Understanding Stakeholders' Roles in Health Sector Reform Process in Tanzania: The Case of Decentralizing the Immunization Program.

INAUGRUALDISSERTATION

zur

Erlangung der Würde eines Doktors der Philosophie

Vorgelegt der

Philosophisch-Naturwissenschaftlichen Fakultät der

Universität Basel

von

Innocent A. J. Semali

aus Moshi, Tanzania

Basel, 2003

Genehmigt von der Philosophisch-Naturwissenschaftlichen Fakultät der Universität Basel auf Antrag von

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Basel, den 6. Mai 2003

Prof. Dr. Marcel Tanner
Dekan

Dedicated to my family

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Acknowledgements

I wish to thank the Permanent Secretary, Director of Preventive Services, Director of Policy and Planning, Manager of the Expanded Programme on Immunization of the Ministry of Health, Government of Tanzania who granted permission to conduct the study. I am very grateful to all staff of the Ministry of Health, President's Office Regional Administration and Local Government, Medical Stores Department, and health providers of the districts studied for being willing to provide information that made this study possible.

I wish to express my sincere thanks to my first supervisor Dr. Don de Savigny, currently Research Manager, Tanzania Essential Health Intervention Project (TEHIP). He was very crucial in getting the work off the ground and tirelessly providing very valuable guidance and support at every stage without which this work would not have been completed.

I am also deeply indebted to my thesis supervisor Professor Marcel Tanner Director for the Swiss Tropical Institute (STI) who accepted my aspirations to enroll for this PHD at STI. He has been very helpful during the course of this work and my stay at Basel, and always offered invaluable guidance and support while I was conceptualizing and writing this work.

I acknowledge with a lot of thanks the financial assistance from the Canadian International Development Research Centre (IDRC). The assistance was provided through grant 004339:

My deep appreciation to my colleagues at the Department of Epidemiology and Biostatistics of the Muhimbili University College of Health Sciences: Dr. K. Mnyika, Prof. J. Kilewo, Mrs. H. Ndema, Dr. G. Kwesigabo, Mr. C. Makwaya, Mrs. R. Mpembeni, Mrs. C. Moshiro, Dr. E. John and G. Leyna. My colleagues have always been encouraging and supportive all along, and during my absence they took over my responsibilities in the department. I am also indebted to the Director, Institute of Public Health and the Principal Muhimbili University College of Health Sciences for granting me leave of absence.

I extend my sincere thanks to all academic members of staff at STI who have been very supportive during my stay there. Special thanks to Mrs. Christine Walliser who tirelessly coordinated my travel and stay at Basle. She always took the trouble to meet me at the Central Railway Station to make sure I was not lost in that big city. Also, thanks to Jennifer Jenkins who read the manuscripts and made very important suggestions to improve clarity.

I am also indebted to Tanzania Essential Health Intervention Project (TEHIP) staff Dr. Reid Graham, Dr. Conrad Mbuya, Dr. Harun Kasale and Mr. Honorati Masanja who on a number of times read the papers, made useful comments and also provided very good reading materials whenever they were available.

Last but not least, I am very thankful to my family: my wife Anna, children Nelson, Maria, Laura and Anthony who put up with my long absence and were very supportive throughout. Their perseverance and prayers have eventually seen me through.

Summary

The current need and enthusiasm for health reforms open an important arena for deeper analysis of the policy process with a view to understanding the political determinants of reforms and strengthening implementation. The studies described in this thesis analyse positions of different actors in the reform process, their actions in support or opposition of the process, and their impact on the health sector reform process. Globally and especially in developing countries health sector reforms have been implemented over long periods. Although there have been improvements in health, the remaining burden of disease in many countries is still very high. Reasons for the high burden of disease have been classified into lack of resources and poor organizational and managerial capacity.

Good stewardship was needed to facilitate improvement in the performance of health systems. Stakeholders' alignment and support was one of the most important components of good stewardship. However, stakeholder analysis had not been a common undertaking in developing countries despite the reforms that were being implemented in most of them. It was the aim of this study to answer the question: *What has been the role and importance of stakeholders in supporting or opposing the health sector reform process?* The study was conducted in Tanzania as one of the poorest countries in Africa, using the decentralization of the Expanded Programme on Immunization (EPI) as a case reference.

The study units were the Ministry of Health Headquarters, Medical Stores Department, Expanded Programme on Immunization, national archives, regions and districts. At district level the study units were District Council, Council Health Management Team, EPI managers at regional and district levels, ward and village authorities, health facility, facility providers and households.

Qualitative and quantitative methods were used to collect data from January 2000 to June 2002. Relevant data collection instruments were prepared and

pre-tested. The qualitative data collection methods included document review, in-depth interviews, key informants interviews and observations. Quantitative methods involved retrieval of secondary data, health facility survey and household surveys. Regular discussions with key informants and data collectors were held to verify the findings. Qualitative data was analysed manually. Quantitative data was captured and analysed using Epi Info version 6.1 and STATA version 6.0.

The study involved answering five main questions. The first question was: *Do reforms learn from history?* Analysis of the waves of health reforms prior to the current reforms from 1926 was done to answer the question. The main stakeholders in the reforms were the political party in power, the government and donors who supported the reforms each time. Each wave of health sector reforms provided information on health provision, financing and resource generation. Due to the political contexts, information on failures of health financing did not provide lessons for succeeding reforms of the health sector. Stakeholders' political interests opposed lessons that did not match the political ideology at the time i.e. free public services versus privatization and paying for social services. Lessons from previous health reforms were selective, and did not consider health-financing needs among others. The ongoing health reforms needed to use information from all functional aspects of the health system to provide lessons for improving the health system.

The second question was: *Who were the stakeholders in the current health reforms and what were their interests and reactions?* The main stakeholders were donors, and the government. The two had a very high support for the reforms evidenced by their participation in problem identification, justification, reform design, planning and implementation. The health sector reforms thus had high political support at central level. In the implementation process, issues that triggered stakeholders' reaction included sectoral versus local government decentralization. Another issue was the donor modality in financing the health sector and need for adopting new financial management systems. Among the donors there was hesitancy to join the common financing modalities that included a Sector Wide Approach (SWAp) and Basket

Funding. As a result, there was delay in the process in order to reach better consensus.

The third question was: *What was the impact of stakeholders in the process of reforming a vertical programme like EPI?* Health Sector Reforms in EPI included integration of generic functions, for example, vaccine procurement to medical stores department. Qualitative and quantitative data was collected and analysed from the Ministry of Health, EPI management unit. This again revealed that EPI reforms were well supported by the government and donors centrally. EPI managers at both district and regional levels opposed some of the EPI reforms. They argued that coverage was falling due to the reforms. However, there was no concrete evidence relating reforms in the EPI programme and falling coverage. The primary aim of certain actors was to make sure that they continued receiving extra income from EPI functions. One of the effects of stakeholders' reaction was reversal of reforms (re-centralization) and return to the status quo.

The fourth question was: *What was the immediate reaction of stakeholders to decentralization at district level and how might it have affected performance of EPI functions and the challenges?* The immediate reaction of stakeholders was reduced cooperation between the Council Health Management Team (CHMT) and the District Council who were politically supreme in the district. Within the Council Health Management Team there was inadequate communication, which led to poor teamwork. The result of this was reduced supervisory visits to peripheral health facilities. The EPI coverage in the study district was 52.8 per cent, which was well below the previous national average (80 per cent). A logistic regression model for EPI service quality variables on children between 12 months and 23 months who had completed vaccination was applied. Certain EPI quality of service variables predicted significant changes in the odds ratio for completing vaccination. It was then suggested that strategies were needed to improve management skills among the CHMT and District Council members. Also there was a need of hastening the process of increasing remuneration and motivation of peripheral health workers.

The fifth and final question was: *What was the interest of the stakeholders and prospects of increasing EPI coverage at district level?* Decentralization and integration of EPI functions were among the reforms at district level. The analysis revealed that active stakeholders at district level were the Ministry of Health, CHMT, EPI managers at district and regional levels and facility providers. The Ministry of Health opposed integration of EPI at district level by issuing the directive that DCCOs and MCHCOs (EPI manager at district level) should resume their tasks. However, the CHMT had no option but to comply. This action reversed some of the health reforms at district level. Analysis of the importance the community attached to EPI, using willingness to pay for EPI cold chain kerosene, was done. The support was low (48.7 per cent). EPI service quality variables were significantly negatively associated with odds ratio for willingness to pay for EPI input. Simulation with Policy Maker computer software predicted that an increased number of stakeholders through community participation would significantly improve the current low level of EPI coverage. It was then proposed to do a similar analysis in other vertical programmes and implement on a trial basis the results of the simulation.

In conclusion, stakeholders were found to be active and influential in the health sectors of developing countries like Tanzania but poorly considered in implementation of reforms. Stakeholders are important since some strongly support while others oppose the reforms. The reaction of stakeholders is evident through deployment or non-deployment of information depending on interest and context. This would result in poor management leading to inefficiency in resource use, which would then be followed by poor quality of services, poor support by communities and consequently poor utilization of health services. It is suggested that stakeholder analysis be conducted in other vertical programmes in the process of integration. Promotion of stakeholder analysis and also Policy Maker as a tool to manage stakeholders will facilitate the management of reforms in the health sector.

Zusammenfassung

Die derzeitige Situation und die künftigen Herausforderungen im Gesundheitssektor verlangen nach standardisierten Ansätzen zur Bewertung der Leistungen und Prozesse im Gesundheitswesen, damit die Gesundheitspolitik und die daraus abgeleiteten Strategien rational reformiert werden können. Von besonderer Bedeutung ist dabei ein tieferes Verständnis der politischen Entscheidungsprozesse im Verlauf einer Gesundheitsreform.

Die vorliegende systemepidemiologische Arbeit analysiert die Haltung verschiedener Akteure im Reformprozess, deren unterstützende oder entgegenstellende Positionen und daraus resultierenden Handlungen, sowie deren Auswirkungen auf die Determinanten und Schwerpunkte von Reformen im Gesundheitswesen. Weltweit, und vor allem in Entwicklungsländern wurden Reformprozesse des Gesundheitssektors schon seit vielen Jahren versucht. Obwohl Verbesserungen messbar sind, verbleibt die Krankheitslast - die Gesamtbürde von Morbidität, Mortalität und Behinderung - in vielen Ländern noch sehr hoch. Fehlende Ressourcen sowie suboptimales Management auf Regierungs- wie auch Nichtregierungsebenen werden als die häufigsten Gründe dieser schwierigen, oft sogar alarmierenden Situation im Gesundheitssektor genannt.

Gute Verwaltung und Gouvernanz („stewardship“) war und ist nötig um die Effizienz von Gesundheitssystemen zu erhöhen. Die Koordination und Unterstützung der Entscheidungsträger waren die wichtigsten Komponenten der guten Stewardship. Dennoch wurden bis heute selten umfassende Analysen der Haltungen und Handlungen von Entscheidungsträgern in Entwicklungsländern vorgenommen, obwohl gerade diese Entscheidungsträgeranalysen Reformprozesse ausrichten und bestimmen können.

Das Hauptziel dieser Arbeit war es abzuklären, welche Rolle Entscheidungsträger in der Unterstützung oder Ablehnung der Reformprozesse des Gesundheitswesens in Tansania, eines der ärmsten Länder Afrikas, spielen. Nebst der theoretischen und konzeptuellen Analysen wurde eine umfassende Fallstudie zur Dezentralisation des Säuglingsimpfprogramms („Expanded Program on Immunization; EPI)“ vorgenommen.

Die folgenden Einheiten wurden analysiert: Das Gesundheitsministerium (Ministry of Health; MoH), die Medikamentenversorgung, das EPI- die nationalen Archive, Regionen und Distrikte. In den Distrikten konzentrierten wir uns auf die Regierungsträger, die Gesundheitsverantwortlichen und entsprechenden Management-Teams, die regionalen und distrikts-basierenden Leiter des EPIs, Dorfvorsitzende, Gesundheitszentren und Gesundheitspersonal sowie Vertreterinnen und Vertreter der Bevölkerung.

Qualitative und quantitative Methoden wurden zur Datensammlung von Januar 2000 und Juni 2002 eingesetzt. Die qualitative Datensammlung bestand aus dem Überprüfen von Dokumenten, vertieften Befragungen, Befragungen von zentralen Personen und Beobachtungen. Quantitative Methoden beinhalteten das Entnehmen von sekundären Datensätzen, Untersuchungen in Gesundheitszentren und Untersuchungen auf Bevölkerungsebene. Zur Überprüfung der gesammelten Informationen wurden regelmässige Treffen mit dem Studienpersonal veranstaltet. Die qualitativen Informationen wurden von Hand analysiert, während quantitative Daten im Programm Epi Info (Version 6.1) und STATA (Version 6.0) eingegeben und analysiert wurden.

Die vorliegende Arbeit untersuchte fünf Hauptfragen:

1. *„Lernen Reformen aus der Geschichte?“*
Die Wellen der Gesundheitsreformen in Tansania seit 1926 vor der heutigen Reform wurden analysiert. Die Hauptentscheidungsträger in diesen Reformen waren die regierende politische Einheitspartei, die Regierung und die Geldgeber, welche die Reform jeweils unterstützten. Jede Reformwelle brachte Information über Gesundheitsvorsorge, -finanzierung und Erzeugung von Hilfsmitteln. Wegen der politischen Zusammenhänge haben Informationen über das Misslingen von Gesundheitsfinanzierungen meist keine Lehren für die darauffolgenden Reformen erzeugt. Entscheidungsträger setzten sich gegen die gezogenen Lehren ein, da diese nicht der zeitlichen politischen Ideologie entsprachen – z.B. staatliche Subventionierung versus Privatisierung. Die gezogenen Lehren von früheren Gesundheitsreformen

waren selektiv und schlossen oft die Bedürfnisse für eine Gesundheitsfinanzierung nicht ein. Die aktuelle Gesundheitsreform musste vor allem Informationen über die funktionellen Aspekte des Gesundheitssystems verarbeiten, um Schlussfolgerungen für die Verbesserung des Gesundheitssystems zu schliessen.

2. *„Wer waren die Entscheidungsträger in der aktuellen Gesundheitsreform und was waren ihre Interessen und Reaktionen?“*

Die Hauptentscheidungsträger waren die externen bi- und multilateralen Geldgeber und die tansanische Regierung. Alle Schritte der Reformprozesse (Problemidentifikation, Rechtfertigung, Reformentwurf, Reformplanung und Reformeinführung) wurden zentral geleitet oder wenigstens eingeleitet. Sie waren damit auf zentraler Ebene politisch stark verankert. Umgekehrt wurden die peripheren Strukturen auf Grund der nicht gelösten Spannungen der Dezentralisierungsprozesse kaum einbezogen. Weitere Schwierigkeiten ergaben sich aus den Modalitäten der Geldgeber, die die Regierungen und insbesondere den Gesundheitssektor stark forcierten neue Finanzverwaltungssysteme zu übernehmen und noch nicht politisch verankerte Strategien umzusetzen (z.B. Privatisierung, Gemeindebeteiligung). Geldgeber einigten sich nur zögernd und verspätet auf gemeinsame Modalitäten wie zum Beispiel der „Sektor Wide Approach (SWAp)“, das auch das „Basket Funding“ ermöglichte.

3. *„Welchen Einfluss hatten Entscheidungsträger auf den Prozess eines vertikalen Programms wie EPI?“*

Die Reformen im EPI beinhalteten auch Grundfunktionen wie z.B. das Beschaffen und Verteilen von Impfstoffen. Umfangreiche qualitative und quantitative Daten wurden von der zentralen EPI-Betriebsabteilung des MoH regelmässig gesammelt und analysiert, was auf eine gute Akzeptanz und Unterstützung der EPI-Reformen durch die Regierung und die Geldgeber weist. EPI-Leiter auf Distrikt und regionaler Ebene sprachen sich gegen jegliche Reformen aus, weil nach ihrer Meinung damit die erreichte Abdeckungsrate („Coverage“) sinken könnte. Dafür wurde aber im Verlauf der Studie kein entsprechender Hinweis gefunden. Die Daten zeigten, wie sehr

die Entscheidungsträger die Umkehrung der Reform (Re-Zentralisierung) und die Rückkehr zum Status quo beeinflussten.

4. *„Welches war die unverzügliche Reaktion der Entscheidungsträger auf die Dezentralisierung auf Distriktsebene und wie könnte die Dezentralisierung die Umsetzung des EPI in Bezug auf Funktionen und Herausforderungen beeinflusst haben?“*

Die unmittelbare Reaktion der Entscheidungsträger war ein Nachlassen der Abnahme der Zusammenarbeit zwischen dem Gesundheitsteam des Distriktes („Council Health Management Team“; CHMT) und der Distriktsregierung. Innerhalb des CHMTs gab es oft unzureichende Kommunikation, welche schliesslich zu mangelnder Teamarbeit führte. Das resultierte in einer Abnahme der Supervisionsbesuche in peripheren Gesundheitszentren. Die Abdeckungsrate von EPI lag bei 52.8% im Studiendistrikt, was weit unter dem früheren nationalen Durchschnitt von 80% lag. Ein logistisches Regressionsmodel wurde angewendet mit Kindern zwischen 12 und 23 Monaten, welche vollständig geimpft waren, und Variablen, welche die „Qualität der EPI- Service Leistung“ beschrieben. Manche Variablen zeigten signifikante Assoziationen mit „vollständiger Impfung“ voraus. Daraus ergab sich, dass Strategien zur Verbesserung der Leitung im CHMT und in der Distriktsregierung von grosser Dringlichkeit sind. Hinzu wurde deutlich, wie entscheidend Belohnung und Motivation von peripherem Gesundheitspersonal waren.

5. *„Welches war das Interesse und die Aussicht der Entscheidungsträger den Bedeckungsgrad des EPI auf Distriktsebene zu steigern?“*

Dezentralisation und Integration der EPI Funktionen waren zentrale Themen der Reformen auf Distriktebene. Die aktiven Entscheidungsträger waren MoH, CHMT, und EPI-Leiter auf Distrikt und regionaler Ebene sowie das Gesundheitspersonal in den Gesundheitseinrichtungen. Das MoH wehrte sich aktiv gegen eine Integration des EPIs auf Distriktebene durch eine Richtlinie, die den EPI-Koordinatoren wieder die Funktionen wie in einem zentralen System zuwiesen. Das Gesundheitsteam auf Distriktsebene hatte keine

andere Wahl als dieser Richtlinie zu folgen und so wurden die Reformprozesse auf Distriktsebene nicht umgesetzt.
Der Wert der EPI-Leistungen für die beteiligte Bevölkerung wurde durch eine Analyse zur Bereitschaft, für die Leistungen zu zahlen („willingness to pay"), abgeschätzt. Bloss 48.7% der Bevölkerung signalisierte diese Bereitschaft. Zudem wurde eine deutlich negative Assoziation zwischen der empfundenen Qualität der Dienste und der Bereitschaft der Beteiligung erfasst. Simulationen mit „Policy Maker"–Software, zeigten deutlich auf, dass die EPI Bedeckungsrate durch den stärkeren Einbezug der Bevölkerung in das EPI, signifikant erhöht werden könnte. Eine ähnliche Analyse, mit anderen vertikalen Gesundheitsprogrammen und –strategien wäre interessant und für Reformprozesse wegweisend.

Zusammenfassend wird erkannt, dass die Entscheidungsträger im Gesundheitswesen trotz ihrer Schlüsselrollen bei Reformprozessen kaum richtig einbezogen werden. In der Folge bleiben viele Schritte von Reformprozessen nicht oder nur teilweise umgesetzt und die Effizienz der Gesundheitssysteme, Leistungen für die Bevölkerung zu erbringen, nimmt rasch ab. Ressourcen werden trotz bestehender Mittelknappheit nur teilweise genutzt, die Bevölkerung verliert das Vertrauen in das Gesundheitssystem und die angebotenen Leistungen und die Benutzung der Dienste gehen zurück, was sich wiederum im Gesundheitszustand einer Bevölkerung negativ widerspiegelt.
Entscheidungsträgeranalysen helfen, das Funktionieren von Gesundheit-systemen besser zu verstehen, Reformprozesse zu begleiten und werden damit zu wichtigen Instrumenten um bei grosser Mittelknappheit die vorhandenen Ressourcen (Gelder, Personal, Infrastrukturen, Interventions-pakete) gezielter und damit effizienter und zum Nutzen der betroffenen Bevölkerung einzusetzen.

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ABBREVIATIONS

AMMP	Adult Morbidity and Mortality Project
BCG	Bacilli Calmette Guerin
BFC	Basket Fund Committee
BoD	Burden of Disease
CHMT	Council Health Management Team
CCM	Chama cha Mapinduzi
CMS	Central Medical Stores
CSRP	Civil Service Reform Programme
CSSC	Christian Social Service Commission
CTU	Central Transport Unit
CVS	Central Vaccine Stores
DALYs	Disability Adjusted Life Years
DANIDA	Danish International Development Agency
DFID	Department for International Development
DC	District Council
DCCO	District Cold Chain Officer
DED	District Executive Director
DMO	District Medical Officer
DMCHCO	District Maternal and Child Health Coordinator
EDP	Essential Drug Programme
EPI	Expanded Programme on Immunization
ERP	Economic Recovery Programme
ESAP	Economic and Social Adjustment Programme
LGR	Local Government Reform
GDP	Gross Domestic Product
GTZ	German Technical Cooperation
HSR	Health Sector Reform
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
IDRC	International Development Research Centre
IMCI	Integrated Management of Childhood Illnesses
JICA	Japanese International Development Agency
MCH	Maternal and Child Health Services

METF	Medium Term Expenditure Framework
MoH	Ministry of Health
MoF	Ministry of Finance
MoRALG	Ministry of Regional Administration and Local Government
MSD	Medical Stores Department
NGO	Non-Government Organization
OPV	Oral Polio Vaccine
OR	Odds Ratio
PORALG	President's Office Regional Administration and Local Government
PoW	Programme of Work
PoA	Programme of Action
PHC	Primary Health Care
PRSP	Public Sector Reform Programme
RMO	Regional Medical Officer
RMCHCO	Regional Maternal and Child Health Coordinator
RCCO	Regional Cold Chain Officer
SAP	Structural Adjustment Programme
SDC	Swiss Development Cooperation
SEAP	Social Economic Adjustment Programme
STI	Sexually Transmitted Illness
SWAp	Sector Wide Approach
RVS	Regional Vaccine Stores
TEHIP	Tanzania Essential Health Intervention Project
USAID	United States of America International Aid
UNICEF	United Nations Children's Fund
UNFPA	United Nations Fund for Population Activities
UNDP	United Nations Development Programme
VHW	Village Health Worker
VII	Vaccine Independent Initiative
WTP	Willingness to Pay
WHO	World Health Organization

Chapter 1:

Introduction

1.1 Background

This study presents an analysis of the positions of different stakeholders in health sector reforms, their actions (support or opposition to the reform process) and impact, in order to draw lessons that will enhance the success of the ongoing health sector reforms. Many countries started implementing intensive reforms in their health sectors in order to improve performance of the health system functions (Macrae *et al.*, 1996; Gesami, 1999; Sauerborn *et al.*, 1999a). Health systems and especially those of developing countries have been under-performing and failing to reduce the remaining burden of disease (BoD). The global burden of disease was still very high in 1990s and it was estimated that 1.4 X 10^9 Disability Adjusted Life Years (DALYs) were lost annually (Murray & Lopez, 1997). There was a very wide geographical variation of BoD across countries. Sub-Saharan Africa, where there was less than nine per cent of the world population, had about 21 per cent of BoD. Reasons for the high BoD in the developing world were poor management, lack of resources and organizational failure (World Bank, 1993).

Thus, better stewardship was needed to facilitate improvement in the performance of health system functions such as service provision, resource generation and health system financing (WHO, 2000b). Good stewardship requires a sound economic situation, supportive political environment and coalitions of support from stakeholders at all levels for success. Stakeholders' analysis and management are important undertakings to ensure success of the reforms. However, it was hardly done in developing countries including Tanzania, hence the need to start a process of developing and adopting stakeholder analysis skills. As a baseline process this study sought to answer the question: *What have been the roles of stakeholders, and their effect on the process of health sector reforms in developing countries?*

1.2 Introduction

The WHO Director General's message in the World Health Report 2000 asked three questions focusing on performance of the health system (WHO, 2000b). They were: 1) *What makes for a good health system?* 2) *What makes a health system fair?*, and 3) *How do we know that a health system is*

performing as it should? Answers to the questions would need one to be able to objectively measure health system performance and also the justification of reforms and their design. Health system performance varies much across countries depending on the income, expenditure, and how it is designed, managed and financed. In order to be able to measure the performance of the health system within and between countries, goals and functions of a health system have been defined.

WHO has defined a Health System as "all the activities whose primary purpose is to promote, restore or maintain health" (World Bank, 2002). This definition includes personal and public health care (health care system) and other non-health sectors like education and agriculture. The goals of the health system include achieving good health, fairness in financing and responsiveness. Achieving these health system goals depends on how well the functions of stewardship, creating resources, provision of services, and financing are performed.

Based on such goals a global comparison of all countries has been done to assess achievements in health. The World Health Chart presents for each country the achieved level of health using different parameters such as infant mortality rate, under five mortality rates and life expectancy versus economic indicators (WHO, 2001). This allows a comparison of the levels of health achieved and the level of resources in each country measured by GDP etc. Overall there has been positive correlation between resource availability and level of health. However, many countries have achieved lower levels of health compared to GDP.

Angola whose GDP value was the same as that of Sri Lanka had significantly higher probability of infant survival compared to Sri Lanka. In another example Tajikistan that had significantly lower GDP compared to Botswana had the same level of infant survival. In another analysis using under-five mortality as a measure of health achievement in health provision, the World Bank compared eight countries according to their per capita income (The World Bank, 1994a). Zimbabwe had the least mortality (achieved better health)

compared with countries like Senegal, which had higher income but higher mortality. This suggests that national average income was not the only determinant of performance of a health system.

Analyses of developing world health care systems have been done to understand reasons for poor performance of their health systems and of Primary Health Care (PHC) strategies. It was observed that lack of political commitment to Primary Health Care was among the leading problems affecting health systems of developing countries (The World Bank, 1994a; WHO, 2000b). Other reasons were inefficiency in allocation of resources as African countries allocated more resources to urban areas and hospital care than to the majority rural poor. It was also revealed that another contributing problem was poor stewardship. Good stewardship was then needed to address efficiency in resource allocation, equity and build coalition of support among the various stakeholders. Health care reforms in developing countries took place along with political reforms, which broadened the stakeholders' spectrum (Gilson, 1993). This further stressed the need of developing stakeholders' management skills and tools in developing countries.

Primary Health Care strategies involved active participation of stakeholders in the production of health. The strategy included emphasis on self-reliance and community participation (Gish, 1983; Tanner *et al.*, 1986). This was expected to empower households and communities with knowledge and skills needed to reduce the burden of disease. Governments of the developing countries then needed to provide environments conducive in overcoming the obstacles to improved health. The supportive environment included: strong political commitment to improving health, as reflected in preferential government spending and intersectoral perspectives in planning and operating systems of health care; appropriate organizational framework and managerial process; equitable distribution of health resources and community involvement. However, despite these appealing policy contents, performance was thwarted by several problems (The World Bank, 1994a). The problems included:

- Weakness of political commitment

- Inadequate financing
- Technical inefficiency
- Hierarchical and centralized structures of the Ministry of Health Programmes and policies.

The World Development Report 1993 analysis grouped problems of health systems into inefficiency, misallocation, inequity and high costs. The report emphasized the need to reform health systems (World Bank, 1993a). Many countries responded to the World Bank advice and began a new round of reforms in their health systems after 1993.

1.3 Health sector reforms and their history

Health sector reforms aimed at implementing fundamental changes in the health sector that are purposeful and sustainable (Cassels, 1995b; Cassels, 1996; Gilson & Mills, 1997a; Leighton, 1996b; Macrae *et al.*, 1996). The changes consequent to health sector reforms involved re-defining priorities, refining policies, and reforming the institutions through which those policies were implemented. Overall, the goals of the health sector reforms were:

- To improve health status and consumer satisfaction by increasing the effectiveness and quality of services.
- To obtain greater equity by improving the access of disadvantaged groups to quality care.
- To obtain greater value for money (cost-effectiveness) from health spending, considering improvements in both the distribution of resources to priority activities (allocation efficiency) and the management and use of the resources that have been allocated (technical efficiency).

Before the nineteenth century, formal health care started as a charitable activity of religious institutions. Hospitals were for the sick poor, who lacked families, those working away from home, or travellers (Hearst & Blas, 2001a; WHO, 2000b). Hospital facilities increased with time and authority was created to regulate the functioning of the hospitals. Disease epidemics and

especially plague pandemics stimulated governments to be more involved in provision of health care.

In the beginning of the nineteenth century, in Europe and America, developments in science were adopted to increasingly underpin medical practice. A more scientific approach was then made mandatory through regulations and conduct. The number of hospitals increased rapidly but their financing still depended on charity. In order to increase resources for health, medical practice as a business started. Hospitals continuously adopted and consumed new scientific discoveries that made the cost of care increase on a continuous basis.

Provision of health care was not integrated and was provided on the basis of individual competition. After the First World War, new developments led to re-organizing health care, creating coordinated networks and integration. This was then the beginning of the modern health care system, which marked the first global reform of the health system. In Africa, religious organizations and colonial governments introduced health care to suit their interests (GTZ, 2001). Health systems in developing countries started after gaining their independence most of which occurred in the 1960s. Hence, in Africa, formal health systems for the populations were established three or four decades after those in Europe and America.

They adopted the western health system that was urban and hospital biased. Most of the budgets were consumed by hospitals that cared for a small proportion of the population. The poor, who were many, could not afford to pay for health care. In order to address inequity, countries ratified the Alma Ata declaration of health for all by the year 2000 in 1978 (Tanner *et al.*, 1986; Yach, 1996). The declaration adopted Primary Health Care strategies to address the inequity in the provision of health. These strategies included self-reliance, multi-sectoral approach and decentralization among others. This was then a second wave of global reforms in the health sector.

Health care reforms in Tanzania started with the introduction of Western health care in the late 1800s. Chapter 4 describes the four health care reform waves identifiable since 1880s to date. The first health sector reforms in Tanzania started in the late 1880s when the colonial administration established some form of health services which continued to 1961 when the country got its independence. The second wave of health sector reforms started immediately after independence in 1962 and continued to 1972. This period coincided with a need to adopt new policies for a newly independent country. New policy statements concerning health delivery were made and were guided by the Arusha Declaration. The third health sector reforms took place between 1972 and 1982. These reforms were prompted by the failure of local government to provide social services including health. It also coincided with political strategies of implementing socialist political ideologies as was stated in the Arusha Declaration. The central government assumed the role of providing health services in all districts. Due to a poor economic environment the ability of the central government to finance district health services declined with time. Failure to finance district health services was the main reason for the fourth health sector reforms that took place between 1983 and 1993. The health sector reforms that were ongoing were the fifth and were adopted to mitigate low financing of the social sector including the health sector. Chapter five gives a detailed account of the current reforms.

Tanzania started PHC strategies in 1967 after the Arusha Declaration that emphasized self-reliance and rural development. The emphasis of rural development re-oriented policies to increase resource allocation to rural areas compared to urban areas (Jonsson, 1986). The increased resources to the rural areas resulted in increased numbers of dispensaries and first aid facilities in rural areas. By 1980 more than 90 per cent of the rural population of Tanzania was within 10 kilometres from a health facility (Gish, 1983). However, more than ten years later, it was realized that PHC still didn't meet the expected goals. It also didn't satisfy local demands and was threatening the established hospital system. By the year 2000 analysis based on achievement of health system goals, Tanzania was ranked 176th out of 191 countries regarding the level of health status, 140th in respect to

responsiveness and 45th on fairness of financial contribution (World Health Organization, 2000). The new health sector reforms in Tanzania and the rest of the developing world aimed at improving the performance of the health system. This would facilitate improvement in quality and equity, access, resources and community participation.

1.4 Contexts of health sector reform evolution in developing countries

In developing countries, governments, donors and international agencies like the WHO, WORLD BANK and UNICEF have dominantly influenced health policy. Mogedal and Steen (1995) analysed health sector reforms in African countries and reported that health sector reforms were not initiated by the usual agenda-setting model from within but concluded that they were agenda founded and pursued by donors.

Events or the state of the health services in developing countries have not been able to influence reforms on their own. A comparative analysis of health sector reforms in Ghana and Zambia reported that by early 1980 health systems in both countries had deteriorated substantially and were in need of reform (Cassels & Janovsky, 1996). Immediately when the Ghana government was toppled it created an environment conducive for implementing reforms in the health sector. In contrast, Zambia remained with a poor health system until the 1991 general elections. Global and national economic environments necessitated reforms in many of the counties in Africa and the third world. Economic reforms in Tanzania triggered reforms in the social sector including health.

1.5 Current health sector reforms in Tanzania

1.5.1 Contents

Contents of health system reforms are determined by the expected achievements. Reforms of health care systems in developed countries aimed at containing the escalating costs of health care and changing public expectations (Cassels, 1995a). In developing countries, the aim was to increase resources to provide health care, efficiency and equity. The contents

included changes at systemic, programmatic, organizational and instrumental levels of the health systems.

The content of health sector reforms in Tanzania included:

(a) Ideological reforms which involve changing the role of the central government to that of facilitator in the provision of health services and abandoning the principle of free health care services to all (Ministry of Health, 1994b).

