

# 6

## Field Study: Tanzania

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### Introduction

The findings contained in this study are based upon a nine day assessment trip to Tanzania during June 1997. This first section provides background information on Tanzania and describes factors influencing the donation process in Tanzania. It also discusses the limitations of the study. The second section provides information about the study period and a profile of the interviewees. The current donation process is described in the third section, and perceptions of the process by the recipients are discussed in the fourth section. The fifth section discusses the knowledge among facilities, NGOs, and MOH of the WHO *Guidelines for Drug Donations* and their potential future impacts. The conclusions and recommendations are presented in the final section.

### Background on Tanzania

In 1997 an estimated 30 million people<sup>1</sup> lived in Tanzania's 938,000 square km on the east coast of Africa. Tanzania was governed by Germany until the end of World War I, then by Great Britain from 1919 until 1961. The one-party republic headed by President Julius Nyerere (from 1965 to 1991) established an economic system of African socialism. Since 1992 Tanzania's multiparty government has been moving toward a market economy. Despite its agricultural, forestry, fishing, and mineral industries, the country was ranked the third or fourth poorest among the countries examined by the World Bank in 1995, 1996, and 1997.<sup>2</sup>

Tanzania's neighbors include Kenya to the north, Uganda to the north-west, Rwanda, Burundi, and the former Zaire to the west, Zambia and

Malawi to the southwest, and Mozambique to the south. Even with its 940-kilometer coastline on the Indian Ocean, numerous waterways, and large bodies of water such as Lake Victoria, Lake Tanganyika, and Lake Nyasa, the country has developed only limited opportunities for transportation by water. Inadequate maintenance of roads and the railroad system affect the ability to transport goods overland.

### ***Important factors affecting drug donations***

In the opinion of the interviewees in this study, three factors affect the need for, the supply of, the perception and regulation of, and the impact of drug donations in Tanzania:

1. *The economy:* Low government revenues and low per capita income create a need for external support of the healthcare system. Foreign aid made up 30 percent of Tanzania's 1994 GNP.<sup>3</sup>
2. *The government/voluntary sector collaboration:* Tanzania's healthcare system is highly regulated by the government, with approximately one-third to one-half of all services provided by Christian church organizations.<sup>4</sup> Overseas religious and bilateral organizations play an important role in the provision of healthcare services and in the supply of drugs.
3. *The country's geography:* The geographic location of Tanzania and the distance of Tanzanian recipients from the port of entry create difficult logistics for transportation and distribution. Furthermore, the disparity of services and the absence of pharmacists and physicians outside of urban areas affect the distribution of drug donations.

### ***The need for donations***

Tanzania is currently in the process of a transition from a socialist economy, with government-controlled enterprises and guarantees of healthcare for all, to a market economy. The government of Tanzania has privatized companies and is in the process of introducing market competition into the healthcare system. During the socialist era, healthcare was provided and financed by the government at no charge to the patient.

In the mid-1980s, however, Tanzania's poor economy led to the collapse of the drug supply system. In 1984, in response to the country's economic plight, DANIDA (the development arm of the Danish government), UNICEF, and the government of Tanzania established the Medical Stores Department (MSD) with DANIDA and other foreign funding and UNICEF provision of drugs. According to the managers of MSD, this international assistance has provided 80 to 100 percent of the minimum

drug supply of hospitals, health centers, and dispensaries for the past three years. Other drug donations, subsequently established patient copayments, and the private market supply the remainder of drugs.

### *The government/voluntary sector collaboration*

The government plays an important regulatory role in the public and not-for-profit private healthcare market. It provides funding for drugs to both government and nongovernmental hospitals and health centers. Local religious organizations play an important role in providing services. Overseas religious organizations and bilateral organizations work with local organizations to supply drug donations. Tanzania's historical ties with Europe are reflected by the support of European Christian organizations and the Catholic and Protestant Tanzanian Churches and their healthcare delivery systems. Denmark, Germany, and Holland provide the bulk of drug donations for the Lutheran Churches; Germany, Italy, and France support the Roman Catholic Churches. US donors provide minimal assistance.

### *Geographic factors*

Tanzania's location on the east coast of Africa and the long distances within the country from the port of Dar es Salaam affect how donations from Europe and the United States reach different healthcare facilities. The great distances of the end-users from shipping ports affect the overall supply of drugs, the quantity of shipments, transportation logistics and cost, and the quality of drugs. The road system is in development, with a road density of 142 km per million persons in 1992. One quarter of the roads are in good condition.<sup>5</sup>

There is also a shortage of pharmacists and physicians (see Table 6.1). Tanzania's 30 million people are served by only 1,264 physicians, 26,023 nurses, 263 pharmacy technicians, and 299 pharmacy assistants.<sup>6</sup> Trained health professionals are unevenly distributed within the country, with the majority concentrated in the northeast and in urban centers.

According to MOH officials, health facility managers, physicians, and pharmacists who were interviewed, the short supply of trained professionals reduces the ability of healthcare facilities to make use of different drug formulations and dosages. The short supply of specialized staffing in the countryside means that the majority of drugs are prescribed by nurses or allied health personnel.

The Essential Drugs List (EDL) of Tanzania specifies the level of service for which a drug is appropriate. When nurses are the only dispensers of medicines in many health centers and dispensaries, and when some

TABLE 6.1

### Availability of Medical Professionals, Hospital Beds and Immunization Services

	Physicians/ 10,000 Population (1988–1992)	Nurse-to- Doctor Ratio, (1988–1992)	Hospital Beds/1,000 Population (1985–1990)	% Children Immunized < 1 year	
				DPT 3rd Dose (1990–1991)	Measles (1990–1991)
Tanzania	0.03	7.3	1.1	79	75
Armenia	4.28	2.5	9.0	88	92
Haiti	0.14	0.8	0.8	41	31
United States	2.38	2.8	5.3	67	80

Source: The International Bank for Reconstruction and Development/World Bank: *World Development Report* (New York, 1993), pp. 208–209.

of these nurses have limited pharmaceutical training, drug donations can be more useful if they are specifically tailored to a particular facility. Interviewees told us that many health centers and dispensaries use only a limited number of generic drugs that are specified for a certain level of care in the EDL, so that the staff may be familiar with only a limited range of products.

In contrast, the Tanzanian medical and pharmaceutical professionals who were interviewed in the top three teaching hospitals told us that they are familiar with US and European brand-name drugs and know how to use many of these pharmaceuticals. None of the facilities in the study, including the large teaching hospitals, had recent copies of the *Physicians' Desk Reference* (PDR).

The interviewed pharmacy staffs in smaller hospitals said that it is difficult to provide current information to the medical professionals on how to use new or unusual drugs if there is no information about the drug included in the package. According to them, information on drugs is an important factor in the use of the array of drugs provided by humanitarian aid.

#### *The Tanzanian healthcare system*

The organization and financing of the Tanzanian healthcare system still reflect the British healthcare model, as well as the prior socialist model. All healthcare professionals in government-run facilities are government employees, and there are substantial government subsidies to not-for-profit church-based facilities. These facilities play a major role in the delivery of health services in Tanzania.

Since 1992 MOH has been working on restructuring the healthcare system.<sup>7</sup> One component of this restructured system is cost-sharing by patients. According to those interviewed during this study, cost-sharing is expected to provide more funds to help pay for the supply of drugs and equipment, as well as staff salaries.

Healthcare is regionalized, with secondary and tertiary hospitals providing inpatient care. Dispensaries provide primary ambulatory care, and health centers provide primary ambulatory care and a few holding beds for observation and initial treatment.

Of Tanzania's 3,997 health care institutions, 195 are hospitals, 302 are health centers, and 3,500 are dispensaries.<sup>8</sup> Of the 195 hospitals, 39.5 percent are owned by the government, 41.5 percent are owned by nongovernmental organizations, 9.2 percent are parastatals (managed by companies that are run by the government), and 10.3 percent are private.<sup>9</sup> Government and nongovernmental hospitals together account for 90.9 percent of all beds,<sup>10</sup> and 90.4 percent of health centers are government-owned. Of the 3,500 dispensaries, 66.4 percent are government-owned, 17.3 percent are voluntary, 7.4 percent are parastatal, and 8.9 percent are private.<sup>11</sup> According to MOH estimates, in 1995 each Tanzanian saw a medical care provider on an outpatient level an average of six to seven times, for an estimated total of 200 million annual ambulatory care visits.

Table 6.1 shows comparative data for the field study countries and the United States. The Tanzanian healthcare delivery system emphasizes primary care. The relatively high ratio of nurses to physicians in Tanzania, compared with that in the other three countries, points to both the low number of physicians and medical specialists in Tanzania and the emphasis on having nurses trained as primary caregivers. The 1995 ratio of physicians per 10,000 population ratio was 0.04, a slight increase over the 1988 to 1992 ratio.<sup>12</sup>

The population of Tanzania is exposed to infectious disease patterns resulting from animal vectors and inadequate sanitation, water, food supplies, and shelter. Malaria (including cerebral malaria), diarrheal diseases, and upper respiratory tract infections ranked amount the top diagnoses for both in- and outpatient admissions (Tables 6.2 and 6.3). Degenerative disease patterns are prevalent in a small, more affluent segment of the population.

### **Limitations of the study**

The following limitations of this study should be considered in any use and interpretation of its findings:

T A B L E 6 . 2

**Top Ten Inpatient Diagnoses for 1995**

Diagnosis	Under Age 5 (%)	>5 Years (%)	All Ages (%)
All other malaria	55.3	28.6	43.6
Other diarrheal diseases	12.4	3.5	8.5
Pneumonia	10.8	4.1	7.9
Malaria: cerebral	4.2	14.5	8.7
All other anemia	2.7	1.7	2.3
URTI	2.2	Not in top 10	1.7
Schistosomiasis	1.3	2.6	1.9
Diarrheal disease: enteric infection	1.1	12.8	6.2
Obstructive pulmonary disease	0.9	Not in top 10	Not in top 10
Burns	0.8	Not in top 10	Not in top 10
Bacterial diseases, other	Not in top 10	6.0	2.8
Other GYN diseases, disorders	Not in top 10	2.7	1.2
Pelvic inflammatory disease	Not in top 10	2.1	Not in top 10
Other	8.3	21.4	15.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: Ministry of Health, Dar es Salaam, *Health Statistics Abstract No. 4* (June 1996), p.21; all cases from nine districts reporting of 104 districts total in 1995.

- The field study was carried out during a visit of one and one-half weeks, with a limited number of interviews and limited access to recorded information on donated drugs from health facilities and MOH.
- The geographic areas covered were located in and around the port city of Dar es Salaam, Mwanza (northwest, near Rwanda and Lake Victoria), and Arusha and Moshi (northeast). The center and south regions of the country were not sampled.
- A large proportion of Tanzania's drug supply is funded by international organizations such as DANIDA and UNICEF, a small proportion is donated by PVOs<sup>13</sup>, and a very small proportion of these donations come from the United States. Tanzania's donation process may therefore not be representative of that in other countries.
- Because US drug donations comprise only a small portion of all donations, the recipients sometimes found it difficult to separate their perceptions of donations received from the United States from their perceptions of donations received from other countries.

TABLE 6.3

## Top Ten Outpatient Diagnoses for 1995

Diagnosis	Under Age 5 (%)	>5 Years (%)	All Ages (%)
All other malaria	55.3	28.6	43.6
Malaria	38.4	32.2	34.4
URTI	14.1	11.4	12.4
Diarrheal disease	8.0	5.7	6.5
Eye infections	7.3	3.7	5.0
Pneumonia	6.2	3.6	4.5
Skin infections	3.1	2.5	2.7
Intestinal worms	2.9	4.5	3.9
Anemia	2.0	Not in top 10	Not in top 10
Ear infections	1.5	Not in top 10	Not in top 10
Minor surgery	0.9	1.9	2.0
Pregnancy, normal	Not in top 10	3.2	2.1
Urinary tract infections	Not in top 10	1.9	1.5
Other	15.6	29.4	25.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: Ministry of Health, Dar es Salaam, *Health Statistics No. 4* (June 1996), p.17; all cases from 20 Districts reporting of 104 Districts total for 1995.

- Health centers and dispensaries, the providers of primary care, are under-represented in the sample.
- The informal sector and private delivery of care were not a focus of the study. The pharmacist and manufacturer interviewed may not be representative of all wholesale and retail pharmacists in Tanzania. The three other major in-country Tanzanian manufacturers of drugs were not interviewed.

