Tanzania Essential Health Interventions Project (TEHIP)

GUIDELINES FOR PREPARATION OF CORE RESEARCH PROTOCOLS

VERSION 1.1

July 1996

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Tanzania Essential Health Interventions Project (TEHIP)
Guidelines for Core Research Protocols

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Figures and Tables

Acronyms

BOD/CEA	Burden of Disease / Cost-Effectiveness Analysis
CIDA	Canadian International Development Agency
DALY	Disability Adjusted Life Year
DHMT	District Health Management Team
DHS	Demographic and Health Survey
DSS	Demographic Surveillance System
EHI	Essential Health Interventions
EHIP	Essential Health Interventions Project
IDRC	International Development Research Centre
PAR	Participatory Action Research
RAP	Rapid Assessment Procedures
TEHIP	Tanzanian Essential Health Interventions Project
WDR'93	World Bank's 1993 World Development Report - Investing in Health
WHO	World Health Organization

Chapter 1
Purpose of Guidelines

Introduction

Between the years 1996 and 2000, the Tanzania Essential Health Interventions Project (TEHIP) will provide a unique opportunity for the Tanzanian research community. TEHIP is a District level demonstration project with both development and research dimensions. With funding from Canada, this initiative will be conducted by Morogoro (Rural) and Rufiji Districts in cooperation with the Tanzania Ministry of Health. TEHIP is introduced in greater detail in Chapter 2 of this document.

Briefly, TEHIP will examine the feasibility of institutionalizing a more evidence-based approach to planning using burden of disease and cost-effectiveness measurements as tools for setting priorities and allocating health resources. It is expected that these considerations, combined with an appreciation of community preferences and the capacity of the District health services, will lead to the identification and improved delivery of packages of essential health interventions, and ultimately to significant reductions in the burden of disease.

TEHIP will therefore test innovations in planning, priority setting and resource allocation in the context of decentralization of the health system. It will endeavour to determine how and to what extent district health planning can be more evidence based, how and to what extent such plans can be implemented, and how, to what extent, and at what cost do such planning interventions have an impact on population health? These core questions guide the overall design of TEHIP. They take into account the current and planned decentralization of health planning and priority setting, placing greater emphasis at the District level. They also reflect the fact that TEHIP is about **testing a process of planning and priority setting.** As such, TEHIP will be in a position to answer several important questions facing health sector reform, both in Tanzania and other countries with similar economic and social sector constraints.

For the research dimension of TEHIP, the domains of importance been organized programmatically under four research components:

A) *Health Systems Research* on District Health Planning, Prioritization, and Resource Allocation Processes;

B) *Behavioural Research* on Household Health Seeking Behaviours in Relation to Essential Health Interventions;

C) *Demographic and Epidemiologic Research* on Health Impact;

D) *Research and Development* of Practical Tools for Routine District Health System Analysis and Planning.

Purpose of Guidelines

These Guidelines for the TEHIP Core Research Protocols describe the scope of the research needs and questions for the first two of the TEHIP Research Components (A and B) above.

TEHIP has prepared this document as a guide for Tanzanian researchers who may wish to apply for a TEHIP Research Program Grant to undertake the studies required either in Components A or B. The document provides researchers with a brief overview of the background, history and rationale for TEHIP (Chapter 2), an overview of how the research components of TEHIP have been conceptualized (Chapter 3), a precise articulation of the specific research objectives of each Component (Chapter 4), and research questions of TEHIP, the suggested scope and approach for how these research objectives could be met methodologically (Chapters 5 or 6 depending on interest of the researchers), and an outline of additional administrative and managerial issues to be considered when preparing an application for TEHIP Research Program funding (Chapter 7).

What is novel in the approach taken here is that TEHIP will fund the research as a network of research programs, and not as a collection of several research projects. Therefore TEHIP is not seeking applications for individual, short-term projects on the specific research objectives. Rather TEHIP is seeking applications from research teams able to approach larger programs of research over several years. This will presumably require one team for Component A (Health Systems Research), one team for Component B (Health Seeking Behaviours Research), and one team for Component C (Demographic and Epidemiologic Research).

Each research component addresses research questions which demand the skills of a number of disciplines. The successful research team for each of the two components would likely require the services of a variety of disciplines. Such skills and disciplines are often attached to different host institutions in the academic, governmental, non-governmental, and private sectors. It is possible that an inter-disciplinary, inter-institutional research coalition might need to be assembled to address adequately and coherently the research questions in each Component.

It is a particular challenge of this research that it takes a programmatic rather than research project approach. It bridges and transcends disciplines of researchers in their individual capacities from different departments, faculties, and institutions in meeting multiple objectives. For researchers working on one Program Component, there will also be opportunities afforded by linkages with researchers and data in the other three associated Research Components of TEHIP, and with the TEHIP Research Support Office.

This Program Grant Core Protocol therefore challenges researchers to join forces to address the full scope of issues identified in either Component A or Component B through a single application. The submitting team must demonstrate that they have assembled the necessary expertise, experience and skill base, and are able to negotiate the necessary institutional, administrative, and coordinating environment to manage this work over several years from a programmatic rather than project perspective.

This document is a guideline to the development of the core research protocols (not detailed field protocols) for Components A and B. Although this document specifies precisely the research objectives and research questions of TEHIP, it makes only suggestions regarding the methodologic approach. It is hoped that this will stimulate interest and discussion among Tanzanian researchers who might then form into a strong team or coalition to propose how they might tackle these objectives, both methodologically and operationally. International collaboration is permissible when and if required; however, the lead must be taken by Tanzanian researchers and institutions.

Schedule for Approval Process

In February of 1996, TEHIP issued a Call for Letters of Intent for the Health Systems and for the Household Health Seeking Behaviours Components of TEHIP. This evoked considerable interest from the Tanzanian

health research community who signalled their interest by submitting a number of letters of intent to conduct discrete projects on these topics. TEHIP and its Scientific Advisory Committee reviewed these letters at its April 1996 meeting and recommended that these researchers be encouraged in certain instances to combine their efforts for a more programmatic and longer term approach to the research needs of TEHIP. It further proposed that some more detailed guidance be provided with regard to the expected scope and nature of the required research. These Guidelines for the Core Research Protocols of TEHIP constitute that guidance.

These Guidelines also represent the Call for Full Proposals. This document will be shared widely with all those in Tanzania who have already shown an interest, or who might be interested, in TEHIP's research components. After distribution of this document in Tanzania, TEHIP and its International Scientific Advisory Committee will organize a general briefing session on July 19-20, 1996, for any interested researchers for further in depth discussion.

The deadline for submission of full program grant proposals to the TEHIP Office in Dar es Salaam is September 31, 1996.

Once the two Program Grants have been announced, resources will be available immediately for each team to conduct a facilitated workshop for the development of their detailed field protocols in cooperation with the appropriate staff of the District Health Management Teams. It is hoped that the research on Components A and B will begin as soon as possible in 1997.

The proposal review process by TEHIP and its International Scientific Advisory Committee will be completed by December 11, 1996.

Selection Criteria

To ensure that the TEHIP Research Objectives are met, the research institution or network ultimately awarded a TEHIP Research Program Grant will also be assessed on an ongoing basis during their tenure of the grant. The following are three equally-weighted criteria which will be used to evaluate proposals. The successful team must excel in each of the following criteria as a condition of both initial and continued support:

Research Program Design

- excellence, innovation, focus, and coherence of the research program design in relation to the Principal and Specific Objectives in the Core Protocol Guidelines;
- the most convincing methodological, logistical, and budgetary approach to their Component's Research Objectives;

Qualified Personnel

- compelling evidence that the research team or network has assembled the necessary leadership, expertise, experience and skills;
- ability to attract, develop and retain appropriately qualified scientists and field workers for the demands of the TEHIP Research Program;

- evidence of strategies and experience which promote multidisciplinary approaches to research and encourage team members to consider the economic, social, and developmental implications of their work;

Research Management

- evidence of an organizational structure suitable for the management and administrative functions of a complex multidisciplinary, (and if necessary, multi-institutional) program, including:
  - presence of effective leadership and expertise in research management function;
  - effective research planning and budgeting mechanisms; and
  - a management structure that will allow research resource allocation decisions to be made and implemented.
- evidence that the team or network will be able to negotiate the necessary institutional, administrative, and coordinating environment to manage their work.

TEHIP Research Program
Application Submission Schedule for Components A and B

Invitation to Briefing Meeting	July 02, 1996
Distribution of Core Protocol Guidelines	July 08, 1996
Briefing Session for Researchers	July 19, 1996
Deadline for Submission	Sept 31, 1996
Selection and Approval of Program Grants	Dec 11, 1996

Address for Submission

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Chapter 2
Background and Rationale

Investing in Health

Health systems in low-income countries are currently facing enormous problems. These include the high incidences of communicable diseases (e.g. malaria, pneumonia, diarrhoeal diseases, HIV/AIDS and TB), a rising prevalence of chronic diseases and major disasters, including civil strife, that have resulted in unprecedented numbers of refugees and displaced persons. These problems are escalating costs of health services at a time when public health budgets and international assistance are decreasing under the pressure of macro-economic reforms and donor fatigue. In addition, structural reforms to health care programs have led to significant cuts in public spending, with an accompanying decline in services. These factors have contributed to the steady worsening of equitable access to health services, the decline in health status of populations and the demoralization of health workers.

