Tanzania

Integration of Contraceptive Products into the Medical Stores Department's Distribution System

June 1997—July 2000

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The Family Planning Logistics Management (FPLM) project is funded by the Office of Population of the Bureau of Global Programs of the U.S. Agency for International Development (USAID). The agency's Contraceptives and Logistics Management Division provides a centralized system for contraceptive procurement, maintains a database on commodity assistance, and supports a program for contraceptive logistics management.

Implemented by John Snow, Inc. (JSI) (contract no. CCP-C-00-95-00028-00), and subcontractors (The Futures Group International and the Program for Appropriate Technology in Health [PATH]), the FPLM project works to ensure the continuous supply of high-quality health and family planning products in developing countries. FPLM also provides technical management and analysis of two USAID databases, the contraceptive procurement and shipping database (NEWVERN); and the Population, Health, and Nutrition Projects Database (PPD).

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Acronyms

ARI	acute respiratory infections
CMS	Central Medical Stores
CPR	contraceptive prevalence rate
DACC	District AIDS Coordinator
DCCO	District Cold Chain Officer
DDA	Department of Drug Administration
DFID	Department for International Development (British Agency)
DHB	District Health Board
DHMT	District Health Management Team
DMCH	District MCH Coordinator
DMO	District Medical Officer
EMT	Executive Management Team
FEFO	first-to-expire, first-out
FPU	Family Planning Unit
HIV	human immunodeficiency virus
HMG	His Majesty's Government of Nepal
HMIS	health management information system
HP	health post
IEC	information, education, and communication
JICA	Japan International Cooperation Agency
JSI	John Snow, Inc.
KfW	Kreditanstalt fur Wiedraufbau (German Agency)
LMD	logistics management division
LMIS	logistics management information systems
MCH	Maternal and Child Health
MOH	Ministry of Health
MOS	months of supply
MoU	Memorandum of understanding
MSD	Medical Stores Department
MTB	Medical Tender Board
MTC	Mufindi Tea Company
NACP	National AIDS Control Program
NFPP	National Family Planning Program
NGO	nongovernmental organization
NID	National Immunization Days
NHTC	National Health Training Centre
ORS	oral rehydration solution
PB	Pharmacy Board
PC	personal computer
PoD	Proof of Delivery
R&R	Report and Request forms
RCHU	Reproductive and Child Health Unit
RMCH	Regional Mother and Child Health
SDP	service delivery point
SHP	sub-health post
STD	sexually transmitted disease
TB	tuberculosis

Executive Summary

The process to integrate the vertical distribution system for family planning commodities, run by the Family Planning Unit (FPU) of the Ministry of Health, with the commercial one for essential drugs, vaccines and medical supplies, run by the Medical Stores Department (MSD), took place from June 1997 to July 1999. Full-scale national-level integration started in July 1999, and has just completed its first year nationwide.

The integration appears to have proceeded reasonably well, with family planning products reaching from the National Level to the District level on a timely and accurate basis. Over 1,076 cubic meters of family planning commodities were distributed in this first year, with estimated savings of $196,416 dollars or 58% for the MOH. While improvements are possible, use of a commercial contract with the MSD has saved money and distributed the product as needed.

A few key lessons learned have arisen from this process. These will be discussed in detail below, but are listed here for reference:

- The process of integration requires strong incentives.
- Volume costing made financial calculations possible.
- The role of an impartial mediator was critical.
- The financial savings in this case were worthwhile and substantial.
- The product is available as needed at the District and SDP level.
- Adding family planning distribution onto an on-going MSD system was easier.
- Integration requires open communication and good faith negotiations.
- Adjustments and constant monitoring are necessary and must be built in.

A. The Decision to Integrate

In 1997, the FPU was operating a vertical, stand-alone distribution system to receive, store and distribute family planning supplies to 20 warehouses in the country at the regional level. This system included 22 people, 22 warehouses, and 24 trucks. While not perfect, it delivered contraceptive supplies to the Regional level, and the Regional facilities would deliver to the Districts. The Districts themselves then would be required to further distribute these supplies to the service delivery points (SDPs).

The MSD which had been in operation since 1993, was established with generous support from donors. They were distributing medical drugs, supplies, and essential drug kits, and since 1996, had added the distribution of vaccines, complete with necessary cold chain items. They procured supplies, received them, stored them at central warehouses, and distributed them to 113 sites at the District level, going through seven zonal warehouses. These supplies, largely in kit form, were reaching the District level on a regularly scheduled basis. The MSD operated from a large central warehouse compound in Dar-Es-Salaam, with cold storage warehousing, eight off-site warehouses and 16 trucks and six trailer units for national distribution.

This is a financial saving of approximately $196,500 or 58% from previous costs. And the products are being delivered directly to the District level, not just to the Regional warehouse level. So integration has demonstrated substantial cost savings and brought the products closer to the SDP level.

From the Logistics Assessment Team national survey conducted by a multi-sector team in April/May 2000, contraceptive products are indeed available at the District level in necessary quantities.

From national SAS surveys conducted in 1996 and again in November 1999, stock out rates for contraceptives at the SDP level have dropped from 26.9% percent in 1996 to 11.3% in 1999. This is a strong indication that product delivery has improved in this period.

Costs for this storage and distribution of contraceptive products have been shared almost equally between USAID and UNFPA, which was the arrangement as per the original MoU. These costs have been more than cut in half from the previous system, with improved product delivery.

While improvements to the system are possible, clearly the Ministry of Health has benefited from lower costs and from improved delivery of product under this integrated approach.

D. Lessons Learned

1. The process of integration requires strong incentives.

Joining two parallel distribution systems is not easy. If the incentives to make this work are not sufficiently strong and compelling, other forces working against integration will prevail. In this case, both the government and the donor organizations anticipated strong cost savings in integration and provided a strong push to make this work. With the possibility of improved delivery to a lower level, and a more timely service, and the savings benefits, this was enough to maintain the pressure on the two organizations to reach a mutually agreeable solution.

Health Sector Reform was also a factor, with pressure to eliminate vertical, independent systems. With both MSD and FPU trucks going to essentially the same places, integration seemed worth the effort**.**

2. The decision to use volume costing made financial calculations possible.

Several options to calculate costs were explored early on, none of them quite satisfactory from both sides. Then MSD proposed a uniform cost of $133 per cubic meter of product storage and shipment to the Districts. This was based on their standard calculations for costing other products.

This solved the problem of using percentages of values, which would have made the delivery too expensive for the MOH. It also solved the MSD problem of being able to calculate costs on a uniform basis, figuring in volume size, which as a shipping company, was a key criteria. For example, condoms, which are high volume but low value, could be tracked by the box for MSD purposes.

With this standard $133 per cubic meter, FPLM then helped calculate volume costs per carton, which then let MSD track and cost distribution of each carton to the District level.

3. The role of an impartial mediator was critical.

USAID/Tanzania provided the technical services of FPLM as technical advisors to the MOH and as mediators between the MSD and the MOH. From June 1997 to February 1999, this involved seven

7. The process of integration requires open communication and good faith negotiations.

As shown above, this is not an easy process. All parties must be prepared to start and maintain a working dialogue. FPLM helped to keep this dialogue open but the two party's willingness to keep the conversation open was critical.

It is also important to have a champion for the process with sufficient incentives to keep the parties at the table when the dialogue is interrupted.

8. Adjustments to the system and constant monitoring are necessary and must be built in.

The perfect system is unlikely to be created on the first try. The MoU must make allowances for mutually agreed upon changes, in response to changing circumstances and prices. This dialogue and opportunity for chance has been built into the MoU.

The MoU also allows for cost negotiations to be conducted after the first full year of operations.

E. Next Steps

As per the MoU, the MoU can be reviewed after one year. Payments from the RCHS to MSD need to be made on a regular, timely basis. Inadvertently, these fell into arrears, but this problem was quickly corrected.

Adjustments have been made to the regular information reporting made by MSD to the RCHS, in order to improve coordination and oversight. Both formal and informal dialogue needs to be maintained.

Product requirement information needs to be improved from the SDP to the District level, since delay means product availability from the MSD to the District can not be assured. This is the responsibility of the MOH.

Customer Service and customer satisfaction by the MSD to the District level needs to be better tracked. Improvements to this are under discussion between the two parties.

Introduction

Over the course of three years, the Ministry of Health (MOH) in Tanzania took the bold step to integrate an operating, vertical system for the distribution of family planning commodities into the commercial distribution operations of the Medical Stores Department (MSD), a autonomous organization within the MOH distributing essential drugs, vaccines and medical supplies. This report chronicles the decision to integrate the process of integration itself and the results after one full year of integration.

