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**Towards the Definition of Concepts in International Health Intervention:
Participation, Efficiency, Equity, Sustainability and Scaling Up**

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Towards the Definition of Concepts in International Health Intervention:
Participation, Efficiency, Equity, Sustainability and Scaling Up.

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Abstract

This thesis explores definition of five concepts central to international health intervention, participation, efficiency, equity, scaling up and sustainability, within the case study of the Tanzanian Essential Health Interventions Project (TEHIP). Developed in response to the 1993 World Development Report and implemented in Tanzania during the era of health sector reform under structural adjustment, TEHIP offers an especially pertinent case within which to explore the language and health practices resulting from this particular history and ideology. Using key informant interviews and literature review, conceptual and applied definitions of the concepts were analyzed. A theoretical framework of health equity as social justice, offered by Amartya Sen, Fabienne Peter, and Thomas Pogge, was employed to examine assumptions and biases inherent in these concepts and their application. Despite significant health gains achieved by TEHIP, this theoretical analysis raises important questions and concerns about the rationale, design and implementation of the project.

Keywords: Participation, efficiency, equity, sustainability, scaling up, health intervention, health system reform, Tanzania.

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Chapter 1: Introduction

In the decades preceding the 1993 World Development Report by the World Bank (World Bank, 1993) international efforts to promote health, including immunization, poverty reduction, efforts to increase sanitation and access to clean water, had resulted in positive health gains for low income countries. From 1950 to 1990, life expectancy for people in developing countries increased from 40 to 63 years (Michaud, Murray & Bloom, 2001, p. 535). However, a series of economic shocks, exacerbated by changing ideology in the provision of health care, caused a rise in health care costs and associated negative health outcomes for these populations (Peabody, 1996). In addition, the HIV/AIDS epidemic in sub-Saharan Africa has caused a loss in life expectancy (Michaud, Murray & Bloom, 2001, p. 535). Against this backdrop, the 1993 World Development Report promoted a “three-pronged approach to government policies for improving health in developing countries” (WB, 1993, p. iii). First, governments were encouraged to transfer health care costs to households, second, to direct government health expenditure to pro-poor cost effective programs and third, to develop two tier health systems, supported by a mix of public and private health service provision.

In a deliberate intervention to test the World Bank’s second prong – directing government health expenditures to diseases having greatest impact on the poor – dramatic alterations in health sector spending were initiated in the Rufiji and Morogoro districts of Tanzania under the Tanzanian Essential Health Interventions Project (TEHIP). Within TEHIP, data on burden of disease, as measured by mortality, was compared to the amount of funding devoted to interventions or strategies to treat disease. TEHIP was intended to, and did, alter the planning and practice of health policy in an effort to ensure that resources were

allocated proportionately to the burden of disease (de Savigny, Kasale, Mbuya & Reid, 2004, Figure 4, p. 59).

This reallocation of resources resulted in a number of positive health outcomes, including a 40% decrease in child mortality, from 1993 to 2003, in the two districts in which the project was implemented. In Morogoro, child mortality decreased from approximately 180 to 100 per 1000 live births from 1993 to 2002. In Rufiji child mortality decreased by half, from approximately 160 to 80 per 100 live births from 1993 to 2003. Other districts in Tanzania that did not receive the intervention showed steady rates of child mortality, approximately 160 per 1000 live births, during the project duration. Within this comparison, several contextual factors influencing mortality, such as rainfall or disease outbreaks, were controlled for (de Savigny, Kasale, Mbuya & Reid, 2004, p. 12). Due to the success of TEHIP, the Tanzanian Ministry of Health is currently undertaking efforts towards national implementation of the project.

Research Questions

TEHIP provides an excellent case in which to study a number of key concepts related to health outcomes in developing countries: participation, equity, efficiency, sustainability and scaling up of health interventions. These concepts were chosen because of their importance to the design and outcomes of TEHIP and their importance within the overall discourse of global health. In the preface of the primary published document on TEHIP, *Fixing Health Systems*, the project is described as a community based intervention that incites “cautious optimism” (de Savigny, Kasale, Mbuya & Reid, 2004, p. xi): optimism because the cost effective strategies employed within TEHIP resulted in positive health outcomes for populations in two rural districts of Tanzania; and caution because application

of these strategies on a national scale, and therefore the replication of the results seen in the rural trial, will be more difficult.

Due to the importance of these concepts to the design of TEHIP and the evaluation of the outcomes of this intervention, it is critical to understand how these concepts were understood and applied by TEHIP researchers. Although additional concepts important to the study may be suggested, the aforementioned concepts alone are explored in this research through the following research questions:

- o How did persons involved in design, funding, implementation and outcome measurement of TEHIP conceptualize and operationalize key concepts related to the project, which include, participation, equity, efficiency, sustainability and scaling up?
- o How did those persons involved in design, funding, implementation and outcome measurement of TEHIP regard the strengths and weaknesses of these conceptual and operational definitions?
- o How did initial conceptualization of these central ideas change as they were implemented over the course of the project?

Chapter Outline

Chapter 2 will provide an introduction to the competing ideologies in international health and the historical and political context in which TEHIP was developed. Also included in this Chapter is a brief review of the ways in which participation, efficiency, equity, sustainability and scaling up were used within TEHIP as expressed in the primary text

Fixing Health Systems.

Chapter 3 will provide a description of the methodology used to explore the research questions posed within this study, followed by a discussion of the theoretical framework within which this research was conducted.

Chapter 4 will provide presentation and discussion of findings through literature review and key informant interviews.

Finally, conclusions will be presented in Chapter 5, along with potential limitations of the present study and directions for future research.

Chapter 2: Literature Review

TEHIP provides a case for reflection upon the influence of competing ideologies regarding health systems and resources for health care in low-income countries. Therefore, the following review provides an introduction to the context in which TEHIP was developed and how the concepts of participation, efficiency, equity, sustainability and scaling up were used within TEHIP.

Trends in International Health: Competing Ideologies

The final report of the Knowledge Network on Health Systems, part of the Commission on Social Determinants of Health (2005 – 2008) established by the World Health Organization (WHO), identifies health systems as one important locus for the promotion of health and health equity (Gilson, Doherty, Loewenson & Francis, 2007). The authors present evidence suggesting that health systems “when appropriately designed and managed” can promote overall population health and specifically, health equity gains (p. viii). Further, the authors argue that positive health outcomes and gains in health equity are most likely when health systems apply the primary health care (PHC) approach as both an “organisational strategy and underlying philosophy” (p.5). The failure of health systems to promote health equity is boldly stated as the result of market driven health policy reforms which are suggested to be a product of a neoliberal economic agenda.

Labonte (1998) describes neoliberalism as ‘both a philosophy of human existence and a theory of political economy’ (p. 246). As a philosophy neoliberalism emphasizes freedom of the individual and promotes the pursuit of individual economic goals. As an economic theory neoliberalism supports “unregulated markets” which are characterized by a reduction in government provision of service and increased international trade and

investment (p. 246). Neoliberalism also critiques the “welfare state” (p. 247) where governments support, through taxation, social and economic programs to redistribute potential economic gains, and losses, upon international liberalization of an economy. The elimination of welfare state practices under neoliberalism may result in income inequalities for a population and therefore, inequalities in health (Labonte, 1998).

The 2007 Knowledge Network report marks the latest return to advocacy for PHC, which will be the topic of the WHO’s 2008 World Health Report due to be released in October. The history of the WHO’s role in international health is marked by a cyclical championing and desertion of PHC in health system design and management (Gilson, Doherty, Loewenson & Francis, 2007). In the 1978 Alma Ata Declaration, the WHO, together with UNICEF, championed PHC as the approach to health system development by which all countries could guarantee not only access to health services for all of their population, but also community driven initiatives to improve local living conditions that influenced equity in health outcomes. The PHC model was also intended to ensure that health care was community based and that communities would be actively involved in the design, implementation and evaluation of their health care system (WHO, 1978).

Community level provision of healthcare was a hallmark of the PHC models that became popular in the 1960s and 1970s in reaction to “vertical” programming in the 1950s (Irwin & Scali, 2005). Irwin and Scali describe vertical health care models, or disease specific models, of the 1950s as driven by technology with a narrow focus on measurable results that did not address the social context in which disease or negative health outcomes arose. Alternatively, community based models encouraged participation from community members in decision making and attempted to consider the effect of socio-economic

influences on health, such as the effect of poverty on health, in planning health interventions.

Shortly after Alma Ata, criticism of the PHC approach was raised, specifically that the approach was “idealistic” (Cueto, 2004, p. 1968). The goal of “Health for All by 2000” was criticized as being too vast in scope and proposed timeline (Cueto, 2004). In addition, critics noted that the cost of “achieving total coverage” would be prohibitive (Hall & Taylor, 2003, p. 18). A number of additional factors caused the Health for All initiative to fall out of favour, including a global economic downturn, a lack of political commitment to sustain PHC and a lack of a defined plan for its implementation (Hall & Taylor, 2003).

In response to the criticisms aimed at PHC and amidst a desire to seek cost effective strategies to promote health, an alternative model, selective primary health care (SPHC), gained favour. SPHC was touted as an “Interim Strategy for Disease Control in Developing Countries” and focused on seeking out, and treating, the most common causes of disease and death for populations, specifically children, in developing countries (Walsh and Warren, 1979, as cited by Cueto, 2004, p. 1868). The focus on health of children can be attributed to the large burden of disease (BoD) borne by infants and young children worldwide. Murray and Lopez (1997a) found that the greatest contributors to global BoD are communicable and perinatal disorders suffered by children. Further, these disorders, in addition to measles, account for “25% of the whole burden premature mortality and disability in developing regions” (Murray and Lopez, 1997b, p. 1441).

Walsh and Warren (1979, as cited by Cueto, 2004) proposed a number of possible interventions which would constitute the SPHC approach which they then refined to a package of four inexpensive and cost effective interventions focused on infant mortality in

developing countries. With support from the then executive director of UNICEF, Jim Grant, who supported SPHC over PHC, these four interventions became the basis of UNICEF's "GOBI" campaign: Growth monitoring of infants, Oral rehydration therapy, Breastfeeding for infants up to six months of age and Immunization. GOBI was easy to monitor and evaluate, as opposed to the type of health promotion emphasized in PHC, and therefore proved popular with public health professionals and donor agencies (Cueto, 2004).

SPHC presented a cost effective, disease specific approach to health care that was more in line with the economic ideology and policy of the time. Concurrent with the demise of PHC and the rise of SPHC were changes in economic and political ideology about the balance between government involvement versus market forces in the delivery of services, including health services, for developed and developing nations in the 1980s and 1990s. North American and European neoliberal models, which promoted the dominance of market forces in service delivery and limitation of government expenditure on social services, were often imposed on developing nations. International donors insisted that low income countries, facing rising foreign debts, implement market driven neoliberal economic reforms, such as deregulation of the market and privatization of social services (Hall & Taylor, 2003).

Peabody (1996) provides an analysis of how negotiations between international financial institutions and developing nations influenced health systems in developing nations and therefore the health of their populations. Following increases in the world market price for oil in the mid 1970s, low income countries began to become indebted to foreign lenders or trading partners. In order to protect their economies, these low income countries began to borrow from the IMF and WB to restructure their debt commitments. Under these

conditions, the IMF and WB began to demand that structural adjustment programs (SAPs) be implemented in exchange for loans. SAPs were intended to support economic growth in the short term with a view to poverty alleviation and economic development in the long term. Primary economic policies of SAPs, tied to loans from the IMF and WB, include the following:

- The reduction of imports to reduce consumption which was often initiated by devaluing national currency and decreasing the money supply within a nation;
- An increase in exports by focusing on the production of goods and services that could be traded;
- A focus on markets to set prices and deliver goods and services, which was initiated by privatization of state owned enterprise.

In addition to the dramatic changes to the economy of countries which had to take on SAPs, these programs had a significant impact on health within low income countries. Peabody (1996) describes both direct and indirect impacts on health. Direct impacts on health were a result of limitations in government expenditure on health services due to privatization. For example, the increasing cost of health care left the most impoverished populations with few options for subsidized care. Indirect effects including rising costs of goods and services, without a comparable increase in income, led to a number of negative outcomes, for example, a decrease in savings, leaving less money to pay for nutritious food, health care or shelter.

The promotion of market based economies for economic growth and development was a central tenet of the neoliberal agenda or Washington consensus and SAPs were underpinned by this agenda. The political ideology of neoliberalism, and associated

economic prescriptions, offered a context within which PHC was abandoned in favour of SPHC (Thomas & Weber, 2004).

Reflected in the SPHC model were the tenets of the neoliberal agenda and SAPs: restricted budgets for health care, privatization of health services and the implementation of cost recovery mechanisms for health services such as user fees. The impact of these neoliberal economic policies on health systems and the role of the World Bank (WB) in promoting such policy, is critiqued by many scholars, including John Lister (2005), who provides a comparative analysis of health care systems worldwide and the impact of neoliberal macroeconomic policy on these systems. He draws the conclusion that market driven reforms, characteristic of neoliberal economic policies, do not provide more efficient health care provision as compared to health care delivery by the public sector. Lister argues that neoliberal reforms, including privatization of health care delivery and the imposition of user fees, do not promote equitable provision of health care.

In line with the argument of Labonte, Schrecker, Sanders and Meeus (2004), Lister implicates the WB, and economic conditionalities attached to loans and grants made by this institution, in promoting market driven reforms in health care globally. Lister references in particular the 1993 World Development Report *Investing in Health* (WDR93) as influential in shaping health policy for developing countries by encouraging these countries to provide a minimal package of health care services within a budget of \$12 per capita, estimating that this should lead to a decrease of one third in the disease burden for populations in low income countries. The WHO endorsed this \$12 target for health expenditures in low income countries in their 2000 World Health Report on improving health systems (WHO, 2000).

The importance of the ongoing debate between PHC and SPHC, beyond the impact of policy prescriptions by the WB and WHO based on SPHC, is the existence of a long history of inequities in health for people in developing and developed nations (Irwin & Scali, 2005). Inequities in health may be defined as “systematic disparities in health...between social groups who have different levels of underlying social advantage/disadvantage” where social advantage/disadvantage is associated with position in a social hierarchy (Braveman & Gruskin, 2003, p. 254). Inequities in health may be the result of the conditions in which people live or work or inequalities in access to health care, education or clean water. These conditions are referred to as social determinants of health (Irwin & Scali, 2005).

An association between the conditions in which people live and work and their health has long been evident and forms the basis of the study of public health. Villermé, a historical figure in public health, found that there was a correlation between the incidence of mortality of residents within Parisian neighbourhoods and the socioeconomic strata within which these residents were found (Szreter, 2003). More recent evidence linking social conditions to health can be found in the Whitehall Studies conducted in the United Kingdom which build a case in favour of the PHC approach and a focus on social determinants of health.