In 1993, the World Bank's **World Development Report - Investing in Health** (WDR'93) made a series of proposals to address these problems. One such proposal was, that given the scarcity of available resources for health, especially in low-income countries, that the planning for and setting of priorities for essential health interventions should be based on burden of disease and cost-effectiveness analysis. WDR'93 also asserted that improving and maintaining the health of the population is an integral and vital part of any country's social and economic development plan and policies.

The report analyzed problems in health care systems that hinder the delivery of services and the reduction of mortality and disability. These include the misallocation of funds toward interventions with low cost-effectiveness at the expense of highly cost-effective interventions; inequities in accessing health care whereby poor people suffer from a lack of basic health services; inefficiencies in planning, deployment of health care workers, use of facilities and purchasing of supplies; and the unnecessary reliance on specialized personnel, equipment and facilities and sophisticated tests and treatments. WDR'93 also noted that in low-income countries these problems are often compounded by highly centralized decision making, wide fluctuations in budgetary allocation, and low motivation of health care workers.

The report went on to postulate that the provision of *cost-effective packages of essential clinical and public health interventions* to 80 percent of the population in low-income countries could bring about a 32 percent reduction in the burden of disease. The World Bank estimated that these packages would cost, in low-income countries, roughly US$12.00 per capita per year to deliver; but acknowledged that this per capita allowance was greater than most health budgets allow in the majority of low-income countries.

As a result of the WDR'93, the **International Development Research Centre** (IDRC, Canada) convened an international conference in October 1993, to meet with representatives of the World Health Organization (WHO), the World Bank and other donor organizations, plus representatives from developing countries, to consider the findings and recommendations presented in the report. Conference participants decided that the hypothesis that burden of disease and cost-effectiveness analyses to provide the basis for health services planning in low-income countries should be tested, and further concluded that the thesis held enough potential in such a critically important area of human need in developing countries that an investigation of its feasibility should be carried out without delay.

This recommendation subsequently led to IDRC, with the support of the Canadian International Development Agency (CIDA), to develop what has now become known as the **Essential Health Interventions Project** (EHIP).

It was also decided that in order to properly address the issues of burden of disease and cost effectiveness, EHIP should also focus on a third topic raised in the report, that of improving the planning and management of health services at the district level. In recommending that EHIP proceed on this basis, it was felt that if the project findings would have extremely important health implications for the future development of health care systems, not only in the "host" country where the project would be staged, but in other developing countries also.

In April and May 1994, IDRC sent letters to the ministries of health in seven eastern and southern African countries to explain the background and broad scope of the initiative, and to invite letters of interest.

Tanzania was one of the first countries to express interest in the EHIP approach. A group representing IDRC, WHO, The World Bank, and other interested parties spent three weeks in Tanzania in late November and early December 1994. Joined by representatives from Tanzania's Ministry of Health and the National Institute of Medical Research, the group met with officials from other Tanzanian ministries, the main groups conducting health research in the country, and the representatives of the major health donors in Tanzania. As a result of these meetings, it was decided that Tanzania would be the first country to adopt the EHIP approach.

Districts were proposed as study sites by the Tanzanian Ministry of Health, and visited during this preliminary assessment. By April 1995 Rufiji and Morogoro (Rural) had been confirmed as the two districts where the Tanzanian Essential Health Interventions Project (TEHIP) would operate.

Burden of Disease, Cost-Effectiveness and Health Sector Reform

The estimated **burden of disease** reflects the health care currently being provided, as well as the effects of all other actions which protect or damage health. The **effectiveness** of any intervention (preventive, curative or palliative) is the **reduction** in disease burden which results from the intervention. Where effectiveness is measured in the same units as burden of disease (such as DALYs), it is possible to compare interventions which addresses different problems and produce different outcomes, and to identify which interventions produce the greatest health gains for a given population. Costs of an intervention can then be incorporated to produce a measure of the cost-effectiveness, and to identify which interventions produce the largest improvement in the health status of a population at a given level of funding. WDR'93 has estimated the cost-effectiveness of a number of clinical and public health interventions commonly available in low-income countries.

Governments everywhere are struggling with questions about how best to allocate their available human and financial resources to maximize the health status of their citizens. Cost-effectiveness is a tool that may be used to define those interventions that a country will subsidize with public funds.

Tanzania is currently in the process of implementing policy changes under its Social Sector Strategy -- a strategy that has a specific health sector reform component -- and the Government has indicated that the basic premise of TEHIP is consistent with the directions it has set down in its health sector reform program, stating that an "evidence-based" approach to health planning will be able to provide them with the opportunity to pilot test certain aspects of their policies dealing specifically with the efficient and cost-effective delivery of health services at the district level.

Tanzania's Essential Health Interventions Project (TEHIP)

The **Tanzania Essential Health Intervention Project** (TEHIP) has been formulated as a research and development project, with the goal of testing the feasibility and measuring the impact of an evidence-based approach to health planning at the district level in Tanzania. District implementation will begin in 1996, and continue until the end of the 1999/2000 fiscal year.

TEHIP comprises two dimensions which are complementary and inextricably linked to one another:

Development Dimension

- to ensure adequate support for sustainable delivery of selected essential health interventions, based on the existing situation and available data; and
- to utilize the project research findings in support of the sustainable development and implementation of integrated District Health Plans;

Research Dimension

- to determine the information, management, policy and implementation requirements for the delivery of essential health interventions;
- to measure the cost-effectiveness of these interventions and their impact through burden of disease reduction; and
- to develop and support operational research, at the district and central level, which will strengthen capacity for the design, planning and delivery of cost-effective packages of essential health interventions.

TEHIP's Objectives

The broad objectives of TEHIP will be to:

- strengthen district level capacity (Rufiji and Morogoro-Rural Districts) to plan and set priorities using burden of disease and cost-effective analyses;
- increase district level capacity to effectively deliver the selected interventions;
- assess and document lessons learned in district health planning and management systems/processes; and
- measure the overall impact of delivering health interventions in terms of burden of disease.

TEHIP's Core Questions

The research component of TEHIP, to be carried out by Tanzanian researchers, institutions and agencies, will endeavour to answer three key questions:

1) *In the context of decentralization, how, and to what extent, can District Health Management Teams (DHMTs) establish priorities and plan the allocation of resources according to local estimates of burden of disease and knowledge of the cost-effectiveness of relevant interventions?*

2) *How, and to what extent, are these District Health Plans translated into the delivery of and use of the* essential health interventions?

3) *How, to what extent, and at what cost, does this have an impact on the burden of disease?*

The research agenda of TEHIP is focussed on and organized around these core questions. Chapter 3 describes the TEHIP organizational framework which is derived from these questions.

For more in depth background information on the overall design of TEHIP please consult the document *Essential Health Interventions Project - Background Document, October, 1995* and other information available from the TEHIP Office in the Ministry of Health, Dar es Salaam.

Chapter 3
TEHIP Research Framework

Rationale for Framework

In order to manage and coordinate the diverse research activities of TEHIP it is useful to consider them within an organizational and conceptual framework. Such a framework serves several purposes:

- It **assists the overall management** of TEHIP research by organizing a broad and complex research agenda into more manageable Components and Sub-Modules conducted by researchers with different skill sets studying reasonably distinct problematiques.

- It assists in **maintaining the demonstration nature** of EHIP by ensuring the necessary linkages between the research activities and DHMTs occur and that such research activities do not unduly intrude on, or replace, the routine information sources which Districts would normally use in their processes of planning, prioritizing, and delivering services at district level.

- It assists in keeping **research focussed on** the core essential questions facing TEHIP.

Translating TEHIP's Core Questions into Research Components

TEHIP is about **testing a process of planning and priority setting**. In other words it tests an intervention on the health system itself.

The three core questions were conceptualized at the EHIP Design Workshop in Ottawa in July 1994 as:

1. *In the context of decentralization, how, and to what extent, can District Health Management Teams (DHMTs) establish priorities and plan the allocation of resources according to local estimates of burden of disease and knowledge of the cost-effectiveness of relevant interventions?*

2. *How, and to what extent, are these District Health Plans translated into the delivery of and use of the essential health interventions?*

3. *How, to what extent, and at what cost, does this have an impact on burden of disease?*

Questions 1 and 2 deal largely with processes. These will play out most intensively in the early years of EHIP. **Question 3 deals mostly with the impact** of the changed processes of planning and priority setting. These impacts will become most evident in later years of EHIP. **Process and impact** therefore provide the first levels of distinction in the research organizational framework.