(b) Organizational reforms which included changes in the administrative structures through the creation of autonomous professional councils and district health boards, support of community based health care activities; a functional review of MoH in planning and financial budgeting, training of workers and establishment of a new scheme of promotion. The major policy change of HSR was decentralization i.e. transferring power and authority to the districts from the central level.

(c) Managerial reforms which included transferring the management of health services and district hospitals to local authorities, a decentralized scheme of service for the post of DMO, changes in the way of appointing DMOs and establishing an appropriate account to access funds for health services.

(d) Financial reforms included diversification of sources of health care financing, establishing health insurance and earmarking taxes as possible sources of revenue. Allocation of resources was based on cost-effectiveness analysis, population patterns, income distribution and utilization of health services.

(e) Public/private mix reforms included legalization of private practitioners as well as fostering the development of the private sector.

(f) Health systems research reforms to generate information for evidence-based practice.

Decentralization was a major theme of the reforms. Decentralization in Tanzania took place in three domains that were Political Decentralization, Financial Decentralization, and Administrative Decentralization (Local

Government Reform Component, 1996). These are explained briefly in the following paragraphs.

Political decentralization is devolution of powers from the central government to the district councils. Districts had sole powers and authority to plan, prioritise and allocate resources. The role of the central government was that of a policy maker and facilitator. Formally, vertical health care programmes were to be decentralized and integrated at the district level. The highest authority was vested in district councils. Formation of district health boards was optional but where it was formed it reported to the district council.

Financial decentralization was to enable district councils to levy local taxes to meet the obligations to render social services to the people in the district. Central government was obliged to give grants to local governments with a specified amount of money to run the social services. Government grants were to top up funds from local rates and alternative sources to finance the health services i.e. cost sharing, and establishing health insurance schemes.

Administrative decentralization was to de-link local government staff from their ministries. New local payrolls were established thus making them accountable to district councils only. Thus the district council was the only authority to hire, remunerate, discipline and fire the staff.

1.5.2 Health sector reform contexts

With a focus on developing countries, reforms include economic, political, epidemiological contexts and stakeholders. Most countries in the developing world experienced marked changes in these contexts. Changes in the contexts would influence new demands on the health system as well as re-shaping it.

1.5.2.1 Economic contexts

Most African countries experienced an economic recession in the late 1970s and early 1980s (Mogedal & Steen, 1995). This was characterized by high imports and low exports resulting in a very high trade deficit. The countries

had to curtail imports that included inputs to the health system. Economic recovery programmes were adopted with assistance of the World Bank. Donors' funds were channeled to specific programmes or geographical areas. Government contribution was curtailed by budget cuts in health and other social services as a condition to qualify for donor support. The impact was reduced investment in health, reduced quality of health services and consequently reduced utilization of health services. In Tanzania the situation was made worse by effects of supporting the Uganda war, drought and poor agricultural output (Lugalla, 1993).

In order to revive the economy, Tanzania started a Structural Adjustment Programme in the period 1982/83 to 1984/85. Later, with the World Bank in 1985 jointly agreed to establish and implement an Economic Recovery Programme (ERP) from 1986. The aims of ERP were to recover the economy through reducing inflation, re-establishing a free market and improving the balance of payment. After that with help of the World Bank, Tanzania adopted and started to implement an Economic and Social Action Programme (ESAP) in 1989/90 to 1991/92.

Collectively, the economic reforms were implemented through adopting several strategies that included liberalization of trade by reducing state control, reviewing public expenditures and other finance reforms. The strategies among others included reduction of civil servants including health workers, introduction of a fee for health services, and privatization of parastatal organizations. The output was then reforming other sectors including the health sector in line with economic reforms. Thus, health sector reforms followed after major financial reforms to mitigate poor quality of health care as a consequence of the economic reforms. The chronology of the reforms is presented in Table 1.1 below.

Table 1.2: Characteristics and chronology of reforms in Tanzania

Reforms and strategies	**1970-1980**	**1980-1986**	**1986-1993**	**1993-2000+**
Economic Reforms	No reforms Inflation	Economic Recovery Programme (ERP)	Economic Structural Adjustment Programme (SAP)	Socio-Economic Adjustment Programme (SEAP)
Economic Strategies	Central planning Price Control	• Reduce government expenditure • Control of imports	• Devaluation of Tanzanian currency • Liberalization of trade • Retrenchment of workers	• Social sector reforms • Debt relief • Privatization
Health Reforms	Partial decentralization	• Same • PHC strategies	Increase financing	Political, managerial, organizational and financing reforms
Health Strategies	• Dual responsibility for the district medical officer • Building many peripheral facilities • Efforts to train variety of health cadres need	• Same • PHC strategies	• Cost sharing • Private practice	• Changing role of Government • Decentralization • Reforming vertical Programmes • Cost sharing • Insurance • Community health fund • Private practice

1.5.2.2 Epidemiological context

In 1990 the remaining global BoD was estimated at 1.4 billion DALYs lost annually (Murray *et al.*, 1994b; Murray & Lopez, 1994a). However, developing countries contributed a very high proportion compared with the population size.

Tanzania, as one of the sub-Saharan African countries experienced a similar disease pattern as other countries in the region. Life expectancy in Tanzania increased from about 45 at independence to 51 in the early 1990s (World Bank, 1993a). However, due to the AIDS epidemic there was a subsequent decline in life expectancy. By the year 2000 it was estimated that more than 1.5 million people were infected with the AIDS virus and will suffer a chronic course of the disease (MOH & NACP, 2000). Before they die they will infect many others and exert a very high demand on the health care system. There

has been an ever-increasing demand on the health system from infectious conditions and AIDS, but resources have not increased in the same proportion. There was therefore a need of adopting more cost-effective approaches and more efficient methods to allocate those meager resources.

1.5.2.3 Political context

Reforms in the health sector follow major political changes. Major political changes that have been associated with reforms in the health sector include coups, election of new governments or a country emerging from wars. Such changes facilitate the implementation of reforms; for example, the political reforms that swept across the former Eastern block were followed with major reforms of the health sector.

In Tanzania political changes included the adoption of the Arusha Declaration in 1967. It declared that health care cost was free to all, people had to be self reliant and all means of production were owned by the government. In 1977 a law was passed that prohibited practice of medicine for profit. Due to drought, war and poor economic performance, the economy started to be reformed in the early 1980s. To increase resource availability and efficiency there was liberalization of the economy. Due to these developments the law prohibiting medical practice for profit was repealed. It paved the way for private practice in medicine and also the end of free medical care. In Tanzania political reforms occurred then as a result of changing global and country economic contexts. Thus, the economic contexts that prevailed were in favour of stakeholders whose interests and support favoured the resultant political changes.

1.6 Stakeholders and health reforms

Varvasovszky and Burgha (2000) defined stakeholders as actors who have interest in the matter under consideration, or who are affected by the issue, or who, because of their position have or could have an active or passive influence on the decision making and implementation process. Stakeholders include individuals, organizations and networks of individuals and groups.

Health sector reform as any other policy process has four stages that are: problem identification, policy formulation, implementation and evaluation. Stakeholders were likely to support or oppose some or all activities in each phase. Problem identification requires acquisition of information, which could be through research, personal observation or transferring from other areas. Before the 1990s, health polices relied mostly on a rational process of decision-making rather than evidence-based research (WHO, 1995a). Researchers would be providing evidence on available interventions especially their effectiveness, and equity issues.

The role of research in health policy in developing countries was appreciated in the 1990s (Niessen *et al.*, 2000a; Tollman & Zwi, 2000). During problem identification, researchers are main stakeholders with the task of generating evidence and validating it. Researchers have also the role of disseminating results to communities and policy makers. Thus communities as originators of information and policy makers as users of research result are also stakeholders. As a process of adopting evidence-based reforms and practice, developing countries including Tanzania have included health system research as one of the main themes of the ongoing health sector reforms (MOH, 1999). However, those countries have limited skills and resources required for research. As a result, donors like the World Bank and WHO have been important stakeholders in generation of information for health sector reforms in those countries. Also in 1995, WHO hosted a meeting in Arusha Tanzania on "Achieving Evidence Based Health Sector Reforms in sub-Saharan Africa" (WHO, 1995a). Donors have been playing a key role in promoting evidence-based health sector reforms in developing countries through skill transfer and funding thus influencing research quality and quantity (Vaughan *et al.*, 1996).

The possibility of using research findings in policy formulation is determined by the extent researchers manage to involve important stakeholders at the planning stage (Davis *et al.*, 1995). The stakeholders shall ensure close interaction of managers, policy analysts, and politicians. This will facilitate planning and implementing research that is policy-relevant. Researchers

intending to influence policy should not only interact with policy makers but should also be conversant with their contexts that include the policy formulation process and time frame that may shape the policy formulation process (Davis, 1987), hence stressing the need of developing countries to facilitate interaction of researchers and other stakeholders in order to generate information that is desired in agenda setting.

Policy formulation follows agenda setting. Researchers and practitioners can have ample information on the seriousness of a health problem but this may take long to be recognized by policy makers (Lush *et al.*, 2003). This stage depends on how policy makers can take notice of the research output. Researchers as stakeholders need to play a major role to package results in a manner which policy makers can accept and use them (Niessen *et al.*, 2000b).

Stakeholders have been playing important roles in agenda setting. Attempts to decentralize the health care system in Punjab provide well documented aspects of stakeholders' behaviour where some opposed while others supported a policy process (Collins *et al.*, 2002). The stakeholders in the process included district level managers, professionals, professional bodies, academicians and politicians. Their main interests were resource allocation, professional and administrative powers. The decentralization process in Punjab on many occasions could not take off to full-scale national activity due to the various reactions of those stakeholders. The reaction of stakeholders depends on the extent to which reform designs and contents are within the interest or arouse the interest of a stakeholder. A comparative study was done to compare the implementation of reforms in Zambia and South Africa. The interest of respective stakeholders determined the level of support or opposition to the policy content (Gilson *et al.*, 2003). National level stakeholders in the political category, like the minister, made ruling decisions in the policy process. Political leadership was an important context for health sector reform including decentralization. A study done in the Dominican Republic stressed the need of political leadership in health sector reforms (Glassman *et al.*, 1999d). It was revealed that there were six factors that were

associated with the low pace and the infeasibility of the reforms. The factors included lack of leadership, lack of adequate political strategies, location of the reforms outside the authority, weak ownership, inability to change the political landscape and inappropriate political timing.

Stakeholders have also been very instrumental in the successful implementation of reforms. Donors have been playing a major role for developing countries to adopt reforms like alternative financing of the health system (Bodart *et al.*, 2001a). Primary Health Care initiatives, vertical programmes like EPI and the reforms are donor initiated and financed. Community responses to reforms have been supportive with improved utilization, while the reverse has also been observed in other places (Collins *et al.*, 1996; Macintyre & Hotchkiss, 1999; Schieber & Maeda, 1999). The outcome of health sector reforms at any stage could be reversal, non-progressive or successful depending on time or place contexts.

1.7 Health sector reform analytical framework

Health sector reform is a fundamental change in the existing health system with a goal of improving efficiency, equity and achieving improved functioning of the health system. The process will trigger support or opposition from stakeholders. Health reforms evolved through the same process like any health policy. A review of policy literature identified several theories of policy process that included open system framework, approach involving rational actors within institutional development, policy stream framework and advocacy framework (Sabatier, 1990). All schools of thought agree that any health policy formulation process has different stages e.g. problem identification, policy formulation, implementation and evaluation, although despite the agreement, there are still arguments about how the phases are placed in the process (Walt, 1994). The policy stream framework proposed three streams that included problem stream, policies streams and politics stream (Walt, 1994). Policy analysis then should seek to understand the process and related environments.

Health sector reforms took a similar process to evolve. To facilitate the understanding, a policy analysis framework has been proposed to analyse health sector reforms (Walt & Gilson, 1994b). This study adopted this framework that identified four components in policy process i.e. policy contents, contexts, process and actors. The contexts influencing policy are: political, economic, geographical etc. The content includes what will be implemented and the process. Actors or stakeholders then determine the implementation.

Stakeholders were influenced by the contexts and contents of the health reforms. In turn the actors influenced the health sector reform process. To understand actors' roles one needed to understand and identify actors and their roles at each phase of the health sector reform. An interactive model for analysing implementation of health reforms has been proposed (Thomas & Grindle, 1990). The model assumes that reaction to policy may come at any stage and that the policy process may be altered or reversed at any phase. This study used the interactive model to understand the role of actors (stakeholders).

Health sector reforms in Tanzania took place at various levels – national, district and community level. At national level it involved reforms at the ministry headquarters, reforming vertical programmes and decentralization. The analysis in this study was focused on the role of stakeholders in the policy processes taking place at each level. At national level it coincided with policy formulation while at lower levels it was mostly implementation. This means at each of these phases' actors could have influenced policy process outcomes.

1.8 Decentralization analytical framework

Until 1970s the development process of many countries in Africa and other developing countries elsewhere was centrally controlled. Due to failure to achieve the expected development, policy makers and planners started to think of alternative forms of management that could bring about the needed development (Rondinelli & Cheema, 1997). Decentralized planning and

implementation was then adopted globally as the best alternative. Thus decentralization became an important component of the health sector reforms.

Decentralization is defined as the transfer of planning, decision-making, or administrative authority from central government to its field organization. Several benefits have been identified to justify decentralization especially in developing countries (Rondinelli & Cheema, 1997). The benefits include efficiency, increased capacity, participation and political achievements. There are several forms of decentralization that include deconcentration, devolution, delegation and privatization (Bossert, 1998a).

Achieving the benefits of decentralization depends among others on the level of decentralization and degree of decentralization. WHO has advised that decentralization to district level would be the most appropriate level (WHO, 1988). Districts are administrative geographical areas with a population size between 50,000 and 500,000 depending on the size of the country. A district is closer to the community and allows for closer vertical interaction.

The impact of decentralization depends on how the process has been designed. In developing countries decentralization would rely on incentives for accountability, capacity to implement, policy dialogue, design and management information (World Bank, 1998). In order to achieve accountability one would require adopting transparent strategies for budgeting and public procurement. Others were diffusing responsibilities across different entities, distributing fiscal instruments to all levels and having access to well functioning markets by households and governments. Decentralization initiatives should also focus on increasing and identifying fiscal, political, and administrative capacities for each tier of government. It is also important to conduct policy mapping and design appropriate policies. Decentralization design is country-specific hence reliance on country specific, accurate and relevant information to guide implementation.

The degree of decentralization depends on the type of functions that are decentralized and the responsibility and authority given to the local level to perform those functions. To understand decentralization WHO has proposed a comprehensive framework for analysing decentralization (WHO, 1995b). The framework identifies five components; these are:

i) rationale and policy formulation,
ii) strategies means and cost of implementation,
iii) form of decentralization,
iv) health system change: organizational process and systems, equity, efficiency and quality of services. In each component there are more detailed and specific aspects of decentralization elicited by the framework.

The degree of decentralization is measured by the extensiveness of responsibility given to the decentralization level. It ranges from 1 as the minimum level to a maximum of 4 for each specific function (Gilson *et al.*, 1994b). Another approach to analyse the degree of decentralization based on principal agent approach has been proposed (Bossert, 1998a). In the framework, MoH as the principal grants the agent (local authority at the level of decentralization) authority and resources to implement objectives as set by the principal (Bossert & Beauvais, 2002). The agent would wish to have wider ability to implement the objectives focusing on the agents' interests and more felt local demands. In order to widen the limits set by the principal the agent needs to seek for wider decision space. However, in both cases they are focusing on the authority and responsibility to perform a certain function within a given decentralization. The type of function that is decentralized and its degree of decentralization is decided by the centre.

The degree of decentralization depends on the decision by the centre. Usually the centre through an act of law, decree or statement will prescribe the amount of authority transferred to the districts (Conn *et al.*, 1996b). The other factor affecting the degree of decentralization would be the availability of skills to perform the expected tasks. In decentralization, capacity improvement at local level and increasing resource availability has been among the most

important functions. Decentralization will involve redefining roles of stakeholders that will lead to gaining or losing power and/or authority. The stakeholders' reaction will then lead to influencing the degree of decentralization. Communities are also important stakeholders their continued participation depends highly on the observed quality and perceived quality of the services. Thus, although levels of decentralization and degree of decentralization are defined stakeholders can influence the achievement of the process. The study analysed the response by various stakeholders in the process of decentralization at district level.

1.9 Stakeholder analysis and policy maker

Burgha and Varvasovszky (Brugha & Varvasovszky, 2000) in their review of stakeholders' literature gave a detailed account of its background and its role in organization and health management, development projects and policy evolution. (Burroughs, 1999) gives an explicit account on how appropriate management of stakeholders resulted in appropriate decisions to manage and invest in improving water quality.

Stakeholders' analysis has different time dimensions depending on the objective. In the retrospective time dimension one may seek to understand the evolution of different policies, environments and other factors affecting performance. Current time dimension generates information on stakeholders and other factors that can be used as inputs to the process. Future time dimension enables formulation of new policies as well as predicting success of development including health programmes. In most of the cases stakeholders' analysis will facilitate appropriate management of the actors.

Developments in the use of stakeholder analysis found that there was a need to widen the scope and develop an applied tool. In response, Policy Maker as a new tool has been developed (Glassman *et al.*, 1999c). Policy Maker is computer software and has a six-step process. The software requires data inputs based on actual collected field data and artificial intelligence based on experience and interpretation. The six steps include:

i) Definition of the content of the policy under consideration

ii) Understanding/setting policy goals and mechanism
iii) Identification of stakeholders in the policy under consideration, as well as their power, position and influence on other stakeholders
iv) Policy feasibility assessment
v) Strategy design and evaluation
vi) Assessing policy impacts.

Policy Maker has been used in the analysis of health reforms in the Dominican Republic (Glassman *et al.*, 1999c). Using this, it was possible to identify six factors that affected the pace and political feasibility of the health reform proposals. It has also been used in formulating policy for the control of tobacco in Vietnam, and analysis of Clinton's proposed reform of the health sector in the United States of America.

A careful analysis of policy contexts including stakeholders was an important prerequisite for successful health care reforms and decentralization (Cassels, 1995b). Analysis of stakeholders was rarely done in developing countries. Health care reforms in developing countries include reforms in vertical programmes like EPI. Vertical programmes delivered specific interventions that were centrally planned and financed by donors. Vertical programmes like EPI were likely to invoke substantial stakeholders' reaction on the event of reforms including decentralization.

One of the challenges of the ongoing health care reforms was to maintain the success of vertical programmes including EPI while achieving the integration objectives of the reforms. In Tanzania, Health Sector Reforms of EPI started in 1996 and included:

i) Integration of procurement, storage and distribution of vaccine and other cold chain inputs to the central Medical Store Department (MSD)
ii) Centralization of kerosene procurement
iii) Integration of supervision and health management information system

iv) Integration of EPI transports system into the Central Transport Unit (CTU).

The contexts for those reforms that include political, epidemiological, economic, stewardship and stakeholders (human) factors will determine the success. However, the aim of this study was to explore the role of stakeholders in the process of implementing health sector reforms and their impact using EPI as a case study in Tanzania.

Chapter 2:

Research Questions, Aims and Objectives

2.1 Research questions

Health sector reforms in both developing and developed countries could prompt support and/or oppositions from stakeholders. The reaction of stakeholders has been observed to alter or reverse policy at any phase of the policy process (Collins *et al.*, 2002). Hence, analysis of stakeholders was important for the success of the ongoing health sector reforms especially in developing countries. In Tanzania analysis of stakeholders in the ongoing health sector reforms has not been done. Doing it would facilitate understanding the roles of stakeholders and possible ways to manage stakeholders to facilitate achieving the goals of health sector reforms (Davis, 1987; Lush *et al.*, 2003; Thomas & Grindle, 1990).

Policy analysis as a management tool was comparatively new in the health sector and in developing countries (Walt & Gilson, 1994a). Some of the previous experience in stakeholders analysis was its use in Kenya to understand policies of drug donation (Shretta *et al.*, 2001). The analysis revealed the role of various stakeholders in influencing drug donation. It was concluded that drug donation should be more coordinated. Another stakeholder analysis study was done to compare the health sector reform policy process in South Africa and Zambia (Gilson *et al.*, 2003). The study was able to identify various stakeholders in each country and their influence in the policy process. The study also revealed that public and middle level managers were not given the opportunity to participate. None inclusion of some of the stakeholders was seen as one of the reasons for some of the failure of the policy process. Failure to take appropriate strategies to increase the probability of policy success has also been observed in other places (Glassman *et al.*, 1999d).

Stakeholders' analysis should then be a tool for health sector reform managers to ensure that stakeholders' influences are aligned for better health sector reform outcome. The reaction of the stakeholders will depend on their interests and power. Interests of stakeholders are grouped into administrative, political, financial and social gains. Stakeholders are many with varying interests thus providing a very complex task for any one who would like to

undertake stakeholders' analysis. Computer software (Policy Maker) is available and it would ease the burden of analysing stakeholders (Reich & Cooper, 1995). The analysis also tested the feasibility of using Policy Maker based on the data collected from this analysis. Therefore, the major question was to understand how stakeholders react in the process and effects of such reaction. Also the data was used to understand the feasibility of Policy Maker to facilitate stakeholders' analysis.

2.2 Rationale

This study was conducted to determine the role of stakeholders in health sector reforms in EPI and the utility of computer-assisted stakeholder analysis on the health sector reforms and decentralization process. The results would facilitate the following:

- Justification of carrying out a computer assisted implementation of health policy in Tanzania and developing countries.
- Identification of various stakeholders and their positions in the implementation of health policies.
- Adoption of stakeholder analysis in the prevailing Tanzanian situation.

2.3 Hypothesis

Stakeholders' influence was underestimated in health sector reforms and consequently (a) reforms were retarded in speed of implementation, and (b) full advantage of stakeholders' influence was not attained.

2.4 Broad objective

The broad objective of this study was to understand the role of stakeholders in the health sector reforms process.

2.5 Specific objectives

The study had seven specific objectives, as follows:

i) To determine whether information from the previous health sector reform wave influenced the succeeding health sector reform.

ii) To find out which experiences from previous HSRs have been considered in the current HSRs.
iii) To determine the effect of stakeholders and other factors on the health sector reforms process at national level.
iv) To understand the immediate situation of EPI delivery system in a district at the beginning of the decentralization process.
v) To determine the influence of stakeholders on the process of decentralization of EPI at district level in Tanzania.
vi) To perform computer aided political analysis for future interventions to improve the delivery of EPI services
vii) To derive conclusions.

The rest of this thesis is organized into methodology, results and discussions. The results section is organized in the following chapters:

- Health Reforms in Tanzania since 1924: Do reforms learn from history?
- Health Sector Reforms and Stakeholders in Tanzania
- Health Sector Reforms and Decentralization in Tanzania: The Case of Expanded Programme on Immunization (National level)
- Health Sector Reform and Decentralization in Tanzania: The Case of Expanded Programme on Immunization (District level).
- Reforming EPI services and prospects for increasing coverage: The Case of Tanzania.

Chapter 3:

Methodology

3.1 Setting

This research was a descriptive analytical study using both qualitative and quantitative techniques. This section describes the setting and the following section describes the methods used in the study.

In order to understand the setting of the study, a brief description of Tanzania is important. The United Republic of Tanzania in Africa was born from the union of Tanganyika (mainland Tanzania) and Zanzibar islands. Mainland Tanzania is situated in East Africa between longitudes 29^0 and 41^0 East, and latitudes 1^0 and 12^0 south of the Equator. In the North it borders Kenya and Uganda; in the West there are Rwanda, Burundi, and the Democratic Republic of Congo; in the South there are Zambia, Malawi and Mozambique. In the East it borders the Indian Ocean.

It has a total area of 945,000 km^2 and a population estimated at 33,000,000 people in the year 2002 (Bureau of Statistics Tanzania., 2003). About 51 per cent of the population was female while people under 15 years of age were 46 per cent. This population was unevenly distributed into 21 administrative regions that were also divided into 120 political administrative districts. The district was the level to which decentralization was being done.

The study was done in Tanzania focusing on reforms of the health sector. The health sector reforms took place at various levels: central government, region, district, ward and communities. Information was obtained from the Ministry of Health, EPI Programme office, Ministry of Health Semi-Autonomous Medical Stores Department (MSD) and the MoH Department of Preventive Services. Table 3.1 presents the type of data collection technique and study level. Data collection was done at regional and district levels from local government officials and health care providers. At sub-district level, ward and village leaders were also studied. The information was collected under informed consent and assurance of confidentiality. As a result identity of the district studied has not been disclosed.

3.2 Methods

3.2.1 Consent

The study proposal was submitted to Muhimbili University College of Health Sciences Ethical Committee and the Ministry of Health for approval and clearance, which was granted. A copy of the clearance letter was presented to heads of the sections that would participate in the study. These included donors, Ministry of Health officials, MSD and EPI officials. They were then contacted physically in advance of data collection, and the objective of the study was explained. Another request was written to the Ministry of Health asking for permission to access, retrieve and read records on reforms and EPI at the Ministry of Health, Medical Stores Department, EPI and Ministry of Finance. Permission was also requested to access and retrieve records at district and facility level. All these were granted. University and national libraries and national archives were visited and relevant documentation was retrieved and studied.

3.2.2 Methods employed in the study

This was follow-up study collecting information on the process of reforming the health sector. The information collected included a list of the stakeholders at each health policy process, their interest, how they reacted to the process in their health provision status. Data collection techniques and levels of data collection are presented in Table 3.1.

3.2.3 Document review

Published and unpublished documents were retrieved from the Ministry of Health, EPI national programme, Medical Stores Department (MSD), regional and district level EPI teams. Other sources included the national library, university library and the national archives depository. Analysis of the documents involved answering questions whether these documents referred to current reforms or previous reforms, the stage of policy process, who the stakeholders were, the stakeholders' influence, and the outcome of the involvement.

3.2.4 In-depth interviews

After reviewing the documents, the identified stakeholders were approached and requested to participate in in-depth interviews. The in-depth interviews were guided by a need to clarify issues arising from the documents and also verify understanding of positions and interests of the stakeholders. At national level, in-depth interviews were held with officials in the Ministry of Health, EPI Programme, MSD and some donors. At regional level in-depth interviews were held with three regional EPI managers from three different regions.

One district was randomly selected in which follow-up observation of the decentralization process was done. The in-depth interviews in most cases were to validate information obtained from key informant diaries. However, discussions were also held with the leadership of four districts other than the study district. The main aim was to compare experiences between districts to understand which problems were experienced locally only and those that cut across all districts.

3.2.5 Secondary data analysis

Secondary data retrieved at national level included data on vaccine coverage, and vaccine doses distributed to regions between 1995 and 2000. At regional level data on vaccine doses delivered in the same period was collected. This was to validate whether the national level records really reflected what was delivered to the regions. Since the beginning of 2000 to end of 2001 data on district level providers, visits to peripheral health facilities was collected and compared with such visits in 1999.

3.2.6 Key informants interviews

At each level a key informant was identified. The key informants were appraised of the study objectives and the type of data needed. They maintained a diary on the process of reform at each level and role of each stakeholder. At the national level, key informants were individuals who were well informed about the process at that level. At the district, the key informant was contacted and events that took place during the period were reviewed every month.

Table 3.1: Type of Data Collection Technique and Level of Data Collection

	National	Programme	District	Facility	Household
Document review	Reports	Delivery Meetings	Reports Delivery Supervision	Diary Observation Delivery records	None
In-depth interviews	25	12	32	14	None
Secondary data	None	Delivery of vaccine Coverage	Coverage Delivery of vaccine	Supervisory visits	None
Key informant interviews	3	4	28	12	None
Surveys	None	None	None	12	640

3.2.7 Health facility surveys

One district was randomly selected in order to follow up the process of decentralization. A random sample of 12 villages was identified and health facilities nearest to those villages were listed. Using the quality of EPI services supervisory guidelines, 12 indicators were selected for assessing the health facilities. Meetings with the district level EPI providers were held to have a common agreement on the assessment of the level of EPI service quality indicators. The providers then surveyed each health facility to assess the quality of EPI. Except for the number of supervisory visits to a facility the other variables were given a score of 1 for “yes” and zero for “no”. The data was recorded in a standard format for computer entry linked to the household data. Four of the study facilities were randomly selected, in which one of the investigators repeated the observation to validate data collected by the EPI providers.

3.2.8 Household surveys

In the survey district, 12 villages were randomly selected and in each village all households were registered. All children between 12 and 23 months old were identified through the village register of births. The age was later validated during the household interviews using the mothers’ history. All households with a child in that age range was visited and consents to participate were obtained. Arrangements were made regarding when to visit each household so that the respondents could conveniently be found. The mother or guardian was asked to provide information on the number and type

of vaccines that had been administered to the child. The mother/guardian's response was verified using her maternal and child health card (all had the card).

The study design allowed for continuous observation of the health sector reform process. Data collection started in the beginning of 2000 and lasted to the end of 2002 (see Figure 3.1). The use of multiple methods of data collection allowed validation of key findings in the process of reforms. Findings were further validated in discussions with key informants and also with other research assistants doing the observations in the follow up district.

Figure 3.1 Time line for data collection and level of data collection

	Level	2000	2001	2002	2003
Document review	National				
	District				
In-depth interviews	National				
	District				
Secondary data	National				
	District and region				
Key informant	National				
	District				
Surveys	Households and health facilities				
Analysis and report writing					

Qualitative analysis was done manually using prepared themes. Quantitative data was entered into computer using Epi info version 6.04, and the analysis was done using STATA version 6.0. Stakeholder analysis based on the data collected for this analysis was done using the Policy Maker software. The following chapters present papers that were outputs of this analysis, followed by a general discussion.

Chapter 4:

Health Reform Cycles in Tanzania since 1924: Do Reforms Learn from History?

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This article has been accepted for publication in the Journal of the Institutes of Development Studies in Tanzania.

4.1 Abstract

Many developing countries have undertaken several waves of health sector reforms and will continue doing so. This paper presents the results of an analysis of health reforms within the contexts of political and administrative reforms in Tanzania between 1924 and 1993 to determine how each paradigm influenced the next. The recent World Health Organization (WHO) framework of health system analysis was used. Published and grey documents covering the period were reviewed and analyzed for the four discrete attempts at reforming the health sector in the country. Since each of the reform waves had focused at the district level, the analyses also focused on the district health system decentralization.

Despite the supportive political climate, and respective administrative reforms, the health sector reforms performance was limited by the economic climate and mode of financing. The findings revealed that for each wave, there was a review of the health system making information from preceding efforts available to subsequent reforms. After independence, the political party in power played a major role in the reviewing process, ensuring availability of the generated information, and its utilization by the reforms to improve the health system. Except for the donor funded vertical programmes, the health system was noted and documented at each wave to be under-financed, and the documentation was made available. However, the information was not used to significantly ameliorate the situation. Also, made available but not used was the information showing poor performance of PHC strategies at community level, non-integration of the district medical officer (DMO) and communities into the district health system, and the declining income of health workers. The ongoing health sector reforms should give priority to efficient ways of financing the sector, scaling up PHC activities, integration of the DMO and community into the district health system, and increasing health workers income.

4.2 Introduction

Health systems are ever dynamic because they have to respond through reforms to changing needs and the environment, and in so doing also improve performance. Furthermore, health systems have to accommodate scientific and technological discoveries. At a global level two recent generations of health sector reforms (HSRs) have taken place since the early 1920s. The first generations of HSRs emphasized hospital care, while the second generation was an attempt to address high costs of health care provision (Hearst & Blas, 2001a). The second generation of HSRs took off in the 1970s when primary health care (PHC) strategies were adopted. Since the PHC strategies did not meet the expectations, a third generation of HSRs was underway. Decentralization of health services to the district level was the major component of the HSRs that were ongoing in Tanzania and elsewhere (Ministry of Health, 1994b). The repeated health sector reforms should have provided lessons for the succeeding reforms. This paper presents an analysis of health sector reform generations (waves) and the political and administrative contexts that prevailed to answer the question whether information from previous health sector reform waves influenced succeeding waves.

Data from previous health sector reform waves in Tanzania and in other countries could be available to the succeeding wave through research or review processes. Another way could be through publications as well as communication of personal experience. The information should be about how well or bad the health system functions were performed and the reasons behind such observations. The analysis was pinned to availability of information from preceding wave, and how it was used in the subsequent wave. Tanzania has experienced four waves of HSRs occurring during the periods of pre-independence 1884 -1961, post-independence 1962-1972, single party supremacy 1973-1983, and pre-pluralism 1984-1994. Analysis of the four waves should provide useful lessons that might facilitate better management of the current reforms in the country and elsewhere.

The performance of the health system in each wave was analyzed using the recently proposed framework (Murray & Frenk, 2000). The framework distinguishes four functions of health system that are financing, provision of health services, resource generation, and stewardship. Although the analysis focused at the district level, some national strategies were discussed in detail beginning with the administrative contexts in each wave, PHC, Maternal and Child Health (MCH), provision of health services and financing of health services. Prior to the current health sector reforms policy making was based on rational decisions. This study explores information from each health sector reform wave, what were the role stakeholders played in the use of such information and the contexts.