Whitehall I in the 1960s and a follow up study, Whitehall II in the 1980s, showed patterns in the health of men and women who worked as civil servants, a stable but stratified employment group (Marmot et al., 1991). Whitehall I found that men who worked in low status jobs within the service had higher mortality rates specifically due to heart disease, and higher mortality rates overall as compared to men with high status jobs within the service.

Men in low status employment exhibited a predisposition for risk factors for heart disease including obesity and smoking. Whitehall II confirmed this pattern among both men and women who worked for the British civil service for a range of diseases, including heart disease, some cancers and depression. Questions remained regarding the direction of causation between social status and health. Later research by Marmot (2004) introduced the concept of a gradient where mortality and morbidity follow a social gradient in which higher social status is linked to lower mortality and morbidity. This confirmed the social causation hypothesis, that there exists a causal link between social status and health where the direction in causation is from social status to poor health.

Despite the above research which illustrated that health was clearly linked to socioeconomic conditions and earlier criticism of vertical disease eradication programs in the 1950s, SPHC, a health strategy that gave little attention to the social determinants of health continued to gain popularity in the 1980s and 1990s. In a joint effort by the WB, the WHO, UNICEF and the International Development Research Centre (IDRC), a group of Canadian researchers attempted to test the hypothesis put forth by the WDR93 and began work on the Tanzania Essential Health Interventions Project (de Savigny, Kasale, Mbuya, & Reid, 2004).

In response to the launch of the WDR93, the IDRC hosted a conference in Aylmer, Quebec in October 1993 (de Savigny, Kasale, Mbuya, & Reid, 2004, p. 11). A call for proposals to test the hypothesis of the WDR93 was given out to multilateral and bilateral organizations, non-governmental organizations and universities and governments from various countries. Funding from the IDRC, given to this organization by CIDA, would support the selected proposal. From 1993 to 1996 project proposals were reviewed and

refined in a series of international meetings. Finally in 1996, the project proposal of the Tanzanian Ministry of Health was accepted (de Savigny, Kasale, Mbuya & Reid, 2004).

TEHIP: A Case Study in which to Examine Central Concepts in International Health

TEHIP provides a practical case within which to study the evolution of international health planning and policy under the ideological framework of the WB and WHO.

Importantly, a number of concepts central to ongoing policy debates regarding health system reform are inherent in TEHIP, including the following: participation, efficiency, equity, sustainability and scaling up. The purpose of the present study is to explore how these concepts were understood and applied within TEHIP in an effort to determine how these concepts may be more concisely defined and applied in future health system reform and health system research

It is important to note here that the primary documentary resource used in the present paper is the IDRC publication entitled *Fixing Health Systems* (de Savigny, Kasale, Mbuya, & Reid, 2004). TEHIP was primarily funded by the IDRC and much of the limited research available on TEHIP has been published in collaboration with this research institution. There is minimal peer-reviewed research available on TEHIP specifically, although much peer-reviewed research has been conducted on elements of its reform interventions, such as Demographic Surveillance Systems (DSS). This thesis will contribute significantly to the available research on TEHIP through examination of the context in which TEHIP was developed and how central concepts were understood and applied over the course of development and execution of the intervention. To the author's knowledge, such research has not been published to date.

As noted, TEHIP began as an effort to test an idea put forward by the WB in 1993, an idea later endorsed by the WHO in 2000. Although the authors of *Fixing Health Systems* do not make reference to the influence of ideology on the development of TEHIP and how TEHIP may have influenced trends in international health intervention since the project was completed, they do acknowledge how historical trends in international health made Tanzania a setting conducive to TEHIP. A brief review of these trends will illustrate how this was so.

Historical Overview: Trends in the Tanzanian Health Sector

The influence of international health care trends on the Tanzanian health care system can be seen in a brief historical review. Tanzania gained independence in 1961 and the mandate of its newly independent government called for health care, education and clean water for all citizens (de Savigny, Kasale, Mbuya, & Reid, 2004). This mandate supported a centrally planned health care system with district level health care delivery and reflected the principles of a PHC approach long before the Alma Ata Declaration (Gilson, 1995).

The Arusha Declaration of 1967 outlined the ideological framework for development for Tanzania post-independence that emphasized socialist policy. Policy prescriptions from the Arusha Declaration included the Villagization Programme (1969 – 1975) and Decentralization of the Government (1972). These two programs created health, education and sanitation infrastructure development in rural areas of the country paralleled by changes in the public administration system which transferred resource allocation, that is, fiscal and human resource management and decision making, to the district level. These policies included health as a part of decentralized decision making and focused on providing equitable access to health services (Jonsson, 1986). These policies resulted in significant positive outcomes for Tanzania in the 1970s, specifically in regard to social welfare

(Ibhawoh & Dibua, 2003). Among the gains in social welfare were increases in adult literacy and primary school enrollment, increased access to clean drinking water, increased access to rural health services and an overall increase in life expectancy (Jonsson, 1986; Gilson, 1995).

Despite efforts to promote primary health care and access to social services, the decentralized health care systems began to falter in the late 1970s and 1980s, for reasons that are explained below. Following efforts towards rural health infrastructure development in the 1970s, policy in the 1980s focused specifically on consolidation of the rural health services delivered by the improved infrastructure supporting rural health services. The Expanded Programme on Immunization and the Essential Drug Programme were developed to make available the necessary medical supplies for the provision of primary health care (Gilson, Kilima & Tanner, 1994).

In 1974, the WHO initiated the Expanded Programme on Immunization in response to the success of efforts to eradicate smallpox in the 1970s (Bland & Clements, 1998). That same year the program was implemented in Tanzania as a “vertical program” by the Ministry of Health (MOH) (Hutton & Tediosi, 2006, p. 120). The WHO’s program was designed to reach children around the world and vaccinate them against diphtheria, pertussis (whooping cough), tetanus, measles, polio and tuberculosis. These diseases were chosen due to their high prevalence in child populations and the availability of inexpensive, thoroughly tested vaccines. At the time of conception of the program, fewer than 5% of children around the world were vaccinated against the target diseases. More recently, the WHO proposed that Hepatitis B and yellow fever vaccines be added to the program (Bland & Clements, 1998). As of 2004, the Tanzanian program provided vaccinations against all six original

diseases, in addition to Hepatitis B and Vitamin A supplementation (Hutton & Tediosi, 2006).

The Essential Drug Program was also a program of the WHO, launched in 1981 and subsequently initiated in Tanzania by the MOH in 1983. The Tanzanian Essential Drug Programme was developed and implemented with assistance from the WHO and UNICEF and funding from the Government of Denmark. Similar to the WHO program, the Tanzanian program sought to create an essential drug list and to ensure a constant supply of these drugs to dispensaries across the country. In addition, the program promoted the import and distribution of generic drugs over brand name pharmaceuticals and encouraged domestic production of drugs on the essential drug list (Munishi, 1991).

When the Tanzanian Expanded Programme on Immunization and Essential Drug Programme were implemented, they operated in parallel. Munishi (1991) posited that there was a lack of horizontal integration between these and other programs, such as maternal and child health initiatives, “The design of EDP is multipurpose. Its implementation remains limited-purpose” (p. 13S). This critique mirrors later commentary on the vertical nature of the WHO’s programs by Hutton & Tediosi (2006). In addition, Jonsson (1986) argued that these programs were only temporary solutions to greater inefficiencies in the infrastructure of the rural health care system and that the health system could be much improved through greater financial investment in health service delivery.

Decentralized health care delivery was a main attribute of Tanzanian health policy through the 1980s. The 1983 Local Government Act reinstated elections at the district level and these local governments were made responsible for the delivery of health care at the district level (Hutchinson, 2002). In review of the process of decentralization of health care

in Tanzania, both Hutchinson (2002) and Gilson, Kilima and Tanner (1994) found that district health managers felt that they had little actual control over management and delivery of health care. The most often cited constraint felt by district health managers was a lack of control over budgets for health service and delivery due to a reliance on central, rather than district level funding. Other considerations included a lack of decision making authority and control over how employees were hired, disciplined or promoted (Gilson, Kilima & Tanner, 1994). In addition to a conflict between desire for central control versus local discretion, managers felt that a lack of institutional capacity and resource constraints were among the main obstacles to more efficient management. Further, effective management was hindered by political and cultural influences on how decentralization was to be implemented (Gilson, Kilima & Tanner, 1994).

Both Jonsson (1986) and Gilson (1995) noted that external debt demands in the 1980s, mainly payments to the IMF, imposed a severe constraint to the development of socialist policies, called for by the post-independence Tanzanian government, during this time. Tanzania began negotiations with the IMF in the 1970s (Biermann & Wagao, 1986). After an increase in the world market price for oil in 1973, Tanzania received assistance from the IMF's Oil Recovery Fund in 1975. In addition to this influx of funds, the price of Tanzania's primary exports, coffee and tea, rose resulting in GDP growth from 1976 to 1978. This financial gain was short lived, hampered by the Tanzanian-Ugandan conflict of 1978. From 1974 to 1978, Tanzania had borrowed a total of \$34 million (in Special Drawing Rights) from the IMF. Due to the state of Tanzania's balance of payments, the IMF demanded that Tanzania implement structural adjustment including "devaluation, budget cuts, reduction of the level of domestic borrowing, minimal price controls, and liberalization

of exports and imports” (Biermann & Wagao, 1986, p. 93). In the fall of 1980, an agreement was drawn up between the IMF and Tanzania based on the aforementioned conditions, however, Tanzania’s refusal to accept and implement the demands of the IMF loan led to the withdrawal of IMF funds from the country by the end of the year. In addition to the withdrawal of IMF funds in 1980, aid to Tanzania from other countries was reduced in the early 1980s. The global economic downturn led to potential donors turning inward to support their own economies (Biermann & Wagao, 1986).

The impact of Tanzania’s negotiations with the IMF and bilateral donors can be seen in the increase in the absolute value of external debt and external debt as a percentage of GDP. From 1970 to 1984, the total value of external public debt rose from \$228 million, or 19% of GDP, to \$3 billion, or 67% of GDP (Biermann & Wagao, 1986, p. 91). From 1981 to 1984, debt servicing as a percentage of exports, rose from 11.7% to 60.9% (Biermann & Wagao, 1986, p. 94). Despite rising external debt, the Tanzanian government attempted to maintain health spending. Although the absolute value of health spending increased, the percentage of government expenditure on health actually decreased during the first half of the 1980s. This economic constraint was further undermined by increased population growth and a decrease in GDP during that time.

In light of the difficulties associated with funding the health care system, health policy in the 1980s placed emphasis on financing of the health care system, with a focus on donor support. Although the health care system was primarily funding through taxation, additional funding for health services was sought from non-governmental organizations, international donors and the implementation of user fees. In addition, a 1977 ban on the

provision of private health care was lifted in 1992 legalizing two-tier provision of health care in Tanzania (Gilson, 1995).

The Development and Impact of TEHIP

The WDR93 argued that a minimum package of health interventions, designed to promote a cost effective directed response to evidence based information regarding the local BoD for a particular population, would result in significant positive health outcomes for that population. This direct and localized intervention required devolution of information management, decision making processes and resource allocation. Partly because Tanzania was initiating devolution policies within their health sector, including the creation of District Health Management Teams (DHMTs) that would take on management and health care delivery responsibilities, TEHIP was implemented in Tanzania in 1996.

The package of health interventions applied within TEHIP included those interventions that were deemed to be cost effective by the WDR93, that is, interventions where the monetary cost to gain one disability adjusted life year was low. Although the WDR93 does not provide an explicit figure of cost effectiveness, the report notes that for some interventions “the cost of gaining one DALY can be remarkably low—sometimes less than \$25 and often between \$50 and \$150” (WB, 1993, p. 8). Figure 1 provides a complete list of the interventions applied within TEHIP and illustrates the degree to which spending on these interventions was altered in Morogoro district over the course of the project. Figure 2 provides details regarding the specific practices applied within each of the above interventions.

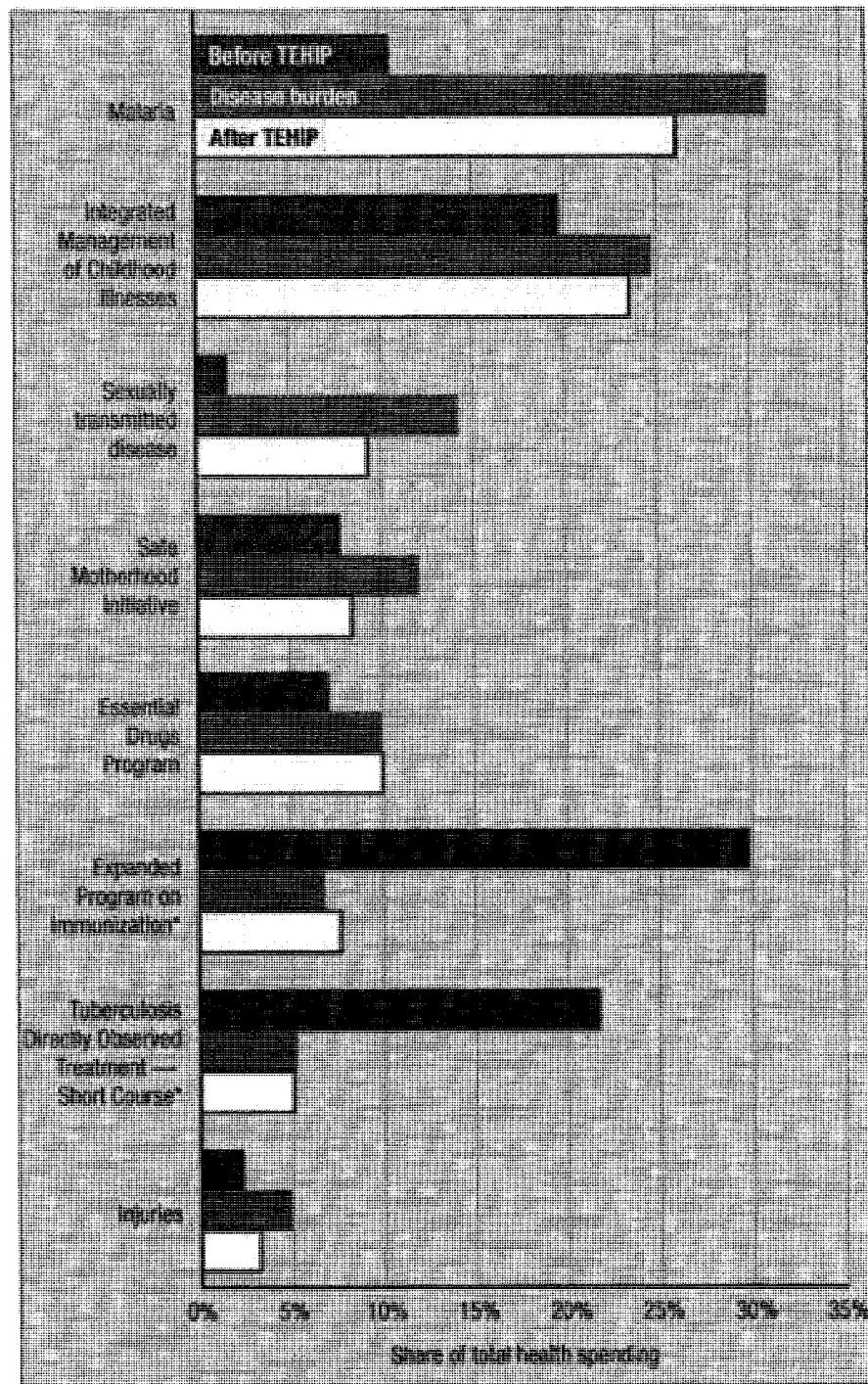


Figure 1: Alterations in spending on health interventions over the course of TEHIP in Morogoro from 1996 to 2001¹.

