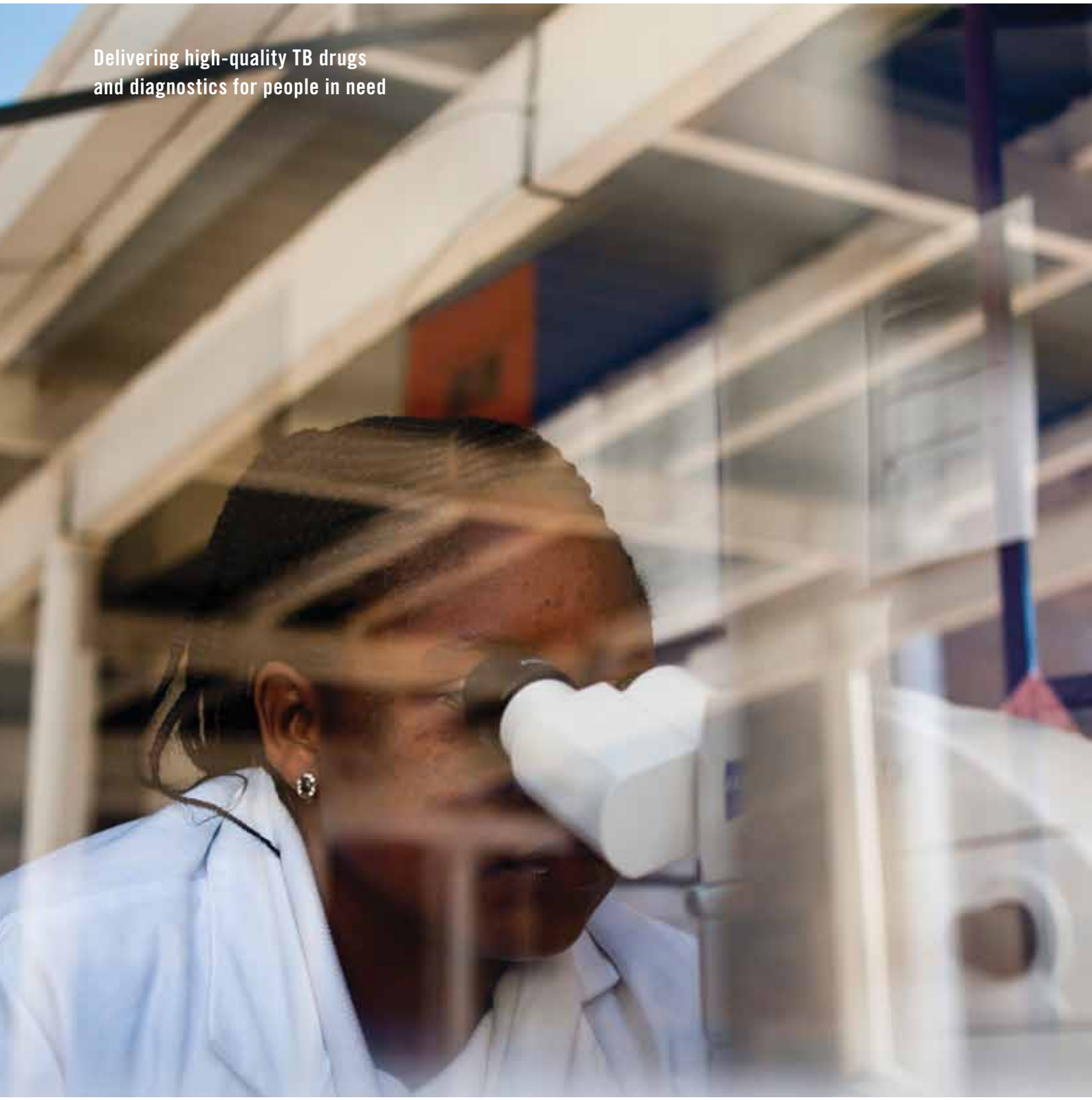
GLOBAL DRUG FACILITY
ANNUAL REPORT 2011



Stop TB Partnership

World Health Organization

Abbreviations

API	Active Pharmaceutical Ingredient
CIDA	Canadian International Development Agency
DFID	United Kingdom Department for International Development
DIK	Drugs in kind
DOTS	Directly Observed Treatment Short Course
ERP	Expert Review Panel
FLD	First-line drug
GDF	Global Drug Facility
GLC	Green Light Committee
KNCV	KNCV Tuberculosis Foundation
KPI	Key performance indicator
MDR-TB	Multidrug-resistant TB
MSF	Médecins Sans Frontières
NTP	National tuberculosis control programme
PQP	Prequalification programme
SLD	Second-line drug
SRA	Stringent Regulatory Authority
USP	United States Pharmacopeia
USAID	United States Agency for International Development
WHO	World Health Organization

Notes:

1. In this report, "$" refers to United States dollars.
2. Unless otherwise stated, in this report expenditure outlined includes the cost of goods procured, the cost of freight, insurance, procurement agent handling fee, quality control and pre-shipment inspection charges.

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About the Global Drug Facility

In March 2000, the Stop TB Initiative convened a conference of 20 countries that together bore 80% of the global TB burden. It was recognized that one of the key barriers to Directly Observed Treatment Short Course (DOTS) expansion was drug shortages. These barriers were caused primarily by financial constraints, inefficient procurement systems and poor management.

The Global Drug Facility (GDF) was created to serve as an organization that could rapidly turn around this situation through four key activities:

1. To conduct procurement, using procurement agents and prequalified suppliers;
2. To receive first-line drug (FLD) funding requests and develop grants to finance procurement of quality-assured TB drugs;
3. To provide procurement services for countries that were able to finance their own TB drugs;
4. To provide technical assistance in conjunction with partners through missions to monitor supply chain management, drug quantification, forecasting and capacity building of human resources.

It was anticipated that GDF would:

1. Increase access to high-quality TB drugs for first-line treatment;
2. Provide funding for drug procurement, but ensure that existing financing initiatives / domestic budget lines would be maintained;
3. Provide drugs for 10 million patients in 5 years from 2001 to 2006;
4. Catalyse the sustainability of TB control programmes.

Since its inception, GDF has been responsible for:

1. Funding FLDs for 133 countries, thereby increasing access to quality-assured products;
2. Contributing to the sustainability of TB control programmes;
3. Providing FLDs to treat 19 886 158 adult patients and 784 075 paediatric patients and second-line drugs (SLDs) for 55 800 patients. A total of 20 726 033 patients were treated from 2001 to 2011.

