Evaluation of GAVI Immunization Services Support Funding
Case Study: Tanzania

This report presents findings from one of six country case studies conducted as part of a Global Alliance for Vaccines and Immunization (GAVI) commissioned evaluation of the Immunization Services Support (ISS) funding mechanism. The ISS funding mechanism provides performance-based funding aimed at improving routine immunization. The goal of the evaluation was to assess the impact of ISS funding in furthering GAVI objectives and to identify ways to improve the ISS scheme. This report is a working paper that informs the final report. In addition to information from the six country case studies, the evaluation incorporated data from a desk review of 52 countries. It is recommended that this report be read in conjunction with *Evaluation of GAVI Immunization Services Support Funding,* which provides a full description of the background and methodology for the evaluation.

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1. Description of Visit

A two-person team comprised of Kimberly Smith of Abt Associates and Gordon Larsen, AED consultant, visited Tanzania from April 18 – 28, 2004. Trip activities included interviews with officials from the Tanzanian Expanded Program on Immunizations (EPI), other officials from the Ministry of Health, technical and financial officers from UNICEF and WHO, donor members of the Interagency Coordinating Committee (ICC), the World Bank, and the Team Leader for the Malaria Program financed by the Global Fund for AIDS, Tuberculosis and Malaria (the Global Fund).

During the visit, the Ministry of Health arranged for the study team to visit the districts of Lindi Rural, one of the first 16 districts to receive GAVI ISS funding, and by way of comparison, the adjacent district of Mtwara Rural, which did not receive ISS funds. During the visit, the study team met with regional, district and facility officials and visited one rural dispensary.

The study team was regrettably unable to interview two key officials who were involved in the GAVI process from the original application through to eventual implementation. These were the former EPI Program Manager and the WHO/EPI Medical Officer, both of whom had been prime movers in the whole process and intimately involved throughout. The latter official is still in post today and was thus especially important for this case study. Unfortunately, neither was in the country during the team's visit.

2. Context

The United Republic of Tanzania is comprised of two formerly sovereign states, Tanganyika (mainland Tanzania) and Zanzibar, which merged in 1964. The country lies just south of the equator, bounded by the great African lakes on the West and the India Ocean on the East. Total area is 945,050 Km^2, including 59,050 Km^2 of inland waterways. There are a total of 22 administrative regions with 123 districts, 20 regions and 113 districts of which are in mainland Tanzania and 2 regions and 10 districts in Zanzibar.

With an estimated GDP per capita of $290, Tanzania is one of the poorest countries in the world. Tanzania's total population is estimated at 34.6 million (2003) with an annual growth rate of 2.9 percent and an IMR of 99/1000 (2003). Overall GDP growth has risen from 3.3 percent in 1997 to 5.6 percent in 2002 despite a collapse in the prices of its major traditional export crops. The government predicted a real growth of 6.1 percent for 2003, increasing to 7.2 percent by 2006. In spite of actual and projected GDP growth, Tanzania is ranked 106^{th} in the Human Development Index, and has experienced a decline in life expectancy from 52 years in 1990 to 49 years.

Although GAVI considers the United Republic of Tanzania to be one country, in fact, mainland Tanzania and the island of Zanzibar each have their own Ministry of Health, EPI Program and Inter-Agency Coordination Committee (ICC). Ideally, this country case study would have evaluated both mainland Tanzania and Zanzibar, but due to strict time limitations, and since it represents more than 95 percent of the total population of the United Republic, it was decided that the study would focus on mainland Tanzania (referred to as "Tanzania" throughout this document).

2.1. Health policy and financing reforms

The health sector has been identified as a priority area in several policy reform documents, including the National Poverty Reduction Strategy, the Tanzanian Development Vision 2025, and the Tanzania Assistance Strategy.

In the 1990s, Government of Tanzania embarked on a health sector reform Program, the overall objectives of which were to "improve the health and well being of all Tanzanians with a focus on those most at risk and to encourage the health system to be more responsive to the needs of the people." The main strategies set forth to achieve this goal include: decentralization of management to districts, hospital reforms, human resource development, improved management of donor funding through a sector-wide approach (SWAP), and exploring alternative financing mechanisms for the health sector. Decentralization was the central tenant of the reform efforts.

The health sector reforms have led to significant changes in health planning and financing. Under the reform guidelines, District Health Management Teams (DHMTs) and District Council Health Services Boards are responsible for planning, supplying, and managing health services at the district level, with guidance and oversight by the Regional Health Management Team. The role of the central level has in turn been reduced to policy formulation, setting guidelines and standards, procurement and distribution, training, and monitoring and supervision.

Two key changes in health financing that have resulted from the reforms are (1) the pooling of donor resources under the SWAP into a "basket fund" and (2) direct funding of districts. The SWAP or basket fund was created in 1999 and is used to fund both central and district-level activities based on a sector wide plan of action. The portion of the basket fund going directly to districts is allocated according to specific criteria. Over the past five years, districts have received $.50 per capita from the basket. Starting in the 2004/5 fiscal year, however, basket funding allocations to districts will be based on several criteria including: population, geographical area, under-5 mortality rate and poverty level.

Additional sources of central level funding for the health sector include government revenues, budget support from donors, and direct donor and multilateral support to specific health Programs. Tanzania has been a prominent beneficiary of several global health initiatives, including Roll Back Malaria, IMCI, Stop TB, GAVI, and the Global Fund for Malaria, AIDS, and Tuberculosis. In addition to central level and basket funding, district sources of health financing include local government revenues, the Community Health Fund, and community cost-sharing arrangements. Districts also receive commodities and supplies from the central level.

2.2. Other reforms affecting the health sector

These health sector reforms have been integrated into and facilitated by other multi-sectoral reforms in Tanzania, including the Public Sector Reforms Programme (PSRP), which is currently in phase two (2000-2011), the Public Financial Management Reform Programme, and local government reforms. One of the goals of the PSRP was to increase the capacity and facilitate the role of Ministries in strategic planning for their

respective sectors. In line with this goal, the Ministry of Health and other ministries were asked to develop a sectoral reform strategy and action plan.

A major outcome of the PSRP and public financial management reforms is the institutionalization of annual public expenditure reviews (PERs) and the Medium Term Expenditure Framework (MTEF). The PER and MTEF introduced a performance-related system of budgeting and planning in Tanzania. The PER is the key tool used by the Government of Tanzania to determine the funds that are available to each sector and to ensure that expenditures are in line with sector objectives and overall Government policy priorities and targets. The PER is timed to inform the Government's budget guidelines and ceilings for different sectors, according to which Programs and departments incorporate their annual and multiyear plans into the MTEF.

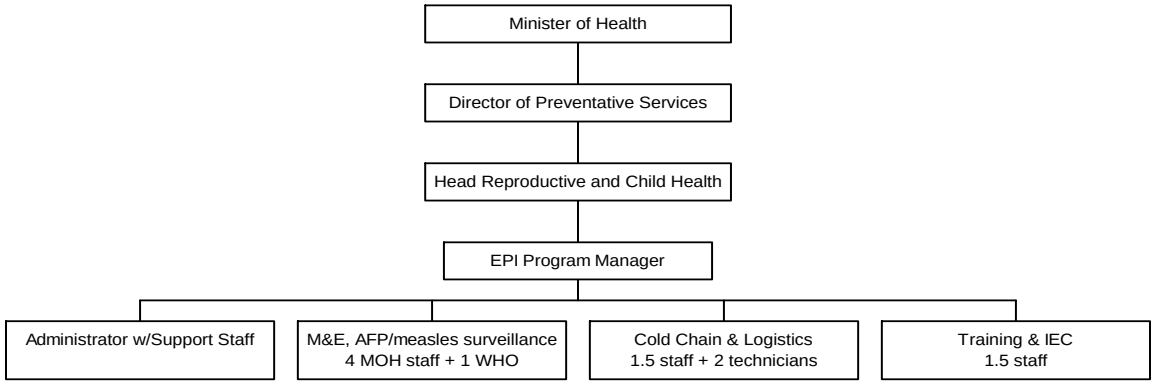
In the MTEF, each Ministry lays out specific objectives, targets, and activities to achieve these targets for the sector as a whole. It should be noted that the MTEF for the health sector does not include district-level health activities. Similar to the process used to develop the MTEF at the central level, the districts set out how their funding allocations will be used in district comprehensive health plans. While the district is required to follow budget guidelines that reflect health service priorities, the district has significant discretion in using health funds received from the central level (government and basket funds) and local government.

The PER and the MTEF are also key inputs for the annual Health Sector Review, which provides a forum for the government and development partners to review trends in sector income and expenditures and discuss future priorities and funding allocations.

2.3. The Expanded Program on Immunization (EPI)

Established in 1976, and one of the earliest such programs to be created, the EPI Tanzania is located within the Department of Reproductive and Child Health in the Directorate of Preventive Services. The program comprises 4 sections; management & administration, monitoring & evaluation, cold chain & logistics and training & IEC (see Figure 1).