## The Study Period and Profile of the Interviewees

The study was conducted between June 8 and June 17, 1997. All information was collected in face-to-face interviews with the administrator and/or pharmacist in nine health care facilities (18 interviews), with seven officials in the Ministry of Health responsible for the drug policy, with the two top managers at the Medical Stores Department (one interview), with five administrators of three in-country NGOs<sup>14</sup> (three interviews), with the owner of a wholesale/retail pharmacy (one interview),

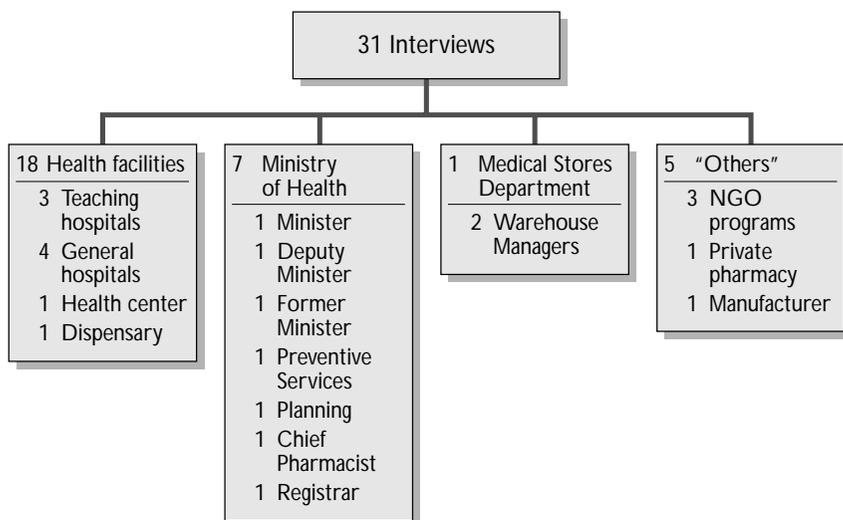
and with the owner/manager of a firm manufacturing pharmaceuticals in Tanzania (one interview).

The sample of interviewees for this study (Figures 6.1 and 6.2) was chosen in order to gather information that might offer some insight on different aspects of the donation process as follows:

- *Health facilities* solicit donations from PVOs and individuals.
- *The Ministry of Health*, through the minister and his staff, establishes the national drug policy. The chief pharmacist is responsible for the Essential Drugs List and the donations policy. The registrar enforces the EDL and the donations policy for imported drugs.
- *The Medical Stores Department* staff purchases and distributes drugs and is financed in part by large international organizations and the MOH.
- *“Others”* include NGOs that facilitate the solicitation and distribution of donated drugs in Tanzania and pharmacies and manufacturers, who are affected by the importation of low-cost drugs.

FIGURE 6.1

**Profile of Interviewees**



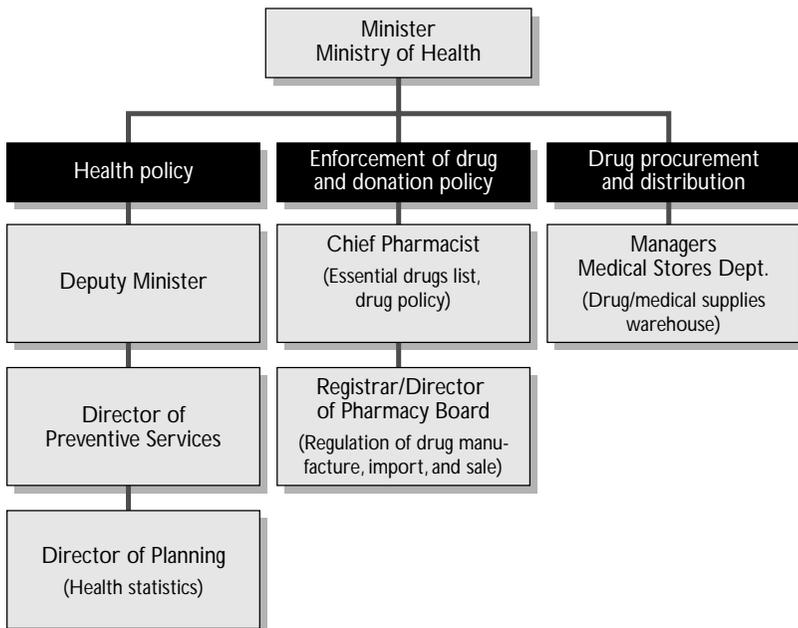
## The health facilities

The sample of nine healthcare institutions consisted of three tertiary hospitals in Dar es Salaam, Mwanza, and Moshi, three district hospitals outside major urban centers, one small private hospital in Dar es Salaam, and a health center and a dispensary near Dar es Salaam. An orthopedics unit and a urology unit were also visited.

The health facilities were selected as being representative of other institutions in terms of level of service provided (outpatient versus inpatient, primary versus secondary and tertiary care), but the survey sample is not representative of the total number of health facilities. Tertiary hospitals are over-represented and health centers and dispensaries are under-represented. One additional reason for selecting the survey facilities was that they had received drug donations from at least one of three US PVOs. This was true in the case of two of the three tertiary hospitals, two of the three district hospitals, the dispensary, and the health center. In

FIGURE 6.2

### Profile of Interviewees in Ministry of Health and the Medical Stores Department



each inpatient institution, at least one administrator and one pharmacist were interviewed. The nurse in charge of the dispensary and the health center was interviewed. The pharmacy for each institution was also visited. A profile for each of the health facilities is provided in Table 6.4.

For this study, “public hospital” is defined as a hospital operated by the Ministry of Health (Facilities No. 1 and No. 5). Except for Facility No. 2, public/private facilities are institutions run by religious organizations, with government funding for drugs and other subsidies (Facilities No. 3, 4, 6, 8, and 9). Facility No. 2 is a large government teaching hospital, with an autonomous public/private orthopedic center within the hospital grounds.

Private Hospital No. 7 is an owner-operated institution. The owner is also the head of the Tanzanian Association of Private Hospitals. The owner explained that the members of the association of these private-owner-operated hospitals do not receive drug donations. As members of the Rotary, he and many of the owners of private hospitals collect drugs themselves to donate to other facilities.

Table 6.5 shows the sources of drug donations in the various facilities that were identified during the field survey interviews. Except for the private hospital, all facilities obtain a large proportion of their drugs from MSD at no charge, up to their government budget or “credit allotment” in Tanzanian Shillings. As mentioned previously, US donations make up a small part of all drug donations in Tanzanian health facilities, even in the facilities visited in this study, which were selected because they are routine recipients of drug donations from US PVOs.

### **The in-country NGOs**

Three nongovernmental organizations were interviewed. NGO No. 1 is the administrative arm of the Tanzanian Catholic Church, NGO No. 2 is the Lutheran equivalent, and NGO No. 3 is a US–Canadian–Australian organization involved in extensive community-based development work in Tanzania.<sup>15</sup> As part of their broad social mandate, the Tanzanian Catholic, Lutheran, and Anglican Churches operate about 80 of the 195 hospitals in Tanzania. The churches also operate dispensaries and health centers, with some government financial support.<sup>16</sup>

NGO No. 1 is located in Dar es Salaam. It is the umbrella organization for the activities of over 20 dioceses throughout the country. The executive in charge of healthcare issues is a physician who served in a senior position in the Tanzanian army before taking this position three years ago. In 1995 NGO No. 1 took over responsibility for donations from an

TABLE 6.4

## Profile of the Health Facilities Interviewed

Facility	Type of Facility (Region)	Services/Departments	No. of Beds	Ambulatory Visits/Day	Surgery	
					Inpat./Yr	Ambul./Yr
No. 1	Public District Hospital (Northeast)	Inpatient and Outpatient General Medicine and Surgery; OB-GYN; Pediatrics; Ear, Nose, and Throat; Internal Medicine.	300	35	NA	NA
No. 2	Major Teaching Hospital Public/Private <sup>1</sup> (Coast)	Inpatient and Outpatient Medical and Surgical Services in Departments of Internal Medicine; Child Health and Pediatrics; Ob-gyn; Urology; eye diseases; Ear, Nose, and Throat Disorders; Dental and Oral Hygiene. ( <i>Private orthopedic beds in public/private center within public hospital.</i> )	1000	450	NA	NA
No. 3	Major Teaching Hospital Public/Private (Northwest)	Inpatient and Outpatient Medical and Surgical Services in Departments of Internal Medicine; Child Health and Pediatrics; Ob-gyn, Orthopedics, Urology; Eye diseases; Ear, Nose and Throat Disorders; Dental and Oral Hygiene.	800	100	NA	NA
No. 4	Major Teaching Hospital Public/Private (Northeast)	Inpatient and Outpatient Medical and Surgical Services in Departments of Internal Medicine; Child Health and Pediatrics; Ob-gyn, Orthopedics, Urology; Eye diseases; Ear, Nose and Throat Disorders; Dental and Oral Hygiene. ( <i>Semi-private urology center within Public/private hospital.</i> )	420	250	NA	NA
No. 5 <sup>2</sup>	Public District Hospital (Northwest)	General Medicine and Surgery; OB-GYN; Pediatrics; Internal Medicine.	186	25	350	750
No. 6	Public/Private District Hospital (Northeast)	General Medicine and Surgery; OB-GYN; Pediatrics; Internal Medicine	100	60	1100	2000
No. 7	Private Hospital (Coast)	General Medicine and Surgery; OB-GYN; Pediatrics; Internal Medicine	38	50	NA	NA
No. 8	Dispensary Public/Private (Coast)	General Medicine; OB-GYN, Pediatrics (AIDS clinic next door, but separate)	—	200	none	none
No. 9	Health Center Public/Private (Coast)	General Medicine; OB-GYN; Pediatrics	—	250	none	none

1 The number of beds and ambulatory visits were obtained from the pharmacist and could not be verified with administration. This hospital is public with a public/private orthopedic center. The orthopedic center has a suite with rooms for private patients, but also manages more than 200 public orthopedic beds.

2 Drugs constitute 60% of the budget of this facility.

— = not applicable

TABLE 6.5

**Sources of Drugs in the Nine Health Facilities**

#	Facility Type	Sources of Drugs				Total of all Drugs
		MSD Gov- ernment Allocation (% of Total)	Patient Cost- Sharing (% of Total)	All Dona- tions (% of Total)	US Dona- tions (% of donations Total)	
No. 1	Public Hospital, District	80.0	20.0	<1.0	—	100.0
No. 2	Major Teaching Hospital	86.5	8.5	5.0	(<1.0)	100.0
No. 3	Major Teaching Hospital	75.0	19.0	6.0	(5.0)	100.0
No. 4	Major Teaching Hospital	84.0	8.5	7.5	(1.0)	100.0
No. 5	Public Hospital, District	60.0	30.0	10.0	(3.0)	100.0
No. 6	Public/Private Hospital, Distr.	60.0	24.0	16.0	(3.0)	100.0
No. 7	Private Hospital, small	—	100.0	—	—	100.0
No. 8	Public/Private Dispensary	60.0	8.0	32.0	(2.0)	100.0
No. 9	Public/Private Health Center	25.0	25.0	50.0	(20.0)	100.0

Source: Estimates from the field survey, 1997.

international PVO with a major focus on drug and other healthcare donations, that consolidated and moved its East African field operations to Kenya.

NGO No. 2, located in the northeastern region, has many church offices and healthcare facilities located throughout the country. (About 30 percent of its healthcare facilities are in the lakes region, 40 percent in the northeast, and the remaining 30 percent in the southern part of the country.) According to the director, its healthcare facilities serve 13 to 14 percent of the population in more than 20 hospitals and dispensaries with over 3,000 beds and over 2,500 staff.

NGO No. 3 is also located in the northeast region. The director described its efforts as “a Christian organization committed to work with the poor, focusing on the needs of children. Its approach is community-based, with a focus on sustainable, holistic projects which produce a development transformation.” This NGO is involved in agriculture, primary education, water, health, small-scale enterprise development, reforestation, and disaster relief, including refugee assistance. It is soliciting and distributing medicines in response to requests by community project leaders. Of a total budget of US\$6.6 million in 1997, \$616,000 was from gifts-in-kind, of which \$50,000 to \$60,000 per year represents donated drugs. NGO No. 3 does not operate its own health facilities.

## **The Ministry of Health**

The minister, the deputy minister, the director of preventive services, the director of planning, the chief pharmacist, and the registrar/director of the Pharmacy Board were interviewed. The former minister of health and two managers of MSD were interviewed as well.

