

PD-ABQ-481

**VISIT TO TANZANIA TO REVIEW
USAID GRANT TO UNICEF
TO SUPPORT IMMUNIZATION**

June 17-26, 1997

Rebecca Fields

BASICS Activity Code: 000-AF-51-025
USAID Contract No: HRN-C-00-93-00031-00

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
BACKGROUND	1
TRIP ACTIVITIES	1
CONCLUSIONS AND RECOMMENDATIONS	1

APPENDIX: Final Draft report “Report on Review of USAID Support to UNICEF for
Immunization In Tanzania”

EXECUTIVE SUMMARY

BASICS Technical Officer Rebecca Fields visited Tanzania on June 17-26, 1997, and served as team leader on a joint USAID-UNICEF-WHO-BASICS team that reviewed experience in Tanzania with a grant from USAID's Africa Bureau to UNICEF to support immunization in that country. This exercise was carried out as one of four case studies on this same subject, the others taking place in Guinea, Mali, and Uganda.

The team report, attached as the appendix, contains a detailed description of the background, objectives, major findings, and recommendations resulting from the visit. The major finding of the visit was that health sector reform, recently initiated in Tanzania with an emphasis on decentralization and integration of certain functions at the central level, is leading to a reorganization in the management and delivery of immunization services. This is being introduced at the same time that the national immunization program is faced with implementing intensive activity in connection with the global initiative to eradicate polio.

The Government of Tanzania has demonstrated for several years that it can utilize donor funds very effectively to support national immunization efforts. Given Tanzania's current economic situation, further donor support for immunization is warranted. Identifying the best ways of programming and disbursing such funds in light of health sector reform will require more consideration. This and other related topics will need to be examined during subsequent discussions with USAID and UNICEF regarding possible modes of future support for immunization in Africa.

BACKGROUND

The background of this visit is described in detail in the attached team report (appendix). Team composition was devised such that representatives from major partners in immunization in Africa were included, i.e., UNICEF, USAID, WHO/AFRO.

TRIP ACTIVITIES

The author spent nine days in Tanzania during this visit. The details of the schedule are included in the attached report.

CONCLUSIONS AND RECOMMENDATIONS

These are contained in the attached team report. It is recommended that the results of the Tanzania case study be discussed and compared with those of the case studies from Guinea, Mali, and Uganda soon after those visits are concluded, preferably through a meeting with

members of each of the teams visiting these countries. A summary report of the findings of the four studies should be prepared and submitted to policymakers at both UNICEF and USAID (as well as to WHO/AFRO) for consideration prior to further decisions on mechanisms to support immunization in Africa.

d

APPENDIX

FINAL DRAFT

***REPORT ON REVIEW OF
USAID SUPPORT TO UNICEF FOR
IMMUNIZATION IN TANZANIA***

FINAL DRAFT

**Report on Review of
USAID Support to UNICEF for Immunization
in Tanzania**

Olusegun Babaniyi, WHO/AFRO
Theresa Coleman, UNICEF/New York
Rebecca Fields, BASICS/USAID
Suomi Sakai, UNICEF/New York

Table of Contents

- Acronyms
- Acknowledgments
- I. Executive Summary
- II. Background
- III. Objectives of Visit
- IV. Methodology
- V. Findings
 - A. Background Information on the Health Situation in Tanzania
 - B. Government Financing for Health and Immunization
 - C. Context for EPI: Health Sector Reform in Tanzania
 - D. Tanzania's Immunization Program: Accomplishments, Constraints, Challenges
 - 1. Trends in Immunization Coverage
 - 2. Management of EPI
 - 3. Delivery of Services
 - 4. Cold chain and Logistics
 - 5. Social Mobilization
 - 6. Monitoring and Supervision
 - 7. Disease Surveillance
 - 8. NIDs for Polio Eradication
 - 9. Challenges facing EPI
 - E. Vaccine Supply Situation
 - F. Donor Support for Immunization
 - 1. DANIDA
 - 2. UNICEF
 - 3. USAID
 - 4. Other donors: JICA, Rotary, WHO, ODA, Irish Aid
- VI. Conclusions
- VII. Recommendations
- Appendixes

Acknowledgements

The authors of this report would like to express their deep appreciation to the many people who took time from their busy schedules to meet with the review team and explain the evolving circumstances of Tanzania's health system to us. The members of the expanded review team from the local offices of UNICEF and USAID—Michael Mushi, Rosemary Kigadye, Jeannette Kesselman, and Mrs. Massila from the MOH--were particularly helpful in providing us with their knowledge and experience, as well excellent logistical support. We especially appreciated the time and thoughtful insights provided to us by a remarkable EPI manager, Dr. Khadija Msambichaka, as well as her staff, in helping us to understand the accomplishments and challenges facing immunization in Tanzania. It is our hope that the investment of time and effort made by these individuals will result in a better understanding of how USAID, UNICEF, and others can most effectively support immunization in a changing environment.

Acronyms

AFP	Acute Flaccid Paralysis (suspected polio)
BASICS	Basic Support for Institutionalizing Child Survival (a USAID project)
BCG	Bacillus Calmette-Guerin (anti-tuberculosis vaccine)
CCO	Cold Chain Officer
DANIDA	Danish International Development Assistance
DHB	District Health Board
DHMT	District Health Management Team
DHS	Demographic and Health Survey
DMO	District Medical Officer
DPT	Diphtheria, Pertussis, Tetanus vaccine
EPI	Expanded Program on Immunization
GOT	Government of Tanzania
HMIS	Health Management Information System
HSR	Health Sector Reform
JICA	Japanese International Cooperative Agency
MOH	Ministry of Health
MSD	Medical Stores Department
NCA	National Control Authority
NID	National Immunization Day (for polio eradication)
NNT	Neonatal tetanus
ODA	Overseas Development Agency (recently renamed Department for International Development -- DfID)
PHC	Primary Health Care
RHMT	Regional Health Management Team
SO	Strategic Objective
SDP	Service Delivery Point
TT	Tetanus toxoid
TZS	Tanzania shilling (approximately TZS620 = USD1.00)
UCI	Universal Childhood Immunization
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VII	Vaccine Independence Initiative
WHO	World Health Organization

I. EXECUTIVE SUMMARY

From June 17 to 26, 1997 a team comprised of representatives from UNICEF, USAID, BASICS, and WHO/AFRO reviewed experience with two grants from USAID to UNICEF to support immunization activities in Tanzania. Tanzania was one of 18 countries in Africa where the UNICEF field office received grants, totalling \$23 million, for this purpose between 1994 and 1996. This visit was intended less as a formal evaluation of the grants and more as an examination of how financial and technical resources can be most effectively used to support immunization in the current and sometimes conflicting circumstances of decentralization, integration, and disease control.

During the series of interviews with MOH officials and donors and field visits to regions, districts, and health facilities, the team remarked on several points. Tanzania's EPI has earned a reputation as one of the strongest immunization programs in Africa, able to achieve and maintain high coverage rates despite severe challenges of economics, geography, and infrastructure. Indeed, population-based survey figures from Demographic and Health Surveys conducted in 1991/92 and again in 1996 show that coverage levels have remained relatively unchanged in children since the peaks achieved around the time of Universal Childhood Immunization, with about 80% of children under two receiving three doses of DPT vaccine and a dose of measles vaccine.

The sustainability of the achievements of the EPI is currently challenged by at least three developments. First, health sector reform (HSR), which was initiated in July 1996, is leading to a substantially different role for the EPI. The EPI will take on more of a technical advisory role and ultimately have less control over immunization activities as some of its functions and funding are transferred either to districts or to different functional units at the central level. In the latter category, the routine collation, analysis, and feedback of coverage data is being carried out by the new Health Management Information System and the management of vaccines down to the district level is being assumed by the semi-autonomous Medical Stores Department (MSD). Second, the introduction of special disease control initiatives, particularly polio eradication, requires intensified and highly organized activity for the successful implementation of National Immunization Days (NIDs) as well as technical proficiency at all levels, creativity, and strong management for effective disease surveillance. Third, the assurance of a reliable supply of essential commodities, especially vaccines, remains an ongoing concern as donors shift their interests and modes of funding for supporting health activities.

Observations of different aspects of the status of the immunization program in Tanzania can be summarized as follows:

- EPI Program Management

Health sector reform, involving integration of services and decentralization of planning, implementation and supervision, is changing the role that the EPI has to play. The NIDs and the

need to improve disease surveillance are also requiring different types of inputs from the EPI program management team. These two developments are not always immediately compatible and the EPI, together with the rest of the MOH, has to find the best functional and organizational arrangement to address these needs.

With HSR and integration of support functions, the staffing level and pattern of the EPI has changed drastically. This requires redefining the functions of the EPI management team, their job descriptions, and approaches for improving the efficiency of the team. The functions of the EPI management team at the central level and their relationship to other programs and services within the central MOH, regional level and with regional and district levels and supporting institutions should be reviewed as soon as possible and adapted according to the changes happening in conjunction with HSR.

- Monitoring and Supervision

The integrated Health Information System (HIS) is changing the type of information collected and the flow of information. The MOH needs to ensure that immunization-related information continues to be of good quality, reported in a timely way, and actually used for improving immunization services.

The integrated supervision system at the district level provides opportunities for improved and more holistic supervision. This new supervision system, together with the new system of delivering vaccines to health facilities without direct involvement of technical staff, however, carries the hazard of reducing the number of opportunities for supervision that directly address immunization. There is a danger that the quality of vaccine handling may be reduced as a result. The MOH and the districts should review their supervision system to ensure that proper handling of vaccines and immunization skills continue to be monitored and supervised through regular visits.