4.3 Methodology

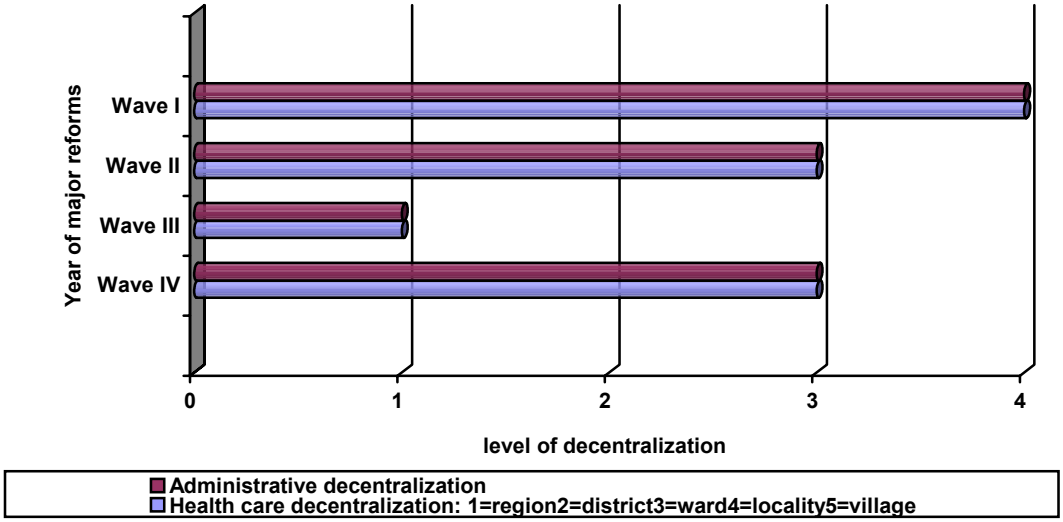
In order to get the information to answer the research questions, search for literature published and unpublished from colonial era (early 1900s) to 1990s was done. The literature included books, reports from the ministries, consultant reports, plans, closed official files and district reports. The literature was categorized according to the health system function (provision of health, financing, and stewardship) and wave. Information was also sought on the administrative contexts in each wave and how it shaped performance of the functions. In each wave information describing the performance of each function was sought i.e. problems and successes for each function were identified. Information was also retrieved on the reasons for initiating any succeeding wave and how much information from previous waves influenced each succeeding wave of reform. Changing administrative contexts focused on decentralization that changed during the waves. Decentralization included transfer of power and authority to lower units, which included devolution, deconcentration, privatization and agency. Commonly practiced in Tanzania, was decentralization by devolution (power and authority was transferred to local government authority). Another one was decentralization by deconcentration (power and authority was transferred to an agent of the government).

For each succeeding wave the review aimed at finding out whether lessons from previous waves were used to initiate it. The contexts considered were administrative (decentralization) as it was supposed to ensure equity in resource allocation and provision of health services. The following sections present analysis of the political administrative reforms as contexts to health sector reforms provision of health and financing for each wave.

4.4.1 Pre-independence (Wave I)

The pre-independence period was characterized by German and British administration, particularly racial segregation of the social services, and indirect rule (decentralization) through tribal chiefs (Nsekela & Nhonoli, 1976). The decentralization to ethnic groups (Figure 4.1) derived authority from the Native Authority Ordinance Act of 1926, and later the Local Government Ordinance Act of 1953 (Government of Tanganyika, 1926; Government of Tanganyika, 1953). It was decentralization by devolution to local authorities to facilitate indirect rule. The established local authorities had both judicial and executive authority to run services including health (Drysden, 1966). There were areas that could not meet the costs for running local government authorities, and therefore remained with native authorities. Local government authorities established rural dispensaries supervised by the District Medical Officer (DMO) who was an agent of the central government. The dispensaries were rated according to access to supervision (Government of Tanganyika, 1948a). If a dispensary was within supervisory range from a district or a delegated medical officer it was categorized as dispensary A, and was run by qualified personnel. If it was outside supervisory range it was rated as category B and was manned by minimally trained personnel.

Figure 4.1. Type and Level of Decentralization by Year of Major Reforms in Tanzania



The German administration established health care services that were limited to select coastal areas, some towns, plantations and construction camps (GTZ, 2001). Missionaries also established their medical services in the same period focussing mostly on the areas they were conducting their activities. The start of the British Mandate in 1923 found the country disrupted by wars, recurrent famine, and high morbidity due to infectious diseases (Table 4.1). Infant mortality rate in the rural areas was estimated to be as high as 500 per 1000 (Burke, 1965). Control of infectious diseases became a priority. Two health divisions were established: one for hospitals and urban services and a sanitary division responsible for control of communicable diseases in the rural areas (Titmus *et al.*, 1963). Rural health services were a legal responsibility of the local government authority. Central Government was responsible for the urban and hospital services (Government of Tanganyika, 1940).

Table 4.1: Events defining the environment for health services decentralization in Tanzania by selected time periods

Environment	1923-1960	1961-72	1972-83	1983-1992
Economic	-Very little economic activity -Poor economy	-Stagnation of the economy -Nationalization of all means of production	-Poor economic performance	-Poor economic situation. -Structural adjustment Programmes
Political	- Protectorate -Country preparing for independence -Indigenous political activists -Independence of Tanzania 2nd World war	-Arusha declaration -Establishment of communal villages -Single party politics	-Centralization of Government administration to regions and districts Uganda war	-Decentralization to districts -Multiparty politics
Social	-High illiteracy rate -Poverty -Poor nutrition -Tribal conflicts	-Emphasis on training of more workers -More students enrolled -Poverty	-Poverty -Poor incomes -Inadequate provisions of health facilities	- Poor social services -Liberalization of the economy

Thus the political administrative contexts that existed spelt out that local authorities would be responsible for the provision of their own health services. In response, the local authorities embarked on construction of dispensaries that increased rapidly from 55 in 1925 to 247 in 1926. During this period it was estimated that by 1934 the dispensaries would have increased to 1000 (Figure 4.2). In fact by 1960 (25 years later), the time of independence, the number of dispensaries had increased to 692. There was also inequity in availability of health services by geographical areas i.e those local governments who were unable to construct dispensaries remained without services. The reasons given for the failure included poor economic status of the tribes, drought, epidemics and the Second World War as shown in Table 4.1 (Government of Tanganyika, 1930; Government of Tanganyika, 1948a; Government of Tanganyika, 1952b; Pridie, 1948; Government of Tanganyika, 1948a; Pridie, 1948).

Other problems explaining the slow expansion of health services in this wave included under-financing, geographical inaccessibility and shortage of personnel (Government of Tanganyika, 1944; Government of Tanganyika, 1948a). Studies conducted by the central government to evaluate the performance of the health system in order to plan the way forward (Central Planning Committee, 1940; Pridie, 1948) proposed *inter alia* strengthening of the preventive health services, establishment of Maternal and Child Health (MCH) services, integration of the local government health services into those of the central government, and phasing out dispensaries. Although the implementation of these recommendations needed more financial and other resources, this was not recommended. Consequent to the slow expansion of the health services was access and distribution inequity of health services for the relatively larger populations of children, mothers, poor local authorities and those living in rural areas. Lessons from this wave should have addressed the inequity that prevailed.

Financing functions of a health system include revenue generation, pooling and purchase. National income was relatively small compared to other

countries. The GDP for the country in Wave 1 was estimated at 150 US dollars per capita (Table 4.2). The proportion of the government budget allocated to health was estimated at 7.7 per cent (Titmus *et al.*, 1963). However, this amount was spent on hospitals and urban areas where the colonial settlers and administrators were resident disregarding the rural poor.

During this phase financing of the district health system was through local government tax collections and out of pocket expenditures. The decentralization law directed all financing and allocation processes (Government of Tanganyika, 1953; Ministry of Health, 1989).

Central Medical Stores (CMS) now Medical Stores Department (MSD) purchased stored and distributed all drugs and equipment needed by the rural facilities. Local government authorities were responsible for reimbursing the CMS for drugs and equipment supplied. The local authority was also responsible for paying salaries to the personnel providing the services. In this wave there were several problems related to purchase that included delayed delivery from abroad and shortage of personal (Government of Tanganyika, 1950; Government of Tanganyika, 1952a; Government of Tanganyika, 1961). Others included shortage of drugs in district facilities. Also some local authorities could not run health services because they could not pay the salaries of their workers, estimated to be the equivalent of 250 US dollars.

Several lessons emerged from this wave that should have influenced the provision and financing of services. These included the need of having a political administrative context that promoted equity in financing and provision of health services. Poverty to a great extent limited the capacity of local authorities to meet their expected roles of providing health services; hence, strategies to overcome poverty were needed. Government efforts including other strategies were needed to increase availability and accessibility of health facilities in the rural areas. There was also a need to increase the sources of financing of the health services other than paying out of one's pocket. Parallel to increasing sources of financing there was a need of establishing equity in resource allocation between rural and urban areas.

4.4.2 Immediate post-independence (Wave II)

The major political change marking the beginning of this wave was the independence of Tanganyika in 1961. At independence the new government marked disease, ignorance, and poverty, as national enemies and declared war against them (Johnson, 1986). The ruling political party, Tanganyika African National Union (TANU), emphasized rural development, self-reliance and geographical equity as strategies to achieve the goals. This political vision guided the five-year development plans starting from 1964 (Government of Tanzania, 1964). The laws legitimizing decentralized government administration to districts were passed (Government of Tanganyika, 1962). Decentralization this time was by devolution to district level; however, authority and management relationships remained as they had been during the colonial times except the level of decentralization was to district level (see Figure 4.1) (Government of Tanganyika, 1963a). Local governments were empowered to collect tax revenue and run health services.

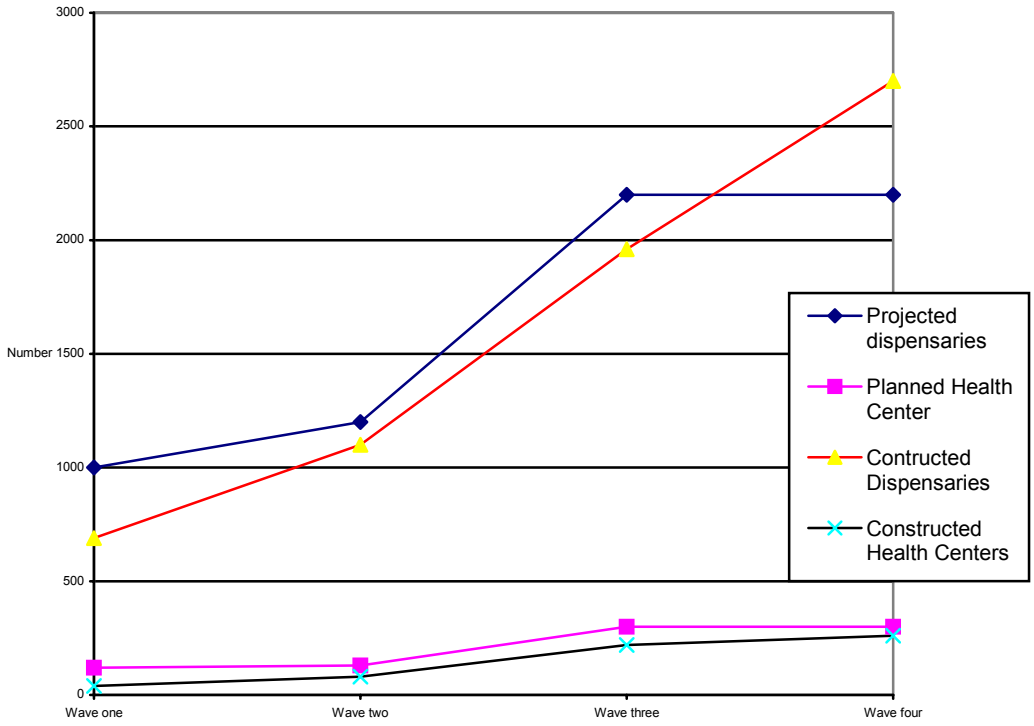
The central government head of district was the District Commissioner, while the highest political body was the District Council. Also inherited from the previous wave was the organizational arrangement that the District Medical Officer (DMO) was an employee of the Ministry of Health advising both the council and the District Commissioner. The councils formed committees one of which was for social services including health. The DMO was therefore a representative of the Ministry of Health in the district council committee responsible for health, and subsequently was not integrated into the district health system (Warioba, 1999). While there was a change in the political contexts, the legal and administrative contexts had not changed since Wave 1.

The ruling party during this wave emphasized fighting against disease. As an initial step to implement the political objectives, the government commissioned an appraisal of the health system (Titmus *et al.*, 1963). Some of the proposals arising from the study were construction by 1980 of 200

health centres and 2000 health clinics, the latter to replace services of dispensaries. The other recommendation was to integrate health services run by the local government to those under the central government. The report was also followed by an important political landmark – the Arusha Declaration – in 1967. The declaration was a result of clear synthesis of the problems experienced in the study, previous to and after that wave. It emphasized self-reliance as an important strategy to achieve social development including health. It also emphasized rural development, equity, and gave political legitimacy to community participation in health services.

The 1960/1961 annual reports summarized the state of the rural health care system in that period and the previous wave (Government of Tanganyika, 1961). The party guided the government and also mobilized communities to construct more dispensaries as self-help initiatives (Titmus *et al.*, 1963). This strategy increased the number of dispensaries from 692 immediately before independence to 1200 in this wave (see Figure 4.2). Through community effort, the target of dispensaries in that wave was reached but not for health centres. The number of health centres was expected to increase from 50 to 80 in that wave, but only half were actually established. The number of health centres expected could not be constructed because the local government did not have the resources to construct them (Gish, 1978; Gish, 1978). A strategy was needed to increase the capacity of local governments to meet the cost of constructing health centres.

Figure 4.2: Health Facilities Planned against actually Constructed*



To facilitate equity in allocation of health facilities during this wave a formula was agreed on how new dispensaries would be allocated. A decision to allocate a dispensary depended on the dispensary/population ratio, accessibility of existing health facilities and percentage of people residing in 'Ujamaa villages' (communal villages) (Ministry of Health, 1970).

In the second wave, political contexts also elaborated on steps to address urban rural inequity in allocation of resources. At the beginning it was not given serious consideration in the first national development plans. The first Five-Year National Development Plan gave high priority to economic developments, so the proportion of the budget allocated to health declined (Ministry of Finance and Planning, 1968). After the Arusha Declaration and the Second Five-Year Development Plan the government was urged by the ruling party TANU to increase the resources available to district health services (Nyerere, 1971). Budgetary allocation to health decreased to 6.4 per cent (Table 4.2). In the same period GDP declined to 25 US dollars per capita, decreasing further the national resources available for health.

The administrative contexts maintained the status quo as in the previous wave. Local governments were responsible for providing health services in their areas. Thus, finance of rural health services was through local government tax and out of pocket financing. Unfortunately, through these sources the local governments could neither meet the cost of running the health services (Drysden, 1966), nor pay the workers and meet the cost of drugs. Some of the well-off districts met the cost and thus were able to provide health care to their people. So, inequity in health financing between districts remained in Wave II.

Drug procurement, storage and distribution experienced problems. MSD which was responsible for those tasks had a shortage of space to store drugs. They also used public transport that was reported to be inefficient (United Republic of Tanzania, 1966); it delayed delivery of drugs and as in Wave 1 many local authorities were not able to buy drugs. It was thus reckoned that the capacity of the districts to perform their functions had become very low, which called for change in the administrative arrangement (Government of Tanzania, 1970). It is obvious therefore that the administrative structure was unable to meet the political expectations of increased health care coverage. The government started to take over rural health facilities from local government authorities in order to improve the services.

Several lessons emerging from Wave 1 and addressed in Wave II were related to improving equity in health provision. The need to increase financing of health services was not addressed. Other modes of financing health services were politically sensitive especially when the Arusha declaration had declared free health care to all. Lessons that emerged in this wave included a need of sustaining the political contexts to hasten increased coverage of health care for rural areas, also the DMO needed to be integrated into the district health services; and there was a need to have local government authorities with adequate resources to provide health services. There was also a need to increase financing sources for the health care. At the same

time the value of salary decreased slightly in real terms during the wave, resulting into lack of morale amongst personnel.

4.4.3 Single party supremacy (Wave III)

The previous wave provided a lesson that strategies were needed to increase resource available to rural areas. It was then recommended that steps had to be taken to shift the administrative burden from the district to the centre to improve performance. The Government commissioned McKinsey and Co. to study the government administration in all aspects including health services and to give suggestions regarding the best ways to achieve development goals (Nsekela & Nhonoli, 1976). One of the recommendations was to abandon decentralization. The proposal was immediately implemented and it was held that it would increase resources for district development including health, and strengthen management capacity (Nyerere, 1972).

The Government had to re-organize its administration in order to create an environment for implementing the party directives and the study findings. The re-organization was also to address the failure of decentralized districts to perform their functions including providing health services in the last wave. The re-organization was done through centralization of government administration (Government of Tanzania, 1972), and consolidated by the Arusha Declaration and the Ujamaa Villages Act (Government of Tanzania, 1974). It gave villages the authority to define their own destiny as party instruments without linkage to the district government. It was in fact decentralization by deconcentration as most of the powers and authority on health were transferred to the region as an agent of the government (see Figure 4.1). The head of the region was given the status of a minister while the head of the civil services was given the status of permanent secretary.

Following the deconcentration of government administration the central government took over all the functions of the local government. These included all health facilities and the personnel. As result the number of government employees increased several folds (United Republic of Tanzania

& United Nations Development Program, 1991). Central government administration had to reach all corners of the country including dispensaries and health centres. The immediate result of the deconcentration was increased government spending due to the increase in the number of workers, purchase of drugs and equipment for health facilities.

This wave coincided with centralized planning as the government had taken over the responsibilities of local government. The ruling party vision to fight diseases with emphasis on rural development still guided government investments to rural areas. The party had the overall responsibility and authority to approve the planning, implementation and monitoring of the health policy. At the beginning of this wave the party approved a new target for dispensaries that was set at 2200 by 1980 and health centres at 300 (Ministry of Finance and Planning, 1968). The party then started mobilizing communities to do the construction of the units and later hand them over to the government. These community efforts were in addition to the government efforts to construct dispensaries as scheduled in the health plans and budgets. In this wave the number of dispensaries actually surpassed the target. However, as in the previous wave, the target of health centres was not achieved. Reasons for the failure were raising costs, shortage of materials, contractors' unwillingness to take rural projects, and difficulty in reaching some of the rural areas. It was also reported that equity targets were not reached because new facilities were constructed in the vicinities of existing facilities. Despite the achievements, many of the new facilities lacked equipment and other necessary structures (Ministry of Health, 1977) .

When the third wave started, the lesson from the second wave was to sustain and increase the allocation of budgetary resources to the health sector. The changes in the administration contexts were expected to increase resources availability to health care services. Despite the political drive, the proportion allocated to health declined annually to reach 3.1 per cent at the end of the wave (see Table 4.2). Though the economy improved slightly in this wave, shortly later drought and the war with Idi Amin of Uganda had very negative

impact on the economy. In order to improve the economy the country and donors agreed, as elsewhere in the world, to start implementing structural adjustment programmes in the early 1980s (Peabody, 1996b). The adjustment programmes included cuts in expenditure on the social sector including health. However, to increase financing the government requested donors to support financing the health services.

In addition to the poor economy, this wave also coincided with a high increase in the number of health workers as an output of increased investment in training during Wave II and Wave III. Shortage of drugs, inefficient transport, and low income among workers remained leading problems in this wave (Ministry of Health, 1975; Ministry of Health, 1977). Despite the shortage of drugs at the facilities, the same were available outside the health facilities in the rural areas but outside the known official channels.

During this wave some studies were done to guide the implementation of the party directives. The studies identified some successes and problems related to the administrative contexts within which provision of health care was being done. Among the problems, were overlapping of central and local government functions, poor integration at the district level, and communication breakdown between ministries and districts. Others were poor financial position, failure to give people power to make decisions, bureaucracy in the regional and district administrations, lack of policy for urban development, poor management, and lack of skilled personnel (McKinsey and Company, 1975; Warioba, 1999).

Lessons from this wave included the need of sustaining political influence in providing health care to rural areas to achieve equity as identified in Wave II. The administrative changes did not meet the expected objectives including financing of health services. The administrative contexts maintained the position of DMO as an employee of the Ministry of Health hence the need to integrate the DMO into the district health care system was not addressed. Community participation facilitated success in providing health care so it needed to be sustained. There was still inadequate financing of the health services as in Wave 1 and therefore there was a need to increase the source

of financing while maintaining equity. Another lesson was to increase drug funds for the districts and to ensure better control.

4.4.4 Pre-pluralism (Wave IV)

The ruling party endorsed the observation that the central government was no longer able to provide health services in rural areas. As a lesson from the previous wave in 1983 the government had to decentralize again in order to increase efficiency, community participation and management responsibility (Jamhuri ya Muungano wa Tanzania, 1983). The process got precedence from two acts of parliament passed in 1982 to re-decentralize urban and rural districts (Government of Tanzania, 1982a; Government of Tanzania, 1982b). This was decentralization by devolution to local government at district level (Figure 4.1). The laws provided authority to local governments to generate revenue and perform health service provision functions.

The organizational arrangement as had been in the previous waves had split district health services into rural dispensaries to be run by local authorities and hospitals to be run by the central government. In this arrangement the DMO was an employee of the Ministry of Health, and reported to the local government authority on matters related to provision of health care in rural areas and to the central government on matters related to hospitals (Semboja & Therkildsen, 1991). The District Council established a committee for social services responsible for health services in which the DMO was an advisor as in the second wave.

The last wave reached the new expected ratio of dispensaries to population (see Figure 4.2). The success was also due to combined community and government efforts as guided by the party that were focused on construction of dispensaries. One of the problems from the previous waves was that although enough dispensaries were built, they were not complete i.e. buildings were not finished; personnel and equipment were not adequate. Also due to costs and poor economy the target of health centres to be constructed was not reached. Another observation was that contractors and

some district workers had not been forthcoming in financial management or meeting the expected obligations. There was also the problem of poor structural quality of some of the health facilities.

One of the lessons learnt was that no more facilities should be constructed. Instead the task ahead was to improve the quality of the existing structures. Unfortunately, the economy of the country became poorer and as a result resources became very scarce, so spending in the health sector was curtailed making the situation stagnant or worse (Ministry of Health, 1989).

The 1983 decentralization was expected to increase resources by sharing the cost of provision of health services between the local government and central government (Semboja & Therkildsen, 1991). The decline in financing level of the health sector and consequently district health system experienced in Wave III was an immediate concern in Wave IV. This wave witnessed government allocation to health declining further to 4.6 per cent (see Table 4.2). The impact on the health sector included reduction in quality of care (Benson, 2001a). The strategies to increase health care financing included decentralizing health care to districts so that local governments could meet some of the costs and the introduction of cost sharing (Ministry of Health, 1994b). The new ways to finance health were not immediately forthcoming, as a result the government had to maintain financing of the health services. The fact that the health sector was being under-financed was evident in each wave. However, no decision to address the problem was being taken. So there was a need to find feasible sustainable means capable of meeting the financial needs of the health system.

The re-decentralization enabled the central government to transfer the administration burden to the local government itself. However, the local government had no financial capacity to run its functions including health care services (Lauckner, 2000). The local government became the biggest employer, and had to depend on the central government to finance most of its functions including administrative costs and provision of health services. Due to poor economic climate, the central government could not meet all the

financial requirements for the local government; this resulted to underperformance. During this wave, as a process of implementing the structural adjustment programmes cost sharing strategies were adopted to increase the financial resources for the provision of health care for the first time, in the late 1980s.

During the previous three waves, lack of drugs in the district hospitals was the main complaint among party officials and other politicians. The Danish International Development Agency (DANIDA), which had been supporting the health sector since the last waves agreed to study the situation. A study was commissioned whose aims included estimating drug requirements, and studying the feasibility of a drug kit system (DANIDA & MOH Tanzania, 1989). Others were to suggest strategies to purchase good quality drugs at a reasonable price, promote rational drug use and establish a national Essential Drug Programme (EDP).

The number of health workers had increased very substantially (Table 4.2). Although the proportion of the budget used for salaries was increasing, the value of income to the workers had been decreasing further, while the price index had been increasing in the opposite direction (United Republic of Tanzania, 1995). As a result, the real value of health workers income declined with each wave, which made their output decline as well. Problems experienced in this wave included low motivation for workers and district inability to pay drug debts at Central Medical Stores of which by 1986 amounted to 364,118,940.00 Tanzanian Shillings (Ministry of Health, 1989).

Findings that could influence lessons for the ongoing health sector reforms include the fact that the party played the role of facilitating change in the administrative contexts. However for the administrative contexts to work, it also required human and financial resources. Another observation was that increase in the construction of health facilities was not matched with parallel availability of other structural needs to provide the needed health care. To facilitate the availability of adequate resources new financing modalities were considered in the ongoing wave. The DMO, as in the previous administrative

arrangement, was responsible to the Ministry of Health, so this officer was not integrated into the district health system. It was important to make the DMO an integral part of the district health system, also to improve the structural quality of the rural health care. Donor financing was, to a large extent, channeled to establish and run vertical programmes. The ongoing health sector reforms innovated and practiced new ways to manage the donors. In the next sections evolution and provision of some of the vertical programmes are discussed.

Table 4.2: Trends in the indicators of investment in health and health status Indicators in Tanzania

	Health investment indicators						Health status indicators	
Wave	*Population/ Health Centre (1000s)*	*Population/ Dispensary (1000s)*	*Population/Med/Assistant (1000s)*	*Population/Rural Medical Aid (1000s)*	*GDP per capita in US dollars****	*Government Expenditure on health as per cent of total expenditure***	*Life expectancy*	*Infant mortality rate*
One	432.0	9.7	41.5	25.0	12.3	7.7	35	160
Two	121.2	7.9	35.8	20.7	25	6.4	45	150
Three	100.4	9.4	17.1	10.4	132	3.1	52	135
Four	78.4	6.4	10.8	7.7	74.8	9.3	50.6	88

*Estimates based on the Tanzania population census results for 1967.
** Source: Budget Survey reports.
***GDP values at current costs adjusted based on 1998 deflator values.

4.4.5 Primary health care

At the beginning of Wave II in 1961, there were 692 dispensaries for the rural population (Government of Tanganyika, 1961), which were very few, compared to the number of villages, and the rural population. The Party and the Government through the ruling Party branches mobilized communities to construct dispensaries on a self-reliance basis to increase access to health care (Nyerere, 1977). Dispensaries constructed through these efforts were handed over to the local government although it was later unable to run the services due to lack of finances and personnel (Government of Tanganyika, 1963b). The result was failure to meet the goal of providing good health to all in need in the rural areas. Strategies to address the failure included i) the establishment of Village Health Posts manned by Village Health Workers (VHWs) (Heggenhougen *et al.*, 1987); ii) establishment of training programmes for village health workers in pilot and needy districts. The villagers provided space for the village health posts, while the central government provided first aid drug kits (Ministry of Health, 1974). Some donors provided support to the programme in some rural areas in the country.

It was towards the latter part of the third wave that Primary Health Care (PHC) strategies were proposed at the Alma Ata conference to achieve 'Health for All' by the year 2000 (HFA2000). The PHC strategies included community participation through self-reliance, and multi-sectoral approach (WHO & UNICEF, 1978). For Tanzania, the PHC strategies were similar to rural development strategies already established by the party through the Arusha Declaration. As a result, the implementation of PHC in the country closely followed the experience the country already had of implementing the village health workers programme, and the country became an example in the implementation of PHC.

The fourth wave started by streamlining strategies acquired in the third wave to facilitate the implementation of PHC, and by the publication of the first national PHC Guidelines (Government of Tanzania, 1983; WHO & UNICEF,

1978). This was followed by a joint Ministry of Health and WHO review of the PHC in the country to understand the implementation and shortcomings (Ministry of Health/WHO, 1984). The review identified the existing political management structure as an advantage in the implementation of PHC. The problems identified included geographical inequity in access to health care, communities not giving adequate support to the VHWs, competition from vertical programmes, and economic poverty.

At the end of the fourth wave there were 4000-trained VHWs of whom 3500 were estimated to be active (Mliga, 1991). No official registration of VHWs was found. The problems identified from the beginning through subsequent waves were that communities were unwilling to provide financial and other support to VHWs. As a result the trained VHWs moved to towns or industries to look for better pay (Heggenhougen *et al.*, 1987). Although this information was available, it was not clear why it did not influence action in the subsequent waves. However, the economic recession and expectations that health services would be free to everyone might explain the silent stand. Stakeholders in this wave included the Chama cha Mapinduzi (CCM), which after succeeding TANU, was the ruling political party. The other stakeholders included the communities, government, UNICEF, WHO, and health service providers. It seems they were all supportive to varying extents. It was recommended that communities should be made supportive of the health programmes and improvement of resource availability using sustainable strategies.

4.4.6 Maternal and child health services

During Wave I some MCH services were established to provide among other services, care during delivery and nutrition counselling (Government of Tanganyika, 1948b). However, these services were established in a few urban areas, and did not reach most of the vulnerable populations. Consequently, the high infant mortality and short life expectancy at birth experienced in the country was not addressed (Table 4.2).

The second wave pursued the lesson from the first wave that MCH services were not accessible to most mothers and children. The government then established mobile clinics to provide MCH services to increase coverage of the services. The clinics provided health education, immunization and nutritional counselling. These clinics were however, not integrated in the district health system (USAID & Ministry of Health, 1979). The clinics were also not coordinated nationally and the standards varied from place to place. The proportion of children vaccinated fully in Wave II was less than 25 per cent (United Republic of Tanzania, 1987). However, infant mortality rate had dropped to 150 per 1000 and consequently life expectancy increased to 45 years. The finances required to provide the services were beyond the national capacity, and donors contributed about 72 per cent of the investment capital. Need of increasing MCH services coverage and integration of MCH services into the district health system were lessons that influenced the third wave. The country was also not able to meet the costs of MCH services. Donors were approached to finance them (United Republic of Tanzania, 1987). This wave also coincided with the global launching of the Expanded Programme on Immunization (EPI). The global move led to a big increase in resources from the community, and donors decided to participate through providing technical expertise and financing. It was estimated that during this period donors contributed more than 90 per cent of EPI and MCH costs (DANIDA, 1994). The donors also planned and implemented the services centrally creating vertical programmes separate from others. Actual EPI coverage during this wave did not improve substantially as resources were spent on setting up EPI delivery infrastructure and creating demand (Ministry of Health *et al.*, 1978).

The influence of Wave III on Wave IV included the need to sustain the gains made in previous waves. It also included sustenance of resource availability through continued donor funding of the programme. The vertical structure to deliver EPI was consolidated through training and strengthening of the national Programme management unit and regional and district officials (Ministry of Health and DANIDA, 1992). An annual EPI review including all district and national officials was established. Through the annual review

meetings, experiences were shared, and this influenced changes in the subsequent period. This period witnessed a very fast increase of national EPI coverage to over 80 per cent (DANIDA, 1994).

Lessons to be learnt for the ongoing health reform were how to sustain and upscale the success of EPI, reckoning the large inputs of the donors, the role played by the government, EPI providers and the DMO. However, the coverage stalled despite the provision of all resources (Ministry of Health Tanzania Mainland, 2000). This called for strategies focusing on communities and facility providers to scale up the coverage. As a result infant mortality got reduced substantially to 88 per 1000 (Table 4.2). The achievements could have been partly due to increased availability of health services including EPI, and the rising GDP.

4.5 Discussion

The study found out that the political contexts changed at the beginning of Wave II and did not change in the waves that followed. Though the political contexts changed during the second wave the administrative contexts in Wave II were determined by Wave I administrative contexts. The political context was able to change the administrative contexts in Wave III. Failure for the local government to perform its functions and the studies done enabled the ruling party to make a strong case justifying reforming the administrative contexts. The political contexts and administrative reforms that were determined by the political party influenced the contents of the health reforms and the process. Despite the progress in administrative reforms the health sector reform achievement could have been better if the economic climate and health financing did not get poorer. Thus despite the supportive political climate, and respective administrative reforms, the health sector reforms performance was limited by the economic climate and mode of financing.

The analysis also revealed that for each successive HSR wave, information on health system performance in the preceding wave was made available and used if not considered. This included information on causes of failure to achieve rural development as expected. As a lesson the government had to deconcentrate government administration, which after some lessons had to reverse to decentralization by devolution. Lack of health facilities provided several lessons to increase availability of health services. The lessons included construction of dispensaries using both government and community efforts. Another lesson included the adoption of policies that gave priority to rural health development.

Also there were other problems that did not provide a lesson, though documented. These included lack of finances, drug shortage, poor quality of service, lack of increase in the number of VHWs, stalling EPI coverage and low wages. There were other problems that were not documented which included lack of integration of the DMO into the district health system, lack of

integration of communities to the district health system and declining income of health workers. Nevertheless all problems provided lessons to the succeeding wave especially on low financial capacity. There were several stakeholders in the sector who included the central government, local government, the party, communities and donors.

At the time of Wave I of the reforms, government spending in Tanzania was as in other parts of the world, biased towards urban areas (Bogg *et al.*, 1996; Pannarunothai & Mills, 1997; Fabricant *et al.*, 1999). The urban area was where the elite and those in power lived; making sure that the best of health care was available there. There was also a bias of increased spending on construction of big hospitals as well as purchase of expensive high technology for the hospitals. The spending on urban health and hospitals had consumed more than 90 per cent of the health budget while it accounted for less than ten per cent of the population (Titmus *et al.*, 1963). It required a lot of effort to change the allocated proportion to attain better urban rural equity. The change to socialism led to considerable pressure for equity.