Figure 1 Organogram of MOH & the position of EPI



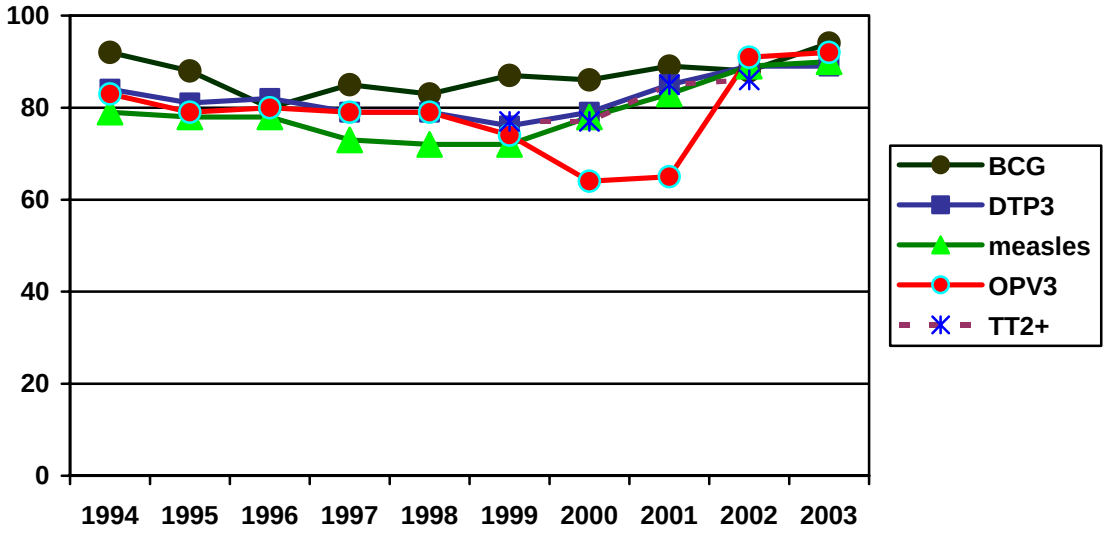
Under a national program manager, the EPI at the central level is responsible for policy formulation, overall strategies and guidelines, planning and budgeting, procurement and distribution, training, monitoring and evaluation. At the regional level, the program is under the Regional Medical Officer, supported by a Regional

Cold Chain Officer and a Regional MCH Coordinator. At the district level, responsibility rests with the District Medical Officer assisted by the District Cold Chain Officer and the District MCH Coordinator. The program currently provides immunization with BCG, DPT-HepB, OPV, and measles vaccines for all infants, together with TT vaccine for mothers. Additional vaccines may be added to the national schedule as they become available.

The program is supported by a broad-based ICC, chaired by the Director of Preventive Services and comprising members from DANIDA, DFID, Rotary, JICA, Smith-Kline Pharmaceuticals, WHO and UNICEF. The MOH chairs the ICC. The formation of the ICC had long pre-dated GAVI, and was established in the early 1990's when Tanzania was conducting regular National Immunization Days (NIDs) for the eradication of polio. The main focus of some of the ICC members was thus on this activity, while for others, the main interests were the implementation of health sector and other reforms which were in progress at that time. The ICC only later became involved in routine EPI program issues and thus, in the GAVI process.

The program is relatively successful in its aim of providing immunization for all infants, and the national immunization coverage rates based on the entire birth cohorts each year and according to official MOH figures are shown in Figure 2.

Figure 2 **National EPI Coverage, Tanzania, 1994-2003**



source: Data reported to WHO, UNICEF/WHO Joint Reporting Form & 'official best estimates'

Efforts to reach higher levels of coverage have been a constant feature of program planning and activities for a substantial period, and these efforts pre-dated GAVI by many years. Various factors have occasionally hampered these plans however, a case in point being the fall in OPV coverage for the years 2000 and 2001, (Figure 2), which was caused by a global shortage of polio vaccine during this period. A steady rise in immunization coverage for all other antigens is seen to commence from around 1999, a date which appears to follow by a couple of years the introduction of health sector reforms and the creation of the SWAP mechanism.

In addition to routine immunization activities aimed at the <1 year cohort, the program also participates in regional and global initiatives for the control or elimination of specific EPI diseases. These include special efforts for the national eradication of polio, the reduction and control of measles and the elimination of neonatal tetanus.

3. GAVI-Associated Developments

3.1. The Application for GAVI support

The United Republic of Tanzania was one of the earliest country applicants for GAVI support. The country submitted an initial proposal to GAVI and The Vaccine Fund in June 2000 incorporating separate applications for mainland Tanzania and Zanzibar. While GAVI considers the United Republic of Tanzania one country, the fact that Tanzania and Zanzibar each have their own Ministry of Health, EPI Program and Inter-Agency Coordination Committee (ICC) necessitated two separate applications. These were submitted as a single proposal however, covering the combined infant population of the United Republic.

The study team met with a number of officials from EPI/MOH, UNICEF, WHO and the World Bank who were involved to varying extents in the GAVI application process. While none of those interviewed had participated in the actual writing of the application, many actively participated in discussions or specific activities related to the application process. Unfortunately, the team was unable to interview two key actors in the application process, the EPI Program Manager who was in post at that time and the WHO /EPI Medical Officer, both of whom were intimately involved at this stage. However, it is clear that the intention of the requested DTP-Hepatitis B (DPT-HepB) combination vaccine was for nationwide application, where it would be a direct replacement for the standard DTP vaccine then in use. The precise manner in which coverage targets for the new vaccine were set is less clear, but figures in the initial proposal to GAVI suggest that a simple, straight-line increase in immunization coverage was assumed and that quantities of vaccine requested were calculated accordingly.

The original objective of the application for GAVI support was the introduction of the DTP-HepB combination vaccine. It is not clear whether the Government originally intended to apply, or was fully informed about the option, for ISS funds. Two interviewees recalled a perception among some actors that receipt of ISS funds might interfere or slow down the introduction of the new vaccine. There were also concerns that the setting of increasing targets for the number of children to be vaccinated would be difficult to sustain. However, from the beginning, there were also strong supporters for ISS funding, including the then EPI Program Manager and UNICEF. The final decision to apply for ISS funds did seem to spur active discussions on how to strengthen the overall EPI program.

Tanzania's proposal proved successful, and in July 2000, the GAVI board approved delivery of the requested DTP-Hepatitis B combination vaccine, together with ISS funding of $8,665,500 over five years. An initial DQA was conducted in September 2001, but the country failed to reach the required passing score of 80 percent for the 'verification factor', and achieved only 57.2 percent for this indicator. This was insufficient to qualify for continued ISS funding beyond the first three 'investment' years, and after strenuous efforts to improve data management at all levels, a further DQA was carried out in August 2002. This proved much

more successful, and a verification factor score of 90.2 percent was achieved, opening the way for Tanzania to receive reward shares after the first 3 years of ISS funding. To date, the first two tranches of ISS 'investment' support have been received, in early 2001 and February 2002 respectively, for a total of $1,214,000. In November 2002, the United Republic's second proposal for injections safety support was also approved by the GAVI board.

The EPI Program Manager was the key MOH official involved in the application process, although the Director of Preventative Services and other Ministry of Health staff were also very supportive and participated at different points in the process. The local UNICEF and WHO offices were also actively involved. Most of the individuals interviewed, however, perceived the main coordinating and technical actors in the application process to have been a very large team of WHO external consultants. The WHO team led the immunizations services assessment in February 2000 and many believe that they may have put together the actual application, with key inputs from the EPI Program Manager, WHO/Tanzania, and UNICEF.

The role of other ICC members appears to have been quite limited at this stage, and their involvement was mainly to review the resulting draft application. Participation in the review process seems to have varied significantly among ICC members. One ICC member whose signature appears on the application said that he was not aware of the ISS component of GAVI support to countries, or that Tanzania had applied for this type of assistance.

3.2. National level

3.2.1. ISS planning and funds allocation

The central level EPI team, UNICEF, and WHO have been the key actors in discussions and decisions regarding the use of ISS funds. The ICC as a body has not been a major player in the planning and allocation process. At quarterly ICC meetings, ICC members are informed of decisions about how ISS funds will be used, though attendance at these meetings varies and has declined in recent years.

Throughout the application period and still to the present day, there has been widespread agreement that ISS funds should be used primarily for the districts, and particularly for low performing districts. UNICEF was a strong advocate of this approach. There was also a consensus that social mobilization and strengthening of routine immunization services should be priorities.

The planning process for how ISS funds will be used seems to depend, in part, on when the funds are released in relation to the government planning and budgeting cycle. Tanzania's fiscal year runs from July to June and the planning and budgeting process typically begins in March. It is at this time that the EPI develops an annual plan that will later be incorporated into the MTEF. In the case of the first tranche, Tanzania received notification of the release of ISS funds in July, after the planning and budgeting cycle for that year. Therefore, planning for the use of these ISS funds was a separate process. In the case of the second tranche, Tanzania was notified that the funds were being released in February 2002, the beginning of the planning period for 2002/2003 activities. Therefore, ISS funds were incorporated to some extent into the 2002/2003 EPI annual plan and the corresponding MTEF. GAVI ISS funds appear to be included to a limited extent in the 2003/2004 and draft 2004/2005 MTEF also.

EPI and other MOH officials view the ISS funds as a valuable mechanism to fill funding gaps in existing EPI or district-level plans, or to strengthen under-funded activities. The ISS funds are not seen as a means of initiating new, additional activities, but rather as providing support for ongoing activities which may need supplementary funding in order to be implemented. The focus on supporting existing, but weak, routine immunization services in low-performing districts is a prime example of this philosophy.

Most of the changes and innovations associated with planning and utilization of funds for health programs had already been introduced through the health and public sector reform processes before GAVI funds became available. Rather than precipitating further innovations therefore, the ISS funds were generally applied within the existing framework of health financing, and the team did not observe any specific innovations.

3.2.2. Management of ISS funds

On March 29, 2001, the MOH of mainland Tanzania, the MOH of Zanzibar, and WHO signed a Memorandum of Understanding (MOU) appointing WHO the custodian of the ISS funds. Under the MOU, WHO is responsible for holding and administering the funds to Tanzania and Zanzibar in accordance with WHO financial rules, regulations, and procedures. The designation of WHO as the custodian of the ISS funds, however, dates back to the original application, and is largely a result of WHO's successful handling of funds for polio eradication activities.

The disbursement of the first tranche of ISS funding was delayed due to internal WHO changes in how the ISS funds would be held and administered. In early 2001, the first tranche of GAVI ISS funds was transferred from WHO/Geneva to WHO/Tanzania, where they were deposited in a separate local account opened specifically for GAVI ISS funds. However, in April 2001, the WHO Regional Office for Africa based in Harare, Zimbabwe objected to this arrangement, noting that it was contrary to WHO financial procedures. The GAVI account in Tanzania was subsequently closed and the funds were returned to WHO Geneva. From there, they were transferred to the WHO Regional Office in Harare, which is now responsible for holding, disbursing and supervising the use of the Tanzania ISS funds. As a result of these changes, disbursement of the first tranche of ISS funds began in May 2001, five months after the funds were initially received in country.