- Polio Eradication and Disease Surveillance

Polio eradication and other disease control initiatives provide a great opportunity for developing an action-oriented disease surveillance system. They utilize very specific methods and procedures that are undeniably disease-specific. On the other hand, with integration of the HIS under HSR, conventional, program-specific ways of setting up and managing an information system cannot work any longer. In order to establish a functioning system, regions and districts must take more interest and responsibility as well as participate in the development of the systems. Full advantage needs to be taken of the ten-cell social system at the sub-village level.

The first year of NIDs in Tanzania provided an impressive example of the high levels of performance (in terms of coverage achieved) that Tanzania's health system can accomplish. The full impact on the routine service delivery system and the lessons learned from these first NIDs may not be fully appreciated or systematically analyzed as yet, although planning for this year's

NIDs is already well under way. At some point, it would be advisable to conduct a systematic analysis of the relationship between NIDs and the management and delivery of routine services so that lessons can actually be applied.

- Sustaining and Increasing Coverage in Low Performing Districts

A slight drop in immunization coverage was observed in 1996, which may be explained by a shortage of funds for kerosene. This is perhaps an indication of the vulnerability of the system. Therefore, vigilance, advocacy, and continued commitment by the Government of Tanzania will be needed. At the same time, the variability of performance across districts will require further attention. In the past, the EPI central level management team was able to direct extra resources for immunization to low performing districts. However, with the changes in financial management resulting from HSR, districts are given greater autonomy as to how they choose to use their own resources. Improved capabilities in epidemiology and planning at the district level will be needed to ensure that immunization is adequately supported in the low-performing districts.

- Vaccine Supply and Delivery

There does not appear to be evidence of any recent ruptures of supplies of EPI vaccines at the central level. However, planning for each year's supply of vaccine requires piecing together contribution by various donors, taking into account the particular types of contributions that each is willing to make and the specific mechanisms that must be used to take advantage of each donor's mode of operation. This is a system that is labor-intensive to manage, requiring ongoing attention by both the MOH and donors.

- Donor Support

Further thought will need to be devoted to the issue of how to best support immunization management and service delivery, given the changes brought about by health sector reform. While donors need to consider continued direct assistance to the EPI, they will also need to consider providing support to other entities performing immunization-related functions. However, explicit indicators of immunization performance (coverage, quality) will need to continue to be tracked.

Based on these observations, the team recommended that:

- (1) Given Tanzania's economic situation and the proven capability of the EPI to program donor funds effectively to achieve and maintain high coverage levels, further external financial support for the EPI is warranted.
- (2) In the process of health sector reform, it is imperative that a clear focus be retained on progress toward meeting public health objectives, even as attention is focused on

developing efficient, integrated systems of program management and service delivery. Continued effort will be needed to attain both elements of cost-effectiveness--a reduction in cost but a maintenance, or even an improvement, in the effectiveness of the services delivered. Toward this end, clear public health indicators (e.g., vaccination coverage rates, drop out rates) should be stated as part of health sector reform and formally included as objectives guiding the disbursement of future funds for immunization provided by at least the donors involved in this study.

- (3) At the same time, further thought needs to be given as to how future funding for immunization can be directed in a way that generally supports the new context of decentralization and integration. This may entail funding to the district level for certain immunization activities, or funding to different functional units at the central level for additional training or operations research to enable them to work more effectively to achieve the public health objectives of immunization.
- (4) The vaccine supply situation can be described as fragmented, with the EPI and UNICEF, as a key donor in Tanzania, required each year to identify bilateral donors to cover the full range of vaccine needs. While some vaccines are provided as donations, others are now being procured by MSD (using donor funds) through an international tender and bid process; however, there is not yet in place a National Control Authority performing all the functions necessary to assure the quality of imported vaccines. A study is needed to clarify the short and medium term commitments that various donors are prepared to make and the mechanisms that they are willing to use. Further, this needs to be explored with an eye towards encouraging the government to make a progressively larger contribution to vaccine costs over the current 3% that it has committed to date to support the Vaccine Independence Initiative.
- (5) The ultimate success of the EPI in Tanzania will rest on its ability to reduce childhood morbidity and mortality. Determination of impact requires an effective system of disease surveillance. Efforts in disease surveillance training to date, undertaken primarily in connection with polio eradication, have met with limited success. This experience needs to be reviewed and revised if necessary (especially in light of the operational consequences of health sector reform) and expanded. Such efforts may need to extend beyond providing training to conducting operational research on, e.g., ways to improve case detection and reporting, transport of specimens for laboratory analysis, and methods for feedback that will, in turn, stimulate continued complete and timely reporting of cases.

II. BACKGROUND

Beginning in 1993, USAID launched a major grant to UNICEF to support and strengthen EPI programs in Africa. Over the past five years, this grant has totaled US \$23 million and benefited 18 countries in Africa, including \$2.1 million in Tanzania during 1994-96. The immunization grant to UNICEF was made in the context of the post-UCI period, when many countries in Africa were experiencing low EPI performance, declines in coverage from 1990, decreasing donor funds for immunization, and difficulties sustaining immunization gains made during UCI. The overarching goal of the grant was to provide critical inputs to attempt to halt coverage declines and to increase the overall sustainability of immunization programs in Africa. The specific objectives of the grants were to (a) assure the sustained availability of key immunization supplies such as vaccines, syringes, and cold chain equipment; (b) improve systems for planning and management for both programmatic and financial inputs, thereby increasing programmatic sustainability; and (c) improve donor coordination for immunization.

Since 1992, there have been many changes in the overall context in which immunization services are delivered in Africa. Over 80% of grant-receiving countries are undergoing major health reforms and decentralization programs, affecting both administrative and budgeting systems within the country, as well as the health sector specifically. In addition, polio eradication activities involving major mobilization of resources and manpower began in 1996, presenting both challenges and opportunities for immunization programs in the region. Thirdly, while 13 of the 18 grant-receiving countries have sustained or increased DPT3 and measles coverage levels compared to their 1992 levels, coverage for DPT3 and measles remains below 80% for most countries, underscoring the need for continued strengthening of national strategies for disease control, immunization delivery, and primary health care.

III. OBJECTIVES OF VISIT

The objectives of this brief visit to Tanzania by a joint UNICEF-USAID/BASICS-WHO team were to review the accomplishments, constraints and challenges currently facing EPI in Tanzania, review experience with the two grants for immunization provided in 1994-95 and achievements towards their objectives, and explore areas and mechanisms for future support, especially in light of the evolving structure and role of EPI in the context of health sector reform in Tanzania.

It should be noted that the visit was not intended as a formal evaluation of the grants, nor as an evaluation or formal program review of Tanzania's EPI. As this visit was very brief, just over one week long, the authors acknowledge the limitations, both in breadth and depth, of their observations.

IV. METHODOLOGY

This assessment has comprised two parts: (1) a desktop review (based on a questionnaire developed by USAID and BASICS) of progress in EPI based on indicator data provided by UNICEF field offices in discussion with MOH counterparts and compiled by UNICEF/NY; and (2) a series of visits to four countries (Uganda, Mali, Guinea, and Tanzania) to gain a more in-depth understanding of national issues facing immunization. Country visits were undertaken by teams represented by USAID, UNICEF, BASICS, and WHO/AFRO.

From June 17-25, 1997, a team comprised of representatives from UNICEF/New York, BASICS/Washington, WHO/AFRO, and field staff from USAID/Tanzania and UNICEF/Tanzania worked with Tanzanian Ministry of Health and EPI staff to meet with key partners supporting immunization, conduct site visits to observe vaccination and vaccine handling practices, and review reports, plans, and health statistics. Discussions were also held with health management teams at the district and regional levels in Korogwe district (Tanga region) and Iringa-rural district (Iringa region). Health centers and dispensaries were visited in these two districts and in Dar Es Salaam.

A list of the persons met and a schedule of the visit activities are found in Annex 1 and 2.

V. FINDINGS

A. Background Information on the Health Situation in Tanzania

With an area of 940,000 square kilometers, Tanzania is one of the largest countries in Africa. Based on projections from the 1988 census, estimates of the population as of 1997 vary from approximately 28 to 29 million people, with 18-20% of the population urbanized. Data from Tanzania Demographic and Health Surveys (DHS) conducted in 1991/92 and in 1996 indicate that the total fertility rate has declined from 6.3 to 5.8 during this time period; an increase in contraceptive prevalence rate from 10% to 16% was achieved during this same timeframe. With an annual growth rate of 2.8%, almost half (46%) of the population is under the age of 15. There are approximately 1.8 million births each year; for health planning purposes, the estimated number of surviving infants in 1997 was estimated at approximately 1.1 million. Data from the 1996 Tanzania DHS (covering the previous five-year period) suggest that there have been improvements in infant and under-five mortality rates compared to the previous DHS in 1991/92: the estimated infant mortality rate has declined from 92 to 88 deaths per 1000 births and under-five mortality has declined from 141 to 137. There are, however, concerns that further declines in IMR and under-five mortality rates will be hampered by the impact of HIV/AIDS.

Tanzania is comprised of a loose political union between Tanzania Mainland and Zanzibar. These two areas have separate presidents and for the most part, separate governments, sharing just a few ministries, including the Ministry of Finance and the Ministry of Foreign Affairs. Tanzania Mainland and Zanzibar have separate Ministries of Health, however. Mainland

Tanzania, which accounts for over 97% of the population, is divided administratively into twenty regions and 117 districts. Districts are subdivided into divisions, (about 2-4 per district), wards (2,354 total) and villages (9,074 total). The administrative and political structure extends all the way to the unit of ten-household cell, each with an elected ten-cell leader.