The political environment that prevailed also determined the economic environment that in turn determined financing options for the health sector. The political environment declared that all of the economy was centrally planned and managed. The socialist ideology practised then had put all means of production under the state, and all private businesses were nationalized. It was also declared that the state would provide all social services free charge to all citizens. Thus due to the political environment and resulting economy financing of health services was by taxation. Though there was success in allocating resources to rural areas, the source of finance for the health system depended on government and donor financing. Due to poor economic performance across the four waves the government was not able to adequately finance the social sector including health. Lesson that emerged were a need to increase financing options or improve financing capacity of the government. The social and political contexts at that time made government

the only provider of health services, limiting the flexibility of financing options and the lessons learned.

Vertical programmes had a better opportunity to provide lessons to subsequent change due to donor preferences. In the third wave the Party also made strong efforts to put MCH service at the forefront (Mliga, 1991). Despite the concerted efforts of the party to improve MCH services, the government had no adequate resources to do that. Donors had to be approached to assist. That also coincided with global move to establish EPI (Ministry of Health *et al.*, 1978). Party efforts, donors and a global move to establish EPI coincided to set a beginning for EPI in Tanzania. A lesson to be adopted was the need to have locally sustainable financing of the health sector.

It was the objective of the health system to expand health services through construction of health centres, dispensaries and establishment of village health posts nationally (Johnson, 1986). This was in response to the party and government efforts to implement the goals. Party efforts focused on community mobilization, and it was continuously monitoring the performance and subsequent feedback to the government. As a result communities became active adding to the efforts of the government and managed to achieve the targets before time. Health centres were set to cater for a bigger number of people, more expensive and complicated to build. Their construction depended on government resources only.

The low capacity of the government to meet the costs was known since Wave I through to Wave IV. The inability of the information to provide lesson to the succeeding wave might have been due to low economic capacity, prevailing political environment and donor funding preferences. Capacity of the government to finance the health system has been low for all the periods. It could also explain the lack of lessons emerging for the other problems experienced during the waves. Examples were information on shortage of

drugs, declining income of health workers, and debts at the Medical Stores Department.

VHWs were trained by the districts but had to be remunerated by the communities. Many of the trained VHWs dropped off for various reasons (Heggenhougen *et al.*, 1987). The increase in the number of VHWs was very slow even after adopting the PHC strategies. The main reasons could be lack of support from the district authority (Walt *et al.*, 1989). However, experience from other studies report high efficacy of VHWs and other PHC strategies if properly planned and sustained (Tanner, 1989; Tanner, 1990; Paulo *et al.*, 1993; Gilson *et al.*, 1994a). There is still a need to put in place new strategies that will promote the existing PHC concepts.

4.6 Lessons learnt

i) Political contexts since Wave II remained constant. The health reforms that followed were initiated by the changing administrative contexts. However, for all waves the achievement of the reforms was limited by the unfavourable economic climate, suggesting a need of better political, administrative and economic environments for facilitating the achievement of health reform goals.

ii) Information from previous waves was regularly used by the succeeding wave. However, information on low financing capacity was not properly considered.

iii) The political environment provided for a socialist economy and the state as the sole provider of social services. As a result of the political environment coupled with poor global economic performance, the national economic ability was gradually getting worse. Due to low financial capacity, decisions to increase finances were not taken unless donors participated.

iv) The administrative arrangement that existed in all waves made the DMO responsible to the centre. This resulted into communication

difficulties at the district (decentralization level) between DMO, district authorities, communities and also the health facilities (especially during decentralization by devolution). Also communication from communities was channelled through the party line to the nation, sidelining district health providers. There is now an opportunity to integrate the DMO and community into the district health system.

v) The community and health providers provided low support to PHC strategies and activities. Health facilities for a long time experienced low drug supply while providers' salaries were inadequate. These problems should also provide lessons for the current health sector reforms.

vi) Research is needed to find out how best to scale-up PHC strategies and stakeholders' alignment to facilitate achieving the goals of health.

The analysis also revealed that the number of stakeholders was restricted to the political party, government, and donors. Thus the number of stakeholders were very few though many could have been mobilized i.e. academicians, politicians, media etc. The economical environment, management skills and physical infrastructure development adversely affected the efforts of the active stakeholders. To mitigate the unfavourable environments, it was important to have political contexts that would allow adoption of feasible financing options i.e. cost sharing etc. Towards the end of the fourth wave those alternative financing strategies were adopted and were implemented.

Strategies including monitoring are needed to find the best way to implement those financing reforms in order to achieve the best outcome in the ongoing health sector reforms.

Chapter 5:

The Role of Stakeholders in the Health Sector Reforms: The Experience in Tanzania

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This article has been submitted to the journal of Public Administration and Development.

5.1 Summary

This paper was an attempt to justify whether stakeholders matter in the health care systems of developing countries. Health systems in developing countries have not performed as well as expected. For a given level of resources invested in health systems, health levels achieved by different countries vary markedly worldwide. Since 1993 many countries have stepped up efforts for health sector reforms. What then were the health sector reforms and what lessons could have been learnt from some countries? This paper presents analyses of the current health sector reforms in Tanzania, with a view to identifying stakeholders and their roles in the health sector reforms. For this purpose relevant published and unpublished documents were reviewed, and key stakeholders interviewed.

The findings showed that the reforms had very high political support, and all stakeholders were in agreement on the need for reforming the health sector. However, there were different opinions regarding sector decentralization, local government decentralization, financing, and management of the decentralization. The government managed the reactions through streamlining donors and government participation. Although comprehensive mapping of stakeholders was needed in advance, it was not considered important. Instead the process was managed as problems arose. It is important to conduct an analysis of the stakeholders. In addition, the reforms process would have been more successful if arrangements had been made to impart stakeholder analysis and management skills to the implementers.

Key words: health sector reforms, decentralization, stakeholders, Tanzania, Africa.

5.2 Introduction

This paper was an attempt to evaluate the significance of stakeholders in reforming the health care systems of developing countries. The 2000 World Health Report observed that health systems in the developing world were not performing as well as was expected (WHO, 2000). For a given level of resources invested in health systems, health levels achieved in different countries varied markedly. For example, out of 191 countries, Tanzania ranked 156th in overall health performance. One of the reasons advanced for the variation in health system performance was implementation of non-evidence based policies (Hearst & Blas, 2001). It was also thought to be due to stakeholders who, in spite of the presence of serious problems in the sector, preferred to enjoy the status quo rather than find ways to improve the situation (Glassman *et al.*, 1999). Nonetheless, many developing countries started to implement health sector reforms (HSRs) to improve the quality of health services, and ultimately the health of their populations.

The latest HSRs introduced user cost-sharing at publicly owned facilities, decentralization, and contracting out some of the services (Hearst & Blas, 2001). These HSRs had both encouraging and discouraging results (Collins *et al.*, 2000; Tang & Bloom, 2000; Langer *et al.*, 2000; Bodart *et al.*, 2001). This paper addresses the issue of contents and the processes of the health care system in Tanzania since 1993 and to identify the stakeholders and their roles in the policy development process. Thus the aim of the study was to try to understand stakeholders in the health sector reform process and their roles in order to inform policy makers. Such information would facilitate better management of stakeholders to improve the outcome of the health sector reform process.

To answer the questions a policy analysis framework model was adopted that focused on content, process, contexts and actors (Walt & Gilson, 1994a). The study employed this model in carrying out the analysis.

5.3 Methodology

Permission to conduct the study was obtained from the Ministry of Health. A search for published and unpublished literature from other ministries and libraries was also done. The literature included World Bank and other donors' publications as well. Other searches included planning reports, and reports from Donor/Ministry of Health appraisal meetings. In addition to the literature search, key informant interviews were performed to verify the findings obtained from the literature search as well as clarify any ambiguity.

Documents obtained from the literature search were assessed for relevance and carefully read by the authors. The literature was then classified into categories relevant to the policy process phases and included 1) contexts, 2) agenda setting, 3) policy formulation and planning, and 4) implementation. Within each category, information on contexts, content and process was sought. Activities and strategies to be implemented at each stage were identified. Stakeholders were also identified and information was sought on how they supported or opposed a particular strategy or activity. The information obtained was discussed with key informants in order to corroborate the information emerging from the analysis.

Key informants knowledgeable about the process of HSRs were identified through their positions and sometimes interviews were conducted. The various reports made available were complimented with the key informant interviews. The position of each respective stakeholder on each selected HSR content was established: the position was ranked + if it was minimal support, ++ if it was medium support and +++ if it was high support.

5.4 Results

Government administration and public health services in the country are organized at the national, regional, district, ward, and village levels (Table 5.1).

Table 5.1: Administrative and public health systems*

Administrative level		Public Health Facility	
Level	**Number**	**Facility type**	**Number**
Zone	6	Tertiary hospitals	4
Region	21	Secondary hospitals 1 in each region	17
District	121	Primary hospital 1 in each district	114
Division	372	Health centre	273
Ward	2,000	Dispensary	2,325
Village	11,000	Village health post	4,000

*Updated from Heggenhougen et al (Heggenhougen *et al.*, 1987)

5.4.1 Contexts of the current health sector reforms

The ongoing health sector reforms are taking place within the broader national economic contexts. Post independence policies of Tanzania included the declaration that health care was a right to all and that the government will meet all the cost of providing health services. Thus, the government became the only provider of health care and financier of health services. The level of financing health services depended on the national economy and effectiveness of tax collection and its subsequent administration. Agricultural exports were the main foreign exchange earner.

In the mid 1970s drought, low agricultural outputs, unpredictable price of exports, high cost of imports especially petroleum products adversely affected the balance of foreign payment (Ndalu, 1994). To mitigate the negative balance of payments the government had to borrow from external creditors and internal financial institutions. The effect of negative balance of payment was under-financing of the health and other social sectors, soaring inflation and growing debt (United Republic of Tanzania, 1995). In 1980, foreign creditors had to put conditions on the government to reform the economy if it was to qualify for more borrowing. This was due to worsening of the economy, social services and overall administration.

To implement creditors and donors' conditions, Tanzania adopted a short-term policy to revamp the economy in 1980. The policy became known as the National Economic Survival Programme (NESP 1981/82)(Mbele & Kulindwa, 1995). The aim of NESP 1981/82 was to increase industrial and agricultural output using domestic resources. Following the failure of this programme, the government

implemented a Structural Adjustment Programme (SAP) from 1982 to 1985. The aims of SAP were to adjust national priorities, adopt expenditure reducing policies including health expenditure and restructure economic activities. However, the programme failed to achieve its objectives due to resource constraints. The other reason was non-response to donors' pressure to undertake more drastic reforms; as a result, donor funding was further reduced.

The economic reforms didn't achieve the intended objectives because of resource constraints and inadequate donor support or delays. As in other developing countries SAP required the government to reduce spending on social services including health as a condition for more grants (Hammond, 1993; Peabody, 1996; van der Gaag & Barham, 1998; Curtin & Nelson, 1999; Benson, 2001). This resulted in severe under-financing and heavy reliance on donor funding of the public sector. This further undermined the public administration and provision of services. Consequent to the low financing, and poor administration, social sector performance was poor resulting in poor quality of services including health.

Poor performance of the economy, reliance on donors for funding, poor quality of public administration and provision social services persisted. The government had to heed donors' pressure by signing an agreement with the World Bank and International Monetary Fund to implement drastic reforms between 1986 and 1989 (Moshi, 1994). It was later realized that the state of the social sector was in a very pathetic condition due to under-financing, poor management and inefficiency. The World Bank, Government of Tanzania and some donors agreed to establish another reform – the Economic and Social Action Programme (ESAP)(World Bank, 1990). The objective of ESAP was to reverse the poor performance of the social sector including health in line with economic development. The reforms included trade liberalization, liberalization of medical practice and restructuring of public administration.

In order to achieve economic development, the government and donors started to reform public administration through the Civil Service Reform Programme

(CSRP) in 1989 (Mtatifikolo, 1994). CSRP aimed at addressing inefficiency, unresponsiveness to public demand, incompetence, and poorly motivated workers (Government of Tanzania & United Nations Development Program, 1991); (Government of Tanzania, 2000). Later in late 1990s CSRP became known as the Public Sector Reform Programme (PSRP), which also guided the Local Government Reforms (LGR) and social sector reforms including health. LGR entailed political, financial, and administrative decentralization. Health care reforms and decentralization took place within the LGR.

Contexts to the health sector reforms that started to be implemented in 1990s included political, economic and broader reforms. The political contexts included universal provision of health services as a right to all, and the government had the obligation of providing the health services free of charge. Hence, the reforms had to change the contexts in order to allow for other modalities of financing of health care. The economic situation and inefficiency limited the level of funding available to the health sector. Donor dependency and government contribution remained to be the major sources of finance to create appropriate contexts for the reforms. Social sectors including health were part of the government system, hence they required guidance from higher-level administration to meet the national level objectives. Health sector reforms were then required to take place within the higher-level government reforms.

5.4.2 Setting the agenda

The World Bank Health and Nutrition Project Staff Appraisal Report in 1990 gave a description of the low performance of the health system in Tanzania (World Bank, 1990). The appraisal cited several reports and studies that reported on the falling quality of health care system in Tanzania since the beginning of the economic recovery programmes in 1986. Health system researchers gave priority to studies that focused on quality of health care systems. One of the studies observed the process of providing antenatal care, curative and nursing care in primary health care units to determine quality of health care. The study used observation checklists to review the process of providing antenatal, curative and nursing care in primary health units, assessing both technical and inter-personal

skills (Gilson *et al.*, 1993). The findings revealed weaknesses in available care like poor attitudes of health staff and poor technical aspects of care. Another study was done in Morogoro to determine community satisfaction with primary health care (Gilson *et al.*, 1994). The study reported a number of problems perceived by the communities that included weak structural and inter-personal skills, both of which were seen to negatively influence drug availability and maternal services. The decline in structural, process and perceived quality of the health system was reported by several other studies in the early 1990 (1996b; Atherton *et al.*, 1999; Kanji *et al.*, 1995; Mujinja & Mabala, 1992). Thus, among researchers, as stakeholders in the health system, it was consistently agreed that the quality of the health care in Tanzania was low.

In the early 1990s routine analysis of data from Health System Management Information System further supported the previous findings that the health system was performing poorly. The Annual Health Budget speeches to the National Assembly in the early 1990s also reported that the quality of health care was poor. During the Ministry of Health Annual Budget in 1993 the minister reported that health facilities lacked drugs, providers' attitudes were poor while drugs were available outside the official health care system. The politicians, researchers and ministry officials all complained about the poor performance of the health care system. Despite the common concern there was no official dialogue between the three stakeholders. The poor economic contexts that prevailed and heavy reliance on donors did not enable initiation of policy process to intervene locally (key informant).

5.4.3 Policy formulation and planning

In 1993, the World Bank launched the World Development Report 1993 (WDR1993) Investing in Health (World Bank, 1993). The report underlined the poor performance of the health systems of developing countries that included Tanzania. The report also identified the reasons for the poor performance, which included poor management, inefficiency and poor financing. The report urged the countries to take steps to reform their health care systems. The World Bank

became the first stakeholder to take the lead in proposing reforms in the health sector aimed at improving the quality of care.

The report in addition introduced and reported on the use of BoD for the first time as a tool for evidence-based policy practice. The World Bank introduced the skills for establishing BoD and cost-effectiveness of interventions. Thus, the World Bank picked the agenda on poor performance of health systems from the other stakeholders (researchers, MoH technocrats and politicians). The stakeholder also initiated adoption of new technology (BoD and cost-effectiveness) to measure health and guide policy changes in the health sector.

As preparation to implement the strategies in the WDR1993, the World Bank in June 1993 invited East African countries to Washington to discuss ideas contained in the WDR1993 and another report "Better Health in Africa". At the end of the workshop each country including Tanzania developed country specific Strategy Notes. The Strategy Notes formed the basis upon which the Health Sector Implementation Plan was developed (Ministry of Health, 1993b). In the following month donors attending a consultative meeting group for Tanzania in Paris discussed the need to reform the health sector. The consultative group agreed that there should be health sector development strategies in place before the next consultative meeting that was held in 1994 (one year later). This was the beginning of the Ministry of Health to take responsibility of the reforms. At the same time, consultation with donors initiated a process of stakeholder coalition among the donors to support and facilitate financing of the health sector reforms.

Following the Washington workshop and the Paris consultative group meeting it was agreed to further discuss the ideas within Tanzania. A joint workshop of the Ministry of Health, World Bank, WHO, DANIDA and other bilateral donors to the health sector was held later in November 1993. The aim of the workshop was to appraise the current health policies, strategies, plans and their implementation (Ministry of Health, 1993a). This provided the first forum for stakeholders to work together in the process of setting the agenda for the health sector reforms. The

outputs of the discussions were ideas that guided the preparation of the health sector reforms.

The joint workshop of the Ministry of Health, World Bank, DANIDA and other bilateral donors also endorsed the establishment of a working group within the Ministry of Health. The working group had the responsibility of coordinating the health sector reform process and ultimately preparing the Health Sector Strategy and the Health Sector Implementation Plan. The group was composed of senior personnel in the Ministry of Health and Ministry of Planning. This provided an opportunity of donors, government and NGOs to form a coalition of stakeholders working together to influence policy.

The working group then proceeded with preparing the Strategic Health Plan 1995-1998 and the Health Sector Reform Proposals. The World Bank took the initiative of acquainting policy makers to BoD and cost effectiveness as policy-making tools within the East African countries. To achieve the objective, a regional (East Africa) workshop was conducted in Nairobi Kenya in August 1994 (World Bank, 1994). Ministers of Health, high-level policy makers and the Tanzania working group attended the regional workshop on BoD, cost-effectiveness and health policy.

The Tanzanian team in the workshop reported that the current expenditure on health was low (3.30 USD per capita), and it needed to be raised to 12 USD, as proposed in the WDR93. Thus the reforms proposed by the country group included strategies to raise the level of financing health care. The World Bank promised to continue supporting the countries including Tanzania to implement the respective health sector reforms. It pledged continued support to the process while the Tanzanian team pledged continued efforts to increase the level of financing the health sector.

The World Bank and DANIDA maintained their continued support to the working group through provision of resources. By February 1995, the working group had finished working on the Health Sector Reform Proposal. The proposal identified

several problems contributing to the poor performance of the health system and thus inability to meet the health system objectives (MOH, 1994). The problems were grouped into ideological, organizational managerial and financial.

Strategies to address the problems identified in the Health Sector Reform Proposal were also proposed in the Strategic Health Plan 1995-1998 (Ministry of Health, 1995). The strategies included:

i) Delegating power to District Health Boards
ii) Training of District Health Planning and Management Teams in Health Planning and Management
iii) Increasing equity in health service accessibility and utilization
iv) Financing and providing adequate medical supplies, drugs and appropriate personnel
v) Developing integrated family health
vi) Revitalizing occupational and environmental health services
vii) Intensifying Primary Health Care activities
viii) Developing a training policy for Human Resource in the health sector and manpower Development Plan.

The strategic health plan and the proposals for health sector reform were then submitted to the cabinet for approval in early 1995.

After submission for cabinet approval the Ministry of Health and the World Bank jointly started to prepare grounds for implementing the reforms. One of the strategies was to increase the participation of other donors. This was an important undertaking since donors financed up to 80 per cent of the preventive health care expenditures (Ministry of Health, 1993a). The Government could finance only about 30 per cent of the total financial requirements. Thus donors had high level of influence in the process due to their high financial contribution to the health sector. Due to the poor economic context, it was clear that donors' influence was also needed in the process of planning and implementing the health sector reforms.

The main stakeholders who included the government and donors had not been keeping their promise regarding financial disbursement. There was then a need to make sure they kept their promises otherwise it would affect the process negatively (key informant). This was also supported by the Public Expenditures Review 1998, which reported the role of these stakeholders on the predictability of budgets for the health sector (Government of Tanzania & World Bank, 1998). The review observed that there had been large variations between budget projections and out-turns. The shortfall of donor disbursement and local funding had been between 60 and 80 per cent of the budget for donors and 25 to 80 per cent for local funds. The main reasons advanced were unrecorded donor support, shortfall in local counterpart funds and inaccurate projections. Thus, the stakeholders' high level of influence was undermined by failure to contribute the expected level of funds. This then resulted in unpredictability in the budgets.

As a process to remedy the situation, strategies were adopted to get the stakeholders on board. The strategies included making sure that donor and other stakeholders participated fully at the crucial early phases of policy development through (MOH, 1995). The phases comprised:

i) Circulating the Health Sector Reform proposals and the Strategic Health Plan 1995-98 to other donors to get their comments. The interested donors made several comments, which were very useful for future development.

ii) Creating a supportive network of stakeholders for the reforms. This resulted in the formation of Joint Ministry of Health and Donors Mission. The mission would meet annually and its main aims were to identify and prioritize key issues that needed to be addressed in the preparation and implementation of the health sector reforms.

The first joint MoH/Donor appraisal mission was held in October 1995. The objectives of the mission included to:

i) Establish a common understanding on key issues of the health sector reforms among key partners in the reform process.

ii) Prepare an updated Strategic Health Plan 1995-1998, which had broad support from the key partners in the reform process.
iii) Agree on a cost-effective utilization of donor support to the health sector through the establishment of formalized cooperation between the government and the donors in supporting the implementation of the health sector reforms.

All traditional donors attended the appraisal mission signalling success in establishing coalition of the stakeholders. The outcome of the mission was commitment by all stakeholders (donors and government) to reform the health sector and making available both adequate technical and financial inputs.

As a result they agreed on an Action Plan for 1996 – 1999(MOH, 1995). The action plan covered:

i) Details of key actions that had to be undertaken in that period including political decision making based on the appraisal of options.
ii) Details of studies that had to be undertaken to inform those options and to build the basic groundwork for a sound reform effort.
iii) A sequencing of all key events and studies clearly showing conditionalities and inter-dependencies.
iv) Detailed terms of reference for studies.
v) Detailed cost estimates for all activities to be undertaken in that period and proposals for sources of funds.

Thus the stakeholders jointly agreed to revise Strategic Health Plan 1995-1998 and establish Action Plan 1996-1999 (Ministry of Health, 1996). Action Plan 1998-1999 focused in more detail on the activities to be implemented, studies to inform the reforming process and financing of the process.

5.4.4 Pilot studies

Several studies were proposed and commissioned. They were supported by donors and jointly conducted by the Ministry of Health and donors. The following studies were included (Ministry of Health, 1998b).

Accountability and Institutional Aspects

These aspects of the reform from 1996 were jointly pilot tested by MoH and DANIDA at the district level in Kagera Region. The parameters tested were the MoH commitments at district level, decentralization, and partnerships with donors, scaling up and sustainability of advocacy, community sensitization on the reforms, and integration of vertical Programmes. The type of decentralization was by deconcentration (sectoral decentralization) by the establishment of autonomous district health boards (MOH, 1996). During the pilot testing, vertical programme managers were supposed to transfer their authority to the boards but did not do so (Ministry of Health, 2001). Despite that the results supported the idea of formation of autonomous District Health Boards.

District Health Services Delivery

MoH jointly with the Swiss Development Cooperation (SDC) in urban Dar es Salaam undertook pilot testing of strengthening district health services delivery. It studied the feasibility of decentralization of health care through establishment of health boards at all levels of the health care (Mtasiwa & Pichette, 2001). The testing provided lessons on formation of active health boards facilitating community participation, improvement of the quality of services, and their adoption in the HSR.

Tanzania Essential Health Intervention Project

The Canadian International Development Research Centre (IDRC) and MoH jointly implemented the Tanzania Essential Health Intervention Project (TEHIP) in the Coast and Morogoro Regions starting in 1996. The project aimed at testing feasibility and measuring the impact of evidence-based approach to health planning at district level (Kamuzora *et al.*, 2002). The lessons from the project included adoption of BoD and district budget mapping as planning tools for resource allocation in districts, and general capacity building techniques for district health administration and management.

District Capacity for Planning and Management

MoH and GTZ joint study in Tanga Region aimed at strengthening district capacity for planning and management by health boards and through training. The lessons from this study showed that there was a need for close collaboration between HSR and LGR and training of district health management teams (DHMTs) (Ministry of Health & GTZ, 2001). Similarly, a joint pilot project was undertaken in four districts aiming at raising the quality, coverage and effectiveness of basic health services. The lessons from the study underscored the necessity for increasing education levels of DHMTs, simplification of district planning guidelines, strengthening of collaboration between HSR and LGR, and community participation.

Strengthening Health Management Systems

The project which was implemented in five districts in Mbeya Region and elsewhere in the country by Tanzania Family Health Project, with funding from United Nations Fund for Population Activities (UNFPA), aimed at improving accessibility at district level to high quality integrated reproductive health services to target populations (Ministry of Health, 1998b). The lessons showed that these could be achieved through enhancement of community participation, staff sensitization, skills development, and improving physical structures.

Health Management System

The several studies undertaken on the subject covered the Health Management Information System, Adult Morbidity and Mortality Project, District Health Management Team training modules, and drug supply (Ministry of Health, 1998b). The lessons from these studies showed that there was a need for strong coordination between national and lower levels, improving capacity for using data at the source level, initiatives to train health workers in data management at all levels, changing from drug kit to indent system, having more precise exemption mechanisms of paying for drugs, and revising the Master Plan for Pharmaceuticals.

Financing Health Services

MoH and the World Bank jointly implemented a pre-paid health care scheme in Igunga District to test the feasibility and sustainability of a community health fund as a financing option in the health budget (Shirima, 1996). The success of the project rolled over to about ten more districts, and generated scaling-up guidelines. The results of the studies formed the basis for the implementation of the health sector reforms.

5.4.5 Action plan 1996-1999 and progress

A consultant was commissioned by the donors to prepare the Action Plan 1996-1999. The task was completed early in 1996. In April 1996, a joint Ministry of Health and donor's mission met to appraise the Action Plan 1996-1999 (MOH & Donors*, 1996). The aims of the appraisal mission were to review the newly completed Action Plan 1996-1999 and identify areas needing further refinement. It was also to strengthen donors' commitment and support to the reforms.

The refinements included agreeing on strategies for involving communities, ensuring government commitment of resources for the reform process, establishment of donor coordination mechanisms, and clarification of financing modalities by donors. Thus the appraisal identified the role of various stakeholders in the reform process and implementation. Community involvement was an important idea since the community was the primary beneficiary (stakeholders) of the health sector reforms. The idea of strategies to involve communities broadened the stakeholders' platform, which would make them assume a more active role in the policy process. However, their influence depended on the modalities of involving them and how much control they could have on the process.

During the process, financing of the health sector went very low. The main reasons were donors' reluctance to disburse funds until the negotiation process was over and also due to poor government disbursement (key informant). The situation was very pathetic and the quality of health services got further compromised. To remedy the situation the Government of Tanzania requested

for financial assistance from DANIDA, which was accepted. DANIDA and the government, in August 1996, entered in an agreement to provide funding for a period of three years (DANIDA & Ministry of Foreign Affairs, 1999). The support was known as Health Sector Programme Support (HSPS-I). It was later extended to cover the period 1999-2003 as HSPS-II. The support covered financing of essential health system activities and some of the health reform activities. This was a coalition of stakeholders nested within the broader coalition of stakeholders that was in the process of being strengthened. It was the only solution to reverse the deteriorating quality of health care while waiting for the broader coalition of stakeholders to be effective.

The government and donors jointly in 1997 developed a Sector Investment Programme (SIP) to avoid spreading investment resources too thinly. To take SIP in to consideration Programme of Work 1998/99-2000/2001 (PoW1998/2001) was developed (MOH, 1997). The stakeholders in the HSRs and decentralization were the Ministry of Finance (MoF), Presidents' Office Regional Administration and Local Government (PORALG), Ministry of Health, and the donors DANIDA, DFID, SDC, GTZ, NORAD, World Bank, UNICEF, WHO, USAID, JICA, CSSC, KFW, UNFPA and the Royal Netherlands Embassy. PoW 1998/2001 was reviewed in donors' and Ministry of Health joint appraisal held in early 1998, which also endorsed a Sector Wide Approach (SWAp) (Ministry of Health & Donors*, 1998).

Having adopted SWAp the ministry had to re-orient planning and resource allocation. This was implemented through preparation of a new Programme of Work (PoW1999/00-01/02). It was also agreed that implementation would start in the period 1998/1999 (Ministry of Health, 1998a). The influence of the donors was repeated revisions and refinement of the health sector reform plans. PoW1999/00-01/02 was agreed as final and ready for implementation. The following were the strategies contained in the PoW 1999/00-01/02. Some of the strategies attracted stakeholders' reaction after the final version.

i) District health services: Ensure provision of accessible, quality, well-supported and cost-effective district health services. Establish clear

priorities and essential clinical and public health packages. Establish District Health Boards that will make overall policy decisions for the district. During the 1995 joint Ministry of Health and a donors' appraisal it was advised that the health sector reforms and decentralization should be by devolution to local government (MOH, 1995). This concern was expressed in subsequent joint Ministry of Health and donors' appraisals. In 1999 donors and local government reform maintained that the law did not provide for deconcentration but devolution to local government (Ministry of Health & Partners, 1999). Decentralization of health services by devolution was then implemented despite positive recommendations from the pilot study and MoH opposing design. Thus many stakeholders supported decentralization by devolution to local government. Only the Ministry of Health initially opposed devolution. The reason was to maintain professional allegiance and control to the districts (key informant).

ii) Secondary and tertiary hospital services: Provide back up secondary and tertiary level referral hospital services to support primary health care. Strengthen the capacity of the Ministry of Health capacity to oversee hospital reforms and strengthening of hospital management.

iii) Redefine the role of the Ministry of Health as a facilitator of health services, providing policy leadership and a normative and standard setting role.

iv) Address the challenges of human resource development to ensure that well trained and motivated staff is deployed at the appropriate health service level.

v) Ensure that the required central support system such as personnel, accounting and auditing, supplies, equipment, physical infrastructure, transportation and communication are in place.

vi) Ensure sustainable health care financing is in place. Ensure that it involves both public and private funds as well as donor resources, and explore a broader mix of options such as health insurance, community-cost sharing as well as user fees. As a step to coordinate donors, in April the same year, a workshop was held to introduce and agree on the modality. Most accepted Sector Wide Approach (SWAp) as a possible strategy. However, few ratified joining basket funding and those few signed an agreement to the intent (MOH & et al, 1998). Those who didn't join the basket funding system contributed towards sector specific investment plans. Thus SWAp was opposed by some of the stakeholders despite their strong support to the health sector reform process. Reasons of their opposition were mainly to safeguard political interests and these included the following aspects: 1) identifying success health programme with a donor country; 2) limitation by the protocols establishing the institutions that did not allow such pooling of resources; 3) some were yet to have a trust over such modality (key informant).

vii) Address the appropriate mix of public and private health care services.

viii) Restructure the relationship between the Ministry of Health and Donors.

It was a success to initiate and develop stakeholders and stakeholder coalition since problem identification phase of this policy process. The stakeholders showed a strong commitment and support to the process. However, some of the contents of the final health sector reform plan attracted opposition by some of the stakeholders. The position of the stakeholders immediately after finalizing the health sector reform plans in 1998 is summarized in Table 5.2. There was minimal involvement of other stakeholders i.e communities, academicians, NGOs, etc.

Table 5.2 Position of stakeholders in 1998

Stakeholder	Decentralization by devolution	Deconcentration of the health sector	SWAp and Basket funding
Ministry of Health	+	+++	+++
Donors	+++	+	++
PORALG	+++	+	+++
MOF	+++	+	+++
Communities	+	+	+
Research community	+	+	+
Media	+	+	+
NGO	+	+	+

Legend: + =minimal support; ++= moderate support; +++=high support.

5.4.6 Actual implementation of the HSR process

District Health Services

The decentralization process gained legal status in April 1999 through the amendments of the 1982 local government laws. The joint MoH and donors appraisal meetings held in April and October 1999 agreed that decentralization should start by January 2000. The meeting also agreed that the decentralization would be undertaken in three phases of around 35 districts each. However, the decentralization process actually started in July 2000 in 38 districts. The major reasons for the delay were government inability to allocate funds for the activities, and a need of establishing an agreeable financial disbursement system to be able to access donor basket funds. The second phase of the decentralization process started in 2001 in 45 districts, and the third started in 2003 with 31 districts.

The decentralization of health services was taking place within the local government reforms, and involved formation of district councils composed of elected representatives as the highest political body in the district. The council

had authority to run health services through a council health service board (CHB) and facility health committees. The District Council had also powers to hire personnel including the District Medical Officer (DMO). A manual on how to form council health service boards was prepared to guide the process of decentralization of health care in a district.

Lessons from the previous waves of decentralization have demonstrated the necessity of making the DMO responsible to one authority. Thus there was a need to integrate the DMO into the district health system. There was anticipated involvement of the community in the district health system through the various committees. Although by June 2002 district councils had been formed, council health service boards and facility committees were yet to be formed in most areas other than those involved in the pilot projects such as Dar es Salaam (key informant).

The decentralization process has been facilitated by the translation of the local government decentralization laws into action manuals. One such manual is the "Procedure Manual for the Joint Disbursement System for Council Health Basket Funds" (President's Office Regional Administration and Local Government, 2000). The manual specifies procedures to be put in place to facilitate resource allocation and planning. District health plans after approval by the districts council are passed to the regional secretariat, which forwards these to the PORALG and copies them to MoH for subsequent transmission to the Basket Financing Committee (BFC). After approval of the BFC, PORALG requests the release of funds from US dollar holding account to Account Number 6 for the respective district.