The chief pharmacist is responsible for developing the overall drug policy of Tanzania, the Essential Drugs List, and the donations policy. The registrar/director of the Pharmacy Board is responsible for enforcing the regulations governing drug manufacture, importation, and sale. Every shipment of drugs has to have her import permit. She also is in charge of the National Drug Quality Control Laboratory.

The Medical Stores Department was established as a separate entity, independent from the MOH, with financial and managerial autonomy. Its purpose is to purchase and distribute drugs of high quality and low cost. MSD receives some donations through the immunization program and other vertical programs, but most drugs are purchased with funds from international donors. According to the chief pharmacist, MSD is the cornerstone of the Essential Drugs Program, which was started in 1984, because there were no funds available to supply the primary care centers.<sup>17</sup> DANIDA provided drugs for the program from 1984 to 1994 and financed about US \$10 million of drugs in 1994. In fiscal 1997, DANIDA funds constituted 50 percent of the drug budget.

According to the two managers of MSD, its 1996–1997 budget was Tanzanian about US \$22.6 million, and it is projected to increase to US \$23.5 million in 1997–1998 or about \$0.80 per capita.<sup>18</sup> The major customers of MSD were regional hospitals (23.1 percent of all sales) and district facilities (45.1 percent). Vaccines were delivered to all facilities, NGOs, other MOH facilities, Parastatals<sup>19</sup>, and the private sector. The MOH is represented on the board of MSD, and thus safeguards the public's interest. The parastatal MSD is financed largely through external aid, with the directorship shared by two managers (one a Tanzanian, the other an expatriate). Currently MSD is funded by DANIDA, with the goal that it will eventually become domestically self-sustaining through cost-sharing by patients, insurance payments, and a government subsidy. The main warehouse is located in Dar es Salaam.

By design, the MSD catalogue closely mirrors the essential drugs list and offers primarily generic drugs. MSD also makes available drug kits for health centers and dispensaries in rural areas.<sup>20</sup> In the past these have been procured from International Dispensary Association (IDA) in Holland and Malta. In 1997, for the first time, they were being procured

from within the country. The public and public/private providers of healthcare obtain a large proportion of their drug supply (80 to 100 percent of drugs) from MSD. Every hospital, health center, and dispensary can order drugs from the MSD catalogue up to a “credit” limit provided by the MOH and expressed in Tanzanian Shillings. At the end of the year, any unused credit expires—that is, it cannot be carried forward.

A cost-sharing scheme in place for drug prescriptions requires the patient to pay up to 50 percent of the wholesale price of the generic equivalent of a drug, depending on the patient's income. The revenue from cost-sharing can be used by the facility to purchase drugs from MSD or from any other distributor. Because none of the drug donations by PVOs and individuals go through MSD, there will be no further discussion of MSD, except where its policies and procedures affect the donation process.

### **Private pharmacist and drug manufacturer**

The private pharmacist interviewed in this study has both a wholesale and retail pharmacy in Dar es Salaam. It is the policy of the government to encourage the development of locally owned companies and retail establishments. Between 1989 and 1993 the number of private pharmacies increased by 56 establishments.<sup>21</sup> The pharmacist was interviewed about the effects of donations on the development of private pharmacies.

The manager of one drug manufacturer was interviewed in this study. According to this interviewee, the company is one of six drug manufacturers in Tanzania, of which one was privatized, two were parastatals, and the remaining three were private. One of the two parastatals was closed and the other is in the process of privatization. Self-sufficiency in the manufacture of drugs is one of the stated goals of the National Drug Policy. Because donated drugs may make it difficult for local manufacturers to thrive, this manufacturer was interviewed. The manufacturing facility was located in the northeast region of the country.

In 1992 this manufacturer produced a limited number of drug kits for MSD. The local private market is the most important source of demand for this manufacturer's products. The facility is expanding production and is planning to bid for other MSD business. This manufacturer would like to see Tanzania establish a “negative” list of drugs—that is, drugs that are not imported or donated because local manufacturers have sufficient production capacity to meet demand (see Table 6.14 below).

## **Description of the Current Donation Process**

### **Introduction**

Tanzania's drug donation process is decentralized. The government acts as policymaker and regulator, but does not coordinate or broker donations by PVOs. MOH implements the regulatory mandates provided by the Tanzanian National Drug Policy through the Essential Drugs List and the Policy on Donations (dating from the spring of 1995).

Tanzanian medical providers typically obtain pharmaceutical donations through churches, including the main offices of religious orders and religious congregations, through church-affiliated PVOs, through non-religious PVOs, and through personal contacts with individual benefactors. Expatriates as well as individual health professionals who visit Tanzania for a short period to provide health care services also bring in pharmaceutical supplies. In addition, some overseas organizations provide hospitals and health centers with cash or a credit against which they can purchase or order drugs. These donations play an important role in some health care facilities in Tanzania.

### **Regulation of drug donations: role of the Ministry of Health**

The Tanzanian Ministry of Health treats donated drugs similarly to imported drugs and drugs manufactured locally. All donors of pharmaceuticals must obtain a permit for importation from the registrar/director of the pharmacy and the Medicines and Poisons Board (Pharmacy Board) within MOH. Donated drugs must have been registered by the Pharmacy Board if they are imported in commercial quantities.

According to the minister of health, this central overview of humanitarian aid at MOH is a necessary element of the National Drug Policy. The ministry and healthcare providers experienced difficulties with donations during two periods of crisis: the economic downturn in the late 1980s and the influx of refugees in the 1980s and 1990s. During these periods, Tanzania received a large volume of unusable supplies. According to the registrar, major problems included:

- Donations of drugs not matching the needs of the country.
- Expired drugs.
- Returned unused drugs.
- Drugs for which it was difficult to determine expiration dates and safety.<sup>22</sup>

Tanzania regulates the purchase, manufacture, importation, and use of pharmaceuticals with its National Health Policy,<sup>23</sup> its National Drug Policy,<sup>24</sup> an Essential Drugs Program and Essential Drugs List,<sup>25</sup> and its own “Drug Donation Guidelines.”<sup>26</sup> Table 6.6 illustrates these regulatory mechanisms and their applications. In its Donation Guidelines, MOH acknowledges its debt to model guidelines and information from other organizations, including the guidelines developed by the World Health Organization in collaboration with other international organizations.<sup>27</sup>

T A B L E 6 . 6

**Drug Donations: Regulatory Mechanisms and Their Applications**

Regulatory Mechanism	Application in Tanzania
<i>National Drug Policy</i>	
Issues covered	Selection, procurement, storage, production, quality, rational use, drug information, donations
How interpreted	Strictly for in-country production and imports
How administered	With extensive exceptions for donations
<i>Essential Drugs List</i>	
Familiarity of providers with drugs on essential drug list	All healthcare providers familiar with essential drug list
How interpreted	Donations obtain exemption from compliance if in noncommercial quantities
Stratified by level of provider	5 levels: village health post, dispensary, health center, district level hospital, regional or referral hospital
<i>Physicians' Desk Reference</i> (PDRs) available	Not widely available
<i>Donation Guidelines</i>	
How applied	Suggests policies to donors; extensive use of exceptions for tertiary institutions and physicians; strictly applied for large individual imports at customs office without prior Ministry of Health approval
By whom	Registrar (who is also Director of Pharmacy Board)
Enforcement, how	Rejection of unacceptable drug donations at customs by Registrar (rare, usually for dating or suspect manufacturer from Third World)
What is enforced	Dating, primarily
Exemptions	Broad, any donation which is desired by a provider and agreed to by Registrar, except for large amounts of drugs with less than 3 months of shelf life left.

### ***The National Health Policy***

The overall objective of the National Health Policy, as stated in 1993, “is to provide free and comprehensive basic health services to all Tanzanians.” The policy puts more emphasis on preventive and promotive healthcare than on curative care. It also emphasizes the construction of smaller health facilities in preference to hospitals. In addition to that, emphasis is put on training mid-level and low-level cadres of health workers to staff the facilities.<sup>28</sup>

### ***The National Drug Policy***

Tanzania’s National Drug Policy was adopted in 1991. It governs drug selection, supply, financing and cost-recovery, quality, rational use, drug information, production, and human resources development. The regulations of the policy are enforced by the chief pharmacist and the registrar, who is also the director of the Board of Medicine and in charge of the National Drug Quality Control Laboratory. The main objective of the National Drug Policy “is to make available to all Tanzanians at all times the essential pharmaceutical products which are of quality, proven effectiveness, and acceptable safety at a price that the individual and the community can afford when these are needed to prevent, cure, or reduce illness and suffering.”<sup>29</sup> Other objectives include promoting the rational use of drugs, increasing local production, and expanding the use of safe traditional medicines where requested by patients. The National Drug Policy has three main elements geared toward ensuring Tanzania’s self-reliance in providing drugs for its population: (1) the Essential Drugs Program, (2) a program to foster local manufacture of drugs, and (3) a program to ensure sustainability, which would include patient cost-sharing.

In 1990, when the Essential Drugs Program was written, a stated objective of the policy was “to encourage the growth of local public and private pharmaceutical industries in order to enhance self reliance in the production of essential drugs. The long-term policy shall be the production of raw materials to be used in the production of essential drugs.”<sup>30</sup> A commitment was also made that “procurement of drugs shall be based on the national list of essential drugs and the common diseases affecting the majority of people in the country. The Ministry of Health shall ensure that all institutions engaged in production, procurement, distribution, safety, and storage of drugs abide with this policy.”

In 1991 the Essential Drugs List component of the National Drug Policy was refined.<sup>31</sup> The selection of drugs was carried out by a national

committee based on disease patterns, safety, efficacy, quality, cost and price, and therapeutic advantage. Generic drugs were listed, with two brand-name products for each item on the national list to keep the number of drugs in the market low. The National Drug Policy stated that only drugs on the national list would be procured and distributed by MSD; private pharmacies and other private organizations would “distribute essential drugs as a priority.”

### ***The Tanzanian National Essential Drug List***

Tanzania’s National Essential Drugs List<sup>32</sup> is the responsibility of the chief pharmacist, who heads the Pharmaceutical and Supply Unit (PSU). The PSU is the central drug management unit of MOH. The EDL is updated either annually or every other year, with input from the National Essential Drugs Committee.

The 1995 Tanzanian EDL is comprehensive, including many drugs listed in the 1995 WHO Model List of Essential Drugs (WHO-ML).<sup>33</sup> The Tanzanian EDL appears more restrictive than the WHO list, because it does not include substitutions for comparable drugs. One interesting feature of the Tanzanian list is the indication of the level of facility for which each drug is appropriate. Each drug is labeled using the following codes:

- O: Village Health Post
- A: Dispensary
- B: Health Center
- C: District Hospital and Subdistrict Hospital
- D: Regional and Referral Hospital

Every healthcare provider interviewed in this study was familiar with the Essential Drugs List, because the list is very similar to the MSD price/order book. This list was available in every facility visited.

### ***The Tanzanian Guidelines on Donations***

In 1995 MOH issued its Guidelines on Donations.<sup>34</sup> It stated that, in the preparation of these guidelines, “use has been made of model guidelines and information from various organizations such as WHO, WCC-CMC, ICDRA, HAI.” The guidelines seek to “raise donor awareness on the standards that have to be met by a donor, who sincerely wants to be of assistance, give guidelines on donations, and increase usefulness of donations in-kind.” The need for the establishment of these guidelines was

based on prior experience that “a number of donations offered to the health sector in Tanzania contained goods that were unserviceable.” Some examples given were:

- Donations sent without first inquiring about the facility’s needs and, therefore, containing unnecessary or even useless or harmful items.
- Goods delivered that were close to their expiry dates, or had already expired.
- Goods delivered with too short a time prior to expiration (less than six months) to be considered for distribution to users.
- Packaging of goods that was sometimes poor and/or prescriber or patient information was lacking

The Tanzanian Guidelines on Donations specify that donated drugs:<sup>35</sup>

- Should be declared to the Ministry of Health for clearance before they are sent to beneficiaries (including those intended for emergency relief).
- Must be approved by the Pharmacy Board, just as all other imported drugs.
- Must be registered (although exemptions can be granted by the minister).
- Should be on the Tanzania National List of Essential Drugs, and should not be obsolete in the country of origin.
- Should be packed in suitable containers in larger quantities of 100–1000 units, labeled with generic name (INN).
- Should not be packed in containers with more than 100–1000 units, so as to avoid contamination when dispensing.
- Should be labeled in English or Kiswahili.
- Should have a time prior to expiration of at least 12 months at the time they are received for use.
- Should be of good quality (The WHO Certification Scheme on the Quality of Pharmaceutical Products Moving in International Commerce should be used whenever possible).
- Should not be products that were already dispensed to patients and returned to pharmacies or collected in donor countries for the purpose of donating them to others.