¹ From *Fixing Health Systems*, (de Savigny, Kasale, Mbuya & Reid, 2004, p. 59).

REPRODUCTIVE AND CHILD HEALTH	
Safe motherhood: maternal conditions	Intermittent presumptive treatment of malaria (pregnancy); antenatal care; obstetric care; postnatal care; gynecology, STD, HIV/AIDS care; micronutrient supplementation for mothers.
Safe motherhood: perinatal conditions	STD screening; support for traditional birth attendants; safe delivery practices; newborn care; micronutrient supplementation for low birth weight babies; village birth registers.
Immunization	BCG (tuberculosis); diphtheria; pertussis; neonatal tetanus; measles; poliomyelitis; hepatitis B.
Integrated Management of Childhood Illnesses (IMCI)	Malaria; pneumonia; diarrhea; measles; malnutrition; anemia.
Family planning	
Nutritional deficiencies	Nutrition information, education, and communication; breast-feeding support groups; growth monitoring and pupil health screening; micronutrient supplementation (iron, vitamin A); monitoring salt iodization; deworming; school feeding.
COMMUNICABLE DISEASE CONTROL	
Malaria	IMCI (early care seeking and case management); insecticide-treated bed nets; intermittent presumptive treatment in pregnancy; home-based care; school health education about malaria prevention; epidemic preparedness; sustainable source reduction; information, education, and communication.
Tuberculosis and Leprosy	Tuberculosis Directly Observed Treatment — Short Course (DOTS); leprosy multidrug therapy; home-based care.
HIV/AIDS and STDs	STD prevention; information, education, and communication; condom promotion; blood screening; patient care, counseling, and social support; palliative care.

Epidemic Preparedness Cholera, measles, meningitis, plague, and malaria.
NONCOMMUNICABLE DISEASE CONTROL
Cardiovascular Diseases IEC on smoking, alcohol, diet, and exercise.
Diabetes Preventive and promotive IEC; routine checking of blood pressure.
Neoplasms Breast and cervical cancer screening.
Injuries and Trauma Care
Mental Disorders
Anemia and Nutritional Deficiencies
TREATMENT FOR COMMON DISEASES
Helminths, skin, ocular, and oral conditions.
COMMUNITY HEALTH PROMOTION AND DISEASE PREVENTION
School Health
Water, Hygiene and Sanitation
Information, Education and Communication

Figure 1: Essential Package of Interventions and their components².

² From *Fixing Health Systems*, (de Savigny, Kasale, Mbuya & Reid, 2005).

Neither edition of *Fixing Health Systems* provides information as to how and why these interventions, from Figure 1 and 2, were deemed to be more efficacious or cost effective as compared to other interventions. The WDR93 does provide some information in this regard, which is relevant here as the package of interventions applied in TEHIP consisted of those deemed to be essential within the WDR93.

As is the case with *Fixing Health Systems*, the WDR93 does not explicitly indicate whether the essential interventions were considered to be more efficacious than others, that is, whether the chosen interventions worked better than other available alternatives. However, this package of essential interventions was seen as appropriate to deal with the then current disease burden in low income countries and possible epidemiological transition in future, that is, a potential shift in the disease burden from acute and infectious disease to chronic disease as the population ages. In addition, the WDR93 does comment on cost effectiveness of the essential interventions, noting that each intervention is highly cost effective since each would cost less than \$50 to administer in low income countries and \$150 to administer in middle income countries.

Morogoro and Rufiji Districts

Morogoro and Rufiji districts were chosen to be part of TEHIP according to a set of parameters defined within the research proposal. Participants in the present study noted that “the criteria for selection was a district that had [a] critical number of persons...a district that was rural and...had minimal donor activity” (102)³. Minimal concurrent donor activity was a desired criteria for the pilot districts in an effort to control the environment, “if you

³ Participants have been assigned a code between 101 and 112, for a more detailed explanation, please see Chapter 3.

really want to measure impact, to measure outcomes, the more actors you have on the ground, the less likely you can attribute the outcomes to your own action” (102).

In addition district surveillance was needed to collect morbidity and mortality information within the selected region. A Demographic Surveillance System (DSS) was already underway in Morogoro under the Adult Morbidity and Mortality Project (AMMP), and despite the large population of Morogoro, approximately 120,000 people in 2002, the existence of the DSS was reason enough to include this region in TEHIP (Mswia, Kabadi, Whiting, Masanja, & Setel, 2002).

The AMMP is an ongoing surveillance project designed to collect information on mortality and morbidity information in order to ameliorate those disease that are specific to low income populations in Tanzania. It is run jointly by the Tanzanian MOH and the University of Newcastle, UK and funded by the UK based Department for International Development (DFID) (Mswia, Kabadi, Whiting, Masanja, & Setel, 2002).

The population of Morogoro under surveillance is distributed among approximately 120,000 people comprising 215 villages (Mswia, Kabadi, Whiting, Masanja, & Setel, 2002). In comparison, the population within Rufiji under surveillance is 85,000 people comprising 31 villages (Mwageni, Momburi, Juma, Irema & Masanja, 2002).

TEHIP Research Questions

In order to test the WDR93 hypothesis, TEHIP was built upon three core research questions:

1. How and to what extent can decentralized district health plans be more evidence-based?

2. How and to what extent can evidence-based plans be implemented by decentralized health systems?
3. How, to what extent, and at what cost can such evidence based plans have an impact on population health?

To develop answers to these questions, research efforts were focused around three thematic areas which were the focus of the three research teams:

1. Health systems — how the district health planning process worked;
2. Health behaviours — how the population sought health services; and
3. Health impacts — what happened to patients as a result of ill health.

The above research teams were comprised of public health professionals from institutions within Tanzania, including the Ministry of Health; University of Dar es Salaam; Muhimbili University College of Health Sciences, Sokoine University and the Ifakara Health Research and Development Centre.

Through critical review of how the district health system was planned, how the population sought health services and morbidity data from the DSS, research teams developed a set of five tools (described below) that would help them to easily understand the information provided to them by the DSS and apply this information to the resource allocation process.

Under TEHIP, DSS provided regional data related to the third area of research, health impacts, such as BoD and mortality. DSS consisted of field researchers who traveled to households within the region to collect baseline data and returned to households on a periodic basis to update this information. In the case where a significant event occurred in the community, such as a death, leaders in the community informed the field researchers.

Specially trained interviewers followed up with each household to collect detailed morbidity information through “verbal autopsies.” These interviews supplemented mortality information supplied by the DSS.

TEHIP Tools

The baseline data provided by the DSS and verbal autopsies were analyzed to inform resource allocation using five different tools. The District Burden of Disease Profile Tool presented a regional profile of how the BoD was being addressed according to health intervention availability and use and resource allocation. This tool also provided regional demographic information such as age, sex, births, deaths and health seeking behaviour which helped to guide changes in resource allocation that brought funding into line with the regional BoD. The District Health Accounts Tool provided current and projected budgeting information in a graphical manner. This included information on the source of funds and how funds were being allocated as a proportion of the total budget. The District Health Service Mapping Tool provided detailed information on the regional BoD, health intervention availability and use of health services in a physical map.

The Community Voice Tool, developed from the rationale that community participation is critical to health sector reform, allowed community members to communicate with DHMTs and participate in the development of health sector reforms. Using participatory action research approaches, members of the TEHIP research teams would engage with communities within Rufiji and Morogoro districts to discuss the community’s perspective of their needs and potential solutions. Further, community members were encouraged to, and did, enact potential solutions.

Finally, the Cost-Effectiveness and District Cost Information System Tool provided information on the cost-effectiveness of health interventions. This last tool was used only on an intermittent basis due to the limited variation in the cost of health interventions between facilities and over seasons.

The use of these tools was complemented by supportive interventions, specifically, annual supplementary funding of \$0.92 per capita from TEHIP which assisted DHMTs in providing health services, funded capacity building and training programs and helped to improve health facilities. This additional funding of \$0.92 per capita was intended to bring the budget of DHMTs closer to the \$12 per capita target set by the WDR93.

Estimates of the health budget for Tanzania during the TEHIP era are offered by the WB Social Sector Review for Tanzania (1999). The WB estimates that the total expenditure on health in the 1995 fiscal year was approximately 5020 in Tanzanian Shillings (Tsh) per capita, or \$8.73 consisting of the following sources:

- Tsh 2317 from the government and donors;
- Tsh 2496 from individuals;
- Tsh 128 from employers in the form of insurance and
- Tsh 79 from religions missions.

The monetary support from TEHIP, in addition to analyses of DSS baseline data with the five research tools, allowed DHMTs to restructure health intervention funding such that it reflected the regional BoD profile, resulting in what proponents argue was a more cost effective use of resources for health service provision.

This type of evidence based health service planning and provision resulted in significant positive health outcomes for the Rufiji and Morogoro districts of Tanzania as

compared to other districts which did not receive the intervention, that is, as compared to national average rates of mortality. Within the first five years of TEHIP child mortality decreased by over 40% and adolescent to adult mortality, the death rate for persons aged 15 to 60 years, decreased by 18% as compared to national average mortality rates. TEHIP researchers note that in comparison, the national average for child mortality showed little change and adult mortality increased (de Savigny, Kasale, Mbuya & Reid, 2004, p. 12).

Central Concepts in Health Intervention

Five concepts relevant to development, implementation and outcome measurement of health system intervention programs are central to TEHIP: participation, equity, efficiency, sustainability and scaling up. Below, each of these concepts and the use of these terms in TEHIP are reviewed.

Participation

Opportunities for participation were extended to members of the community beyond those community members who were part of DHMTs through the utilization of “verbal autopsies” and the Community Voice Tool. “Verbal autopsies” allowed community members to contribute to data collection by providing information specific to the cause of illness or death. Although community members participated by providing information to interviewers, this information was limited in application. Information collected through verbal autopsies was used in conjunction with contextual information observed by the interviewers in determining the cause of death. This information was provided to a panel of three independent physicians who ultimately determined cause of death. In addition to verbal autopsies, community members were provided opportunity to engage in discussion of

what they perceived to be their priorities and enact solutions by way of the Community Voice Tool (de Savigny, Kasale, Mbuya, & Reid, 2004).

There is considerable ambiguity in the definitions of community participation and lack of agreement on ways to achieve it in health care programs and health care systems (Russell & Smith, 2003; Rifkin, 1986). The type and extent of community participation in TEHIP appears to be defined solely by the extent of engagement in various management and implementation activities of TEHIP. This is, however, a narrow construction of participation that does not capture how health systems or particular health projects, such as TEHIP, change as a result of such participation; or how they might respond to non-medical but health related issues (“social determinants of health”) raised by community members.

In their examination of barriers to community participation in a number of district health systems in East and Southern Africa, Bàez and Barron (2006) highlight the importance of understanding the dynamics of community participation at the district level. Bàez and Barron urged fellow researchers to look for more covert limitations to community participation in district health systems such as power relations among district health system stakeholders. Power relations of this type may play a role in community participation in TEHIP due to the various stakeholders in districts health systems coexisting within the communities of Rufiji and Morogoro.

Efficiency and Equity

TEHIP researchers attempted to allocate funding according to the BoD in Rufiji and Morogoro. The BoD in these two regions was influenced by the socioeconomic profiles of the districts. TEHIP researchers deemed that the population in Rufiji and Morogoro districts of Tanzania was uniformly poor and since the poor consistently suffered from a particular

disease profile, most significantly malaria, the transfer of resources to treat and prevent malaria initiated by TEHIP did provide great benefit to the majority of the population in Rufiji and Morogoro. TEHIP researchers argue that such a reallocation of resources was efficient, since diseases that the majority of the population did not suffer from, such as tuberculosis, received less funding. This logic is supported by the BoD profiles in these districts (de Savigny, Kasale, Mbuya, & Reid, 2004, Figure 4, p. 59) and the significant decreases in childhood and adult mortality as a result of the resource allocation changes initiated by TEHIP. This conceptualization of efficiency is related to definition of the term by the World Health Organization, which equates efficiency with performance. The World Health Report 2000 defines health system performance as “what can be accomplished with currently available resources – people, buildings, equipment and knowledge” (WHO, 2000, p. 17). This definition was adopted by the authors of a subsequent analysis of the efficiency of national health systems (Evans, Tandon, Murray & Lauer, 2001).

In *Fixing Health Systems*, the authors claim that the focus on efficiency in TEHIP - “its focus on maximizing the cost-effectiveness of health care spending” (de Savigny, Kasale, Mbuya, & Reid, 2004, p. 22) – was a means of increasing equity in the health care system. In their discussion of efficiency and equity, the authors note that there are two ways of targeting the poor through health care spending: distribution or production. As described by TEHIP researchers, a focus on distribution targets poor populations and directs funding towards these populations, whereas a focus on production strives to alter the health care system such that all populations benefit, including the poor. TEHIP researchers chose to focus on production to increase the efficiency of health services so that all citizens could benefit. However, poor populations would see the greatest benefit, since TEHIP was

designed to reallocate funding towards those diseases which made up the greatest proportion of the BoD, such as malaria, within the target population and since malaria primarily affected poor populations, these populations received the benefits of the intervention.

This claim to equity highlights the importance of clarity in definition of terms noted by Braveman and Gruskin (2003) who define equity in health as “the absence of disparities in health (and in its social determinants) that are systematically associated with social advantage/disadvantage” (p. 256). The authors argued that clarity in the definition of equity in health is of importance when such definitions are operationalized, that is, applied in measurement or policy. To illustrate their argument, they presented the example of ambiguity in the application of terminology related to health equity in the World Health Report 2000. The World Health Report examined the distribution of health by measuring “pure health inequalities” which referred to differences in health among all individuals of a population regardless of social status or membership in a social group (p. 256). The authors suggest that the report provided little guidance in determining how health policy affects populations or how health interventions and resources can be applied to provide assistance to populations. This, the authors argue, is due to the assumption most readers make, that the term *health inequalities* refers to *health inequity*, that is, inequalities in health between groups that differ in wealth, ethnic background or gender. However, in the case of the World Health Report, the definition of health inequalities did not include reference to inequalities in health between different social groups.