Officials in the BFC, PORALG, regions and the Ministry of Finance became important stakeholders who affected the financing contexts during the implementation phase. Acknowledging their presence, possible roles and subsequent strategies, to manage them should be given a priority in the health sector reforms.

The process involved institutions from MoH, MoF, and PORALG. The responsibilities involve approving annual plans, agreeing on the funding level, and approving quarterly reports. The Accountant General is responsible for maintaining the bank account, and raising account warrants. PORALG is responsible for the preparation of national consolidated plans, ensuring that all districts submit their plans, liaising with MoH, and initiating the processes of releasing and subsequent transmission of funds to the districts.

MoH was responsible for development of technical guidelines, standards, advising PORALG, regulating provision of services and support to the regional secretariat. The regional secretariat evaluated council health plans and assisted councils to integrate them into regional plans. The district councils were responsible for preparation of comprehensive council health plans, control of funds, management of services delivery, and preparation of quarterly reports.

The accounts structures included formation of costing centres in the district and/or urban areas. The centres included council health department, council hospital, urban health centre, rural health centre, dispensaries and community. The local authority accounting procedures prescribed that the District Medical Officer and Council Director would both be signatories to the accounts. The Council Treasurer managed the bank account and also prepared monthly expenditure reports to all stakeholders. The Regional Secretariat checked on the accuracy of the finance reports before transmitting them to the ministries. A new accounting system called “Platinum”, which was essentially a joint disbursement system for the health sector, was introduced to the districts (Ministry of Health, 2000b). The aim of the accounting system was to ensure that financial management was efficient, effective, transparent, sustainable, and accountable.

Other manuals and guidelines, which have been developed, are the National Essential Health Package, Supervision Guidelines, Roll-Back Malaria, STI/HIV, and Integrated Management of Child Illness (IMCI). Strategies to strengthen community participation and involvement of village health workers (VHW) were yet to be finalized because of shortage of funds (Ministry of Health, 2002).

Secondary and Tertiary Hospital Services

Due to financial constraints, physical structure deterioration, and limited management capacity, the quality of services had declined substantially from the 1980s to 1990s (Ministry of Health, 1999). Reforming secondary and tertiary hospitals assumed strategies for strengthening of hospital management. This was expected to achieve national goals of improving quality and effectiveness in the delivery of health care. Reforms at the two levels of facilities initially involved the Muhimbili National Hospital as a pilot for similar health facilities, and the Muhimbili National Hospital Act 2001, was passed to legalize the process.

Role of the central Ministry of Health

The reforms at the MoH level aim at improving capacity for management, policy analysis and development, planning, development of guidelines for national policy implementation, performance monitoring and evaluation, legislation and regulation of service delivery, and practice. The first step is to ensure that competent staff are recruited, trained, and oriented to the new roles of the ministry (Ministry of Health, 2000a). Various laws relevant to the ministry roles are being reviewed and new ones planned. As a result the Health Services Act is currently being developed. MoH was also in the process of consolidating its position in policy formulation; devolution and link with the broader reforms taking place that include local government reforms and public sector reform programmes.

Human Resource Development

The human resources development reforms aimed at implementing a training programme generating adequate numbers of health personnel within five years starting 1999; establishing computerized personnel database; strengthening capacities at all levels for sustainable human resource development; improving its financing through institutional cost sharing; involving private organizations and NGOs in the training; and developing guidelines for contracting out some training services. Strategies were being designed to increase the performance of health workers, and to increase their services to rural and peripheral areas.

Central support system

Previous reform waves experienced and addressed problems of poor supplies of drugs and equipment, decreasing real incomes of workers, insufficient finances, deteriorating physical infrastructures, transport, and information management information system (HMIS). The responses to the problems were establishment of a drug revolving fund, essential drug list, and indent drug procurement instead of drug kits. To address transport problems every region was supplied with one vehicle for district supervision (key informant), while districts were each provided with one vehicle for supervision and one for distribution. However, the number of vehicles provided to each district in total ranged between two and three depending on the size of the district (bigger districts receiving more). A system to manage the vehicles was also started. At the same time there was also strengthening and integration of routine data collection and generic functions of vertical programmes such as those of the Expanded Programme on Immunization (EPI) into the Medical Stores Department (MSD) (key informant).

Health Care Financing

The health sector had been experiencing under-funding at all levels. As a consequence there was chronic shortage of drugs and medical supplies; there was also deterioration of the physical structures, and staff morale at all levels (Ministry of Health, 1998a). Thus the problems encountered by the previous reform waves provided lessons for the current health sector reforms. The lessons

included a need to for the health sector reforms to make changes that would sustain increased health sector financing.

The strategies for achieving the goals included: introduction of cost sharing at tertiary, secondary and primary level health facilities in 1993. This was implemented in phases starting 1993 with patients in grade I and II in all hospitals. Phase II involved grade III patients in tertiary and secondary referral hospitals from January 1994 and in phase III user fee was introduced to all grade III patients in primary referral hospitals. Secondly, a community health fund, which was piloted in Igunga district, was recommended to roll over to other districts. Consequently, the Community Health Fund (CHF) Act, 2001 was passed in 2001(United Republic of Tanzania, 2001). Thirdly, it was perceived that the potential for health insurance to finance the health sector was highly significant. The idea was based on the observation that employees were operating medical schemes in various ways amounting to about 12 per cent of their incomes. To implement the idea National Health Insurance was then established through an act of parliament (National Health Insurance Fund Act, 2002) (United Republic of Tanzania, 2002).

SWAp and basket funding were strategies used to increase funds from donors and the government and ensuring efficiency in utilization of funds. The 2003 MoH public expenditure review revealed that government funding to the health sector was less than the expected 12 USD per capita (Ministry of Health & United Republic of Tanzania, 2003). At the same time about 55 per cent of donor funding did not go through the common sector investment plan (off-budget financing). Off-budget financing went to projects that included some of the vertical programmes like the Expanded Programme on Immunization (EPI). The impact was not only reduced budget level but also a gap between actual expenditure and budgeted expenditure. In the year 2002 the proportion of government budget projected for health was 8.6 per cent but the actual was 8.0 per cent. This was also contrasted with Uganda, which spent about 15 per cent of the government spending on health. For whatever reason, the stakeholders had been slow to meet their ratified commitment to the sector; as a result this posed a potential threat to the process.

Public/Private Mix

Private medical services for profit were re-introduced in Tanzania in 1991. However, there has been very little coordination between public and private service providers. There has been promotion of private sector involvement in the delivery of health services, initiation of establishing community pharmacies in rural areas, and collaboration with traditional healers.

MoH and donor partnerships

Past experience has shown that donors have been funding the health sector selectively through vertical programmes, research programmes, and training assistance in selected geographical areas (Ministry of Health, 1999). As a result it has been difficult for the government to account for and co-ordinate funding from donors. Strategies to reform the relationship between MoH and donors needed to focus on the participation of donors in the implementation process and discussions on funding modalities for HSRs. However, donor and government financing priorities were not coordinated resulting into poor resource management and availability to the reform process.

Further, as a strategy to align donors and the government in financing, Sector Wide Approach (SWAp) was proposed, discussed, and endorsed at the government and donors' joint workshop held in February 1998 (MOH & et al, 1998). The donors who had endorsed SWAp were DANIDA, Swiss Development Cooperation (SDC), DFID, and the World Bank. It was also agreed that there would be joint MoH and donor appraisal meetings twice a year to review progress and needs. The initial appraisal meetings agreed on the financing of the PoW/PoA from mid 1999, and assigned PORALG and MoH to jointly develop guidelines for district health expenditure, consolidate government's Medium Term Expenditure Framework (METF), compile a finance plan, intra-sector resource allocation, and disbursement mechanism. Donors were then ready to support the implementation process after a satisfactory planning process with other stakeholders.

The implementation process needed broadening the coalition to include other stakeholders. These stakeholders include the community as users, health care providers, district authorities and other ministries.

5.5 Discussion

The study analyzed the contexts, process, contents and role of actors in the health sector reforms to inform policy makers. The contexts included a poor financial situation that needed the government to solicit partnership with donors. The process included problem identification, formulation of contents, planning and implementation. Stakeholders included academic researchers, donors and some NGOs. These established a coalition that highly supported the health sector reform process. Strategies to get stakeholders' commitment included formation of a joint appraisal mission, ratification of memorandum of agreements and committees to ensure participation. However, stakeholders' positions differed on modalities of financing the reforms through basket versus no basket, and health sector decentralization versus local government decentralization. The progress of the reforms depended on meeting donors' conditions for funding. Study findings also revealed that from planning to implementation, the process took about ten years to completion. As a result this delayed disbursement of donor funds and consequently seriously limited the financing of the health sector.

The problem identification phase was dominated by several stakeholders led by academic researchers. The action of the academic stakeholders was limited to dissemination of information. However their direct role in influencing the policy process was almost non-existent. It has been almost a consensus that information produced by researchers is hardly used to influence policy directly (Porter & Hicks, 1999). In the case of Tanzania, there was a simultaneous dissemination of knowledge from three types of stakeholders namely academicians, politicians and policy makers at the Ministry of Health. However, the stakeholders' activity could not result in instant policy process.

The economic contexts that existed did not allow stakeholders to initiate a policy process. The political contexts, which included free medical care to all, also

limited the possibility of initiating policy at sector level. The broader public reform contexts later rescinded the political contexts. Given the economic limitation and partnership established between the government and the World Bank, the bank picked on the knowledge and pioneered the process to reform the health sector. Due to poverty and poor economies, the World Bank has been an important stakeholder in initiating and sustaining policies in many places (1996a; Baru & Jessani, 2000; Broun, 1994; Derek, 1994).

The World Bank took an important strategy to create a coalition of all donors. This was done through meetings, circulation of reports for comments and active participation in the planning process. The process facilitated strong commitment and support from other donors as evidenced by their commitment of funding. That level of commitment and support needed to be sustained to a stage where the country would be resource independent. Meanwhile, stakeholders would enable the country to attain skills for managing stakeholders (donors) in order to sustain that funding level.

Experiences from China, a richer country than Tanzania, revealed that the process of decentralization needed long time to ensure adequate resources were in place. The period gave opportunity to the necessary management skills and experience to be acquired (Tang & Bloom, 2000). Also the main actors in the Tanzanian reform process included MoH, PORGALG, donors, Government of Tanzania, Ministry of Finance, local authorities, regional authorities and the general population, all of whom agreed that time was needed for the reforms to take place on similar reasons. The political support and tolerance were also in support. However, notwithstanding the promising economic climate, there were doubts regarding the sustainability of the reforms.

Policy reforms are political and involve making decisions on who gets valued goods in the society (Reich, 1995). Similarly, the health sector reforms were political as they involved making fundamental changes in the health system. The political element of the health sector reform influences problem identification, policy formulation and implementation. Like any other policy, health sector

reforms have a political component, process, content and contexts (Walt & Gilson, 1994b). Sustenance of sound economic contexts and technical skills would be important determinants of the suitability of the health sector reforms.

The study revealed strategies or activities in the process that initiated opposition or support of the stakeholders. These included the need for 1) synchronization of the timing for LGR and health reforms (health reforms were ahead of LGR), 2) local government decentralization versus health sector decentralization, 3) increased government funding, 4) donors conditions for new management systems, 5) donors negotiations to join SWAp and basket fund. Stakeholders somehow slightly differed in their position on those issues. Fortunately, at each stage a compromise was reached i.e. some donors agreeing to basket funding as a pilot, others to SWAp, government accepting to community based funding modalities as well as increasing funding to health etc. Both the government and donors wielding political and economic powers respectively, managed to protect their interests to some extent. Although the sector had the initial interest of undertaking decentralization avoiding previous negative experiences, it succumbed to the government political and bureaucratic powers, and to the economic power of donors. The government, being in the driver's seat, established coordinating bodies and managed to establish compromise among the stakeholders. The coordinating bodies were able to provide continuous mechanisms that could monitor the progress of decentralization and roles of stakeholders, and thus institute necessary interventions on time. Lessons learned from developed countries further proposed that for developing countries financing and structural arrangements among others are important for the success of reforms (Schieber, 1995).

The HSRs have involved changing roles between Ministries and PORALG with regard to the responsibility of delivering health services in the districts. MoH assumes the position of policy maker, monitoring, increasing efficiency, and integration of generic functions formerly done by vertical programmes. The Ministry of Finance, on the other hand, is responsible for final disbursement of

funds to councils. Annual reviews of the HSRs have been stressing the need to have better dialogue between MoH and PORALG.

5.6 Conclusion

The study identified the following lessons that are relevant for implementing reforms in the short and long terms in Tanzania and elsewhere in developing countries.

i) The reform process took a long time of about ten years because it had to take on board the interests of all stakeholders who, for a given contextual environment, had to be identified by their positions.
ii) Stakeholders involved in the process included the government, donors and some of research communities. There were also those who were not involved e.g. providers, communities and private providers. While it is important to consider increasing the number of stakeholders in the process it is more important to have skills in place to manage the stakeholders. Stakeholder analysis is a necessary tool for assessing efficiency in the management of the reform process.
iii) Low government capacity to fund the process forced the seeking of donor assistance as a partner in the process. There is a need to improve capacity, increase funding, and synchronize with higher-level reforms, which should be continuously monitored for harmony, financial, and administrative needs to facilitate timely intervention.
iv) Donors as major financing partners are critically important to the reforms, and should have their interests reviewed to facilitate negotiations for their support for increased and pooled financing.
v) Guidelines and other tools being introduced should be tested and undergo regular evaluation to ensure their suitability and sustainability.

Donors gave the initial push for reforms in the health sector following under-performing economies that were followed by broader national reforms i.e. ERP, SAPs. With resources from World Bank and other donors countries started analysing country specific situations, identified problems, designed reforms, planned them and started implementation. In the process, the stakeholders

included the donors, government, and some NGOs. In Tanzania, stakeholders reaction was on the SWAp, new financial management reforms and sectoral versus local government reforms. The government designed management interventions to facilitate management of the stakeholders. In the next chapter an analysis of the stakeholders' reaction at programme level focusing on EPI is presented.

Chapter 6:

Health Sector Reforms and Decentralization in Tanzania: The Case of Expanded Programme on Immunization at National Level

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This article has been accepted for publication in the East African Journal of Public Health.

6.1 Summary

This paper presents an analysis of the extent stakeholders enhanced or retarded reforms in vertical programmes in developing countries using Extended Programme on Immunization (EPI) as a case study. Following successful establishment of EPI, in the 1970's as vertical programme, the burden of disease for many of the vaccine for preventable diseases was pushed to low levels. The current round of health reforms in Tanzania calls for decentralization and integration of vertical programmes. This has the potential to assist or erode the generally good performance of EPI. Reforms on the programme have been undertaken in Tanzania since 1996, and have included: 1) integration of the procurement, storage, and distribution of vaccine and related equipment into the operations of a quasi-autonomous drug procurement agency; 2) government financing of procurement of the oral polio vaccine, cold chain kerosene; and 3) the integration of kerosene and vaccine distribution, supervision and monitoring to the district health system. The aim of this paper was to answer the question: *What was the role of stakeholders in the process to integrate EPI to the general health care services?*

The analysis revealed that the integration of the procurement and distribution of vaccines into the operations of the drug procurement agency, and privatization of the distribution of the cold chain kerosene initially stalled EPI reforms for several reasons and had adverse effect on EPI decentralization and coverage. The major cause of the problems was opposition from the EPI providers at district level who had to accept decreased income consequent to the reforms. We conclude that greater involvement of all stakeholders in the planning of the Programme, would have presented an opportunity for forecasting the opposition and developing mitigating strategies.

6.2 Introduction and methodology

This paper presents an analysis of the extent stakeholders enhanced or retarded reforms in vertical programmes in developing countries using Extended Programme on Immunization (EPI) as a case study. Among developing countries vaccine preventable diseases were the fourth cause of the remaining burden of

disease (Murray & Lopez, 1994b). This was the situation after more than ten years from launching of EPI. There was an overall increase in the EPI coverage and parallel reduction of mortality among children under five years and infants. The UNICEF report on the State of the World Children in 1994 observed that among other countries, Tanzania from 1960s to 1992, achieved mortality reduction among children under five years old from 249 per 1000 to 176 per 1000, and among infants dropped from 147 to 111 per 1000. Vaccination coverage had also increased to about 82 per cent (UNICEF, 1994).

The successes and remaining challenges in health were apparent by the early 1990s when most countries started to reform their health sectors (World Bank, 1993b). Developing countries including Tanzania started to implement health sector reforms with the objective to increase health system efficiency and financing (WHO, 2000a). The current round of health reforms in Tanzania calls for decentralization and integration of vertical programmes such as EPI. This has the potential to assist or erode the generally good performance of EPI and observed need to reduce the burden of disease among the target population.

The EPI reforms are addressing financing, decentralization, and integration of some generic functions. Notwithstanding the good intensions of the reforms, the process should avoid triggering opposition from any of the stakeholders, since such a situation could stall the implementation momentum of an effective intervention, cause a reversal of the reforms, or even loss of the earlier gains. The pre-reform situation analyses should, among other things, identify the interests of each of the stakeholders so that appropriate adjustments are made in the reforming process. This analysis of the Tanzania Mainland EPI reforms was undertaken with the objectives of evaluating process performance, and identification of issues requiring the attention of policy makers for future reforms. Analysis of the current health sector reform process at sector level has also been done. This study was focused at programme level.

Integration of vertical programmes to the main health care system was one of the health sector reform strategies. There were several benefits that were associated

with integration and included increased utilization, coverage, improved quality and cost-effectiveness (Agyepong, 1999; Arhin *et al.*, 1993). There are similarities and synergies between vertical programmes and health sector reforms. The similarities include having similar goals to improve access, high quality care, integrated approach, decentralization and finally improved health of the people (Langer *et al.*, 2000a). There were also conflicts between health sector reforms and vertical programmes that included possibilities of neglect of vertical programmes in resource allocation, risk of being transformed to another vertical programme, cost saving to override access and donor unwillingness to disburse funds. There were concomitant threats in achieving the objectives of both. It has been proposed that in order to realize the objectives, strategies to increase resources, human capacity and community participation need to be adopted (Hanson, 2000a). Thus resource input and careful balancing in the prioritization process were needed to safeguard reform and vertical programme objectives. Otherwise stakeholders could initiate a political action to oppose the reforms claiming to safeguard the EPI gains.

There was then a need of a study to answer the question: *What is the role of stakeholders in the process of integrating EPI to the general health care services?* Integration and decentralization is a political process that attracts stakeholders (Bossert, 1998b; Walt & Gilson, 1994a). A policy analysis framework was then adopted to answer the question. It was also assumed here that integration as a policy change altered the equilibrium that existed. Consequently, those affected by the alteration could affect the integration process at any stage (Thomas & Grindle, 1990). Thus the interactive model of implementing policy reforms was then adopted in this analysis.

The period of the reforms targeted by this analysis was from 1995 to 2001. The study used document review, secondary data analysis, in-depth interviews and key informant. A search was conducted to retrieve published and un-published documents from the Ministry of Health, EPI offices, Medicals Stores Department, regions and districts. The documents were filed chronologically starting from 1995 a year before the reforms started. The initial review was to answer two

baseline questions; these were: i) *What were the reforms and integrations that took place in the EPI and progress each year to 2001?* The other question was: *Who were the stakeholders at each point in time since 1995 and their role?* Also the review sought to find out how these two related to each other, and the process outcome. From the documents stakeholders were identified and their relation to the EPI programme was identified. The stakeholders were grouped into those who provided funds, political support and administrative support and the users.

Having reviewed some of the documents it was realized that procurement and storage of vaccine, and kerosene supply were issues being contested highly. Thus at national level the analysis focused on integration of procurement and distribution of vaccine. The study identified goals, strategies and activities to meet the desired goals and time lines. At each point in time the support or opposition of identified stakeholders on goals, strategies or activities was assessed. The extent of support was decided from the amount of financial resources, administrative, implementation and other activities directed to EPI. After review it was then decided that +++ was high support, ++ medium support and + minimal support. Subsequently, assessment was carried out to find out whether there had been progression, stagnation or reversal of the reform process. The findings were discussed with key stakeholders who clarified and confirmed the findings.

Records on EPI vaccine procurement and distribution from 1995 to 2001 were retrieved. Data on EPI vaccine received in six regions were also retrieved from three regions. This was to validate central data on the amount of vaccine distributed to regions. In all three comparisons there was no discrepancy between regional and central records, hence it was concluded that regional records at national level reflected truly the amount of vaccine distributed to the regions. The data was then entered in Microsoft Excel and secondary analysis was then done. The findings were discussed with one key informant to clarify them. Reference and vaccination target populations were estimated using the National 1988 Census data and growth rates. The population at each point in time was estimated using an exponential population growth model (Agung, 1993)

The study included national, regional and district settings. Documents studied included documents from the EPI management unit such as the programme's annual and other reports from districts, regions, and zones. The other information sources were consultants' reports, proceedings and minutes of various meetings, open administrative files, and delivery records of vaccines from EPI and the Medical Stores Department to the regions and districts.

In depth interviews were also held with key officials at the Ministry of Health, EPI Management Unit, MSD, Regional Cold Chain Officers (RCCOs), District Cold Chain Officers (DCCOs), and District Executive Directors (DEDs).

6.3 Results

6.3.1 Administrative setting

Overall administration in Tanzania rests with the President who is the Head of the State. Under the president are political and civil servant leaders as illustrated by the administrative structure in Table 6.1 by 2001.

For the current health sector reforms, the major EPI stakeholders at the national level were the policy and decision makers in MoH, Ministry of Regional Administration and Local Government (MoRALG), and Ministry of Finance (MoF). The three ministries formed a coalition of stakeholders whose common interest and power was administrative.

Table 6.1: Administrative Responsibility in Tanzania (2001)

Level	Political Head	Civil Services Head
National	President	Permanent Secretary
Region	Regional Commissioner	Regional Administrative Secretary
District	District Commissioner	District Executive Director (DED)
Wards	Councilor	Ward Secretary
Villages	Chairman	Village Secretary

6.3.2 Pre-reforms national EPI and functions

EPI was established in Tanzania in 1974 as a vertical programme funded by donors and the central government. Early success of EPI included the establishment of an efficient EPI infrastructure, and increasing EPI coverage from

15 per cent to about 80 per cent in the 1990s (Ministry of Health, 1999d). The national EPI structure and functions of the stakeholders in the health sector at the national, regional, and district levels are summarized in Table 6.2.

Table 6. 2: EPI structure and functions in Tanzania (before reforms)

Level	Responsible	Function
National	• Permanent Secretary • Chief Medical Officer • Director Preventive Services • EPI manager	• Policy • Policy, regulating, financing • Policy, monitoring, regulating, implementation • Maintaining Central Vaccine Store (CVS), procurement, distributing, implementation, training, monitoring and evaluation.
Region	• RMO • RCCO • RMCHCO	• Oversees the functioning of EPI • Maintains Regional Vaccine Store (RVS), distributes vaccine to districts, supervises district once monthly, forecasts vaccines and procurement of kerosene • Supervision of districts, reporting, training etc. similar to RCCO
District	• DMO • DCCO • DMCHCO	• Over sees all functioning • Maintains District Vaccine Store (DVS), distribute vaccines to health facilities, collects data, reports to RCCO, inspects and maintains cold chain at facility level and procures and distributes kerosene. Also distributes spare parts for refrigerators. • All these are done together with the DMCHO.

Legend: RM=Regional Medical Officer; RCCO=Regional Cold Chain Officer; RMCHCO=Regional Maternal and Child Health Coordinator; DMO District Medical Officer; DCCO=District Cold Chain Coordinator; District Maternal and Child Health Coordinator

Several stakeholders were active within the EPI services before reforms. These can be categorized as government, external, or private. The Ministry of Health was leading among the stakeholders with the EPI Programme Manager as a key advisor of the Ministry on issues of EPI and a link between the ministry, regions and districts. The government through MoH exercised its administrative power over EPI and the providers. EPI providers (operational staff) who included RCCO, RMCHCO, DCCO, DMCHCO, and the RMO had the technical power over EPI. In context EPI regional and district level managers (RCCOs, RMCHCOc, DCCOs, DMCHCOs and RCCOs) had access to self-driven EPI vehicles and predictable extra income as daily subsistence allowance. These had formed a coalition of stakeholders whose power was technical. Other health workers and communities were important to join the coalition but were not considered especially due to the vertical nature of the programme. Health workers at the service delivery points were found to have low morale due to poor remuneration and physical quality of the health facilities services (Gilson *et al.*, 1995) The end result would be opposition by the stakeholders left out of the coalition who included non-EPI providers and the community.

6.3.3 Pre-reforms positioning of known stakeholders

The stakeholders before and after reforms remained the same. The level and type of commitment to EPI operations of all known stakeholders at the national, regional, district, and village levels are shown in Table 6.3. The major roles of the external stakeholders were mostly financing the programme and technical backstopping at the national level. The World Health Organization (WHO) facilitated the availability of technical expertise and training. Besides monitoring the quality and quantity of vaccines, UNICEF promoted immunization at the regional, district, and village levels. Donors then formed both financial and technical coalitions. They wielded the financial power while the government wielded the administrative power (see Table 6.3).

Table 6.3: Influence of EPI stakeholders in Tanzania (2000)

Type of commitment	Stakeholders and level				
	External	**Governmental**	**Regions and Districts**	**Private**	**Villages**
	DANIDA, UNICEF, WHO Rotary International Christian Social Services Commission GTZ and DFID	MoH DPS, EPI, MSD Ministry of Finance	RCCO RMCHCO (collectively)	Petroleum Company (headquarters)	Children and mothers
Financial	+++	++	+	+++	+
Administrative	+	+++	+++	+	-
Technical	++	++	+++	-	-
User	-	-	+	-	+++

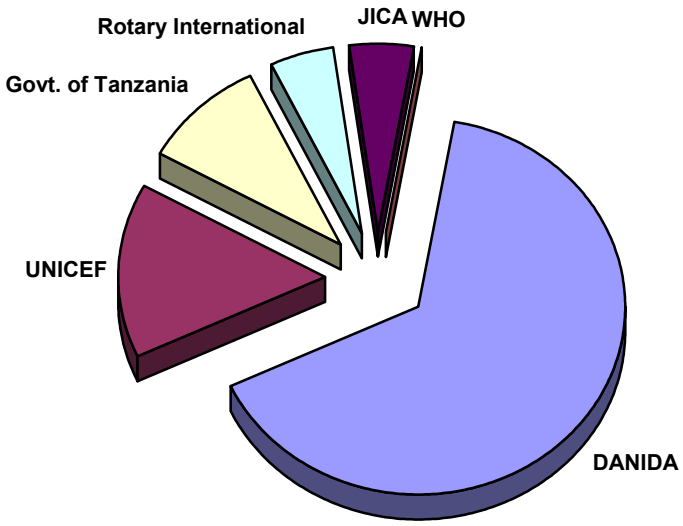
Legend: RM=Regional Medical Officer; RCCO=Regional Cold Chain Officer; RMCHCO=Regional Maternal and Child Health Coordinator; DMO District Medical Officer; DCCO=District Cold Chain Coordinator; District Maternal and Child Health Coordinator.
-=No commitment + =low commitment ++= moderate commitment +++ high commitment

6.3.4 Pre-reforms funding and distribution of supplies

Donors as financial stakeholders met most of the EPI Programme costs (Figure 6.1). The Government met a smaller proportion of the cost and made it a medium level partner among the financial stakeholders. Indeed some external stakeholders supported procurement of specific vaccines. Since there was no traditional donor for the Oral Polio Vaccine (OPV), its availability was intermittent resulting in recurrent shortages (Ministry of Health Tanzania Mainland, 2000). External stakeholders also met the costs for fuelling the cold chain. However, the district and regional accounting systems failed to account adequately for donor funds spent on cold chain kerosene procured by the district (Ministry of Health, 1999a). The inadequate accountability of the technical stakeholders at regional and district level undermined the efforts of the financial stakeholders.

Figure 6.1: *Sources and Financial Contributions

(*adopted from the (Ministry of Health and WHO Dar es Salaam)



6.3.5 Pre-reform coordination of stakeholders

Interaction among stakeholders was provided through the EPI management and the Technical Committee on Immunization, whose members were drawn from MoH, donors, co-opted institutions and individuals. There was, in

addition, the Interagency Coordinating Committee with members from MoH, and donors; and the Health and Population Committee whose membership was restricted to donors only. They met regularly every month and made very important decisions on funding and progress of EPI. Interaction at the regional and district levels was facilitated by the following:

- Annual EPI Progress Review and Evaluation Meetings hosted by MoH to receive reports for discussions and recommendations. The delegates to these meetings were the RCCOs, RMCHOs, DCCOs, DMCHOs, DMOs, and donors. Evaluation of the performance of EPI was done, after which reasons and strategies to change were adopted in these meetings. Output from these meeting usually had important policy decisions that guided EPI services in the country until another evaluation that followed in the following year.
- Annual RMOs Conferences, which were chaired by the Chief Medical Officer (CMO), and could be attended by donors on invitation. These conferences discussed EPI issues among other matters. They usually endorsed decisions made by the DCCOs and DMCHCOs.
- Routine EPI records collected and compiled by health care facilities were transmitted via district and regional levels to EPI management.
- Village Health Committees provided interaction between communities and their public health care facilities. They were supposed to be formed in every village but they were active during epidemics or campaigns.

Thus these bodies were functional and effective to a large extent in coordinating stakeholders from the different compartments (administrative, technical, financing and consumer).

6.3.6 Policy goals for the EPI reforms

EPI policy goals for the reforms for Tanzania Mainland were coverage of 90 per cent for all antigens for children under one year by 2004; coverage of 90 per cent for tetanus toxoid for pregnant women by 2004; polio eradication by 2003; elimination of neonatal tetanus by 2003; control of measles and hepatitis B infection (Ministry of Health Tanzania Mainland, 2000).

6.3.7 Strategies for the EPI reforms included

Strategies for EPI reforms included the following:

i) Constant supplies of vaccines, kerosene, and cold chain parts;
ii) Government to provide funds for fuelling cold chain in districts using budget expenditure line;
iii) Constant maintenance and repair of cold chain equipment;
iv) Employment of enough Maternal and Child Health Aides (MCHA) to provide immunization services;
v) Transportation of vaccines from the central level to health care facilities;
vi) Motivation of the workers;
vii) Provision of vehicles at the district level;
viii) Regular supervision of providers; and
ix) Strengthening of social mobilization.

6.3.8 Major issues for the reforms

i) Integration of procurement, storage, and distribution of vaccines and related equipment into the operations of the Medical Stores Department (MSD);
ii) Financing of the procurement of the OPV by central government;
iii) Centralized versus decentralized management and disbursement of funds for the procurement of cold chain fueling; and
iv) Districts to collect cold chain kerosene from petroleum company distribution points.

6.3.9 Pre- and post-reforms EPI operational functions

The EPI operational functions by actor before and after the reforms are summarized in Table 6.4.

Table 6.4: Responsibility for EPI operational functions before and after reforms of 1996

Function	Before reforms	After reforms
1. Forecasting vaccine needs	EPI	EPI/MSD
2. Vaccine storage	EPI	MSD
3. Vaccine distribution	EPI	MSD
4. Cold chain supplies	EPI	MSD
5. Running Central Vaccine Stores	EPI	MSD
6. Training for cold chain and motor vehicles	EPI	EPI/MSD/CTU
7. Ensuring availability of appropriate functioning equipment for all levels	EPI	EPI
8. Monitoring cold chain performance at all levels.	EPI	EPI
9. Management of kerosene funds	Petroleum company	DED

EPI Expanded Programme on Immunization; MSD Medical Stores Department; CTU Central Transport Unit

The reforms thus included transferring some of the functions of EPI to Medical Stores Department (MSD) and kerosene procurement to a petroleum company.

6.3.10 EPI and MSD agreement

MSD was previously known as Central Medical Stores (CMS). It was a unit in the Ministry of Health responsible for procurement, storage and distribution of drugs and equipment to the districts. In the early 1990s DANIDA assisted to rehabilitate CMS and it was transformed to a semi-autonomous government agency under the Ministry of Health known as Medical Stores Department. The ongoing health sector reforms included integration of EPI generic functions to MSD. The reform process introduced a new stakeholder who needed to link with both technical and financing stakeholders. However, the reforms did not change the power of stakeholders. They maintained the same power hence Table 6.3 is equally relevant in the pre and post-reforms periods.

The EPI and MSD signed the Transfer of Selected Activities of EPI into MSD operations to effect the integration of procurement, storage, and distribution of vaccines and related equipment into the operations of the latter. Under the agreement, EPI retained the last say on who should be the supplier, and on distribution instructions for the supplies and equipment. The reforms were to be implemented in two phases. During phase one, starting in July 1996, the Central Vaccines Store (CVS) at the national level was moved to MSD, which therefore on EPI instructions supplied, distributed and transported vaccines and related equipment to Regional Vaccines Stores (RVS) and District Vaccines Stores (DVS). Front line health care facilities collected their requirements from DVS. Phase two of the integration agreement started in 1998, and was to involve closure of RVS and transferring their functions to the Zonal MSD stores. The RVS closure was to be staggered by regions, and the initial closures affected Dodoma, Morogoro, Coast, Dar es Salaam City, Lindi and Mtwara regions.