## **Sources of drug donations, actors involved, and logistics of the shipments**

According to three MOH officials, on average and when MSD external funding is excluded, less than 10 percent of all drugs dispensed in health-care facilities in the country were provided by donations.<sup>36</sup>

### ***Sources of drug donations for healthcare facilities***

According to the administrators who were interviewed, Europe was the most important source of Tanzanian drug donations in the sampled healthcare facilities in 1996–1997, providing between 60 and 90 percent of all donations from France, Great Britain, Germany, and Italy. The remaining donations came from the United States, Canada, and Asia. Donations from organizations within Tanzania were relatively small; the manufacturer in this study donated tablets and syrups to the teaching hospital in town (Facility No. 4), and a salesman for a major drug firm in the United States and Europe donated a small amount of a new drug to Hospital No. 2, a major teaching facility. District Hospital No. 1 received a small amount of drugs from the local Rotary Club. Every facility that was interviewed received a small donation of short-dated products from MSD.

The remainder of the report will focus on drug donations received from outside of the country. Sources identified by the healthcare facility administrators were international organizations, such as UNICEF, providing vitamins and vaccines for children and pregnant mothers; church-affiliated PVOs located in Europe and the United States, and other PVOs; convent motherhouse; other religious orders; individual benefactors; and individual professionals carrying drugs into the country.

### ***Gifts-in-kind solicited by institutions***

Healthcare facilities in the survey obtained approximately half of their donated drugs from the affiliated PVOs of their churches, the other half through individuals' efforts and connections (Table 6.7). Nonreligious PVOs were important donors to some hospitals. One PVO, in particular, provided airlifts and containers of drugs, medical supplies, clothing, and other necessities to Facility No. 3, located in the Lake District. These donations helped the hospital staff provide medical assistance to refugee camps in that area.

Where missionary nuns were providing services in health centers and dispensaries (such as Facilities No. 8 and 9), their overseas motherhouse was a crucial source of funds and drugs. Monks and Brothers also rely on

TABLE 6.7

**Sources of Donated Drugs**

Facility and Type	Sources of Donated Drugs <sup>1</sup>
No. 1 Public Hospital, District	No outside sources, some local Rotary Club donations
No. 2 Major Teaching Hospital	\$1,000/yr. of samples provided by Tanzanian salesman of major United States/European manufacturer. In orthopedic center: Switzerland.
No. 3 Major Teaching Hospital	US PVO, Church, individuals, advocate in United States
No. 4 Major Teaching Hospital	Church, Germany, Holland, individuals, some United States
No. 5 Public Hospital, District	Church, Holland, United States
No. 6 Public/Private Hospital, District	Church, Germany, Holland, United States, funds or credits
No. 7 Private Hospital, small	No donations; Director, as member of Rotary, donates drugs to local health care facilities
No. 8 Public/Private Dispensary	Canadian individual (49%), Italy, Mother House, United States
No. 9 Public/Private Health Center	United States, Germany, church, individual connections, provincial headquarters

1 All facilities receive occasional small donations of short-dated pharmaceuticals from MSD

their religious orders, and they sometimes share container shipping space with a neighborhood health center, as in the case of Facility No. 9.

Individual contacts played a major role. This was especially true in the two semiprivate centers within the teaching hospitals. The orthopedic center within Facility No. 2 was built and managed by a European orthopedic surgeon with Swiss contacts. The urology center within Facility No. 4, the major public/private teaching hospital, was built and run by a US expatriate. His center has attracted the support of a long-term benefactor in Holland who responds to requests for drugs and other healthcare supplies through fundraising drives and utilizes tourists traveling to East Africa to act as "drug couriers."

With personal contacts, a facility can make specific requests and reject some offered donations without future repercussions. Facility No. 9 obtained 6 percent of its donations through personal contacts and 12 percent from a German church with which it has had a long relationship. A disadvantage of relying on personal contacts is the high turnovers among expatriate workers. The healthcare provider who fills the position may

have completely different contacts and different donors from other countries, resulting in different kinds of donated drugs.

Drug donations may be obtained as donations-in-kind or through the provision of funds for the purchase of drugs. Some donor funds can be applied to the purchase of drugs and medical supplies at a European or US PVO or manufacturer/compounder of drugs specializing in distribution to the Third World. For example, Facility No. 6, the public/private district hospital, obtains many of its drug donations from churches in Germany in the form of a credit with a nonprofit German PVO, Medeor. The Tanzanian facility orders drugs and medical supplies from the PVO's catalogue on an as-needed basis, up to the credit limit.

Figure 6.3 is a diagram of the drug donation receiving process from the perspective of the health facilities that were interviewed. Most facilities obtained drugs from at least one of these sources: international organizations, in-country NGOs or overseas consolidators, individual benefactors, overseas convent motherhouses and religious orders, and individual carriers.

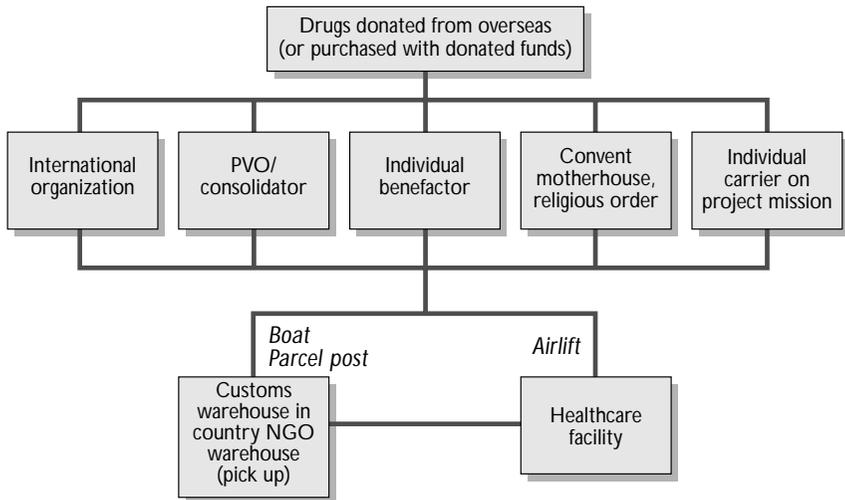
Donated drugs arrive in Tanzania by boat, airlift, and parcel post and through individuals hand-carrying donations. The importation of drugs by boat and airlift always requires a permit from the registrar. Parcel post and individuals are supposed to have an import permit, but this rule is not routinely enforced. No customs duty is levied on donated drugs.

### ***Donated drugs from abroad through local NGOs: different approaches***

Local NGOs and overseas donors collaborate in the drug donation process in Tanzania in various ways. The different approaches of three NGOs interviewed in this study are described below.

*NGO as solicitor and distributor.* In 1996 NGO No. 1 worked with two donors, a PVO located in Kenya, with a main office and direct connections to PVOs in the United States, and a PVO in Great Britain. In collaboration with the PVO located in Kenya, NGO No. 1 requested information from its 280 dispensaries, health centers, and selected district hospitals on the products that were needed. The Kenya group developed a pre-labeled request form, which NGO No. 1 sent to its facilities in preparation for a shipment of drugs and medical supplies. More than 195 request forms were returned to the Kenya group. The 1997 drug shipment represented three separate years of request forms for the years 1994 to 1996, according to the medical director of NGO No. 1.

FIGURE 6.3

**Health Facilities: The Drug Donation Receiving Process**

According to the medical director of NGO No. 1 and recipient Facility No. 8, the contents of certain kits changed over time, reflecting different periods of drug and medical supplies donations received at the US PVO. For example, in 1994 Box G included vitamin A tablets, among other drugs, but no Vitamin A in 1997. The US PVO prepared 11 different kits for the 1997 shipment and labeled them A-K, depending on the level of the facility, general information about the patients, and the questionnaire that specified particular needs.

All kits were pre-labeled with the facility name and then shipped to Tanzania in a sea container. NGO No. 1 was notified of the shipment and received detailed shipping documents with a list of the contents of each box, as well as a list of which box(es) had been allocated to which facility. An agent cleared the container through Customs at the dock. NGO staff transported, sorted, and stored the kits in its warehouse and notified the 280 healthcare facilities that their allotment could be picked up. According to the medical director, pre-labeled kits facilitated the inventory and distribution by NGO No. 1, eliminating the need to repackage or label items.

To cover the administrative costs for Customs clearance, in-country shipping, communication, and other administrative overhead for the staff and warehouse of NGO No. 1, each healthcare facility paid a fee of Tanza-

nian S9000 per box (roughly US\$18 at 1997 exchange rates). According to the three facilities interviewed (facilities # 5, 8, and 9), the value of the box's contents (if the items were purchased locally) was estimated between two to 10 times the handling charge.<sup>37</sup> Value was defined by these facilities as the replacement cost in Tanzania of the box with generic products. This estimate did not include the cost of picking up the boxes. The US PVO valued the boxes between \$530 and \$1,235 for shipping purposes.

A completed request form did not guarantee shipment of the items requested. Between 1994 and 1997, an increasing number of facilities received boxes (124–157), but only 400 cartons were shipped in 1997, compared with 800 in 1994. Only 62 facilities received more than one box. A health facility would be informed by NGO No. 1 that a donation had arrived but would not be informed of the contents, making it difficult to assess the value of the donation. Some facilities need to travel 500 to 800 km to pick up their boxes. Usually, the ones farthest away would wait to make their pick-up until they had other reasons to come to Dar es Salaam. In June of 1997, facilities from Ngorogoro, Moshi, Mwanza, and the far south had not yet picked up their March 1997 delivery. According to three facilities interviewed that received these boxes, the quality of the products sent by this US PVO to NGO No. 1 were high, the dating was long, and (according to the registrar) problems with the Pharmacy Board were rare.

NGO No. 1 also worked with a PVO in England. This PVO sends mostly clothing and other nondrug items for refugees, but occasionally it sends drugs. In 1995 a shipment of erythromycin tablets was sent, loosely packed in a plastic bag with a handwritten label. NGO No. 1 was concerned because drugs in this type of packaging will automatically be referred by Customs to the Registrar and Pharmacy Board, where it will be impounded. In this case, however, Customs did not take the shipment to the Pharmacy Board, and the NGO was able to repackage the erythromycin to conform to packaging requirements.

*NGO as central facilitator for individual institutions.* NGO No. 2's medical director acts as a facilitator for donors by putting them in contact with facilities seeking funds and donated drugs through his office. He also recruits retired physicians overseas to volunteer in the NGO's hospitals. The director suggested that it is easier to recruit labor and donated drugs than to attract funds for drug purchases in Tanzania. However, he continued to educate overseas donors to understand the need for the financial support necessary for Tanzania to develop its own drug production capacity.

NGO No. 2 works with large international organizations such as WHO, the World Council of Churches, and the development organization of the German government (GTZ), as well as large US PVOs and US and European religious groups. It also obtains financial donations from Germany through a church tax levied on members of Catholic and Protestant congregations. Although this compulsory tax makes it possible for these churches to provide development assistance, the dwindling number of congregation members in Germany has reduced the funds available for overseas development aid.

*NGO as coordinator of community initiative.* NGO No. 3 began its operation as a centralized dispensary to its facilities. United States, Canadian, or Australian head offices would send a list of proposed drug donations to the Tanzanian national NGO office; 60 percent of this NGO's donations come from the United States, 30 percent from Australia, and 10 percent from Canada and other countries. The national NGO office accepted all offered donations, and community facilities were then asked to select from a list of donated drugs. This approach was considered to be administratively expensive, however, and many of the donated drugs were considered inappropriate by end-users in the facilities.

The drug acquisition procedure was changed in 1996. The community program in each zone<sup>38</sup> was asked to develop objectives and budgets for each project and a list of drugs needed to implement the project. The zone's project committee would then select items from the price lists of one or more US-based PVOs. A list for all zones was then compiled and sent to the medical director of the US office of NGO No. 3. Requested drugs that were not available as donations were then purchased. By directing when donors and consolidators should ship donated drugs, NGO No. 3 could better control the continuity of the drug supply and the delivery of drugs with usable expiration dates.

### *Unsolicited drugs sent to institutions*

Each of the institutions we interviewed received unsolicited drug shipments in 1996, often along with donations of other items (such as clothing). These unsolicited shipments included patient drug returns and shipments from convent motherhouses. The patient drug returns were collected by overseas pharmacists and then sent along with other items. Two boxes of these drugs were observed at Facilities No. 3 and 4, and the shipments originated from various countries in Europe (England, Italy, France, Switzerland, and Germany).