Process and Impact: The Basis of the Framework

At the subsequent TEHIP Design Workshop in Morogoro in July, 1995, the Sub-Group on Research was asked to elaborate how both process and impact could best be studied. Figure 3.1 describing the research domains and topics of TEHIP summarizes the recommendations of that group.

The TEHIP Design Workshop group saw that the new approach to evidence-based District health planning processes was in effect a Health Systems Intervention. It also saw that this intervention would exert its impact on population health through the interaction between these new processes and the community. It therefore saw a need to work in three domains: Health System Intervention; Community Interaction; and Health Impacts. Respectively this would require research on three fronts or components: District Health Planning Processes; Household Health Seeking Behaviour; and Demographic and Epidemiologic Impact.

TEHIP Research Components

A. Research Component on Planning Processes.

For studies of process, much of the research falls in the domain of Health Systems researchers (Research Component A in Figure 3.1). Here, **both quantitative and qualitative studies of systems and services** would be specifically concerned with the following issues and the linkages among them:

Process. The processes of planning, prioritization, and resource allocation within districts (how are priorities set? who decides them? on what basis?), and of the context and support provided by district, regional and central levels (what support is provided? is it effective?).

Content. The content of plans developed to implement priority interventions and resource allocation decisions (eg. do the plans address the priority burdens and consider cost effectiveness? do the plans establish how the relevant activities are to be implemented?).

Context. The extent to which district managers control resources; the capacity (personnel, skills, systems) of the district health management team to develop and implement plans; resource availability relative to needs for plan implementation; socio-cultural factors and their potential influence over plan implementation; constraints and facilitating factors; assessment of which groups support or oppose the implementation of plans, and why they do so (through for example, stakeholder analysis).

Implementation. The implementation of plans in support of priority health interventions (eg. resource allocation; health services provided; service capacity; integration; costs; quality; coverage; provider compliance).

Suggested scope and approach to such studies are provided in Chapter 5 of this document.

B. Research Component on Household Health Seeking Behaviours

There is an arena of interaction between *process research* conducted on the DHMT's planning, priority setting and resource allocation processes for essential health interventions and *impact research* on the effect of such decisions on mortality and morbidity. This occurs at the level of household health seeking behaviours

which mediate the effectiveness of the planning of essential health interventions on health impact (Research Component B in Figure 3.1). Household behaviours may both influence the very nature of DHMT planning processes and in turn will be affected by DHMT plans. It is here at the household level that health seeking behaviours, risk perception, household decision making, and household expenditures for health are likely to change. Qualitative and quantitative behaviour research though focussed ethnographic surveys and other more structured studies (both cross-sectional and longitudinal) could reveal important perspectives on user utilization patterns and trends, compliance, and user satisfaction which could help determine which interventions are selected, or how they are delivered, and help explain the use or non-use of essential interventions. It is at this level that trends in access and equity will also be seen.

The Demographic Surveillance System (DSS) used in the Health Impact Component (below) might also provide a useful sampling frame for such studies. In some instances some of the required survey data might be collected during DSS enumeration rounds. However it is likely that most of the household health seeking behaviour studies will be conducted by behavioural sciences and socio-economic research specialists.

The suggested scope and approach for the Household Health Seeking Behaviour studies are provided in Chapter 6 of this document.

C. Research Component on Health Impact

At the other end of the continuum of research problematiques are the health impact studies, ie. studies on the effectiveness of investments in health (Research Component C in Figure 3.1). Such studies are normally in the domain of epidemiologic and demographic research. WDR'93 proposes the use of the Disability Adjusted Life Year (DALY) to measure effectiveness. In sub-Saharan Africa, most DALYs are lost through premature mortality (80% from mortality vs 20% from disability). Half of all DALYs are lost by children under five years of age. Hence much of the impact of EHIP will probably result from improvements in child survival.

Given the preponderance of premature mortality in the burden of disease and the comparative difficulty in measuring disability versus mortality, a decision was taken to place most emphasis on mortality change as the measure of impact. It was considered that measuring short term changes in mortality, especially child mortality, during the course of EHIP would require **a longitudinal demographic surveillance system (DSS) tracking all-cause mortality** at all ages, by sex, and where possible, by broad or specific cause.

Thus the Demographic Surveillance System (DSS) becomes a major community based research component of EHIP and provides the sampling frame for other community based survey work of EHIP.

A TEHIP DSS Workshop was convened in Dar es Salaam in February 1995 to develop practical field protocols for a DSS to meet the needs of TEHIP in Tanzania. The District DSS will likely be conducted through contract research. A draft report of the DSS Protocol Workshop is available from TEHIP and its core protocol will eventually be incorporated into this document.

It was further recognized that some highly cost-effective interventions may operate largely on morbidity and not mortality (eg. school health programs for micronutrients, anthelminthics and health education). It was considered that if DHMTs choose to invest in such interventions that there might be need for limited **cross-sectional morbidity surveys** (or behaviour surveys) designed to measure the impact of such selected interventions on morbidity (or risk behaviours). Again such studies would likely be conducted through contract research by the most appropriate institution(s). No calls for such research have yet been issued since topics are dependent on the content of future DHMT plans.

Although impacts on mortality, morbidity and household behaviours will not begin to be evident until later in the course of EHIP, baseline status must be established early. It must be appreciated that as a demonstration project, there are no control districts. Comparative data on mortality trends will be available ultimately from a variety of indirect demographic methods applied elsewhere in Tanzania through periodic DHS and other surveys.

D. Component on Research and Development of Practical Tools for District Health Systems Analysis

TEHIP has both development and research dimensions. In the context of decentralized health planning at District level, new and practical tools will need to be developed or adapted to assist DHMTs to undertake more evidence based planning. This is particularly so with regard to understanding local burdens of disease, the cost-effectiveness of the interventions to which they allocate resources, and the community preferences with regard to District health services. For example, simple cost-tracking tools will be needed to understand the actual costs of services delivered and the incremental costs of increasing coverage. A fourth Component (Component D in Figure 3.1) has been included to support the development of such tools. Their utility in the hands of DHMTs would ultimately be assessed by Component A.