An attempt to ensure that a health intervention reaches most or all members of a population is an exercise in achieving equality, but not necessarily equity. Equity requires disproportionately greater expenditures on those population groups experiencing a greater

BoD (generally the poor), including efforts to ensure that they have access to services equivalent to the greater BoD they experience. Although TEHIP may be seen as increasing equity by targeting resource allocations to the BoD faced by poor populations, it did not explicitly address the issue of equity in access to health services. Moreover, if TEHIP is applied in an urban population or on a national scale (that is, if it is scaled up, see below), it may be in a context where there is more heterogeneity in disease burdens as compared to the relative homogeneity encountered in its rural trial. Scaling up specific disease interventions based upon average BoD, which underpins TEHIP's claim of achieving equity through efficiency, may ignore important differences in the causes and contexts of disease burdens amongst different groups. Finally, the concept of health equity is increasingly related to interventions regarding social determinants of health, and not simply to health services targeting specific diseases (Commission on Social Determinants of Health, 2007; Pogge, 2004; Sen 2004; Peter, 2001). TEHIP did not address social determinants of health, such as education and access to clean water; and while a social determinants approach to health systems reform was not widely accepted at the time TEHIP began, it was inherent - if underdeveloped - in the earlier PHC approach and is a consideration that any expansion of the program would have to take into account.

The results of the TEHIP intervention are also tempered by the fact that a portion, approximately 10%, of the target population, was not reached by TEHIP. In *Fixing Health Systems*, the authors suggest that policymakers in Tanzania should focus on equity and “pay the equity premium” (de Savigny, Kasale, Mbuya & Reid, 2004, p. 22). This quote implies the high cost associated with reaching this particular subset of the population and also indicates that the likely remedy to allow all members of the population to benefit from

TEHIP is to provide significantly more funding, rather than alter aspects of the intervention process.

Sustainability and Scaling Up

Sustainability with regard to health interventions can be defined in several ways and there is little consensus on conceptual or operational definitions of sustainability (St. Leger, 2005; Swerissen & Crisp, 2004; Shediak-Rizkallah & Bone, 1998). Indeed, Shediak-Rizkallah and Bone provide six definitions of sustainability with reference to health interventions, which include sustainability as:

- “the capacity to maintain service coverage at a level that will provide continuing control of a health problem”;
- “project sustainability...the capacity of a project to continue to deliver its intended benefits over a long period of time”;
- sustainability where “a development program is sustainable when it is able to deliver an appropriate level of benefits for an extended period of time after major financial, managerial and technical assistance from an external donor is terminated”;
- “the longterm viability and integration of a new program within an organization”;
- “the process by which new practices become standard business in a local agency” and
- the development of “the health promotion capacity” defined as “the extent to which a community has local access to the knowledge, skills and resources needed to conduct effective health promotion programs” (Shediak-Rizkallah & Bone, 1998, p. 91-92).

There is some consensus on the definition of financial sustainability as the ability of a program to continue its activities at a comparable level after international funding has been withdrawn (St. Leger, 2005; Shediak-Rizkallah & Bone, 1998; World Bank, 1987).

However, this narrow conception of sustainability has been contested. Ooms (2006), for example, argues that the conception of sustainability as independence from international aid is illusory since most low income countries do not have the financial capacity to fund minimal health programs without international assistance. Further, Ooms implicates development agencies in continuing to support this illusory conception of sustainability and argues for abandonment of this conceptualization in favour of international support of public health budgets in developing nations.

In 2005, the Canadian International Development Agency (CIDA) committed \$7 million CAD to support national scaling up of TEHIP from its original scope of two districts, to all 113 health districts in Tanzania (CIDA, 2005). However, it is unclear how this funding will be allocated and what proportion of the overall cost of scaling up this represents. However, in the case that this commitment is annual funding that will be allocated per capita, this amounts to approximately \$0.18 CAD in additional funding per capita per year, much less than the \$0.92 USD of additional funding provided to DHMTs through TEHIP to bring health spending in line with the \$12 USD target suggested by the WDR93. Taking into account fluctuations in foreign exchange further complicates the picture.

In addition to the commitment offered by CIDA, the World Health Organization and the United Nations Foundation supported a regional roll out of TEHIP tools, which began before *Fixing Health Systems* was published. Since international funding will provide partial

support for national scaling up of TEHIP, this suggests that within TEHIP, sustainability is not defined in terms of financial self sufficiency, but is likely defined in another way.

Sources of additional funding that will be required to support national scaling up may come from the projects initial funding sources, including Tanzania's Ministry of Health, the WB and the IDRC.

Despite ambiguities in the definition of sustainability Pluye, Potvin & Denise (2004), argue that sustainability is strongly linked to the processes of design and implementation in the case of public health programming. They suggest that sustainability must be dealt with from the point of origin of a program, rather than after a program has been implemented as is more traditionally done. In the case of TEHIP, considerations of sustainability first arose at the point of scaling up, well after initial project implementation (Neilson & Smutylo, 2004). TEHIP was originally implemented in two districts with a combined population of 741,000 people. The assumed homogenous nature of the population contributed significantly to the perceived success of TEHIP. The current population of Tanzania is over 34 million people, with 23% of the population living in urban areas (Government of Tanzania, 2003). The CIA World Factbook (2007) estimates that the population of Tanzania will exceed 39 million people in 2007. With national scaling up of TEHIP, the recipient population of the health intervention and the profile of their BoD will be drastically altered. Despite this potential change in the population and BoD, this report on national scaling up of TEHIP by Neilson and Smutylo (2004) does not provide explicit or operational definitions of either sustainability or scaling up. Subsequently, this report does not suggest what can be done to mitigate concerns with sustainability or ensure successful scaling up of TEHIP (Neilson & Smutylo, 2004).

As compared to conceptions of sustainability, conceptions of scaling up are more clearly defined in the literature, although there is some variation in its definition and purpose. Uvin (1995) provides four conceptual definitions of scaling up with reference to grassroots organizations, but concedes that the most common definition of scaling up is quantitative: an increase in membership or number of people in a target group. Other definitions by Uvin (1995) include functional, political and organizational. Functional scaling up is defined as increasing the number and type of actions carried out by a group. Political scaling up is defined as efforts to increase the influence of a particular group on policy and finally, organizational scaling up includes efforts to increase “effectiveness, efficiency and sustainability” of activities (Uvin, 1995, p. 929). Uvin also provides insight on operational definitions of scaling up through his review of the process of scaling up of a number of grassroots organizations.

Definitions of scaling up of health interventions are also provided through analysis of the constraints to scaling up and how these constraints can be mitigated. Hanson, Ranson, Oliveira-Cruz & Mills (2003) present a conceptual framework for understanding the level at which barriers to scaling up of health interventions are expressed. Implicit in this conceptual framework is that additional funding is the primary tool in dealing with constraints to scaling up of health interventions. This conceptualization precludes definition of sustainability of a health intervention in a developing country as independence from international funding, a highly contested definition.

Chapter 3: Methodology and Theoretical Framework

This chapter presents the methodology employed to explore the case study and address the three research questions within the present study and is followed by a discussion of the theoretical framework within which the research questions are explored.

Methodology

The methodology applied includes both primary and secondary data, including key informant interviews and qualitative analyses of literature, respectively. The methodology applied to data collection and analyses from key informant interviews and literature will be presented together.

Data Collection

Literature Review

I conducted a literature review on conceptual and operational understandings of the central concepts seen in TEHIP, as identified above: participation, equity, efficiency, sustainability and scaling up. Literature was collected from two sources: first, peer reviewed journal articles and books available through the University of Ottawa library, and second, Internet based sources. For published literature, an initial search for definition of the central concepts was carried out using key indexes to select the most recent and pertinent definitions. References from this sample were reviewed until no new definitions were found. For Internet based resources, definitions offered by major multilateral development agencies (e. g. CIDA, the WB, the WHO, UNICEF, the UNDP) and non-governmental organizations (e.g. World Vision, Save the Children, Oxfam, Care Canada) were reviewed.

Key Informant Interviews

In addition to literature review, I conducted a series of key informant interviews to gather information on how these persons understood and applied these concepts. The sample was not intended to be representative, therefore a select group of individuals were recruited and interviewed using the sampling methods described below.

Of eleven participants, three were identified through purposive sampling and the remainder through sequential reference sampling. All participants were involved in TEHIP in the capacity of project coordination or as a member of one of the three thematic area research teams which focused on health systems, health behaviours and health impacts. Only one of the eleven participants was Canadian, the remaining 10 participants were Tanzanian, which is reflective of the desired profile of those who worked on the project. One participant was involved in the early stages of the project during proposal selection in the early 90s. Two participants began working within the project when it was assigned to Tanzania in 1996. Six participants then joined TEHIP shortly after as the thematic research teams were being populated. Finally, two participants joined the project later on, after 2000.

I initially contacted potential key informants by email using the email script reproduced in Appendix A. This invitation email included the Information Letter (Appendix B), Consent Form (Appendix C) and Interview Guide (Appendix D). Although *Fixing Health Systems* was published in 2004, TEHIP was completed approximately eight years ago, in 2000. Providing the interview guide to participants at this stage granted them much needed time for reflection and review of their experiences during the planning and implementation of TEHIP.

The interview was semi structured and consisted of open ended questions. Ten interviews were conducted in person, in Dar es Salaam, Tanzania, and the final interview was conducted by phone. All interviews were digitally recorded and transcribed by the researcher. All potential key informants recruited through sequential reference sampling were interviewed, except for two who were not available during the timeframe in which fieldwork was conducted.

Data Analysis

Data were analyzed using thematic coding and qualitative content analysis of documents from the literature review and interview transcripts to identify emergent themes, including definitions of central concepts and how these definitions may have changed over time.

In order to establish a structure for each interview, I applied thematic coding, which consisted of the application of both open and selective coding. Using open coding, I closely reviewed the interview data to develop preliminary categories. After open coding, I applied selective coding where these preliminary categories were narrowed and the interview data was more systematically related to central categories. I then compared the thematic structure from each interview in order to compare and contrast emergent themes related to the research questions.

In addition to thematic coding, aspects of the interview that were most relevant to the research questions were reviewed using summarizing content analysis and explicative content analysis. Summarizing content analysis allowed for reduction of the material by eliminating less relevant passages and by grouping together passages that are similar in content. Through explicative content analysis, ambiguous or contradictory statements were

resolved by comparing the data to contextual information or other information within the interview text. Following summarizing and explicative content analysis, the refined interview data was interpreted with respect to the research questions.

Following thematic coding and qualitative content analysis, I employed comparative analysis of literature review and key informant interviews to compare and contrast definitions from the literature with those provided by key informants. These analyses allowed comparison of definitions provided by each participant and also allowed determination of whether, and if so, how, definitions used by TEHIP researchers changed over the course of the project. These analyses provided direction for discussion on how central concepts were understood and applied over the course of TEHIP, what the strengths and weaknesses were of these definitions and how they related to current conceptual and operational definitions in the available literature on health within the developing world.

Ethical Considerations

This research was conducted with the approval of the Research Ethics Board of the University of Ottawa for research involving human participants and the Tanzania Commission for Science and Technology (please see Appendices E and F). I received informed consent from all participants. In consideration of the ongoing work being conducted in Tanzania associated with TEHIP and the continued commitment of many members of the research and development team, all participants were granted full confidentiality.

Theoretical Framework

This research is set within the theoretical framework of health equity offered by Amartya Sen, Fabienne Peter, and Thomas Pogge. Sen (2004) argues that health equity is relevant to

social justice in three ways. First, the theory of social justice regards human capability as a necessary condition; the ability to achieve good health thus becomes central to social justice theory since health is a determinant of human capability. Here capability is defined as a “set of human ‘functionings’ – the various ‘doings and beings’ - that a person can achieve” (Peter, 2004, p. 96). Second, Sen (2004) argues that because fairness is a central concept in social justice, it must be considered within a theory of health equity in conjunction with a person’s capability to achieve health. Finally, Sen argues that a theory of health equity must also consider how resource allocation and social arrangements relate health to other aspects of the human condition. Therefore, health equity theory, as related to social justice, must be concerned with social determinants of health.

In a similar view, Peter (2004) proposes an indirect theory of health equity where assessments of equity can be supported by assessments of justice in society. Peter (2004) notes that there is evidence for social inequalities in health, but criticizes current theories of health equity for offering little direction as to how to make judgments about whether inequalities in health outcomes, supported by empirical evidence, are unjust or unfair. She proposes that this normative dimension can be explored through an indirect approach to health equity that anchors the pursuit of health equity within social justice theory. This is in opposition to a direct theory which would examine health equity as independent from social justice. Peter (2004) presents two ways in which the pursuit of health equity is related to the pursuit of social justice within her indirect approach.

The first is that an indirect approach deems health outcomes as inequitable if they are the result of unjust social arrangements, in contrast to a direct approach which would focus on health outcomes in isolation from the influence of social arrangements. Second, Peter

(2004) argues that an indirect approach to the examination or pursuit of health equity would inform assessment and understanding of social arrangements and how they contribute to negative health outcomes.

Pogge (2004) argues that a distributional concept of justice, which focuses on the well-being of people in relative or absolute terms, is insufficient and that a theory of health equity should also examine relational concepts of justice. Within a relational concept of justice, acknowledgement of the relationship between the actions of individuals and the impact of these actions on health outcomes for others can increase the moral obligation felt by individuals to assist others. Pogge situates the individual and the other within a global context and argues that since social and economic contracts and institutions, supported by developed nations, have been implicated in negative health outcomes for persons in developing nations, there is a causal relationship between these negative health outcomes and these social and economic contracts. Therefore, members of developed nations, who support such socioeconomic contracts and institutions, have a moral obligation to assist members of developing nations who bear this negative health impact.

TEHIP is, in part, a product of social and economic policy developed by the WB in that TEHIP was designed to test the hypothesis put forth by the WB in the WDR93. Although opinions vary, some have criticized the WB and associated international institutions such as the IMF for forcing policy prescriptions upon developing countries which have failed to result in economic growth or reduce poverty within these countries (Lister, 2005; Stiglitz, 2003; Wade, 2002). Further, Wade (2002) argues that these policies may serve to support the agenda of developed nations or elites within developing nations. For example, the focus of the WB on the “mutual benefits from free markets” may serve

primarily the interests of developed countries, such as the US and wealthy, powerful factions in developing countries (Wade, 2002, p. 217).

In contrast, TEHIP was focused on improving health outcomes for the poor through a cost effective allocation of resources for health care delivery with a view to increase equity for rural populations of Tanzania and to offer such health service on a national scale. TEHIP's goals, then, can be seen as a result of contrasting, indeed competing, interests and ideologies. This leads to questions concerning how ideology might have influenced the practice of improving health outcomes for the rural populations of Tanzania, and whether the implementation of TEHIP was more aligned with neoliberal ideology or TEHIP's own stated intervention goal of improving health equity.

The theoretical framework provided by Sen, Peter and Pogge served to establish a normative framework within which the practices of TEHIP that aim to improve health outcomes may be examined. In addition, preceding discussions on participation, equity, efficiency, sustainability and scaling up guided my analysis of how central concepts were understood and operationalized by those persons involved in design, funding, implementation and outcome measurement of TEHIP and how these definitions were related to the goals and outcomes of TEHIP.