The Ministry of Health and USAID requested that this process be recorded in order to provide insight into lessons learned. It should also shed light on the viability of this activity for other countries that are considering integration of various, vertical procurement and distribution systems for public health commodities.

With many countries facing pressure to integrate and rationalize health distribution systems, these lessons learned are very valuable. Especially with Health Sector Reform, decentralization and financial sustainability, countries around East Africa are looking to improve efficiencies in distribution of health commodities. We believe the example of Tanzania demonstrates the viability of this approach and suggests ways to make this happen.

MSD was established as a non-profit financially self-sustaining organization to be run on a commercially viable basis. The Family Planning Unit of the MOH ran a vertical distribution system, where the key objective was to insure availability of contraceptive products for the consumer at all costs. This report details the process to bring together these two different cultures, with different operating objectives, for a win-win result.

The Memorandum of Understanding between the MSD and the MOH is in effect a commercial contract, between the supplier of the products (the MOH and donors) and the distributor of the product, (MSD). The MoU is attached as an appendix, but is in fact the key document to this integration, as was the process of developing it.

It is not possible to record all steps in the negotiations to agree on this MoU. Numerous drafts were prepared, adjustments and counter-proposals made in a variety of forums, with final review and approvals necessary from the MOH and from the MSD. We would also like to acknowledge the time, technical expertise and diplomatic skills of two FPLM III logistics advisors. Over the course of two years, Beatriz Ayala and Andy Marsden helped negotiate the successful integration of family planning products into the MSD system.

This report is organized along the natural way the process unfolded. The six-page *Executive Summary* highlights key points and records the key lessons learned. Section 1 on *The Decision to Integrate* traces the forces that promoted the start of the discussions and the existing operations of both the MSD and the FPU at that time. *The Integration Recommendations, Section 2*, explains how the process of contractual negotiations eventually lead to the MoU.

The following two sections provide detail on the *Contractual Negotiations*, which took place over eighteen months, and on *The Finalization and Approval of the MoU*.

Section 6 details the *Transition Plan*, and the next three sections 7, 8 and 9 talk about a *District level Study* that reviewed information and data needed, the first *Pilot Integration Program in Iringa Zone* and the full *National Integration* that started in July 1999.

I. The Decision to Integrate

A. The Pressure to Integrate

In 1997, the Medical Stores Department (MSD) was delivering essential drugs and vaccines from the national level to the District level, using its own system of trucks, warehouses and personnel. At the same time, the Family Planning Unit was delivering contraceptive products to the Regional level, which were then transshipped to the District level, using their own set of trucks, warehouses and personnel.

With strong pressure from the Health Reform Agenda to reduce costs and rationalize health systems, this parallel distribution system was questioned. When the MSD made initial calculations that they could likely cut distribution costs for the FPU in half, the pressure to integrate the two delivery systems, improve service to the MOH client and cut costs started the process of integration. At this stage, USAID pledged the assistance of FPLM to provide technical guidance and intermediary services for this integration process.

In this section, the status of the MSD and the FPU in 1997 are detailed, in order to record the structure and capabilities of the two organizations prior to the integration process.

B. Medical Stores Department 1997

1. General Overview of MSD

Prior to the creation of the MSD in 1993, the Central Medical Stores had responsibility for procurement and delivery of drugs and medical supplies. Since the late eighties, CMS had had major constraints, which made efficiency and effectiveness elusive. Some of these problems were—

- Inappropriate policies
- Shortage of drugs and other health supplies
- Inefficient management and administration
- Lack of resources resulting in poor drug financing
- Inadequate security services
- Irrational drug use
- Inefficient procurement and management services
- Overstaffing.

These problems made it difficult for CMS to sustain a continuous supply of drugs and medical supplies to the Public Health Sector which had six National (referral) hospitals, 20 Regional hospitals, 114 District Hospitals and approximately 3,500 Health Centers and dispensaries.

To respond to these problems, the government commissioned a study in 1991 to develop recommendations on how best the government of Tanzania could resolve the drug crisis.

Main role of the board

- Guide, direct, and oversee the management of MSD.
- Formulate and review policy guidelines of the Department's functions.
- Submit the Department's annual work plans and budget for the Minister's approval.
- Determine the price of the drugs and medical supplies.

Other than the Board of Trustee's regulations, other regulations are in place and used in running the MSD including the Ministry of Health regulations, the in-house MSD regulations, and the procurement manuals for MSD.

Technical management

The technical arm of MSD provides the day to day management of the department. During the formative years, an external management firm with financial support from DANIDA managed MSD under a five-year contract. Every external consultant was teamed with a local expert. This arrangement was to provide training and capacity building for local personnel who were expected to take over the management of MSD at the end of the five-year contract. This was designed to ensure a smooth transition to the local managers. In July 1999, all expatriates had left except for the Finance and Administration Director.

There are four directorates, all managed by directors assisted by middle-level managers. The directorates are—

- Directorate General
- Directorate of Finance and Administration
- Directorate of Procurement
- Directorate of Distribution and Sales.

Staffing

Under CMS, there were 500 staff members This number was reduced to the current 250 through deployment to other government departments and retrenchment. The remaining staff signed a new contract with MSD but will still get their retirement benefits from the former employer (the government). Their contracts with MSD were backdated to 1994 and are reviewed annually, based on their performance appraisal.

4. Functions of the Directorates

Directorate General

The Director General, who heads the Directorate General is—

- Accountable to the Board of Trustees
- The Secretary to the Board of Trustees

The main functions of the Medical Tender Board (MTD) are—

- Advertising, receiving, and opening the tenders
- Tender adjudication
- Issuing contracts to winning bidders
- Monitoring and evaluation of the suppliers' performance
- Accountability.

The Executive Management Team

The Executive Management Team (EMT) facilitates emergency procurement. The team is comprised of members from the four directors in MSD. The EMT has the power to procure emergency supplies up to a ceiling of US $100,000 without prior MTB approval. But consultation with the chairman of MTB is mandatory.

Directorate of Distribution and Sales

The Director of Distribution and Sales, the largest of the three directorates, is in charge of the following services and departments:

- Warehousing, storage, and inventory control
- Distribution management from the central level to the zone
- Security management
- Supervision of the zonal stores
- Rehabilitation and construction of warehouses, monitoring and evaluation
- Transport management, including, managing the diesel plant and maintaining the in-house garage.

Transport

The directorate has a strong transport department with 16 trucks (Scania), six trailers (ten toners which actually carry 20 tons each) for distribution of medical supplies and 16 staff vehicles. There are seven zonal stores and all are provided with two trucks, a pick-up and a motorcycle each. There is a diesel plant managed by MSD where the trucks are refueled.

Warehousing

This group deals with orders to customers and distribution to zonal stores. The warehouse has well maintained records but is not computerized. All the records are manually maintained.

The FPU comprises, at head office level, the following sections:

- Information, education, and communication
- Logistics
- Monitoring and evaluation
- Training
- MIS
- Service delivery
- Community-based distribution
- Finance
- Administration.

The program, headed by Dr. Calister Simbakalia in 1997, is based in a new, NORAD-funded office facility within the Muhimbili National Hospital premises in Dar-Es-Salaam.

2. Family Planning Inbound Materials Pipeline

Contraceptive commodities are supplied from a variety of overseas suppliers funded by the various donors active in family planning in Tanzania including USAID, UNFPA, DFID, and KfW There are two modes of shipment—air and sea. Emergency or small shipments are generally air-freighted—all else are sea freighted.

Shipping and customs clearance falls under the responsibility of a variety of third-party freight forwarders and procurement agents with offices in Dar-Es-Salaam. These include Crown Agents, Walford Meadows, Interfreight, and Panalpina.

Consignment of supplies is usually "door-to-door," with the FPU responsible for receiving the commodities from the appropriate air or sea port after clearance from the freight forwarder. The donors thus finance such storage, transport, and duties that are payable in either port.

Information regarding the status of orders—shipped, in transit, awaiting clearance, cleared etc., is variable depending on the level of communication to the FPU by the donors and agents involved.

All incoming deliveries, including those from local suppliers, are directed to the Mikocheni warehouse on the outskirts of Dar-Es-Salaam. Two units on an industria1 estate are rented, with USAID funding on behalf of the FPU, storage of contraceptive commodities and all reproductive health-related medical supplies, equipment and training materials. An FPU stores officer manages the stores with inventory records held at the Muhimbili offices.