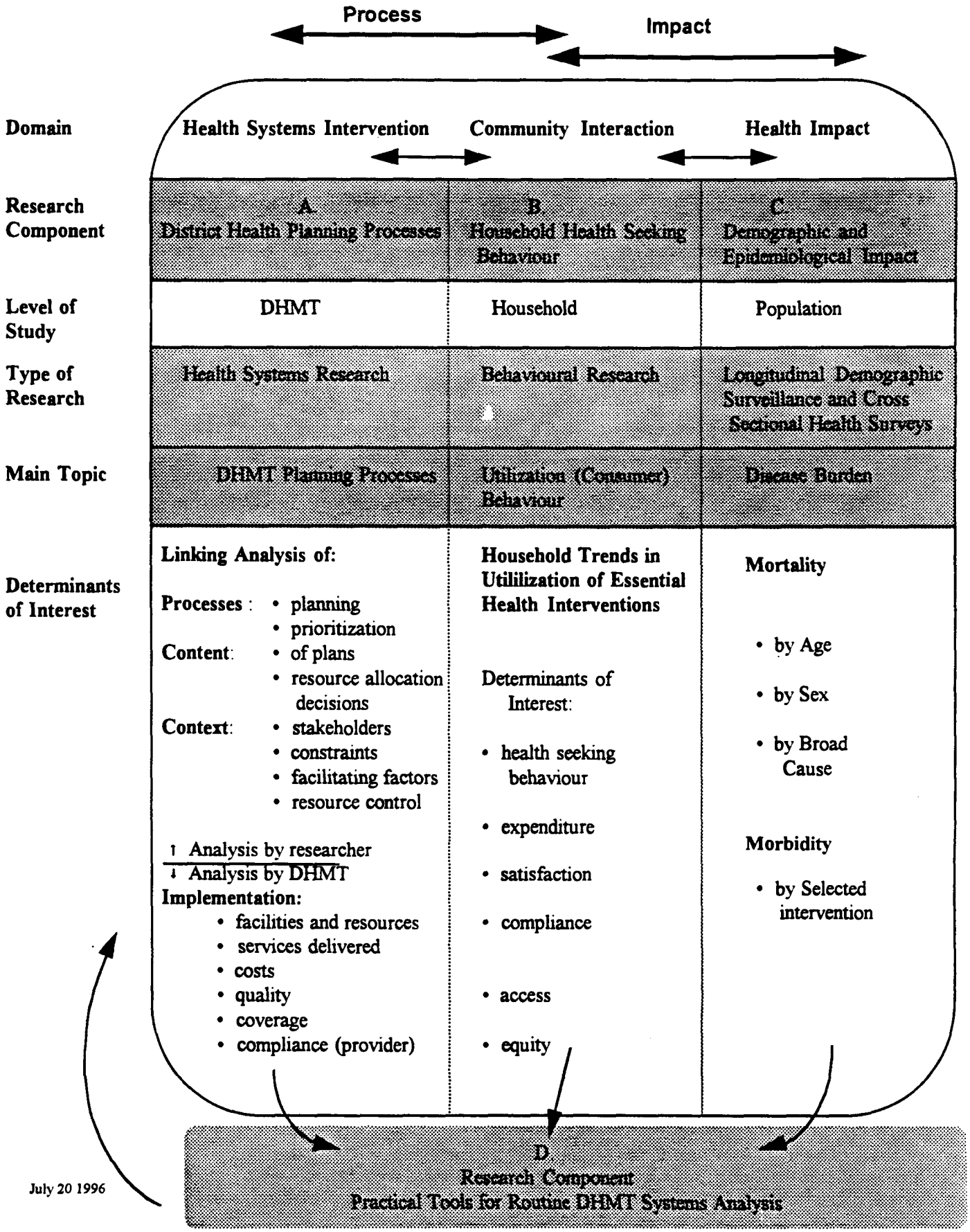
TEHIP Research Support Office

Research under the above four components will be funded through Research Program contracts or grants to Tanzanian institutions by TEHIP. Research conducted within a particular Research Component or any of its sub-Modules will be the initial property of the research institutions and research teams who will be free to publish results under their own auspices from within their studies (with appropriate acknowledgement of their funding source). Research results and data will be also be shared with the TEHIP Research Support Office of the Ministry of Health who will be responsible for the overall synthesis of analyses and research across all the components and modules, and the official reporting and publishing on behalf of the TEHIP. TEHIP will also oversee the coordination and linkage between and among the TEHIP Research Components, TEHIP Development Components, and the DHMT's to ensure coordinated activities, communications, and sharing of data. Guidelines and agreements for authorship of TEHIP publications will be clearly negotiated and part of the official funding conditions at the outset for TEHIP research.

The following Chapter outlines the Principal and Specific Research Objectives of the four Research Components of TEHIP.

Figure 3.1

TEHIP RESEARCH DOMAINS



Chapter 4
Objectives of TEHIP Research Components and Modules

Component A: District Health Planning, Prioritization, and Resource Allocation Processes

Principal Research Objective

To determine how, and to what extent, DHMTs can use locally generated information on burden of disease, cost-effectiveness, health system capacity, and community preferences to plan, set priorities, and allocate health resources.

Specific Module Objectives

Module A-1 Situational Analysis of Annual District Planning Processes

To identify and describe annual cycles of district planning, priority setting, and resource allocation processes used by DHMTs.

Module A-2 Establishing Determinants of Planning Process Effectiveness

To determine how, and to what extent, an evidence-based planning process using burden of disease and cost-effectiveness analysis can strengthen or improve planning processes;

and

To determine the factors influencing the effectiveness of these processes with particular reference to the context in which DHMTs function and the performance of the DHMTs in planning, priority setting, and resource allocation.

Module A-3 Validation and Strengthening of Planning Processes

To identify ways of strengthening the planning process at district level with respect to necessary adaptations in the context in which DHMTs do district health planning; and to additional data, tools, skills and systems required at the district level.

Component B: Household Health Seeking Behaviours in Relation to Essential Health Interventions

Principal Research Objective

To identify and analyse trends at household level in the utilization of selected essential health interventions provided through DHMT plans with respect to spatial, social, and economic determinants.

Specific Module Objectives

Module B-1 Situational Analysis of Initial Utilization Patterns

To identify, through rapid appraisal procedures, initial utilization patterns of the selected essential health interventions at the household level.

Module B-2 Longitudinal Qualitative Assessment of Utilization Patterns and Trends

To explore initial issues through focused ethnographic studies, and identify emergent issues and themes that impact on utilization patterns and trends over time with respect to the selected essential health interventions.

Module B-3 Longitudinal Quantitative Analysis of Utilization Patterns and Trends

To quantify the determinants of utilization patterns and trends identified in Modules B-1 and B-2, and to test key hypotheses on behavioural conditions that govern utilization patterns and trends.

Module B-4 Advancing the Community's Voice and Potential in District Health Planning

To identify community-based strategies that ensure appropriate utilization and increase effectiveness of essential health interventions and that increase effectiveness of processes through which they are planned.

Component C: Health Impact

Principal Research Objective

To quantify the changes in burden of disease.

Specific Module Objectives

Module C-1 Mortality Impacts

To analyse trends in mortality (and annual adjusted life years lost) by age, sex and broad cause throughout the period that TEHIP operates using data from a longitudinal, direct, demographic surveillance system.

Module C-2 Morbidity Impacts

To analyse trends in specific morbidity from selected causes addressed by any selected essential health intervention which is not expected to impact significantly on mortality (eg. School Health Program).

Component D: Practical Tools for Routine DHMT Health System Analysis and Planning

Principal Research Objective

To develop and / or validate practical tools for evidence based planning processes for the DHMT level.

Development Modules

Module D-1 Developing and validating practical cost-tracking instruments

Module D-2 Developing and validating practical cost-effectiveness analysis instruments

Module D-3 Exploring the uses and limits of the computerized Health Resources Allocation Model as planning tool at DHMT level

Module D-4 Developing DHMT communication tools and strategies for discussing burden of disease and cost-effectiveness concepts with communities and potential beneficiaries of essential health interventions.

COMPONENT	PRINCIPAL OBJECTIVE	SPECIFIC OBJECTIVES OF COMPONENT MODULES
Component A: District Health Planning, Prioritization, and Resource Allocation Processes	*To determine how, and to what extent, DHMTs can use locally generated information on burden of disease, cost-effectiveness, health system capacity, and community preferences to plan, set priorities and allocate health resources.*	**Module A-1 Situational Analysis of Annual District Planning Processes** To identify and describe annual cycles of district planning, priority setting, and resource allocation processes used by DHMTs. **Module A-2 Establishing Determinants of Planning Process Effectiveness** To determine how, and to what extent, an evidence-based planning process using burden of disease and cost-effectiveness analysis can strengthen or improve planning processes; and to determine the factors influencing the effectiveness of these processes with particular reference to the context in which DHMTs function and the performance of the DHMTs in planning, priority setting, and resource allocation. **Module A-3 Validation and Strengthening of Planning Processes** To identify ways of strengthening the planning process at district level with respect to necessary adaptations in the context in which DHMTs do district health planning; and to additional data, tools, skills and systems required at the district level.
Component B: Household Health Seeking Behaviours in Relation to Essential Health Interventions	*To identify and analyse trends at the household level in utilization of Essential Health Interventions provided through DHMT plans with respect to spatial, social, and economic determinants.*	**Module B-1 Situational Analysis of Utilization Patterns** To identify, through rapid appraisal procedures, initial utilization patterns of the selected essential health interventions at the household level. **Module B-2 Longitudinal Qualitative Assessment of Utilization Patterns and Trends** To explore initial issues through focused ethnographic studies, and identify emergent issues and themes that impact on utilization patterns and trends over time with respect to the selected essential health interventions. **Module B-3 Longitudinal Quantitative Analysis of Utilization Patterns and Trends** To quantify the determinants of utilization patterns and trends identified in Modules B-1 and B-2 and to test key hypotheses on behavioural conditions that govern utilization patterns and trends. **Module B-4 Advancing the Community's Voice and Potential in District Health Planning** To identify community-based strategies that ensure appropriate utilization and increase effectiveness of essential health interventions and that increase effectiveness of processes through which they are planned.
Component C: Health Impact	*To quantify the changes in burden of disease.*	**Module C-1 Mortality Impacts** To analyse trends in mortality (and annual adjusted life years lost) by age, sex and broad cause throughout the period that TEHIP operates using data from a longitudinal, direct, demographic surveillance system. **Module C-2 Morbidity Impacts** To analyse trends in specific morbidity from selected causes addressed by any selected essential health intervention which is not expected to impact significantly on mortality (eg. School Health Program).
Component D: Practical Tools for Routine DHMT Health System Analysis and Planning	*To develop and/or validate practical tools for evidence based planning processes for the DHMT level.*	**Module D-1** **Developing and validating practical cost-tracking instruments** **Module D-2** **Developing and validating practical cost-effectiveness analysis instruments** **Module D-3** **Exploring the uses and limits of the computerized Health Resources Allocation Model as planning tool at DHMT level** **Module D-4** **Developing DHMT communication tools and strategies for discussing burden of disease and cost-effectiveness concepts with communities and potential consumers.**

Chapter 5
Suggested Scope and Approaches for TEHIP Research

Component A: District Health Planning, Prioritization, and Resource Allocation Processes

This document is intended as a guide to an inter-disciplinary team for its preparation of an application for a TEHIP Research Program Grant. Chapter 5 below is specifically directed to a team interested in TEHIP Research Sub-Component A to study District Health Planning, Prioritization, and Resource Allocation Processes. Any team interested in developing a TEHIP Research Program Grant Application for Sub-Component B on Household Health Seeking Behaviour in Relation to Selected Essential Health Interventions should refer to Chapter 6. Chapter 5 of this Guide assumes an appreciation of the overall background and context for TEHIP as described in Chapters 1-4

Research Context

A general description of the overall context relating the four research components to the core questions of TEHIP is presented in Chapters 1-4 of this Core Protocol. Research Component A focuses on **district health planning, prioritization, and resource allocation processes**. This Component therefore addresses research questions which demand the skills of a number of disciplines. The successful research team would likely require the services of health systems analysis, health economics, health administration, social sciences, institutional development and human resource management, health anthropology, political sciences, etc. Such skills and disciplines are often attached to different host institutions in the academic, governmental, non-governmental, and private sectors. It is expected that an inter-disciplinary, inter-institutional research coalition would need to be assembled to adequately and coherently address the research questions in this Component.