Chapter 4: Results and Discussion

The following chapter presents the results and a discussion of findings from the literature review and key informant interviews. To recapitulate, the three research questions are as follows:

- o How did persons involved in design, funding, implementation and outcome measurement of TEHIP conceptualize and operationalize key concepts related to the project, which include, participation, equity, efficiency, sustainability and scaling up?
- o How did those persons involved in design, funding, implementation and outcome measurement of TEHIP regard the strengths and weaknesses of these conceptual and operational definitions?
- o How did initial conceptualization of these central ideas change as they were implemented over the course of the project?

In addition, results and discussion of the comparative analysis of key informant interviews are presented. Themes from key informant interviews and literature review will be discussed together by concept. In order to present quotes from key informants while maintaining confidentiality, each participant was assigned an identification number between 101 and 112 and are quoted in the text using the assigned number. Although twelve interviews were conducted, in one case informed consent was not obtained due to the requirement that it be approved by a senior management. This approval was not obtained prior to the end of the fieldwork and, despite follow-up efforts to obtain it, was never received. Responses from this participant have therefore been excluded.

Participation

Themes related to the concept of participation stemmed from responses to the following interview questions:

- Community Voice was a tool used within TEHIP, what was the purpose of this tool and what type of information did it provide?
- As a TEHIP researcher, how did you understand the concept of participation?
- How was this concept applied within TEHIP?

Three themes become evident from key informant interviews and literature. First, within the literature reviewed on community participation, there is considerable ambiguity in how its two components (community and participation) are conceptualized. Second, community participation, as conceptualized by key informants and the literature, was considered to be a means to ensure that project goals were met. Third, community participation was also considered to be a means to empower the community. By encouraging community members to participate in health planning and decision making, TEHIP sought to provide a sense of empowerment to community members.

In a review of literature on citizen participation and voluntary organizations, Florin and Wandersman (1990) define empowerment as a “mechanism by which people, organizations and communities gain mastery over their affairs” (p. 44). With reference to voluntary organizations, the authors differentiate between “empowering organizations” which promote the capacity of their members, and “empowered organizations” which influence the context within which they work (p. 44).

More specifically, Zimmerman and Rappaport (1988) examine the concept of psychological empowerment within the context of citizen participation. Here citizen

participation is quite loosely defined as “involvement in any organized activity in which the individual participates without pay in order to achieve a common goal” (p. 726). The authors propose that citizen participation, as defined in this way is a contributing factor to psychological empowerment. Using evidence from a collection of studies on college students and community residents, the authors define psychological empowerment as “the connection between a sense of personal competence, a desire for, and a willingness to take action in, the public domain” (p. 746). It is “composed of personality, cognitive and motivational aspects of personal control and competence” (p. 746) and “includes a concern for the common good and a sense of connectedness to others” (p. 747). In the present analysis, in both literature review and interview data, when participation is related to empowerment, many of the aforementioned attributes of empowerment are raised and will be discussed below.

Theme I: Ambiguity in the Definition of Community Participation and its Components

As cited by Bàez & Barron (2006) in their discussion of the role of community participation in district health systems, the WHO offers definitions for both community and participation. Community is defined as “a group of people living in the same geographic area with some degree of common interest” (WHO, 1978, as cited by Baez and Barron, 2006, p.7). Participation is defined with reference to the 1978 International Conference on Primary Health Care held at Alma Ata, as:

The process by which individuals and families assume responsibility for their own health and welfare and for those of the community, and develop the capacity to contribute to their and the community’s development. They come to know their own

situation better and are motivated to solve their common problems. These enable them to become agents of their own development instead of passive beneficiaries of development aid. They therefore need to realise that they are not obliged to accept conventional solutions that are unsuitable but can improvise and innovate to find solutions that are suitable. They have to acquire the capacity to appraise a situation, weight the various possibilities and estimate what their own contribution can be.

While the community might be willing to learn, the health system is responsible for explaining and advising, and for providing clear information about the favourable and adverse consequences of the interventions being proposed, as well as their relative cost (WHO, 1978, as cited by Baez and Barron, 2006, p.7).

By virtue of its vast scope, this definition of community offered by the WHO could describe a community within TEHIP. However, the WHO definition of participation makes explicit that communities are interested in solving common concerns. Does defining community participation in this way preclude Rifkin's (1986) criticism of a false assumption that people in the same geographic area are cooperative and will work together to address common goals?

MacQueen, McLellan, Metzger, Kegeles, Strauss, Scotti, Blanchard and Trotter define community as "a group of people with diverse characteristics who are united by social ties, share common perspectives, and engage in joint action in geographical locations or settings" (2001, p. 1936). This definition provides a more detailed account of the characteristics that constitute a community, but does not assume that the geographical location shared by a community is, in every case, the location in which they live. The "locus" is only defined as being a physical location. This avoids the assumption that people

in common geographical areas desire to cooperate with each other to address common concerns.

Finally, the World Bank offers a definition of participation without reference to community, but rather to stakeholders: "Participation is a process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them" (Participation Learning Group Final Report as cited by the WB, 1996, p. 3). Stakeholders for the WB include:

- marginalized groups who are affected by WB projects;
- borrowers of WB funds;
- groups with a vested interest in the outcomes of WB projects who are therefore indirectly affected by WB projects and
- WB staff and shareholders (1996, p. 6).

A comparison of this definition with those offered by the WHO and health researchers serves to highlight the ambiguity referred to by Rifkin (1986) and Zakus and Lysack (1998) in the conceptualization and application of community participation. In a review of health programs with community participation components, Rifkin (1986) notes that most programs do not define the term, a conclusion supported by Zakus and Lysack (1998). Rather than propose a universal definition, Rifkin (1986) suggests that a more useful approach would be refinement of a model of community participation that could be applied across health programs which would encourage health program planners to decide why participation is needed, who will participate and how this will be undertaken, that is, which aspects of the program will be participatory.

The approach offered by Rifkin (1986) is rather utilitarian. Indeed, by defining the parameters of participation in this way, the autonomy of potential participants is challenged. Community members, who wish to participate, could only do so in areas where participation is 'allowed' and if they are among the group of people who were 'selected' to participate. If this practice were applied, the likely result is the imposition of a programs desired goals and actions on a community, or the selection of only those forms of participation that are in line with project goals and actions, therefore diluting or eliminating and potential effects of community participation.

An alternative concept of participation is offered by Arnstein's 'ladder of citizen participation' (1969). Within this model, citizen participation is related to the ability of citizen participants to control or determine the outcomes of the programs, projects or instances of decision making in which they are included. At the lowest level of citizen participation, that is nonparticipation, citizens are not truly being included in decision making or in the design or implementation of program. Rather, they are included in the process to allow those with decision making power to direct them to a desired outcome. At the next level of citizen participation, tokenism, the views of citizen participants are heard, but there is no follow up on their input, hence token participation. Finally, at the highest level of citizen participation, citizen power, citizen participants have a real chance of sharing in the decision making process and therefore making a difference in the outcomes of these decisions.

Rifkin's (1986) interpretation of community participation may fall somewhere between nonparticipation and tokenism. In the case of TEHIP, project design made distinctly clear why people were participating, who would be involved and how, through the

parameters of the Community Voice Tool. Although this is in line with Rifkin's (1986) model, there was distinct follow up on the input of citizens. In addition, community members in Rufiji and Morogoro became involved in the political process, which will be explored within the remaining two themes. Since involvement in political decision making was cited as a contributing factor to empowerment through participation by Zimmerman and Rappaport (1988), the type of participation elicited by TEHIP may fall somewhere between higher levels of tokenism and citizen power.

Morgan (2001) presents a detailed review of community participation since Alma Ata and finds that two opposing conceptualizations of the term have been persistent throughout its history. Community participation may be conceptualized as a "utilitarian effort" or "empowerment tool" (p 221). In the utilitarian framework, participation is an end in itself, that donors, governments or project staff use resources in the community as a way to meet project goals. In the empowerment framework, participation is a means to empower the community to ultimately challenge power structures that dominate their environment in order to better their health or development. Morgan notes that the utilitarian framework is criticized for not taking into account the capacity of communities to participate or contribute, which is addressed by the opposing model. Conversely, the empowerment model is disparaged for being unrealistic. Furthermore, Zakus and Lysack (1998) argue that empowerment through community participation has not been sufficient to challenge power structures within a community, the main problem being that empowerment promotes principles, such as "autonomy," that may be opposition to the ideas inherent in community, such as "cooperation" (p. 9).

TEHIP encouraged members of villages to participate in the health planning process through priority setting and decision making to address these priorities. As will be explored in the remaining two themes, community participation was encouraged in an effort to ensure that project goals were met and also to empower the community to become involved in the making decisions relative to those issues that had an impact on their health and community development.

Theme II: Community Participation as a Means to Meet Project Goals

In the utilitarian framework offered by Morgan (2001), participation is used as a means to an end, where donors, governments or project staff may use community resources to achieve project goals. Using a participatory action research approach, TEHIP researchers appointed ‘animators’ to visit communities and provide guidance on how to create local participation. In conjunction with the DHMT, leaders or elders in the community would engage with animators and other community members to create a list of priorities (de Savigny, Kasale, Mbuya & Reid, 2004).

Community members would be asked “What are your needs, what [do] you perceive as being your problems?” (102). More specifically, communities were asked whether their local services, especially health services and health delivery by the local facility, needed improvement (107). When community members responded to these questions by expressing their concerns, this was seen as a participatory action on the part of the community members. Further, these ideas would be taken up as part of the planning process, “So [what] we wanted to know was...the actual needs of the community so that those particular needs could be taken up in the planning process” (102). In this way, participation was akin to low levels of citizen power in Arnstein’s ladder of citizen participation. Here, community

members were asked to provide input on issues that were of concern to them and these concerns were taken up in the district health planning process.

Although health was a concern, it was not always the very first priority or area of concern for communities,

Sometimes they will say 'We need a health dispensary, where we have a dispensary, [it] is very far away'. So that is a health related thing. But they may tell you 'The primary school is very far away'. So if you go out there, you won't only get health as [an] issue, you will also get other things like education, agriculture...and you have to respond to these issues (102).

The issues that were of higher priority included education, agriculture and safety and security (104). The participatory act of raising concerns and setting priorities was a means to have community members become active in addressing their concerns. Therefore, community members were encouraged by 'animators' to address priorities, concerns or problems that became evident from the application of Community Voice. In the case where the concerns raised were not related to health, animators made efforts to create lines of communication between community members and people who could help them address concerns in another sector,

if [a] school was what they wanted, the researcher would facilitate a dialogue and make sure that all the necessary equipment...make sure the community is mobilized...then link with the education department and tell them that these people say this is what they require and school were built (102).

One participatory action on the part of community members to address community concerns identified by all key informants was that of public dispensary rehabilitation.

Communities were asked to contribute to the rehabilitation of these facilities by providing what money, materials and labour that they could, supplemented by seed money from the local government. However, the rehabilitation of dispensaries and health facilities was a tool within Community Voice and was identified by key informants as part of “one of the strategies known as the community ownership of health facilities” (110). From interview data, it was clear that facility rehabilitation was a determined action or goal of TEHIP which relates this form of participation more closely with Arnstein’s concept of nonparticipation. Here, community members were being directed to a desired outcome by those with decision making power – the animators. The question of who exactly decided that facility rehabilitation was a priority remains.

Within this transfer of ownership strategy “the community ownership of facilities was to sensitize the communities to, for example, to rehabilitation of the dilapidated facilities” (110). However, key informants noted that the point of ownership transfer was not only to access resource from the community for the purpose of facility rehabilitation, but to provide community members with a sense of control over their resources and to make them feel that they had become “shareholders in their health care” (108). Animators would express to community members that “this health facility does not belong to the Ministry of Health, this health facility is your property, you are the users, it’s in your locality, everything that happens here should be under your control, this is your property” (102).

As powerful as these statements are, they are not necessarily true, “I think there was a problem, a contradiction because the facilities belong to the government, legally they belong to the local government” (110). The local government legally owns community

health facilities, therefore, they are “owned” by communities in Morogoro and Rufiji in the same way that all citizens “own” government resources.

Citizens pay for the implementation of government services and the construction and maintenance of government facilities through taxation. But we do not directly control how these services are administered, nor do we have keys to government offices. Although we elect government officials who oversee the administration and delivery of municipal, provincial and federal goods and services, we do not control, or even participate in, their daily decision making. We participate only in decision making where citizen participation is condoned, which is not citizen control. In a rural Tanzanian village, citizens or community members may find themselves in close proximity, in a political and/or spatial sense, to those who make decisions as compared to urban settings. Indeed, they may contribute directly to health service delivery through facility rehabilitation, but this in no way ensures that they are part of the decision making process and cannot ensure that their concerns will be addressed by local government.

Theme III: Community Participation as Empowerment

Other contributions to the development of the community, beyond facility rehabilitation, included political change within local political structure. Within the local governments are district health boards consisting of local government members and community leaders (108). In some cases, concerns expressed by community members, as part of discussions initiated by the Community Voice Tool, resulted in the dismissal of community leaders who were members of district health boards, “During the meetings... ‘I think these leaders are not assisting us... These are the wrong people, they are not assisting us’. They were removed from the community, from the offices” (103). Detailed information

on how members of district health boards were dismissed was not available, therefore, the intention behind these actions was unknown. Community members may have been acting in the interests of the community. However, it is equally likely that community members were acting to support their own agendas.

In reference to the concept of psychological empowerment by Zimmerman and Rappaport (1988), involvement in political decision making may contribute to psychological empowerment. Another source of psychological empowerment is involvement “in decisions that affect community life” (p. 726). In the case of TEHIP, community members became involved in local politics by removing community leaders, who served on district health boards, from their posts. However, since district health board members serve on the board voluntarily, this type of political action may not serve to empower community members any more than do the existing opportunities for political involvement.

Moreover, if we examine a broader conceptualization of psychological empowerment offered by Zimmerman and Rappaport (1988), the case for citizen empowerment through participation in TEHIP is further challenged. Zimmerman and Rappaport argue that psychological empowerment for the individual “is expected to include a combination of self-acceptance and self-confidence, social and political understanding, and the ability to play an assertive role in controlling resources and decisions in one's community (p. 726). As discussed within Theme II, there is little evidence to suggest that community members in Morogoro and Rufiji had control over the resources they contributed to facility rehabilitation.

Within discussions on participation, key informants asserted that the Community Voice Tool was employed to ensure that community members participate in the health

planning process through priority setting and decision making to address those priorities. Upon investigation of key informant responses to interview questions about participation, nuances in the purpose of participation became evident. Participation, as a result of the application of the Community Voice Tool, was used in one of two ways. First, participation was a means to ensure that project goals were met, as seen in the imposition of community rehabilitation. Second, participation was a means to empower the community to contribute to their health and development. Within the literature community psychology, factors which contribute to empowerment include control over resources and involvement in political decision making or involvement in decisions which affected the community. However, TEHIP did little to promote or augment these factors for community members in TEHIP pilot districts.