3. Finance

Logistics services undertaken by the FPU, either for Reproductive Health, or (occasionally) other departments, are not chargeable items.

Budgeting for such services is completed by the FPU, either for Reproductive Health, or (occasionally) other departments, are not chargeable items.

Districts

At the district level, the District MCH coordinators (over 110 with a similar number of assistant officers), take delivery of the supplies from his/her supervisor (the Regional MCH Coordinator or assistant) and is responsible for onward delivery to approximately 3,000 of the 5,000 service delivery points (SDP).

Storage standards and facilities at the regional levels will be of variable quality.

District to service delivery point transport

Prevailing practice has been, until recently, that supervisory visits and delivery of vaccines and contraceptives are combined on a monthly basis. This now changing under the health sector reforms. The practice in future will be to separate out the delivery and supervision tasks at District level though still on a monthly basis. Each district now has at least one, recently acquired, sing1e or double-cab Toyota pickup funded by DANIDA (there are approximately 240 vehicles nationwide).

This impacts the logistics systems since the current practice of completing the Report and Request (R-& R.) forms, which are the foundation of the contraceptive logistics management information system, will be stopped and that no longer will the allocation decisions be made concurrently with the deliveries. There is no strategy at present for managing allocation decisions under the new arrangement. However, the two most obvious options are the completion of the R&R forms by the "In Charges" (though they are currently untrained in this activity) and the submission of the R&R forms to the District MCH via the delivery driver. Alternatively the R&R. form will be completed independently of the delivery during the supervisory visit. In this scenario, mechanisms for determining order quantities and the associated information flow will require more detailed review.

D. Mutually Agreed Approaches for Integration

The experience of other integrated programs in Tanzania had been that deficiencies in the planning process have manifested themselves in subsequent dissatisfaction with the arrangements for integration. It is therefore proposed, in line with a consensus that emerged from the involved parties, that the integration process continues with maximum attention be given to the impact of proposed integration initiatives. Also, all parties agree that a thorough documentation of the anticipated outputs from the process through the production of a detailed Memorandum of Understanding between the MCH/FPU and MSD is concluded. It is proposed that agreement on the specifics of the Memorandum be achieved through consultations between the two primary participants in the revised system—MCH/FPU and MSD—and all the stakeholders. This process should be supported by the provision of appropriate technical assistance to facilitate, provide technical expertise and offer additional resource to address the incremental workload. A timeframe to reach agreement on the Memorandum by October 1997 was developed which included full breakdown of the tasks involved.

II. Recommendations and Observations on the Integration Process

The following formal set of recommendations and general observations on the process to be employed were decided in consultation with the MOH and with the MCH/FPU.

- The MCH/FPU initiate a dialogue and planning with all invo1ved parties in order to implement an integrated system of contraceptive commodity supply at the earliest opportunity.
- Such planning is conducted in a consultative manner in order to build consensus on the modalities of the integrative process With the parties, including the appropriate representatives of the Ministry of Health donors, MSD, NGOs, and other programs.
- The integration process makes full provision for managing the expectations of all parties through open communication dialogue and documentation of any agreed upon arrangements.

In summary, these recommendations are made after consideration of the relative merits for the provision of contraceptives under an integrated supply system in Tanzania. These are as follows—

1. *Commercial*. MSD indicated that they are able to offer the delivery of contraceptives from national to district level at a cost less than that of the current FPU "in-house" operation.

2. *Prevailing supply arrangements.* The current collaborative program for distributing contraceptives and EPI vaccines together will conclude between regions and districts by the end of July 1997 The interim arrangement for the ongoing supply of contraceptives alone is not scheduled to continue after 1997.

3. *LMIS.* The recently introduced and functioning Report and Request (R&R) system will in any event have to be reviewed and revised to address the requirements of the ongoing health sector reforms.

4. *Sustainability.* The current FPU operation is sustained entirely by donor funding. MSD is scheduled to become a self-supporting institution.

5. *Cost visibility*. The costs and sources of funding of current supply operations lack visibility to both users and donors. Under an integrated system there is transparency and accountability.

6. *Time managemen*t. The reallocation of operational resources to logistics specialists frees the time of the FPU technical experts to concentrate their efforts on family planing and service delivery.

7. *Natural progression.* An integrated supply system for contraceptives is the natural conclusion of current health reforms. As such, the two main players, the FPU and MSD, warmly endorse it.

8. *Resourcing.* Provision of contraceptives will, under an integrated system, become an element of business subject to routine budgeting, planning and managerial controls.

9. *Assets.* The current FPU assets are readily transferable, without loss, with the agreement of the parties involved. The warehouse lease may be transferred or closed, the vehicles sold and the relevant staff redeployed or transferred.

III. Beginning of Contractual Discussions

The Memorandum of Understanding (MoU) between the MCH/FPU and MSD will detail the expectations of both parties. In itself, it is not a guarantee of satisfactory partnership but by thorough review and documentation of the requirements of both parties, it is anticipated that subsequent problems arising from unforeseen issues can be minimized.

To this end, the FPLM consultants have advised dividing the planning for agreement on the Memorandum into eight discrete functional areas. This section addresses the initial discussions on finance and the handling of the following areas, storage, transport and material handling.

While there is general agreement on what comprises reasonable terms in the type of commercial relationship proposed, it is particularly important to explore areas outside mainstream practice where there are additional expectations by one or other of the parties. Hence, FPLM have initiated review of these interactions between the involved parties. In summary, the issues identified in the functional areas are as follows:

A. Financial Discussions

Regarding financing, the most common concern is the ongoing role of the donors vis-a-vis the Government in the development of a sustainable system for contraceptive commodity distribution. This requires further and more detailed review. Additionally, there are practical issues relating to the mechanisms required to administer the commercial relationship between MSD and MCH/FPU, which must be addressed.

A dialogue regarding the commercial terms to be contained within the Memorandum has been initiated and the expectation is that significant cost savings for the provision of commodities can be achieved through utilizing the services of MSD.

1. Background

The MCH/FPU currently ensures the ongoing availability of contraceptive commodities and equipment in Ministry of Health clinics, in part through the services of its own distribution operation. This operation, which distributes from the national to the regional level only, comprises four delivery vehicles, one national warehouse plus various members of support staff. The cost of this service has been estimated in a JSI/FPLM study at approximately $342,000 per annum. Currently funding for the operation is given in full from two donors, USAID and UNFPA. They also provide funding to support some of the staff involved with administering the delivery system, with the remainder are funded directly by the Ministry of Health.

Ministry of Health vehicles based at the region and district offices respectively completes the onward distribution of commodities from the regions to the districts, and the districts to the service delivery points. These are financed through the relevant regional or district health management team budgets but with donor funding which is currently provided by DANIDA. This is financed either through the EPI program or the health sector reforms. The MCH/FPU has an outstanding agreement to utilize EPI vehicles at sub-district level, in those places where EPI has not integrated their distribution program. This agreement expires at the end of 1997.

Secondly, JSI/FPLM is working with MSD and the MCH/FPU to reach agreement on the commercial terms for such a relationship to begin

However, a concern was the stance of the donors towards the short-term provision of funding for the MCH/FPU to pay MSD for the service. Of the current donors, three of the four are ready to support the use of their funds for the provision of a contraceptive distribution service by the MSD. There are also y other donors who could be involved in such an agreement, such as the World Bank. Social marketing revenues are an additional potential source of finance.

Under the commercial terms currently being reviewed, there will be very significant cost savings to the donors through the deployment of MSD. This has been recognized and will facilitate agreement. An additional source of one-time operational funds is the sale of the current MCH/FPU vehicle fleet.

High level review of all the above is required from the Ministry of Health in Tanzania so that they can lead and direct deliberations on the part of the government for this critically important area. JSI/FPLM is try to enable this to happen and to coordinate the immediate requirements of the Family Planning Unit with the broader objectives of the Ministry of Health and their current integration program.

Long-term

In the longer term, the following issues required review:

- Commitment of the Government of Tanzania to assume responsibility for funding contraceptive commodity distribution operations.
- Agreement on transition plan to achieve the statement above.
- Integration of contraceptive commodity distribution into a routine public sector health commodity ordering and distribution system.

B. Transport, Storage, and Materials Handling

The areas of responsibilities for transport, storage and materials handling were reviewed and completed. Below are the general topics that were covered for each area.

