT teams to carry out regular integrated supervision. The concept of integrated management cascade was introduced in November 1998. Communication facilities (installation of radio calls), and the purchase of motorcycles and bicycles was done in the last quarter of 1999. Therefore, Morogoro Rural District started implementing the cascade system in the 1st quarter of 2000 whereas Rufiji started implementing the system in the 3rd quarter of 2000.

**Current Status**

Some of the reported achievements by districts include: increased number of supportive supervision visits/contacts to health facilities; improved collection of HMIS data from health facilities and improved distribution of drugs and other facilities. Arrangements are being made to uplift and expand the radio call system in both districts.
Community Ownership of Health Facilities

Background
The development component of TEHIP concentrates on building capacity at District level in order to plan and manage, through local participation, health services and resources and to deliver more effectively and with increased coverage the selected essential health interventions to the communities. One of the development interventions of TEHIP is rehabilitation of health facilities. From the outset, TEHIP did set aside a modest amount of funds to compliment those of the District authorities and communities to uplift the conditions of dilapidated dispensaries. The participation of local communities through setting out a complete work plan and a contribution of labor and materials in carrying out the essential rehabilitation and maintenance was the proposed strategy.

Purpose
- To develop and establish a more affordable and sustainable mechanism for rehabilitation and maintenance of health facilities;
- To promote ownership of health facilities by local communities;
- To build community self-confidence in rehabilitation and maintenance of local health facilities;
- To impart appropriate skills to the district and local community leadership on community labour-based approaches to rehabilitation and maintenance.

Content
An essential rehabilitation initiative for community health facilities using community inputs was used as an entry point to engage the community voice into the whole process of district health planning, implementation and monitoring and evaluation. The main objectives of this approach were to:

- Promote ownership of health facilities by local communities.
- Build community self-confidence and empowerment in rehabilitation and maintenance of local health facilities.
- Impart appropriate skills to the local community and leadership on labor based approaches to rehabilitation and maintenance.
- Develop and put in place a sustainable mechanism for rehabilitation and maintenance.

A Tanzanian team familiar with the community labor based approaches was contracted to train and oversee the initial demonstration exercise for the district and community teams. Three dispensaries in each of the two districts were selected for demonstration. District based multisectoral teams were formed and trained on the methodology. The approach was then introduced to the communities of respective selected dispensaries. Communities were engaged in discussions and dialoguing, which ended in producing rehabilitation workplans. In each plan, it was clearly set out what the community would supply and contribute and what specific materials they would require from the district. The rehabilitation exercise took about six to seven months to complete and community contribution ranged between 31 to 48% of the total rehabilitation costs. Completion of the rehabilitation process culminated in handing over ownership of the dispensaries from District Authorities to the communities. Based on this demonstration exercise each district went on to rehabilitate several dispensaries using the approach.
**Timeline**

A Health Facility Condition survey was carried out in both districts in 1996. In December 1997 the concept of Community-based labor was introduced to both Districts in a 4 day workshop conducted in Morogoro. Capacity building exercises were done in April and July 1998 for CHMTs in Morogoro and Rufiji districts respectively. This was followed by demonstration or pilot exercises of refurbishing three dispensaries in each district. Handing over ceremonies of refurbished dispensaries were done in November 1998 for Morogoro; while those of Rufiji took place in February 1999. District teams/communities were left to rehabilitate other selected dispensaries on their own with minimal supervision. However, feedback meetings between the Districts and the consultant team on community-based labor methodologies continued taking place for the following six months after initial handing over.

**Current Status**

So far about 24 Dispensaries in Morogoro and 21 Dispensaries in Rufiji have been rehabilitated using the community labor based approach and plans are underway to rehabilitate other dispensaries. Community ownership of these dispensaries has been realized. The rehabilitation and maintenance manual is in the final draft. Communities formed rehabilitation and maintenance committees. The multiplier effect has started taking place. For instance in Hembeti and Mlali, the villagers have gone further, on their own, to provide piped water and electricity to their rehabilitated dispensaries. Villagers and the district authorities are applying the methodology in other sectoral developments e.g. water, food, education, etc.
Project Operations Committee Meetings

Background
The Project Operations Committee, which meets quarterly, was established under the requirements of the original Project Document signed by Tanzania and Canada. It is one of three Project Committees, the others being the Project Steering Committee and the Scientific Advisory Committee. The Project Operations Committee (POC) is the only Committee to include representation from the Districts, and meets at District level. It was set up in order to provide overall technical and management coordination to the project in Tanzania.