Efficiency and Equity

Themes articulated by key informants related to efficiency came from responses to the following interview questions:

- The concept of efficiency is central to TEHIP. As a TEHIP researcher, how do you define efficiency?
- How was this concept of efficiency applied during the design and implementation of TEHIP?
- How did your understanding or application of efficiency change over the duration of TEHIP?
- In your opinion, using the definition of efficiency you have provided me with, were the outcomes of TEHIP reached through efficient methods?

Themes articulated by key informants related to equity came from responses to the following interview questions:

- The concept of equity is also central to TEHIP, as a TEHIP researcher, how do you define equity?
- Was this concept of equity applied during design and implementation of TEHIP and if so, how?
- How did your understanding or application of equity change over the duration of TEHIP?
- In your opinion, using the definition of equity you have provided, were the outcomes of TEHIP equitable and how so?

Three themes related to efficiency and equity emerged from analysis of the interview data and literature review. First, efficiency is related to performance of a system, that is, the gains from use of resources. Second, within TEHIP, the promotion of equity was implicit in the BoD approach to resource allocation in health systems. And third, there exists a tradeoff between efficiency and equity. In light of the relationship between efficiency and equity, these concepts will be discussed together.

Theme I: Efficiency as Performance of a System

The concept of efficiency was identified as one that was associated with the use of resources. Participants defined efficiency as a comparison between the inputs to a system and the resulting outputs, “the proportion of the output you get versus the input, gives you the degree of efficiency” (102). Here, inputs were seen as resources, including time, money and human resources, “[The] inputs being cost planning. Resources, you look at the time” (101). Participants considered output to be the performance in the health sector in terms of

specific indicators, such as the utilization of drugs and health services, “now workers were providing good services...facilities started having drugs...so utilization went up” (101). In reference to resource constraints in low income countries, the concept of priority setting was also important, “what were the most important conditions they should target with the little resources they had?” (105).

Time was also a factor in the definition of efficiency for participants where outputs were expected within a specific period of time. Participants who defined efficiency in economic terms paid special attention to time, “it is a function of size and available time for your targets to be met” (111). Another informant offered the following, “in project implementation, how the intended goals, intended outputs are reached, if they are reached in terms of the time that is planned in the project” (108).

Distinctions were also made between technical efficiency and allocative efficiency in both the interview data and literature review. The WDR93 defines allocative efficiency as “The extent of optimality in distribution of resources among a number of competing uses” (World Bank, 1993, p. x). Technical efficiency is defined as “The extent to which choice and utilization of input resources produce a specific health output, intervention, or service at lowest cost” (World Bank, 1993, p. x). Participants distinguished between allocative and technical efficiency where an allocative inefficiency was defined as allocating monetary resources to a desired population which resulted in little or no impact,

This is efficiency in the health system that we’re referring to and efficiency of the health system can be broken down in various ways, but most commonly as technical and allocative efficiency...If you’re spending money and it’s not reaching people,

there's an inefficiency. If you're allocating money to the wrong thing, it's an allocative inefficiency (112).

This definition of inefficiency helps to bring nuance to the economically bound ideas presented in the WDR93. Within the health systems literature, efficiency is also defined in relation to inputs and outputs. Evans, Tandon, Murray & Lauer (2001) define efficiency "as the ratio of the observed level of attainment of a goal to the maximum that could have been achieved with the observed resources" (p. 307).

Related to these conceptual definitions of efficiency were the applied or operational definitions – how an efficient system preformed and what the outcomes of an efficient system may be. Operational definitions of efficiency were focused on the interventions applied by TEHIP through the allocation of resources. Using a BoD approach, resources were allocated according to interventions which addressed the highest disease burden. The disease burden was found to be greatest among children resulting in high mortality in children under the age of five. Childhood mortality was reduced by a significant degree using minimal resources. This was seen to be especially important in Tanzania where health budgets were already at "crisis levels" (108), "The reports that we got from the project...showed clearly that childhood mortality was going down, and almost by half, and this [decrease in mortality] is among the poorest in Tanzania" (108).

The WHO World Health Report from 2000 presents a definition of efficiency of health systems as related to performance:

In economic terms, performance is a measure of efficiency: an efficient health system achieves much, relative to the resources at its disposal. In contrast, an inefficient system is wasteful of resources, even if it achieves high levels of health,

responsiveness and fairness. That is, it could be expected to do still better, because countries spending less do comparably well or countries spending a little more achieve much better outcomes (WHO, 2000, p. 42).

This definition of efficiency echoes the sentiment of a participant who notes that that measurement of the efficiency of a certain method must take into account comparison between the impact of an intervention using that method over an alternative method, “when the interventions you are carrying out have got [a] higher impact when using the method that [was used] in the project, rather than using an alternative method” (108). Furthermore, Evans, Tandon, Murray & Lauer (2001) note that “to measure the contribution of the health system we have to determine what it achieves in excess of what would be achieved in its absence” (p. 7). Here, both key informants and the literature suggest that to measure efficiency, comparisons between methodology applied within a health system or health system intervention are needed. In the case of TEHIP, empirical comparisons of efficiency between various health interventions were not made. However, the outcome of TEHIP, a decrease in child and adult mortality within the pilot districts, was compared to national mortality rates.

In one measure of efficiency of TEHIP, the performance of the health system intervention applied in the TEHIP districts was compared to performance of the health system in absence of the intervention. Within Rufiji and Morogoro, over the duration of TEHIP, child mortality decreased by 40% and adult mortality by 18%. Opposing trends, increasing rates of child and adult mortality were seen in districts without the interventions in resource allocation of TEHIP (de Savigny, Kasale, Mbuya and Reid, 2004, p. 12). Key informants noted these outcomes in discussions of whether the goals of TEHIP were met

efficiently, “childhood mortality was going down and almost by half” (108); “child mortality has been reduced considerably” (110); “this was a project that was efficient, cost effective and had an impact on the community” (108).

From the statements made by key informants, it becomes clear that national child and adult mortality rates were considered sufficient as a yardstick of performance, or efficiency, of TEHIP. Empirical comparisons with the effects of other interventions on mortality being applied in the country were not made, but these comparisons may have only served to complicate the picture. As discussed earlier, districts with minimal donor activity were chosen to be TEHIP pilot districts in an effort to minimize the impact of other interventions and highlight the impact of TEHIP.

The intended goals of TEHIP, noted by participants, included testing the WDR93 hypothesis that a health budget of approximately \$12 per capita should lead to a decrease of one third in the disease burden for populations in low income countries. Over the course of the project, TEHIP districts were spending approximately \$0.92 per capita in addition to government health expenditure of 2317 Tsh or approximately \$2 (in 1995), allocated according to BoD, which resulted in even greater gains in the reduction of childhood mortality which accounted for the majority of the disease burden.

One noted weakness of the BoD approach was the existence of vertical programs being administered by the Ministry of Health (MOH). Vertical disease programming directed health budgets towards certain intervention programs, which was in conflict with attempts to spend according to the disease burden in TEHIP districts,

vertical programs target certain interventions and they don't spend outside of these interventions. And for that reason, despite the fact that you see that the burden is

here and you would like to spend more money on this burden, you could only spend new money on that burden, but you could not shuffle money within the system (102).

However, this was overcome to a degree in two ways: integration in health service delivery at the district level and additional funding offered by TEHIP.

Integration in health service delivery helped to reduce the impact or “visibility of vertical programs” since the people who deliver health services related to malaria or TB “are the same person at the district level” (102). That is, integration is seen in the range of services offered by each health worker in health facilities. When a client visits a health facility, one staff member can provide them with a comprehensive package of care. Health care workers are not restricted to providing only particular services because a vertical program dictates them to do so.

In addition, the supplementary funds provided to districts by TEHIP were allocated through the sector wide approach (SWAp, discussed below). Funds were allocated by district level BoD information which helped to reduce conflict between BoD based priorities and priorities among donors who supported vertical disease programs in Tanzania’s health sector.

Through financial support of vertical programs, bilateral and multilateral donors tend to set national priorities for health planning and coordination between these priorities and district level needs remains a challenge in Tanzania (de Savigny, Kasale, Mbuya and Reid, 2004, p. 81). For example, the Government of Denmark, WHO and UNICEF implemented the Tanzanian Essential Drug Programme in consultation with the MOH. Although, the BoD approach to district level planning is a disease specific approach like vertical programs, the

BoD approach taken by TEHIP is specific to the district and supported by basket funding through the SWAp. Here, international funds are collected into a common pool and distributed according to national strategies or policies for health service delivery rather than having funds allocated according to the intentions of international donors. In the case of TEHIP, bilateral and multilateral funding is pooled through the SWAp and distributed according to the national strategy of allocating resources according to district level BoD information. A discussion of the scale up of this TEHIP strategy to the national level is discussed below.

In regard to stability of the concept of equity concept over the duration of the project, all participants agreed that the understanding and application of the concept remained stable over the course of the project.

Theme II: Efficiency in the Burden of Disease Approach Lays the Groundwork for Equity

There was also agreement in the conceptualization of equity between the interview data and the literature reviewed. Key informants defined equity in terms of equalities in access to health across a population, something that required particular care to ensure that: “you reach the poor, the disadvantaged” (102). Further, equity in access to services was presented along the dimensions of “geographical equity and social equity” (111). When both dimensions of equity are addressed “a bigger selection of the population can access services”. Therefore “you avoid exclusion on account of race, class and sex” and “reach the remote, distant, rural populations” (111).

The concept of equity within resource limited countries, as opposed to developed nations, was also discussed,

We laugh because the concept of equity appears to be different from the textbook [version of] equity. If all the books are written from Europe and from developed countries they talk of equity of access to services, they never talk of equity of availability, they never talk of equity of provision. Because if you start at the secondary level there is [an] assumption that the services are available, but for Tanzania, the services are not available (108).

Here, a distinction was made to illustrate that definitions of equity may vary according to perspective. In line with the assumption described in the above quote that services are available and only access is a challenge for health systems, the WB defines inequity as a challenge for health systems where:

The poor lack access to basic health services and receive low-quality care.

Government spending for health goes disproportionately to the affluent in the form of free or below-cost care in sophisticated public tertiary care hospitals and subsidies to private and public insurance (World Bank, 1993, p. 4).

Further, key informants defined inequity as it is in the literature: as the existence of inequalities that were avoidable, unjust or unfair. This conceptualization has a strong basis in the literature on the health equity offered by Peter (2004), Pogge (2004) and Sen (2004). However, there is a distinct divergence between interview data and literature review on how this concept of health equity should be applied or operationalized.

Within TEHIP, as discussed by key informants, the operational definition or application of equity was seen as implicit in a BoD approach. From *Fixing Health Systems* (de Savigny, Kasale, Mbuya & Reid, 2004) the following logic was employed: since populations in Rufiji and Morogoro districts of Tanzania were viewed as uniformly poor and

the poor consistently suffered from a particular disease profile, most significantly malaria, the transfer of resources to treat and prevent malaria initiated by TEHIP provided great benefit to the majority of the population in Rufiji and Morogoro. Therefore, through efficient allocation of resources, benefits accrued to disadvantaged populations. However, in the literature, this disease specific approach is deemed insufficient to address equity because it does not take into account social determinants of health. We return to the issue of equity with respect to social determinants in the concluding chapter.

It is important here to refer to the presumption of homogeneity among the poor. Within discussions of equity with key informants, most participants did address the idea, or assumption, that the populations of Rufiji and Morogoro were uniformly poor, essentially challenging the idea that the poor in the two rural districts were uniformly poor.

As one informant explained, during the course of TEHIP, new tools to measure equity within populations were developed and introduced to the TEHIP team, specifically household asset ownership. Through the surveys done in DSS, ownership of assets such as a bed net or a bicycle, could be documented. These households were ranked according to asset and analyzed by quintile. This quintile analysis showed significant differences in mortality between least poor (the highest quintile in asset ownership) and poorest (the lowest quintile in asset ownership) households (112). Between least poor and poorest households, the asset ownership data revealed a 44% difference in overall mortality. As another informant noted, poorest households had “46% more infant mortality, 53% more adult mortality, 66% more malaria mortality and eight times less coverage of bed nets” (103).

Despite this critical information on homogeneity of populations, or lack thereof, participants cautioned that this data did not have significance at the district planning level

since the “coverage of interventions is a district specific thing” and “you’re not going to have DSS sites doing asset surveys in every district” (112). In addition this information did not have “operational significance” because health service delivery staff will not, and should not, be able to identify whether their patients are households that are ranked as poorest or least poor by a household asset survey (112). It was for these reasons that despite available information illustrating stratification according to wealth within rural populations, equity with respect to more resources for those in greater need could not be factored into district level planning and therefore, was not part of discussions on equity within TEHIP during its pilot in the two regions and subsequent “scaling up”.

Although there is divergence between the equity concept in TEHIP and the literature reviewed, the interview data offers some points of consolidation. The efficiency approach in TEHIP, that is creating a system that could address the average BoD profile with limited resources, was designed to offer a platform from which to address equity. That is, the inefficiencies of the health systems were targeted to improve the performance of the system, helping to increase the capacity of the system to address equity in the future. “Why should we try to focus our investment on the poor with an inefficient system?” (112). Discussion of the tradeoff between equity and efficiency in the literature reviewed supports this argument.

Theme III: There Exists a Tradeoff between Efficiency and Equity

“When you increase equity, you actually start to reduce efficiency, it’s natural because it costs more to reach the poor” (112). As identified by key informant interviews, a tradeoff does appear to exist between equity and efficiency. Informants argues that TEHIP, by focusing on strengthening health systems in terms of efficiency, helped to lay the groundwork for future efforts towards increasing equity in the Tanzanian health system.

The concept of paying the “equity premium” emerges from both interview data and *Fixing Health Systems* (de Savigny, Kasale, Mbuya and Reid, 2004, p. 23) and is also supported by concurrent research in Sweden by Lindholm, Rosén and Emmelin (1996), who attempted to measure the willingness of society to accept a trade off between efficiency, that is economic growth, for greater equity in health using the choices of a group of politicians working in the health care sector as a proxy measure for societal perspectives. Politicians in the health care sector, including those affiliated with social democratic, liberal, conservative and other parties discussed this trade off within focus groups.

Two populations of differing socioeconomic status were presented to the focus groups, a blue collar group and a white collar group, where incidence of disease was higher in the blue collar group. The politicians were asked to choose between one of two programs to address the incidence of disease. Program A was ‘efficient’ in that it addressed 100% of the incidence of disease, but maintained the mortality differential between blue and white collar groups. Program B was equitable, it addressed only 90% of the incidence, but leveled the mortality differential between the groups. The results of the study showed that the majority of the health sector politicians favoured the equitable outcome, although the degree to which this outcome was favoured varied according to political affiliation.