Under the current system, the ISS funds for the United Republic of Tanzania are transferred from Geneva to the WHO Regional Office for Africa in Harare. The WHO/Tanzania office is then notified that the funds have been received in Harare and that they can begin disbursing the money according to WHO regulations and procedures. The Regional Office does not transfer additional, ISS funds to the Tanzania bank account. Instead, WHO/Tanzania draws from existing deposits in its local account, which holds a relatively fixed amount in regular disbursements received from the WHO Regional Office.

After notification from the Regional Office, WHO/Tanzania notifies the Ministries of Health of mainland Tanzania and Zanzibar that they can access the ISS funds after submission of detailed proposals and corresponding budgets for how the funds will be used. WHO/Tanzania has the authority to approve each proposal received and disburse the GAVI ISS funds without further approval from the Regional Office. However, all proposals and expenditure reports are sent to the Regional Office.

The WHO/Tanzania office procures and ships all equipment and supplies to be used at the central, regional, and district level. For some training activities, WHO sends a financial clerk to distribute per diem to participants and obtains signatures for the amounts received. In other cases, WHO gives money directly to the EPI office. For cash transfers to districts, WHO wires money directly to the district accounts.

The MOH is responsible for reviewing GAVI ISS expenditures and sending quarterly financial statements outlining the use of funds to WHO/Tanzania. The EPI office collects receipts for ISS expenditures at the central and district levels, which are then sent to the Budget/Accounting Office with the MOH who is responsible for submitting financial statements to WHO/Tanzania.

3.2.3. Utilization of ISS funds

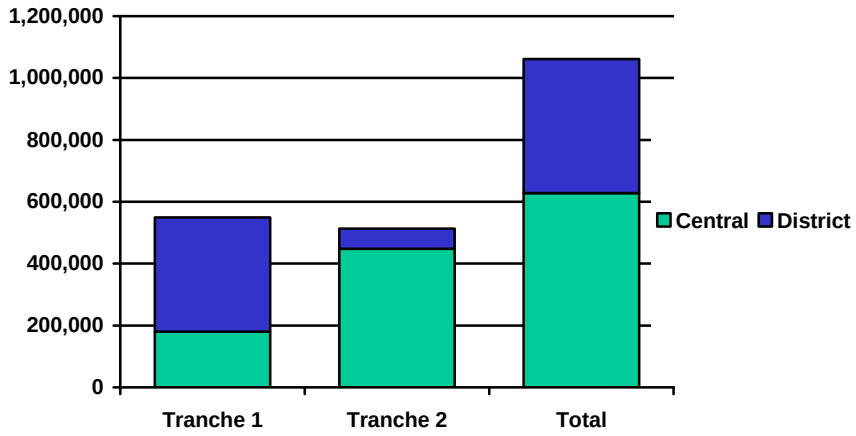
To date, GAVI ISS funds have been used mainly to carry out existing un-funded or under-funded activities at the central and district level. The first tranche of ISS funds totaling US$ 607,000 was received by WHO/Tanzania in early 2001, but due to reasons mentioned above, was not ready for disbursement until April 2001. Out of the total received, 91 percent (US$ 555,047) was allocated to Tanzania mainland and nine percent (US$ 51,953) to Zanzibar. All of the funds had been allocated as of July 2003, and to date approximately 96 percent of the ISS funds have been expended.

As agreed upon during the application process, the first tranche of ISS funds was used primarily to support targeted low-performing districts in Tanzania. However, detailed planning for the use of the first tranche did not begin until the EPI was notified that the ISS funds were ready for disbursement in April 2001. The ISS funds were first used to fund EPI team visits to low performing districts to assist in the development of district-level strategies to increase immunization coverage. These strategies were used to inform district comprehensive health plans, though the full integration of these strategies would result in a major funding gap without additional funding from GAVI.

Following the district visits, the EPI selected 16 of the lowest performing districts to receive direct GAVI support. Selection of these districts was based on 1999 coverage data and the amount of external support the district was already receiving. The allocation of ISS funds to each of these 16 districts was made based on their needs as reflected in their immunization strategies and/or comprehensive district plans. There were no incentive mechanisms attached to allocations. In some cases, the district strategies focused on reaching the underserved, while in others, the strategies focused on more general social mobilization activities or services strengthening. The performance-based element to this support and the ‘shares system’ concept appear not to have been explained or emphasized during the strategy development or district allocation process. Understanding of these mechanisms seems very limited at district level.

Figure 3 presents the allocation of the first and second tranche of GAVI ISS funds to the central and district levels. The majority (67 percent) of the first tranche was used to provide direct support to the target districts. Approximately 40 percent of the direct support to districts was in the form of lump-sum cash disbursements to the district. The other 60 percent was used for equipment and supplies procured by WHO and shipped to the districts, including vehicles, bicycles, and motorcycles for outreach and social mobilization activities. The remaining one-third of the first tranche was used mainly for training activities organized at the central level, including refresher trainings for health workers that had not been carried out since 1997 due to lack of funds. Other trainings focused on various aspects of the introduction of the new DTP-HepB vaccine.

Figure 3 Allocation of GAVI ISS funds, by tranche and level (in USD)



Source: WHO/Tanzania accounting records

When the second tranche of funding arrived in early 2002, the first tranche had not been fully expended, and the use of the second tranche was still under discussion. The planning for the second tranche seems to have been more ad hoc than the first, with the majority of funds (83 percent) being used to strengthen central level activities, including trainings, data management, and monitoring and supervision.

It should be noted that neither the MOH nor WHO/Tanzania distinguish between the two tranches of ISS funding. This may be because the first tranche had not been fully allocated by the time the second tranche arrived. There is, however, a clear shift in the use of ISS funds around the time the second tranche was received. One of the reasons for this shift was an uncertainty about the effectiveness of providing direct support to districts for immunization services strengthening and raising coverage. There had been significant delays in the shipment of equipment and supplies to the districts, and most districts had only expended a small portion of the cash disbursements they had received. In addition, districts were not sending receipts for ISS expenditures to the central level in a timely manner and there was concern that accounting principles were not being adhered to.

Another reason for the shift from primarily district to central level ISS expenditures was Tanzania's failure rating for the Verification Factor on the first DQA conducted in 2001. This prompted the EPI to focus on improving data collection and management through capacity-building training sessions for regional and district staff and investments in computers and other equipment for the central level.

Tanzania was approved by the GAVI board for a third ISS tranche in November 2002, but substantial delays have occurred in release and transfer of these funds, which to date, have still not been received in country. Although the team saw no concrete plans for the use of this third tranche, the MOH had discussed a number of options, which included:

- Providing support to a further group of 'low performing' districts (a list of 44 candidate districts was said to have been drafted, but was not seen)

- Devising a system of 'reward' funds for 'high performing' districts as recognition of achievements to date and encouragement to continue improving
- Providing further support to the poorest of the original group of 16 districts who had yet to reach the national average levels for immunization coverage

The creation of reward funds is largely in response to complaints among high performing districts that they are, in fact, being penalized for having strong and effective immunization services.

Finalization of these plans for use of the third tranche of ISS funds has been delayed pending resolution of the uncertainties and problems with release and transfer of the tranche 3 funds. The actual reasons for the delays are not entirely clear, but one factor seems to be the non-renewal of the MOU between the Ministries of Health and WHO. Article 1 of the MOU states that 'the total amount of the contribution from GAVI will be US$ 1,214,000', which is equal to the sum of the first two ISS tranches. It thus appears that the MOU was intended to cover these two tranches only, although this is not explicitly stated. The GAVI secretariat appears to have taken this view. During his visit to Tanzania in November 2003, the GAVI Executive Secretary informed MOH that the reason for the delay in releasing tranche 3 funds was because the MOU had expired and needed to be renewed.

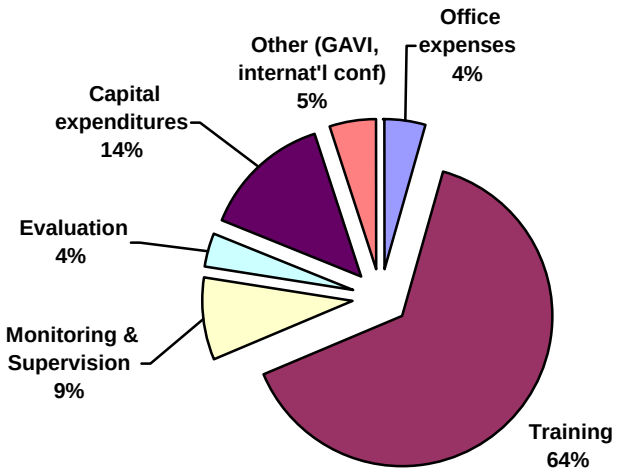
Tanzania had apparently not been informed of this legal issue, and at the time of the GAVI secretariat's visit, the approved tranche 3 funds had been waiting for release for approximately 1 year. The GAVI secretariat's view that the MOU needed to be renewed was not shared by the WHO legal department however, who noted that Article V1 of the document stated that 'In case Tanzania receives further contributions from the Fund through WHO towards its immunization program, the present MOU may be extended with respect to those contributions as may be mutually agreed by the parties.' Since MOH mainland, MOH Zanzibar and WHO all wished to continue with the existing MOU, there was no apparent reason for requiring that a new agreement be drawn up. To date, a new MOU has still not been signed and tranche 3 funds have still not been received.

3.2.4. Breakdown of GAVII ISS expenditures by level

Central Level

The majority (64 percent) of central level ISS expenditures have been for training activities. The ISS funds were used primarily to fund refresher training on data collection and management in all regions, training related to the introduction of the new DPT-HepB vaccine, and training for district-level immunization officers. The second largest expenditure category at the central level was capital items, including computers, printers, and one vehicle. Approximately US$ 21,000 (3 percent overall and 5 percent of the second tranche) was spent on activities directly related to the development of the financial sustainability plan, including the training workshop in Dakar, Senegal and a local retreat for Tanzanian officials.