Message from the GDF Manager

> "Through pooled procurement of the requirements of 133 countries, GDF has dramatically increased access to the safest TB treatments."

Eleven years have passed since GDF was established. Through pooled procurement of the requirements of 133 countries, GDF has dramatically increased access to the safest TB treatments. Thanks to GDF's existence, TB medicine prices decreased, fixed-dose combinations that promote treatment adherence are mainstreamed, countries now use standard regimens following WHO recommendations, more products meeting the highest international quality standards are now available for supply, stock outs are no longer the norm, procurement and supply management for TB is receiving the efforts it requires and the specific needs of children are being addressed. However, securing internal or external resources for TB treatment is a must for ministries of health.

These achievements resulted from the initial grants for quality-assured adult FLDs, coupled with technical support to national tuberculosis control programmes (NTPs). By intervening in both demand and supply, with NTPs, suppliers and many Stop TB partners, GDF has been able subsequently to extend support to drug-resistant patients, children and laboratory facilities. Moreover, GDF continues to provide products at the most competitive prices, for countries lacking the capacity to purchase them directly.

Treating TB is the first line of defence against the disease. GDF has opened the door to addressing all the challenges observed when the founding partners met in March 2000. When GDF was established in 2001, it was envisaged that it would be time-limited for 10–15 years, in view of a projected decrease in the number of patients requiring treatment. This is an appropriate time for review and reflection of GDF's strategic direction for the next 5–10 years, bearing in mind the global public health landscape and funding realities. This is particularly important given the projected increase in diagnosis of multidrug-resistant TB (MDR-TB) patients connected to the introduction of GeneXpert. GDF will engage with its partners throughout 2012 to map out an appropriate strategy.

GDF has confirmed funding to provide limited grants and cover its operational costs until the end of 2013. There is no confirmed funding beyond 2013, and GDF is actively seeking to identify new funding sources to ensure it can continue to supply anti-TB drugs. GDF's operational costs (human resources, advocacy, quality management, general operating costs, meetings/workshops, travel, expert advice and missions/desk audits) have been approximately $6 million per annum. Assuming a 10% increase in costs in the next biennium, it can be projected that $6.6 million per annum will be needed to cover operations from 2014 to 2015. In addition to obtaining donor funding for its costs, GDF has been considering developing a business model that could include further reducing staffing in Geneva and retaining a percentage of the handling fee presently paid to GDF's procurement agents.

GDF has proven its ability to deliver, and there is still a demand for its services. I am hopeful the global community will continue to see its value and support its existence.

Thomas Moore

Highlight: **2011 report examining GDF's achievements over ten years**

A 2011 analysis by Management Sciences for Health, *Impact of Donor Support on TB Pharmaceutical Systems: The Global Drug Facility Experience* concluded that:

> **"The expansion of GDF services over the years 2001–2010 shows how GDF has been able to make significant impact on global TB control. Several main areas of impact were: 1) greatly improving availability of quality medicines; 2) providing free medicine grants to needy countries; 3) procuring medicines for countries that still lack capacity to do their own procurements; and 4) providing technical assistance in drug management."**

In the area of availability of TB medicines, GDF has helped standardize treatment regimens by promoting fixed-dose combinations (FDC) of anti-TB medicines and patient kits containing all the medicines needed to fully treat one patient. Of 24 countries analysed, 12 NTPs switched to FDC products, with nine of them from the 22 countries designated by the World Health Organization as having a high burden of TB. Nine NTPs adjusted their treatment regimens to the Stop TB patient kit, six of which were also from high-burden countries. These products helped promote worldwide the WHO recommendations on appropriate TB treatment.

From monitoring missions, GDF learned that some NTPs were struggling to procure good quality diagnostic products that directly affected the NTPs' capacity to expand DOTS services. GDF stepped in and developed a diagnostic kit that contains sputum cups, microscopy slides and reagents and even a microscope depending on the needs of a specific country.

GDF promoted the Stop TB partners' requirement that national programmes have a five-year plan for DOTS expansion, and have treatment guidelines for TB. Of the countries surveyed, 18 and 21 NTPs respectively, developed a five-year plan and standardized treatment guidelines which they used to train NTP staff; paediatric treatment guidelines and drug management guidelines were developed by 16 and six NTPs respectively.

GDF criteria helped drive medicine support and technical assistance to those programmes most needing GDF services based on a Gross National Income maximum and mandate that national programmes agree to use only GDF medicines for TB patients, providing them free of charge.

GDF was established to fill the gap in TB medicine needs of countries, but for very poor countries this often meant 100% support until the NTPs could secure other funding for medicines and TB control. During support by GDF, DOTS coverage of countries averaged 88.9%, with a range of 56–100%. Likewise, GDF tries to respond quickly to emergencies and urgent needs for medicines, although this has not been the mandate of GDF.