Public health facilities are provided such that each region has a regional hospital and each district, a district hospital; each division has a health center; each ward, a dispensary, and each village, a health post. While the central level of government is responsible for hospitals, at the district level, the district council is responsible for management of health centers, dispensaries, and environmental sanitation.

B. Government Financing for Health and Immunization

With a per capita gross national product of \$140 (1994), Tanzania is among the five poorest countries in Africa and the ten poorest countries in the world. Government expenditure in health, including budgetary support from donors, amounts to approximately TZS 29 billion (US\$58 million) per year. This translates into TZS 1,512 per capita or approximately US\$3, far below the World Bank estimate of the cost of basic health care package for Africa. Even with the contribution of households to health care, which is mostly for the traditional and non-formal sector, the per capita expenditure on health is only about US\$7.

Of the US\$3 per capita government expenditure on health, US\$2 is for recurrent costs and the remaining is for development costs, the latter being supported mostly by donors. Of the recurrent costs, approximately 40% is for salaries and 20% for drugs. The total donor support, including budgetary and extra budgetary assistance, to the health sector was estimated at TZS 12.2 billion, or 29% of the public health sector budget, in 1993/94. The preventive services have received approximately 40% of the donor support. On the other hand, preventive services in Tanzania are mostly financed by donor funds. Of the preventive service expenditure, 81% is covered by donors. The proportion of donor support in the expenditures for health centers and dispensaries, for referral hospitals and for regional hospitals are 31%, 14%, and 8% respectively.

The ability of the government to fund health services is not likely to improve in the near future. In 1996, GOT introduced cash budgeting to exercise greater fiscal responsibility. As a result, funds for budgeted votes at regional or district level do not necessarily materialise. For example, in 1996 Iringa region received some funds for medicines, inpatient food and hospital supplies. No funds were received for transport, allowances or other line items. Cash budgeting also makes the availability of funds unpredictable from month to month, making planning of activities by the health management team difficult.

GOT has initiated the process of participating in the Vaccine Independence Initiative at a very modest level. In 1995, GOT covered 3% of the cost of the vaccines. However, in 1996 this line item was not funded. The Treasury and the MOH are trying to increase the GOT funding level to 6% in 1997 and to over 10% by the year 2000. Donor support, however, will be needed until and

beyond the year 2000 for vaccine procurement. Addition of new antigens with potentially large public health benefits such as hepatitis B and yellow fever remain a major challenge.

C. Context for EPI: Health Sector Reform in Tanzania

Health Sector Reform (HSR) has been planned in Tanzania since 1993. The actual implementation of some reforms started in July 1996. In order to increase the efficiency of health service delivery, HSR intends to consolidate common aspects of programs within the Ministry of Health. For example, a new Health Management Information System (HMIS) has replaced separate information systems by the programs, including the information system of the EPI. Similarly, storing and distribution of vaccines and other EPI related supplies, previously undertaken by the EPI program, has become the function of the Medical Stores Department (MSD).

HSR provides opportunities for developing more efficient management and delivery systems for essential health services in Tanzania. It also poses challenges to national programs such as EPI as these have to adapt their traditional roles, functions, and management mechanisms to new systems. Furthermore, HSR is still in early stages and many of these changes are experimental or partial (either geographically or programmatically). With a history of a highly vertical program dependent on donor funding, EPI has been a visible candidate for piloting the introduction of various aspects of HSR. The implementation of the changes has sometimes been carried out very rapidly or without the necessary training of staff. As the HSR process evolves, these lessons learned need to be taken into account. Finally, HSR itself is in the process of defining how it fits into the Civil Service Reform of Tanzania and other government reforms. These issues, and their implications for immunization management, are discussed throughout this report.

HSR puts a heavy emphasis on the district as the operational unit for management (including financial management) of health services. The reforms are requiring that all health programs at the central level and the regional and district health management teams adjust the way they plan, monitor and support the delivery of immunization services. Below is a brief description of the reforms that are under way.

Vision for Health Sector Reform

The vision for HSR is to have the following:

- Efficiently managed, well organized and restructured health sector
 - . District Health Boards to have authority for the day-to-day management of health services at the district level
 - . District Health Boards to be accountable to the District Council
 - . The DHBs to have the authority and resources to implement their task
 - . Effective, efficient and sustainable health service delivery with vertical programs cost-effectively integrated in planning, and execution

- . The MOH's role is formulation of policies and regulations, monitoring and evaluation of health services, providing guidance and creating enabling environment for public and private medical practice
- The required drugs and medical supplies available at all health facilities for a reasonable price
 - . Operational indent system for ordering of supplies by district based on local need.
 - . Procurement from most cost-effective source.
 - . Fully integrated, efficient transport system.
- A sustainable health financing mechanism
 - . Resources allocated to finance only cost effective health packages.
 - . Efficient resource management, such as contracting out services as appropriate.
 - . Increased budgetary allocation to Health Sector to at least 14%.
 - . Equitable distribution of the national health budget between curative and preventive services.
 - . Fully operational cost sharing at health center and dispensary level.
 - . Formal and informal risk pooling for communities.
- Motivated and productive health workforce

The strategies to reach the vision are;

- (1) Delegation of power to District Health Boards. District Health boards will be formed in all districts with responsibilities to make final administrative and managerial decisions for district health services. A district hospital, however, will have its own board.
- (2) Training of district health planning and management teams in health planning and management.
- (3) Increasing equity vis a vis the accessibility and utilization of health services. MOH will cooperate with the private providers to ensure that distribution of public and private services becomes more equitable. Fiscal policies, provision of information on project write-ups and credit facilities will be used to create an environment to facilitate the development of fair distribution of public and private facilities.
- (4) Financing and provision of adequate medical supplies, drugs, and appropriate personnel. This may include the following: allowing district health plans to propose sources for additional financing for medical supplies and drugs, including user charges and community financing; encouraging district-level local government authorities to supplement budgetary allocations for drug items; requiring district health boards and other employers to develop incentives to attract trained personnel to health facilities.

MOH will continuously review policies influencing staff distribution with the aim of ensuring equitable distribution of services.

- (5) Integrated family health development. This is a multisectoral initiative involving the MOH, Ministry of Education, Planning Commission, etc. It is coordinated by the Department of Preventive Services, with the MOH to design interventions that will improve family health.
- (6) Revitalization of occupational and environmental health services.
- (7) Intensification of primary health care activities. This will include the broad implementation of a community-based health care approach and the revival of PHC committees.
- (8) Development of a training policy for human resources in the health sector and manpower development plan, to be carried out in cooperation with the Civil Service Department.

The Primary Health Care (PHC) Secretariat of the MOH is the coordinator of HSR. Over the years, concerns have been expressed that the review of the social sectors and the reform movements have been donor-driven. Joint donor missions report that gradually, political commitment and ownership of HSR has been increasing. However, the reform is still progressing in relative isolation of other sectors, and a concern has been raised that although the technical leadership for reform will come from the MOH, many aspects of the reform cannot be undertaken without wider efforts embracing legislative and civil service reform and the cooperation of other ministries. Donor coordination for HSR is maintained through joint MOH and donor appraisal missions and joint reporting of these missions' findings and recommendations.

D. Tanzania's Immunization Program - Accomplishments, Constraints, Challenges

1. Trends in Immunization Coverage. Tanzania's immunization program is widely regarded as one of the strongest in Africa. Since the inception of EPI in Tanzania in 1975, immunization coverage in infants for a third dose of DPT vaccine has increased from 6% to a peak of 83% in 1989. Despite the obstacles presented by the country's fragile economic situation, its vast size (approximately twice the size of France), and limited infrastructure, especially for transport, the Tanzanian EPI has managed to achieve and sustain high levels of immunization coverage throughout most of the country for several years.

Exact coverage figures vary somewhat based on the source of data and method of data collection. Table 1 presents data from routine administrative reports prepared by the Ministry of Health. Overall, there appears to be a slow decline in coverage for BCG, DPT3 and measles, with the greatest drop occurring during 1996 (see discussion below).

Table 1. Immunization Coverage Levels in Children Under One, 1992-96.
(Source: routine data reported by MOH to UNICEF.)

	1992	1993	1994	1995	1996
BCG	99%	92%	92%	96%	85%
DPT3	84%	82%	82%	79%	71%
Measles	82%	79%	79%	75%	70%

A review of disaggregated routine DPT3 coverage figures for the years 1994 and 1996 shows the distribution of districts, by DPT3 coverage level achieved. It should be noted that the total number of districts has increased in the past three years. Also, 28 districts in 1994 and 18 districts in 1996 reported DPT1 coverage in excess of 100%, suggesting that the routine data reported from some districts are overestimated or that denominators are underestimated.

Table 2: Distribution of districts* attaining specified levels of DPT3 coverage in children under <1year. (Source: routine administrative data prepared by MOH)

DPT3 Coverage in Infants	No. Districts attaining coverage level, 1994 (N=98)	No. Districts attaining coverage level, 1996 (N=107)
< 50%	1 (1% of total districts)	8 (7% of total districts)
50-59%	5 (5%)	14 (13%)
60-69%	6 (6%)	20 (19%)
70-79%	14 (14%)	25 (23%)
80-89%	36 (37%)	26 (24%)
90-99%	26 (27%)	8 (7%)
100+ %	9 (9%)	6 (6%)

*number of districts increased during the time period covered in table

The drop in coverage for 1996 has been attributed by EPI to a specific problem, namely a shortage of funds for kerosene for fridges in the first half of the year. The impact of this problem was noted at high levels during the 1996 National Immunization Days (NIDs) for polio eradication, resulting in a change in administrative procedure regarding the allocation of funds for kerosene. Responsibility for such allocations now falls to the MOH, whereas previously it had been the responsibility of the ministry of local governments. Ongoing vigilance will be

needed to determine whether this change does, in fact, help reverse the coverage trend in a sustainable way.