Figure 4 Breakdown of GAVI ISS expenditures: Central level



Source: WHO/Tanzania accounting records

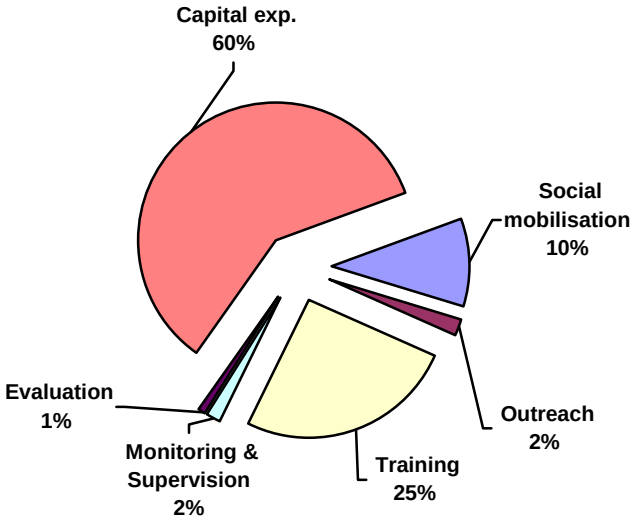
District Level

Approximately 40 percent of total GAVI ISS funds received to date have provided direct support to the 16 target low-performing districts, 67 percent of the first tranche and 12 percent of the second tranche. District support provided through the first tranche consisted of US$ 231,308 in cash disbursements to districts in January 2002 and $138,249 in equipment and supplies. The district support provided by the second tranche was only in capital items, including incinerators and metal jerry cans, totaling approximately $64,860. Overall, 53 percent of district support has been in the form of cash disbursements and 47 percent in equipment and supplies.

For the cash disbursements to districts, funds are wired from the WHO/Tanzania bank account directly to the local bank account at the district level managed by the District Executive Director (DED). All health sector funds received at district level are deposited into the same DED bank account (Account number 6) and are tracked by the district accountant. The DHMT submits a proposed plan and budget for health expenditures to the office of the DED, who is in charge of disbursing the funds to the District Medical Officer (DMO). On completion of the activity, the DMO is required to submit details of the activity actually carried out, together with accounts and receipts for the expenditure incurred. In this respect, the use of ISS funds does not differ from other types of funding received by the district, which are subject to identical accounting procedures.

Figure 5 presents GAVI ISS district expenditures to date. Only 54 percent of the cash disbursements to districts have been spent to date, which is why capital expenditures account for slightly more than the allotted 47 percent of district support. The non-capital expenditures represent how districts have chosen to spend their cash disbursements. To date, the majority of district cash disbursements have been spent on training activities, which account for 25 percent of total district expenditures to date and 63 percent of expended cash disbursements. The second largest district expenditure category is social mobilization activities, which account for 10 percent of total district expenditures and one-quarter of expended cash disbursements.

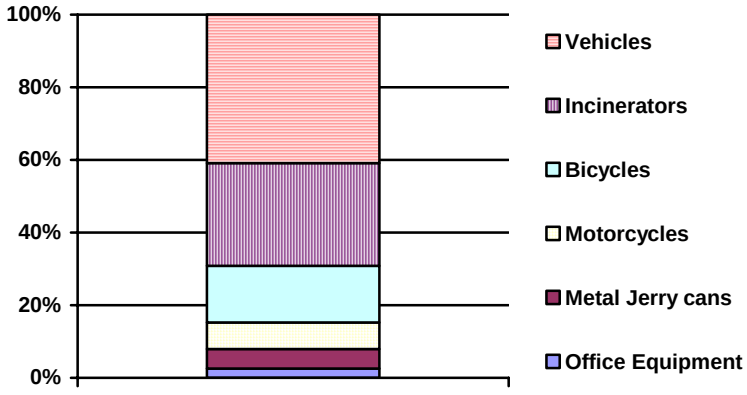
Figure 5 Breakdown of GAVI ISS expenditures: District Level



Source: WHO/Tanzania accounting records

Figure 6 presents a detailed summary of district capital expenditures. Three vehicles were purchased for the three districts of Dar Es Salaam, which together account for approximately 40 percent of district capital expenditures.

Figure 6 District Capital Expenditures (procured & shipped by WHO)



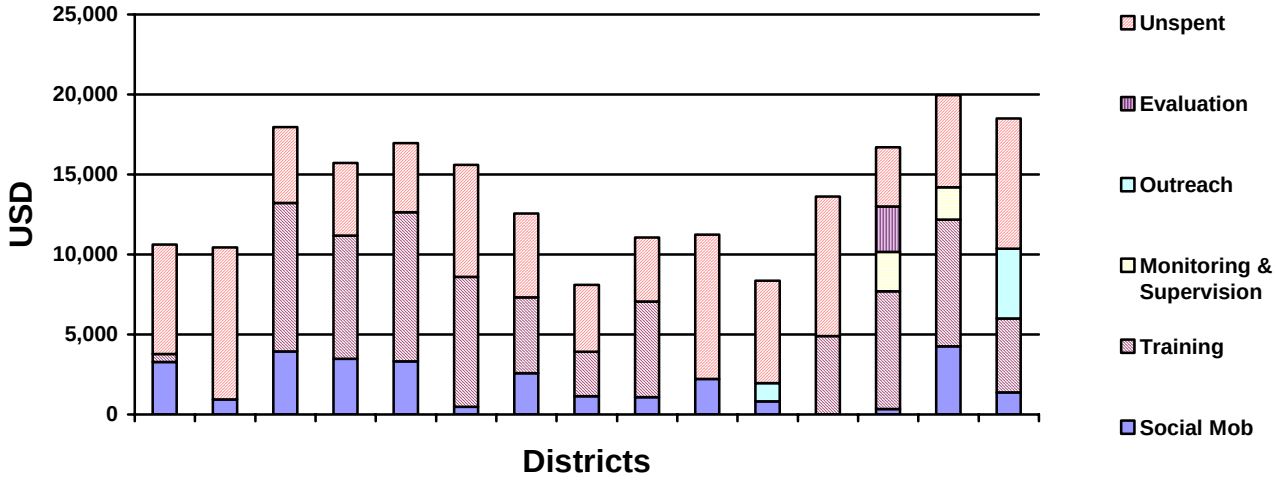
Source: WHO/Tanzania accounting records

Figure 7 presents a further breakdown of district expenditure of cash disbursements by each of the 16 recipient districts.[1] As noted above, only 54 percent of cash disbursements to districts have been spent to date. Figure 7 shows that the unspent portion of the cash disbursements is significant in all 16 districts, and that the

[1] Since the intent of Figure 7 was to give a general picture of how the ISS funds have been spent in each district, the names of the districts are not shown. They are available upon request.

expended portion was used mainly for training activities in the vast majority of the districts, followed by social mobilization activities.

Figure 7 **Breakdown of Cash Disbursements by District and Expenditure Category for each recipient district (in USD)**



Source: MOH audit report on district GAVI ISS expenditures, dated January 2004

There were two main explanations given for the low rate of spending at the district level. One, districts are having trouble accessing the ISS funds in the DED accounts. To access the funds, the proposal for how the funds will be spent must be signed by the District Executive Director, the Treasurer, and the Hospital Director. For various reasons, there are often delays in obtaining all three signatures. Districts have requested that a separate account be opened for the GAVI ISS funds, but this has not been approved. The difficulty in accessing GAVI funds from the DED bank account, however, is not unique. There have been similar complaints made and requests for separate bank accounts from other district level actors in other sectors.

Another reason given for the low rate of spending was significant delays in the districts' receipt of bicycles, motorcycles, and vehicles needed for planned social mobilization, outreach, and supervision activities.

3.3. District Case Studies: Lindi Rural and Mtwara Rural

From the outset of this case study, the team planned to visit one GAVI/ISS funded district and one non-funded district if possible, in order to draw comparisons on the impact of support. Ideally, the two districts would be as similar as possible, with the exception of GAVI/ISS funding. Two districts were subsequently visited, although the strict time constraints meant that the non-funded district was not studied in detail and in this case, visits to health facilities were not possible. The two districts were Lindi Rural and Mtwara Rural located in Lindi and Mtwara Regions respectively, both in Southern Tanzania.

3.3.1. Lindi Rural district - GAVI/ISS funded

This is a costal area bordering the Indian Ocean in the southern part of the country. Total 2004 population is quoted as 221,800 with an annual growth rate estimated by the regional health office of 1.4 percent. The land is generally low-lying and swampy along the coastal strip which runs the length of the district, and crossed by many rivers flowing into the ocean. The main cash crop is cashew nut and edible crops include cassava, sweet potato, rice and banana. None of these are considered as reliable sources of income or food however, due to seasonal variations in market prices and production quantities related to climatic fluctuations. As a result, the district is generally poor, and on a national household incomes index maintained by the central Ministry of Planning, Lindi Rural district is ranked as one of the poorest in the country. 2003 priority health problems in order of importance were malaria, malnutrition, pneumonia, ARI, eye diseases and epidemic cholera.

The district has a total of 40 health facilities, comprising 1 district hospital, 5 health centers and 34 dispensaries. All 40 facilities provide regular immunization services, although according to 1999 MOH reported data, immunization coverage was very low, with only 41 percent immunization coverage of children under 1 year with the 3rd dose of DPT. Coverage has increased substantially in recent years however, and by 2003, the reported 3rd dose DPT coverage had risen to 97 percent. Details of district immunization performance for the period 1999-2003 are shown in Table 1.

In addition to receiving GAVI/ISS funds in support of immunization, the district also receives assistance from GTZ for reproductive health and HIV/AIDS and from Save the Children Fund (SCF) in support of continuing education and community initiatives.

Table 1 Lindi Rural District immunization coverage, 1999-2003

	1999	2000	2001	2002	2003
BCG	48	100	98	96	100
OPV0	34	38	87	96	na
OPV3	41	80	91	93	98
DPT3	41	85	95	93	97
Measles	44	87	90	95	99
TT2+	82	76	94	98	99

Apart from the dramatic improvement in reported coverage for all antigens, other key accomplishments in immunization over the period 1999-2003 have been the elimination of outbreaks of vaccine-preventable diseases, the strengthening of outreach services and a substantial improvement in staff motivation. These have been at least partly attributable to receipt of 3 motorcycles and funds for their maintenance, together with 33 bicycles, all from GAVI ISS funds. Outstanding needs are the provision of cold chain equipment for a number of recently-opened dispensaries to enable them to store vaccines and completion of a phased conversion of existing refrigerators from kerosene to liquid propane gas operation. Other challenges facing

the management team are devising measures to maintain the current high levels of immunization coverage, providing a regular service to the remoter parts of the district and ensuring the sustainability of the program. Strategies proposed include further efforts by the health education staff to reach and sensitize communities, especially in the remote parts of the district, on the need for immunization.