Taking the sources together, paying the equity premium suggests that to increase equity in the health system, that is to reach the most disadvantaged or marginalized groups, would not be cost effective, leading to a greater degree of inefficiency within the health system. The premium is the degree to which society is willing to accept a loss of efficiency in return for an increase in equity of a health system. Participants suggested that a potential next step for Tanzania would be to address equity within the health system,

TEHIP was about increasing technical efficiency as fast as possible. Having achieved that, the next generation...is equity. That is the agenda now in this post reform era, starting in about 2000, the focus on equity and the premium you pay, because when you increase equity, you actually start to reduce efficiency. The degree to which you are willing to expect a drop in efficiency is the degree that society values the poor, it's the premium you pay to have an equitable society. But it's better to try and push a more efficient system into equity than to push an inefficient system into equity (112).

Scaling Up and Sustainability

Themes articulated by key informants related to scaling up came from responses to the following interview questions:

- What do you consider to be the important characteristics of scaling up? That is, how would you define it for me?
- Was scaling up an intended goal of TEHIP?
- If so, at what point in the project did discussions on scaling up emerge? At that time, what form was scaling up thought to take? How did this change over time?
- If scaling up was not an intended outcome, why?
- What mechanisms are in place to support scaling up of TEHIP?
- What barriers to scaling up exist?

Themes articulated by key informants related to sustainability came from responses to the following interview questions:

- Evaluative studies of TEHIP have noted concerns with regard to sustainability of TEHIP? How do you define sustainability?

- How was this concept of sustainability applied in TEHIP?
- In your opinion, using the definition you have provided, was TEHIP sustainable?

Why? Why not?

Within interview data and literature review, scaling up and sustainability are divergent in their conceptual and operational definitions. However, these two concepts converge in key informant discussions of support mechanisms or constraints, and present two distinct themes. The first theme is that the support mechanisms for scale up and sustainability are often the same factor. Implicit in this theme is that a support mechanism is the presence of a particular factor and that the absence of this same factor results in constraint. The second theme is that integration of a strategy with government, in policy, planning and budgets, is necessary for both scale up and sustainability of that strategy. To begin, conceptual and operational definitions for scaling up and sustainability will be discussed independently, followed by examination of the themes related to scaling up and sustainability together.

Definitions of Scaling Up

Key informants conceptually defined scaling up as application of the gains or success of a project on a wider scale. Specifically participants noted that characteristics of scaling up include “increased application of the concepts” (111) and moving “beyond the two districts” (102).

This is related to one of the four dimensions of scaling up of grassroots organizations offered by Uvin (1995) which include functional (increase in the number and type of actions carried out by a group), political (increase in the influence of a particular group on policy), organizational (increase in the efficiency of activities) and quantitative scaling up. The

quantitative definition of scaling up by Uvin (1995, below) was related to the conceptual definition of scaling up offered by key informants,

where a program or an organization expands its size by increasing its membership base...and geographic working area. This is the most evident type of scaling up...It happens when participatory organizations draw increasing numbers of people into their realm (p. 928).

Here, parallels are seen between the above definition and that which come out of interview data in the expansion of the coverage of TEHIP strategies, that is the geographic area and therefore number of people that may be served by the intervention strategy and tools employed by TEHIP. “National scaling up is making sure that we move beyond the two districts. The tools, the intervention and the strategies that were applied by TEHIP, within the two districts actually roll out to the rest of the districts” (102). Another participant noted the extent of geographical expansion, “we were dealing with two districts, now we are dealing with 113 districts” (109).

Conceptual definitions of scaling up provided by key informants also related to political scaling up where having the MOH take up TEHIP tools and strategies was seen as an important part of scaling up, “the Ministry has to own the process” (103); “the Ministry started to retain those with knowledge and skill who were in the project...so the success can now be inbuilt into the health reforms...in writing up our health sector strategy plan...we are using the same staff to assist us in strategizing for the national strategy (108).

Finally, conceptual understanding of scaling up was related to the organizational dimension of scaling up offered by Uvin (1995). Here, the application of best practices and the successes of TEHIP were important characteristics of scaling up, “Scaling up meant

using the best practices of TEHIP and applying them at the national [level]” (103). Key informants also noted that part of national scale up was a view to create positive outcomes for specific populations, “to scale up the TEHIP tools in addressing two main MDGs, MDG5 and MDG4...to see how TEHIP tools can bring about an impact on maternal mortality and newborn mortality” (105)⁴.

Conceptual definitions of scaling up were most often presented concurrently with operational definitions of scaling up or rolling out of TEHIP tools. Through the MOH, TEHIP tools and associated strategies, such as the allocation of cost effective interventions according to BoD, became part of district health budgets and national health policy.

Scaling up of TEHIP has begun. As of 2003, with assistance from the UN, the TEHIP tools were rolled out to nine new districts (TEHIP News, 2003, p. 8). In addition to this support, in 2005 CIDA donated \$7 million to fund national roll out of the TEHIP tools to 113 districts, however, as discussed earlier, the terms of this contribution, for example how it will be distributed over time, is unknown (CIDA, 2005).

Discussions on scale up arose during the course of the initial TEHIP project in the two regions, as gains in health (i.e. decreases in mortality in child and adult populations) were observed. Although participants could not offer a precise timeline, the incremental introduction of funding through SWAp and tapering off of TEHIP funds began in 2001 (de Savigny, Kasale, Mbuya & Reid, 2004, p. 81) and discussions of national scale up would have been precursors to this alteration in funding.

Key informants note that the decision to scale up the TEHIP tools and strategies was advocated by the team. There was a desire to not have the experiences of the project expire

⁴ The United Nations Millennium Development Goals offer a framework for a global partnership to reduce extreme poverty by 2015 (<http://www.un.org/millenniumgoals/>): MDG4 commits to reductions in child mortality; MDG 5 to reductions in maternal mortality.

when the product ended, a desire to resist putting “it on the shelf” (102). However, the MOH was always seen as the party responsible for, and essential to, the roll out.

National scale up of the tools is administered through the MOH to the Zonal Health Training Centres, referred to as the Zones, eight of which currently operate across the country. These Zones disseminate the tools to the DHMTs within each region.

Two members of the TEHIP team, master trainers, provide training to the Zones on how to use and apply the TEHIP tools, specifically, the District Burden of Disease Profile Tool, the District Health Accounts Tool and the District Health Service Mapping Tool. These master trainers provide intermittent and on-demand training to the Zones. At each Zone, a “critical mass” of trainers instructs the DHMTs on how to use and apply the tools (101).

As noted, the Community Voice Tool was not part of the national scale up (112). By nature, this tool is specific to the setting in which it is applied and must be applied within a community with the aid of ‘animator’. In addition, the Community Voice Tool cannot be disseminated through the districts, or DHMTs, because of the vast number of villages within each district, “The problem with Community Voice was ‘How do you go to 10,000 villages?’ It’s hard enough to scale something to 120 districts” (112). Ultimately, there were insufficient financial and human resources to deploy Community Voice at a national scale.

Key informants discuss the strengths and weakness of this approach to roll out. The advantage of using the Zones for scale up, rather than the MOH, was that training was decentralized, which meant that the MOH or TEHIP staff would not have to train all of the DHMTs, “We thought scaling up from the centre, it would be just impossible” (102). Key informants realized that centralized training from the MOH to each district would be

difficult, so training was decentralized to the zones, each made up of between 10 to 18 districts (109) “the difficult issue was how do we get...the tools to 113 districts...if you get the zones attuned to these tools, there are fewer districts to take care of” (109).

However, the capacity of the Zones themselves varied, which was identified as a weakness by key informants, “the zones were weak” (108). The decentralized training process “assumes that those...centres are strong, at the moment they’re not, a couple of them are stronger, but basically they are shells” (112). In fact, roll out of the tools was initiated at the same time that a Zonal strengthening program was being conducted, which detracted from the scale up of the tools, “At the same time TEHIP needed to be rolled out, they rolled out zonal strengthening and so the vehicle wasn’t ready and still isn’t ready” (112).

Definitions of Sustainability

As with scaling up, key informants did not clearly distinguish between conceptual definitions and operational, that is applied definitions of sustainability. When asked to describe sustainability, key informants provided a description of how the concept was applied within TEHIP and what sustainability of TEHIP would look like.

Similar to scaling up, integration with the MOH, that is, integration of the tools and strategies into national policy and district health budgets, was thought to be necessary for sustainability: That the “existing institutional framework” can maintain “investments” that were external or brought in by the project (111). Other characteristics of sustainability were related to longevity of aspects of a project after the project has concluded, longevity of the “gains” (108) or of “the systems established by the project” (102). Sustainability was seen as ensuring that the “experiences go beyond the lifetime of the project” (107).

This definition is in line with three of the six definitions presented by Shediak-Rizkallah and Bone (1998). One of these is “sustainability” as “the capacity to maintain service coverage at a level that will provide continuing control of a health problem” (Claquin, 1989, as cited by Shediak-Rizkallah and Bone, 1998, p. 91). Another is “project sustainability” which “is defined by many economists and international development agencies as the capacity of a project to continue to deliver its intended benefits over a long period of time” (The World Bank's definition in Bamberger and Cheema, 1990, as cited by Shediak-Rizkallah and Bone, 1998, p. 91). A third definition of sustainability makes reference to development programs specifically, “a development program is sustainable when it is able to deliver an appropriate level of benefits for an extended period of time after major financial, managerial and technical assistance from an external donor is terminated” (US Agency for International Development, 1988, as cited by Shediak-Rizkallah and Bone, 1998, p. 91).

This definition is relevant in that key informants noted that the additional investment in health spending given to districts was tapered off as the project progressed, ensuring that the MOH would support the application of TEHIP tools after TEHIP ended. Through the SWAp, TEHIP funding was gradually replaced with SWAp funding from 2001 to 2003 (de Savigny, Kasale, Mbuya & Reid, 2004, p. 81). Therefore, all international donor support for health will support the application of TEHIP tools since the application of these tools is integrated into the SWAp district budgets in which international funding is pooled and applied according to government strategy or policy.

Although there has not been critical review of the ability of the MOH to continue to support the application of TEHIP tools into the future, there are aspects of the project which

suggest that long term application of the tools may be possible. TEHIP offered a planning strategy which can be taught, although training is time consuming and expensive. In regard to the tools, dissemination and use of the tools is easy. The TEHIP tools are simple data transformation programs, created in Excel©. Data is entered into preexisting tables and graphs are created. These programs are distributed to the Zones on floppy disks (de Savigny, Kasale, Mbuya & Reid, 2004, Appendix 2). The primary challenge is sustaining the data source from the DSS, which can be a significant drain on resources.

Theme I: Scaling Up and Sustainability Share Support Mechanisms

As identified by key informants, successful scale up and long term sustainability are supported by the same mechanisms. In addition to funding, participants identified a support as the use of Tanzanian staff in the program and in the national scale up of TEHIP tools: “the project was run by Tanzanians” (103). Acceptance of the strategies by the community and local government, “the starting point is acceptability” (111), was also noted as a support to both scaling up and sustainability. Implicit in this is that the absence of these support mechanisms were seen as barriers to scale up and sustainability.

Theme II: Integration of a Strategy into a Government System is Necessary to Scaling up and Sustainability.

Nine of the eleven participants cited integration with the MOH as a support mechanism for scale up or sustainability of TEHIP tools and strategies. The remaining two participants were in fact MOH staff and therefore indirectly cited the MOH when they made reference to their own roles within TEHIP, or the roles of their MOH colleagues within TEHIP.

Scaling up was supported by the “Ministry owning the process” (103) and by the “understanding of the Ministry” of the project’s design and goals (110). Scaling up was also supported by TEHIP interventions “being part of the budgetary programming” (111). Working closely with the MOH over the course of the project and involving the MOH in scale up were two factors that were seen as contributory to sustainability. Finally, integration of TEHIP strategies and tools in budgets for district and national health spending was seen as a contributing factor to sustainability. National scale up of TEHIP district health planning tools and strategies through the Zonal Training Centres in addition to the SWAp to funding has supported this integration.

Discussion

As a result of TEHIP, positive health gains were seen in Morogoro and Rufiji districts, supported by improvement in documentation of health related information through DSS and application of the information to health accounts. The strategies promoted by TEHIP were in line with health sector reforms in Tanzania and were therefore well integrated into the political context and the health system. Beyond the exceptional health gains of TEHIP, legacies of the project include the lessons learned about what investments need to be made to strengthen health systems and to ensure the roll out of TEHIP tools and strategies to other areas of the country through national scale up. TEHIP team members posit that with a focus on efficiency, the project has laid the groundwork for more detailed examination of how more equitable health outcomes can be achieved for the Tanzanian population and others. However, upon exploration of how central concepts were defined and applied in the project, questions remain about its rationale and outcomes.

Participation

Participation was used as a means to meet the goals of TEHIP and also as a tool to empower communities through their involvement in health planning and community development. However, the extent to which TEHIP actually empowered community members is limited since opportunities to participate were predetermined. Further, there is doubt as to whether TEHIP was able to augment factors which contribute to empowerment, including resource control and political decision making.

Participatory acts, as defined by key informants, on the part of community members primarily involved contribution of resources to the maintenance of health care infrastructure. When community members contributed to rehabilitation of health facilities, they were, to some degree inappropriately, promised ownership of these facilities. Public health facilities, such as the ones rehabilitated under TEHIP, are financed and maintained by the government. In this case, having citizens provide labour and capital for rehabilitation may result in them having to pay in excess of what they should for their health services. In this way, community contributions may have been employed as a type of cost recovery scheme to support the endeavors of TEHIP.

Efficiency and Equity

Similar to the literature, key informants defined efficiency as related to the performance of a system. Dealing with inefficiencies in the health system through the BoD approach was seen as a way to lay the groundwork for dealing with equity. However, key informants acknowledge that there is an efficiency premium to pay for increasing the equity of a health system.

Earlier discussions of social determinants of health, including the Whitehall Studies, illustrate the importance of socioeconomic status and health. In the case of TEHIP distinctions based on socioeconomic status are limited to the urban/rural divide, the assumption being that the poor are homogeneously poor. Since the conclusion of TEHIP, studies on health equity among the poor using demographic surveillance systems (DSS) have shown that there is, in fact, considerable variation in wealth amongst the rural poor. However this information was deemed irrelevant in this case by some participants who explained that since DSS are not available in every district, the data from any available DSS could not be generalized to other districts. If this were truly the case, this would hold for scaling up of TEHIP as well. As of 2002, there were only five DSS operating in Tanzania (INDEPTH, 2002), however, the TEHIP tools have been scaled up to the national level.

TEHIP is also ill equipped to deal with the challenges associated with a rural population that differs in health status according to wealth. TEHIP was based on a disease burden approach and makes little reference to the social determinants of health. A social determinants of health approach may be necessary to address the differing health needs of this rural population, who indeed bear the largest BoD.