An example of an unsolicited drug shipment was reported by Facility No. 8. The nurse in charge of that dispensary said that some drugs were sent by the motherhouse as part of a container shipment. The motherhouse had waited until a full container could be shipped from Italy. The extended wait allowed some drugs to expire, and these drugs were destroyed by Customs at arrival. The shipment never reached the facility.

High communications expenses (prior to e-mail and faxes), the sporadic nature of drug shipments, and the uncontrolled nature of drug collections by the motherhouses of convents or the religious orders of monks led some healthcare providers to report that the donation process worked as though many drug shipments were unsolicited. Indeed, delivered drugs sometimes did not match the submitted requests. Even then, facilities tended not to reject any drugs. The facilities did suggest that more routine communication via fax and e-mail would improve the match between donated drugs and actual need. Similar concerns were voiced by MOH policymakers.

## **Characteristics of the donated drugs**

### ***General characteristics***

It is the objective of Tanzanian NGOs and facilities to obtain donations for poor patients who have no money to pay their share in the cost-sharing scheme. A secondary objective is to make drugs available to patients who can pay a small share of the cost. This strategy enables the facilities to recover some funds for the purchase of other drugs, while providing the patient with drugs for a nominal fee.

Facilities and staff with different levels of training solicit varying amounts of three drug types and pharmaceutical products: (1) drugs that meet the basic needs of ambulatory care facilities and hospitals; (2) drugs that are used in district and referral hospitals, which could be considered more sophisticated, newer, more expensive, and prescribed for specific, limited conditions; and (3) vaccines to cover the immunization needs of the population. The bulk of PVO shipments to Tanzania consists of drugs that meet the basic needs of hospitals and ambulatory care facilities. Most vaccines are supplied by UNICEF, although shipments by PVOs occasionally contain vaccines. UNICEF also provides vitamin tablets in addition to those supplied by PVOs.

According to facility administrators, pharmacists, and local NGO administrators in this field survey, donated drugs supplement the allocation from MSD and cost-sharing funds collected from patients. Increased donations improve the financial buffer for healthcare facilities that are

expected to become more self-sufficient in funding their drug supply. All facilities therefore have an incentive to obtain more drug donations. Table 6.8 provides information on examples of donated drugs that were observed in health facilities and on drugs sought through donations, according to interviews.

TABLE 6.8

## Examples of Drugs on Hand from Donations, and Products Sought

Facility No.	Status	Needs
No. 1	Very short on supplies, obtained only from Rotary Club.	Can use any drug that is on MSD list for a district hospital.
No. 2	Have no donated drugs on hand; have received very small amounts in past	Third and fourth generation anti-microbials very expensive; need different types of anti-malarials as second life-line drugs; cannot afford to purchase ampicillin syrup for children who need it; eye preparations are also in short supply and needed.
No. 3	Stock very low; small amounts of antibiotics, anti-malarials, fixed-dose combinations of ibuprofen and decongestant	Drugs that are not in stock at MSD because they are too expensive or not on EDL: anti-cancer, anti-coagulants, broad spectrum antibiotics, including cephalosporin group; IV solutions, including IV flagil; anti-hypertensives such as capoten, penodol; painkillers; Tagamet, cimetidine; skin and steroidal preparations; anti-epileptics; anti-allergenic.
No. 4	Low stock, nothing "life-saving;" expect a "great" donation from Holland	Wish list of costly life-saving antibiotics, such as cephalosporins; cyproxin; anti-cancer drugs (vincrist); silver sulfadiazine.
No. 5	Low stock, but had allocation from Holland; awaiting order from IDA (placed with donated funds)	Third and fourth generation anti-microbials; praziquantel; individual items rather than kits.
No. 6	Handcarried gifts and some MSD donations being sorted: chloroquine, nystatin, drug against vomiting, GYN ointment, tetracycline eye ointment, anti-hypertensive, and anesthesia drug (some are gifts which keep on going) will be given to health centers in area.	First-line antibiotics, third-generation cephalosporins, drugs against congestive heart failure.
No. 7	Not available	None sought.
No. 8	See separate Table 6.9	The more expensive items on our list.
No. 9	Have a little of everything.	Higher-order antibiotics, ferrous injections, and some raw materials so we can prepare own products.

### ***Type of drugs requested and donated***

A specific case history is provided here to illustrate a more general concern about donated drugs not matching a particular request. The nurse manager for Dispensary No. 8 reported being disappointed with a box she picked up at the NGO No. 1 warehouse in April of 1997. (This nurse is well trained; she received her nursing education in the Philippines, worked for many years in German and Canadian-based hospitals, and began work in Tanzania three years ago.)

NGO No. 1 reported that the value of the analgesics, oral rehydration salts, and cough suppressants constituted more than 70 percent of the value of a shipment received by a healthcare facility. These products were shipped in accordance with Tanzania's Drug Donation Guidelines and were considered facility-appropriate, according to the Tanzanian Essential Drugs List.

The nurse had responded to a form sent by NGO No. 1, stating the type of patients treated by the dispensary, as well as the number and type of staff. She wrote on the form: "We would appreciate if you gave us: ORS, silver sulfadiazine, and other ointments, as well as antibiotics." Instead, she received acetaminophen and ORS, no sulfadiazine, and no antibiotics. According to the nurse, the acetaminophen supplies could have been purchased very inexpensively through local suppliers. She would have preferred other drugs and vitamins that she considered appropriate treatment for the patients at her clinic.

Table 6.9 lists the drugs that were on the shelves of the dispensary at the time of the interview. The nurse administrator stated that her needs and those of her patients would be better met if the US PVO used the expensive cargo container space to send the costlier drugs on her shelf, not the least expensive ones.

### ***Donated drugs compared with the EDL***

The Tanzanian Donations Guidelines indicate that donations should consist of generic drugs and also appear on the Tanzanian EDL. The EDL follows the WHO Model Drugs List (WHO ML), but does not provide any alternative medications. According to one respondent at NGO No. 1, about 50 percent of donations are brand name products, and many are not on the EDL. To the registrar, any donation is acceptable, as long as the drug is considered a reasonable substitute for a drug on the Tanzanian EDL or on the WHO ML and the recipient is listed as an acceptable user. An anti-rejection drug, for example, could not be donated to a dispensary. According to the registrar, most of these specialized donations go to

TABLE 6.9

## Drugs on the Shelves of Dispensary No. 8 (June 1997)

<i>Analgesics and Antipyretics</i>	Ciproxin
Acetylsalicylic acid (Aspirin)	<i>Anti-Malaria Drugs</i>
Paracetamol tablets and syrup	Chloroquine tablets, syrup, injection
Acetaminophen tablets	Mefloquine tablets
<i>Vitamins</i>	Fansidar tablets
Multi vitamins	Avloclor tablets
Vitamin B complex tablets, syrup injection	<i>Anti-Diarrhea Drugs</i>
Vitamin C tablets	Sulpha tablets
Vitamin B1	Anti-diarrhea syrup
Vitamin B6, B12	ORS
Vitamin A	<i>Anti Inflammatory Drugs</i>
Vitamin E	Ibuprofen tablet
Ferrous sulfate	Indocid capsule
Folic acid	Voltaren
Calcium	Naproxen
Cod liver oil	Felden
<i>Antibiotic Drugs</i>	<i>Other Medicines currently used</i>
Ampicillin capsule, suspension, tablets	Zovirax tablets
Amoxicillin capsule, tablets, suspension	Fungal drugs: griseofulvin,
Augumentin tablets, capsule, suspension	nizoral, Daktain;
Cephalexin	Zantac, tagamet,
Ciprofloxacin	Maalox, gaviscon;
Co-Trimixazole tablets, syrup	Vermox, ketrax, antepar;
Chloramphenicol syrup, capsule	Flagyl tablets, syrup.
Erythromycin tablets, suspension, capsule	
Gentamycin injection	
Penicillin, procaine fortified, injection	
Penicillin, benzyl injection	
Tetracycline capsules	
Doxyclyne capsules	

health professionals who have adequate knowledge about these drugs. Some health centers and dispensaries managed by nurse expatriates who have professional experience with a broad range of drugs also receive specialized donations.

### *The expiration of donated drugs*

According to the registrar, the main reason for refusing an import permit for drug shipments is expired dating. The Tanzanian Guidelines on Donations suggest that donated pharmaceutical products should have a time

prior to expiration of at least 12 months at the time they are received for use. Table 6.10 lists the percentages of donated drugs according to expiration date, on arrival at each of the seven interviewed facilities, during the period of June 1996 to May 1997. These data are estimates provided by seven health facility managers and their pharmacists. The remaining two facilities received little or no drug donations. (Facility No. 1 received very small amounts of donations from the Tanzanian Rotary Club, while Facility No. 7, the private hospital, received no donations of drugs). Because Customs confiscates incoming shipments of outdated drugs, the table probably understates the actual amount of outdated drugs that arrive in Tanzania.

Among the sampled facilities, only Facility No. 6, the district hospital, reported that all drugs met the suggested dating of 12 months or more. Most of this hospital's donations were drugs ordered by the administrator and the pharmacist, with funds or credits provided by overseas donors. Funds provided by a German religious organization allowed the hospital to order drugs from the extensive list of a not-for-profit organization; the expiration date of these drugs is up to three years. The hospital obtained other donations through individual contacts in the United States, and

TABLE 6.10

### Estimated Percentages of Donated Drugs According to Shelf Life on Arrival at the Facility

Time left to expiration on arrival at facility	No. 2	No. 3 <sup>1</sup>	No. 4	No. 5	No. 6 <sup>2</sup>	No. 8	No. 9
<3 months	5	75	10	10	—	—	10
3–5 months	90	7	— <sup>3</sup>	—	—	— <sup>4</sup>	10
6–8 months	5	6	20	—	—	20	10
9–11 months	—	10	—	—	—	15	30
1 year+	—	2	70	90	100	65	40
Total 100	100	100	100	100	100	100	

Two facilities received no donations of drugs (No. 1: district government hospital and No. 7: private hospital). These figures are based on estimates provided by facility managers and pharmacists.

1 But nothing disposed of in 1996; used it all.

2 This hospital received its donations in the form of funds with which it purchased drugs overseas.

3 20% of all donated drugs had a remaining dating of between 3–8 months.

4 20% of all donated drugs were ORS packets, they had a remaining dating of three to eight months (dispensary).

from church-affiliated organizations there. The hospital administration has routine contact with its donors.

During the interview, the pharmacist of Facility No. 6 was sorting a “donation” he had received from the Medical Stores Department. MSD routinely distributes drugs to facilities when the dating has reached three months. The facility was unable to use about half of the products because of the existing stock on hand or because they did not use a particular drug. The hospital planned to make these drugs available to their affiliated health centers and dispensaries. Facility No. 5, a district hospital with a church affiliation, received a high percentage of drug donations with “good dating” while Facility No. 2, a government hospital, received few donations with adequate time prior to expiration.

There were small amounts of expired or short-dated drugs (less than two months prior to expiration) on the shelves of each institution visited and boxes of returned drugs (dispensed products that had been collected from patients and then shipped to Tanzania). These drugs were deemed unsafe for use by the Tanzanian facility’s pharmacists because of incomplete information, insufficient remaining dosage, no information on storage conditions, and sometimes expired status. There were also some short-dated drugs received from other facilities in Tanzania (such as MSD or some hospitals).

Two reasons were cited for keeping short-dated or expired drugs on the shelves. First, expired drugs are destroyed by each facility two to four times a year. Small, leftover amounts usually are burned at the facility and the residue buried on facility grounds (as reported by five of nine facilities). Returned drugs take longer to sort and evaluate for adequate dosage or dating. These drug envelopes and boxes were loosely packed in a large box. Facilities No. 3, 4, and 6 indicated that the yield from such a box is typically very low—perhaps one to 10 usable prescriptions in a box with 500 to 700 total prescriptions. The unused drugs are usually sent to a cement factory for incineration, once or twice a year.

Administrators at facilities stated that expired drugs are not being dispensed to patients because: “It is illegal” (Facility No. 9), “Not ethical” (all facilities), and “Patients know to check the expiration date, and will refuse to take expired or even short-dated drugs,” especially when they have purchased the drug (all facilities).