3.3.2. Mtwara Rural district - non-funded from GAVI/ISS

This is also a coastal district bordering the Indian Ocean with generally similar geographic features to those of Lindi district, which forms its northern boundary. Its southern limits form the international border with Mozambique. Total 2004 population is estimated at 211,800 based on an annual growth rate of 1.7 percent and priority health problems in order of importance are malnutrition, malaria and epidemic cholera.

The district has a total of 34 health facilities, comprising 3 hospitals, (3 government and 1 mission) together with 30 dispensaries. All provide regular immunization services and all operate outreach and mobile sessions to supplement the fixed services. Some 75 percent of the district is described by the DHMT as high performing, but they are conscious of some hard-to-reach areas where services are less regular and less effective. Immunization coverage over the period 1999-2003 has been somewhat more consistent than in neighbouring Lindi district, and was substantially higher for 1999 as shown in Table 2. This latter result was the prime reason for Mtwara district not being selected by the MOH for receipt of GAVI ISS funding.

Table 2 Mtwara Rural District immunization coverage, 1999-2003

	1999	2000	2001	2002	2003
BCG	78	90	81	82	95
OPV0	62	40	44	84	na
OPV3	70	58	60	92	91
DPT3	73	87	83	92	90
Measles	68	86	87	93	93
TT2+	140	98	83	99	73

The district received assistance for EPI services from MSF until 2003, particularly for the rehabilitation and refurbishing of health facilities, but that support program is currently under review and may no longer be provided. UNICEF has also provided substantial support under the IMCI initiative, with annual funding of Tnz sh 50 million in quarterly disbursements, together with the supply of 1 vehicle and 3 motorcycles for surveillance activities.

Key accomplishments over the period 1999-2003 have been the maintenance of steady improvements in immunization performance through the strengthening of outreach services and a reduction in outbreaks of vaccine-preventable diseases. Challenges include measures to maintain the current high levels of immunization coverage and mechanisms to overcome the ‘political’ problem of frequent misuse of the UNICEF-provided EPI vehicles by senior district officials for non-programmatic purposes. Proposed strategies for the former include continued efforts to sensitize communities on the need for, and benefits of,

infant immunization and further improvement of outreach activities, provided the latter problem of vehicle misuse can be overcome.

3.3.3. District Level Understanding of ISS funds

In the ISS funded district, staff were broadly aware of GAVI and had a general understanding that it provides valuable support to the EPI program. Their introduction to the alliance and its objectives was probably through one of the national EPI meetings held annually to which all program staff are invited, although it was not clear at which meeting the issue was first discussed. Staff interviewed did not distinguish between the types of support available from GAVI, and could not name or describe the 3 principal funds (i.e., new vaccines, injection safety and immunization services). From their perspective, GAVI support was all in one box and beyond the fact that there was a cash component which could be used as required, they considered it to be not unlike support they received from other sources. The DMO had not been in post when the planning for the use of ISS funds had taken place and had not been briefed by his predecessor on how or why the various decisions had been reached. Staff had little or no understanding of the performance-based nature of ISS funds nor the share system, and although they had heard of the DQA process, did not appreciate its place in determining the continuation of funding through ISS.

In the non-ISS funded district, the DMO also referred to the annual national EPI evaluation meetings as the place where he and other district staff had probably first heard about GAVI, but they had no understanding of the performance-based concept, the share system, or the relation of these to the DQA process. They were not aware of any impact GAVI support to Tanzania might have had on immunization activities in their district.

Lindi Rural, together with the other ISS funded districts, received both funds and commodities from tranche 1 and 2 allocations. For this district, the funding component amounted to Tnz Sh 15,918,000 (approximately US$14,500) and as noted above, the commodities included motorcycles and bicycles. All items had been listed as unmet needs in the District Comprehensive Health Plan which was previously submitted to the regional office for transmission to MOH central.

3.3.4. District level utilization of ISS funds

Activities carried out using ISS funds in Lindi Rural were the training of health staff, which has accounted for more than 50 percent of the expenditure to date, monitoring and supervision activities, advocacy and community sensitization, and an evaluation of the immunization program to assist with identifying needs and improving future planning. The DMO considered that these investments resulted in a substantial strengthening of outreach services and was reflected in the greatly improved immunization coverage achieved. He also noted however, that poor and incomplete reporting had been responsible for the very low performance recorded in the 1999 ‘baseline year’ data, and that Lindi Rural was not actually as weak as suggested by the figures reported. This view was echoed by the Regional Medical Officer, who considered the problem of under-reporting to be widespread, and the result of insufficient emphasis on collecting data from all health units and ensuring district reports were submitted on time. This problem had also been mentioned by the Director of Preventive Services, who noted that even before the advent of GAVI, it had been realized that poor data management was a national problem, and attention had been focused on the issue during several annual EPI meetings.

The pattern of ISS funds utilization seen in Lindi Rural was repeated across all 16 funded districts, with the bulk of expenditure being on staff training, followed by advocacy and community sensitization as the next largest category. Figure 5 above illustrates the breakdown of district expenditure by category to date.

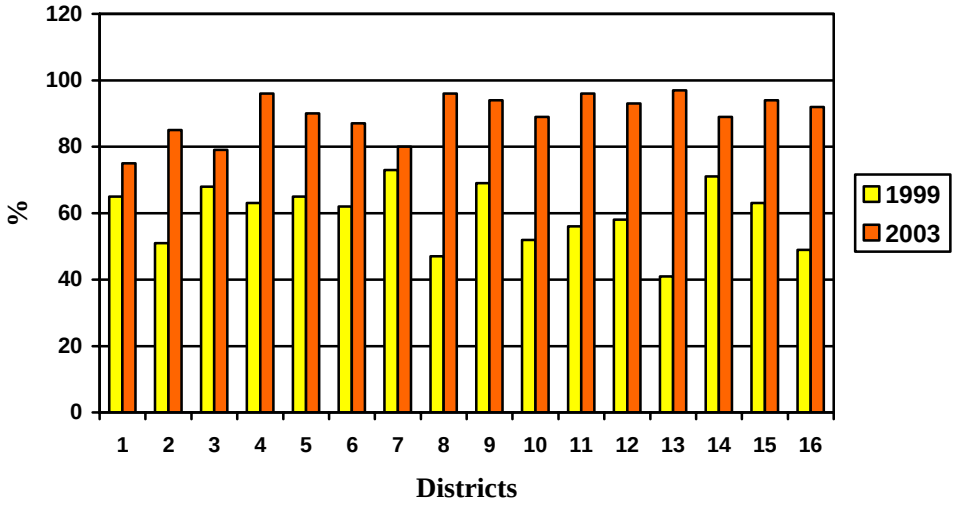
Lindi District experienced a number of delays and difficulties with accessing the ISS funds. One source of delay was in the transfer of funds from the DED deposit account into the district health account. For reasons unknown, this apparently simple process took days or weeks to accomplish and until it had been completed, the district was unable to carry out any of the planned activities.

A second source of delay was the need to obtain three signatures on each cheque. The authorized signatories on the health account were the hospital chief doctor, the DED treasurer and the Executive Director. Since all three officials were rarely available for signing at the same time, this requirement also caused frequent delays. The most difficult obstacle for the DMO to overcome was in the presentation of his plan for an activity or expenditure to the DED, and obtaining approval to proceed. This process often resulted in unexplained delays, with the DMO being advised simply that it was necessary to wait until the treasurer had sufficient funds in hand to approve the proposed expenditure. The DMO considered this to be the main reason that he still had an unspent balance in the ISS account, but viewed this as a 'theoretical' balance only, and doubted that he would ever be given authority to use it, since he assumed it had already been used for other purposes. The Regional Medical Officer considered this to be the most likely reason for all 16 funded district still showing unspent balances in their ISS accounts, and viewed this as symptomatic of an ongoing problem with district-level management of all health funds. According to the WHO accountant, the total of unspent ISS funds in October 2002 was Tnz Sh 99,522,000 (approximately US$ 100,000) but the current status of this balance is not known.

4. Changes in outcomes associated with use of ISS funds

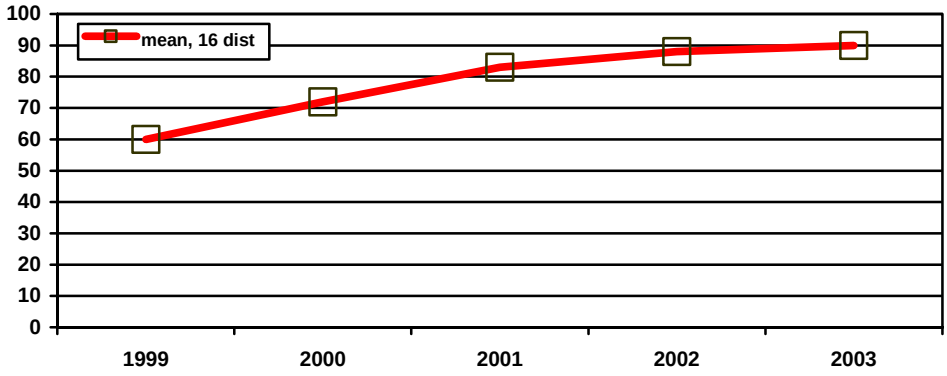
Support to the 16 'low performing' districts has produced the most immediately visible outcome from the use of ISS funds. Substantial increases in immunization coverage according to reported DPT3 rates have occurred in most cases, with some districts exceeding the national average for this indicator by 2003. Figure 8 shows the change in DPT3 coverage for the 16 districts supported with ISS funds between 1999 (the baseline year for GAVI funding) and 2003.

Figure 8 DPT3 Immunization coverage; 16 funded districts, 1999 & 2003



Year-by-year improvements in performance were erratic however, with some districts recording an initial rise in coverage, followed in subsequent years by a sharp fall, and others experiencing an initial fall and then an increase. There appeared to be no clear pattern of change on a year-to-year basis, although on average, the group followed a steadily rising trend in performance over the period. Figure 9 shows the mean DPT3 immunization coverage for the 16 ISS-funded districts between 1999 and 2003.