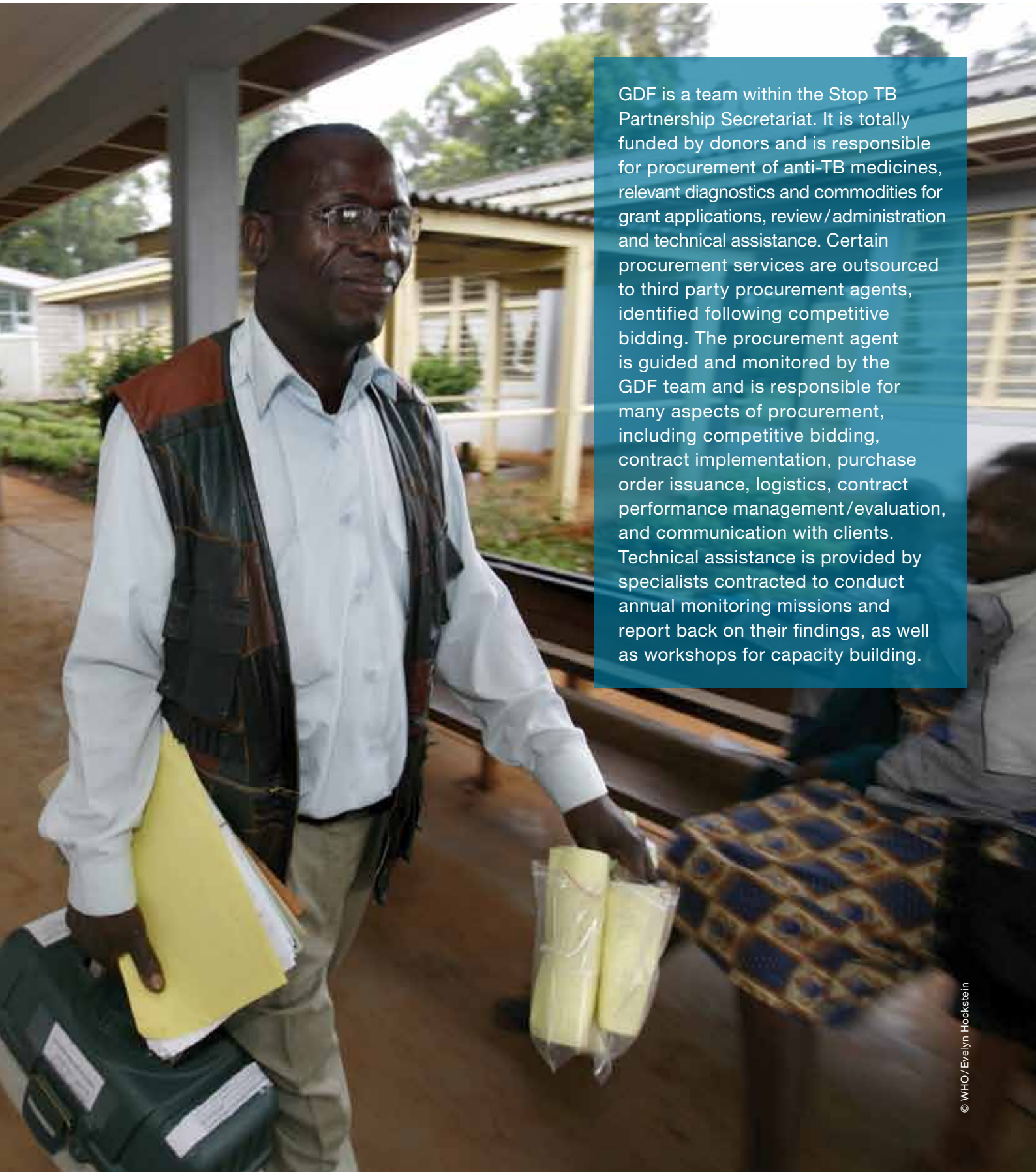
GDF support has had a major impact on the two core indicators for national TB control established by WHO and Stop TB partners through the technical assistance provided by GDF consultants during monitoring missions. As a result, NTPs have been able to approach these targets incrementally as evidenced by the 13 of 24 NTPs that reached the treatment success rate of 85% or greater and the seven of 24 NTPs that reached the case detection rate of 70% or greater.

GDF has worked hard to support improvement of drug management activities in countries. According to its mandate, GDF is not responsible for medicines beyond the port of entry; but hearing from Stop TB partners that in-country drug management is very weak, GDF has used its monitoring missions as a way to provide technical assistance in this area. The monitoring mission template used by consultants lists many significant policies and activities required of a good drug management system. During the mission itself, consultants take this opportunity to discuss with NTP management and storeroom managers how they can improve their drug management practices. Some of the policy and operational standards promoted include: having TB medicines added to the national essential medicines list; development of guidelines and training for staff; checklists for monitoring how medicines should be stored; necessity of having buffer stocks; use of blister products instead of loose tablets; how to quantify TB medicine needs; monitoring of port clearance time; and monitoring of medicine quality during receipt and storage of TB medicines. All of these activities promote standardization and safe medicine use, access to TB medicines by patients and monitoring of medicine quality until it is administered to the patient.

During monitoring missions, ministries of health and NTPs were encouraged to seek financial support for drug procurement since GDF assistance is time limited. GDF has provided help to countries in preparing their procurement and supply management applications to funders such as the Global Fund. Of the countries analysed for this study, 14 of 24 countries transitioned to Global Fund financing. More importantly, six countries transitioned to government funds, showing their commitment to support national TB control.

GDF has helped to raise global awareness of quality assurance through its policy of only procuring medicines that meet international standards. GDF's quality assurance policy includes the issuance of a manufacturer's batch certificate and an additional batch certificate from an independent laboratory for each batch supplied by GDF. This has helped NTPs understand the importance of product quality in good TB control – with poor quality medicines, patients are not cured and can develop drug resistance to TB.

Operations



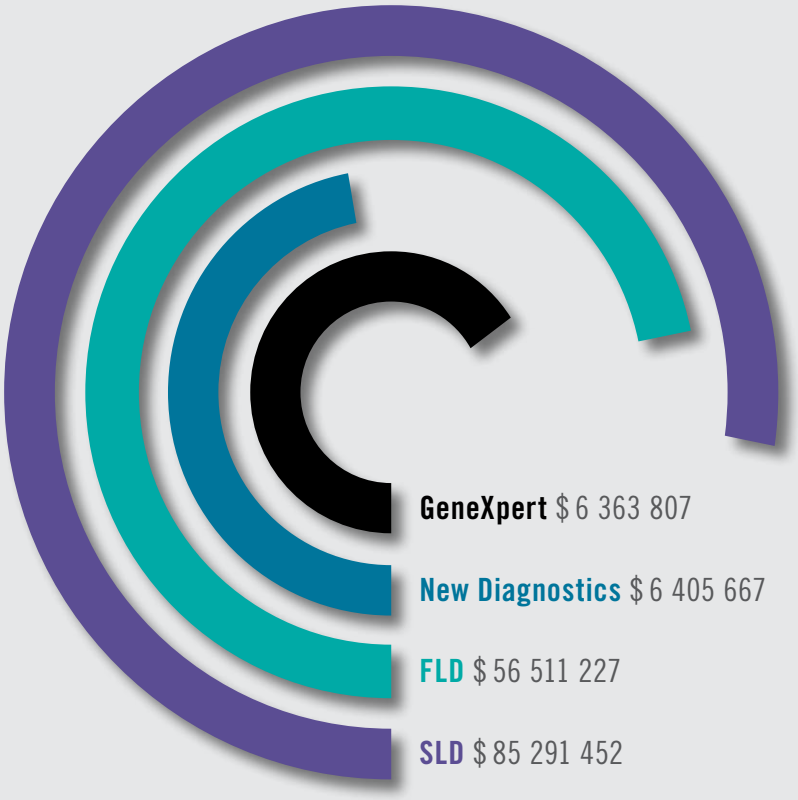
GDF is a team within the Stop TB Partnership Secretariat. It is totally funded by donors and is responsible for procurement of anti-TB medicines, relevant diagnostics and commodities for grant applications, review/administration and technical assistance. Certain procurement services are outsourced to third party procurement agents, identified following competitive bidding. The procurement agent is guided and monitored by the GDF team and is responsible for many aspects of procurement, including competitive bidding, contract implementation, purchase order issuance, logistics, contract performance management/evaluation, and communication with clients. Technical assistance is provided by specialists contracted to conduct annual monitoring missions and report back on their findings, as well as workshops for capacity building.