### *Other characteristics of the donated drugs*

Although most Tanzanian healthcare professionals are usually able to read labels in English, labeling in Kiswahili would be helpful for health posts,

dispensaries, and health centers. Most donated drugs in the surveyed facilities were labeled in English. The next most commonly used languages were German and Italian. Many European drugs had extensive package inserts, written for the patient, detailing counterindications and side-effects. Less than 1 percent of donated drugs in the surveyed pharmacies and NGOs were labeled in a language the staff could not read. Many donated drugs, however, did not have English or Kiswahili package inserts detailing dosages, counterindications, or adverse side-effects. Since the facilities did not have the current *Physicians' Desk Reference* (PDR), this meant additional work for the prescriber. In many cases, the dosages had to be changed to compensate for patients' smaller body weight or size.

Most of the drugs were administered to patients within the facility and dispensed in a small brown or wax paper envelope on which instructions were hand-lettered. Several providers at an ambulatory healthcare facility provided prescriptions for only three to four days, with patients returning to be checked again.

All donated drugs from the United States that were observed were fully labeled, including the international nonproprietary names (INN). They were dated and had batch numbers that could be traced. The professionals were familiar with the INN or generic names and checked the dating on donations, but they were not familiar with the batch numbers.

Donated drugs were stored next to purchased drugs, and each facility kept separate manual records for donated drugs. About two-thirds of the donated drugs found on the pharmacy shelves in the seven facilities were brand-name products in small, individual boxes for one course of treatment. The remaining one-third of donated drugs came in large hospital-sized containers. According to facility managers, Tanzanian patients were used to receiving prescriptions repackaged in small containers, such as small bags or boxes. The managers suggested that large containers are more practical for shipment.

### ***Costs of drug donations for the recipients***

The financial costs of drug donations for health facilities are in the form of shipping costs, communications costs (phone, fax, and postage), administrative fees, transaction costs at Customs, and expenses to stock and repackage drugs. There are also costs for delivering or transporting the drugs to outlying facilities.

Shipping costs differ according to the originating PVO. Some PVOs prepay shipments to the institution, others to the nearest port. In other

cases, the Tanzanian facility pays for shipping from the country of origin. When Facility No. 4 paid Tanzanian S8,000 (US \$16) for a container, it was felt that the money could have been better spent by purchasing certain drugs within the country.

Shipping costs also vary according to who clears the donations through Tanzanian Customs and how drugs are shipped to the facility. The administrative fee for donations cleared and warehoused by NGO No. 1 was Tanzanian S9000 (US \$18) per box. This amount is paid regardless of the value of the box's contents, and could be a small amount relative to the box's value. One PVO has a price list that includes shipping, and typically its total drug shipment cost is equivalent to 25 percent of what the drugs would cost if purchased within the country of origin. The health facility managers reported that the "yield" for a shipment of donated drugs is higher when the donation is delivered free of charge to the facility. In general, the health facilities considered the overall expenses to be reasonable. At the same time they preferred a higher "yield" per shipment, requesting more expensive drugs instead of analgesics and cough syrups, which are available at low cost from MSD and other local suppliers.

Communication costs for donations were considered high for health facilities, whether solicited by the institution or received from a local NGO. Local and overseas phone calls, faxes, and postage are expensive, and e-mail is not yet common.

Time costs were considered relatively high for all drug donations, even those received through PVOs. Many interviewees reported that the number of order or request forms submitted did not correspond with the number of shipments received, and problems also existed with the contents. Shipments could be delayed, postponed, or canceled. There was no routine timetable for the submission of request forms. However, when a facility was asked to complete a request form, the deadline was usually short, given distances and mail time. The medical director of NGO No. 1 said that he was unsure when he should ask the 200 or so facilities on his list to complete a new form for the 1997–1998 shipment.

Because donations often do not meet the institution's needs, time is also spent bartering and exchanging drugs with other institutions and private pharmacies. Donated drugs also vary from shipment to shipment. Health professionals need to obtain information on the use of a new formulation or a new drug. Health centers need to obtain information from pharmacists or physicians, who are often not immediately available. Sometimes the nurse, physician, or pharmacist must determine how to switch chronic patients from one drug to another.

According to the health facility managers and the pharmacists interviewed for this study, these time costs are considered bearable, because the drugs are free and because these donations make up a relatively small proportion of all drugs used in most facilities. The overall pharmaceutical supply was considered “a fragile equilibrium,” according to interviewees. If MSD funding were to drop by 5 percent, or if patient cost-sharing were reduced by an equal amount, then the facilities would have to depend on more drug donations for their patients. In that case, the unpredictability of the types of drugs, the quantities, the times of arrival, and the actual cost would pose serious problems to the health system, while the added time costs to facilities would further aggravate these problems.

According to the interviews, poor hospitalized and ambulatory patients received their drugs free of charge when donated drugs were available. All other patients were asked to pay a portion of the cost, according to their income—up to 50 percent of the MSD drug cost.

## **Perceptions of the Current Drug Donation Process by the Recipients**

The field study included interviews with the staff in health facilities, NGOs, the Ministry of Health, and the private pharmaceutical market regarding their perceptions of the drug donation process.

### **Regulations on Drug Donations**

The health facility managers who were surveyed expressed approval of the government’s efforts to regulate donations for the following reasons:

- Health providers stated that the government’s drug donation guidelines and their enforcement are reasonable and have reduced problem donations.
- Health managers stated that the regulations have not reduced the overall level of donations because the registrar/director of the Board of Pharmacy has implemented them selectively. The registrar/director has provided import permits for drug donations that in many cases did not meet the suggested minimum 12 months dating or were not on the EDL.
- Facility administrators and pharmacists accepted the Drug Donation Guidelines, even if the guidelines disallowed an occasional donation, as long as they improved the overall quality of the donation process.

## Benefits and drawbacks of the current drug donation process

According to the survey of health facility managers, pharmacists, and MOH officials, the drug donation process in Tanzania has advantages that outweigh its drawbacks. The process supplements the supply of drugs at health facilities and provides drugs to patients who could not otherwise afford them. Table 6.11 provides an overview of the benefits and drawbacks of the donation process as perceived by the health facility administrators, pharmacists, and government officials. These perceptions are elaborated at the end of the chapter through quotes from the respondents.

## WHO *Guidelines for Drug Donations*

### Knowledge of and reactions to the WHO *Guidelines*

The WHO *Guidelines* consist of four basic principles and 12 specific guidelines. In the interviews in Tanzania, there was general agreement that the principles should be followed in any donation of drugs. When the individual guidelines were discussed, however, different opinions were expressed about their effect on donations. The survey respondents in the facilities, NGOs, and government told us that the Tanzanian guidelines

TABLE 6.11

### Benefits and Drawbacks of the Donation Process and Donated Drugs as Perceived by Health Facility Managers and Government Officials

Benefits	Drawbacks
<p><i>Donation process helps:</i></p> <ul style="list-style-type: none"> <li>• Needed and useful drugs</li> <li>• Buffer in health care system</li> <li>• Local NGOs</li> </ul>	<p><i>Dependence on un dependable donations:</i></p> <ul style="list-style-type: none"> <li>• Type and volume of drugs unpredictable</li> <li>• Type and volume of drugs do not always meet need</li> <li>• Logistics of donation process wasteful</li> </ul>
<p><i>Free drugs:</i></p> <ul style="list-style-type: none"> <li>• Help poor patients</li> <li>• Save facility resources</li> <li>• Save resources in government budget</li> </ul>	<p><i>Insufficient "yield":</i></p> <ul style="list-style-type: none"> <li>• "Top-down" process not efficient</li> <li>• Donated drugs preempt local manufacturers</li> </ul>
<p><i>Government regulatory oversight:</i></p> <ul style="list-style-type: none"> <li>• Assures quality products</li> <li>• No import duties, no government charge for donated drugs</li> </ul>	<p><i>Perceived lack of transparency:</i></p> <ul style="list-style-type: none"> <li>• Overseas donation process not clear to health facility managers</li> <li>• Tanzanian health care system not clear to overseas PVOs.</li> </ul>

are administered by government staff with a solid knowledge of the healthcare system and health providers. The staff, according to the respondents in the MOH, make exceptions to the *Guidelines* (on the type of drug and dating) as each case requires. Those interviewed at the facilities felt that if the WHO *Guidelines* were implemented without exceptions, they would consider some guidelines as improving the donation process, others as counterproductive.

### ***Application***

Tanzania promulgated its own drug donation guidelines in 1995, before the WHO *Guidelines* were published. The Tanzanian Ministry of Health acknowledges its debt to WHO and other organizations that were consulted during the development of its Drug Donation Guidelines. All potential drug donations, including drugs brought in by individuals, need an import permit. Customs officials have been instructed not to admit drugs without permits from the registrar (Board of Pharmacy), and to help in eliminating the potential health threat of such drug imports.

In practice, the major reason for not providing an import permit or for rejecting a drug shipment at Customs was prior expiration or dating that would expire before the shipment reached the facility. Other types of rejected donations were products without expiration dates or packaged in hand-lettered plastic containers. Drugs labeled in languages unfamiliar to healthcare officials have still been allowed clearance.

### ***Knowledge***

The Tanzanian Guidelines on Donations incorporate the four general principles of the WHO *Guidelines* and many of the WHO specific items. Although every respondent was familiar with the Tanzanian guidelines, the level of knowledge of the WHO *Guidelines* varied among institutions. Facilities No. 2, 3, and 4 (major teaching hospitals) were familiar with the WHO *Guidelines*, the remaining facilities that lacked familiarity with them were public or public/private hospitals, a public/private dispensary, and a health center.

The minister, the deputy minister, the chief pharmacist, the registrar/director of the Board of Pharmacy, the director of Preventive Services, and the directors of MSD were all familiar with the WHO *Guidelines*. Not all persons interviewed at the health facilities, however, were familiar with them. Of the three NGOs, two were familiar with the WHO *Guidelines*, while one was not. The private pharmacist was not familiar with the WHO *Guidelines*, but the manufacturer was.

### ***Reactions to the WHO Guidelines for Drug Donations***

Among those individuals who were interviewed, there was general agreement that the basic principles of the WHO *Guidelines* provided useful criteria for the development of the Tanzanian drug donation process, selecting drugs for donation, working with PVOs, and working with individual donors and benefactors. The four core principles are: (1) maximum benefit to recipient; (2) respect for wishes and authority of the recipient; (3) no double standards in quality; and (4) effective communication between donor and recipient.

Table 6.12 provides an overview of the knowledge of the WHO *Guidelines* and the reaction to the basic principles. The reactions to each of the WHO *Guidelines* are discussed later.

Facility managers perceived the basic principles of the WHO *Guidelines* for Drug Donations as helpful in obtaining useful drug donations. In particular, they expressed support for more effective communication between the donor and the facility. The officials and staff at the MOH felt that the Tanzanian Donation Guidelines, modeled as they are on the WHO *Guidelines*, could be helpful in the management of the donation process, because Tanzania would prefer funds rather than gifts-in-kind. In addition, they stated that the registrar and director of the Pharmacy Board use appropriate exceptions in deciding which offers of drug donations to accept.

Some ministry officials wanted to apply the Tanzanian Guidelines more rigorously. For example, two officials strongly advocated the enforcement of a one-year dating requirement without exceptions, a ban on combination drugs, and permitted use of only generics or two acceptable substitute drugs. Two facilities and a NGO said that the Tanzanian Guidelines helped them negotiate with the overseas donors. Table 6.13 lists the 12 guidelines of the WHO *Guidelines* and the overall perceptions of individuals who were interviewed at health facilities.

#### ***Guidelines perceived as advantageous***

*Guideline No. 1:* All drug donations should be based on expressed need. Drugs should not be sent without prior consent by the recipient. *Reason:* This is also a Tanzanian guideline, and was perceived as a desirable way for donations to occur. “Partnerships” with donors are not currently the way in which many facilities and NGOs operate.

*Guideline No. 5:* No drugs should be donated that have been issued to patients and then returned to a pharmacy or elsewhere. *Reason:* These

TABLE 6.12

**Knowledge of and Reaction to Principles of the WHO *Guidelines***

Facility No. or Respondent	Knowledge of <i>Guidelines</i>	Reaction to Principles
Facility No. 1	No	Positive
Facility No. 2	Yes	Positive
Facility No. 3	Yes	Positive
Facility No. 4	Yes	Positive
Facility No. 5	No	Positive
Facility No. 6	No	Positive
Facility No. 7	No	Positive
Facility No. 8	No	Positive
Facility No. 9	No	Positive
Minister	Yes	Positive
Deputy minister	Yes	Positive
Former minister	Yes	Positive
Chief pharmacist	Yes	Positive
Registrar	Yes	Positive
Director preventive services	Yes	Positive
MSD managers	Yes	Positive
NGO No. 1	No	Positive
NGO No. 2	Yes	Positive
NGO No. 3	No	Positive
Private pharmacist	No	Positive
Manufacturer of drugs	Yes	Positive

types of donations are perceived as too risky, because nothing is known about the conditions under which they have been stored. Tanzania had an extensive negative experience with prescription returns received from Europe. Every facility visited in the survey had some of these donations still in storage, waiting for the next incineration. Such donations typically are received from Europe, not from the United States.