During the past several years, a number of population-based surveys have been conducted that collect information on vaccination coverage levels. USAID supported the Demographic and Health Surveys (DHS) that were carried out in Tanzania 1991/92 and 1996. In 1995, UNICEF conducted a Multi-Indicator Cluster Survey (MICS) to assess progress in Tanzania toward Mid-Decade Goals. A comparison of these data are shown in Table 3. These figures are based upon coverage levels not among infants but among surveyed children who were 12-23 months old.

Table 3. Immunization Coverage Levels in Children 12-23 Months Old, by Survey, 1991/92, 1995, and 1996.

	BCG	DPT1	DPT3	Measles	All	None
DHS, 1991/92	95%	94%	80%	81%	71%	4%
MICS, 1995	92%		88%	82%		
DHS, 1996	96%	95%	85%	81%	71%	3%

A comparison of the figures from the two DHS surveys, which used comparable methodology, suggests that coverage in the surveyed age group remained identical to the high levels achieved during Universal Child Immunization campaigns in the late 1980s-early 1990s.

It is more difficult to assess coverage with tetanus toxoid (TT). According to administrative data, TT2+ coverage since 1991 has increased from 19% to 31% with a spike of 72% in 1993. At issue here is the denominator: the total target population of all women of childbearing age (age 15-44) is used without considering the accumulation of the population immunized in previous years and incoming and outgoing cohorts in the target age group. As such, these coverage levels represent an underestimate of the true level of protection of newborns against neonatal tetanus. Beginning in 1998, when a new Health Management Information System (HMIS) is expected to be in place, monitoring for TT will be based on coverage in pregnant women.

With initiation of the first stages of health sector reform about one year prior to the team's visit, it is not yet possible to determine whether HSR has had any impact on immunization coverage levels. Other events that have intervened (NIDs, changes in kerosene allocation) and the incompleteness of data for recent months preclude meaningful analysis at this point.

2. Management of EPI.

The accomplishments of Tanzania's EPI are due, in large measure, to strong management that has been capable of translating epidemiologic concepts into specific program operations. The past success of the program has fueled the continuing demand for services, resulting in high rates of vaccination coverage early in life. Certainly the high level of financial support, largely from DANIDA, has been critical to ensuring that most intended activities could be carried out.

Prior to the initiation of health sector reform in July 1996, the EPI was supported in a highly vertical fashion. The program had a headquarters facility located several kilometers away from the rest of the MOH; central and regional vaccine stores; a logistics management system for forecasting and distributing vaccine and other supply needs; a transport system at all levels for supervision with separate funding for maintenance and fuel; allowances for supervision; and an information management system on immunization services, logistics, and disease surveillance.

Prior to HSR, EPI had a staff of over 60 at the central level. With the institution of HSR, the number of staff has dropped drastically. Several staff responsible for vaccine handling were moved to the Medical Stores Department (MSD), which now manages the central vaccine store and is responsible for vaccine procurement, management, and distribution down to the regional or district level, depending on the area. At the central level of EPI, currently there are approximately nine professional/technical staff out of a total staff of 23; they include the EPI manager; the deputy director; two additional persons for monitoring and evaluation; a cold chain manager, his deputy and two assistants; and an officer for training/social mobilization. While EPI commodities were supplied virtually entirely by donors, the government has paid for basic salaries. Some top-up of salaries of central level staff was provided by DANIDA until 1995.

At the regional and district levels, health activities are managed by the regional and district health management teams (RHMT, DHMT), respectively. The basic composition of these teams includes a medical officer as the chief of the team, a nursing officer, an MCH Coordinator, a hospital medical officer and a hospital nursing officer, a health officer for environmental health, a health secretary, a cold chain officer, and a transport officer. It is the MCH Coordinator who has primary responsibility for overseeing immunization management, but the cold chain officer (CCO) has also played a key role, both in cold chain activities and in conducting informal supervision when delivering vaccines to facilities.

Since the late 1980s, EPI has attempted to reduce the verticality of the program at regional and district levels. Efforts were made to ensure that the District and Regional CCOs were part of the RHMTs or DHMTs coordinated by District or Regional Medical Officers, and to make immunization information systems and the management of vehicles the responsibility of the DMOs. However, as activity funds continued to come directly from the central level, there were limits to the effectiveness of these interventions. With health sector reform and the institution of the Central Transport Unit, a system of integrated transport management has been introduced down to the district level. It is managed by the district transport officer, and uses a unified

transport budget, vehicles to serve all district health activities, and a single integrated monthly schedule that determines the use of vehicles and fuel.

With health sector reform, the central level of EPI is being redefined to play primarily a technical advisory role. The Primary Health Care Secretariat, charged with responsibility for implementing HSR, formally recognizes the need for maintaining certain aspects of the central level even as decision-making and financial management for PHC programs devolves to the districts and to new, integrated structures at the central level such as MSD. In this new context, EPI will clearly have responsibility for setting, maintaining and promoting policies and technical standards; will be responsible for providing the MSD with forecasts for vaccine supplies (which MSD will procure and distribute down to the district level); will be responsible for certain types of data collection and analysis that go beyond the standard data collected by the new, integrated HMIS; and will retain responsibility for cold chain management, including repair and maintenance of equipment.

If a new, program-specific activity arises--if, for example, the EPI manager wishes to undertake a special disease control initiative--then she would submit a proposal to the PHC secretariat to take up with the PHC Technical Committee, which would then provide a formal decision in writing to the EPI manager. This procedure is intended to ensure that the special activities become full MOH initiatives with all players. On the other hand, it may pose challenges in requiring a greater need for advocacy and negotiations as well as a lengthier process.

3. Delivery of services

Immunization services are provided at some 3500 service delivery points (SDPs), out of a total of approximately 5000 SDPs that exist throughout the country. Both public and private sectors participate in EPI, with almost half of services provided by the private sector, comprising both NGOs and private practitioners. To be provided with cold chain equipment and vaccines, private facilities must first register with the EPI and be able to demonstrate that they are technically qualified to provide immunization services, that they will not charge for vaccination, and that they are geographically situated such that they will increase access and use rather than compete with other facilities that the MOH has already equipped.

At the facility level, the staff who provide immunizations are either nurses or MCH aides. The frequency of immunization sessions is determined by actual needs and patterns of service utilization. A large health center in Dar Es Salaam may conduct daily immunization sessions, while a small dispensary may offer immunization on a weekly basis. At fixed facilities vaccination of both women and children is provided as part of well-child services during which growth monitoring and a general examination of the child also take place. Immunization of women of childbearing age (which, in principle, could be all women bringing their children) with tetanus toxoid is also carried out at these sessions. The manner in which services are provided is expected to remain basically unchanged by health sector reform.

4. Cold chain and logistics

Prior to health sector reform, the EPI was responsible for distribution of vaccines and supplies all the way to the health facility level. Vaccines were usually delivered first to the vaccine stores in the 20 regions, onward to district stores, and then to service delivery points. Beginning in July 1996, this system has been revamped, with MSD taking on responsibility for managing the central vaccine store (still located at the EPI headquarters) and distribution of vaccines from the central level to five (ultimately seven) zonal stores to which the 20 regional vaccine stores are now reassigning their cold chain equipment. From the zonal stores, vaccine are to be shipped to districts, where DHMTs are responsible for their onward distribution to the health facilities. Some staff previously responsible for vaccine management within EPI have been transferred to MSD to oversee vaccine handling operations.

Technical developments complicating this transition during the past year included the first rounds of NIDs for polio eradication and the introduction of vaccine vial monitors (VVMs) for oral polio vaccine. Tanzania was one of the first countries to pilot test the use of VVMs and thus has more familiarity with the changes in standard vaccine handling practices that they bring. Tanzania was also one of several countries to receive faulty VVMs with consignments of SmithKline Beecham oral polio vaccine in 1996. However, with the new system of vaccine delivery by MSD in place, it took several months for EPI at the central level to become aware that there was indeed a problem with the VVMs. The reason for this was that standard feedback reports about vaccine deliveries were being made from regions to MSD, which itself had neither the technical knowledge nor the vested interest in rapidly acting on the information provided by the feedback reports. As a result of this incident, the reports from regions (and eventually from districts) are being sent directly to EPI for its attention and action.

A second point that has arisen out of early experience with the new vaccine handling system is the need to ensure that vaccines are delivered to facilities whose cold chain equipment is actually functioning and thus able to maintain proper storage temperatures for vaccines. During the present visit, the team learned of one delivery of vaccines to a district where cold chain equipment was not functioning. Rather than returning the vaccine back to the previous distribution point higher up in the cold chain, the shipment was left at the district where it was assumed to be damaged by heat exposure and rendered unusable. This event points up the fact that previously, the process of delivering vaccine had multiple components to it and utilized expertise beyond that of a driver, in terms of informal monitoring, supervision, and emergency actions as needed. MSD is in the process of addressing this issue by providing a half day of training in vaccine handling to all of its drivers. Further training in vaccine handling will eventually be provided to all MSD staff, including those in the new zonal stores.

NIDs for polio eradication have provided another test to the new system. The NIDs require the handling of enormous quantities of vaccine with a very short turnaround period; in most countries, despite best attempts at advance planning, this has wound up being an emergency situation. In an integrated system of logistics management, the repercussions and disruptions

may be even more pronounced than in a system where vaccines are handled autonomously by the immunization program. MSD states that it can provide emergency deliveries, but this comes at a cost.