Commodity expenditure and funding sources

GDF's major donors since 2001 have been the United States Agency for International Development (USAID), UNITAID, the Canadian International Development Agency (CIDA) and the United Kingdom Department for International Development (DFID). These four donors continued to support GDF in 2011.

Donor funds were used primarily to procure drugs and diagnostics for GDF grant countries and to provide technical assistance. Since GDF does not currently generate any income through a handling fee on the Direct Procurement Services orders it processes, donor funds were also used to cover GDF's operating costs.

The DFID funding, as per an agreement with GDF, was dedicated exclusively to procurement of FLDs for India. The DFID grant ended on 31 December 2011.



Note: The figure for GeneXpert includes cartridges at $ 4 244 610 and machines at $ 2 119 197

Figure 1 Expenditure breakdown 2011

Funding ceiling/ Funding source	FLDs ($)	SLDs ($)	New diagnostics ($)	Total ($)
DFID India	9 977 968			9 977 968
UNITAID Second line		16 537 103		16 537 103
UNITAID Diagnostics			6 405 636	6 405 636
UNITAID Paediatrics*	1 222 757			1 222 757
CIDA - TB REACH	47 641		6 363 807	6 411 448
CIDA GDF unspecified	5 045 911			5 045 911
National government	2 837 349	2 780 281		5 617 630
KNCV		127 203		127 203
Kuwait Fund	81 068			81 068
MSF	2 444	1 898 322		1 900 766
Novartis	3 468 206			3 468 206
Other	1 785 600	678 355		2 463 955
TB REACH, other sources			125 490	125 490
Global Fund recipients	23 101 018	63 212 058		86 313 076
USAID	8 505 151			8 505 151
USAID Mission Buy	245 423			245 423
WHO DP	190 724	58 130		248 854
Grand total	56 511 259	85 291 452	12 894 933	154 697 644

*Denotes only paediatrics funded by UNITAID

Figure 2 Commodity expenditure/funding sources, 2011[1]

Figure 2 depicts total funding from GDF's various sources and highlights continued reliance on external donors for SLDs – 96.7% of which were funded from sources other than domestic funding. In 2011, GDF continued its work on helping countries transition to domestic financing of their TB drug supply.

[1] Expenditure includes the value of goods procured, the cost of freight, insurance, procurement agent handling fee, quality control and pre-shipment inspection charges

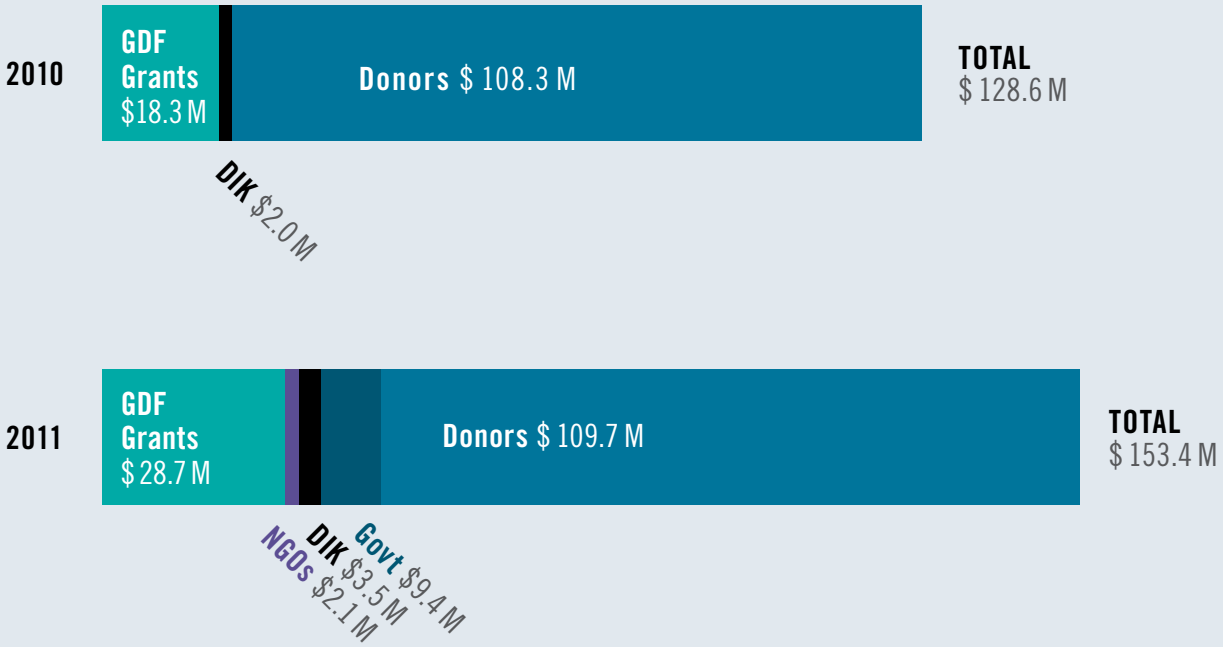


Figure 3 Expenditure allocation by funding – 2010/2011

Lesotho: Transitioning from 100% donor dependency towards 100% independence

Lesotho represents a good example of a country that has made the transition to domestic funding for FLDs. The country has benefited from GDF support since 2007. Following the GDF monitoring mission conducted in 2007, it was recommended that Lesotho should plan for direct procurement of FLDs from 2009 onwards. This would ensure a smooth transition at the end of the GDF grant, thereby avoiding drug stock outs. Lesotho took this recommendation on board and in 2009 used funds from its national budget to procure 20% of its annual adult FLD needs plus buffer stocks. Since 2009, the country has consistently adhered to its plan to increase its contribution each year by 20% while GDF reduces its grant support to the country by 20%. In 2011, Lesotho was covering 60% of its annual adult FLD needs, while GDF contributed the remaining 40%. It is expected that the country will be able to cover all its annual FLD needs (including 100% buffer stock) by 2014.