*Guideline No. 10:* Recipients should be informed of all drug donations that are being considered, prepared, or actually underway. *Reason:* This guideline would improve the use of drug donations and the capacity to plan for donations. While there is an attempt to provide donations that respond to an expressed need, the actual shipment often does not correspond to drugs requested by the facility or the local NGO.

TABLE 6.13

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**Perception of the WHO *Guidelines* by Facility Interviewees**
**Guidelines perceived as advantageous:**


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1. Expressed need/prior consent.
- 5a. No returned drugs.
10. Advance notice.
12. No transportation charges, unless first discussed.

**Guidelines perceived as disadvantageous or difficult\*:**


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2. On EDL, approved for use in country.
  3. Formulation as in Tanzania.
  4. WHO Certification Scheme.
  - 5b. No physician samples.
  6. Shelf life > 12 months.
  7. Language, INN, expiration date.
  8. Larger quantity of units/ hospital packs.
  9. Packing list, weight, mixed mailing.
  11. Declared at generic value.
- 

\* These guidelines were considered too difficult to implement, could lead to reduced shipments, or should be decided by the recipient.

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*Guideline No. 12:* Costs of international and local transport, warehousing, port clearance, and appropriate storage and handling should be paid by the donor agency unless specifically agreed otherwise with the recipient in advance. *Reason:* This approach on shipping costs is typically followed in Tanzania today. Although the health facilities know the administrative charge beforehand, the facility often does not know the contents of the shipment until it arrives. Consequently, the actual yield may be less than expected.

***Guidelines perceived as disadvantageous or difficult***

*Guideline No. 2:* All donated drugs or their generic equivalents should be approved for use in the recipient country and appear on the national list of essential drugs or, if a national list is not available, on the WHO Model List of Essential Drugs, unless specifically requested otherwise by the recipient. *Reason:* Respondents stated that the selection of drugs should be up to the Tanzanian facilities. Automatically limiting drug donations to those drugs on the EDL would exclude important new products. Because of the large variation in the level of sophistication among Tanza-

nian health professionals, an automatic limitation of certain drugs would prevent useful treatment at certain facilities, according to the survey respondents. PVOs might also be hesitant to send certain new drugs if they do not appear on the Tanzanian or WHO *Guidelines* or the Tanzanian EDL. This concern is particularly relevant for new drugs, and some survey respondents wondered whether this guideline had contributed to the absence of third-generation antibiotics and new heart disease drugs among donations. Without adequate training or professional support, a nurse at a health center would probably not dispense certain drugs, allowing the drugs to go unused. In that case, the EDL would be appropriate, according to the respondents.

*Guideline No. 3:* The presentation, strength, and formulation of the donated drugs should, as much as possible, be similar to those commonly used in the recipient country. *Reason:* It may not be possible to obtain drugs in the usual strength and presentation normally available in Tanzania. This could be a serious problem, since the use of the EDL and the MSD limit the range of drugs commonly used. There was ambivalence about this guideline among respondents, since primary care providers might have difficulty using different formulations of a drug, especially without the relevant manuals. Other providers are usually capable of using different strengths and presentations. There was concern among the respondents that if this guideline were applied currently, it would reduce the amount of donated drugs. Currently the registrar checks whether the drug is on the EDL and, if not, whether the prescriber will know how to use it.

*Guideline No. 4:* All donated drugs should be obtained from a reliable source and comply with quality standards in both donor and recipient country. The WHO Certification Scheme on the Quality of Pharmaceutical Products Moving in International Commerce should be used. *Reason:* Many respondents stated that the goal of this requirement, equal quality for Tanzania, is laudable. However, requiring the WHO certification scheme (as required in the WHO and Tanzanian guidelines) could create difficulties for many European and American donors, according to health facility administrators, and might create additional costs and result in delays.

*Guideline No. 5:* No drugs should be donated that...were given to health professionals as free samples. *Reason:* Some respondents stated that excluding free samples would exclude some useful donations, especially

those brought in by professionals. As long as they are of sufficient quantity and are not repackaged in large containers and unidentifiable in terms of expiration date, samples were considered not to pose a problem.

*Guideline No. 6:* After arrival in the recipient country, all donated drugs should have a remaining shelf life of at least one-year. *Reason:* Some respondents stated that requiring one-year dating at arrival for donated drugs would exclude some donations. The facility managers interviewed felt that airlifted and personally carried drugs should be exempted, since they have a known transit time and can be used immediately. For routine shipments, all responding health providers felt that one year prior to expiration on arrival in Tanzania for donated drugs would be useful, especially if delays at sea were considered. The registrar agreed with some health providers that flexibility should be maintained. The registrar determines the acceptability of drug donations with shorter dating in accordance with the ability of the professional to use them and by the need for those drugs. It was suggested that the recipient be allowed to accept or refuse the drugs prior to delivery and that there should be no penalty on the part of the donor if a shipment is refused.

*Guideline No. 7:* All drugs should be labeled in a language that is easily understood by health professionals in the recipient country; the label on each individual container should at least contain the International Non-proprietary Name (INN, or generic name), batch number, dosage form, strength, name of manufacturer, quantity in the container, storage conditions, and expiry date. *Reason:* Labeling of drug donations is generally not considered a problem in Tanzania. With rare exceptions, most products are labeled in English, the official language in Tanzania. US drug donations were reported to have the necessary information on the label, but dispensary workers in rural areas may not be fluent in English. A more serious problem is whether sufficient information on the drug is enclosed and presented in a manner that can be comprehended by someone for whom English is not the first language. The respondents thought there should be an insert in the packages or that they should have current reference books (such as the *PDR*) available.

*Guideline No. 8:* As much as possible, donated drugs should be presented in larger quantity units and hospital packs. *Reason:* Requiring that all drugs be donated in hospital-size packs could discourage a significant portion of drug donations, inasmuch as only half of all donations now arrive so packaged.

*Guideline No. 9:* All drug donations should be packed in accordance with international shipping regulations and be accompanied by a detailed packing list that specifies the contents of each numbered carton by INN, dosage form, quantity, batch number, expiry date, volume, weight, and any special storage conditions. The weight per carton should not exceed 50 kilograms. Drugs should not be mixed with other supplies in the same carton. *Reason:* Drugs packed in smaller quantities might facilitate in-country transportation, but this was not on anyone's list of concerns. Packing lists, according to the interviews, should be mandatory, but actual box size could vary, as could the requirements for other items that might be included in the box.

*Guideline No. 11:* In the recipient country, the declared value of a drug donation should be based on wholesale price of its generic equivalent. *Reason:* The declared value of a donation is not that important for Tanzania, since Customs imposes no import duty and only a small handling fee at the port is paid to the freight forwarder based on the declared value of the drug.

### **Current and potential impacts of the WHO *Guidelines***

The survey respondents stated that the introduction of the Tanzanian Guidelines on Donations in 1995 affected the types of donated drugs and their time prior to expiration. Some short-dated or unneeded drugs are no longer shipped, but the total volume has not declined. Neither of these statements, however, could be verified, because there is no central list of customs permits. The prevailing opinion among NGOs, MOH, and the facilities was that these guidelines helped to "level the playing field" between many individual recipients in Tanzania and a few large and powerful overseas PVOs.

Respondents also stated that the registrar's application of the guidelines may differ by the channel in which donations are sought and received. Large shipments facilitated by PVOs or shipments designated for large hospitals are not significantly affected, since the registrar has allowed flexibility in exceptions as long as there are good reasons. Individually hand-carried drug donations brought in by or for medical professionals with high academic reputations have not been affected by the guidelines. Donation of funds for use by Tanzanian providers to purchase drugs on the market or to order specific drugs from overseas distribution have not increased as a result of the application of the guidelines.

The future impacts of the Tanzanian Guidelines will depend on how they are applied. Under the leadership of the minister and the registrar,

they have been used to foster two-way communication on drug donation, not merely as narrow or strict rules.

### **Other aspects of donation policies that require improvement**

There are three areas of the donation process in Tanzania that could be improved beyond those of the WHO *Guidelines* for Drug Donations: transparency, communication, and bottom-up planning. The interviews showed that the drug donations process is not clear to many recipients in Tanzania. This lack of understanding makes the process cumbersome and inefficient. Respondents stated that they would like to have more directories about PVOs and their programs, more information about the method of operation, and more information about the drug companies that donate the products. There also was agreement among respondents that drug donations being requested are relevant to the needs of the patients. If the objective of the process is to obtain needed drugs, then it should be the facilities and not the PVOs who develop the product lists for solicitation.

### **Donated drugs preempt local manufacturers**

The local manufacturer who was interviewed feels that donated drugs take market share and stifle the development of the Tanzanian pharmaceuticals industry. He believes that drugs should be donated only if the local manufacturers do not have sufficient capacity to meet Tanzania's requirements. He proposed that donations should exclude aspirin, paracetamol, chloroquine tablets, and other drugs that they can be supplied in sufficient quantities locally (see Table 6.14) He stated that Tanzania would benefit more if donors purchased these drugs from Tanzanian manufacturers.

According to the director of the factory, there are six manufacturers in the country. Three of the six companies have a capacity of more than 90 million tablets per year; two only produce syrups. The local manufacture of US\$4 million worth of drugs per year meets 10 to 15 percent of all drug consumption in the country, a market estimated at between US\$40 to 60 million per year by the manufacturer. Kits supplied by MSD amount to approximately US\$12 million per year. Only a small proportion of these kits are being manufactured in Tanzania.

### **Recommendations**

The recommendations are based on the reported strengths and weaknesses of the current Tanzanian drug donation process. Tanzania has a donation process that results in an important but uneven flow of pharma-

TABLE 6.14

**Proposed Negative List of Drugs that Should Not be Donated**

1. Aspirin tablets	11. Ampicillin dry syrup
2. Paracetamol tablets	12. Erythromycin dry syrup
3. Chloroquine tablets	13. Oral rehydration salts
4. Co-trimoxazole tablets	14. Cough syrup
5. Metronidazole tablets	15. Paracetamol syrup
6. Vitamin B-complex tablets	16. Chloroquine syrup
7. Ampicillin capsules	17. Co-trimoxazole suspension
8. Chloramphenicol capsules	18. Vitamin B-complex syrup
9. Pen-V powder for suspension	19. Levamisole syrup
10. Clotrimazole cream	20. Benzylbenzoate emulsion

ceutical donations to its facilities and health providers. Health professionals experience some difficulties with the logistics of the process that perhaps can be addressed. Going beyond the Tanzanian Guidelines, the donation process could be improved by increased involvement of the recipients, by more transparency and improved information, and by a “bottom-up” approach to soliciting donations (like the one being used by NGO No. 3). Most importantly, it is not sufficient to focus on the donation process between the United States and Tanzania. As noted previously, donations originating in the United States constitute a relatively small part of all drug donations received in Tanzania. Some of the weaknesses observed in the process were even more pronounced with shipments of donations from European countries. The following three recommendations are proposed:

*Flexible Application of the Guidelines at the NGO and Ministry levels.* In order to improve the drug donations Tanzania receives in terms of type of product, strength, formulation, and expiration dates, it is recommended that the Tanzanian Guidelines on Donations be applied as “guidelines” and not as regulations. This principle of flexible application should be adopted by the US PVOs that select the donations and be maintained by the government in its implementation of the national donation policy and its exceptions. The decentralized donation process satisfies the interests of the facilities and local NGOs, and it is recommended that there be no attempt to centralize the process.

*Transparency and Communication.* In order to make the process of drug donations more transparent to recipients in Tanzania, more information and communication should be encouraged between donors and recipients. Additional information about PVOs and drug companies and their

policies, objectives, and procedures could be provided to health facility managers and in-country NGOs.

*Bottom-up planning.* There was agreement among the respondents that the objective of the process is to obtain drugs that the health providers need to treat their patients. If there is agreement on this point, then facilities and not PVOs should develop the list of products to be solicited and donated by PVOs.