MSD is currently reworking its pricing structure for distribution of commodities such that charges will be based not on the value of the goods (as in the past) but rather on their physical volume. This will mean a likely increase in fees for distribution of vaccines, which have a low monetary value but which are delivered in large volumes. Currently, a cash and carry system of payment is in place, with the MOH making a monthly deposit to pay for distribution of goods. Vaccines are treated separately: MSD maintains a separate account for vaccines, and also, at the insistence of EPI, maintains separate routes and delivery schedules for vaccines than for other essential drugs.

With regard to cold chain equipment, for several years, health centers and dispensaries have been equipped with front-opening Electrolux RAK refrigerators that operate either on electricity or kerosene. These are gradually being replaced with top-opening RCW42 fridges that use these same fuel sources. About 600 of the SDPs that provide immunization are in areas of very difficult access and some 214 solar refrigerators are being or have been installed in these areas so as to minimize the need for a recurrent supply of fuel. End users are receiving training to conduct maintenance and minor repairs, while most other repairs are to be handled by regional CCOs.

5. Social Mobilization

The high levels of immunization coverage that have been attained and maintained for several years would suggest that social mobilization for immunization has been carried out successfully. Standard information-education-communication materials such as posters and leaflets have been utilized, but the EPI manager believes that radio has been a particularly effective means of mobilizing the community to use immunization services. Additionally, the administrative and political structure, described earlier, entails community level involvement through village health workers and ten-cell leaders extending down to the level of just a few households. This approach requires some financial support for its maintenance and upkeep (for example, the maintenance of village registers), but conceptually lends itself very well to such areas as registration of vital events, tracing of immunization defaulters, and possibly community involvement in disease surveillance.

In the past, the single political party in Tanzania was the body that was responsible for the ten-cell system. Since the inception of a multi-party system about two years ago, the issue of mixing politics with mobilization for a basic health service such as immunization has become more complicated. While all of the new political parties wish to be allied with a basic (and relatively successful) service like immunization, this seems to underscore the concern expressed by the EPI manager and others that EPI should be depoliticized, and viewed as an administrative service of the government.

6. Monitoring and Supervision

The Health Management Information System (HMIS) that has been designed by HSR is still evolving. In developing the system, there is tension to find the balance between enough information to manage programs and less information to decrease the burden of reporting and to enable lower levels to use the information. Integration of immunization information into the HMIS has meant less information at the national level and delays in receiving the data at the National EPI Program Office. The implementation of the new HMIS needs to be accompanied by increased capacity at the district level to use the data for monitoring, corrective action and planning. This, however, will require more support to capacity building in information management and use as well as more time.

At the time of visit of this team, an integrated checklist for supervision to service delivery points had been drafted and was under review by the MOH. Ultimately, the results of supervision visits, as recorded on the supervision forms, are to be entered into the HMIS, thereby formally linking supervision and monitoring. Supervision visits to SDPs are supposed to occur on a quarterly basis. According to personnel queried during field visits to two health facilities in Karogwe district, the biggest problem cited and discussed during supervision visits last year was kerosene shortages.

When asked about expected impact of health sector reform at district level on immunization, DHMT staff felt that the effects would be entirely beneficial, especially for: (1) ensuring a regular supply of kerosene; (2) funding fuel costs for vehicles; and (3) supporting routine and reliable supervision visits. By contrast, RHMT staff in Tanga region (where Korogwe is located) were more circumspect, expressing concerns about the likelihood of assembling, training, and posting competent and qualified DHMTs to almost 120 districts throughout the country. They also raised concern over the quality of services during this time of transition and about how the role of the regional level would evolve; they felt that there was an important role for them to maintain in terms of monitoring and supervising (or perhaps advising on) district level activity. Regional staff suggested that the experience to date with health sector reform in neighboring countries (e.g., Zambia) and in Tanzania pilot districts (of which Korogwe is one) be studied.

7. Disease Surveillance

Surveillance for diseases in Tanzania is conducted by the Epidemiologic Unit in the MOH which employs the newly introduced HMIS as the tool to collect data and institute an early warning system, but surveillance for EPI target diseases still takes place from the EPI Unit. Routine data are collected using approved forms for the notifiable diseases on a monthly basis while measles outbreaks and AFP data are reported as emergencies using the immediate reporting form directly to EPI. Cold Chain officers coordinate surveillance activities at district and regional levels since there are no Epidemiologic Units at these levels. The EPI Unit has been conducting training on AFP surveillance for the regions and districts since 1994.

EPI Surveillance Reporting. According to the UNICEF desktop review of the USAID EPI grants, the completeness of surveillance reporting in Tanzania for routine EPI was 84% in 1995, which is an increase of 10% from the 1994 level. Sixty percent of the routine EPI reports were received on time. As of June 1997, EPI had, however, not received all the routine EPI data for 1996. The monitoring of completeness and timeliness of surveillance data is available only at the national level.

The three EPI surveillance diseases reported are neonatal tetanus (NNT), measles, and polio through acute flaccid paralysis (AFP) reporting. Both NNT and measles are reported monthly from the health facilities to the district medical officer then to the regional medical officer, then on to the national EPI manager. Data analysis and feedback occurs at the EPI management level. Each health facility is to submit zero case reporting using routine forms to EPI on a monthly basis.

Available data suggests a trend towards declines in measles and NNT incidence during the period 1993 to 1995 and more generally since the inception of EPI; however, increases were reported in 1996 when compared with the 1994 and 1995 figures for both diseases. Efforts are on to improve NNT surveillance by EPI with the reporting of neonatal deaths by traditional births attendants; these deaths are then investigated as potential NNT cases by staff from the nearest health facility.

Reporting to EPI of AFP. The UNICEF desktop review documented completeness of reporting for AFP surveillance in Tanzania had slightly decreased from 21% to 18% in 1995 from the previous year. On the other hand, timeliness improved from 52% to 71% during the same period. The number of AFP cases reported in 1995 increased more than three-fold over 1994. Approximately 50% of the reported AFP cases were investigated in 1994 and 1995 while 100% of the 24 AFP cases were investigated in 1996. Currently AFP stool specimens are shipped outside of the country for laboratory analysis. AFP reporting sensitivity has improved from 1994 to 1996, however, it is currently estimated that only 20% of all AFP cases get reported through the health system. The principle of zero reporting was introduced in 1995.

Discussion of Surveillance Issues. EPI surveillance is affected by the restructuring of the health system. The major obstacles for effective and efficient disease surveillance are the inadequate funding, training, and personnel for case investigation, outbreaks, and disease-related emergencies at the district and regional levels. During the field visit to Karogwe and Tanga, it was observed that there was no person identified at the district or regional level with epidemiological training to adequately monitor and maintain surveillance activities, interpret disease trends, and rapidly respond to disease outbreaks. There should be at least one member of the DHMT who is both trained in epidemiological principles and has the means necessary to coordinate and carry out surveillance activities. A district epidemiologist or a qualified person who is specifically tasked with surveillance responsibility will greatly enhance the ability of the district to rapidly respond to outbreaks, monitor specimen collection and disease reporting, and strengthen the implementation of zero reporting.

Transportation has been one major obstacle for adequate disease surveillance. The health sector reform will improve the availability of vehicle, fuel, and maintenance by shifting the financial resources directly from the national level to the districts. A potential hazard of the related procedures on vehicle control is the apparent rigidity of transportation routes, affecting the immediate response to investigate disease outbreaks.

8. National Immunization Days (NIDs)

To interrupt transmission of the wild polio virus, National Immunisation Days (NIDs) were conducted in Tanzania in 1996, 10-11 August and 14-15 September as these months are still in the cool dry season, considered the period of low transmission and best suited for implementation of NIDs.

The main achievements of the NIDs were:

- high coverage of the targeted population nationwide of 97% and 102% for the first and second rounds respectively. Regional coverage levels varied between 73% and 120% in both rounds;
- high visibility of political, private, and community support, involving training of 34,000 volunteers to staff the 17,000 SDP used during the NIDs;
- enhanced the ability to reach children under special circumstances such as children of nomadic community in Arusha, children of the fishermen communities in islands of Lake Victoria, and children in refugee camps in Kigoma and Kagera regions;
- revitalized the community communication network for sharing information and implementing action plans, especially in rural areas where hamlet (ten cell) leaders were used effectively;
- improved vaccination efficiency and achieved lower vaccine wastage rates of 23.2 and 14.5 percent for the first and second rounds respectively;
- enhanced community surveillance for AFP during the NIDs;
- removed at least one major barrier to effective cold chain (kerosene supply) at the district level by instituting direct funding for kerosene procurement at the district level;
- increased awareness of immunization;
- improved resource (vehicles, kerosene, personnel and volunteers, media coverage of health services) mobilization and donor coordination, and;
- identified need to updated 1988 population figures by conducting head counts for all districts nationwide.

Major problems encountered were:

- late commencement of NID planning and short planning period;
- shortage of operational funds leading to delayed disbursement of funds to all levels, inadequate funds for supervision, and non-payment of allowances in some areas;

- lack of updating of 1988 census count leading to coverage rates over 100% in some districts, problem of refugees coming in from some neighbouring countries such as Rwanda and the Democratic Republic of Congo, and mathematical errors in NID results in some areas
- general problems with supplies such as delayed delivery of vaccine, vaccine carriers and kerosene leading to emergency distribution during the first round of NIDs. Poor quality of plastic bags for ice-making, and;
- problems with social mobilisation, including: lack on incentive for mobilisers in some areas, sudden appearance of the Pro-life group propagating messages against polio vaccination campaigns, and mis-communication of pay allowances, leading to suspicions which may impact on future NIDs.