Patient treatments

Procurement in 2011 equated to the following numbers of patient treatments:

- 2 171 108 adult FLDs;
- 187 996 paediatric FLDs and
- 19 605 SLDs.

Since GDF was established in 2001, 19 886 158 adult FLD patient treatments, 1.4 million paediatric prophylaxis and curative treatments and 55 800 SLD patient treatments have been delivered.[1]

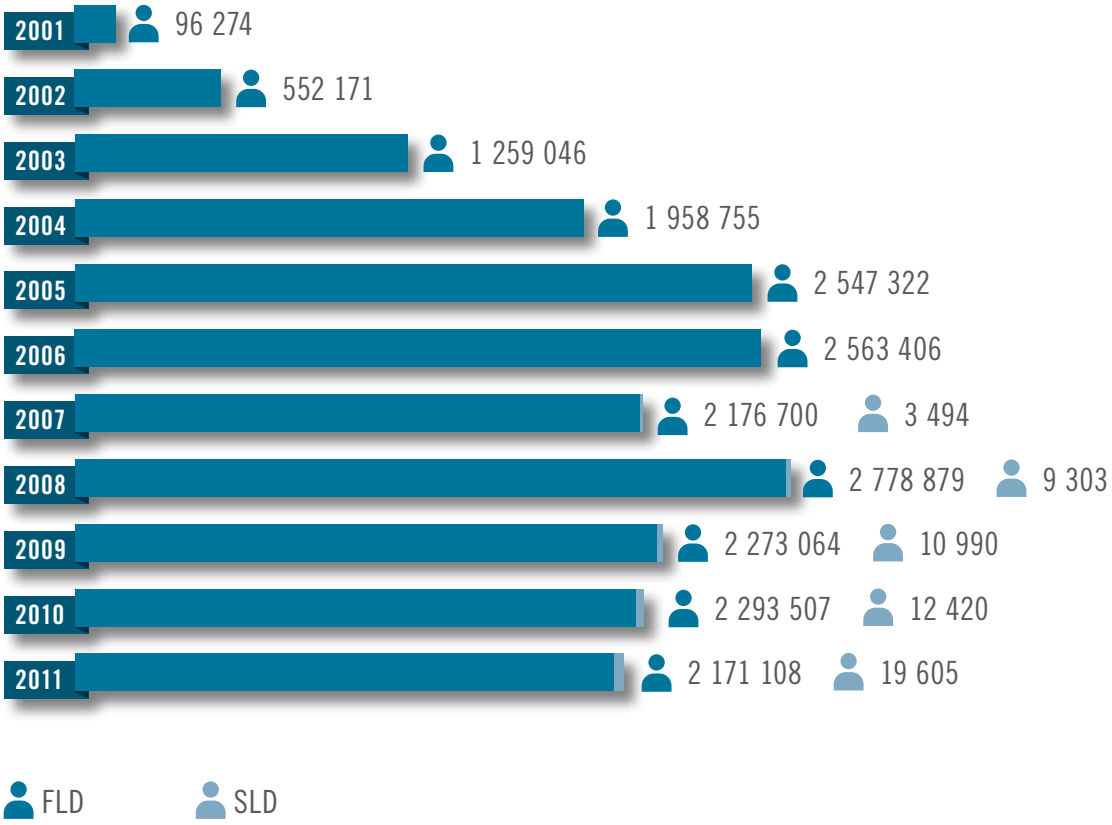


Figure 4 Patient treatments delivered, 2001–2011

[1]GDF commenced procurement of SLDs in 2007 and delivery of patient treatments is therefore calculated from this time.

Historical analysis of orders

Drugs procured by GDF are generally financed in one of two ways:

- The provision of a grant from GDF, using GDF donor funding from USAID, CIDA, DFID or UNITAID. This is known as **GDF Grant Procurement** and has been primarily for FLDs, though some SLDs were provided through this mechanism.
- External donor funding, generally from the Global Fund and sometimes from national government domestic budgets. This is known as **Direct Procurement Services**.

The total value of orders placed in 2011 increased by 17.4% compared with 2010 (from $132 million to $155 million) mainly because of an increase in Direct Procurement Services orders (see Figure 5). The growth of GDF's Direct Procurement Services in 2011 was not consistent across the product range and mainly related to procurement of SLDs.