## Recipients' Statements on the Issues

### Donation process helps

Donations provide needed and useful drugs:

*We just received a great donation from Holland, the Motherhouse of some of our nuns. Many antibiotics with long shelf life. That really boosts our morale.* (Pharmacy Staff, Facility No. 3)

*Our urology center has this wonderful donor in Holland. Whenever we do not know where to turn when we need a drug or medical supply urgently, she comes through. I do not know how she does it. She holds bake sales, has her Church collect money, and asks her clients (she is a travel agent) to handcarry the drugs in their valises. I do not remember how many of these tourists showed up here with drugs from her. It makes you feel wonderful, to have such support.* (Facility No. 4)

The donation process provides a "buffer":

*Many drugs are not in store at MSD, because they are not on the EDL or are too expensive. Examples are anti-cancer, anti-coagulants, expensive antibiotics, including the cephalosporin group, and many more.* (Facility No. 3)

*Donations from MSD are not sufficient, and quantities are low, so donations provide a buffer.* (Facility # 4)

Local NGOs are helpful:

*Working with this PVO was a great experience. I liked the order list, because I got products for about 25 percent of the cost of buying them here. Many I ordered were expensive and not available from MSD.* (Facility No. 4)

## **The donation process provides free drugs**

Free drugs help poor patients:

*Many children need ampicillin syrup, but have no money. We could not purchase this syrup. Donations provide it. (Facility No. 2)*

*Sometimes we get an expensive drug which is not available in this country. If the quantity is good, this can save patients. (Administrator, Facility No. 4)*

*Donated drugs speed up recovery, improve quality of life. There are very few drugs which save lives. Only the rare patient would have died, for example, the asthma patient who was admitted to the hospital when they had on hand some donated vials of a steroid injection. (Administrator, Facility No. 4)*

Free drugs save facility resources:

*I get drugs from Holland, because the "donation arm" of one of the two Christian Churches gives me a credit at IDA. I have already ordered my 1997 allotment from IDA. Unfortunately there was no increase from the 1996 funding, but it still saves the facility resources. (Facility No. 5)*

*Drug donations are the gift that gives twice. When we receive a free drug, we can dispense it to a patient for a small cost-sharing fee. Not only does the patient get a good drug at little cost, but with the money from cost-sharing we can buy more drugs for the next patient. (Facility No. 5)*

Free drugs save resources in government:

*When we get free drugs, it saves the government money. We will get more co-payments, and that will help the budget of the facility. In the end, it will save the government money. (Facility No. 2)*

## **Government regulatory oversight is helpful**

Oversight assures quality products:

*The quality of drugs has improved. Now unsuitable donations are not even unloaded from the container. I do not know what they do with them, but it helps us. (NGO No. 1)*

Facilitates customs clearance and direct solicitation of drugs donated to healthcare facilities not subject to import duties, or a government charge:

*We have no problems with customs. There is no charge, and if the papers are in order, it is easy to get the drugs cleared. (Facilities No. 8, 9, 3)*

### Perceived drawbacks of the donation process

Several officials in MOH indicated that some drug donations create certain drawbacks and pose serious health and administrative problems for the ministry:

*There should be no donations of inexpensive drugs. They hardly ever match the drugs which are sought, and these donations cost far more than buying the drugs in country, and overseas donors should provide funds. Also, there is always the temptation that donations go directly into the private market, and are a corrupting influence. There is a rationale, according to the MSD managers, to donate specific donations for specific populations. An example would be praziquantel, since there is only one source of the drug, another would be AIDS drugs which are very costly over long term, and cancer drugs.*

There is dependence on undependable donations:

*At most we get three shipments per year from different donors. One PVO announced a shipment in 1995, but we did not get it until 1997. This makes it very hard on us. Then, we got different drugs than we had gotten before. It does not give us a stable donated supply. (Facility No. 8)*

*We had requested drugs from our Motherhouse. When they finally arrived, many of them had expired. I would take an expired drug myself, but I will not give it to a patient. We had counted on those drugs. (Facility No. 9)*

There is insufficient "yield":

*I like handcarried gifts-in-kind best, and I like other types of donations as well. But I have a problem with unuseful donations, including hand-labelled jars with pills. The process is not satisfactory. We checked off what we needed, but then paid very high in-country transport. Now we ask for funds from Germany. Of the drugs we cannot get from MSD, we purchase 80 percent locally and 20 percent from Holland. (Facility No. 6)*

*Very few routine items can be shipped 'viably' to Tanzania from Europe or the US, if a handling charge is assessed. Even if they are not purchased,*

*the handling charge may bring the cost of the drug up to the price in Tanzania, and then we have choices of what to buy.* (Facility No. 4)

### **Dependence on undependable donations**

The type and volume of donated drugs are unpredictable:

*There are times when the quantities of drugs we get are too large. Often we have no idea who else could use the drug, because they already may have received a donation of the same drug.* (Facility No. 6)

The type and volume of drugs do not meet needs:

*I prefer individual items, rather than kits, so I can pick the drugs we need most, like praziquantel and anti-malarials. We often have no choice.* (Facility No. 5)

*We do not get the drugs we need. We need first-line antibiotics, third-generation cephalosporins, and drugs against heart failure. We get analgesics.* (Facility No. 6)

*Quantities too large of some items. Example: analgesic syrup with short expiration date. He needed to give it to nearby health centers.* (Facility No. 3)

The logistics of donation process are wasteful:

*We fill out many forms many times before we get one shipment.* (Pharmacist in Facility No. 4)

*The shipment of a large quantity of analgesic syrup is wasteful; it is not expensive here. Obtaining a donation is lots of tedious, time-consuming work, and getting such a donation in return.* (Facility No. 4)

*Disposal of drugs damages the environment. Tanzania has no facilities to dispose safely of drugs.* (Facility No. 4)

### **Insufficient “yield”**

The top-down donation process is not efficient:

*The donation lists often do not have the drugs on them that we really need. We would prefer if they got a list from us and then tried to get those kinds of donations, instead of receiving a dictated list.* (Facility No. 4)

*Donations are welcome. At times they are not worth the effort. The check-off lists from PVOs are extensive, the actual items and quantities received*

*are very limited, even though we checked off many items, and one PVO even allowed us to indicate the quantities we needed.* (Facility No. 4)

## Endnotes

- <sup>1</sup> Estimate based on consensus of representatives of Ministry of Health and Tourism during meeting in Dar es Salaam on June 8, 1997.
- <sup>2</sup> World Bank, *World Development Reports 1995, 1996, and 1997* (Washington, D.C.: World Bank, 1995, 1996, and 1997).
- <sup>3</sup> World Bank, *World Development Report 1997* (Washington D.C.: World Bank 1997).
- <sup>4</sup> Moslem organizations also provide some healthcare services and own some facilities.
- <sup>5</sup> World Bank, *World Development Report 1995*, p. 224, Table 32. By contrast, Armenia's road density in 1992 was 2024 km per one million persons, while that of the United States was 14,453 km per one million. (Haiti was not listed.)
- <sup>6</sup> Planning Department, Ministry of Health, *Health Statistics Abstract 1996, No. 4* (Dar es Salaam: Ministry of Health, The United Republic of Tanzania, June 1996), pp. 1–20.
- <sup>7</sup> Gaspar K. Munishi, Private Health Sector Growth Following Liberalization in Tanzania: Some Policy Considerations. *IHPP Working Paper* (Washington, D.C.: International Health Policy Program, 1997).
- <sup>8</sup> Planning Department, Ministry of Health, *Health Statistics Abstract 1996*, p. 5.
- <sup>9</sup> *Ibid.*, p. 5.
- <sup>10</sup> *Ibid.*, p. 9.
- <sup>11</sup> *Ibid.*, pp. 6–7.
- <sup>12</sup> Calculated from number of physicians (1,264) and population (30 million in 1995).
- <sup>13</sup> PVOs are defined as those international nongovernmental organizations that provide humanitarian assistance in the form of gifts-in-kind or financial donations to health facilities or organizations in Tanzania.
- <sup>14</sup> This report defines NGOs as Tanzanian-based nongovernmental organizations in order to distinguish organizations based overseas (PVOs). This delineation is intended to distinguish between those international agencies acting as donors/suppliers and those Tanzanian organizations receiving and distributing the gifts-in-kind.
- <sup>15</sup> Although NGO No. 3 meets the definition of a PVO, the organization will be referenced in this report as a NGO.
- <sup>16</sup> Muslim congregations also operate healthcare facilities.
- <sup>17</sup> World Bank, *Better Health in Africa* (Washington D.C.: World Bank, 1994), p. 68.
- <sup>18</sup> This is MSD sales data only; all expenditures for drugs in Tanzania are far higher. In 1987 the ratio of public expenditures to private pharmaceutical expenditures was 2:1. Total expenditures were estimated at \$30.7 million, or \$1.32 per capita. World Bank, *Better Health in Africa* (Washington D.C.: World Bank, 1994), p. 70. Figures calculated with 1997 exchange rate of \$501/\$1.
- <sup>19</sup> Parastatals are manufacturers and other industries run by the government. These companies provided healthcare services for their employees. Their provider facilities are called "parastatal" (parasatal health center, for example), and they are financed by just that manufacturing entity.

- 20 The 1997 list of contents of the two drug kits can be found In the appendix. Dispensaries, which are the entry point to the healthcare system, have limited abilities to diagnose and treat patients, because they are expected to refer the sicker patients to the health centers and hospitals.
- 21 Gaspar K. Munishi, *Private Health Sector Growth Following Liberalization in Tanzania: Some Policy Considerations* (Washington D.C.: International Health Policy Program, 1997), p. 14.
- 22 There is disagreement whether these drugs should be allowed into the country. The medical professionals who spoke on the subject (such as health director of PVO No. 2, physicians at Facility No. 3, and nurses at Facility No. 8 and 9) typically would let plastic jars of pills come in if they knew that the jars had been repackaged by physicians. The registrar and the pharmacists in general would not let these drugs come in because it was impossible to tell the expiration date for many pills and the conditions under which they have been stored.
- 23 Ministry of Health, *National Health Policy* (Dar es Salaam: Ministry of Health, United Republic of Tanzania, February 1990). This document includes the Essential Drugs Program Policy statement.
- 24 Pharmaceuticals and Supplies Unit, *Tanzania National Drug Policy* (Dar es Salaam: Ministry of Health, United Republic of Tanzania, February 1993).
- 25 Pharmaceuticals and Supply Unit, Ministry of Health, *National Essential Drugs List*, (Dar es Salaam: Ministry of Health, United Republic of Tanzania, 1995). Revised version of general list.
- 26 The Ministry of Health, *Guidelines on Donations of Drugs and Medical Equipment to the Health Sector for Tanzania Mainland* (Dar es Salaam: Ministry of Health, 1995).
- 27 World Health Organization, et al., *Guidelines for Drug Donations* (Geneva: World Health Organization, May 1996). WHO/DAP/96.2.
- 28 Pharmaceuticals and Supply Unit, Ministry of Health, *The Tanzanian National Drug Policy* (Dar es Salaam: Ministry of Health, February 1993), p. 2.
- 29 *Ibid.*, p. 6.
- 30 Ministry of Health, *National Health Policy* (Dar es Salaam: Ministry of Health, United Republic of Tanzania, February 1990), Section IV, 1.3.8.
- 31 Pharmaceuticals and Supplies Unit, Ministry of Health, *The Tanzanian National Drug Policy* (Dar es Salaam: Ministry of Health, United Republic of Tanzania, February 1993), pp. 6, 7, 8, and 9.
- 32 Pharmaceuticals and Supplies Unit, Ministry of Health, *National Essential Drugs List* (Dar es Salaam: Ministry of Health, United Republic of Tanzania, 1995).
- 33 WHO, *Model List of Essential Drugs* (Geneva: World Health Organization, 1995).
- 34 The Ministry of Health, *Guidelines on Donations of Drugs and Medical Equipment to the Health Sector for Tanzania Mainland* (Dar es Salaam: Ministry of Health, United Republic of Tanzania, 1995).
- 35 *Ibid.*
- 36 This estimate of 10 percent agrees with the information obtained from health facilities during the field visit.
- 37 Facility No. 5 received boxes valued by the US PVO at between US \$520 and \$1160 each; the boxes for Facilities Nos. 8 and 9 were valued at \$840 each. The nurse administrator of the dispensary, Facility No. 8, estimated that drugs equivalent to those in the box could have been purchased for \$180 in Tanzania.
- 38 A "zone" is an area defined for administrative purposes of this PVO.

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