The 1998 EPI annual review meeting attended by all DCCOs, DMCHCOs, RCCOs and RMCHCOs reported that EPI coverage was falling because of the reforms (Ministry of Health, 1999d). In the same year regional medical officers in their annual regional medical officers meeting discussed the report on falling EPI coverage due to reforms. The annual regional medical officers meeting recommended that a study should be done to determine the impact of HSR on EPI services in the country. MoH concurred and directed that further integration of EPI functions to MSD should stop until evaluation of the performance in the six regions that had closed their RVS was done. MoH appointed an evaluation team that did the evaluation from December 1998 to February 1999. The report of the evaluation concluded that there was falling of EPI coverage due to the reforms thus concurring with the RMO conference and EPI annual review meetings. A lesson that emerged was to reopen the closed RVS. On September 1st, 1999 MoH wrote a letter to MSD instructing them to restore the RVS immediately. Since then (September 1999) there were several communications between MoH and the MSD. The main subjects were, concerns that information available to MoH was not similarly made

available to MSD, reforms did not affect EPI performance and a need to form a joint team to evaluate former sites of the closed RVS. In December 2000 (more than a year later), MoH and MSD formed a joint team that completed its work in January 2001. Its major recommendation was that the equipment and buildings were in good state and that the RVS could be restored immediately. MoH officially informed MSD on the findings and instructed them to comply and the restoration process started. The ministry managed to reverse the situation using evidence available along with pressure from the RCCO, RMCHCO, DCCO, DMCHCO and RMO. Technical stakeholders managed to use their influence on MoH to use its administrative power to initiate reversing of the reforms. The two (MoH and MSD) managed to work together to finalize reversal of RVS closure.

6.3.11 Cold chain kerosene

Since establishment of EPI in late 1970s, kerosene for powering the cold chain refrigerators was purchased at district level. Funds were disbursed from the centre through RCCO to DCCO via the DMO. During the review of the previous annual EPI evaluation meetings, most often, the Ministry made a call to the districts to properly use kerosene funds as well as being accountable. Interviewing key informants revealed that some of the providers diverted kerosene funds or used the kerosene for other purposes. One of the informants, in addition, revealed that substantial financial irregularities had been discovered when an auditing firm was commissioned to audit kerosene funds at district level. It became clear that among other interests of the technical stakeholders were financial gains. Thus the Ministry of Health and the government used their administrative power to oppose the undeclared financial interests of RCCO, RMCHCO, DCCO, DMCHCO (technical stakeholders). This was done through reforms in financing and distribution of cold chain kerosene. In January 1999 MoH entered into an agreement with a trans-national petroleum company with a network of franchised fuel stations at rural level to supply kerosene to all districts. This petroleum company was one of which the government had shares. According to the agreement, MoH paid the petroleum company headquarters to reimburse upcountry franchised

petroleum service stations for the kerosene supplied to EPI at district level. Again the process of implementing reforms and the spectra of active stakeholders was broadened to include a petroleum company.

The agreement was made as an emergency and on the assumption that the company headquarters had authority over upcountry branches and service stations in the districts, and that it had service stations in each of the 121 districts in the country. In fact the petroleum company had only 58 service stations in the whole country compared to 121 districts. Thirty-five (60.3 per cent) of the services stations were concentrated on the main paved roads covering four (19.0 per cent) of the regions. During the subsequent annual EPI evaluation meetings attended by RCCOs and DCCOs there were several complaints of shortage of kerosene. Interviews with key informants revealed three problems associated with the shortage. Districts without a franchised petroleum service station had to get kerosene from the nearest district and pay the transportation cost. Some had found the cost to be so high that they had to negotiate with the franchised petroleum service station to give them discounted equivalent cash to purchase kerosene from a more convenient source. It was a departure from the usual cash-based transactions of the franchise stations that would now need to operate on trust that they would be reimbursed for EPI kerosene by their headquarters. Interviews revealed that districts had to operate with full cash otherwise they got only a small proportion of the required kerosene on credit. Thus the petroleum company added complexity in the management of stakeholders' interaction.

6.3.12 Performance of the reforms

The 1998 EPI annual review meeting reported that vaccination coverage in the country was falling, and attributed the decline to the reforms. The Annual Conference of Regional Medical Officers made the same observation (Ministry of Health, 1999d). Figure 6.2 shows the trend of measles vaccine coverage with time since early 1980s. The coverage increased rapidly to above 80 per cent in 1992, after which it started falling gradually (four years before the EPI

reforms started). The technical stakeholders formed a coalition to oppose the reforms based on failing EPI coverage.

Figure 6.2: Trend in measles vaccination coverage in Tanzania 1985-2000

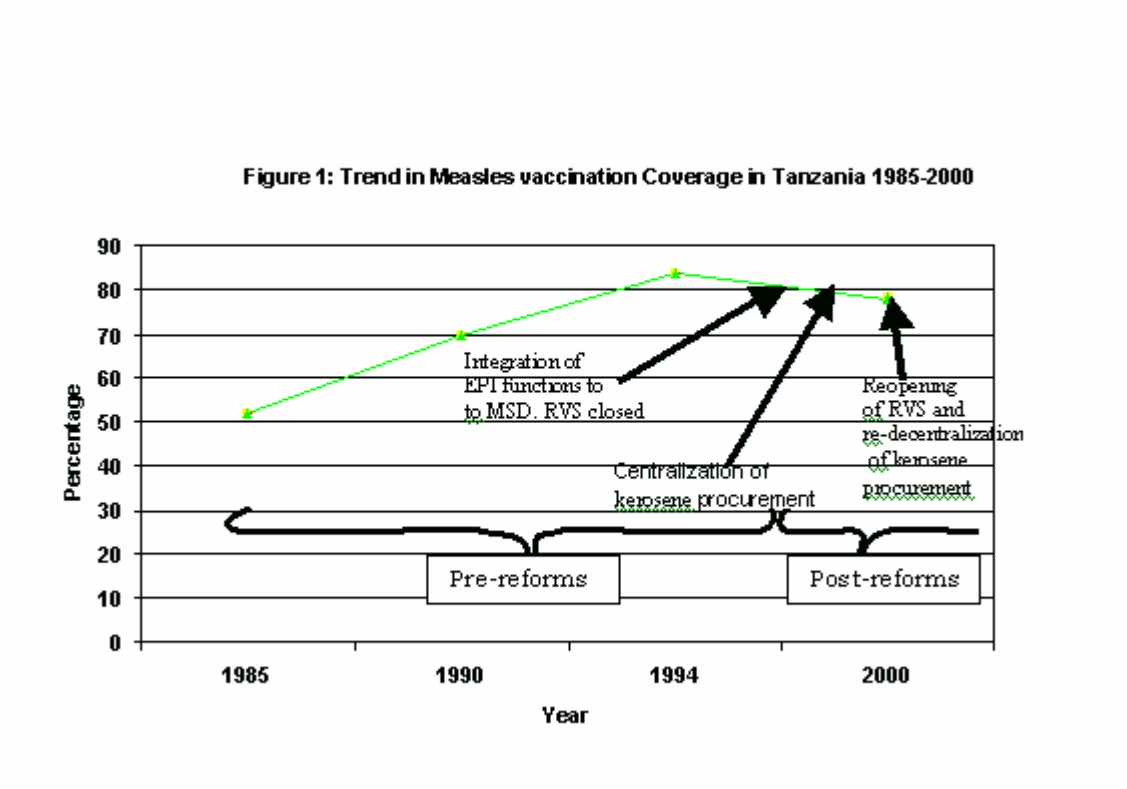
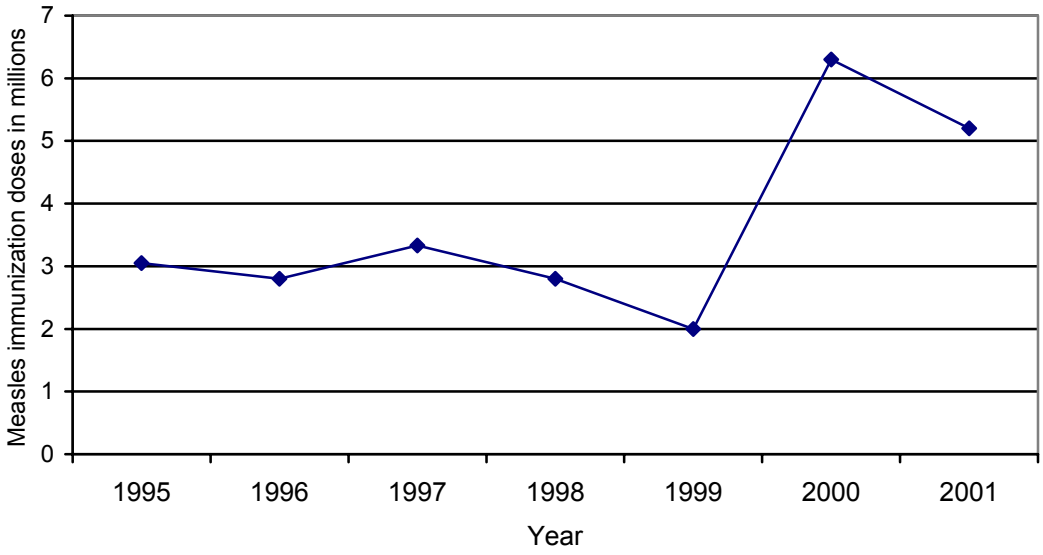


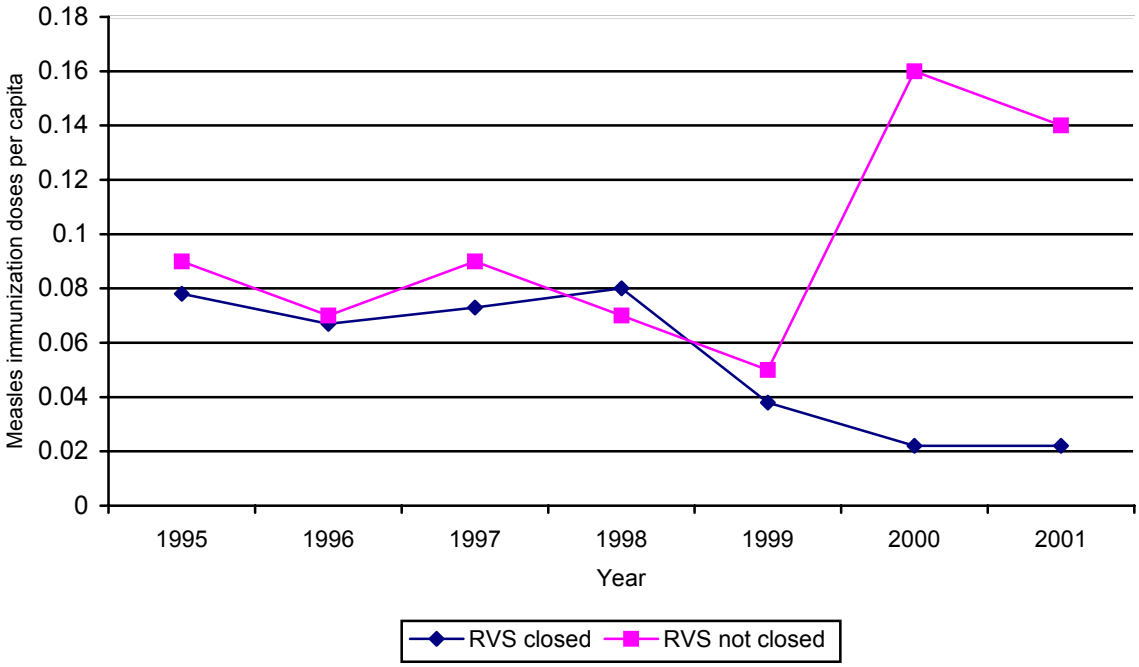
Figure 6.3 shows the measles vaccine as a tracer antigen for vaccine amounts delivered to the regions for the period 1995 to 2001 covering both the pre- and post-reform periods. Thus the claim by the technical stakeholders was not supported by the analysis as the falling in EPI coverage had started about six years before the reforms.

Figure 6.3: Measles Immunization Doses Distributed to Regions from 1995 to 2001



Further analysis was done to pick evidence that linked falling of EPI coverage with health sector reforms. This focused on demonstrating reduction on vaccine delivered to the regions. Although the vaccine amounts delivered were erratic, there was no significant reduction in the amounts. Figure 6.4 compares the delivered measles vaccine doses per capita for the regions with and without closed RVS. Here it is shown that there was no significant difference of doses received between regions between 1997 and 2000. From 2000 and after the reversal, the regions in which RVS were closed received significantly fewer doses of measles vaccine per capita. An interview with one of the key informants revealed that amounts delivered were exactly what each respective region ordered. Thus the less amount of vaccine delivered to regions reflected management decisions in those regions. There was also no evidence linking the health sector reforms with reduction in vaccine delivery and hence low EPI coverage.

Figure 6.4. Measles Immunization Doses Per Capita Total Population1995-2001 to Regions according to RVS Status.



6.3.13 Kerosene supplies

Shortly after the petroleum company started to distribute cold chain kerosene, MoH began receiving regular complaints from RMO, RCCO and DCCO that the cold chain was performing poorly due to kerosene shortage. Reports elicited by the interviews showed that some of the problems were pilferages in the cold chain kerosene delivered to health facilities, some deliveries were contaminated, and non-availability at places of procurement. Upcountry petroleum service stations preferred doing business on cash basis, and were both administratively and financially decentralized. The petroleum company headquarters attributed some of these problems to communication breakdown between RMOs and upcountry company branches. Kerosene supply remained erratic in the districts until April 2000 when MoH concluded that erratic kerosene supply was the leading cause of falling EPI coverage. A decision was made to stop the petroleum company from any further distribution of kerosene. There was poor interaction between the petroleum company and the technical stakeholders at district level. The technical stakeholders used the deficiencies of the petroleum company to oppose the petroleum company and

hence the reforms. RCCO, RMCHCO, DCCO, DMCHCO were to go back to their former position of controlling both procurement and distribution of kerosene thus protecting their undeclared interest.

Several options for sending funds to districts were considered at length. When consulted on the problem of disbursing finances to districts, MoF offered to disburse the kerosene funds directly to districts starting July 2001. It then needed interim arrangements to procure kerosene for districts until when MoF finance took over. The discussions took time to be concluded when there was no sustainable kerosene availability in the districts. This further compromised the EPI coverage. However, the reforms were finally reversed.

6.4 Discussion

The analysis aimed at understanding the role and reactions of stakeholders in the process to implement EPI decentralization, at national level and impact on EPI services. The study found that there was a substantial stakeholders' opposition to the EPI reforms that involved vaccine and kerosene procurement and distribution policies, particularly from the cold chain operators and other MoH implementers, namely, the RCCOs, RMCHCOs, DCCOs and DMCHCOs. Further analysis of vaccine delivery showed that there was no reduction of vaccine delivery following the reforms. Another analysis of trends in measles vaccine coverage revealed that EPI coverage started to fall since 1990 about six years before the EPI reforms. Thus the analysis did not support the reaction of stakeholders to oppose the reforms based on falling EPI coverage. The decisions were based on anecdotal statements made during the meetings without thorough analysis. Hence, the integration of vaccine supply to MSD was partially achieved. Since decisions in EPI operation were often based on anecdotal evidences there was a need of generating data and doing proper analysis of such data to facilitate evidence based reform rather than being driven by stakeholders' interest only.

The pre reform decentralized kerosene procurement at the district level failed due to poor management at district level. The reform attempts to centralize

financial accountability and regionalize procurement of kerosene failed because of the opposition from stakeholders and flaws in the distribution structure. The stakeholders used the shortcomings in the kerosene procurement reform plans and implementation to reverse reforms in kerosene procurement. During the period of planning for the changes in kerosene distribution, districts went without kerosene for the cold chain. Thus the opposition resulted in reduced kerosene availability at the affected areas, consequently.

Plans to integrate EPI functions were promoted by DANIDA since early 1990s as one of the major external stakeholders (Danish International Development Agency (DANIDA), 1990). When HSR started, it offered a good opportunity to implement the integration of some of the EPI functions into MSD operations. However, despite the willingness and desire on the part of the donors, MSD seemed not to have taken sufficient steps to prepare for the new task. In retrospect among the preparations and planning that would have been helpful would be a study of EPI operations, and development of strategies to involve all stakeholders in the health reform process. MSD and allies would have benefited from a mapping of all stakeholders, their interests and levels of support. Such precautions have been shown elsewhere to facilitate the design of appropriate interventions that improved the reform process (Huff-Rousselle & Akuamoahboateng, 1998; Huff-Rousselle *et al.*, 1998).

Before the implementation of the health sector reforms, a state of equilibrium existed around the EPI delivery system as a result of acceptance of the arrangements that existed. The reforms altered the equilibrium making the stakeholders react – some with intentions of maintaining the status quo others supporting the changes. Positive progress in the EPI reforms as any other policy depended highly on the power of the supporters overriding those in opposition (Reich & Cooper, 1995). When planning for reforms, it was important to understand which stakeholders would support and which would oppose the changes and important contexts. Thus the planning would take into

consideration such information and assume strategies that will increase the likelihood of success for the EPI reforms.

The influence of stakeholders in the EPI programme were complimentary i.e donors provided most finances, government provided most administration at central level, DCCOs and DMCHCOs provided most administration in the districts and communities were the primary beneficiaries. The influences though differed were complimentary to achieve the EPI goals. Despite complimentary influence the underlying interest of some stakeholders did not follow the respective influence. The underlying objective of DCCOs DMCHCOs was financial gain while the petroleum company was to make profit and MSD was business efficiency. Such non-alignment in stakeholders primary interest in reforms have been observed elsewhere with negative impacts (Nandakumar *et al.*, 2000). Hence, stakeholder analysis at the planning stage should be deep enough to understand also undeclared interests.

Health systems in developing countries have been experiencing poor financing leading to poorly paid workers. In compensation, health workers had been seeking alternative incomes from various sources, which could compromise the quality of their services (Gilson *et al.*, 1989; Ogbu & Gallagher, 1992; Gilson *et al.*, 1993). For example, MoH employees attached to EPI were sure of predictable supplementary income from EPI travel allowances, command of transport and other benefits offered by EPI. Such workers could easily join forces to oppose reforms abolishing or decreasing such supplementary income.

The analysis also revealed that EPI coverage started to fall about six years before the reforms and the amount of vaccine per capita distributed to regions did not change significantly over the period of reforms. This suggested that the reforms had no significant direct effect on the EPI coverage. Certain stakeholders made use of an already existing gradual decline in EPI coverage to oppose the reforms in order to justify the status quo. After reversing some of the reforms in 2000, regions that had closed their RVS received significantly

lower doses of measles vaccine per capita compared to the rest of the country suggesting regional level management problems. It has been a global concern that EPI coverage has been falling since early 1990s (Commission on Macroeconomics and Health, 2001). This further suggested that proper analysis of the EPI services was not done or else it was to camouflage a primary interest of the stakeholders in order to oppose the reforms. Camouflaging a primary interest was also supported by an analysis of health sector reforms and new public management agenda which observed that the agenda was blocked by existing state institutions and vested interests which were suspicious of the reforms (Russell *et al.*, 1999). Thus lack of proper analysis and vested interests jointly explained the opposition to reforms.

It took more than one year since the decision to reverse the closure of RVS was made to when the reversal was effected. This was used in exchanging communications between the Ministry and MSD. The communications concerned lack of information to MSD and a need of evidence to justify the claims. However it could be construed that it was a way of a stakeholder to resist reforms to protect vested interests. Stakeholders' opposition manifests as a process to justify opposition, which would require time to respond and compromise. In that course the whole process would get stalled until a compromise could be reached. The need to understand the role of stakeholders in policy process and its management has been stressed (Doherty & Rispel, 1995; Hardee *et al.*, 1999a; Huff-Rousselle *et al.*, 1998). One could have made use of existing opportunities to facilitate the communications such as establishing regular consultative meetings with relevant stakeholders, which would also facilitate their participation (Lansang *et al.*, 2000b). Such strategies to enhance communication between MSD and MoH are now in the process of being set up.

EPI delivery system generated several types of management information at all levels. Routine analysis done was the percentage of children vaccinated against the expected. Asking appropriate questions on programme performance followed by proper analysis of relevant data should provide

important management information for the programme. There should be more analysis of data to understand the different aspects of programme performance and hence make the reforms evidence-based. The role of information from routine sources and research to facilitate evidence-based reform of the health sector has been stressed at various places (Niessen *et al.*, 2000b; Peter *et al.*, 1992; Sauerborn *et al.*, 1999b; Tollman & Zwi, 2000). Had there been appropriate analysis it could have been easy to understand some of the claims that EPI performed poorly because the reforms were baseless.

6.5 Conclusion

Changes of policy like the integration of EPI functions into the MSD operations or the centralization of kerosene procurement should be anticipated to generate positive as well as negative reactions among stakeholders. The reforms centralizing the procurement and distribution of cold chain kerosene brought aboard new stakeholders and changed the positions of some of the old ones. These changes provoked negative reactions from some stakeholders, and brought the reforming process to a stand still. These negative reactions could have been forecasted, and appropriate precautions instituted. The capacity of the petroleum company awarded the contract to distribute the cold chain kerosene to the districts was not evaluated in advance. The recommendations for future reforms were therefore that:

i) Pre-reform reviews should identify all current and new stakeholders, their interests, expected changes in positioning of stakeholders, and the effects of these changes on the interests of stakeholders.

ii) The above knowledge should be used to forecast stakeholders' positive and negative reactions to the reforms, and to develop compensatory strategies, particularly for the financial gains employees get from previously vertical Programmes.

iii) The tendering process for awarding contracts such as the distribution of the cold chain kerosene to the districts should be undertaken professionally and adhering to national and international standards, aiming at selecting a contractor with optimal capacity and efficiency for the terms of reference of assignment.

iv) The stakeholders used routine information from the districts to justify opposing the reforms. There was a need to develop better routine data analysis skills to give a better understanding of health sector reform performance.

v) The reaction of the various actors to the reforms contributed substantially to the reform process. Thus strategies for routinely collecting information on stakeholders and its analysis would facilitate more appropriate management of the health sector reform process.

vi) The analysis observed that decisions to reform EPI did not involve DCCOs etc., and that information used by the Ministry of Health was not made available to MSD. This suggests that involvement of stakeholders in decision-making and information sharing important aspects of managing reforms.

This analysis was focused at national level; it demonstrated how donors and the government supported reforms in the EPI programme. The regional and district providers (RCCOs, RMCHCO, DCCOs, and DMCHCOs) agued and reversed the reforms. Underlying the argument that reforms were reducing coverage was their personal gains. These arguments were not supported by analysis of vaccine availability. District level health staffs would be the implementers of the EPI reforms within the decentralized health services in the local governments. The next chapter presents an analysis of the immediate response to EPI reforms and decentralization at district level

Chapter 7:

Health Sector Reform and Decentralization in Tanzania:
The Case of the Expanded Programme on Immunization at District Level

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This article has been submitted to the East African Medical Journal.

7.1 Summary

What was the immediate stakeholders' response to decentralization at district level with a focus on vertical programmes? Formerly, successful vertical programmes such as the Expanded Programme on Immunization (EPI) were in process to be decentralized and integrated within district health systems to make them more efficient. This case study was undertaken in Tanzania to determine among stakeholders at the district level, the initial responses to the decentralization process and how these impacted on the provision of EPI services. A rural study district was randomly selected as were its 12 villages giving the study 640 households with 641 children of ages 12 to 23 months. Semi-structured questionnaires were administered to interviewees representing the district council leadership, council health management team (CHMT), health services facilities, village community leadership, and households. The EPI district records and other related documents were reviewed for complementary information. Data analyses were done using both qualitative and quantitative techniques.

At decentralization, community support to EPI was low as evidenced by moderate coverage of 52.8 per cent, and was significantly ($p<0.05$) associated with negative quality indicators for EPI services. There were CHMT perceptions that there were: lack of adequate cooperation from the district council, shortage of funds, decreased supervisory visits, delays in approval of expenditure, and delayed formation of decentralization bodies. It is concluded that there is a need to cultivate skills to develop cooperation amongst and between the district council, CHMT and health workers. CHMT should be given incentives, and training to develop negotiating skills to bargain with those who now hold the administrative and financial authority in local government.

7.2 Introduction

What was the immediate stakeholders' response to decentralization at district level with a focus on vertical programmes? Since the early 1990s many countries started to implement reforms in the health sector as a strategy for improving performance of the health systems (Phillips, 1987; Thorne, 1994; Mwale, 1999). The major components of health sector reforms had been

decentralization through devolution and integration of district health care services (Conyers, 1983; Gilson & Mills, 1995). It included devolving political, administrative, financial, and personnel control from centre to lower level (usually a district). The expected benefits of decentralization include increased efficiency, participation at the local level, and responsiveness to the local problems (Milewa *et al.*, 1998; Conyers, 1983; Gilson *et al.*, 1994b; Cheema & Rondinelli, 1997; Zakus & Lysack, 1998). Decentralization implied that the Ministry of Health remained with the responsibilities of policy making, long term macro-planning as well as monitoring. Districts were given authority to undertake local planning, management of health services, allocation of resources, financing, control of finances, supervision, monitoring, and evaluation (Conn *et al.*, 1996a)(Leighton, 1996a). Furthermore, decentralization had been one of the key elements of Primary Health Care (PHC), economic development, and a major strategy to achieve health for all by the year 2000 (WHO & UNICEF, 1978).

The health sector reforms also included decentralization and integration into the district health system of successful vertical programmes such as those of tuberculosis and leprosy control, and the expanded programme on immunization (EPI). These programmes were previously centrally planned, funded by donors, operated efficiently in parallel to the general structure of health care, and achieved substantial progress in provision of services (Ministry of Health, 1997). For example, EPI increased vaccine coverage from less than 20 per cent in 1970s to about 80 per cent in the 1990s, and reduced the burden of vaccine preventable diseases (Reingold & Phares, 2001).

Nonetheless, the reported high EPI coverage was a national average with very wide variations between and within districts. Decentralization provided an opportunity for districts to address the local problems associated with the EPI services. However, achieving the expected benefits of decentralization while maintaining and up scaling EPI gains was very difficult to achieve. It depended to large extent on close monitoring of the performance of the two processes, and timely adjustment when necessary. Integration of vertical Programmes like maternal child health and family planning (MCH/FP), sexually transmitted

diseases and immunodeficiency virus infection (STD/HIV) need to be done carefully (Mayhew, 1996). It requires research and policy analysis to guide the process.

Integration of EPI services in Tanzania at national level started in 1996, and decentralization to district level started in the year 2000. Decentralization was implemented in phases and was completed in 2003. The health sector reforms involved changing the stable dynamic relationship between stakeholders at all levels. The changes could have made stakeholders react resulting to support or opposing the reforms. The impact of the stakeholders' reactions could negatively influence the reform process resulting to low likelihood of achieving the desired benefits. Given the success of EPI as a vertical programme, reforms focusing on EPI were more likely to invoke stakeholders' reaction. The immediate stakeholders' reaction to decentralization could lead to poor implementation process of EPI. Thus there was a need to understand the immediate reaction of the stakeholders and their roles in EPI services.

To answer the questions above stakeholder analysis of the decentralization process at district level was done. The stakeholders' analysis adopted the interactive model of policy implementation (Thomas & Grindle, 1990). In the interactive model stakeholders (actors) can't be separated from the process of policy flow that is problem identification, policy formulation, implementation and evaluation. At each of these stages the stakeholders could influence the non-start, reversal or continuation of the process. From available information, the immediate stakeholders at district (level of decentralization) were District Executive Director and councillors as district council leadership. There were also council health management Teams, health providers and the community.

The district was a level of policy implementation and therefore the influence of stakeholders at that level would have the highest impact at the implementation phase of policy process. The process through which the stakeholders would influence implementation could be through the quality of interaction. The stakeholders' quality of interaction would impart on roles played by active

stakeholders. This in turn would affect the quality of services i.e. process quality and perceived quality. It will eventually lead to reduction in the utilization of the health services.

The study aimed at understanding the decentralization changes that took place at district level and the post-decentralization interaction of the implementers at the district. The study also explored the changes in supervision (tracer management activity) due to decentralization. Reduction in management quality including supervision would lead to low quality of health services provided. The final aim of the study was to demonstrate the relationship between changes in quality of health care and level of support of the health services by the communities as evidenced by utilization of EPI services. This would provide an input to enable decentralization managers take appropriate action timely to improve success of the process,

7.3 Methodology

The study was undertaken in a Tanzania Mainland rural district. It was randomly selected from among districts decentralized in the fist phase in 2000. Permission to conduct the study was obtained from the Ministry of Health and district authorities. Informed consent was obtained verbally from all participants, who were assured of strict confidentiality, and all responses were therefore de-linked from the individual respondent. The analysis and reporting maintained the confidentiality including non-disclosure of the study district. Consequently, any information that could lead to disclosure of the study district was withheld. The minimum sample size of children aged between 12 and 23 months to be surveyed was estimated at 341 using STATCALC EPINFO 6.0, which was then multiplied by 1.5 as the sampling correction factor. The study sample size was therefore 512 children.

The first level of the study involved district council authorities who comprised DED, District Planning Officer (DPO), and councillors. Other respondents at the district level were the Council Health Management Team (CHMT), the District Cold Chain Officer (DCCO) and District Maternal and Child Health Coordinator (DMCHCO). At the community level study units were ward and

village secretaries. The interviews and focus group discussions were conducted by one of the authors assisted by specially trained research assistants familiar with the district.

This was a follow up study. Baseline in-depth interviews were conducted which elicited information on interaction of stakeholders and implementation. A follow up was done using key informants, document reviews and observation. After two years a focus group discussion was then held among the different stakeholders to draw a consensus on the findings.

A household level unit of study was children between 12 and 23 months. The survey was done towards the beginning of the third year after decentralization. From the district census reports, it was estimated that 12 villages would provide the required sample of children in the target group. A multistage sampling technique was used for random selection of four divisions, one ward from each of the four divisions, and three villages from each of the four wards. All households in each of the villages with a child aged between 12 to 23 months were listed, identifying either the parent or guardian of the child in the household. The EPI cluster sampling technique was not used because the aim was to link the nearest facility and other community variables with child completion of vaccination schedules.

The household surveys assessed completion of the vaccination schedules among the studied children, and identified the nearest health facility. At the identified facilities, registers were reviewed to identify CHMT supervisory visits each year since 1999 (one year before the reforms). Data was also collected on the quality of EPI in the same period. Box 1 shows the EPI quality indicators studied. Qualitative data was analysed manually. Completion of EPI schedule was defined as a child between 11 and 24 months old who had received OPV3, measles, DPT3 and BCG. The respondent was asked to produce the child growth-monitoring card to verify the oral response. Quantitative data was analysed using STATA

Box One: Health facility EPI service quality variables

1. Number of times fuel was delivered to the facility
2. Number of supervisory visits to the facility in the past 12 months

Whether the facility properly

3. Properly calculated coverage population
4. Properly use notice board
5. Properly stored vaccines in the past 12 months
6. Properly maintained vaccine temperature within limits in past 12 months
7. Fridge properly worked in the past 12 months
8. Properly kept vaccination timetable in the past 12 months
9. Informed clients when to come
10. Provided and completed road to health cards

and

11. Providers not available in case of problem
12. Service providers felt to be helpful.

7.4 Results

Before decentralization the head of the civil service in the district was the District Executive Director (DED). The District Medical Officer (DMO) was answerable to DED on rural health services, and to Ministry of Health on district hospital. However, the DMO was an employee of the Ministry of Health. The District Cold Chain Officer (DCCO) was overall responsible for the EPI services reporting to the regional cold chain officer (RCCO) and Ministry of Health (MoH).

After decentralization, an elected district council, the highest political body in the district, became responsible for district health care functions. Also after the reforms, the DMO was de-linked from the Ministry of Health and became an employee of the District Council. Planning for EPI at district level was integrated into a comprehensive district health plan. The implementation of EPI activities i.e. supervision and delivery were also integrated in to the CHMT activities. EPI transport was put under the responsibility of the district council. Table 7.1 summarizes the district health care functions by performing before and after decentralization.

Table 7.1: EPI responsibilities before and after decentralization

Function	Period in relation to decentralization	
	Before	**After**
i) Managing EPI service delivery	DCCO	CHMT
i) Planning	DMO	CHMT, District Planning Officer, and District Council
i) Resource allocation	DMO	District Executive Director and District Council
i) Personnel management	DED	District Council
i) Supervision and monitoring	DMO	CHMT

DCCO=District Cold Chain Officer, DMO=District Medical Officer, DED=District Executive Director, CHMT=Council Health Management Team

All the decentralization bodies in the local government had been established (see Table 7.2). But within the district health care, CHMT was the only health care decentralization body that had been formed. Members to CHMT were the District Medical Officer (DMO), District Nursing Officer (DNO), District Pharmacist (DP), District Laboratory Technician (DLT), District Health Officer (DHO), Hospital Secretary, and District Dentist (DD). One and half years after decentralization it was reported that, formation of other health care decentralization bodies like, the Council Health Board was still in the formation process.