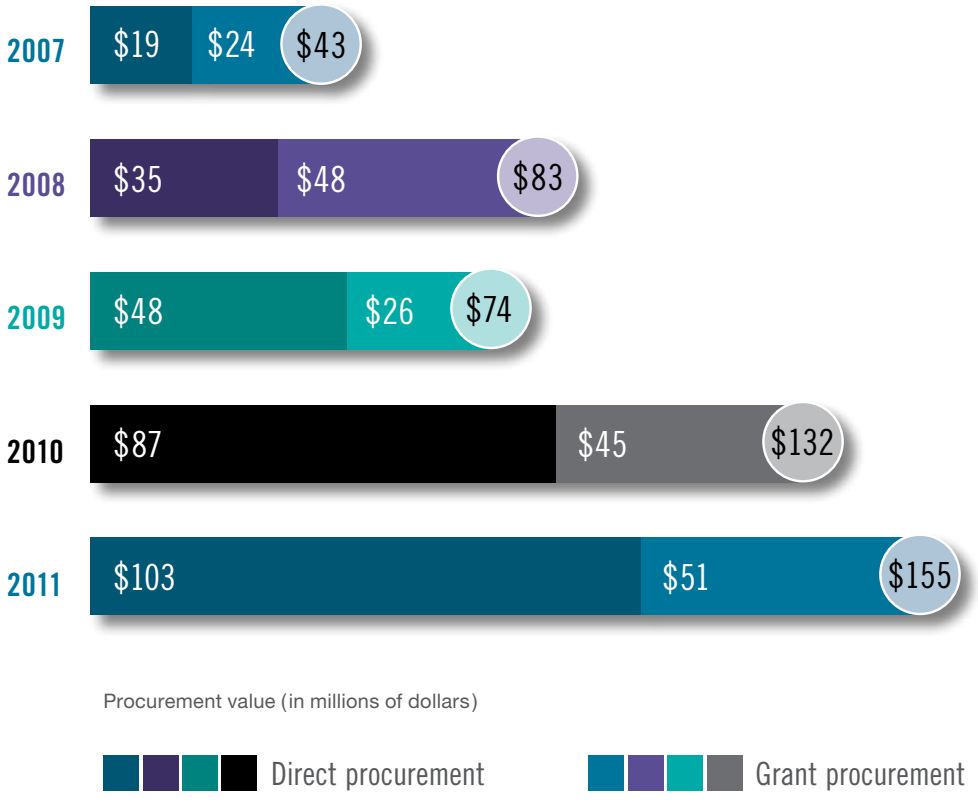


Figure 5 GDF Grant Procurement/Direct Procurement Services, 2007–2011

Commodity expenditure

FLDs

Figure 6 shows a 36% increase in the value of FLDs procured using Grant Procurement Services, (from $18 million in 2010 to $24.6 million in 2011). This represents a marked change from the plateau in grant funding between 2009 and 2010.

In parallel there was a significant decrease between 2010 and 2011 (by 32%) of FLDs procured using Direct Procurement Services: for $33.5 million worth of FLDs in 2010 versus $22.7 million in 2011. It is likely that this reduction occurred because funding from the Global Fund was not available for procurement in a timely manner, which prompted requests for GDF emergency grants.

SLDs

To date, GDF has not provided grants for SLDs through its Technical Review Committee mechanism. SLDs have therefore been funded mostly by the Global Fund and through the UNITAID MDR-TB Project. Figure 7 shows a continual increase in the value of SLD orders during 2011.

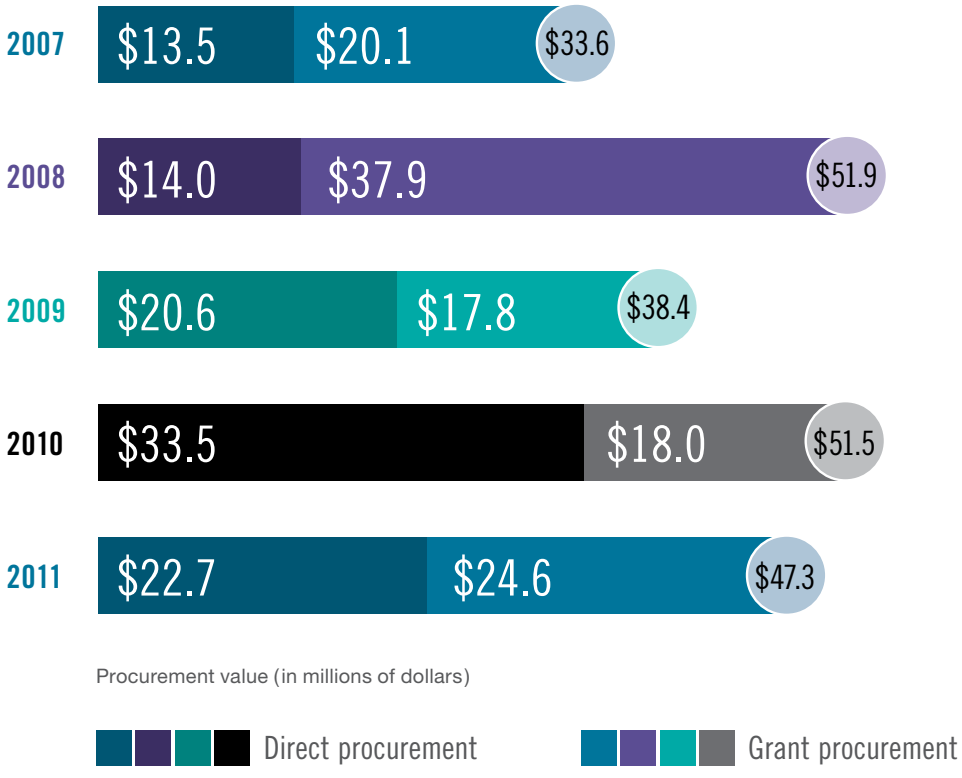


Figure 6 Value of FLDs procured by year/funding source

Figure 7 Value of SLDs procured by year/funding source (all Direct Procurement Services)

Diagnostics/new diagnostics

Expenditure on diagnostics/new diagnostics for the Expand-TB Project funded by UNITAID increased by 52% between 2010 and 2011. The main reason for this increase is that the project, which was launched in 2009, was scaled up rapidly throughout 2011. By this time, challenges initially experienced in establishing laboratories and improving infrastructure had been addressed.

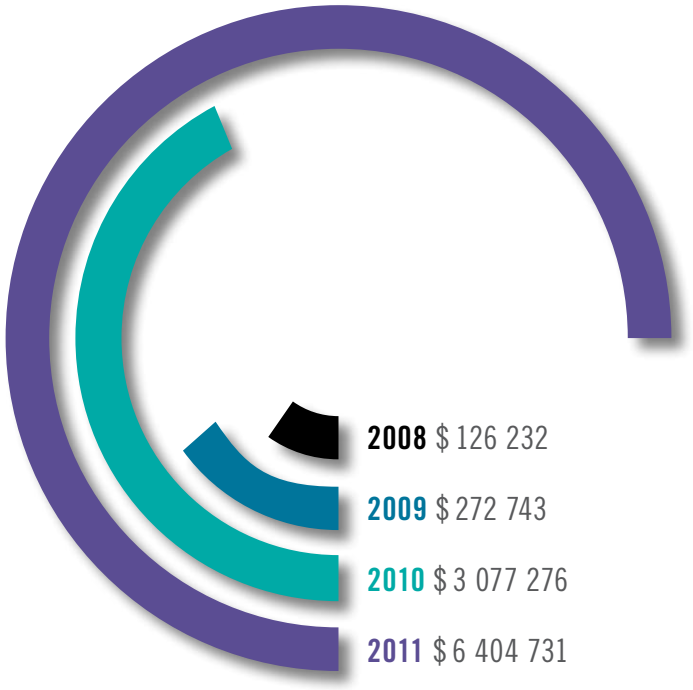


Figure 8 Value of diagnostics/new diagnostics procured by year (UNITAID funded)

Supplemental costs

Freight, procurement agents, quality control, insurance, pre-shipment inspection. The level of expenditure on supplemental costs associated with order placement remained relatively constant from 2010 to 2011. The major change was increased freight costs, due to increased quantities of drugs and diagnostics procured. Quality control costs were reduced significantly after February 2011, at which time a new policy was put in place: to cease 100% batch testing and instead to conduct randomised batch testing of 10% of all prequalified products and 20% of all Expert Review Panel (ERP) products.[1]

[1] For further explanation of the ERP, refer to Quality assurance section on page 16.