Transport
- Provision of routine and non-routine deliveries and collections
- Documentation requirements
- Transit conditions
- Commodity insurance coverage

Storage
- Access by MCH/FPU staff
- Warehouse practice
- Audit requirements
- Disposals procedures
- Commodity insurance coverage

Materials Handling
- Batch traceability
- Quarantine procedures
- Stock rotation
- Environmental conditions
- Commodity compatibility

IV. Contractual Discussions Continued

The proposed integration of the Tanzania public sector contraceptive supply into the Medical Stores Department (MSD) is scheduled to commence in the second quarter of 1998. This is predicated on the production and agreement between the Ministry of Health and MSD on the terms of a Memorandum of Understanding.

Three of the eight Memorandum sections addressing storage, transport and materials handling were produced in August 1997. These were revised following feedback and comment.

In addition five new sections were completed during November 1997 addressing procurement and supply, monitoring and evaluation, finance, the logistics management information system and staffing and organization. These were presented in draft form to a target audience of all involved parties and subsequently revised where necessary.

Other items produced during the assignment relating to the ongoing integration process include a plan detailing the steps necessary to be taken in the transition period. It is anticipated that three months of preparation time would be necessary to administer the necessary preparatory steps. The relevant tasks, personnel involved and time scales are detailed below.

Also detailed are the technical support needs identified in the course of the assignment.

Specifically these include the review of the logistics management information system at district level and below, the development of the monitoring and evaluation system and support during the transition period and the initial "live" running of the integrated system.

Integration needs to be monitored and evaluated carefully, both to ensure that there is no interruption of contraceptive supply, and to provide the MOH with guidelines for integrating other vertical distribution systems. Consequently, an evaluation of integration—both the process and the outcomes—is scheduled for October 1998 (i.e., six months after integration has begun).

A. Memorandum of Understanding—Finance

1. Background

MSD will charge the FPU for distributing public sector contraceptives from the national to the district level in Tanzania. The pricing structure is included in the Appendices. The service will be payable in arrears after delivery is confirmed.

MSD may also provide additional associated services at prevailing commercial rates based on their standard hiring charges.

Initially the sources for payments to MSD will be primarily donor funding. But, in the interests of sustainability, it is anticipated that the Ministry of Health will assume responsibility for an increasing proportion of that budget culminating in full responsibility by the year 2001.

distribution system to that of the MSD a strong and reliable information system is required which is responsive and accurate.

Using consumption data, it is proposed that—

- Districts requisition directly from zones, making the necessary monthly and bimonthly requisitions. A copy of the requisition should also be sent to the Regional MCH coordinator through the current reporting channels.
- The documents and reports required under such a system are outlined in the LMIS Reports and Documents Required Under the Proposed Integrated Distribution System.

The key documents for the success of the system are the R&R forms and the delivery/proof of delivery notes, which are used at all levels of the distribution pipeline.

It is proposed that there will be provision for the issue of requisitions at national level to compensate for instances of under-reporting at district level. Thus there will be provision for "push" as well as a "pull" replenishment mechanism.

C. Memorandum of Understanding—Organization and Staffing

Adequate human resources should be in place to ensure a smooth running of the integrated system. Under the new arrangement, MSD will be responsible for the appropriate manpower required to service FPU's logistics operations as specified in the MoU sections. At MCH/FPU a review of job descriptions and positions will be conducted under the new integrated system since there will be an overlap in functions between MSD and FPU and new activities will be required.

It is envisaged that a member of staff at MSD will have liaison responsibilities on a day to day basis with FPU. Duties should include but are not exclusive of—

- Acting as point of contact for day to day operational and administrative activities.
- Coordinate production and communication of reports between MSD and FPU.
- Provide initial point of contact for all monitoring and evaluation activities on behalf of MSD.
- Act on problems arising from this process.
- Identify any factors likely to impact on availability of contraceptives.
- Coordinate production of delivery schedules in conjunction with FPU.
- Provide input into the CPT bi-annual process and provide initial point of contact for coordination of invoices.
- Act as liaison between national and zonal levels.
- Coordinate physical inventories and make them available to FPU First line of contact for FPU communications during the transition period.

New functions will be added at FPU to ensure the smooth running of the integrated system, since FPU will relinquish direct operational control. This will mean establishing a new commercial relationship and much greater emphasis on distribution and communication.

3. Monitoring shipments

Upon receiving shipping schedule information from their respective procurement groups, the local donor representatives forward a copy to the FPU logistics officer. This information is used to monitor the deliveries of contraceptives to the port, and on a few occasions to the airport in the case of small volume or emergency shipments. As the scheduled delivery date approaches, the FPU logistics officer follow-ups with the appropriate parties to determine if the shipment is on schedule. For USAID shipments follow-up is with Panalpina. Follow-up for DFID/KfW financed shipments is with Crown Agents, and for UNFPA shipments the FPU logistics officers contacts the local UNFPA office.

4. Customs clearance

All donor shipments of contraceptive commodities are "door to door" with the donor paying for port, freight forwarding, and transport fees. The FPU logistics officer assists each donor to obtain documentation needed to support a waiver from government duty and excise taxes. For USAID shipments a waiver from such fees has been included in the overall bi-lateral agreement between USAID and the Tanzanian government and therefore special documentation is not required. UNFPA shipments are consigned to the local UNFPA mission and the FPU program manager signs a UNFPA request for approval letter to assist UNPFA in obtaining a duty free declaration for customs clearance purposes. For DFID/KfW shipments the FPU logistics officer prepares a letter for the Minister of Health to sign confirming the contraceptive commodities are donations.

Once the commodities have cleared customs, the local freight forwarders handling the shipments contact the FPU logistics officer to schedule delivery to the Mikochem warehouse. Upon delivery to the warehouse, the FPU logistics officer, or his assistant, inspects the goods for compliance with the order and shipping damage. After the commodities have been received at the warehouse, the FPU logistics officer provides the donors with confirmation, as required, of receipt of goods.

5. Forecasting

The annual forecast process establishes the projected demand for contraceptives for the coming year. For this process to produce useful estimates under an integrated distribution system, it is important that FPU and MSD cooperate in requesting and providing data needed to develop the forecast. Under the integrated distribution system the Ministry of Health, to demonstrate its commitment to eventual self-sufficiency in contraceptive supply, will budget an initial amount, to be gradually increased over time, for the procurement of contraceptives. By the year 2001, they will be able to fully fund their annual contraceptive needs.

V. Memorandum of Understanding, Draft Finalized

A. Memorandum of Understanding (MoU)

The inclusive MoU contains both commercial and operational expectations of the Ministry of Health's Reproductive Child Health Unit, the National AIDS Control Program (NACP) and the Medical Stores.

It is recognized however, that the Ministry of Health will sign a document that will exclusively contained the MoU, i.e., the commercial terms and not the operational expectations. Therefore, the document has been revised and, in public consultation with stakeholders, amended.

1. Integration issues

Finance

The possibility of opening an impress account at the Reproductive Child Health Unit was explored together with the option of using a dormant account. In a meeting with donors and the Medical Stores Department (MSD) it was agreed that given the bureaucracy and cumbersome procedures, it was easier to make deposits directly into the Reproductive and Child Health Unit who in turn will deposit into the MSD/RCHU account. Monies for distribution will be deposited by donors on a quarterly basis and withdrawn by MSD upon the Ministry of Health's approval. It is expected that in the medium term, the Government of Tanzania will provide total or partial contribution towards the integrated distribution system (see table 1).

It was also agreed that MSD's charges for contraceptive commodities for storage and distribution of $133 per cubic meter will also apply to non-contraceptive commodities. The charges apply to routine deliveries as per John Snow Inc./Family Planning Logistics Management Report III, Dar-Es-Salaam, November 1997. The formula by which MSD arrived to $133 is in the Appendices.

(expected by December 1998). Given the time frame of the implementation, it might not be necessary to transfer the management of the stores to MSD.

B. National AIDS Control Programme (NACP) Logistics Operations

At this time, the NACP accepted integration of their condoms for HIV/AIDS prevention, already stored at the Reproductive Child Health Unit, into the MSD. Other related commodities will be integrated in due course. The following section describes NACP's logistics operations.

1. Background

NACP has been financially and technically supported by a number of donors throughout their existence, including WHO, NORAD, UNAIDS, UNDID, DFID, DANIDA, USAID, UNFPA, JICA GPA, UNICEF, CiDA, the Royal Netherlands Government, USAID, and the European Union. However, this level of support has not been enough to maintain all the activities NACP is involved in, therefore integration of their supply systems to that of the MSD will free them to concentrate on their core activities. This section documents the logistics operations of the NACP.