Discussion of NIDs. Despite some problems, including the prevailing severe economic situation, the NIDs were successfully conducted in Tanzania leading to the best coverage results in all of the 26 African countries that participated in the 1996 exercise. A number of lessons have been learnt from the implementation of the first NIDs in Tanzania. The major ones are:

- the community of Tanzania is motivated towards participation in issues related to their health;
- existing administrative structures in Tanzania are very well suited to achieving community involvement and participation;
- timely inter-agency, inter-sectoral, intra-ministerial and community involvement is key to success;
- improved messages on vaccine types, mode of administration and the targeted diseases need to be relayed to the community;
- religious leaders are a potential for community mobilisation and their timely involvement is crucial;
- media, especially the radio, is a powerful communication channel for reaching the community.

Two tangible outcomes of the 1996 NIDs that have relevance to routine immunization are that: (1) the high visibility of the campaigns also highlighted the faults in the kerosene allocation procedure, resulting in a change that is currently being used successfully; and (2) as a result of the difficulties of obtaining accurate denominators (population estimates), the MOH and EPI have proceeded with conducting a new head count, down to the ten-cell level. These new population estimates will be used for EPI planning more generally, and could be used for planning of health or other services.

9. Challenges Facing EPI

The major challenges facing EPI in Tanzania at this point of time can be categorized as:

1. Raising vaccination coverage in all districts of the country and maintaining it at high levels.
2. Managing the process of health sector reform: maintaining high levels of coverage and disease protection in the face of major changes in management structure and procedures.
3. Introducing disease control measures, including special activities such as campaigns and surveillance in connection with polio eradication, measles control, neonatal tetanus elimination. Tanzania's Five-Year Workplan for 1996-2000 also describes targets for the incremental addition of hepatitis B and yellow fever vaccines, as well as booster doses of DPT, TT, and measles (see Table 4).
4. Assuring a reliable supply of all vaccines and commodities needed for vaccination, such as cold chain equipment, needles, syringes, sterilization equipment.

Table 4. Immunization Coverage Targets, 1996-2000

Activities	1996	1997	1998	1999	2000
Raising vaccination coverage for core antigens in					
- infants	80%	85%	88%	90%	90%
- pregnant women	60%	70%	75%	80%	80%
- women of CBA	31%	40%	NA	NA	NA
Introduction of new antigens			Hepatitis B Yellow Fever	Expand HB Expand YF	Expand HB Expand YF
Introduction of booster doses			DPT at 24 months TT at school entry Measles at school entry		

While immunization coverage throughout the country is relatively high, there are certain recognized low-performing areas. Recognizing that the specific solutions to local obstacles are best determined at the local levels, the EPI five-year workplan for 1996-2000 outlines a range of strategies for improving vaccination coverage. Prior to health sector reform, the central level had the funds to supplement activities in those districts that were deemed low performers. With both decision-making and funds now devolved to the district level, however, it will be up to the districts to evaluate their own performance, determine whether they are low performers for immunization, and decide to allocate additional funds for special or corrective activity. These activities are likely to include reducing drop-out rates by decreasing missed opportunities for immunization, strengthening outreach services, improving social mobilization through methods that are appropriate to the local context, and strengthening the delivery and quality of services from fixed facilities.

Regarding the issue of quality of services, the EPI manager and her deputy reported that there is especially concern over injection safety. While results from a study of injection safety at one hospital in Tanzania suggest that injections for immunizations are far safer than those given for curative purposes, there is a growing sense among the public that reusable syringes are not safe. The EPI manager is interested in exploring ways of dealing with this growing problem, including allowing some private facilities to provide disposables, at an extra cost to the patient, and conducting a pilot study on the disposal of sharps.

V. Vaccine Supply Situation

While some vaccines are provided by donors, as summarized in the box below, BCG and DPT vaccines are now procured by the MSD using funds donated by DANIDA. Tanzania, therefore, both receives donated vaccine procured by UNICEF and uses direct international procurement of vaccines. Two issues, quality assurance of vaccines and the cost-effectiveness of direct international procurement as compared to procurement services through UNICEF or other mechanisms, need to be considered. Especially the first issue should be addressed urgently before direct international procurement is expanded.

Specifically, support should be given to ensure that an independent National Control Authority (NCA) can and does perform following minimum functions:

- a published set of requirements for licensing of vaccines (e.g., adopting WHO requirements, etc.)
- surveillance of vaccine field performance (e.g., monitor serious adverse events following immunization)
- system of lot release of vaccines (e.g., at a minimum, a review of production protocols)
- use of laboratory for vaccine testing as needed (find and contract appropriate laboratory services.)

While the lack of an NCA has not been an issue with donated supplies of vaccines procured to date through UNICEF, as UNICEF purchases only from pre-qualified suppliers approved by WHO, it is of growing concern as the potential source of vaccines broadens through competitive tender and bid. Currently, EPI is expected to provide MSD with estimates of quantities of vaccine required and a list of approved WHO suppliers of these vaccines.

VACCINE SUPPLY IN TANZANIA, AS OF JUNE 1997

- Donors paying for 97% of vaccines.
- GOT has paid 3% through VII (via UNICEF), plans to provide 6% and 10% in 1997, 1998.
- DANIDA currently finances BCG and DPT, providing funding to MSD to procure.
- UNICEF is providing measles and TT, with financing from USAID and General Resources.
- JICA is providing OPV both for routine and NIDs in 1997.

F. Donor Support for Immunization

The present visit was too brief to allow for detailed examination of all donor inputs to EPI. This section selectively focuses on the support provided by DANIDA (key funder of EPI in the past), UNICEF, and USAID.

1. DANIDA. Since the inception of EPI in Tanzania in 1975, DANIDA has been the leading donor supporting the program. For several years, this included considerable financial, technical, and managerial support to all aspects of the program: building of facilities and central vaccine store in Mabibo; commodities, including vaccines, cold chain equipment, injection supplies; some vehicles to support EPI activities at central and regional levels; advisors in technical and financial management. As other donors, notably UNICEF, increased their support for EPI in Tanzania, DANIDA's support altered accordingly.

With the institution of health sector reform, for which DANIDA is a chief proponent among donors, the nature of DANIDA's support shifted largely to integrated health services rather than specific health programs. DANIDA is just embarking upon a third term of support for health sector reform totalling \$299 million kroner (about \$55 million). It is the first large donor to "sign on" for health sector reform in Tanzania and recognizes that it is taking a risk. The major elements that it will support include: (1) decentralization/district level support; (2) distribution and quality of services; (3) Medical Stores Department; (4) management and development of a revamped financial management system; (5) rationalization of logistics management, especially transport. A review of experience during the first year of health sector reform is scheduled for

November 1997; it is DANIDA's hope that other donors will participate in this review as a first step to committing themselves to health sector reform.

DANIDA still finances some items specific to immunization, namely kerosene for fridges, some costs associated with laboratory analysis of stool samples for AFP, and some vaccines. It was not clear to the team how the support for kerosene is reconciled with the recent improvement in GOT's procedures for kerosene allocation.

In 1996, DANIDA provided Tanzania with \$1.5 million for polio, measles, and TT vaccines and \$1.4 million for BCG and DPT. Rather than donating supplies of the latter two vaccines, DANIDA provided funding to Medical Stores Department, which procured them through a process of international tender and bid. As of 1997, BCG and DPT vaccines are being financed by DANIDA. At this point, however, Tanzania does not have a National Control Authority (NCA) performing all the functions necessary to assure the quality of imported vaccines, as described earlier.

2. UNICEF Country Program and Contribution to EPI

In 1997, a new five-year country program of cooperation between UNICEF and the Government of Tanzania (GOT) was initiated. In the previous country program, UNICEF's country program was divided into a national component and district based community component. Direct support to EPI was mostly done through the national component. UNICEF's community-based programs in 3200 villages in 58 districts located in 12 regions has, however, been useful in improving immunization service coverage in terms of social mobilization and capacity building in district and community-based planning. Districts with community-based activities with UNICEF performed, on the average, better in last year's NIDs. This has been attributed, at least partly, to the long-term social mobilization and planning capacity building that has taken place in these districts.

In the new country program, UNICEF is planning to expand the programming areas within health and to tie them more closely to the community-based activities. New program areas in health are youth health, maternal mortality reduction and community-based malaria control. This expansion of intervention areas, on the other hand, has necessitated the reduction of districts in which UNICEF will be having programs. UNICEF in Tanzania, however, continues to be committed to supporting, improving and expanding immunization services nationally. In addition to its own support, UNICEF will continue to advocate for increased allocation of government funds for preventive services, including immunization, and self-financing of vaccines. It also will continue working with other donors to establish a broad-based donor funding source for immunization services, especially vaccines and other supplies. The direct support to EPI will be complemented by the development of a common communication vehicle (the Sara Initiative), community-based activities and social policy analysis which will be useful in improving the effectiveness of and monitoring the performance immunization services.

Since 1990 UCI, UNICEF's financial support to EPI in Tanzania has been as seen in the table below:

Table 5. UNICEF's Financial Support to EPI Tanzania

(in thousand US\$)

	1992	1993	1994	1995	1996	1997 (planned)
GR (%Health GR)	539 (63%)	617 (55%)	705 (36%)	814 (52%)	0 (0%)	425 (34%)
SR polio other		640 0	6	272 1,235	1,412 2,472	0 325
Total	539	1,257	711	2,321	3,884	750

(Note - GR=General Resources SR=Supplementary Funds)

In terms of manpower, the country office is forced to support more activities with reduced professional staff. The professional staff responsible for EPI support will also be undertaking other programme areas, namely CDD, ARI, IMCI and Malaria. Technical assistance from short and medium-term consultants will become more important under this manpower situation.