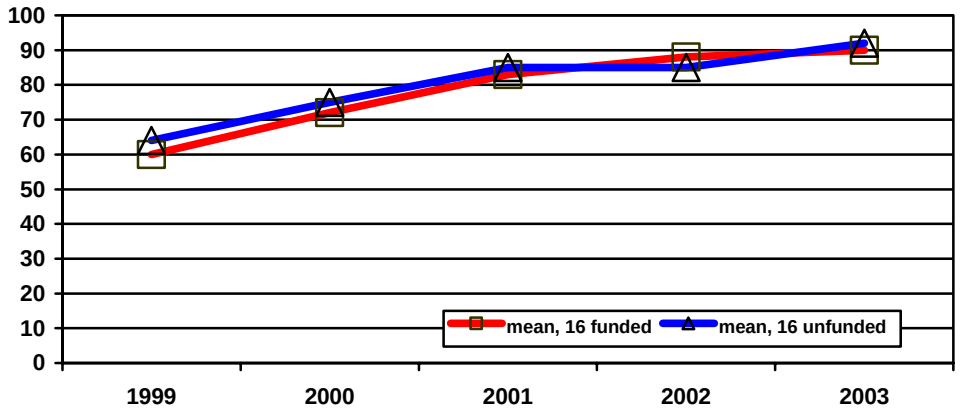
Figure 9 16 ISS funded districts, mean change in DPT3 coverage, 1999 to 2003



Tempting though it would be to attribute this substantial improvement directly to the provision of ISS funding, it was relevant to compare the changes occurring in funded districts to those occurring in similar, but unfunded districts over the same period. A further group of 16 low performing, but unfunded districts was

selected based on 1999 routine DPT3 coverage data,[2] and their change in performance over the period 1999 to 2003 was reviewed. It was found that this group also displayed the same erratic pattern of sharp rises and falls in reported immunization coverage year-by-year, and again, no clear pattern could be discerned for individual districts. When averaged over all 16 districts however, the trend in coverage rates became apparent, and Figure 10 illustrates the result, with the data from Figure 9 plotted on the same axis for comparison.

Figure 10 16 unfunded districts and 16 funded districts, mean change in DPT3 coverage, 1999 to 2003



It is clear from this comparison that although the ISS funded districts show a slightly higher rate of improvement in reported DPT3 coverage over this period, (i.e., 60 percent to 90 percent = 30 percent rise versus 64 percent to 92 percent = 28 percent rise) the difference is insignificant and does not demonstrate a substantial benefit for the funded districts. Furthermore, it is apparent that the bulk of an approximately 30 percent increase in mean DPT3 coverage which has occurred in all 32 districts since 1999 took place before 2001, and thus before the ISS funds were received by the districts. There is thus no clear evidence of the impact of ISS support using the DPT3 coverage indicator.

Another indicator commonly used to measure improvements in program performance is the change in immunization drop-out rate, which compares numbers of children receiving the first and last doses in a vaccination series. Regrettably however, first dose numbers are not reported to central level in Tanzania, and thus immunization drop-out rates, and any changes that may have occurred in this indicator, cannot be readily determined.

Actual numbers of children immunized also gives a valuable indication of program performance. A comparison of the reported numbers of children receiving DPT3 in the two groups of 16 districts, again for

[2] Selection of the unfunded districts was based on the same 1999 coverage data used by the EPI to select which districts would receive GAVI ISS funds. The districts were ranked by DPT coverage rates, and the 16 lowest performers after the 16 funded districts were selected for comparison. In cases, where there were two or more districts with the same coverage rates, districts of similar size and location to funded districts were chosen.

1999 and 2003, is shown in Table 3. In this case, a clear benefit for the funded districts is apparent, both in terms of the absolute numbers of children immunized and in the percentage change.

Table 3 Numbers of Children given DPT3; 16 funded & 16 unfunded districts, 1999 & 2003

	Children, 1999	Children, 2003	Change	%
16 districts funded by ISS	170,490	258,921	+88,431	+52
16 non-ISS funded districts	104,905	138,060	+33,155	+32

Even this may not represent firm evidence of the impact of ISS support however, as there are indications of serious under-reporting in data from the baseline year, and thus the apparent improvements over the period 1999 to 2003 may be an exaggeration. Furthermore, as already noted, GAVI support to districts did not commence until 2001, by which time most of the changes in performance had already taken place, (see Figures 9 & 10). Thus, a more valid comparison may be for a period more closely spanning the GAVI intervention, and Table 4 shows the same analysis as Table3, but for the years 2000 and 2003.

Table 4 Numbers of Children given DPT3; 16 funded & 16 unfunded districts, 2000 & 2003

	Children, 2000	Children, 2003	Change	%
16 districts funded by ISS	226,642	258,921	+32,279	+14
16 non-ISS funded districts	116,258	138,060	+21,802	+19

This shows a completely different pattern, and again, provides no clear evidence of a significant impact from ISS funding.

For other EPI antigens, analysis of performance of the two groups of 16 funded and 16 non-funded districts reveals similar patterns to those shown above for DPT3. For measles immunization, Table 5 shows the reported numbers of children immunized for the two groups of districts, the reported mean immunization coverage, and the change in coverage percentage points over the 5-year period.

Table 5 Numbers of Children given Measles Vaccine & Percent Coverage, 1999 & 2003

	Children, 1999	Children, 2003	Change	%
16 districts funded by ISS	159,767	243,967	+84,200	+53
16 non-ISS funded district	101,866	141,904	+40,038	+39

Table 6 Comparison of 16 funded & 16 unfunded districts, 1999 & 2003

	% coverage, 1999	% coverage, 2003	Change, % points
16 districts funded by ISS	58	85	+27
16 non-ISS funded district	62	89	+27

An important conclusion evident from Table 5 is that the numbers of children immunized with measles has risen at least as much as those immunized with DPT3 over the 5-year period, and this has occurred in both the funded and the non-funded groups of districts. (In fact, the rise has been somewhat greater for the non-funded group.)

As a result of the emphasis on DPT3 as the principal indicator used to determine continued ISS funding, fears had been expressed that this might lead to differential attention being given by districts to improving their DPT3 performance, at the expense of the other EPI antigens. However, there was no evidence of this occurring in the two groups of districts examined, and furthermore, no evidence of it occurring even in the national performance trends for 1999 – 2003, but rather the opposite (i.e., 13 percentage points rise for DPT3 vs.18 percentage points for measles - see Figure 2 above).

This is not an entirely surprising observation however, since as already noted, districts appeared to have very low awareness of the performance-based nature of ISS funding and the role of DPT3 coverage as the principal indicator for future funding, and are thus very unlikely to have given any special attention to increasing their DPT3 performance.

For tetanus toxoid, a smaller overall increase in coverage is noted, but in this case, data for the baseline year is incomplete, with many districts failing to report their TT coverage. Of those who did provide data, many have claimed figures of well over 100 percent coverage, (and some over 1000 percent) and thus 1999 data is clearly not reliable. Instead, the change in TT coverage for the period 2000 to 2003 for the two groups of 16 districts each, based on routine reported data, is shown in Table 6.

Table 7 Percentage of Mothers given TT2+; 16 funded & 16 unfunded districts, 2000 & 2003

	%t coverage, 2000	% coverage, 2003	Change, % points
16 districts funded by ISS	73	81	+8
16 non-ISS funded district	79	90	+11

The quality of data used in calculations of immunization coverage for all EPI antigens is clearly an issue in Tanzania, and as noted above, the country failed the first DQA conducted in 2001, with a 'verification factor' score of only 57.2 percent. Although a subsequent DQA held in 2002 reported a verification factor of 90.2 percent, and the country was deemed to have 'passed', it should be noted that the DQA process verifies only completeness of reporting and recording and the consistency with which data is transferred from one level to the next. It does not verify data accuracy *per se*, and thus, if an error in calculation or data entry occurs at

facility level, provided that the error is faithfully transmitted to district, regional and finally the central levels, then the requirements of the DQA are satisfied.

As already mentioned, although the two groups of 16 districts both recorded substantial improvements in immunization performance, when viewed over a five-year period, their year-by-year reported coverage rates were highly erratic. Some districts recorded dramatic initial rises in coverage, followed in subsequent years by sharp falls and perhaps more rises, while others apparently experienced an initial fall and then subsequent increases or further falls. There appeared to be no clear pattern of change for any of the districts on a year-to-year basis, and only when averaged did a clear trend become apparent. Close examination of district data reveals, however, that although reported coverage rates varied so widely from year-to-year, the reported numbers of children immunized was far more consistent, and generally reflected a steadily increasing trend over time. This would obviously be the expected pattern, as excluding large migrations or similar factors, the population of a district might be expected to increase year-by-year, approximately in line with national population growth rates and corrected for any local or regional variations.

The only reason that reported coverage would fluctuate highly when numbers of children immunized remain approximately constant, would be a changing denominator used in calculating the coverage figures. Examination of the same district data confirmed that target population figures for the 2 groups of districts indeed varied widely from year-to-year, and roughly mirrored the apparent fluctuations in immunization coverage. Table 7 is compiled from the same data set as was used for the graphs in Figures 9 and 10 above, but shows the baseline year target population for each of the districts examined and the reported target population for each subsequent year as a percentage increase or decrease from the previous year. The extent of the variations is readily apparent and appears to be equally random for both groups of districts.