A particular challenge of this research is that it takes a research program rather than research project approach. It bridges and transcends disciplines of researchers in their individual capacities from different departments, faculties, and institutions in meeting multiple objectives. There are also opportunities afforded by linkages with researchers and data in the other associated Research Components of TEHIP (Component B: **Household Health Seeking Behaviours in Relation to Essential Health Interventions**, Component C: **Health Impact**, and Component D: **Practical Tools for DHMT Health Systems Analysis**).

This Program Grant Core Protocol challenges researchers to address the full scope of issues identified in Component A through a single application. The submitting team must demonstrate that they have assembled the necessary expertise, experience and skill base, and are able to negotiate the necessary institutional, administrative, and coordinating environment to manage this work over several years from a programmatic rather than project perspective. See also Chapter 7 for more information on these organizational aspects.

Principal Research Objective

To determine how, and to what extent, DHMTs can use locally generated information on burden of disease, cost-effectiveness, health system capacity, and community preferences to plan, set priorities, and allocate health resources.

Rationale for Component A Research Modules

In order to clarify the research paths of this Component, TEHIP proposes three iterative research modules to study **District Health Planning, Prioritization, and Resource Allocation Processes**. Deriving from the Principal Research Objective, each module has its own specific objective which addresses, in a sequential manner, distinct phases of description, analysis, and outcome. Each module is applied in nature, and together they lead to the design of information, guidelines, and tools which would have direct relevance to strengthened district health planning capacity. The three modules (*and their short form titles*) are:

Module A-1: Situational Analysis of Annual District Health Planning Processes (*Describing Process*)

Module A-2: Establishing Determinants of Planning Process Effectiveness *(Analysing Process*)

Module A-3: Validation and Strengthening of Planning Processes (*Strengthening Process*)

Module A-1 would generate descriptive information on the nature of planning processes, procedures, and instruments in each annual planning cycle over four years. It would identify potential facilitating or constraining factors which would be addressed further in Module A-2.

Module A-2 would analyse the influence of the TEHIP intervention (ie. the introduction of evidence based planning approaches using burden of disease and cost-effectiveness analysis) on the planning process over four annual planning cycles as well as the influence of other important influencing factors identified in Module A-1.

Module A-3 would determine whether the resource allocation objectives of the planning processes have been realized, and if not, would explain reasons for discrepancies. This Module would also serve as a conduit for lessons learned back to the DHMTs on an interactive basis in order to strengthen the planning process.

The research team would liaise most closely with the team(s) involved in research Component D and with the DHMT. Note also that utilization of essential health interventions is addressed in Component B. The TEHIP intervention and research process should contain, but not be limited to, a series of strategically-timed interactive benchmark meetings with DHMTs, at which time would occur communication, exchange and planning as regards implementation of the research. These interactive moments should be designed to coincide with milestones in the district health planning cycle. Each research module is described below according to its specific objectives, suggested themes and research questions, suggested methodological approach, and expected outputs. Research teams are invited to use this as a guide to the scope of what is required. Innovative approaches to these objectives are encouraged and welcomed.

Specific Research Modules

Module A-1: Situational Analysis of Annual District Health Planning Processes[1] (Describing Process)

Specific Objective of Module

To identify and describe annual cycles of district planning, priority setting, and resource allocation processes used by DMHTs.

Suggested Themes and Research Questions for Module A-1 (Describing Process)

In order to address this objective, an essential prerequisite involves a detailed exploratory and descriptive phase focused on the existing planning structures and information used in the current district health planning process and final allocation of human and financial resources. This would permit the development of analytical comparison criteria and the necessary baseline profile upon which subsequent changes can be compared and assessed. The purpose of this Module is to identify any missing variables (e.g. barriers, constraints, community preferences, etc) and complete the baseline profile. It generates qualitative and quantitative information on inputs to District planning processes, the processors themselves, and the results of the processes.

Essential Question: **Who in the planning process actually make input, take decisions, set priorities, and control allocation of resources (both overtly and behind the scenes, at district, regional, national and external levels, i.e., donors, etc)?**

Related questions of interest are: Who are the stakeholders in setting priorities? What role does the community play in setting priorities? What role do key stakeholders play in setting priorities?

Essential Question: **How do DHMTs plan and set priorities for the District Health System and to what extent do plans get reflected in resource allocation?**

Related questions of interest might be: What are the processes of planning, priority setting, and resource allocation? What is the content of District Health Plans? How do plans relate to long-term goals of District? What priority setting tools are used? At what levels are priorities determined? How do priorities for interventions relate to burden of disease and cost-effectiveness? How do DHMTs monitor and analyze allocation of District health staff?

Essential Question: **Does the process result in a "quality" plan?**

Related questions of interest might be: What is the feasibility of implementing the plan? What is the acceptability of the planning process to stakeholders? Does the plan have ability to address unexpected problems within a planning period?

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[1] The term *Planning Processes* as used here includes the processes of planning, priority setting, budgeting, and resource allocation decisions.

Suggested Methodological Approaches for Module A-1 (Describing Process)

The suggested approach would include **exploratory studies** to identify the criteria for an analytical framework to be used in assessing subsequent changes in the planning process and to identify any missing variables such as barriers, constraints, community preferences, etc. This might require focus groups, structured interviews, observations, etc. These studies would be followed by **descriptive studies** to establish the nature and extent of existing planning, priority setting, and resource allocation process against which process changes and outcomes can be assessed. This might require content analysis of plans, document reviews, semi-structured interviews, surveys, and structured (non-participatory) and semi-structured (participatory) observation.

In order that the information generated in this phase is available to Module A-2 (Analysing Process) in time for the annual planning cycle (usually starting in the second quarter of the fiscal year), this Module must be completed within the first fiscal year quarter of each year, i.e: the period between July and September. Module A-1 (Describing Process) would be repeated at the same time each year.

Expected Outputs for Module A-1 (Describing Process)

- a platform for critical appraisal of the potential value of burden of disease/cost effectiveness analysis (BOD/CEA) data in significantly assisting and strengthening the planning process is established
- other data, apart from economics and BOD/CEA (e.g.. community preferences, system capacity) as essential ingredients for optimal district health planning identified and enlisted

Module A-2: Establishing Determinants of Planning Process Effectiveness (Analysing Process)

Specific Objective of Module

To determine how, and to what extent, an evidence-based planning process using burden of disease and cost-effectiveness analysis can strengthen or improve planning process; and to determine the factors influencing the effectiveness of the planning processes with particular reference to:

- *the context in which DHMTs function (e.g.. the national/regional organizational, technical, socio-economic, and political context); and*
- *the performance of the DHMTs in planning, priority setting and resource allocation*

Suggested Themes and Research Questions

This module is essentially analytical in nature and initiates the formative (process) evaluation phase of Component A. It would address the monitoring and measurement of changes in planning process and activities which would be stimulated through the incorporation of BOD/CE analysis in particular, and other information as appropriate. This Module builds upon the descriptive base of Module A-1.

***Essential Question*: How, and to what extent, is the evidence based planning process used to set priorities and allocate resources?**

Related questions of interest might be: What data or evidence is used? How reliable is the evidence used? How timely is it made available? How is that evidence used? How, and to what extent does an evidence based planning process strengthen or improve the DHMT planning, priority setting and resource allocation process? To what extent does it improve the plan? What are the consequences for effectiveness of the planning process of using that evidence? Is the evidence used to persuade opposing or facilitating stakeholders to change their view?

***Essential Question:* What are the most important influencing factors (facilitating and constraining) both within districts and outside the district, for the planning, prioritization, and resource allocation processes?**

Related questions can be organized under the following headings:

Process

How do criteria of the planning processes identified in Module A-1 influence planning effectiveness? How important are the team-working, planning, and communication skills of DHMTs? How does monitoring and evaluation influence planning? What is the extent of consultation within the process?

Context (e.g., organizational, technical, socio-political, socio-economic)

Who and what most influences priority setting and resource allocation decisions? How important are the formal lines of accountability among district, regional, national, and health donors and vertical programmes with regard to resource use and control? What is their influence over decision making? How important are 'informal' conflicts for resource control and decision making power? How adequate are the structures and processes for community involvement in decision making processes? How do resource allocation decisions and budgeting processes link to or influence the planning process? How important is the health systems capacity to deliver services?