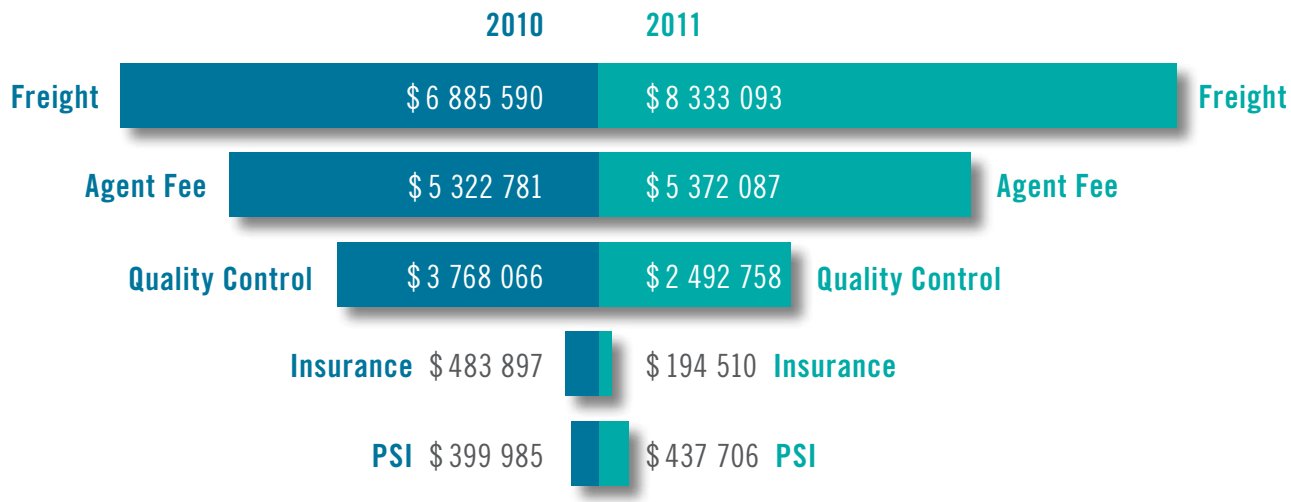


Figure 9 Supplemental costs comparison, 2010/2011

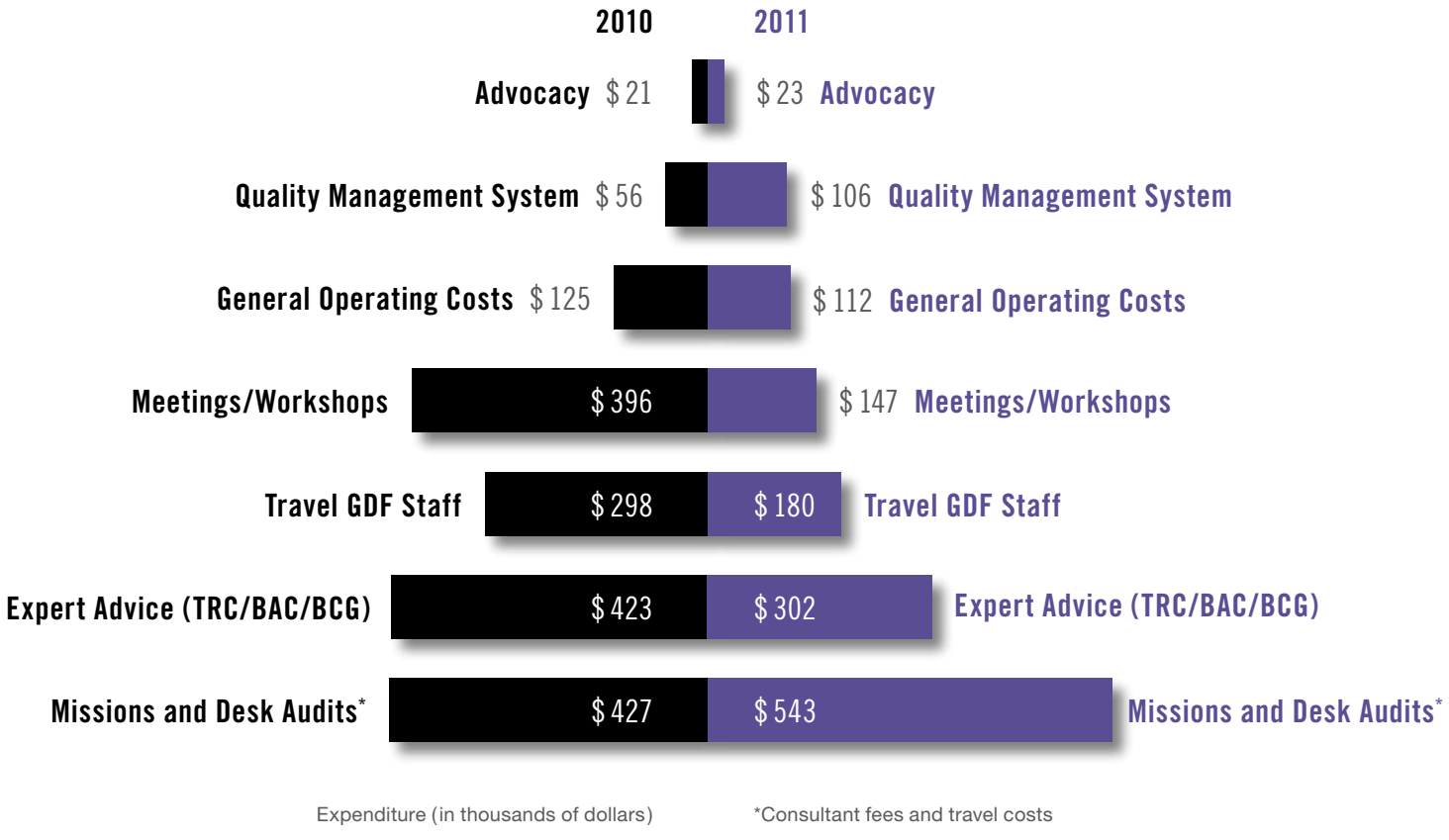


Figure 10 Non-commodity expenditure, 2010/2011

Quality assurance

Quality assurance reports

In 2011, GDF began publishing quality assurance reports that detail the quality assurance status of suppliers pursuant to the products that GDF procures. The reports are available at www.stoptb.org/gdf/whatis/documents.asp