Table 8 Reported Target Populations for 2 Groups of 16 Districts; 1999 to 2003

16 ISS Funded Districts

Districts	1999 Baseline	2000 % chg	2001 % chg	2002 % chg	2003 % chg
1	12,584	-8	3	24	21
2	15,349	3	2	4	12
3	10,329	49	15	-25	32
4	8,720	0	11	5	20
5	15,411	37	3	-21	15
6	13,628	-23	4	11	-9
7	7,492	-12	1	23	12
8	62,755	6	-8	-28	-29
9	30,006	3	-4	4	6
10	25,570	4	-5	1	2
11	9,928	4	4	-45	-39
12	12,165	4	4	13	26
13	16,997	-42	-5	-8	-48
14	16,324	4	4	1	11
15	24,547	2	9	-13	0
16	16,173	12	0	-12	1

16 Non-ISS Funded Districts

Districts	1999 % chg	2000 % chg	2001 % chg	2002 % chg	2003 % chg
1	5,623	5	-3	7	12
2	5,048	-17	17	15	15
3	13,857	3	4	6	17
4	18,451	3	3	1	9
5	6,956	22	-12	-8	1
6	3,053	-8	-1	-41	-44
7	3,812	-16	30	-11	0
8	9,389	-47	6	-2	-43
9	14,137	3	-11	-13	-18
10	17,220	9	2	-6	8
11	12,268	-27	9	-15	-31
12	18,133	3	3	-16	-9
13	6,744	2	19	3	72
14	4,973	-12	2	19	10
15	11,004	3	102	-14	-10
16	10,327	6	0	0	0

Guidelines issued by the MOH to all districts require that only the new 2002 census data is to be used as the denominator for determining routine immunization coverage, but it is clear that very few districts are following this directive. Although data quality has greatly increased since the advent of GAVI and the first DQA, with much greater attention is now being given to data management, there is obviously still room for further improvement in order to ensure reliable and consistent reporting of program performance.

5. Immunization financing past, present, future

Government reforms in Tanzania have had a significant impact on the financing of immunization activities. Two outcomes of the reform process that have had the greatest effect on immunization financing are the creation of the SWAP and the decentralization of health sector planning and financing.

The SWAP has changed the way that the EPI receives much of its donor funding, as well as the overall level of funding. Many donors that used to finance the EPI directly as a vertical program now contribute un-earmarked funding to the health sector as a whole through a consolidated 'basket' of donor funds. While the EPI continues to receive direct program support for specific activities, such as campaigns, or items, such as cold chain equipment, donor funding for routine EPI costs seems to be considerably more uncertain than in the past.

On the other hand, recent policy reforms set forth in the Poverty Reduction Strategy Paper, the Tanzania Assistance Strategy, and the Tanzania Development Vision 2025 identify the health sector, and immunization specifically, as priority areas. Specific immunization or immunization-related targets are included in these strategy documents, which ensure that the EPI receives a certain level of government and basket funding to assist the Government in achieving these targets. As a reflection of its priority status, the EPI program is included as a line item in the MTEF, along with other priority areas/services.

As mentioned earlier, the MTEF does not include district-level health sector activities, including immunization activities. The decentralization process has given districts increasing autonomy in the planning and, to a lesser extent, financing of health activities. Districts receive funding from several sources including the central level (government and basket contributions), local revenue, direct donor support, and health sector cost-sharing mechanisms. The DHMT allocates these various health sector funds to different activities in the district health plans, in accordance with budget guidelines. Districts may receive direct or indirect support from the regional or central level in developing these plans. The district plans are also reviewed at the regional level prior to submission.

While a central EPI representative is sometimes present at the regional review meetings, the central EPI office seems to have limited knowledge about immunization financing at the district level. The EPI office does not collect all district health plans and is, therefore, not completely informed about the level of health sector funding being received by the districts, how they are allocating those funds among different health activities, or the specific immunization activities being carried out. The EPI is introducing monthly EPI program reports to be submitted by each district, but this plan has not yet been implemented.

Due to time limitations, the study team was not able to collect and review district comprehensive health plans to assess how district-level funding of immunization activities has changed. However, the team was made

aware of three significant changes in district funding. First, funds for kerosene, which the MOH had been giving to districts in the past, are now being transferred directly from the Treasury to the local DED accounts. Accordingly, a specific line item for kerosene is required under the district budget guidelines. Secondly, starting in FY 2004/05, basket fund allocations will not be made solely on a per capita basis, but will take into account geographical area, under-5 mortality rate, and poverty level.

The third change is in how DANIDA, historically a significant contributor to the EPI program, contributes to the health sector. To date, DANIDA has been the only donor that differentiates between central and district level basket contributions, and has been contributing to both. Starting in FY 2004/05, under Phase 3 of its assistance strategy, DANIDA will allocate 90 percent of its health sector contributions to the "district" basket. There is speculation that other donors may also start making differentiated contributions, although the team was not able to verify this.

As a result of the difficulties in collecting district-level data, this section focuses largely on how ISS funds and other developments have impacted the financing of central EPI activities. It is important to note that central level funds cover the vast majority of immunization activity costs, including vaccines, cold chain equipment and maintenance (except kerosene), other equipment and supplies, training, and national monitoring and surveillance.

Table 9 presents EPI expenditures for FY 2000/01 (the year preceding GAVI support) to 2003/04[3], the last year in which GAVI ISS funds have been expended. The EPI began receiving the DPT-HepB vaccines and ISS funds during FY 2001/02, as reflected in the increase of EPI expenditures from $15.3 million in 2000/0 to $17.1 million in 2001/02. The decrease in EPI expenditures from 2002/03 to 2003/04 (estimated) is due in part to a decrease in campaign activities and in part to decreases in donor funding of the EPI.

Table 9 Central EPI Expenditures for FY 2000/01 to 2003/04 (in USD)

	2000/01	2001/02	2002/03	2003/04
Total EPI Expenditures	**15,350,247**	**17,111,172**	**16,505,001**	**13,775,064**
Routine Immunization Costs	**12,037,946**	**13,911,776**	**13,621,605**	**13,769,581**
Recurrent Costs	7,333,311	9,460,577	11,574,848	11,344,404
Capital Costs	4,704,635	4,451,199	2,046,757	2,425,177
Supplementary Program Activities (polio, measles campaigns)	**3,312,301**	**3,199,396**	**2,883,398**	5,483
GAVI ISS Expenditures	**36,149**	**435,373**	**269,262**	**134,595**
Recurrent	36,149	136,188	234,447	19,990
Capital		299,185	34,815	114,604
% of Total Routine Immunization Costs	***0.3***	***3.1***	***2.0***	***1.0***
% of Recurrent Costs	*0.5*	*1.4*	*2.0*	*0.2*
%of Capital Costs	*0.0*	*6.7*	*1.7*	*4.7*

Source: November 2003 Financial Sustainability Plan and 2002/3 MTEF

As mentioned, some of the changes in donor funding are a result of diverting funds formerly going directly to the EPI to the basket fund. However, donor support to the EPI has also declined as a result of GAVI vaccine support (in the case of donors who were supplying DPT or injection supplies to the EPI) and/or independent donor efforts to gradually reduce direct funding of the EPI. In the case of DANIDA, reductions in their

[3] Expenditures for FY 2002/3 and 2003/4 are estimated based on FSP projections and the MTEF for those years.

support of the EPI appear to be a combination of all of the above. DANIDA has been providing vaccines, injection supplies, cold chain equipment, and other types of support to the EPI for many years. Currently, their support is largely through the basket fund. Their gradual withdrawal of direct support to the program, however, is masked in Table 9 by the concurrent increase in GAVI support. UNICEF's support to the routine EPI has also declined significantly over the past few years. At present, UNICEF receives no earmarked funding for routine EPI costs.

Table 10 presents a breakdown of EPI expenditures by funding source. Despite decreases in bilateral and multilateral direct support of EPI, the "Other" category of funding has increased between FY 2000/1 and FY 2002/3, due mainly to GAVI support for vaccines and injection supplies and, to a lesser extent, ISS funds. Government expenditures on EPI also declined slightly between FY 2000/01 and 2001/02 and are estimated to decrease by over 50 percent between FY 2001/02 and 2002/03.[4] Across all years, the basket contribution to EPI expenditures at the central level has been relatively small.

Table 10 EPI Expenditures, by Funding Source and Year (in '000s of USD)

	2000/01	2001/02	2002/03
Total EPI Expenditures	**15,350**	**17,111**	**16,505**
Sources of funding:			
Government	7,292 (48%)	6,988 (41%)	3,300 (20%)
Basket	-	145 (.9%)	726 (4%)
Other (GAVI, direct donor & multilateral support)	8,058 (52%)	10,162 (59%)	12,479 (76%)
Routine EPI Expenditures	**12,037**	**13,911**	**13,622**
Sources of funding:			
Government	5,396 (45%)	6,454 (46%)	3,300 (24%)
Basket	-	145 (1%)	726 (5%)
Other (GAVI, direct donor & multilateral support)	6,642 (55%)	7,496 (54%)	9,595 (70%)

Source: November 2003 Financial Sustainability Plan and 2002/3 MTEF

There are indications that the ICC has become less active and less involved in EPI matters in recent years, which has, in turn, impacted on immunization financing. Attendance at group committee meetings has declined since the days of regular polio NIDs, which was the original driving force for the ICC, meetings have become less regular, with junior agency staff taking the place of the key members, and the former decision-making initiatives of the committee have been much reduced. There appears to be a perception that EPI is now financially secure to a large extent, particularly since the advent of GAVI, and that it no longer demands the level of attention and support which was once required.

There was discussion of forming a technical group within the ICC to focus on such issues as GAVI implementation, the drafting of the Financial Sustainability Plan and advocacy for districts to encourage them to maintain their attention on EPI, but this sub-group has never materialized, and such matters are largely left to WHO and UNICEF, working together with the MOH.

[4] EPI expenditures for FY 2002/03 are based on FSP projections and budget contributions set forth in the FY 2002/03 MTEF.

In the context of declining donor support for routine EPI activities, the ISS funds have been a welcome additional source of funding for the program. Table 9 presents the contribution of the ISS funds to the EPI budget.[5] The ISS expenditures shown in Table 9 are classified according to the date that WHO disbursed funds for specific activities or items. Depending on what portion of the ISS funds were spent in a given fiscal year, their contribution to the total budget for the routine EPI ranges from 0.3 percent to 3.1 percent. In 2001/02 and 2002/3, the years in which a large volume of capital items were purchased for the districts and central level, the ISS funds account for 7 and 5 percent respectively of estimated capital expenditures for the routine program. While ISS funds do not represent a large portion of total costs, they have made a significant contribution to non-vaccine costs for the routine EPI, and served to fund long-standing gaps.