MSD has agreed to store and deliver the NACP commodities down to district level at the same cost quoted to Ministry of Health/Reproductive Health Unit (MOH/RHU) of $133 per cubic meter payable in Tanzania Shillings at the prevailing exchange rate on the date of payment. This rate applies to routine deliveries and is subject to an annual review.

A number of products form the core of their logistics operations and are described below.

Condoms

Condoms are donated by UNFPA and delivered directly to the MOH/RHU Mikocheni warehouse for storage. NACP has one 10-ton vehicle for distribution purposes and it is used to deliver to the regions. Since this commodity is partly managed at RHU it is envisaged that when integration of their supply system takes place, NACP condoms will also be integrated. According to the Average Condom Consumption per Month Reports of 1996 and 1997, they estimate monthly issues of 980,760 for 1997, making an annual total of 11,769,120 condoms. UNFPA is considering funding the distribution system at least for the foreseeable future and has requested an estimate of the likely distribution costs.

STD drugs

STD drugs are delivered directly to MSD for storage and distribution and funded by the European Union who also provides distribution funds as part of a two-year agreement. Volumes used are based on an estimate of 1,200,000 million episodes in Tanzania. As part of the numerous country reforms to strengthen the district level, it is envisaged that eventually, they would look after these operations.

HIV kits

HIV kits are typically used for diagnostic purposes, AIDS prevention, voluntary screening and blood safety (blood transfusions). However, due to NACP limited resources, the kits in Tanzania are exclusively used for blood safety purposes. As a result, a tight control on the consumption is made by providing proof of use to obtain new supplies. Good security and monitoring is needed since this commodity is commercially highly desirable. Cold chain storage is required and provided by MSD.

VI. Transition Plan

A. Background

One of the main concerns in integrating is the timely and complete availability of information for report and requisition of contraceptives from Service Delivery Point (SDP) to district level. The transition plan has been reviewed to address the above concern and to ensure that at all stages of integration sufficient time and resources are allowed for dissemination, evaluation and operational ability.

A three-part transition plan has been agreed upon to implement the integration process nationally. The first stage will be intensive examination of the reporting and requisition process at one district, which will provide guidance on the new process to be used. The second stage is a four-month trial in Iringa zone, with the MSD Zonal Medical Stores doing an integrated distribution in several districts. The Third stage, learning from the first two, will be national level integration, using phased in integrated distribution.

1. Stage I. District study

A district study in Iringa will be conducted to understand the reporting mechanism from District to Regional level and to transfer this function to the Zonal Store Department. A single district will be examined to identify the responsible parties at the district level who would report and request supplies from the Zonal Medical Stores (ZMS). It is envisaged that lessons learned from this exercise will be disseminated to the districts in the Iringa Zone (Mbeya, Ruvuma, Rukwa, and Iringa regions).

2. Stage II. Iringa pilot

The second stage of integration will be to pilot the distribution system in the Iringa Zone which was chosen due to its accessibility from Dar-Es-Salaam. The stocks will be transferred from MOH regional level stores to the Iringa Zonal Medical Store, therefore, the MOH will deliver to the zone rather than to the four regions. It is anticipated that a four-month period is required to ascertain MSD's performance in delivering the contraceptives and SDP/District performance in reporting and requesting their contraceptive needs. This will provide ample time to deliver to district, prepare the R&Rs take them back to ZMS for compilation and supply for the following delivery. Once this cycle has been completed, all issues pertaining to reporting and delivery will be identified and addressed. An evaluation will be conducted prior to dissemination to the rest of the regions for total integration of the distribution operations.

3. Stage III. Integration

Once all the pending issues have been resolved as per the transition plan, and after extensive review, assessment and dissemination, it is expected that countrywide integration of the distribution system will take place sometime in the first half of 1999. It is envisaged the Reproductive Child Health Unit will take a leading role in the monitoring and evaluating MSD's performance on a regular basis as stockouts, overstocks, losses, and emergency shipments will be closely monitored.

VII. District-Level Study

The mechanics of commodity and information flow for reproductive and child health commodities were explored in Mufindi, one of the six districts of the Iringa Region. This area was chosen for its relative accessibility and distance from Dar-Es-Salaam for the impending partial integration in the Inringa Zone, which includes the Inringa, Ruvuma and Rukwa regions. The following summary of what was found during this study. For details of the study see Appendix G, on the Mufindi District Study.

Aside from visits to the zones, regions and district levels, one health center and four dispensaries were visited in Mufindi. Serious problems were identified which pleads for some districts to undertake service delivery point strengthening. In summary, all the facilities barely ordered for one month of stock and received less than requested, since the delivery vehicle was often not being loaded with what the SDPs had requested. The following recommendations were made to strengthen the district system and the integration transition.

1. Coordination and communication is required for the preparation of the district's supervisory schedule between the District Medical Officer (DMO), the Health Management Team (DHMT) and the transport officer.

2. The region and the district MCH coordinators should work together with the DMO to ensure three months of supply are calculated from current demand and to ensure the vehicle is loaded with quantities required (based on the Report and Request (R&R) forms).

3. Strengthen the district levels by providing logistics training to all members of the DHMT.

4. Districts to report directly to the Zonal Medical Stores Department (ZMSD) by sending the R&R forms with the MDS drivers upon delivery.

5. ZMSD to provide copies of R&R for to the RMCHs.

6. Districts to report bimonthly to the zone, with an increase maximum stock level of four months, and therefore, for the zone to deliver on a bimonthly basis.

Finally, next steps are suggested to ensure all districts in the Iringa zone are informed of the new operational structure, and proceed with the distribution of the regional stock, so that partial integration can take place without further delay.

VIII. Integrated Pilot Project Iringa Zone

A. MOH/RHU-MSD Zone/Region/District Orientation

The MOH/RHU logistics officer, the management information system officer and the former MCH coordinator for the Dodoma zone visited the Iringa zone. Each of them was in charge of one region including Iringa, Mbeya, Ruvuma and Rukwa. They covered all 22 districts. The visits were programmed during September and October and lasted two weeks on average. The objectives of the visit were—

- Training of the District Health Management Team (DHMT) in the logistics management system.
- Dissemination of the new operational structure to the districts in the Iringa zone transfer of the existing regional stocks to the district stores.

The team in their respective regions calculated four months of supply from issues and dispensed-to-user data and made arrangements for the stock to be moved to the districts.

Followed this exercise, it was reported no contraceptive stocks were held in Mbeya and Ruvuma. However, a small amount of stock remained in lringa and after four months of supply were sent to all four districts, considerable stocks remained in Rukwa.

1. Transfer of stocks

During a meeting held on 5 November between the Director of Distribution at MSD and the RHU Logistics Officer, it was agreed the stock remaining in Iringa region should be transferred with immediate effect to the zonal store. For the larger stock remaining in Rukwa region, the RHU logistics officer should advise the Rukwa MCH coordinator to release the stock to the ZMSD driver when he makes a delivery in December.

For this purpose transfer of stocks from the central level to the Medical Stores Department took place during the technical assistance visit. From the calculations on four months of stock, which the MOH team brought back from the field, a initial transfer of stocks was agreed between the parties (see table 2).

Table 2. Initial Transfer of Stocks to MSD

Product	Number of Cartons
Microgynon	72
Lo-Femenal	164
Microval	87
Depo-Provera®	1,000
Copper T	5
Neosampoon	4
Condoms	100[a]

Note: a. Condoms are currently out of stock

During the first week of December 1998 MSD delivered for the first time contraceptives and condoms for HIV/AIDs to Iringa, Mbeya, Ruvuma and Rukwa regions through their Zonal Medical Store Departments. As previously arranged, the MSD vehicle collected the R&R forms at the district level, where available, and collected stocks left at the regional level and thus, depleting stocks there.

The original R&R forms collected were forwarded to the to the appropriate Regional MCH coordinator by post and the second copy was sent to the National Family Planning Program in Dar-Es-Salaam through the MSD headquarters. The zonal stores made a copy for their own records.

The result of this initial exercise was an example of mutual cooperation and communications. The Iringa ZMSD manager monitored the R&Rs received and communicated with the Regional Mother and Child Health (RMCH) Coordinators of those regions where the R&R were missing. Most of them responded favorably with more reports, making this a very successful reporting exercise.

During a review meeting, the issue of lack of reporting was raised as the R&R required to base the next delivery were, in most cases, not there even though reports for the previous one or two months were usually available. The following procedures should take place at the ZMSD to decide on quantities for the district deliveries:

1. The amount to be delivered during the next distribution cycle is contained in that last R&R. If the vehicle visited a district in December, it should collect the forms for October. November and December and the next delivery should use the information in the December R&R form.