Finally, a long term concern related to efficiency and equity is the changing health profile of the country over time. As the tools of TEHIP are scaled up, increases in adult and child mortality are likely to be seen as budgets are reallocated to BoD. However, as these tools address the BoD, it will begin to change. Easily addressable ailments are likely to be replaced by more a more complicated disease profile. In addition, since TEHIP was designed to promote efficiency, the equity gap will likely increase. As the equity premium increases and the disease profile of the populations becomes more complex, a social

determinants of health approach, such as primary health care may be needed. In line with resource allocation in TEHIP, health care budgets in Tanzania are currently dictated by health reforms which support a Selective PHC approach. Therefore financing of the health system becomes a key concern.

Sustainability and Scaling Up

Key informant data suggests that scaling up and sustainability share support mechanisms. However, a key necessity in the scale up or sustainability of any strategy is integration into the political or governance structure, which includes accounting for the implementation of TEHIP tools and strategies in national budgets for health expenditure.

Key informants asserted that the TEHIP tools and strategies have indeed been taken up by the Tanzanian MOH in two ways. First, the MOH has initiated national scale up of the tools through Zonal Training Centres. Second, the introduction of the Sector Wide Approach in health budgeting allows for international funds to be collected into a common pool and distributed according to national strategies or policies for health service delivery, which includes a BoD approach to resource allocation.

As discussed under efficiency and equity, as the BoD profile in Tanzania changes, the strategies for delivering health services will also have to change. Here, SWAp funding could help to mitigate the effect of competing donor agendas that are often driven by a single-disease focus, the assumption being that as the national strategy to promote health changes with shifts in the BoD, so will the distribution of funding and the allocation of donor support.

The primary concern here is availability of funding for a health systems versus a disease-specific approach. The implementation and employment of demographic

surveillance is very costly and is an essential part of the BoD approach taken by TEHIP. Although dissemination and application of the tools themselves may be inexpensive, obtaining the data needed to use these tools is costly. Although some international funding has been offered by CIDA to scale up, the parameters of this funding are unknown. To ensure that the positive health gains from TEHIP tools and strategies can be sustained, long term financing is needed.

As exemplified by key informant interviews and literature review, international debates over financing of health care have had significant impact on the Tanzanian health system. Early efforts towards socialism led to gains in health for Tanzania, however a series of economic setbacks led to more recent losses. Under the WB framework for health reform and with WB financing, new strategies for health delivery show promise as long as there are mechanisms in place to take on the challenge of promoting health equity in the future. The current focus on efficient allocation of resources will have to be superceded by a more comprehensive approach to health care which takes into account social determinants of health. Therefore, there will be an equity premium to pay and the cost of health care provision will likely increase.

In line with the equity and social justice framework offered by Pogge (2004) and conceptualizations of sustainability by Ooms (2006) additional international funding will be needed to sustain the gains of TEHIP. Since, as Ooms (2006) argues, Tanzania cannot fund its health system without international support, development agencies should continue to support health systems in low income countries. In addition, through their macroeconomic policies attached to loans and debt cancellation, international agencies have directed the evolution of the Tanzanian health care system and the Tanzanian economy in ways that have

contributed to its present inability to adequately meet the health needs of its population. The theory of relational justice thus holds these agencies, and the countries that dominate their policy decision-making, at least partly responsible for health outcomes within the nation (Pogge, 2004), and thus obligated to continue to support the Tanzanian health system.

Chapter 5: Conclusion

Combining key informant interview data and a review of theory and usage of key concepts associated with international efforts to improve health in the world's poorest countries, the following research questions have been explored:

- o How did persons involved in design, funding, implementation and outcome measurement of TEHIP conceptualize and operationalize key concepts related to the project, which include, participation, equity, efficiency, sustainability and scaling up?
- o How did those persons involved in design, funding, implementation and outcome measurement of TEHIP regard the strengths and weaknesses of these conceptual and operational definitions?
- o How did initial conceptualization of these central ideas change as they were implemented over the course of the project?

Exploration of these research questions and evaluation of the resulting analysis have provided me with insights into limitations of this research and provided direction for topics that may be explored through future research.

Limitations of the Research

First, the parameters of fieldwork limited the range in the type of people I was able to contact as potential key informants. Therefore, the range of perspectives offered here may be smaller in scope. Although data saturation was met, that is in the exploration of definition of terms, data was collected until no new definitions were found, an extended period of time and greater resources for data collection might have compensated for these limitations.

Second, there has been a significant lapse in time between the end of TEHIP and this research. Although this time-lapse allows for a retrospective assessment and a chance to consider lessons learned from TEHIP, changes in the context of international health since the project's completion, such as trends or the popularization of new theory or ideology, cannot be controlled for. Therefore, contextual factors since TEHIP will have had an influence on key informant data. Careful attention to how results of key informant interviews was presented, such as the tense used or reference to events, mitigate this effect in data analysis.

Directions for Future Research

Further consolidation in the understanding, or conceptual definition, of the central concepts may be pursued. An alternative and more fruitful approach, however, would be to deepen the understanding of how these terms are applied. As in the cases of participation, scaling up and sustainability, conceptual definitions were highly varied, context specific and difficult to distinguish from how understandings of how the idea was applied. As suggested by Morgan (2001) a focus on the parameters of participation, scaling up or sustainability, rather than their definition, a “how” rather than a “what” approach, may be helpful in promoting understanding of these terms.

In addition, further exploration into strengthening health systems in a developing world context is needed. TEHIP has shown that despite criticism, prescriptions by the WB (WDR, 1993) regarding the impact of cost effective interventions led to positive gains for TEHIP's recipient population. However, the present research agenda demands understanding of how health systems themselves can be improved to promote and protect the health of their populations. Lessons learned about what is needed to strengthen health

systems from TEHIP, such as the need for investment in human resources, infrastructure and the collection and application of information that is offered by Demographic Surveillance Systems, may be applied to other contexts and other countries.

Finally, whether or not in tandem with research into increasing efficiencies or health systems, further investigation into how equity can be addressed in the design and delivery of health programs is needed. As in TEHIP, reaching the most remote or marginalized people within a population is difficult, expensive and requires context specific strategies. Health interventions in the developed and developing world will often fail to reach this subset of the population or may not be designed to. As inefficiencies and inequities in health systems are dealt with, new insights into how to reach these populations may become evident.

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Appendix A: Email Script

Hello _____,

My name is Sherry Ally. I am a Master's student at the University of Ottawa, Canada, and I am currently completing my thesis with Professors Labonté and Schrecker of the University of Ottawa. This project is being completed with the assistance of the International Development Research Centre (IDRC). A research associate within the IDRC recently informed you that I would be contacting you about this project since you had been involved in the design and/or implementation of a research project completed in cooperation with the IDRC.

I would like to provide you with some information about my thesis. As an MA student within the Globalization and International Development Program at the University of Ottawa, I am exploring the Tanzanian Essential Health Interventions Project. I would like to learn more about how TEHIP researchers and program staff viewed the project and its outcomes. Specifically, I would like to speak with project researchers and staff about how they define concepts central to the program.

To enrich my understanding of TEHIP and in order to meet with program staff, I will be completing fieldwork in Rufiji and Morogoro districts during the second half of May and most of June, 2008. At that time I would like to interview program researchers and staff that continue to reside within these areas of Tanzania.

I understand that the first stage of TEHIP was completed a number of years ago and since then you may have changed jobs or residences. Due to the significant amount of time that has passed since your involvement in the project, in addition to a letter of invitation to participate, at this time, I would like to provide you with a copy of the interview guide that I will use to complete my project. This may help you to consider and recall your experiences.

Also, you are able to withdraw from this project at any time without penalty by contacting me by phone or email.

Do you have any questions about my project at this time?

Would you like to schedule an appointment to meet to discuss my project or conduct an interview?

Thank you for your time.

Please feel free to contact me (1-905-483-4241, sherryally@gmail.com) should you have any questions at a later date.

Appendix B: Recruitment Letter

Date _____

Dear _____,

This letter is an invitation to consider voluntary participation in a study I am conducting as part of my Master's degree in Globalization and International Development at the University of Ottawa, Canada, under the supervision of Professors Ronald Labonté and Ted Schrecker.

This project is entitled *Towards the Definition of Concepts in International Health*

Intervention: Participation, Efficiency, Equity, Sustainability and Scaling Up. This research project has been approved by the Health Sciences and Sciences Research Ethics Board of the University of Ottawa. I would like to provide you with information about this project and what your involvement would entail if you decide to take part.

Purpose: The purpose of this study is to examine how key concepts in international health are defined and applied within international health interventions and to determine how these concepts can be more concisely defined and applied. These concepts include participation, equity, efficiency, sustainability and scaling up of health interventions. The Tanzanian Essential Health Interventions Project provides an excellent case study in which to examine these concepts. I would like to examine how these concepts were/are understood and applied by those persons involved in the design, funding, implementation and outcome measurement of TEHIP as a single case of an international health intervention.

Rationale: The Tanzanian Essential Health Interventions Project provides an excellent case study to examine the influence of historical economic and political trends on health system design in developing countries and health outcomes for their populations. TEHIP also provides an intersection point of a number of key concepts related to health outcomes in

developing countries such as participation, equity, efficiency, sustainability and scaling up of health interventions.

Participants: Approximately twelve interviews will be conducted within this study including persons involved in the design, funding, implementation and outcome measurement of TEHIP.

Participation: Participation in this study is voluntary. Your participation will involve a one-on-one interview in person or by telephone, if necessary, of approximately forty five minutes to sixty minutes in length. This interview will be conducted at a time that is mutually convenient. You may decline to answer any of the interview questions and may withdraw from this study at any time without penalty by advising the researcher. With your permission, the interview will be tape recorded and later transcribed for analysis.

Confidentiality: All information you provide is confidential. You will be asked for permission to be acknowledged in the study, but only anonymous quotations may be used. Only my thesis committee (Professors Ronald Labonté, Ted Schrecker, Carol Amaratunga and Peter Tugwell) and I will have access to primary data collected through this study and any part of your interview may remain confidential at your request. Data will be stored in the supervisor's office for a period of five years from completion of the thesis. After this period, the data will be destroyed.

Risks and Benefits: There are no known or anticipated risks or benefits to you as a result of your participation in this study.

If you have any questions regarding this study, or would like additional information to assist you in reaching a decision about participation, please contact me at

or at

I very much look forward to speaking with you and thank you in advance for your assistance with this project.

Sincerely,

Sherry L. Ally

Appendix C: Consent Form

I, _____, agree to take part in the study entitled *Towards the Definition of Concepts in International Health Intervention: Participation, Efficiency, Equity, Sustainability and Scaling Up*. This study is being conducted as part of Sherry L. Ally's degree requirements through the Master of Arts Program in Globalization and International Development at the University of Ottawa, Canada. This research project has been approved by the Health Sciences Research Ethics Board of the University of Ottawa.

I have read the information presented in the information letter and I understand that, as a participant in this study, I will be interviewed, in person or by telephone, by Sherry L. Ally. I understand that this interview will be tape recorded and transcribed.

I understand that I may refuse to answer any interview questions I wish or withdraw my consent at any time without penalty by advising the researcher.

I understand that my interview will remain confidential and Sherry L Ally and her thesis committee only, may view primary data collected through this interview. I understand that although I may be asked to be acknowledged in the study, any excerpts from the interview which may be included in the thesis and/or publications to come from this research, will be anonymous.

I understand that I will not benefit, nor incur any risk, from participating in this study.

I understand what this study, and my participation, involve and agree to participate in this study. I have been provided with a copy of this consent form for my records.

If I have any comments or concerns resulting from my participation in this study, I may contact Sherry L. Ally at _____ 1. Should I have any questions with regard to the ethical conduct of the research, I may contact the Protocol Officer for Ethics in Research.

Protocol Officer for Ethics in Research

University of Ottawa

Tabaret Hall, Room 159

550 Cumberland Street,

Ottawa, Ontario, Canada

K1N 6N5

1-613-562-5841, ethics@uottawa.ca

Signature: _____

Date: _____

Appendix D: Interview Guide

I would like to begin with a discussion of the setting in which TEHIP was developed.

- 1) What was happening in regard to trends in international health around the time that TEHIP was being developed? Did this influence the design or implementation of TEHIP and if so, how?
- 2) What was happening in Tanzania at the time that may have influenced TEHIP?
- 3) Were there any other factors at the time that were influential in the early stages of the development of TEHIP?
- 4) TEHIP was unique in regard to the integration of the research and development stages of TEHIP; can you describe to me how this integration took place?

I would now like to turn to discussion of your role as a TEHIP researcher.

- 5) Can you please tell me about your role as a member of the TEHIP research team?
- 6) As a member of the TEHIP research team, in the capacity that you have just described to me, can you tell me about the intended goals of this project?
 - a. Did these goals change over the duration of the project? If so, how did they change?

A number of concepts seem central to TEHIP and I would like to know more about them.

Specifically, how you understood these concepts and applied them during the stages of design, implementation and outcome measurement of TEHIP and how your understanding or application of these concepts changed over time.

- 7) The concept of efficiency is central to TEHIP. As a TEHIP researcher, how do you define efficiency?
- 8) How was this concept of efficiency applied during the design and implementation of TEHIP?
- 9) How did your understanding or application of efficiency change over the duration of TEHIP?
- 10) In your opinion, using the definition of efficiency you have provided me with, were the outcomes of TEHIP reached through efficient methods?
- 11) The Cost-effectiveness and District Cost Information System Tool was described as the “tool that got away”, why?
- 12) The concept of equity is also central to TEHIP, as a TEHIP researcher, how do you define equity?
- 13) Was this concept of equity applied during design and implementation of TEHIP and if so, how?
- 14) How did your understanding or application of equity change over the duration of TEHIP?
- 15) In your opinion, using the definition of equity you have provided, were the outcomes of TEHIP equitable and how so?
- 16) Community Voice was a tool used within TEHIP, what was the purpose of this tool and what type of information did it provide?
- 17) As a TEHIP researcher, how did you understand the concept of participation?
- 18) How was this concept applied within TEHIP?

Finally, I would like to discuss continuation of TEHIP.

19) Funding has been secured to ensure that the interventions used in TEHIP continue to be applied in Tanzania. This funding has been supplied as part of an effort to scale up

TEHIP.

- a. What do you consider to be the important characteristics of scaling up? That is, how would you define it for me?
- b. Was scaling up an intended goal of TEHIP?
- c. If so, at what point in the project did discussions on scaling up emerge? At that time, what form was scaling up thought to take? How did this change over time?
- d. If scaling up was not an intended outcome, why?

20) What mechanisms are in place to support scaling up of TEHIP?

21) What barriers to scaling up exist?

22) Evaluative studies of TEHIP have noted concerns with regard to sustainability of TEHIP? How do you define sustainability?

23) How was this concept of sustainability applied in TEHIP?

24) In your opinion, using the definition you have provided, was TEHIP sustainable?

- a. If so, why?
- b. If not, why not?

25) Is there anyone else that you think I should speak with?

26) Is there anything you would like to add?

27) Finally, do you have any questions of me?

Appendix E: Notice Of Ethics Approval

(Appended to original.)