3. USAID. In 1987, after several years' hiatus due to economic sanctions, USAID resumed support to the government of Tanzania, concentrating initially on railway rehabilitation. In 1991, a family planning program was added; this was followed by the addition of program components on financial sector reform and private sector development in 1992; a component on HIV/AIDS prevention in 1993; and components on natural resource management and democracy/governance in 1995.

In late 1995, USAID/Tanzania developed a new five-year strategic plan to cover the years 1997-2001. The overall program goals of USAID support to Tanzania are twofold: sustained economic development and improved human welfare. Toward these ends, the five-year plan comprises the following strategic objectives, which determine the inputs to be provided by USAID to Tanzania:

- SO1: Increased use of family planning/maternal and child health and HIV/AIDS preventive measures
- SO2: Foundation established for the adoption of environmentally sustainable natural resource management practices in Tanzania
- SO3: Strong foundation for the transition to democratic governance established

SO4: Increased private sector participation in the economy [with an emphasis on the development of small businesses]

SO5: Selected infrastructure improved [with an emphasis on support to the Tanzanian-Zambian railway and the development of certain roads]

In addition, the Mission has cited a “Special Activity - Regional Cooperation and Conflict Mitigation” to provide more limited support as the refugee situation in the west of the country evolves.

With USAID Mission activities related to SO1 focused largely on increasing the use of family planning services, plus social marketing of condoms and awareness-raising about AIDS prevention through a network of NGOs, the Mission currently does not intend to support free-standing child survival activities. The Mission will, however, broaden some of its existing activities. Specifically, a component will be added to its program such that women receiving antenatal care will be counselled about their own nutritional needs and those of their children as well as about the need to recognize childhood illness and seek appropriate care. Training of health workers at all levels is to be revised to support these two types of counselling messages.

While the USAID Mission in Tanzania has not formally included immunization in its portfolio, neither did it object to USAID/Washington providing the grants for immunization to UNICEF/Tanzania. Mission staff had been formally contacted by USAID/Washington to solicit their input and approval regarding the grants when they were first being proposed. As the grants were administered by the central level of USAID, they did not require additional management activity on the part of staff at the USAID Mission. However, in discussions with Mission staff during this visit, both interest and some concern was raised about the support to EPI. The concern stemmed from the fact that USAID funds have been supporting immunization in Tanzania, yet Mission staff themselves have had very little information about the grants. As per grant terms, for example, the semiannual progress reports prepared by UNICEF for USAID were sent directly to Washington and were not shared with USAID/Tanzania.

4. Other donors: WHO, Rotary International, JICA, ODA, Irish Aid

Other donors have also been important players in supporting immunization in Tanzania. While WHO has provided some material support for the program, including purchase of vaccines in 1996 for Zanzibar, most of its support has been technical in nature. A WHO long term advisor was a key player in planning for the 1996 NIDs; while she has left Tanzania, at the time of the team’s visit plans were in place for a new advisor with particular expertise in disease surveillance to assume this position.

The local chapter of Rotary has contributed approximately \$4 million for vaccines in Tanzania. Financial assistance is no longer provided, but Rotary continues to provide support specifically

for social mobilization for polio eradication, operating sometimes by directly paying invoices for printing costs rather than giving monies to the MOH for payment of bills.

JICA and Irish Aid are newer supporters of immunization. This year has been the first that JICA has provided financial assistance for the supply of both vaccines (including OPV for routine and NIDs) and cold chain equipment. Additionally, JICA has provided funds for cold chain equipment, as has Irish Aid. ODA (recently elevated to a new status in the British government and renamed Department for International Development--DfID) occasionally provides end-of-year leftover funds to UNICEF for vaccine procurement.

VI. CONCLUSIONS

Accomplishments of EPI in Tanzania. To date, Tanzania's EPI has had the benefit of ample resources, which it has apparently been able to disburse effectively, as demonstrated by high sustained levels of coverage throughout most of the country. Recent survey data show that over 80% of children receive a dose of measles vaccine and a third dose of DPT by two years of age, and only 3% of children do not receive any immunizations at all. The program is widely known and respected for its accomplishments, for its ability to sustain those achievements, and for its innovations (e.g., piloting of VVMs; investigations of NNT deaths). In a sense, immunization in Tanzania serves as "twin pillars" in health: it both reduces illness and death from vaccine-preventable diseases, and reinforces the provision of at least five contacts between the formal health system and the child (and the child's caretaker) during the first year of life. The immunization of women and children is still formally a health priority for Tanzania.

Health Sector Reform. Since its inception a year ago, health sector reform has presented major challenges to the functioning of the immunization program, especially as it was launched at the same time that the EPI embarked upon its first NIDs for polio eradication--a global goal to which it was formally committed by Tanzania's head of state several years ago. As a well-established vertical program, EPI is a visible candidate for piloting the introduction of various specific aspects of health sector reform. It has already shed some of its logistics management functions to a generic support unit and previous functions in information management and supervision are being integrated with other program areas.

But as a highly performing program, it is also very likely that EPI will suffer some losses, as well as potential gains, in the immediate term as systems are revised and responsibilities for various aspects of program management devolve. While efforts to improve efficiency and cost-effectiveness are admirable, continuing attention is needed to assure that at the same time that costs are being minimized, effectiveness is retained or improved. The experience in integration and decentralization should, therefore, be carefully monitored and any lessons learned should be applied. As EPI is proceeding into uncharted territory in terms of integration, it is important to continue monitoring output indicators, such as coverage and possibly disease incidence data (as

they become more reliable), in order to employ corrective measures as necessary so as not to compromise the effectiveness of the program.

Over the past two years, the concept of sustainability indicators for immunization has been under development in the international immunization community. The Tanzanian EPI manager has been one of the few EPI managers involved in seminal discussions of these indicators. During this visit, the idea was broached of piloting the use of these indicators; it seems an especially appropriate situation to carefully monitor the changing balance of program inputs and outputs. The EPI manager expressed interest but declined, saying that at this point in the changing environment, it would be impossible for the EPI to guarantee that data on these indicators could be reliably collected and reported.

Vaccine supply and financing. The current vaccine supply situation appears fragmented. Each year, both the EPI and UNICEF are faced with trying to put together a composite of how the contributions from various donors can cover the full range of needs. The situation is further complicated by the new role of MSD in procuring certain vaccines, using funding from DANIDA. A National Control Authority has yet to be established for this purpose and the cost-effectiveness of doing so for only two vaccines is an unanswered question. During this visit, it was not possible to meet with the appropriate people in MSD to ascertain whether a country with a birth cohort of less than two million is likely to obtain good prices, rapid deliveries, and vaccines with long expiration dates from the major vaccine suppliers. Nor was it possible to find out whether other donors currently providing funding to UNICEF for vaccines would be willing to provide funds to MSD for vaccine procurement on the international market.

While the Government of Tanzania has begun to contribute to vaccine financing through the VII, it has been at the very nominal level of 3% of vaccine costs. A general plan was developed for progressing to slightly higher levels, still no more than 10%; however, it has not been adhered to by GOT. Given the economic situation of the country, this is perhaps understandable, but there may be additional ways in which the GOT could be encouraged. For example, the prospect could be explored of using end of year fallout funds from ODA (DfID) or other donors to capitalize VII to a certain extent or for certain vaccines. This could increase the GOT financial responsibility for vaccines in a way that is less abrupt.

Overall, for a supply of high quality vaccine to be assured at reasonable cost over the medium term, a more coherent picture needs to be developed of how to capitalize upon the different contributions, from donors, GOT, and MSD alike in a way that stimulates investment--working toward a goal of "buying the house" instead of "paying the rent."

Disease surveillance. Capabilities in disease surveillance need to be expanded at all levels if Tanzania's public health goals are to be achieved. In particular, the training in disease surveillance that has already been initiated by EPI needs to continue, perhaps after some review of experience to date, but it also needs to be reinforced by other means in order to ensure that the skills will actually be applied. Training will need to be made appropriate to the functions of

various levels of health personnel, and their ability to carry out the required actions must be supported by the system in which they operate.

This will likely require continued feedback on the managerial and operational aspects of the system and modifications in district health plans as needed. For example, flexibility in the use of vehicles and provision of allowances to investigate cases or outbreaks will be needed, and means must be assured for reliably shipping stool samples for laboratory analysis. Such flexibility may, at first sight, appear at odds with the concept of well-planned activities such as supervision that call for established schedules for use of vehicles. However, as one local participant in the team asked, who is empowered by plans that are so rigid that they overlook a basic public health concern such as response to an outbreak of disease? The development of district plans perhaps will need to be revised periodically to ensure that they are keeping up with all functions that are expected of health management at the district level. It should also be assured that trained personnel in the DHMT or RHMT actively engage in and are kept apprised of all aspects of such investigations.

Further financial support for immunization in Tanzania. While the EPI is remarkable for its strong program management, it is undergoing stresses as it simultaneously deals with health sector reform and polio eradication. The ability of the program to achieve and maintain high coverage levels requires that effort and resources be continually provided to ensure that services are provided to all children (and women of child-bearing age), every day, every year, in perpetuity. The job has been done well so far, but it is not over.