Purpose
- To establish efficient and effective communication channels and linkages between all parties directly involved in the implementation of the project.
- To establish procedures for the efficient and effective delivery of TEHIP resources to the districts.
- To monitor project progress and performance of activities.
- To receive and review progress reports and other project documentation.

Content
Membership of the POC had included the two District Executive Directors, the two District Medical Officers, the MOH Director of Preventive Services; MOH Head of the PHC Secretariat; a Representative from the Ministry of Regional Administration and Local Government and the TEHIP management team. The respective Regional Medical Officers as ex officio members. However, given the importance of the role played by the District Planning Department, both District Planning Officers were cooped as members of the POC. Initially the Chairmanship rotated between the Director of Preventive Services and the TEHIP Project Manager. This has changed now to rotate between the two District Executive Directors of Rufiji and Morogoro to give more autonomy to the Districts. Venues used to rotate in three places Ikwiriri, Morogoro or TEHIP Office Dar es Salaam, but now rotate only between Ikwiriri and Morogoro.

Timeline
The first POC was held 13 February, 1997 and there have been 14 quarterly POC meetings up to the end of 2000. These meetings were held quarterly until the end of 2000 when it was decided to meet twice per year. The most recent POC meeting was the 15th one and it took place in August 2001 at Ikwiriri.

Current Status
POC meetings have been found to be useful interventions to the districts as it helps to prepare timely quarterly progress reports to reflect and obtain feedback to the overall implementation of planned health activities. The CHMTs are now organizing the Project Committee meetings. They also give the District a rare chance to meet and discuss problems with higher echelons of the Ministry of Health, particularly the Regions.
District Research Feedback Meetings

**Background**
From the inception of TEHIP the need to avoid that research activities themselves would become part of the intervention the research was evaluating. Although it is impossible to totally eliminate this bias, it is possible to minimize and control it. The findings of the research cannot be ethically withheld, but must be provided in a systematic way. The approach taken was to restrict the research feedback interactions with the District to well timed and documented “interactive moments”. It was planned that these should take place as formal meetings between the researchers and the CHMT at two times during the fiscal year, once immediately prior to the planning cycle (usually mid November), and once immediately prior to the start of the new health fiscal year (July 1st). In practice it was found practical and sufficient for the meetings to be held annually, at the start of the planning cycle (October-November). They have all been one-day meetings held in the District. Feedback on an *ad hoc* basis in the intervals between these annual feedbacks is discouraged, as it is not replicable elsewhere.

**Purpose**
- To provide annual feedback to CHMTs and other District authorities from all applied health research supported in the District in a form and format for easy comprehension by non-researchers;
- To provide a forum for dialogue and exchange of views on the meaning of findings from such research;

**Content**
These meetings were the opportunity for the researchers to package their key observations relevant to district planning and management into plain language and to present them, and were also the opportunity for the CHMT to react, discuss, correct or assist the interpretation of the research findings. Researchers were discouraged from providing results at other times in an *ad hoc* fashion. This gave the CHMT the opportunity to be the first to hear the research findings and at the same time for the researchers “hold a mirror” to them in order to reflect upon the context in which they do their planning, the contents of their plans, the level of implementation and the determinants of utilization or non utilization of selected essential health interventions.

**Timeline**
The first interaction of the TEHIP Research Teams and the Council Health Management Team (CHMTs) of Morogoro Rural and Rufiji Districts was through a joint workshop held at Kola Hill Hotel in Morogoro, March 10-12, 1997. The main purpose of this workshop was to solicit CHMTs’ experience and inputs into the final field protocols and work plans of the Health Systems and Health Behaviours Research Teams, and explore areas of collaboration.

There have so far been four full annual CHMT Research Feedback Meetings and one partial semi-annual feedback meeting. The first CHMT Research Feedback Meeting was held in August 1998 at Ikwiliri for Rufiji District and in Morogoro for Morogoro Rural District. This event took place approximately nine months after the inception of the Health Systems and Health Behaviours Research. The partial feedback was done in April 1999, the second feedback was done in November and December 1999, third
one in November, 2000, and the fourth one in September-October, 2001 (earlier due to change in the 2002 fiscal year from July 1st to January 1st). In the first feedback meeting, an overview of the research components of TEHIP was presented, followed by situation analysis of the planning process, the health system and the implementation process from Health Systems Research and utilization of selected Essential Health Interventions from Health Behaviours Research. In the subsequent meetings additional interesting findings were presented from each component.

**Current Status**
The annual research feedback meetings have ended with the end of the research cycle of TEHIP. However analyses of data continues and the CHMTs now routinely invite researchers (TEHIP and others) working in their districts to attend the annual Pre-Planning sessions of the CHMT planning team, and are asked to make presentations and have discussions on the importance of their work.
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