2. In the absence of the form, the zonal manager should make contact with the RMCH coordinator and ask her to contact the district and require them to send the form straight away.

3. If the form is not available, the zonal manager, in conjunction with the RMCH coordinator, should decide to send the same quantity as per the previous delivery.

This process will ensure that the districts are always well supplied within their parameters and requirements. MSD requested from the RCHU another delivery matrix for Iringa for those districts where the most recent R&R was not available and to make available contraceptive commodities at the central level for collection. The RCHU had responded to this request.

IX. Phase-In Plan for National Integration

It is the aim of all stakeholders to integrate the supply system by June 1999, when MSD conduct their third delivery of the year. During this time, the rest of the country needs to be oriented, stocks need to be transferred to the districts, regional stocks have to be depleted, and the central stock need to be transferred to MSD. T-4x10 10-ton trucks require a technical assessment and valuation to offer them to MSD and any other interested party.

Whilst the Iringa zone continues to have deliveries by MSD, a two-phase plan has been devised to integrate the country by June 1999.

A. Phase I Integration of the Dar-Es-Salaam and Mwanza Zones

Dar-Es-Salaam Zone: Dar-Es-Salaam City, Coast, Dodoma, and Morogoro regions.
Mwanza Zone: Mwanza, Kagera, Shinyanga, and Mara regions.

A letter will be sent by the Ministry of Health requesting the Regional and District MCH coordinators in these regions to conduct a physical inventory for all contraceptives in their stores and for the District MCH coordinator to determine months of supply. This information will be supplied to the central level, in a Report and Request (R&R) form no later than 31 December 1998. MSD will need both stock and orders by 1 March to enable them to make a delivery to Phase 1 zones in April 1999.

B. Phase II Integration of the Tabora, Mtwara and Tanga Zones

Tabora Zone:	Tabora, Kigoma, and Singida regions
Mtwara Zone:	Mtwara and Lindi regions
Tanga Zone:	Tanga, Kilimanjaro, and Arusha regions

During March 1999, the above three zones will be informed by letter as per Phase 1, unless the RHU decides to change this procedure. MSD should be in receipt of R&R and stocks by 1 May. The remaining stock in the MOH central store at Mikocheni, will also be transferred to MSD. Countrywide delivery will then start during the June 1999 delivery schedule.

C. Outstanding Issues

Aside from the transfer of stocks and dissemination of information to the DHMTs, a number of issues need to be resolved for the successful completion of the integrated health supplies as detailed in the Transition Plan (integrated Public Sector Supply Status, 1 March to 3 April 1998).

1. Vehicle disposal

Commercial valuation and technical assessment of RHU vehicles.

Vehicle disposal through MSD for credit on distribution costs. If this is not practical, the vehicles will be offered elsewhere.

X. Results of First, Full Year of National Integration

Note: In 1999 FPU changed its name to RCHS.

A. Product Delivered and Costs of Delivery

MSD has a central warehouse in Dar-Es-Salaam and seven zonal warehouses plus Mbeya as a service point. These supply the 20 Regions and 116 Districts in the country. The zonal warehouses supply the following regions:

Zone	Regions
Mwanza	Mwanza, Kagera, Mara, and Shinyanga
Tabora	Tabora, Singida, and Kigoma
Iringa	Iringa, Ruvuma, Mbeya, and Rukwa
Tanga	Tanga, Kilimanjaro and Arusha
Mtwara	Mtwara and Lindi
Dar South	Dar-Es-Salaam City, Coast, Dodoma, and Morogoro
Moshi	Kilimanjaro and Arusha

RCHS determines stock levels for MSD to store at its central warehouse, and these are usually maintained between the pre-established minimum and maximum inventory levels of 11 months and 20 months, respectively. Replenishing stock levels at the zonal warehouse to maintain minimum and maximum inventory levels is not specified by the MoU and is at the discretion of internal MSD management. Nonetheless, zonal warehouses must always have sufficient quantities of contraceptives with which to re-supply districts.

MSD distributes contraceptives according to a pre-determined schedule based on the delivery plan for essential drug kits. Zones deliver commodities to districts every two months. If, for some reason, EDP kits are delayed from leaving the zones, MSD must still deliver contraceptives according to the original schedule. Before leaving on the distribution visits, MSD zonal managers are supposed to receive R&R reports from all districts serviced by the zone and use the quantities ordered on the form to resupply districts. At the time of delivery, MSD is supposed to pick up R&Rs from district MCH coordinators. If at the time of delivery, MSD has not received a current R&R, the policy is to use the previous R&R received and repeat the quantity ordered previously, after consultations with the Regional MCH coordinator.

1. MSD currently provides RCHS with three sources of information.

Quarterly reports from MSD central office (headquarters)

- This provides data on stock balances, quantities received, quantities distributed, and expiry dates for all contraceptives held at MSD

- Determining the nature of information that RCHS would like to collect to assess MSD performance, and developing corresponding indicators.

- Ensuring that RCHS has a viable system for data entry and analysis to allow information from the MSD monitoring tool to be used for decision making, and to provide feedback.

As a first step towards establishing open channels of communication, RCHS and MSD met to discuss the nature of data exchanged and the best means through which information can be shared. MSD expressed its commitment to customer service and to transparency of its operations to build confidence in RCHS and other customers.

Both RCHS and MSD agreed that there was a need for more open channels of communication. The consensus was that issues raised by RCHS need not be limited to written correspondence, and both parties should engage in ongoing verbal communication to ensure timely resolution of these issues.

In addition to agreeing on enhanced communication efforts, RCHS and MSD will implement the following changes to current practices:

1. MSD will add a column for months of supply (MOS) on the spreadsheet attached to the MSD Quarterly Reports, beginning with the December 2000 report.

2. MSD will communicate with zonal warehouse managers to amend the MSD zonal report in the following way beginning with the September 2000 reports:
   - Standardizing the cover letter which accompanies R&Rs sent on a bimonthly basis (see Appendix A).
   - Including a spreadsheet from the zone dividing distribution information by product and district.

3. MSD will share with RCHS the full results pertaining to family planning products of the annual stock taking exercise, including quantities of losses, and discrepancies between physical and book counts. MSD will also share similar results from ongoing cycle counting that it conducts for family planning products. If losses are present, RCHS and MSD will jointly discuss what levels are acceptable and at what levels to compensate RCHS.

4. RCHS will follow up with its financial department to determine why MSD has not received timely payment for services and to expedite payment for backdated charges.

5. Both RCHS and MSD will try to obtain financial updates from their financial counterparts routinely to prevent such a circumstance from reoccurring.

6. RCHS will make efforts to be more timely in disposing of expired or condemned products stored at MSD.

Obtaining standardized information from MSD is a first step towards RCHS developing indicators for monitoring MSD performance. In the meantime, RCHS capacity for aggregating and analyzing data will be assessed to ensure that once monitoring indicators are developed and the system implemented, there is capacity to use the information for decision making.

Table 3. Quantities Distributed and Storage Costs U.S.$ for Contraceptives July 1999–June 2000

	Product	Unit of issue	Actual units distributed	No. of cartons distributed	Charges per carton	Total charges
1	Microgynon	Cycles	2,402,400	910	26.96	24,533.60
2	Microval	Cycles	381,600	636	8.33	5,297.88
3	Lo-Femenal	Cycles	1,658,400	1,382	16.09	22,236.38
4	Depo-Provera®	Vials	1,509,175	15,092	4.75	71,687.00
5	Condoms	Each	7,367,010	1,169	16.09	18,809.21
6	Copper T	B/25	10,325	413	1.37	565.81
	TOTALS		**13,328,910**	**19,602**		**143,129.88**

Source: MSD, July 2000.

On average, the cost per unit distributed was $0.01 and the cost per carton distributed was $7.3.

Condoms accounted for the majority (55.3%) of total units distributed, which corresponded to 13.1% of total costs. Microgynon and Lo-Femenal were second and third, respectively, accounting for 18% and 12.4% of total units distributed, which corresponded to 17.1% and 15.5%, respectively, of overall costs. Although the charge per carton is higher for Microgynon than for Lo-Femenal, both products cost the same per unit to distribute: Microgynon costs $0.010 per unit versus Lo-Femenal, which costs $0.013 per unit.

The most costly item to distribute is Depo-Provera®. Charges for distributing Depo-Provera® accounted for 50.1% of total costs although Depo-Provera® only accounted for 11.3% of total units distributed. However, Depo-Provera® accounted for 77% of the volume of cartons distributed, suggesting that although cost per carton of Depo-Provera® is low, a large number of cartons must be distributed to meet demand.