Given its resource constraints, it is inevitable that the Government of Tanzania will require further external support for its immunization program. While it would be desirable for such a basic service to become the full responsibility of all Tanzanians, it is generally felt by the MOH that citizens will not pay in full for a preventive service like immunization. That is a big part of the reason why immunization (along with some other child health services) has been exempted from the cost recovery plan that is to be introduced under health sector reform. Since revenue for a preventive service like immunization cannot be counted upon to fully cover immunization program costs, and the GOT cannot do so entirely, it continues to look toward donor support.

The exact manner in which donor resources are used may require modification so as to reflect the changing nature of the health system. For example, some of the funding that has been directed in the past to the central level of EPI may need to flow instead to certain of the districts for some activities, e.g., operations research on new ways to stimulate AFP reporting, implementation of NNT investigation, or local social mobilization to increase routine coverage. Additionally, funding for certain specific activities, e.g., additional training in vaccine handling (for MSD drivers or zonal warehouse staff) or development of mechanisms to improve the rapid feedback of immunization data (for HMIS personnel) may need to be taken into consideration.

The GOT is also contending with an active refugee situation in the western part of the country, with over 100,000 refugees from the Great Lakes region crowding the region of Kigoma. Much

of the vaccination of this population is covered, using Tanzanian resources. As this represents a service that is important to the East Africa region, the Director of Preventive Services requested that additional consideration be given as to how future support can effectively be directed toward assuring the vaccination of refugees.

Experience with the grant. Staff from both UNICEF/Tanzania and USAID/Tanzania expressed general satisfaction with the use of the immunization grant mechanism. Representatives from both organizations said that in principle, they would look favorably toward another such grant. But there are considerations to bear in mind for the future. USAID Mission staff would like it to be clearly understood that such support does not implicate them in day-to-day coordination activities for immunization; human resources are already too stretched to permit this. However, they should be copied on any proposals and reports pertaining to the grant so as to allow them to at least be informed about the support to immunization that USAID may be providing indirectly.

From the point of view of UNICEF/Tanzania staff, the current five-year plan has a ceiling of \$40 million for supplementary funding, of which almost 50% has already been identified at this early stage of the plan. Whether the ceiling for supplementary funding is truly binding is not yet known. However, the existence of the ceiling means that the country office must carefully program its activities and determine the trade-off between working towards its funding limits by carrying out vaccine or commodity procurement as opposed to carrying out program activities.

Based on the information provided to the team, the funds provided by the grant appear to have been used according to the plan laid out in the proposals. However, an updated report to USAID is needed, as the latest report provided to the team was from June 1996 and reported largely on the expenditure of the first of the two grants. At that time, some 83% of combined grant funds had been obligated.

The overall objectives of the grants appear to have been met in a general sense, although it would be impossible and inappropriate to attribute this entirely to the \$2.1 million of USAID funding for EPI. Donor coordination and planning did improve during the timeframe of this grant, which coincided with much of the planning for health sector reform; the latter specifically stimulated widespread action in these very same areas. Immunization coverage, during the timeframe of the grants, did not so much increase as remain somewhat stable at high levels. The drop in coverage (due to kerosene problems) experienced in 1996 was resolved primarily because its association with high-visibility NIDs, and not specifically because of the grants. But it was, nevertheless, resolved in what appears to be a sustainable way. Finally, a GOT contribution to vaccines was initiated, probably as a result of these grants, but at a very nominal level. Further action and perhaps additional approaches will be needed to stimulate improvements in this area, as described earlier. In this situation, the fact that the grants did not substantially alter the course of activities, but rather supported them in a reasonably effective manner, suggests that the objectives and targets of USAID and UNICEF (and the Tanzanian EPI) were not at odds with each other in the first place.

VI. RECOMMENDATIONS

1. Continued external support to EPI is warranted and recommended. Increased GOT support for immunization should be encouraged, but the economic situation of Tanzania is such that for the foreseeable future, a reliance on donations of essential commodities such as vaccines and cold chain equipment is inevitable.
2. In the process of health sector reform, it is imperative that a clear focus be retained on progress toward meeting public health objectives even as attention is given to developing efficient, integrated systems of program management and service delivery. Continued effort will be needed to attain both elements of cost-effectiveness--a reduction in cost but a maintenance, or even an improvement, in the effectiveness of the services delivered. Toward this end, clear public health indicators (e.g., vaccination coverage rates, drop out rates) should be stated as part of health sector reform and formally included as objectives guiding the deployment of future funds for immunization provided by at least the donors involved in this study.
3. At the same time, further thought needs to be given as to how future funding for immunization can be directed in a way that generally supports the new context of decentralization and integration. This may entail consideration of funding to the district level for certain immunization activities, or funding to different functional units at the central level for additional training or operations research to enable them to work more effectively to achieve the public health objectives of immunization.
4. An analysis should be carried out of the current and future vaccine supply situation so as to increase the reliability and cost-effectiveness of the vaccine supply system. This will entail discussion and negotiation with both the GOT and donors to clarify the types of support that they are willing to provide over the short and medium term and how their investments can be maximized. Included in such a study should be an examination of the steps and resources needed to establish a functional National Control Authority. The study should result in a set of recommended actions for GOT and donors to help assure a sufficient supply of high quality vaccines for the five years.
5. Efforts should be made to increase capabilities in epidemiology and disease surveillance at all levels of the health system. Past training efforts should be re-examined and materials revised, as needed, to suit the particular responsibilities of health staff at central, regional, district, and SDP levels. Training content should include managerial and operational aspects such as specific actions that need to be taken and how to obtain the means to carry out such actions. Additionally, operations research should be carried out on different ways of promoting the rapid and widespread detection and reporting of target diseases; conduct of case and outbreak investigations; collection, transport, and analysis of samples; and feedback to the field.

Appendix 1
Persons Contacted

Appendix 1
Persons Contacted

UNICEF

Agnes Aidoo, Representative
Jesper Morch, Deputy Representative
Rosemary Kigadye, Project Officer, Health
Jeannette Kesselman, Project Officer, Health

USAID

Lucretia Taylor, Mission Director
Bill Anderson, Deputy Director
Michael Mushi, Health, Population, Nutrition Officer
Rob Cunnane, Health, Population, Nutrition Officer

Ministry of Health

Peter Kalima, Director of Preventive Services, Acting CMO
Maximilien Mapunda, Director of PHC Secretariat
Joseph Karia, Administrator, PHC Secretariat
Khadija Msambichaka, Manager, EPI
Caroline Akim, Medical Officer, EPI
Kabelwa Kagaruki, Health Officer/Logistics, EPI
Mrs. Massila, National MCH Coordinator
RMO - Tanga
RMO - Iringa
DMO - Korogwe
DMO - Iringa Rural
DNO - Mwananyamala

World Health Organization

Mohamed Amri, Disease Prevention and Control Officer
Godfrey Gomile, EPI/NID Coordinator

DANIDA

Charles Woollen, Counselor

Rotary International

Andy Chande

Medical Stores Department

Malcolm Clark, Director of Distributions and Regions
Benedict Mkasa, Counterpart Director of Distributions and Regions

Other

Chio Kanda, World Bank (Washington)

Appendix 2
Draft Programme for the EPI Review Mission Team

DRAFT

Programme
For the EPI Review Mission Team
Suomi Sakai, UNICEF, Theresa Coleman, UNICEF,
Rebecca Fields, BASICS (representing USAID Washington),
O. Babaniyi, WHO EPI, Nigeria
17 - 25 June 1997

Tuesday 17 June

0720 **Arrival of Ms. Suomi Sakai, Ms. Theresa Coleman, Ms. Rebecca Fields, at DIA (Flight: SR 292)
Check-in at the New Africa Hotel**

1100-1200 **Review team meets at USAID Office**

1300-1330 **Courtesy call on Dr. Agnes Akosua Aidoo, UNICEF Representative (UNICEF Office)**

1400-1530 **Courtesy call on Dr. Adeline Kimambo, Chief Medical Officer (Ministry of Health)**

1830-2000 **Reception (UNICEF Representative's Residence)**

Wednesday 18 June

0800-1000 **Meeting with Mr. Charles Woollen, Counsellor (DANIDA Office)**

1000-1200 **Meeting with Mr. Takashi Mizuno, Deputy Resident Representative, and Mr. Jackson Biswaro, Chief Programme Officer (JICA Office) - Gr.A**

1000-1100 **Meeting with Dr. Mohammed Amri, Disease Prevention & Control Officer (WHO Office) - Gr.B**

1130-1200 **Meeting with Mr. Maxmillan Mapunda, Head, PHC Secretariat (MOH Office) - Gr. B**

1200-1330 **Lunch Break**

1330-1600 **Visit EPI, Mabibo**

Thursday 19 June

Field trips: groups (2) to travel to Iringa Rural and Korogwe Districts

Friday	20 June
	Courtesy call to District Authorities
	- Visit MCH/EPI clinics in the field
	- Hold discussions with MCH/EPI service providers
Saturday	21 June
	Departure to Dar es Salaam
Sunday	22 June - Free
Monday	23 June
0800-1200	Visit MCH clinics in DSM Group A - Tandale Group B - Temeke
1200-1300	Lunch Break
1330-1430	Courtesy call on Ms. Lucretia Taylor, USAID Director (USAID Office)
1600-1730	Meeting with Mr. Andy Chande (Rotary International)
Tuesday	24 June
0900-1000	Discussions with UNICEF
1400-1600	Visit Medical Stores Department and follow-up on pending issues
Wednesday	25 June
1000-1200	Debriefing with Ministry of Health, USAID, UNICEF and major EPI donors (Family Planning Unit Conference Hall, Muhimbili)
	Departure of Suomi Sakai and Theresa Coleman in the evening
Thursday	26 June
	Departure of Rebecca Fields