Actors

Who are they, what are their interests, and how do they influence effectiveness of the planning processes? To what extent do prevailing planning processes influence stakeholders?

Suggested Approach for Module A-2 (Analysing Process)

This module entails formative (process) evaluation to monitor and measure changes in each annual planning process and to ascertain the degree to which changes are likely to produce desired results. This might require observation; semi-structured interviews with DHMTs, stakeholders, and communities; document reviews and comparisons; content analysis of plans; stakeholder or political analysis; and surveys in relation to health seeking behaviours seen in Component B. This module would be implemented throughout the project but would be particularly active during the planning cycle (fiscal quarter 3).

Expected Outputs for Module A-2 (Analysing Process)

- the potential value of BOD/CEA data in significantly assisting and strengthening the planning process critically appraised
- other data or evidence, apart from economics and BOD/CEA, identified as potentially essential ingredients for optimal district health planning identified

Module A-3: Validation and Strengthening of Planning Processes (Strengthening Process)

Specific Objective of Module

To identify ways of strengthening the planning process at district level with respect to:

- *necessary adaptations in the context in which DHMTs do district health planning;*
- *additional data, tools, skills and systems required at district level.*

Suggested Themes and Research Questions

This Module embodies the synthesis of Modules A-1 (Describing Process) and A-2 (Analysing Process). Although it conducts essentially a summative evaluation, Module A-3 (Strengthening Process) starts at the beginning of the Project so that it can translate relevant and important research findings and recommendations from any Modules of TEHIP Research Components A, B, C and D back into discussion with the DHMTs and key actors in the study districts, and to other districts if required. This would facilitate dialogue and ensure feasible suggestions are made. This would probably occur at predetermined intervals.

Essential Questions:

What are the lessons learned with regards to the planning process? (e.g. What is being learned that has practical application? What works in the new processes? What lessons can be generalized beyond the study districts?)

What are the minimal essential tools, instruments and information?

Suggested Approach for Module A-3 (Strengthening Process)

This Module is a summative (outcome) evaluation to determine whether objectives of planning, priority setting, and resource allocation processes have been realized - and if not, to explain reasons for discrepancy; provide recommendations for changes to process; and / or to how external factors must be accommodated by planning processes (content analysis, interviews, surveys, observation, focus groups, etc.). This Module would be implemented throughout the planning cycle in each year.

Expected Outputs for Module A-3 (Strengthening Process)

- guidelines and tools for incorporating burden of disease/cost-effectiveness, community preferences, and health system capacity considerations into District Health Planning assessed
- evaluation and monitoring system for assessing execution of District Health Plans established
- information necessary to identify important constraints and facilitating factors that can lead to positive change appropriate to assist district planning methodology provided

Chapter 6
Suggested Scope and Approaches for TEHIP Research

Component B: Household Health Seeking Behaviour in Relation to Essential Health Interventions

*This document is intended as a guide to an inter-disciplinary team for its preparation of an application for a TEHIP Research Program Grant. Chapter 6 below is specifically directed to a team interested in TEHIP Research Sub-Component B to study **Household Health Seeking Behaviour in Relation to Selected Essential Health Interventions**. Any team interested in developing a TEHIP Research Program Grant Application for Sub-Component A on **District Health Planning, Prioritization, and Resource Allocation Processes** should refer to Chapter 5. Chapter 6 of this Guide assumes an appreciation of the overall background and context for TEHIP as described in Chapters 1-4.*

Research Context

A general description of the overall context relating the four research components to the core questions of TEHIP is presented in Chapter 1-4 of this Core Protocol. Research Component B focuses on **household health seeking behaviours in relation to essential health interventions**. This Component therefore addresses research questions which demand the skills of a number of disciplines. The successful research team would likely require the services of health anthropology, health demography, health sociology, health systems analysis, health economics, epidemiology, etc. Such skills and disciplines are often attached to different host institutions in the academic, governmental, non-governmental, and private sectors. It is expected that an inter-disciplinary, inter-institutional research coalition would need to be assembled to adequately and coherently address the research questions in this Component.

A particular challenge of this research is that it takes a research program rather than research project approach. It bridges and transcends disciplines of researchers in their individual capacities from different departments, faculties, and institutions in meeting multiple objectives. There are also opportunities afforded by linkages with researchers and data in the other associated Research Components of TEHIP (Component A: **District Health Planning, Prioritization, and Resource Allocation Processes**, Component C: **Health Impact**, and Component D: **Tools for Health Systems Analysis**).

This Program Grant Core Protocol challenges researchers to address the full scope of issues identified in Component B through a single application. The submitting team must demonstrate that they have assembled the necessary expertise, experience and skill base, and are able to negotiate the necessary institutional, administrative, and coordinating environment to manage this work over several years from a programmatic rather than project perspective. See also Chapter 7 for more information on these organizational aspects.

The multi-faceted research in this Component will be designed to understand behaviours and utilization patterns at the household level with respect to the selected essential health interventions. It is suggested that two basic approaches should be pursued: (i) a combination of qualitative and quantitative studies to understand the utilization patterns in relation to essential health interventions; and (ii) a process of participatory action research to identify and assist community initiatives that would strengthen the district health planning process and increase utilization of the planned interventions. The research team would liaise most closely with the team(s) involved in research Component D and with the DHMT. The TEHIP intervention and research process should contain, but not be limited to, a series of strategically timed interactive benchmark meetings with DHMTs which would assure communication, exchange and planning as regards implementation of the research. These interactive moments should be designed to coincide with milestones in the district health planning cycle.

Principal Research Objective

To identify and analyze trends at household level in the utilization of selected essential health interventions provided through DHMT plans in respect to spatial, social, and economic determinants.

Rationale for Component B Research Modules

In order to clarify the research paths of this Component, TEHIP proposes four iterative research modules for this component to study **Household Health Seeking Behaviours in Relation to Essential Health Interventions**. Deriving from the Principal Research Objective, each module has its own specific objective which addresses, in a sequential manner, distinct phases of description, analysis, and community participation. Each module is applied in nature, and together they lead to the design of information, guidelines, and tools which would have direct relevance to strengthened district health planning capacity. The four modules (and their short form titles) are:

Module B-1: Situational Analysis of Initial Utilization Patterns (*Utilization Situation Analysis*)

Module B-2: Longitudinal Qualitative Assessment of Utilization Patterns and Trends (*Utilization Qualitative Analysis*)

Module B-3: Longitudinal Quantitative Analysis of Utilization Patterns and Trends (*Utilization Quantitative Analysis*)

Module B-4: Advancing the Community's Voice and Potential in District Health Planning (*Community Preferences*)

Module B-1 would be a short situation analysis of the initial utilization patterns at the beginning of TEHIP using Rapid Assessment Procedures and is necessary to assist the design of Modules B-2 and B-3.

Module B-2 would use focussed ethnographic methods to explore household behavioural issues (facilitating and constraining) related to trends in utilization of selected essential health interventions over the course of TEHIP.

Module B-3 would use quantitative approaches to understanding the determinants, levels and trends of utilization patterns identified in Modules B-1 and B-2 and to test key hypotheses that govern these patterns.

Module B-4 would use participatory action research approaches to identify community strategies for voicing community preferences in the District planning process and to assist appropriate utilization of essential health interventions.

Each research module is described below according to its specific objectives, rationale, suggested themes and research questions, suggested methodological approach including sampling framework and time frames, and expected results. Research teams are invited to use this as a guide to the scope of what is required. Innovative approaches to these objectives are encouraged and welcomed.

Specific Objectives and Modules

Module B-1: Initial Situational Analysis of Utilization Patterns

Specific Objective of Module

To identify, through rapid assessment procedures, initial utilization patterns of the selected essential health interventions at the household level.

Rationale

Information on initial utilization patterns at the household level must first be generated and linked to the results from the descriptive studies of Component A (see chapter 5). In addition, preliminary results from Module B-2 on **Qualitative Analysis of Utilization Patterns,** linked with the results of this **Situational Analysis** module, would inform the construction of measures and instruments for Module B-3 on **Quantitative Analysis of Utilization Patterns**. Given the nature of this situational analysis step and the precision required, it is proposed to generate the data in Module B-1 by rapid assessment procedures (RAP).

Research on household health seeking behaviour is needed to better understand the links between household needs, preferences, and decision making, and the degree to which these household and community needs relate to the choice and utilization of selected *essential health interventions*. RAPs would need to be developed for two fundamentally distinct types of essential interventions: (1) utilization of a selected tracer *clinical (curative) intervention;* and (2) utilization a selected tracer *public health (preventive) intervention.*

Suggested Themes and Research Questions for Module B-1 (Utilization Situation Analysis)

Some preliminary themes to be pursued relate to health care seeking behaviour and decisions, illness narratives, satisfaction and compliance in relation to the essential health interventions at the household level (access/equity).