Breakdown of payments by donors

As of August 25, 2000, RCHS had paid a total of US$ 77,997.4 (TShs. 62,397,951) to MSD[2]. There are still outstanding payments in the amount of $65,132.48 (TShs. 52,105,984) that have yet to be paid for the period from July 1999–June 2000.

The breakdown of costs between donors for this amount was as follows:

- USAID has paid for 57.1%, or $44,525.53 (TShs. 35,620,423.00)
- UNFPA has paid for 42.9%, or $33,471.91 (TShs. 26,777,528.9)

C. Stock Volumes Reduced with Improved Delivery

One direct benefit of the integrated nation delivery system was that stock levels of contraceptive supplies were reduced. With improved reliability of delivery and a standardized delivery schedule, with the

[2] Exchange rate used of U.S.$ = TShs. 800

planning commodities were the most widely disbursed, with vaccines having the next highest level and essential drugs third. Some problems were identified in product distribution, particularly in several specific vaccines, but the reasons for this are being investigated.

XI. Next Steps

A. Improve Information Exchange

In the interim period during which the Medical Stores Department (MSD) is updating its procedures to provide RCHS with more and consistent data on a routine basis, RCHS should begin identifying the type of information that it would like to collect to assess MSD performance. The data identified is not intended to monitor MSD performance but rather to enhance RCHS' ability to monitor the logistics system performance. As RCHS continues to work with MSD, it should monitor areas in which MSD performance can be improved and consequently identify the types of information that would allow monitoring of this performance. A basic tool for aiding this process is attached as Appendix B.

Concurrently, RCHS should continue to take steps to build a more open relationship between itself and MSD. Suggestions for how this should be done are included in the recommendations from the August Logistics Stakeholders Meeting Report, available from the RCHS.

B. Improve Monitoring System

One of the recommendations arising from the assessment team visit was to improve monitoring of delivery of all medical supply products though the MSD system. Part of this includes improved communications between the MSD and RCHS, but it also involves formalizing an oversight function by the MOH on MSD delivery performance.

Discussions had started on this issue between the MSD and RCHS, based on the MoU provision for periodic review and adjustments to the system. MSD and RCHS have already made mutually agreeable changes to the information collected and shared in the quarterly reports. This information will help RCHS do its procurement planning more efficiently.

This process has been started. Other issues might include District level satisfaction, based on timeliness and correct fulfillment of orders, and periodic monitoring of general client satisfaction of MSD-provided services. RCHS must also be prepared and have the resources to process and analysis this additional information so that it might be used to improve services.

C. Review Financial Structures

The MoU between the MSD and the RCHS calls for an annual review of distribution costs. Another tenant of this mutual relationship is that invoices from the MSD must be presented in a timely manner and that they must be paid by RCHS in a timely manner. This process is under review by the two partners to ensure timely action on both sides. MSD is ultimately a commercial venture and requires timely cash flow. It is important that both partners keep this in mind.

D. Improve Request Procedures from District Level

The old adage about a chain being only so strong as its weakest link also applies to the non-physical supply chain. The integrated distribution system run by MSD takes information provided by the District level logistics information system and uses this to tell the MSD supply chain to provide a certain level of required supplies back to the District level. If this SDP to District level request system is not providing

Appendix A
Memorandum of Understanding

A. Introduction

The provision of a supply network from National to District level by the Medical Stores Department (MSD) for the Ministry of Health (MOH) is dependent on goodwill and flexibility on behalf of both parties. This Memorandum of Understanding (MoU) seeks to establish minimum commercial requirements and expectations and pertains primarily to commodities (contraceptive, medical equipment, and *ad hoc* donations) previously distributed by the Reproductive Child Health Unit (formerly Family Planning Unit, FPU) and the National AIDS Control Program (NACP) both part of the MOH.

Thus the terms contained herein are the commercial conditions under which the Memorandum will be implemented (the outline of operational expectations can be found on the JSI/FPLM report Integrated Public Sector Supply Status Report III, November 1997). It is anticipated that the commercial terms will be reviewed and revised annually. It should be noted that at all times between MSD receiving and delivering contraceptive commodities, medical equipment and ad hoc donations, title of such commodities is retained by the MOH.

The integration of the MOH's Reproductive Child Health Unit and the National AIDS Control Program related commodities into the MSD distribution system is an integral part of the MOH's overall health sector reform program, which aims to rationalize and decentralize health service delivery. Integration will streamline distribution where cost savings be accrued, in addition, the integrating programs will be relieved from the logistic functions, thus allowing them to concentrate resources on their core functions.

It is to be expected that all issues relating to the discharge of responsibilities for fulfilling the terms of the Memorandum will be resolved between the MOH and MSD. Ultimately, the MoU will be executed in accordance with the prevailing laws of Tanzania.

B. Finance

1. Background

MSD will charge a rate of $133.00 per cubic meter for storage and distribution payable in Tanzania shillings at the prevailing exchange rate on the date of payment and is applicable for the distribution of public sector contraceptives and related medical equipment from the national to the district level in Tanzania. The charges cover routine deliveries; emergency shipments will be charged at prevailing commercial rates based on MSD's standard hiring charges. The service will be payable in arrears after delivery is confirmed.

2. Payment mechanisms

Deposits will be made directly by the donors to the MOH into the Reproductive Child Health Unit and NACP, which, in turn, will make deposits into their own accounts at MSD. These will be made quarterly according to need and in accordance with schedules agreed between the relevant donors and the MOH. The accounts will be maintained at a predetermined level agreed between MSD and the MOH based on the projected value of throughput of the contraceptives and other medical supplies.

- At the beginning of the year (or as soon as practicable), convene and chair meeting of donors to review and approve the annual forecast and secure donor pledges for requisitions for the forthcoming year.
- Inform MSD of quantity of contraceptives and related medical supplies to pass through the delivery system during the coming year.

1.2. Role of MSD

- Provide MOH with stock level reports, as required, to support annual forecast process and collaborate in the annual contraceptive requirement and related medical supplies exercise.
- Plan for the storage and distribution of the forecasted quantities.

2. Procurement

Procurement and delivery to be made in a timely manner to ensure there is no disruption to the supply pipeline. Under the integrated distribution system, donors will continue to procure contraceptives through their own procurement services or designated agencies.

2.1. Role of MOH

In the long term, issue requisition to MSD for commodity purchase funded by MOH.

2.2. Role of MSD

- Provide donors with any documentation or letters of approval required by donors to initiate commodity procurement.
- Procure commodities funded by MOH in accordance with MSD procurement procedures.

Note: MSD's procurement role vis-a-vis donor-funded contraceptives will be reviewed one year after integration.

3. Monitoring shipments

MOH's primary responsibility will be to monitor the delivery of contraceptives and other related medical supply shipments from suppliers, with assistance from donors in expediting deliveries or late shipping documents as required. In addition, the MOH will continue to liaise with donors to monitor procurement and clearing of commodities.

3.1. Role of MOH

- Support MSD in their work with donors to expedite delayed shipments or shipping documents.

3.2. Role of MSD

- Review shipping schedules provided by donors and follow up with donors as originally scheduled ship date approaches to confirm dates.

- Conduct mini-stock level surveys (stockout surveys); and document, report, and address any supply problems.

2.2. Role of MSD

- Ensure zonal stores have enough supply to ensure timely deliveries of required quantities to district level.
- Closely collaborate with MOH and respond promptly to contraceptive or related medical supply issues/problems raised by them.
- (a) Provide MOH with a. stock movements from zone to district (date, items, quantity, location); (b) annual delivery schedules from zone to district stores; (c) signed proofs of delivery from the district in-charge; and (d) report on losses, stockouts and overstocks, and non-reporting or incomplete reporting from districts.
- Hand-carry MOH requisitions from district level to zone warehouse (MSD drivers will pick up requisitions as available when delivering to districts).

3. Monitoring logistics quality

The MOH will carry out monitoring functions to ensure that MSD follows good stores practices and handles contraceptives in a manner that ensures service providers have quality contraceptives and related medical supplies to dispense to clients. MSD will not be responsible with storage or distribution of commodities at the district level or below.

3.1. Role of MOH

- Make inspection visits to the central and zonal warehouses operated by MSD. Observe storage conditions, shelf life and expiry dates, loading and handling procedures, inventory control, etc. Use standard checklist during such visits and provide MSD with a copy.
- Interview MOH district level and SDP staff regularly, to determine—
  - satisfaction of provision of MSD's services, and
  - assessment of the condition and availability of contraceptives and related medical supplies, a written summary provided to MSD.
- Monitor information and commodity flows between the district and the zone and central levels.
- Convene regular meetings with MSD; participate in joint MSD/MOH field visits.