Table 7.2: Establishment of Decentralization Bodies by System and Level by March 2002

Level	Body	Within 24 Months of Decentralization
Local Government		
Ward	Ward Development Committee	Yes
	Ward Health Committee	Yes
Village	Village Council	Yes
	Village Health Committee	Yes
Heath System		
Ward	Health Facility Committees	No
	Facility Management Committee	No
Village	None	Not applicable
	None	Not applicable

The position of the stakeholders on the decentralization level could be expressed through acceptance of the decentralization bodies. The study then explored the perceived usefulness of the existing decentralization bodies by the stakeholders. The CHMT members (who lost power to District Council) reported that the established bodies (local government ward and village decentralization bodies) had been very useful in facilitating community participation in the control of infectious diseases. Thus they were supportive of the lower level decentralization bodies. The ward and village respondents had similar observations, and reported that the bodies had facilitated rehabilitation of a community MCH Clinic, dispensary, and promotion of Insecticide Treated Mosquito Nets (ITN), and environmental sanitation. However, their (village and ward bodies) participation was not a continuous process but only when requested. On the contrary the CHMT had no high opinion over the District Council. The CHMT was convinced that the District Council was not giving it the necessary support to perform its functions (interviews and discussions). At the same time the District Council was convinced that the CHMT allegiance to the council needed improvement. Thus, interaction between these two stakeholders was low.

Interaction among stakeholders in decentralization was important to facilitate teamwork, easy and timely communication. CHMT respondents felt that district authorities were not giving them adequate cooperation. It was also reported that there were always unjustified delays and mistrust in disbursing funds from the council, and that the procedures for requesting funds, expenditure justification, approval, and accounting, were unnecessarily bureaucratic. One request for funds from the council made three weeks prior to the interview day was presented to demonstrate delay in fund disbursement. The council and CHMT office were hardly two kilometres apart. Thus interaction between CHMT and the District Council was a difficult one. Consequently, this negatively affected resource management especially finances.

Furthermore, CHMT reported that after decentralization EPI funding was insufficient for the stipulated monthly supervisory visits. Supervision and distribution funds came from basket funds. The basket funds were allocated to

districts in proportion to the population at a rate of 0.5 US dollars per capita. The amount of funds disbursed to districts for supervision was reached after considering all supervisory requirements; hence, it was considered enough (key informant at the Ministry of Health). Interview reports from other districts revealed that several districts had different experiences. They reported regular supervisions; and that fund disbursement was smooth; they were very positive about their council. The four DEDs interviewed concurred among themselves that smooth running of the district depends on good interpersonal relationships and understanding of administrative procedures which many medical personnel were ignorant.

CHMT needed to have adequate interaction with the health care providers to sustain good quality health care provision. The CHMT and provider interaction occurred through supervision. Decentralization consequent to changes in power structures and ensuing stakeholder politics might affect the quality of supervision. Table 7.3 presents the number of supervisions per year before and after decentralization. Following health services decentralization, there was a 22 per cent decline in the number of EPI supervisory and delivery visits. The low interaction between CHMT and District Council led to poor management of resources. This consequently resulted into reduced supervisory visits and which in turn led to low interaction between CHMT and providers.

As mitigation to the impact of decentralization, the Ministry of Health issued a circular (Ref No. HED/51/130/PHCS/CTU/VOL.IV/74) that the former district level EPI providers (DCCO and DMCHCO) should resume their EPI functions (reversing some of the integration). A result of the Ministry of Health intervention, there was a rise in EPI visits in the following year. This shows that stakeholders' poor interaction at district level negatively influenced supervisory visits, and the Ministry of Health who had both power (financial and administrative) managed to reverse it.

Table 7.3: Number of supervisory visits to peripheral facility by year and month*

Year	EPI supervision visits to 5 facilities per month in each year.												
	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Total
1999	3	5	4	3	8	15	4	5	8	9	10	7	2080
2000**	5	6	2	2	5	14	8	6	2	5	4	4	63
2001	5	3	5	6	14	9	3	7	5	4	10	8	2080

***Source health facility registers: **Decentralization started early 2000**

The study also explored the interaction of the providers and the communities as beneficiaries of EPI services. In-depth interviews and discussions were done to understand the position of communities as far as EPI services was concerned. It was concluded that the communities (who were also primary stakeholders) had no high support of EPI services. One respondent recalled an occasion when they had informed and planned with ward and village authority to go and mobilize people for an immunization day. On arrival in the village, the authority had instead mobilized the community to perform a traditional ceremony to cleanse the village of bad spirits, which they might have considered more important.

The consensus that communities had no high support for EPI was further explored in a household survey to determine EPI coverage. Among the 640 households surveyed, 641 children in the targeted age group were identified, of whom the proportion that had been completely vaccinated was 52.8 per cent (95 per cent CI 48.9-56.6). Antigen coverage varied, showing that the leading antigen coverage was BCG at 93.9 per cent, and measles having the least coverage at 53.6 per cent (Table 7.4).

Table 7.4: EPI Coverage by Antigen in Study Sample n=641in 2001

Antigen	per cent age completing schedule
BCG	93.9
DPT1	94.5
DPT2	88.2
DPT3	79.8
OPV1	87.5
OPV2	80.4
OPV3	70.7
Measles	53.6
Completed Vaccine Schedule	52.8

Logistic regression analysis of quality indicators of EPI services revealed that the fewer number of supervisory visits and improper maintenance of vaccine temperature predicted a significant ($p<0.05$) reduction in the odds ratio (OR) of completing vaccination. Another factor that had significant impact was properly working fridge. This factor increased significantly ($p<0.05$) the odds ratio of completing vaccination. When the community felt that a provider was not available when needed it as well predicted a significant ($p<0.05$) reduction in odds ratio of completing vaccination (Table 7.5).

Table 7.5: Logistic regression analyses on completion of vaccination by quality parameters for EPI services

Quality Factor at Nearest Facility	OR	SE	P-value	[95per cent CI]
1. Number of fuel deliveries	1.28	0.18	0.083	0.96 - 01.71
2. *Supervisory visits past 12 months	0.78	0.08	0.024	0.63 - 00.97
3. Properly calculated pop coverage	1.04	0.31	0.896	0.57 - 01.88
4. Properly uses notice board	0.63	0.64	0.650	0.08 - 04.62
5. *Properly stores vaccines past 12 months	5.16	2.40	0.000	2.07- 12.85
6. *Properly maintained vaccine temperature past 12 months	0.05	0.06	0.022	0.00 - 00.66
7. Fridge properly worked past 12 months.	5.95	7.02	0.131	0.59 - 60.20
8. Properly kept vaccination timetable past 12 months	2.37	3.82	0.590	0.10 - 55.61
9. Services providers felt to be helpful	0.40	0.27	0.170	0.11 - 01.50
10. Informed clients to come again	0.77	0.44	0.657	0.25 - 02.39
11. *providers not available in case of problem	0.34	0.17	0.040	0.12 - 00.95
12. Properly completed health cards	1.61	1.49	0.607	0.26-09.90

***Statistically significant at p<0.05**
OR=Odds Ratio, SE=Standard Error, CI=Confidence Intervals

7.5 Discussion

The study demonstrated that CHMT in the study district had shown an initial opposition to decentralization. It was also unfortunate that the District Council was not able to positively manage the reaction of the CHMT. This

consequently resulted to low supervision visits due to poor resource management. The poor interaction between CHMT and providers influenced, to some extent, the poor quality of EPI services. The poor quality of services made the interaction of communities and EPI providers poor. Hence, the study identified initial district level problems in response to decentralization as well as the immediate EPI services needs to be addressed by subsequent reforms. The identified problems were delayed formation of decentralization bodies, inadequate cooperation from the district council, delayed expenditure approval, and shortage of funds. The immediate period after the EPI reforms was followed with reduction in the number of supervisory visits through which vaccines and related inputs were distributed. The reduction in supervisory visits led to fewer contacts between CHMT and providers. This could explain the negative provider behaviours as non-availability, poor communication etc. Perception that providers were not available when needed statistically significantly ($p<0.05$) reduced the probability of completing EPI vaccination. This behaviour reflected low morale of EPI providers in the periphery. The morale of the service providers as well as the quality of the EPI services negatively affected the communities as primary stakeholders. Subsequently, the EPI coverage decreased to less than 53 per cent compared to the pre-decentralization national average of 80 per cent in the 1990s.

Decentralization to lower levels was expected to achieve community participation in meeting the objectives of the health system. This would lead to increased participation and local political environmental that would lead to increased EPI coverage. In low-income countries as Tanzania decentralization has been observed to be associated with increased EPI coverage as a result of the local political system (Khaleghian, 2003). However, there was delayed formation of the district health board, health facility and village health committees, and community participation in the health system remained low.

The decentralization of health care through local government meant that CHMT had to be responsible to the local government through the District Council as the highest body (Ministry of Health, 1998a). The immediate CHMT response was to oppose the transfer of authority to the District Council, as was

manifested by the problems like, poor accountability, poor communication, and cooperation between CHMT and the council. As observed elsewhere such problems delayed disbursement of funds leading to apparent shortage of resources, and therefore defeated the decentralization objective of improving the way resources are used to achieve desired goals (World Health Organization, 1981).

Strategies would then be needed to improve communication between CHMT and the council and also their understanding of regulations and procedures. Whereas some districts could manage EPI with the same resources per capita others were not able. This suggested that both geographical and human factors contributed differently to the prevailing EPI situation. CHMT forms an important component of the human factor. Thus further training in planning, resource allocation, implementation, and monitoring, and overall management would be an advantage. Training CHMT to improve management skills has long been proposed as part of the ongoing health sector reforms (Gilson *et al.*, 1994b; Gilson & Mills, 1995). Since Tanzania has more than 120 districts, which might make it difficult for centralized training, it would be more practical to strengthen the regions to provide districts with backstopping services. Notwithstanding the importance of the acquisition of management skills, it should be noted that this would take time and calls for gradual decentralization as was observed in China (Tang & Bloom, 2000).

Oppositions to reforms are expected, common, and complicate management of health care. Decentralization of health care including EPI was expected to improve the quality of these services (Bryant, 1999; Tang & Bloom, 2000). It took place within the context that EPI services had previously attained good coverage and with positive impact on the health of the people (Amin, 1996). The success of EPI depended in part on good management of the programme at each level from the centre to the district level (Woodall, 1988). The EPI success could then be used as evidence to oppose the decentralization process, maintain the vertical nature of the programme, and to justify reversing the decentralization.

Prior to decentralization, EPI was being financed from the centre. After decentralization, funds to meet the cost of health activities at district level including that of EPI were under the authority of the district council. The transfer of authority over funds to the district council had a high potential of being opposed by the CHMT members. The claim that funds were not adequate could be a manifestation of opposition to the transfer of authority. However, it could also be lack of experience to implement basket fund budgeting. Another manifestation of opposition of the transfer of authority could be through giving less priority to EPI activities and translating to low quality of implementation. A similar situation allocating fewer resources and less attention to a formerly vertical programme has been reported elsewhere (Hanson, 2000b). Managing the decentralization process could be more successful if the strategies to increase management skills include prioritisation of allocation of resources to health interventions.

Inadequate funds to conduct outreach services call for exploration of other sources of funds. Such sources include enhancement of community participation through creation of the facility committees. Community participation has been used to implement various projects with remarkable success (Rifkin, 1987; Tanner & de Savigny, 1987; Garfield, 1999; Snow *et al.*, 1999).

Supervision was/and is a very important management function; it ensured that quality of service was maintained (Atherton *et al.*, 1999). EPI supervision was to be integrated into the functions of the CHMT, and the tasks to be accomplished included training, cold chain check, and data collection. The analysis found that the frequency of EPI visits to health facilities decreased immediately after decentralization but reversed when the ministry decided that DCCOs had to resume their EPI functions. Formerly, DCCOs had, at their disposal, permanent well-maintained vehicles to be used for EPI supervisory visits. With decentralization EPI transport was integrated into the district transport pool, EPI supervision was expected to follow regular supervision schedule, and has to be planned within the CHMT implementation schedule. The actual importance attached to EPI had been downgraded.

The study suggested that strategies were needed to address the post-decentralization declines in EPI coverage resulting from the deteriorating quality of EPI services at health facility level. The relationship between vaccination coverage and management quality of EPI services has been documented and emphasized (Robertson *et al.*, 1992; Levin *et al.*, 1999). Such strategies should focus initially on improving the CHMT relations with District Councils and performance of CHMT and health facilities.

7.6 Conclusion

The analysis identified a marked decrease in the EPI coverage immediately to post-decentralization, and attributed this situation to declining quality of EPI services, due to delayed and inadequate financing, poor cooperation between the council and CHMT, demoralized health service providers, decreased supervision and distribution of vaccines and related inputs. Strategies should be put in place to improve relations between CHMTs and District Council, the performance of CHMT and health facilities. These should include training of CHMT and other health service providers to develop skills on planning and implementation of health services, communication, negotiation, accountability, and prioritization of resources allocation to intervention programmes.

Chapter 8:

Decentralizing EPI Services and Prospects for Increasing Coverage: The Case of Tanzania

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This article has been accepted for publication in the Journal of Health Planning and Management.

8.1 Summary

Can decentralization facilitate achieving the goals of a health system in developing countries? Primary health care (PHC) strategies were adopted widely from 1978 after the Alma Ata declaration to improve accessibility to health services and health of people. Among the strategies of PHC was decentralization of health services to lower levels in order to enhance participation and responsiveness of the health system to local problems. While PHC was being promoted vertical programmes like EPI were also being promoted and achieved substantial benefits. However, almost 25 years later many countries had not been able to achieve those health goals. Health sector reforms then took place, with decentralization as a major component. Stakeholders were then likely to oppose the reforms in EPI using the EPI gains. This study addressed the question: *Can we make the process of health care decentralization more likely to support health system and EPI goals?*

This study analyzed the experience of EPI decentralization at national, regional and district levels. The methodology combined document review, in-depth interviews, semi-structured interviews, and key informant interviews with the Council Health Management Team (CHMT) and District Council, health facility providers, and community leaders. Structured, closed ended questionnaires were used for households. Twelve villages were randomly selected. In each village all mothers or guardians with a child who was between 12 and 23 months old were interviewed. Qualitative data was analyzed using qualitative methods and STATA 6.0 for quantitative data. The results were used to do a computer assisted stakeholder analysis using Policy Maker computer software. The computer assisted stakeholder analysis was a tool to identify feasible interventions to assist the processes of implementing decentralization policy.

The study identified several stakeholders who were supportive and others who were non-supportive of the process. Community support to EPI measured by using willingness to pay (WTP) for kerosene to keep vaccines cool was low. It was significantly ($p<0.05$) associated with whether providers in the nearest

health facility properly attended the target population and whether the providers in the facility were available when needed. Policy Maker predicted a high success in increasing EPI coverage if communities were to participate in EPI decentralization.

There was a substantial stakeholder support and opposition to the process of decentralization at district level. Community support was not high possibly due to perceived non-availability of the service providers and their lack of awareness of the population they serve. It was proposed that reforms should give priority to the involvement of communities and peripheral health facility providers in the process.

8.2 Introduction

Can Decentralization facilitate achieving the goals of health system while sustaining EPI gains in developing countries? Primary health care (PHC) strategies were globally adopted in 1978 at Alma Ata as a means to achieve health for all by year 2000 (HFA2000)(WHO, 1978). PHC strategies included community participation and decentralization. It was anticipated that by the year 2000 all people would have some form of health care available for them, resulting in improved health status. Towards the end of the HFA2000 timeframe, BoD was assessed to be 1.4x 10^9 DALYs annually (Murray *et al.*, 1994a). It was also estimated that sub-Saharan Africa carried 21 per cent of BoD globally with less than 9 per cent of the world population. One of the major reasons for the remaining high BOD in Africa has been the lack of political commitment (The World Bank, 1994b), which has led to such problems as under financing and poor management of the health system.

Countries in Africa and elsewhere were attempting new health sector reforms (HSR) including decentralization to address the remaining BOD and inefficiency in the health sector (Block, 1997). Decentralization of health services by devolution has been adopted worldwide by most countries (Human and Social Development Unit & Health Family Planning and Aids Unit, 1997; Bossert, 1998b; Wyss & Lorenz, 2000; Tang & Bloom, 2000). HSRs that were

ongoing promoted certain elements of the original PHC strategies that included community participation and decentralization. Thus despite previous experience with decentralization it remains popular in developing countries.

The current wave of HSR in Tanzania started in 1993 immediately after the World Bank's 1993 World Development Report (Ministry of Health, 1993). The reforms included organizational changes at the central level and decentralization to district level. The reforms therefore required a re-orientation of vertical programmes like Expanded Programme on Immunization (EPI) at both national and district levels. By early 1990 EPI performed very well with national average vaccination coverage of 83 per cent (UNICEF, 1994). Consequently, the reforms including decentralization had the potential to sustain, improve or weaken the performance of the programme.

Vertically organized EPI has been successful generally in most developing countries (UNICEF, 1994). Globally the coverage of vaccination increased from about 15 per cent in 1974 when EPI Programmes started in most countries to around 80 per cent in early 1990s (Reingold & Phares, 2001). Since the 1990s its growth in coverage has risen and declined in some areas (Working Group 5 of the Commision on Macroeconomics and Health, 2001; Reingold & Phares, 2001). Health sector reforms have more recently attempted to integrate vertical Programmes including EPI at district level in order to further enhance effectiveness and efficiency in the delivery of health services (Thorne, 1994), and by definition, bypassing (Mmuni *et al.*, 1994; Conn *et al.*, 1996a) some of the vertical qualities of the programme. HSRs that were ongoing had the obligation of ensuring successful decentralization, while sustaining, as well as scaling up, the gains of EPI. EPI was then an interesting intervention for assessing decentralization.

EPI in Tanzania started in 1974, and since then EPI coverage has been increasing gradually from national average of 15 per cent to 75 per cent in 1990s. However, from 1990s EPI coverage was reported to be stagnant though maintaining a high level of coverage relative to other countries

(UNICEF, 1994). Despite the high national EPI coverage average, there was a wide variation among districts and also within districts. The average district coverage for the year 1999 ranged from 45 per cent to 100 per cent (Ministry of Health, 1999a). The integration of EPI took place within the context of devolution of the role of provision of health care to district councils (decentralization). One of the indicators of successful decentralization then would be sustained high or increased EPI coverage especially in those districts that were not performing well.

Tanzania has been one of the countries that re-emphasized decentralization to the district level. The country has been administratively divided into regions, each region to districts and district to wards. Wards are further divided in to villages and each has a political head as well as civil head responsible for all civil servants. Decentralization involves having participatory or democratic structures in place (Bossert, 1998b). The decentralization structures at district level include District Council (DC) as the highest political body. The DC was composed of elected officials. The DC had several committees one of which was the Council Social Services Committee. The Council Social Services Committee was responsible for running of the health services in the district. Formerly District Health Management Team (DHMT) became known as Council Health Management Team (CHMT). The CHMT was responsible to the DC through the Council Social Services Committee. Others structures at lower levels would be health facility committees, ward health committees and village committees. Also of importance are workers' motivation, willingness to apply their skills and community support.

Decentralization of health care including EPI would lead into several benefits including efficiency, equity and community participation. However, a recent analysis of decentralization and public services with focus on immunization revealed conflicting results comparing low and middle-income countries (Khaleghian, 2003). In low-income group countries, decentralized countries had higher EPI coverage (average of 8.5 per cent higher). Among the middle-income countries decentralized countries had lower coverage (average of 5.2

per cent lower) than centralized countries. The role-played by local political control (actors role) in low-income countries explained this.

The actors were also referred to as stakeholders who had established a dynamic equilibrium with the health system before the health reforms. After health reforms that made fundamental change in the health system the equilibrium was changed, creating a political situation. The type of reforms determines the type of stakeholders' reaction. An example was the reforms that took place in Ghana and Zimbabwe. In both cases user fees were introduced but politicians opposed the reforms, despite that the ministries and donors who supported the reforms managed to successfully implement them (Russell *et al.*, 1999). Health workers in Sri Lanka and India also opposed the reforms for fear of income loss and moral obligations. User fees as a common component of the reforms have also reduced the utilization of health services. Experience from Zambia revealed how people criticized reforms including their non-involvement in such reform decisions (Van der *et al.*, 2000b). A similar situation was observed in Kenya where the immediate response to introduction of user fees was reduction in the utilization of health services (Collins *et al.*, 1996). Thus, stakeholders are various; at different levels, and with different interests making the management of the situation and the stakeholders very complex.

8.2.1 EPI prior to the reforms in Tanzania

In Tanzania EPI reforms included changes at several levels including the district – the level at which decentralization took place. EPI functions in Tanzania before and after health reforms are presented in Figure 8.1. EPI services were originally organized and delivered vertically from the national level to the peripheral health facility. At the national level the Ministry of Health through the EPI made policies, planned, procured, stored and distributed EPI needs to regions. At the intermediate level there was the Regional Cold Chain Officer (RCCO) who was responsible for maintaining the Regional Vaccine Store, and distribution of vaccines and other needs to districts. At the regional level there was also a Regional Maternal and Child Health Coordinator

(RMCHCO) who was responsible for maternal and child health services. RMCHCO was also responsible for the cold chain together with RCCO. Both RCCO and RMCHCO reported directly to MoH.

The EPI establishment at the district level included a District Cold Chain Coordinator (DCCO). As in the region there was a District Maternal and Child Health Coordinator (DMCHCO) who was responsible for maternal and child health services in the district. DMCHCO together with DCCO were responsible for EPI services in the district and reported directly to RCCO and MoH. The functions of DCCO included supervision, planning, distribution, management of transport and procurement.

Figure 8.1: EPI structure and changing functions after reforms

Timing	National		Region	District			H/facility	villages
	Ministry of Health	Medical Stores Department	RCCO	DCCO	CHMT	District Council DED	Health facilities	Communities
Before reforms	• Policy making • Planning • Vaccine forecasting • Monitoring and evaluation • Procurement • Storage • distribution	None	Distribution Monitoring Supervision Keep RVS	• Distribution • Supervision • Prepare reports • Procure kerosene • Transport management • Resource management Keep DVS	none	none	Provision of services Surveillance reporting	Utilization of services
After reforms	• Policy making • Planning • Vaccine forecasting • Monitoring and evaluation	Procurement Storage Distribution Distribution Keep zonal stores	Monitoring supervision	Keep DVS	Distribution Supervision Reports	Resource management Procure kerosene	Provision of services Surveillance and reporting	Utilization of services

The health system in the district was the responsibility of the District Health Management Team (DHMT), later the Council Health Management Team (CHMT). The DHMT was composed of DMO, District Nursing Officer (DNO), District Health Officer (DHO), District Cold Chain Officer (DCCO), District Maternal and Child Health Coordinator (DMCHO), and head of medical training institutions if any, and hospital secretary. The district heads of vertical Programmes and sectional heads were co-opted members of the DHMT. After reforms the CHMT members were the District Medical Officer (DMO), District Nursing Officer (DNO), District Health Officer (DHO), and Medical Officer in charge of district hospital, District Pharmacist, Hospital Secretary, District Laboratory Technician, and District Dentist (Ministry of Health, 2000a)

8.2.2 EPI after reforms in Tanzania

The reforms brought changes at all levels from the national level to the district level. At the national level, procurement, storage and distribution functions to districts were transferred to semi-autonomous Medical Stores Department (MSD) under the Ministry of Health (Figure 8.1). Transportation was also transferred to Central Transport Unit of the Ministry of Health. At the regional level RCCO and RMCHCO remained responsible to MoH. MoH was in a process to consider handing over some of the functions historically carried out by the central level.

Decentralization by devolution included the formation of the District Council (DC) as the highest political body in the district. The District Executive Director (DED) was its executive secretary and the council had overall authority over health services in the district (The Government of Tanzania, 1982) and as amended later in the written laws of Tanzania (The Government of Tanzania, 1999). At the district level EPI functions were integrated with other district health functions. The EPI functions formally performed by the centrally employed DCCO were then transferred to the CHMT. They had to be budgeted for and included in the district health plans approved by the District Council through the District Planning Officer (DPO) and District Executive

Director (DED). The performance of the functions had then to follow district-financing procedures to obtain daily operational funds. Also the resources formally commanded by the DCCO like transport were transferred to the CHMT.

Within the district health system the Council Health Management Team (CHMT) was formed. Members of CHMT were heads of the health section in the district and included: the District Medical Officer (DMO) and also its chairperson, District Nursing Officer (DNO), District Health Officer (DHO), and Medical Officer in charge of district hospital, District Pharmacist, Hospital Secretary, District Laboratory Technician, and District Dentist (Ministry of Health, 2000a). The DCCO and DMCHCO were no longer members of the CHMT. Resources and activities formerly under the DCCO and DMCHCO were then transferred to CHMT authority. Lower bodies to be formed included Health Centre Committees, Health Centre Management Teams, Dispensary Committees and Dispensary Management Teams. General decentralization administration required the function of Ward Health Committees and village committees. Thus health care decentralization and more specifically that of EPI involved various stakeholders at different levels with different interests. There was then a definite need of conducting a stakeholder analysis to enable management of the complexity arising from stakeholders' actions. Such analysis is tedious and would require a tool to facilitate it and thus making the management of the stakeholders easier to handle.

To understand the dynamics of stakeholders, this study adopted the interactive model of policy implementation (Thomas & Grindle, 1990). The interactive model posits that stakeholders (actors) can't be separated from the process of policy flow that is problem identification, policy formulation, implementation and evaluation. At each of this stage the stakeholders can influence non-start, reversal and continuation of the process. Experience of the health sector reforms process has several such experiences of reversal, maintaining status quo and progress. Thus, this analysis focused at each

phase of policy process and the stakeholders' influence on the health sector reforms focusing on EPI in Tanzania as a case study.

The position of communities as stakeholders in the health sector reforms and EPI was evaluated using Willingness to Pay (WTP). WTP has been one of the tools to evaluate the potential to generate adequate extra resources for the health, especially curative care (Abel-Smith & Rawal, 1994; Walraven, 1996). WTP has been used to measure support for public health programmes like water supply and impregnated bed nets (Whittington *et al.*, 1991; Mills *et al.*, 1994). It also determines the potential to pay as well as the value community attaches to the intervention. Willingness to pay and ability to pay have been used to establish community potential to finance health services in their locality within the current reforms (Russell, 1996; Walraven, 1996). Ability to pay measures the actual capacity to pay and even the level of payment (Russell, 1996; Muela *et al.*, 2000). WTP is composed of the cost and perception of benefit attached to the health commodity one is potentially to purchase (Gafni, 1997) In this study WTP was used to measure value the community attached to EPI as a public health intervention programme, thus gauging the level these stakeholders attached to EPI for input in stakeholder analysis.

Several manual tools have been used to analyse stakeholders, one of which is force field analysis (Gilson *et al.*, 2003). Policy Maker, a computer software, was developed in Harvard in the early 1990s to facilitate stakeholder analysis (Reich & Cooper, 1995). The software has a process that goes through five steps. This is a form of political mapping and is strongly prospective in time. It generates information that allows decision-making in ongoing projects/programmes. It also generates important information for strategic planning in the implementation of new policies or projects. It has been used in the analysis of health reforms and tobacco control in the Dominican Republic and Vietnam (Reich, 1995a; Glassman *et al.*, 1999b). The software has been used in variety of geographical and problem settings with encouraging results (Varvasovszky & McKee, 1998); (Varvasovszky &

Brugha, 2000); (Brugha & Varvasovszky, 2000) suggesting a wide applicability of Policy Maker use and an acceptable validity.

Stakeholders' analysis has different time dimensions depending on the objective. In retrospective time dimension one may seek to understand the evolution of different policies, environments and other factors affecting performance. Current time dimension analysis generates information on stakeholders and other factors that can be used as an input in the process. Future time dimension enables formulation of new policies as well as predicting success of development as well as health programmes. In most of the cases stakeholders' analysis will facilitate appropriate management of the actors. Burroughs (Burroughs, 1999) gives an explicit account of how appropriate management of stakeholders resulted in appropriate decisions to invest and manage water quality.

Better understanding of the stakeholders and their roles and influence in decentralization would facilitate better management of the process. This would then lead to better success in the decentralization process, increased health care utilization and EPI coverage. The aim of this study was to determine the positions of the stakeholders at district level towards decentralization of EPI. It was also to use the results as input for Policy Maker a possible tool that could facilitate management of complexities arising from stakeholders' reactions. The output of the analysis was an intervention that was most feasible in improving EPI coverage.

8.3 Methodology

The study took place in a randomly selected rural district whose population was about 100,000. The identity of the district was withheld in order to report confidentiality of the respondents. As typical of rural districts there were no paved roads and accessibility to villages was sometimes made on foot or bicycles. Income depended on the seasonal markets of farm produce. A very small proportion of the population was employed.

The minimum sample size of children aged between 12 and 23 months to be surveyed was estimated at 341 using STATCALC EPINFO 6.0, which was then multiplied by 1.5 as the sampling correction factor. The study sample size to be studied was then estimated at 512 children. A multistage random sampling of 12 villages from four divisions was done. Within each selected ward three villages were randomly selected. All parents and guardians of children in the age group 12-23 months in the selected villages were visited and requested to respond to vaccine completion and WTP questions. Also the ward and each village secretaries were interviewed. For each village the nearest heath facility (on the assumption that people from the village will bring their children to the nearest health facility for vaccination) was also surveyed. At the district level six out of seven CHMT members and the DCCO, DMCHCO participated in the study.

The study aimed at understanding the current EPI decentralization and integration process, and the administrative and political contexts within which it was taking place. Meetings were held with authorities in the selected areas to explain the study aims, seek their consent and agree on a timetable to do the study. Repeated meetings with the council health management team were held throughout the study. At the ward and village level the leaders were interviewed using a prepared format (a semi-structured questionnaire) to elicit information on the process of decentralization and functioning of EPI. Different data collection techniques were used and they included: semi-structured interviews, structured interviews, document reviews, in-depth interviews and key informant interviews.

Each household with a child in the age group 12-23 months was approached and requested to participate in the study. The household interview was done using a structured questionnaire. For the willingness to pay each responding parent or guardian was told the following statement in Kiswahili the local language: *"The refrigerator in the nearest health facility uses kerosene in order to keep the vaccine for children potent. If in case of emergency there is no kerosene, will you be willing to contribute money to buy kerosene?"*

At each selected health facility documents were reviewed that included visitor's books, supervisory and input delivery records. We reviewed the records to find out the frequency of visit of CHMT to health facilities, and the purpose. We reviewed supervisory records for the past one-year in all the selected health facilities. Within the same reference period we also collected information on quality of selected EPI service indicators from each health facility.

The person in charge of the health facility was interviewed by one of the investigators. Information was recorded in a standard format ready for computer entry. Different data collection techniques and discussions were used including key informants in order to validate the results.

Qualitative data was analysed manually while quantitative data was analyzed using STATA Version 6.0. Finally, the field results were analyzed by simulation using Policy Maker to identify most feasible intervention in managing the stakeholders.

This study also aimed at understanding the positions of various stakeholders at the initiation of decentralization. In order to do that the study adopted the interactive model of policy implementation (Thomas & Grindle, 1990). The model requires collecting information at each stage of policy process. The information enabled understanding of who were the stakeholders at each policy process stage at each level. This facilitated the understanding of who at each stage opposed or supported the process as well as their respective influence.

Policy Maker, a computer software does political mapping and also generates information that is used for strategic planning. The information from the stakeholders' analysis and other reports was then entered in to computer using the Policy Maker computer software. Analysis was then done to

generate information that can be used for strategic planning aimed at improving or sustaining EPI gains.

Policy Maker has a process that goes through five steps. The software requires data inputs based on actual field data as well as interpretations based on experience and expert opinion. The five steps are:

i) Description of policy content, goals and mechanism
ii) Identification of stakeholders in the policy under consideration, as well as their power, position, and who they influence
iii) Policy feasibility assessment
iv) Strategy design and evaluation
v) Assessing policy impacts

It has a toolbox of 31 possible strategies that can be adopted as their or modified to suit the situation. This analysis evaluated the feasibility of strategies that could lead to sustenance or increasing the EPI gains within the ongoing decentralization.

8.4 Results and discussion

8.4.1 Stakeholders and their interaction

Table 1 presents a list of EPI stakeholders identified as active at the district level. The interaction of stakeholders took place during planning, and distribution as well as implementation of the EPI functions. EPI reforms and decentralization at the district level have been within the context of the overall health care decentralization to district level. Health care decentralization to districts required making the District Medical Officer answerable to the District Council and the District Executive Director (DED) instead of MoH. All the Council Health Management Team (CHMT) became answerable to the District Council (DC). CHMT then took a subordinate position to the District Council (DC). In order to conduct their activities they had to follow new regulations and practices commensurate with the newly established decentralization. We asked CHMT members how they perceived the new relationships with the district council. Interaction between CHMT members

and the district council was perceived by the CHMT to be difficult. This was supported by the CHMT claims that the DC was interfering with resource allocation i.e. making decisions on where to post new health workers. CHMT members further said that they had developed a fear of the DC, as they believed that the powers vested in the DC could dismiss one from the job. It suggests that the working relationship between the DC as highest political body and its CHMT in this particular district was strained.

To enhance productivity it is important to have good working relationship (positive stakeholder interaction) between district health managers, other health workers and the Local Government Authority. The significance of good interaction among such stakeholders has also been observed in the past in Tanzania (Cassels & Janovsky, 1995). The decentralization process would be enhanced if one provided an environment that facilitated a good interaction among stakeholders. Decentralization of health care in Tanzania was by devolution to local government at district level. The immediate changes required the district health authorities, in this case (CHMT), to surrender power and resources to the local government authority, in this case the District Council. Reaction of stakeholders to change as also observed among the CHMT has been resistance to the change (Doherty & Rispel, 1995); (Hopa *et al.*, 1998); (Huff-Rousselle & Akuamoahboateng, 1998; Hardee *et al.*, 1999b) this situation the CHMT reaction was low support to DC. The annual EPI evaluation meetings of 1999 and 2000 recommended that the reforms were a reason for the falling EPI coverage all over the country (Ministry of Health, 1999). Such a national consensus in return reinforced the stand of the CHMT and other members regarding the DC.