Essential Questions:

- Who makes decisions about whether to seek care and where to go?
- Does the person making the decision differ according to the person who is ill or the symptoms?
- What are the sources of care typically sought for particular sub-groups (e.g. combinations of people and symptoms)?
- What are the typical prices paid for different types of providers, different types of treatment, transport, preventive intervention, etc.?
- What types of preventive interventions are taken and what are the typical costs of those?

Suggested Methodological Approach for Module B-1 (Utilization Situation Analysis)

A rapid assessment procedure (RAP) is suggested using key-communicator and key-informant interviews that are complemented by focus group discussions. *Key communicator* interviews would be conducted with community opinion leaders and/or leaders who are linked to participatory processes; i.e., individuals who are positioned to voice the concerns, needs, and preferences of representative groups in the community. *Key informants* would be at the household level. The results of this module would generate the key variables and measures of the quantitative analysis, Module B-3. In addition, the information would be filtered into the DHMT planning cycle.

Focus group discussions (FGD) would also complement these in-depth interviews with key communicators and key informants. The purpose of these complementary FGD is to validate information. The triangulation of approaches is felt crucial to assure the data quality.

Sampling TEHIP recommends that this module generate information that is specific for the major socio-ecological strata of each district. Initially, TEHIP suggests three strata for Morogoro (Rural) District: mountain area; rural plains/savanna; and the peri-urban belt. For Rufiji District, two or three strata are suggested: along the Southern highway, and North and South of the main river. *Key-communicators* would be identified in each stratum in sampled villages (simple random sample). Within the village the key communicators would be a purposeful selection of informants based on existing knowledge of the communities. The approach of deviant case sampling is suggested in order to maximize the factors of interest. However, intensity sampling could also be considered. *Key informants* could be identified at household level in each stratum in sampled villages (simple random sample).

Time Frame It is estimated that the field work and first analysis of this module would take a maximum of nine months.

Expected Results of Module B-1 (Utilization Situation Analysis)

- patterns of utilization qualitatively described
- measures and means to be pursued are established
- final stratification of districts is delineated

Module B-2: Longitudinal Qualitative Assessment of Utilization Patterns and Trends (Utilization Qualitative Analysis)

Specific Objective of Module

To explore initial issues through focused ethnographic studies, and identify emergent issues and themes that impact on utilization patterns and trends with respect to the selected essential health interventions.

Rationale

An ethnographic research module is necessary to identify problems and generate hypotheses on household health seeking behaviours in relation to selected essential health interventions that are not elicited through

RAP approaches of Module B-1 or through the quantitative surveys of Module B-3. It is essential to use an ethnographic approach so as to understand the barriers and constraints to health seeking and utilization patterns (whether politically, economically, or culturally determined), the context of health care seeking not presently understood (e.g., environmental issues), and other patterns of resistance (dilemmas in health care utilization, coercion, control). While Module B-1 mainly focussed on '*what*' questions , this module focusses on '*why*' questions.

Suggested Themes and Research Questions for Module B-2 (Utilization Qualitative Analysis)

The issues and themes identified in this research are linked to a sub-set of "tracer" essential health interventions to be selected by the DHMT. The specific research questions are established once the interventions are selected. Some preliminary issues and themes, all as related to essential health interventions, are as follows:

- community resources, preferences and concerns with respect to priorities
- folk taxonomies of disease and illness and the interpretation of signs and symptoms
- risk perceptions and behaviours
- perceptions of peoples who are vulnerable
- beliefs and experiences influencing treatment and prevention patterns
- people's perception of the health care delivery system and their concept of facilitating and inhibiting factors for utilization

Methodological Approach for Module B-2 (Utilization Qualitative Analysis)

This research module would approach the selected themes from two angles.

The first angle would be ethnographic and would be linked to selected tracer essential health interventions identified by the DHMT (one clinical and one public health intervention). In general terms, the ethnographic work would focus on the diseases and interventions in question, and the behaviours, experiences, emotions, and beliefs that are linked to these diseases. For clinical interventions, descriptive illness narratives could be elicited at spells of illness; for example, on the last episode of the illness of relevance in representative households with key informants. In this research, it would be essential to
sudy the experiences of a variety of subjects and persons at particular risk associated with the intervention in question. A combination of observational techniques (e.g., participant observation), in-depth interviews with key informants, and group discussions would be applied.

The second angle would be to examine people's health perspectives in relation to their context of risk perception, risk behaviour, compliance and vulnerability of persons targeted at risk specific to the selected tracer interventions. In-depth interviews, focus group discussions would be conducted with *key communicators* from the popular, folk, and professional health domains.

Sampling Stratification would be as outlined and applied in Module B-1. Villages would be selected by cluster sampling. Households would be selected by a systematic random sample which would allow the selection of the household key-informants. This sampling procedure would also be harmonized with the sampling in Module B-3, and, if resources permit, sampling would be with both the same and independent clusters. Key informants and members for group discussions would be selected in the sampled villages by

primary selection using the concept of intensity sampling. Key communicator sampling would be opportunistic and voluntaristic.

Time Frame The ethnographic research would begin at the same time as the Module B-1 and would cover two annual planning cycles. The timing of some studies may have a seasonal character depending on the incidence of the disease(s) in question.

Expected Outputs of Module B-2 (Utilization Qualitative Analysis)

- qualitative evidence of behavioural patterns and trends at the household level are described as a basis for further work in Module B-3
- barriers and constraints to the utilization of essential health interventions delineated
- risk profiles described and interpreted
- contributing factors for the health development process are identified at community level
- information regarding characteristics and distribution of beneficiaries and non-beneficiaries of Essential Health Interventions offered by the District.

Module B-3: Longitudinal Quantitative Analysis of Utilization Patterns and Trends

Specific Objectives of Module

This module has both a descriptive and an analytic objective

To quantify the determinants of utilization patterns and trends identified in Module B-1 (Utilization Situation Analysis) and Module B-2 (Utilization Qualitative Analysis).

To test key hypotheses on behavioural conditions that govern utilization patterns

Rationale

Module A-1 and Modules B-1 and B-2, through their description of utilization patterns and trends, would provide the foundation for a quantitative approach and subsequent hypothesis testing in this Module B-3. Module B-3 would establish and test a series of hypotheses to determine how wide-spread and generalizable are these conditions. This Module is also viewed as a validation exercise for issues and themes and therefore contributes to the triangulating of the behavioural evidence on household health seeking behaviours. This Module would allow the multi-disciplinary teams to test the reliability of the instruments developed, as well as the validity and generalizability of emerging hypotheses.

Suggested Themes and Research Questions

This module should identify observed utilization patterns and explain differences in access. TEHIP recommends the following domains of inquiry:

Mapping of health seeking behaviour patterns for essential health intervention users and non-users, specifically:

- the spatial distribution of public, private, and voluntary (e.g., NGOs, religious groups) providers;
- the spatial relationship between households and the different types of care providers, both traditional and modern;
- educational levels relative to use of private, public, and voluntary sectors;
- groups served (over served and undeserved) relative to risk groups, etc.

Curative care questions related to the tracer essential health interventions:

- It is recommended that two types of questions be asked. The first type of questions ould ask all household individuals about the last time they sought care: symptoms, who they went to or did they self medicate; why they chose that form of treatment; costs (time and money); etc. The second type of questions would concentrate on particular tracer conditions thought to be important in the area. For example, if the sick child is to be one of the interventions, the questionnaire should ask about fevers, symptoms of ARI, and diarrhoea in children in the last two weeks, etc., and go on to explore their use of the various potential sources of care.

Preventive behaviours relating to the tracer essential health interventions:

- Depending on the essential health interventions selected by DHMT, this might include coverage of vaccination for children, antenatal visits for pregnant women, or types of mosquito protection.

Perceived reasons for these health seeking behaviours:

- This would include perceptions of satisfaction and quality of services at the different health care sites.

Socioeconomic determinants of behaviour correlated with the above information:

- This should also include a wealth or income variable, age and sex of the informant, household size, and location.

Compliance with regard to use of tracer essential health interventions:

- For example, the extent to which persons at risk sleep under nets, if this was one of the interventions; compliance with EPI schedules; compliance with drug regimens -- e.g., anti-malarials, antibiotics, etc.

Methodological Approach for Module B-3 (Utilization Quantitative Analysis)

For the descriptive part, a quantitative instrument -- preferably a semi-structured interview -- would be designed with constructs and questions informed by relevant issues and themes from Module A-1 and Modules B-1 and B-2. In addition, a mapping exercise would be conducted for the social, environmental, household, and provider conditions leading to a presentation of utilization patterns. These surveys, administered to a cross-section of households once per planning cycle, would also allow an evaluation of utilization trends and health seeking behaviours.

The approach for the analytic part would be established once the specific hypotheses to be tested are formulated as a result of the descriptive part.