3.2. Role of MSD

- Allow MOH access to the central and zone warehouses, and collaborate in the inspection of contraceptives and related medical supplies in storage, logistics records, etc.
- Cooperate with MOH in any special studies/surveys aimed at assessing and improving contraceptive and related medical supply distribution.
- Convene regular meetings with MOH for coordination, discussion and resolution of distribution issues. Participate in joint MSD/MOH field visits as required.

Appendix B
Distribution Cost Estimates—1998

Table B-1. Distribution Costs for 1998 under the Proposed MSD Integration

Product	Forecast demand (1998)	Donor	Units per carton	Carton volume (M^3)	Total volume *(W)* (BxE)/D	No of cartons per pallet	No of pallet locations in racked storage (B/D)/G	Adjust factor	Adjusted pallet location in racked storage (H*I)	MSD charge for (m3) in U.S.$	Total distribution cost (J*K)
A	B	C	D	E	F	G	H	I	J	K	L
Microgynon	2,305,143		2,640	0.10	87	15	59	3	177	$133.00	$23,541
Lo-Femenal	1,326,860	USAID	1,200	0.04	44	28	40	3	120	$133.00	$15,960
Microval	517,316	UNFPA	600	0.02	17	50	18	3	54	$133.00	$7,182
Depo-Provera®	1,390,531	DFIDIKFW	100	0.01	139	84	166	3	498	$133.00	$66,234
CUT 380A	14,620	USAID	200	0.04	3	36	2	3	6	$133.00	$798
Conceptrol	267,827	USAID	4,800	0.04	2	36	2	3	6	$133.00	$798
Neo-Sampoon	2,534	UNFPA	3,200	0.02	0	64	1	3	3	$133.00	$399
Condoms	19,478,219	UNFPA	5,760	0.10	338	25	136	3	408	$133.00	$54,264
				TOTAL	**630**		**424**		**1,272**		**$169,176**

Notes: This is the cost for storing and distributing quantities estimated for the 1998 contraceptive forecast. Contraceptive commodities are included in the MSD's storage and distribution charges; however, medical equipment, IEC materials and other miscellaneous supplies are out of this table. Those materials and supplies will also be charged at $133.00 per cubic meter at the adjusted pallet location in racked rate.

1. Adjustment factor calculated for floor space to obtain number of pallet locations stored and distributed. Norplant® has been excluded from the table as UMATI collects directly from the warehouse.
2. The total quantity of condoms include the RHU and NACP needs.

Appendix C
LMIS Reports and Documents Needed

Table C-1. LMIS Reports and Documents Required under the Proposed Integrated Distribution System

Form/document name	Parties involved	Purpose of document	Information contained
Report and Request (R&R) form	MCH/FPU SDPs to district level	Report monthly consumption	Date of completion Beginning of month stock balance Amount received Amount dispensed to clients Losses or transfers Ending of stock balance Quantity requested
Aggregated SDPs R&R forms	MCH/FPU District to Regional level	Monthly aggregated consumption	Same as above but aggregated by SDPs/districts
Aggregated R&R forms from districts	MCH/FPU Regional to National level	Quarterly aggregated consumption	Same as above but aggregated by districts to obtain a regional report
Delivery note and Proof of Delivery (PoD)	MCH/FPU District to SDP level MCH/FPU District and MSD zonal store NOTE: These two activities will be recorded on one form, though the two documents referred to will be different.	Recording of contraceptive being loaded onto the vehicle and accompanies the goods in transit. Title changes on signature from MSD to the district health management team (DHMT) thus, the delivery note also acts as a proof of delivery.	Date of loading Contraceptive brand name Quantity dispatched/received Signature from dispatching store Signature from receiving store Driver's signature Comments in the event of damage or incomplete order

Form/document name	Parties involved	Purpose of document	Information contained
Invoices	Between MSD and MCH/FPU at Central Level	The invoices are based on proof of delivery to district level.	Date of Transaction Product Volume delivered (m3) Distribution cost (calculated by volume) Remarks
Payment	UNFPA/USAID deposit funds in FPU's IMPREST account. and MSD withdraws money monthly after approval from FPU	To pay MSD for distribution services.	Date Volume/price delivered that month Amount to be paid Signatures

Activity	Begin	End	Person(s) Responsible	Person(s) Involved	Comments
Make an M&E plan for the first 6 month period of integration.	I Feb	15 Mar	Logistics Officer, FPU	Prog. Manager, FPU RM&E Officer, FPU MIS Officer, FPU Dir. Distribution, MSD	The M&E plan will include a schedule of inspection visits and other monitoring.
Finance					
Agreement on donor funding schedule for paying MSD.	I Jan	15 Mar	Prog. Manager, FPU	USAID UNFPA Dir. General, MSD Finance Officer, FPU Dir. Finance, MSD Dir. Distribution, MSD	A quarter of the estimated total annual distribution costs to be deposited in FPU imprest account; monthly payments to MSD upon submission of invoices.
Establish imprest account; decide on signatories, bookkeeping, and reporting procedures.	I Jan	28 Feb	Prog. Manager, FPU	USAID UNFPA Dir. General, MSD Finance Officer, FPU Dir. Finance, MSD	Donor agencies should make first deposits by I March if integration is to begin I Apr.
Agree pricing mechanism and commercial terms.	I Jan	28 Feb	Prog. Manager, FPU Dir. General, MSD	USAID UNFPA Finance Director, MSD Dir/CDir Distribution, MSD	To be incorporated into schedule I of MoU.
Materials Handling					
Agree minimum shelf life at zonal levels.	I Jan	I Feb	Prog. Manager, FPU Dir. General, MSD		

Activity	Begin	End	Person(s) Responsible	Person(s) Involved	Comments
Procurement and Supply					
Identify and agree upon role MSD to play in preparing annual forecast.	15 Jan	31 May	Logistics Officer FPU, Dir. Distribution MSD Cdir.Distribution MSD USAID UNFPA DFID	Program Manager FPU Director MSD MIS Officer FPU	
Provide funds for technical assistance in CPT preparation and training.	15 Jan	28 Feb	HPN Officer AID	Program Manager FPU Logistics Officer FPU Technical Assistance	Two-week activity within designated period.
Agree upon schedule for phasing in MOH funding for contraceptive purchases.	I Jan	30 Mar	Prog Manager FPU USAID UNFPA DFID	MOH	
Confirm sufficient storage for projected annual contraceptive commodities.	Annual		Dir. Distribution MSD, C.Dir. Distribution MSD	Contracts Manager FPU Logistics Officer FPU	Completed within one month of receipt of annual forecast from FPU.
Designate MSD focal point for receipt and monitoring of donor shipping information.	I Jan	I Feb	Dir.Distribution MSD, C.Dir. Distribution MSD	Logistics Officer FPU	For shipping information forwarded from FPU.
Designate MSD focal point for scheduling delivery and receiving goods at national warehouse.	I Jan	I Feb	Dir. Distribution MSD, C.Dir. Distribution MSD	Logistics Officer FPU Warehouse Manager MSD	
Identify and agree upon procedures and documents for receiving and inspecting commodities at national store.	I Jan	I Feb	Logistics Officer FPU, Dir. Distribution MSD, C. Dir. Distribution MSD	Warehouse Manager MSD	
Identify and agree upon procedures and documents for notifying donors of problems with received commodities.	I Jan	I Feb	Logistics Officer FPU, Dir/CDir. Distribution MSD	USAID UNFPA Crown Agents (DFID/KfW)	Notify donors of short shipments, damaged goods, etc.

Appendix H
Transfer of Selected Activities of EPI into MSD Regular Operations—Phase II

A logistics system for the flow of EPI-related supplies between the Zonal Medical Store and the District

Final Report

(Dar-Es-Salaam—November 1996)

Nicolas de Metz
Logistics Advisor
Consultant appointed by
KAMPSAX WTERNATIONAL A/S
To The Medical Stores Department
The United Republic of Tanzania

Only a segment of this report has been provided. If you would like a complete copy of the report, contact Nicolas de Metz.

The breakdown of costs between donors for this amount was as follows:

- USAID has paid for 57.1%, or $44,525.53 (TShs. 35,620,423.00).
- UNFPA has paid for 42.9%, or $33,471.91 (TShs. 26,777,528.9).