The transactional costs of the ISS funding were not considered burdensome to the EPI/MOH or ICC members. WHO did decide to hire a financial clerk to assist in managing GAVI ISS funding and other external support for the EPI. But this officer was seen as necessary to coordinate donor support to the EPI in general rather than exclusively to manage the ISS funds. None of those interviewed perceived the cost of the two data quality audits to be significant or an issue either. It was clear, though, that in response to Tanzania's failing the 2001 audit, a sizable portion of ISS funds were spent to improve the quality of data collection and management in the country.

While not directly related to GAVI ISS support, the development of the financial sustainability plan (FSP) was a costly exercise in Tanzania, in terms of both labor time and other expenses. Approximately $21,000 of the second tranche of ISS funding was used to send MOH officials to Dakar, Senegal for the GAVI FSP workshop and for a local retreat related to FSP development in Tanzania.

In the latest version of its FSP, Tanzania presents only one future scenario, which is based on the introduction of the pentavalent DPT-HB-Hib vaccine in FY 2005/06. In previous versions of the FSP, Tanzania presented alternative scenarios, but decided in the latest version to present only what it perceives as the most desirable option. The EPI/MOH and some ICC members seem acutely aware of the financial implications of introducing the pentavalent vaccines, as well as the significant funding gap that will result when GAVI support to Tanzania ends. Tanzania is in the process of conducting a disease burden study to evaluate whether or not it is appropriate for the country to introduce the more costly Hib vaccine, and the EPI/MOH are very interested to see the results of this. While many of those interviewed expressed concern about how Tanzania would be able to fund vaccine and commodity costs after GAVI, a clear plan was not detectable among interviewees or in the FSP.

Experience to date with reward shares

In February 2004, Tanzania was approved for its first reward share of $3,056,000 for the 152,776 additional children immunized with DTP3 between 2001 and 2002. Since Tanzania has not yet received its third tranche ($1,214,000) in investment shares due to the delay in renewing the MOU between the MOH and WHO, GAVI proposed that the third tranche be sent in January 2004 and the first reward in January 2005. However, at the time of this study (April 2004), the third tranche had still not yet been received. As they are still in the process of planning for the third tranche, it did not appear that they were any further specific plans for the allocation of the first reward.

[5] Table 9 does not include the $231,000 in cash disbursements to districts, which would be incorporated into the district health plans versus the MTEF.

6. Conclusions

6.1. Main Findings

Based on the findings of this case study, the following general conclusions were reached:

6.1.1. Application Process

- The impetus for the original application for GAVI support was the introduction of the combination DPT-Hep B vaccine. It is not clear whether the Government was initially aware of or intended to apply for GAVI ISS funding. From the beginning, however, there were strong country-level advocates for the ISS support, including the EPI Manager and UNICEF.
- The driving forces behind the overall application process were the EPI Manager, a large team of external WHO consultants, and UNICEF. The perception among those interviewed was that the team of external WHO consultants was responsible for writing the actual application.
- The participation of the ICC as a body in the application process was limited to reviewing the draft application.

6.1.2. Understanding and Perception of ISS funding

- The study team found that understanding of the ISS share system and the performance-based aspect of the support was very low beyond key EPI/MOH, WHO, and UNICEF staff at the central level.
- Senior level MOH officials and district staff did not distinguish between the different types of GAVI support, and awareness of the ISS component in particular was not widespread.

6.1.3. National level ISS Planning and Funds Allocation

- The central level EPI team, UNICEF and WHO have been the key actors in discussions and decisions concerning the use of ISS funds. Beyond these core ICC members, the ICC has had very limited involvement in decisions regarding how the ISS funds are used. During quarterly ICC meetings, members are informed of decisions regarding the allocation of ISS funds, but are generally not involved in the decision-making process.

- The ISS funds are being increasingly, but still not fully, incorporated into the existing EPI/MOH planning and budgeting process and tools. The extent to which the ISS funds are incorporated into the EPI annual plan or corresponding MTEF seems to be a function of when the funds are received. Due to delays in disbursement of the first tranche and receipt of the third tranche, the central EPI team perceives ISS funding to be somewhat uncertain, which has also inhibited the full incorporation of ISS funds into the MTEF.

- While a small portion of the overall and recurrent EPI budget, ISS funds are viewed as a valuable mechanism to fill funding gaps in existing EPI or district-level plans, or to strengthen under-funded immunization activities. The ISS funds have been particularly welcome during a period marked by declining donor support of the EPI.

- The principal uses of the first two tranches of ISS support were to support low performing districts and to build capacity at all levels in several key areas, including social mobilization/communication, data collection and management, and DPT-HB introduction and supervision.

- Although the study team did not see concrete plans for the third tranche, the MOH had discussed a number of options, which included (1) providing further support to the same 16 or new low performing districts, and (2) devising a system of 'reward' funds for 'high performing' districts. The latter was a response to complaints among high performing districts that they are being penalized for being good performers.

6.1.4. Utilization of ISS funds

- Since the application period, there has been a consensus among key actors that ISS funds should be used primarily to strengthen district-level immunization services, particularly in low-performing districts. However, due to uncertainties about the effectiveness of providing direct support to districts and Tanzania's failure rating on its first DQA in 2001, the second tranche of ISS funds was used primarily to strengthening the role of the central level in capacity-building at the regional and district levels and in improving data quality and management.

- As of January 2004, only 54 percent of the January 2002 cash disbursements to districts have been spent. The reasons for this low spending rate are (1) substantial delays in the central level (WHO) procurement and shipment of vehicles, bicycles, and motorcycles needed to carry out planned social mobilization, outreach, and supervision activities and (2) difficulties and delays in the release of funds from the DED account at the district level.

6.1.5. Impact of ISS funds

- There have been dramatic improvements in the performance of low performing districts since the 1999 GAVI application baseline, but the bulk of changes occurred before GAVI funds arrived or were used in country.
- There were no significant differences in coverage rate changes or changes in the number of children vaccinated between funded and unfunded districts.
- The use of DPT3 as the performance indicator for ISS funding does not appear to have impacted immunization activities, but this is not surprising as districts were not aware of, nor motivated by, the performance-based aspect of the ISS funding.

6.2. Major Challenges

- One of the key challenges facing Tanzania is how to finance the immunization program after GAVI support ends, particularly in light of declining bilateral and multilateral support to the EPI.

- The only scenario presented in the latest version of the FSP is based on the introduction of the pentavalent vaccine in 2005, though the EPI/MOH is still waiting for the results of an on-going disease burden study to see if the introduction of the Hib vaccine is needed in Tanzania.

- The EPI/MOH and ICC members seem very aware of financial sustainability issues with or without the introduction of the Hib vaccine, but the study team was not able to uncover a substantive plan for how these issues would be addressed in the future.

6.3. Declining Role of the ICC in Tanzania

- The role and interest of the ICC in EPI issues has declined in recent years. While regular quarterly meetings are held, attendance has decreased beyond the core group (EPI, WHO, UNICEF) and junior staff are taking the place of former key members.
- There appears to be a perception that the EPI is now more financially secure, particularly since the advent of GAVI, and therefore no longer needs the level of attention and support that it once required.

ANNEX 1: List of persons contacted

Ministry of Health
Dr . Ali A. Mzige, Director of Preventative Services
Ms Regina Kikuli, Director of Policy and Planning
Director of Human Resource Development
Communications Officer
Director, Department of Epidemiology
Budget Officer for Department of Preventative Services
Ms Karen Kramer, Team Leader, National Malaria Control Program
Mr Ally Mnzava, Program Administrator

Ministry of Finance
Mr. Kibadja

EPI
Dr. Mary Kitambi, Action EPI Program Manager
Mr Acton Mwaikemwa, Surveillance Officer
Ms Jean Bomani, EPI Administrator

WHO/Tanzania
Dr. Mary Kibona, WHO EPI Surveillance Officer
Mr Rwabuyongo , Accountant
Ms Marina Rwechungura, Financial Clerk, EPI Office

UNICEF/Tanzania
Ms Sakina Othman, Assistant Project Officer, EPI
Mr Francisco Blanco, Supply/Logistics Officer, EPI
Ms Riita Poutianen, Health Program Officer
Dr. Kimata, Health Program Officer

JICA
Mr Takahiro Moriya, Assistant Resident Representative
Dr. Salli Mwanasalli, Chief Program Officer

DANIDA
Mr. Bou Peters, Chief Technical Advisor

World Bank
Dr. Emmanuel Malangalila

Christian Social Services Commission
Dr. Godfrey E. Gomile, Health Policy Analyst (former WHO/EPI Officer)

Lindi

Dr Mohammed, Regional Medical Officer
Dr Kungulwe, District Medical Officer
Dr Karunga, Dental Officer (acting DMO)
District Accountant
Health Facility staff

Mtwara
District Medical Officer

ANNEX 2: Schedule of visit

4/19 Meetings with central EPI team (Dr. Mary Kitambi, Acting Program Manager), Mr Acton Mwaikemwa (Surveillance Officer), and Dr . Ali A. Mzige (Director of Preventative Services)

4/20 Meetings with Dr. Mary Kibona (WHO), Mr Rwabuyongo (WHO), Ms Sakina Othman (UNICEF), and Mr Francisco Blanco (UNICEF)

Briefing and discussion with Directors within the MOH's Direction of Preventative Services

4/21 Meetings with Dr. Godfrey E. Gomile (Christian Social Services Commission), Mr. Kibadja (Ministry of Finance), Ms Riita Poutianen (UNICEF), and Dr. Kimata (UNICEF), EPI team

4/22 Visit to Mtwara and Lindi
Meetings in Dar Es Salaam with Mr Rwabuyongo (WHO), Ms Marina Rwechungura (WHO), Ms Karen Kramer (MOH) and Mr Ally Mnzava (MOH)

4/23 District visit to Lindi
Meetings in Dar Es Salaam with Ms Regina Kikuli (MOH), Budget Officer for Department of Preventative Services, Mr Takahiro Moriya (JICA), Mr. Salli Mwanasalli (JICA) and Mr. Bou Peters (DANIDA)

4/24 Meeting with Ms Jean Bomani (EPI) and EPI document review

4/26 Meetings with Dr. Emmanuel Malangalila (World Bank) and Mr Acton Mwaikemwa (EPI)

4/27 Debriefing with ICC