Sampling Stratification would be as outlined and applied in Module B-1. Villages would be selected by cluster sampling. Households would be selected by a random sample which would allow to select the adults and children to be interviewed. Once selected, these individuals would form a cohort to be followed through two planning cycles and should cover rainy and dry seasons. This sampling procedure would also be harmonized with the sampling of key informants in Module B-2.

It is strongly recommended that the cohort approach should be compared with results from repeated cross-sectional surveys.

Time Frame The descriptive part would occur over a maximum of 24 months and would lead to the analytic part that would last for another 12 months.

Expected Outputs of Module B-3 (Utilization Quantitative Analysis)

- maps of EHI utilization patterns and access differentials produced for the various strata and relative to provider, sector, and consumer variables
- determinants and factors of EHI utilization quantified and compared to the qualitative results of modules B-1 and B-2
- at least two key hypotheses on utilization of selected interventions established and tested in each district
- information regarding characteristics and distribution of beneficiaries and non-beneficiaries of Essential Health Interventions offered by the District

Module B-4: Community's Voice and Potential in District Health Planning (Community Preferences)

Specific Objective of Module

To identify community-based strategies that ensure appropriate utilization and increase effectiveness of essential health interventions and that increase the effectiveness of the processes through which they are planned.

Rationale

Since community preferences are a required ingredient of the TEHIP evidence-based planning process, there a need exists to have community views (perspectives, felt-needs) identified, understood, and communicated so as to be part of the DHMT planning process. In the context of the rationing of health care resources at the district level, there is also the need for stakeholders in the community to understand the decision-making processes of the DHMT and the rationale and justifications made for essential health intervention decisions. A participatory action research (PAR) process (process of action-reflection-action) would gradually result in community members participating in this process (underscoring the issue of ownership in decision making), opening emergent roles of influence in the decision making process, and also, the organization of sustainable, productive, and participatory criteria for ongoing district health management decision making (equity, justice). This module deals with the potential of communities/groups/associations to assist in health planning and health development. It is the essence of participatory action research to identify institutions and potential that can be carried forward to application.

Suggested Themes and Research Questions

- the communities' groups/groupings that have a potential in contributing to health development and its planning
- the communities' groups/groupings/associations that bear a potential to support effective implementation of the selected interventions
- the assistance required to capitalize on these potentials and initiatives in the planning process

Methodological Approach for Module B-4 (Community Preferences)

Social animators, working in community settings to accomplish health and development goals and who are guided by an experienced PAR researcher, would be the agents of facilitation in this reflection-action, evaluation, and monitoring process. They would be instrumental as well in constructing appropriate mechanisms for influencing the decision-making process.

The PAR Module would initially be engaged for the purpose of participating in the creation of an effective procedural framework for communicative actions towards health development. This procedural framework would establish criteria for: decision-making; delineate evidence/data which informs these decisions; effective organizational structures; recommended guidelines; potential options; a forum for decision making; etc. Subsequently, PAR activities, initially linked to the selected interventions, may spill over into community based health and development activities.

Sampling Sampling issues in PAR are usually voluntaristic, involving individual persons, groups, associations who voice the concerns, worries, and felt-needs of vulnerable groups in the population and state own initiatives/solutions to the problems raised. In each district at least one village per stratum would be selected based on existing knowledge/information on its potential to serve as initial PAR site.

Time Frame The community preferences participatory action research module would begin approximately at the start of Modules B-1 and B-2 of would continue periodically throughout the TEHIP project period.

Expected Outputs for Module B-4 (Community Preferences)

- approaches for introducing community preferences in the health and development process established and validated
- a procedural framework for effective health planning at district level and driving health development involving decision-makers, stakeholders and beneficiaries pilot-tested
- household survey schemes and schedules to monitor coverage, access, and user satisfaction.

Chapter 7
Coordination and Administration of Research Component and its Modules

This Chapter provides a simple outline of topics which should be addressed in the research team's application for a TEHIP Research Program Grant on one of the two Components addressed in this Guideline (Health Systems Research or Household Health Seeking Behaviours Research). In their application the team should describe their approach to the following topics and issues.

Management

Field Management
Data Management and Analysis
Quality Control of Data Collection
Data Entry and Management
Links to Data of other Components
Data Analysis

Logistics and Chronogram
Coordination of Modules within the Research Component
Coordination with other Research Components and with DHMT

Ethical Considerations
Ethics Review process (state approach only, do not start process)
Informed Consent
Confidentiality
Incentives for participation

Administration

Collaborating Institutions for this Component
Administering Institution for this Component
Research Team Personnel (append CVs)
Administrative Procedures

Budget

Salaries

- Salaries include all remuneration, allowances, and benefits paid to recipient project staff and to project advisors hired for a specific project. Project advisors are people hired for fairly long periods and paid regular sums.

Research Expenses

- Research expenses encompass services and materials (including reference materials) required to carry out the research. They can include: remuneration paid to field staff gathering data and information; maintenance and operations costs for project vehicles; the cost of consumable goods or non-capital equipment such as photocopier supplies; the cost of maintaining other research equipment; the cost of computer services; honoraria paid to project advisors; the cost of local travel; the purchase of monographs, serials, videos, cassettes, and reference materials for a project; the cost of casual labour; and rent paid for land or premises used in a research activity.

Capital Equipment

- This category covers equipment, purchased by either the recipient or IDRC/TEHIP on behalf of the recipient, that has a useful life of more than one year and costs over 1,000 CAD per item, and includes the basic purchase price, any related sales tax, identifiable freight costs, and other order-filling costs. IDRC, however, does not pay import duties as most country agreements exempt IDRC from paying them. Examples of capital equipment are micro-computer hardware and related software, microfiching equipment, office furniture, etc., with a cost of over 1,000 CAD.

Conferences

- This category covers the costs of attending project-related seminars, meetings, and conferences that may be organized by the recipient. Examples include accommodation, travel, registration fees, catering services, rental of audiovisual equipment, and honoraria for presentation of papers or advisory board attendance. This category **does not cover** the cost of conferences held specifically to disseminate TEHIP research results, which are to be budgeted under dissemination.

Consultants

- This category covers all expenses related to acquiring the services of a consultant for a specific activity within the project. The consultant should provide expert professional advice to project staff. He or she usually works on a "fee for service" basis. Consultants, unlike collaborators, do not share ownership of data and have no publishing rights in TEHIP. Compared with project advisors (see Salaries), consultants are contracted for shorter periods to work on specific assignments. Costs may include fees, travel, accommodation, living expenses, and support services hired directly by the consultant and billed to the project.

- The total cost for each consultant should be reported as a lump sum in the budget line item and, in the budget notes, a breakdown should be given, even if only an estimate. If this is not feasible, however, the budget notes should include an explanation as to why only a lump sum can be provided.

Travel

- This category covers costs incurred by project staff **outside** the local research area. (All local travel is to be reported under Research Expenses.) Included are costs of transportation, accommodation, meals, airport and exit taxes, and other related items.

- NOTE: Travel costs specifically related to research expenses (local travel), training dissemination, evaluation, and coordination should be reported under these specific budget items rather than under travel.

Dissemination

- This budget category covers all dissemination activities. It includes the costs of project-related seminars, meetings, or conferences that may be organized by the recipient for the purpose of disseminating TEHIP-funded research results. Examples include accommodation, travel, registration fees, catering services, rental of audiovisual equipment, and honoraria for presentation of papers or advisory board attendance. Dissemination also includes the costs of reproduction, publication, distribution, and preparation of project outputs (such as publications, bibliographies, abstracts, databases, etc.).

Support Services

- Support services should only encompass those administrative costs that are not directly related to research. They can include: clerical, accounting, or secretarial help; general office expenses; office accommodation, rent, and utility charges; non-capital office furnishings and equipment under 1,000 CAD; communications, couriers, telex, and postage expenses; computer services of an administrative nature, unrelated to research data analysis or compilation; and general office and administrative photocopying and reproduction costs.

Administrative Overhead

- TEHIP may contribute over-head costs up to a maximum of 13% of all recipient-administered costs, excluding capital equipment costs. If overhead is charged to TEHIP, then direct administrative costs such as office supplies, communications costs, etc., are not to be included in the budget. If support services and overhead are charged to TEHIP's contribution, the total of the two must be within the 13% limit. Exceptions must be documented in the budget notes.

Coordination

- This category covers expenses related to the coordination of the Research Program Component, whether it is a network covering several institutions, or several modules (or subprojects) within an institution. The coordination function involves overseeing the various modules of a component to ensure that all concerned follow the agreed objectives and approaches, including budgetary monitoring. Expenses for this category may include the direct costs associated with the coordinator and his or her staff's salaries, allowances, honoraria, and travel; and expenses to run a coordinating unit such as office expenses, rent, and communication. The prorating of budget costs between this line item and other line items is not permitted. Any cost that is not entirely associated with

coordination activities is termed an indirect cost and, as such, must be reported under another line item.

Budget Notes

- Detailed descriptive notes should be provided for each of the above line items to clarify and justify the amounts requested.