When implementing changes in a complex delivery system it is mandatory to consider the role of stakeholders (Lansang *et al.*, 2000a). It was then important to conduct a stakeholder analysis as a pre-intervention (before change) condition. Doing a district level analysis of the stakeholders in EPI could have illuminated and facilitated the process of decentralization. Decentralization process involved training and sensitization of the CHMT and

DC that covered management, responsibilities, as well as personnel and structural relationships in decentralization. The results of this analysis suggested that the exercise may have not had the impact expected.

The study also analyzed the group dynamics within the newly formed CHMT. CHMT. CHMT members reported that among themselves some had very close working relationship with the DMO while others felt marginalized in the management. This resulted in a CHMT divided to two groups (those close to DMO and those who were not). Such division of a management group creates an internal opposition that could stall implementation of the district health functions including EPI. It is important in the management of reforms to make sure that all players in a team are positively aligned. The need for good team work as prerequisite of success in reforms or health intervention undertaking has been stressed elsewhere (Tanner *et al.*, 1993). Consequently, effective management of the CHMT has been another important factor to be addressed through timely interventions.

Interaction between MoH and district included CHMT sending quarterly and annual reports to MoH to facilitate the planning process. The other interaction between MoH and district was through the annual EPI evaluation meetings. In these meetings DCCO and DMCHCO attended and presented reports of EPI in their respective district. MoH also did the planning, coordinated procurement and financing of EPI for all districts. After the decentralization the role of the MoH did not change immediately. At district level there was integration of supervisory, and distribution functions to general health services. Thus the functions of DCCO and DMCHCO were transferred to CHMT. However shortly after the integration MoH issued a directive to all districts that with immediate effect the DCCO and DMCHCO should resume their responsibilities for EPI supervision, delivery and cold chain maintenance. In effect, the intended integration was partially reversed, suggesting that MoH had keen interest to make sure that EPI performance was not compromised.

The reversal was necessitated by several factors including that none of the CHMT members was able to do EPI supervision or cold chain maintenance (interviews with CHMT and DCCO). Thus the capacity for the CHMT to do EPI supervision was low. Given the fragility of EPI, DCCO and DMCHCO were still needed as the success of EPI was due to their efforts. MoH directives were to sustain the achievements in EPI while achieving the goals of health reforms.

8.4.2 Stakeholders Influence on EPI performance

In this section we present a brief account of the influence of the stakeholders of EPI functions. Each respondent was asked how much each one had been involved in the performance of selected functions of EPI in the district. The responses used the following measurement scale 0 no influence, + minimum influence, + + moderate influence and + + + high influence. From the documents reviewed and interviews the level of influence for each of the stakeholder compared with others was established. The score that had highest frequency was adopted as the position of the stakeholder in reference. In this study there was a very high agreement on the position of each stakeholder. The functions were planning, distribution of vaccine, supervision, surveillance of infectious diseases and EPI campaigns (community sensitization) (Table 8.1).

Table 8.1: Perception of the stakeholders regarding influences on EPI functions and the level of influence

Body	Function				
	Planning	Distribution of Vaccine	Supervision	Surveillance of infectious diseases (vaccine preventable)	EPI campaigns
1. Council Health Management Team (CHMT)	+	0	0	+	+ +
2. District Cold Chain coordinator	+ +	+ + +	+ + +	+ +	+ + +
3. Ward Officials	0	0	0	+	+ +
4. Health Centre in Charges	0	0	0	+	+ +
5. Dispensary In charges	0	0	0	+	+ +
6. District Planning Officer	+ +	+ +	+ +	+	+
7. Village Officials	0	0	0	+	+ +
8. District Executive Director.	+ +	+ +	+	+	+
9. Councilors	0	+	+	+ +	+
10. Ministry of Health	+ + +	+ +	+ +	+ +	+ +
11 Presidents Office Regional Administration and Local Government	0	0	+	+	+

Legend 0= No influence at all += minimum influence + + =moderate influence + + +=high influence

After decentralization most stakeholders were expected to participate in the planning process. However, it became an activity dominated by MoH, DCCO and DMO. CHMT members were hardly involved; hence, their influence on planning was minimal. The influence of DPO, DED and the DC was through the approval of the district health plan that contained budget lines for EPI. Other stakeholders not included were ward officials, health facility personnel

and villagers. The process did not engage all the necessary stakeholders who might have affected the implementation of the plan. Involvement of stakeholders at different stages of the planning cycle is important for better implementation and outcome of the plan (Garfield, 1999; Ghebreyesus *et al.*, 1996). Thus one of the immediate lessons was to enhance and sustain participation of relevant stakeholders in the whole process.

Distribution of vaccine, kerosene, other resources and supervision was dominated by DCCO, MoH and DED. DCCO and DMCHCO had to travel to each peripheral health facility monthly to execute these functions. EPI had invested in training the two in supervision, monitoring and maintenance of the EPI cold chain. To have CHMT perform their functions would require a similar investment that was not easy. As a result, to ensure continued quality in performance of EPI and its quality cold chain it was reasonable to retain DCCO and DMCHCO. Quality management including monitoring and supervision are critical for programme success (Walt *et al.*, 1989; Kanani, 1998; Loewenson, 2000). The emerging challenge was how to maintain the quality of EPI after decentralization.

Surveillance is a very important component of any disease control programme, (Woodall, 1988). It may involve regularly collecting routine data from health facility and community surveys. The quality of any surveillance programme depends to a large extent on its accuracy, completeness and timeliness. Health facilities and communities need to be encouraged to participate in identification and reporting of cases. All village level respondents and facility respondents said that they had influence on this function by virtue of their responsibility to report. They also reported that they had influence on EPI mass campaigns. Their influence ranged from administrative, financial to reporting. Despite the fact that they could influence such activities they neither not involved in planning nor were they accountable. The reported influence of all stakeholders from community level could be due to the legacy of other political structures that had been in place before such as PHC and the Arusha Declaration. These structures promoted rural development and actively

mobilized communities and district leaders to participate in promotion of development including health. The analysis suggests that with proper strategies it is possible to achieve decentralization process to lower levels.

8.4.3 Willingness to pay (WTP)

Willingness to pay for kerosene to power refrigerators used for the storage of vaccines was low. In this study willingness to pay for kerosene was used as a proxy for value attached to EPI by the community. Among the 641 mothers or guardians interviewed 48.7 per cent (95 per cent CI 44.8-52.5 per cent) reported that they were willing to contribute to buying kerosene for the EPI refrigerators that kept vaccines cool in their nearest health facility. Willingness to pay is influenced by the structural and perceived quality of the services provided.

Each child could then be classified into having completed vaccination or not. Vaccination status was binary i.e completed vaccination 'Yes' or 'No', hence, because of the binary nature, linear regression model was not suitable for analysis to determine the relationship between vaccination status of a child and the identified independent variables. Logistic regression model was then used to do the analysis. The model used the following formula (luna.cas., 2003):

$$P=e^{a+bX}/\{1+e^{-(a+bX)}\}$$

P was the probability of having completed vaccination, e was the base of natural logarithm, a and b were parameters of the model and X was value of the independent variables.

Logistic regression model was then used to determine the relationship between the observed level of willingness to pay and nearest health facility quality of services (Table 2). Two measures of EPI services quality were significantly related to the willingness to pay in logistic regression analysis. These included whether the providers were able to calculate their target population properly, which increased the odds ratio (OR) for WTP among the community. The OR was 2.63 (95 per cent CI 1.51-5.3). On the contrary

perception by the community that providers in the nearest facility were not available when needed statistically significantly reduced the odds ratio for WTP. The OR for willingness to pay was 0.28 (95 per cent CI 0.10-0.80). Both these measures are proxies for the process quality of the EPI services. When the process quality is poor, clients' expectations are not met i.e. poor inter-personal relationships, poor communication, lack of respect etc. Similar relationship was observed in a study done in Guinea with the aim of understanding, characterizing and classifying the criteria rural population used to judge quality of Primary Health Care (Haddad *et al.*, 1998).

The study revealed the criteria used by the public to judge the services to include the following: 1) technical competence of the health care personnel; 2) interpersonal relations between the patients and care providers; 3) availability and adequacy of resources and services; 4) accessibility and 5) effectiveness of care. When the quality of health services does not meet the expectations of the clients the immediate reaction will be negative attitudes among the users. The consequence was low importance attached to health care followed by low willingness to pay for the services and finally low utilization. The association between willingness to pay or actual paying and quality of services has also been reported in other studies (Van der *et al.*, 2000a; Kartman *et al.*, 1996). Hence, the low process quality of EPI services observed in this study made communities have low support of the services (not willing to pay) and also contributed to the medium EPI coverage (52.8 per cent) found in the district during this analysis.

Table 2: Logistic regression of willingness to pay on health facility quality variables.

Factor	Odds Ratio	P>|z|	[95per cent Conf. Interval]
1. Number of times fuel was delivered	0.94	0.707	0.70 1.27
2. Number of supervisory visits	0.99	0.936	0.79 1.23
3. *Target population properly calculated	**2.83**	**0.001**	**1.51 5.30**
4. Vaccine properly stored	0.63	0.335	0.24 1.61
5. Cold chain temperature properly kept	1.29	0.784	0.20 8.39
6. Refrigerator functioned	0.83	0.828	0.16 4.34
7. Vaccination time table properly kept	0.63	0.567	0.14 2.97
8. Clients informed of side effects	0.97	0.908	0.56 1.68
9. Providers were felt to be helpful	0.73	0.619	0.21 2.52
10. Clients were told when to come again	0.69	0.608	0.17 2.79
11. *Villager felt that providers were NOT available when needed	**0.28**	**0.017**	**0.10 0.80**
12. Records were properly kept	0.32	0.216	0.05 1.94

*statistically significant

High level of willingness to pay was an indicator that the community could accept the responsibility to provide inputs to service (Yacoob, 1990). The low level of willingness to pay for EPI services then suggested that the community attached low importance to it. One reason for the observed low importance could be due to poor attitudes among the community resulting from poor quality of service provision. It could also be a manifestation of community dissatisfaction with a local facility, which was out of touch with the community. Hence, low importance stakeholders attach to EPI is explained by the low quality of the services.

8.4.4 Policy maker analysis

The reviewed documents and the studies reported in chapters 4, 5, 6, and 7 reveal the stakeholders and their interests. The level of influence was reflected in the resources a stakeholder committed to EPI services. The analysis of specific responses for the respondent revealed that under normal circumstances decisions were made in shared responsibility environment, from the lowest level to national level. As a result no one individual would be responsible for a decision made. Because of such contexts the national level respondents were not keen to be at the centre of the analysis (take ownership). Hence, the analysis at national level used data from documents and secondary analysis only. The analysis then combined data from national and district level to determine the position and interests of the stakeholders

identified. The opportunities and obstacles are presented below which were also input to the analysis.

Opportunities included the health sector reform and decentralization has been taking place within the Public Sector Reform Programme (PSRP). The political party in power included reforms and decentralization in its manifesto. Also to show the importance of decentralization the president transferred the ministry responsible for Local Government Authorities to the President's office. The political and administrative environments provided a good opportunity for decentralization. The environment was further made conducive by the resources committed by the donors and other stakeholders. The decentralization process was at its early stage, which provided ample space to streamline the process in order to achieve the goal of health. Another opportunity was having EPI as partial vertical program. This opportunity provided for gradual process and continued support from donors and hence resource availability. This enabled close monitoring of the health reform process to ensure sustenance as well as up-scaling the EPI achievements. Need of gradual implementation of reforms in vertical programmes was a major lesson learned from the implementation of health reforms other countries (Bosman 2000).

The policy mapping process involves a stage of identifying and assessing transitions that might create significant obstacles to the policy under analysis. Sources of obstacles could be related to individual, implementing organization, other organizations and the political environment. Expected obstacles to the process included unpredictable performance of the economy that might reduce government resources disbursed to districts in Tanzania. Also important was donor support in financing the EPI services; there was no certainty in how long they would be able to continue funding. Events of poor performance of national economy and curtailing of donor support were accepted as the possible obstacles to the process.

The obstacles would lead to poor resource availability consequently leading to poor quality of care. As a result the communities who should also be the primary benefactors of EPI would develop poor attitudes and consequently low utilization. A similar situation could result if the importance attached to EPI was reduced due to decentralization, since it was also possible that during decentralization, EPI could fall off the priority list and hence low resource allocation leading to poor quality of services and consequently low utilization due to poor attitudes.

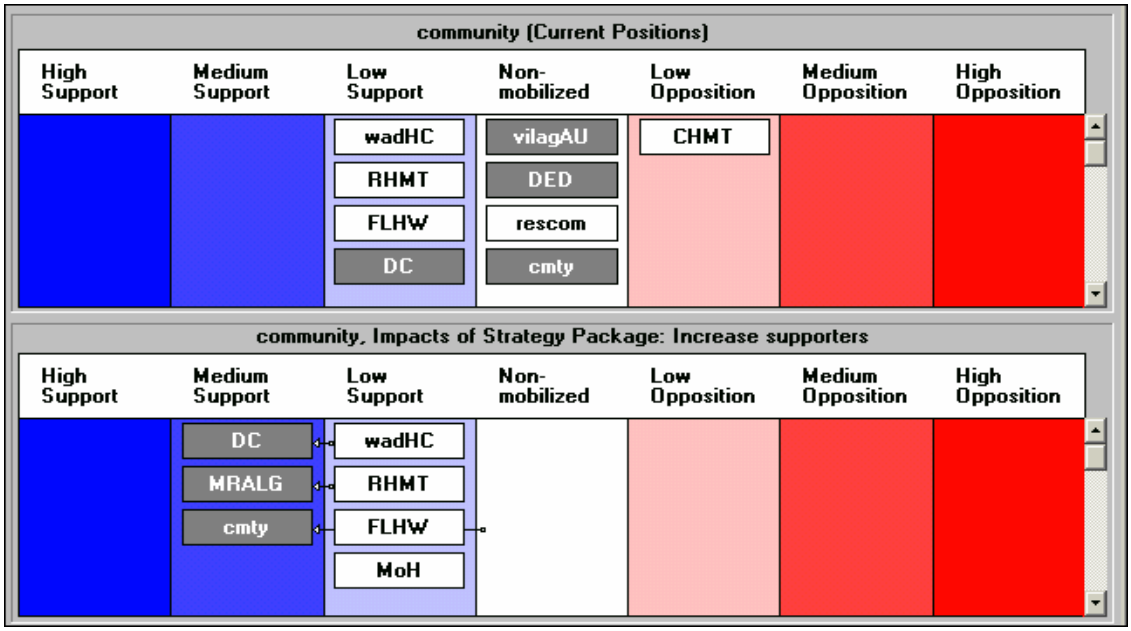
Figure 8.2 presents the results of Policy Maker analysis of the current and future positions of the stakeholders using inputs concluded from the analysis above. The upper half of the figure shows the distribution of the stakeholders across the position spectra starting from high support to high opposition. About half of the stakeholders were either not mobilized or were in low opposition. The current position of the stakeholders was used to predict feasibility of increasing EPI coverage. The software (Policy Maker) predicted the feasibility based on the strengths of the position of the player on the EPI goals and mechanisms, power of the player to influence, and the number of players supporting and opposing the goals or mechanisms. The software calculated a value for each player combining the position, power and votes. The separate values of all supporters, all non-mobilized and all opponents were summed up to create a group index. The indexes were then displayed to show the relative strength of each group and current feasibility of the policy. In this study, the positions and powers of stakeholders predicted failure in increasing coverage.

The software has a stage for designing strategies; one of the strategy groups was adopted to increase the feasibility. Guided by data on utilization of EPI, willingness to pay for kerosene and results from chapters four, five, six, and seven positions and influence of he stakeholders was determined. An important stakeholder who had high power and low support was the community. This stakeholder was also not mobilized. The existing opportunities that included the ongoing decentralization, political support,

donors and government commitment to increased funding also favoured an intervention towards enhancing the position of stakeholders with high power and in this case changing the community to a supportive position.

Two interventions aimed at changing the position of the community; CHMT and MoH were evaluated based on the results of the analysis. The first intervention options were to increase the number of supporters through increasing support from communities and from political leadership. Strategies suggested in the software were adapted to the study environment. The action entailed by the strategy was specified and players to be impacted were selected. The action entailed was increasing the power and position of the communities which if effected would increase support and assume power held by DCCO, DMO etc. The second intervention option was strengthening the position of supporters through more incentives to CHMT, and other district level leadership. The intervention strategies were then defined and entered into the software. The entries included the impact and players to be affected by the strategies if implemented. Future feasibility of the policy was then analysed focusing on impact, position and powers of the stakeholders. The result was a graphic display showing the relative magnitude of three bars (support, non-mobilization and opposition). The first option resulted in shifting the positions of the stakeholders to a more supportive position and hence predicting an increased feasibility of increasing EPI coverage (see Figure 8.2 lower half). The second intervention did not have appreciable positive shift of the players.

Figure 8.2: Comparison of present and future positions after intervention.



Key: MoH Ministry of Health, MoF ministry of Finance, RHMT=Regional Health Management Team, DC=District Council, FLHW=frontline health workers, cmty=community, PORALG=President's Office Regional Administration and Local Government, wadHC=ward health committee, vilagAU=village authority, DED=district executive director.

As a result of the shift of stakeholders to a more supportive position, the aggregate position of the stakeholders predicted success in scaling up EPI coverage (Table 8.3). A further advantage was that increasing the number of supporters was estimated to have no extra cost. This could be done as routine activities of the decentralization structures when formed.

Table 8.3. Simulated interventions and the outcome

Type of intervention	Description	Cost	Outcome
Increase the number of supporters	• Attract political leadership • Change decision making processes	Nil	Success
Strengthening the position of supporters	• Persuade supporters to change • Add more benefits	Payments to the actors	No success

The strategies were evaluated; the findings were that increasing the number of supporters through community participation best predicted success in scaling up EPI. Community participation had been one of the goals to be achieved by decentralization (Human and Social Development Unit & Health

Family Planning and Aids Unit, 1997; Tanner, 1989; Snow *et al.*, 1999; Akukwe, 1999; Loewenson, 2000; Zakus & Lysack, 1998; Niessen *et al.*, 2000a; Collins *et al.*, 2000; Rojas *et al.*, 2001). Policy Maker also predicts if more partners are included and whether shifting the power base to community level will facilitate achieving the goals of health.

8.5 Conclusion

Results revealed that proper management of stakeholders was an important undertaking to ensure that decentralisation achieved the health system goals. The analysis used a mixture of research methods (interviews, in-depth interviews, key informants, and document review and stakeholder analysis) that allowed us to more clearly understand stakeholders in the EPI decentralization and their roles. The study also found that the following aspects of the providers negatively affected community support to EPI: low availability and inability to properly calculate facility catchments population. Using the input from the analysis, Policy Maker was used to perform a further stakeholders' analysis and predicted the most feasible mitigating interventions.

The study further revealed that community support using willingness to pay for kerosene was not high and that this might be due to service providers perceived as being out of touch with the community. We conclude that:

- Districts upon decentralization could consider conducting a situation analysis to understand clearly the local context contributing to the observed level of health system and EPI performance. This would then enable them to plan with better knowledge of their political context and be more responsive to the health needs of the people.
- The Health Management Information System (HMIS) is currently under reform. Strategies for collecting information regularly on stakeholders including contracting need to be identified. Stakeholders were liable to change their positions and interest with time. Such changes and emerging stakeholder positions need to be identified in time, and also there is a need of doing periodic monitoring. Required data on

stakeholders need to be identified and evaluated earlier. This will facilitate effective management of the data and subsequent management of the political contexts.

- Perceived quality of EPI service providers influenced the level to which the community supported the EPI services. There was a need to understand the determinants of perceived quality of EPI service providers. This would then enable appropriate interventions to facilitate community support of EPI services.
- The study revealed low support for EPI among communities. It also revealed a high feasibility in increasing EPI coverage if power and ownership of the community is increased. These findings suggested that districts should have strategies in place to ensure community and peripheral health providers' involvement in decentralized provision of EPI services.
- Using EPI, Policy Maker produced results that suggest community involvement as the most feasible intervention to improve EPI coverage under decentralization. This was the first time this study has been done in Tanzanian environment focusing on EPI as a vertical Programme. There was then a need to consolidate experiences, feasibility of the software and its repeatability. In order to achieve that, repeating the study under different settings and using different vertical programmes has been suggested.

The study revealed the different stakeholders active in EPI reforms at district level. Their interests and influence were revealed which made it possible to understand how they supported or opposed the reforms. Lack of communication between CHMT and DC was a manifestation of CHMT opposing the process of transferring power to DC. Inadequate communication within CHMT was a manifestation of divided CHMT with opposing groups. Communities and local leadership had low willingness to pay as manifestation of poor quality of services evidenced by the significant relationship between WTP and availability of providers locally. There was then variation of stakeholders' opposition and interests and consequently non-alignment of the

stakeholders. Thus, management of stakeholders through positively aligning their positions and interests is important for success of programmes like EPI within the health care reform contexts. Management and positive alignment of stakeholders has been observed to influence successfully health programmes in order to achieve the goals of health (Brugha & Zwi, 1998; Nandakumar *et al.*, 2000). Strategies to enable community participation in EPI planning, implementation, resource allocation and implementation were important especially given their low support to the programme that was associated with quality of EPI service providers. Aligning the stakeholders and giving powers to the community could lead to better quality of services.

Chapter 9:

General Discussion and Conclusions

9.1 General discussion and conclusions

The aims of this work was to analyze and understand the roles of stakeholders in the health sector reform process and thus identify feasible points of intervention to manage the stakeholder processes during the reforms. The role of stakeholders is mediated by the availability of information on health system performance i.e health provision, financing, resource generation, procurement etc. Stakeholders will use the information or part of it to influence lessons for the future of the health system depending on their interests and contexts. The study had several findings that provided evidence that stakeholders were active in influencing the health system at all levels. Stakeholders in the previous current health sector reforms were the ruling party, government and donors. The political contexts highly influenced the behavior of stakeholders. The other contexts, economic and administrative, also determined the extent the reforms could meet its expected objectives. Both service and personal interests influenced whether the stakeholders would oppose or support a particular aspect of the reforms.

Before the reforms (prior to 1993) health services were guided by the objective of expanding health services to rural population and those with low income (Caldwell & Dunlop, 1979). The objective was to implement lessons learned from inequity between rural and urban areas in provision of health services as inherited from the past regimes that included colonial governments. At independence many countries adopted policies to improve service provision to rural areas. Tanzania was guided by the Arusha Declaration, which emphasized rural development and self-reliance (Jonsson, 1986). The only political party had supreme responsibility to ensure that the government and the community fulfilled their duties. The party mobilized communities to construct health facilities – mostly rural dispensaries. As a result of the single party political process many dispensaries were constructed which, by the year 1980, had exceeded the national goal of one dispensary per 10,000 people. The success underlines the need of sustained political support in reforms.

The party, donors and the government had devoted significant resources to improve health care provision using primary health care concepts. The actors concern was to ensure that some type of health services was available to the community. The political climate encouraged establishment of minimum quality of health care. Despite that there was lack of support of PHC activities that were efforts to improve access to health care. This could be a result of primary health care initiative not being able to meet the financial interests of the providers' especially primary health care workers. It is also possible that primary health care was perceived as rudimentary and thus not being able to meet the quality interests of some stakeholders (Haddad *et al.*, 1998). A lesson that emerged from the study was the need of aligning the interests of primary stakeholders and the political contexts. Countries that practiced socialism also had limited real participation and are now in the process to improve participation (Borissov & Rathwell, 1996). The changing political contexts will facilitate better strategies to align primary stakeholders' interests and the political contexts.

It was also found that in the previous waves of reforms, the main actors to draw lessons for succeeding reforms did not use information on shortage of financial resources. The Arusha Declaration had stated that all health services were to be free of charge; the cost to be met by the state (Gish, 1983). Thus health services became centrally planned and financed within the contexts of limited resources. As a result stakeholders with interest to explore alternative financing of health services had no role to play. Because of the political commitment, any move to explore alternative financing jeopardized the political positions of the main stakeholders. The role of political contexts and participation in health reforms has been documented in several other countries (Bodart *et al.*, 2001b; Borissov & Rathwell, 1996; Cassels, 1995a; Gilson & Mills, 1997b; Mogedal & Steen, 1995). However, the current reforms had allowed for alternative financing of the health sector with a very high political support. Stakeholders' analysis will be required to facilitate increasing resource availability and participation in this new climate.

The World Bank, other donors and government were the major initiators of the ongoing reforms in all sectors including health (World Bank, 1993a). The international agencies and donors have always been influencing the health policy development in developing countries. Governments responded by participating in the policy process along with the donors support. The Sector Wide Approach (SWAp) model for financing the health sector was adopted though initially only certain donors joined it. This provided the donors with more say on policy formulation while the government took the driver's seat. This provided a very high support at national level and a spirit of partnership. However, there is a need of taking on board broader spectra of stakeholders to include government, donors, local government, communities, private sector, academic community, providers, leaders and the media. Broader participation has been observed to facilitate achieving intended policies (Segall, 1985). Broadening the stakeholders' base and putting in place strategies for feasible and sustainable participation in policy making should be greater priorities in the current reforms.

Reforms in many areas have been implemented without clear evidence of feasibility (Niessen *et al.*, 2000a; Elliott & Popay, 2000). In Tanzania there were several attempts to get evidence of feasible reform interventions by pre-testing the reform components. There were arguments on whether decentralization should be sectoral or within the local government. The government managed to get all stakeholders to agree on decentralization to local government. However, the stakeholders' reactions were from the few who had the privilege of participating. If more stakeholders were involved it would have been possible to get more inputs and thus increase the probability of identifying obstacles in advance and their possible solutions. This would help to achieve greater success in the process.

Programme level analysis revealed that reforms in EPI were highly supported by the donors and the government who were the main actors at national level (Ministry of Health, 1994b). On the other hand health providers working with EPI at regional and district levels strongly opposed the reform process and

agreed that EPI coverage was falling due to the reforms. Analysis of vaccine delivery and immunization coverage statistics did not support this claim. It became clear that arguments used by the opposing side were not based on evidence and were not their main concern. They used these to influence events in favour of undisclosed objective and interests maintaining the status quo. It is not unusual for stakeholders to have underlying objectives that are not disclosed (Brugha & Varvasovszky, 2000). It is then important when analysing stakeholders to understand their primary interests and address them in advance.

District level analysis revealed that immediate reactions to decentralization at district level revealed two opposed stands i.e. the District Council was not supportive of CHMT and CHMT was not respectful to the District Council. This strained the working relationship between CHMT and the District Council as a superior body. This resulted in delays in releasing funds, and reduced supervisory visits, which might lead to reduction of EPI coverage. This environment threatened the previous gains of EPI. In the past, the relationship of CHMT to district authority was expressed as being unclear. However, with reforms CHMT became answerable to the local government authority at the district. The ensuing lack of cooperation could reflect a reaction of CHMT to the change in their status. Reaction to loss of status could also be manifested through refusal to transfer roles and tasks to the new agency as well as overall laxity in performance. It has also been observed that opposing stakeholders expressed their opposition through lack of interest, open conflict or even blocking (Mogedal & Steen, 1995).

The situation above rose from conflict in administrative interests of the stakeholders. The CHMT was yet to accept being responsible to the District Council compared to being responsible to the Ministry of Health before decentralization. One lesson that emerged included the need of strategies to improve District Council's skills to manage stakeholders and training of the CHMT in management skills including how to maintain good group dynamics. There was also a need of having strategies that facilitate community

participation while maintaining EPI reform process at district level. Decentralization to district level potentially enables focussing on the district environment and understanding unique stakeholders in the district. Mobilization and positive management of such stakeholders should result in a more effective process of decentralization. The current reforms involved improving the management skills of the district level management including CHMT. Given the variability of stakeholders who will emerge at any time in the process, there was a need of districts to regularly generate information on stakeholders, and use it in the management process. There was also a need of training district level management to generate and use such information regularly.

Integration of vertical programmes like EPI to a decentralized general health care delivery system at district level was expected to promote efficiency, access, equity and participation (Lush *et al.*, 2000; Mayhew, 1996; Mayhew *et al.*, 2000). Integration of EPI involved changing the structure of decision-making and authority. Those who were formerly in the EPI programme wanted to refrain from the status quo, i.e. were unwilling to accept the changes in the beginning. Experience in Mexico showed that adoption of strategies that provided for gradual and slow process gives time for aggrieved stakeholders to adjust (Langer *et al.*, 2000b). Hence, in the case of Tanzania time is also needed to allow the system to adjust itself. This should be accompanied by efforts to impart necessary skills and provide regular monitoring.

The reforms took place when EPI coverage had already started to decline globally (Commission on Macroeconomics and Health, 2001). Reasons for the decline included management and financing problems. The study found that in the study district EPI coverage was low. The communities studied had also low willingness to pay for some of the EPI costs indicative of the low importance attached to EPI by these stakeholders. Factors associated with low utilization of EPI were low quality of the services. The poor behaviour of the providers was significantly associated with low utilization and importance. Poor behaviours of providers have been associated with low utilization of

health services (Aldana *et al.*, 2001). Some of the factors explaining poor attitudes of providers included poor incomes and management capacities (Gilson *et al.*, 1995). Thus the interests of the providers are intermediate between the interests of decentralization of health care to districts and those of the community who are the ultimate beneficiaries of the decentralization. The reactions of both stakeholders (providers and communities) are a reflection of unmet interests. Hence, there is need of developing strategies to understand and address the interests of various stakeholders at various stages of the process to reform the health sector including providers and consumers.

This analysis of the current stakeholders using the Policy Maker computer software predicted complete failure in supporting EPI coverage given the current situation of stakeholders. A simulation of using community participation as a strategy to increase EPI coverage predicted success in support for the programme. Information for Policy Maker analysis input was readily available from interviews and documentation. However, it was not easy to get adequate participation of respondents especially in analysis focussing on detailed information about stakeholders past or current interests. This might reflect the administrative culture that existed. It required collective responsibility in management, which could result in authority being distributed diffusely. This consequently left ministries of health in developing countries without adequate authority (Caldwell & Dunlop, 1979). Health system decentralization managers need to be educated on stakeholder analysis, possibly using a tool like the Policy Maker software, and participate in customizing it.

In conclusion the following is suggested regarding improving health systems, extending support to health systems nationwide, and addressing research needs.

(a) To improve health systems in Tanzania

i) The range of stakeholders participating in the health sector reforms process has been too narrow. There was a need to

broaden the participation of stakeholders in the health sector reform process.

ii) Some of the reactions of stakeholders could be related to low levels of management skills. There was a need of more emphasis on training to improve the management skills of those implementing reforms.

iii) Stakeholders who exist have been found to be active at every level. There was then a need of introducing stakeholders' management skills including analysis at all levels.

iv) In the analysis, stakeholders used un-validated indicators to argue their case in opposing the reforms. There was also a need of establishing and testing indicators for reform performance

v) Poor economic situation and inadequate financing of the health sector impeded the success of reforms. Establishing sustainable financing of the health reforms should be given high priority.

vi) Respondents were not keen to be at the centre of stakeholder analysis when there were few stakeholders. They should be encouraged to see stakeholder analysis as part of the process.

b) To improve extended support to national health systems:

i) Political support was found to enhance the health sector reform process. There is a need to sustain the political and government support to health sector reforms

ii) Donor partners should facilitate training for countries on policy development and change management

iii) Donor partners should encourage adoption of sustainable community participation strategies.

c) Research needs

i) The Policy Maker stakeholder analysis tool was tried using the EPI case study. There is a need of trying it in other programmes such as EDP or TB DOTS.

ii) Stakeholders' analysis gives important additional understanding

of the process. More exposure is needed in applying manual and computer assisted analysis, in both prospective and retrospective settings.

iii) Government decision-making in many cases is vested in committees. There is a need of finding out how stakeholder analysis can be effective within such an organizational arrangement.

iv) There is a need of having in place indicators for the reform process. Such indicators need to be developed and tested to guide the health sector reforms process.

v) There have been in place efforts to stimulate greater stakeholders' participation. These efforts may be optional and they need to be evaluated in order to identify means for improvement.

vi) The Policy Maker software requires data collection that may need time to obtain. Research is required to identify optimal data needed for management purposes.

During the study some stakeholders camouflaged their interest and pretended to support the reversal of the reforms. Others resisted the new power restructuring reacting with non-compliance, incoherence, inefficiency and poor interpersonal relationships. A simulation with Policy Maker using the field data predicted a very good success if communities were given more power and participation in EPI. Suggestions have also been made to facilitate management of stakeholders.

This study has managed to demonstrate that there is a broad variety of influential stakeholders – both mobilized and non-mobilized – in the health sector. In Tanzania active stakeholders are comparatively few but very effective. Their mode of operation includes influencing decisions that meet their interest i.e. politics programme, community etc.

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Curriculum vitae

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1973 – 1978	University of Dar es Salaam
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Professional Experience

1978 – 1979	Internship Muhimbili Medical Centre
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PUBLICATIONS

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