Analysis of quality-assured manufacturers/products

GDF has strived to mitigate constraints arising from the low number of quality-assured products and manufacturers. In 2011, results of these efforts began to materialize. At end 2011, there were eight qualified manufacturers for FLD adult formulations,[1] three qualified manufacturers for FLD paediatric formulations[2] and 16 manufacturers of SLD adult formulations.[3] In 2011, seven SLD manufacturers became prequalified by the WHO prequalification programme (PQP) and two SLD and third-line drug manufacturers were approved by a Stringent Regulatory Authority (SRA). No FLD manufacturer was prequalified by WHO PQP in 2011.

Round	Number of dossiers submitted	Number of dossiers accepted for ERP review	Assessment results
January 2011	40 TB drug dossiers 46 TB kit dossiers	39 drug dossiers 41 kit dossiers	■ 7 drug and 1 kit dossier were categorized as level 1 or 2, i.e. recommended for procurement for a limited period of time. ■ 18 drug and 9 kit dossiers were categorized as level 3, i.e. may be considered for procurement only if there is no other option and the risk of not treating the disease is higher than the risk of using the product. ■ 45 drug and 32 kit dossiers were categorized as level 4, i.e. may not be considered for procurement under any circumstances.
July 2011	43 TB drug dossier 21 TB kits dossiers	57 drug dossiers 21 kits dossiers	■ 0 drug and 0 kit dossiers were categorized as level 1 or 2 ■ 15 drug and 7 kit dossiers were categorized as level 3 ■ 6 drug and 8 kit dossiers were categorized as level 4

Figure 11 Two expressions of interest issued for ERP review

Clearly, there are manufacturers interested in going through the ERP process as an initial step to prequalification, but few of them can comply with the required standards, and additional support is required.

There were other challenges in 2011:

- Injectable TB medicines (streptomycin, kanamycin, capreomycin) became niche products in many countries.
- Twelve quality-assured products came from a single supplier. GDF has been seeking to rectify this situation by working with WHO, the United States Pharmacopeia (USP) and the Global Fund to engage with additional manufacturers prepared to become prequalified.
- Some suppliers of injectable products have had limitations in capacity that resulted in delivery delays.

GDF has continued its close collaboration with WHO through regular communication on dossier assessment progress and prioritization of SLD dossiers and inspections. Moreover, GDF has prioritized engagement with the USP and industry in China, India, Indonesia and South Africa to facilitate inspections and product assessments necessary for alternative manufacturers to become eligible for supply by GDF.

[1] WHO PQP or SRA-authorized or ERP-recommended for procurement: Macleods, Lupin, Sandoz/Strides, Svizera, Cadila, Microlabs, Fatol, Reig Jofré.
[2] Macleods, Lupin, Fatol.
[3] Macleods, Fatol, Jacobus, Panpharma, Cipla, Lupin, Olainfarm, Medochemie, Chao Centre, Mylan, Akorn, Eli Lilly, Meiji, Bayer, Aspen, Remedica.

Procurement

Product catalogue

In 2011, GDF issued an electronic product catalogue (www.stoptb.org/gdf/drugsupply/drugs_available.asp)

The catalogue reflects the outcome of two major bidding exercises for first-line and second-line drugs, which GDF conducted with its procurement agents, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and the IDA Foundation.

Following completion of the competitive bidding processes, GIZ and IDA entered into long-term agreements with the suppliers whose bids were successful.

Diagnostics

In 2011, GDF together with experts from the Global Laboratory Initiative (GLI) developed new diagnostic kits for light emitting diode (LED) microscopy, establishing the number of kits, composition and specifications of items. There are four kits:

1 | LED microscope including accessories,

2 | Equipment and starter kit,

3 | Diagnostics and consumables kit (for 1000 tests) and

4 | Sputum container kits (1000).

Following a bidding process and an evaluation by a committee of technical, financial and commercial experts, the LED microscope kit was scheduled for launch in early 2012. The evaluation process for the three other kits, which involved detailed review of 33 single laboratory items, was still in progress at the end of 2011.

As it prepared for the new kits, GDF continued to supply four standard diagnostic kits (microscope kit, equipment starter kit, consumables kit, sputum container kit) to its clients. GDF will be further supplying these kits for traditional bright-field microscopy through a transition period, as national programmes adopt LED microscopy technology.

In 2011, GDF continued to provide procurement support for the Expand-TB Project, which is spearheaded by the GLI and in which the Foundation for Innovative New Diagnostics (FIND) and GDF are partners. The project, which runs from 2009 to 2013 and is financed by UNITAID, involves procurement and implementation of new TB diagnostic tools in 27 countries. For this third year of the Project, GDF increased deliveries to recipient countries, reaching a total of $5.2 million. This covered 85 orders with 302 shipments of 4017 line items to 15 countries. With this successful track record of deliveries, GIZ extended the framework contract held with TTM e.V., the wholesaler for laboratory supplies for the Expand-TB Project.

Two shifts in project strategy were also embarked on – preparation for scaling-up sourcing of laboratory items in India, and preparation of integration of GeneXpert technology into the project. CIDA provided $2 million for this purpose. The Stop TB Partnership Secretariat identified six priority countries to receive GeneXpert machines and cartridges based on their preparedness.

GeneXpert

As the result of a partnership between FIND, Cepheid, Inc. and the University of Medicine and Dentistry of New Jersey, an automated, cartridge-based test for TB based on the GeneXpert multi-disease platform is now available. GeneXpert consists of an instrument, personal computer, barcode scanner, and preloaded software and uses single-use disposable cartridges containing lyophilized reagents, buffers and washes. GeneXpert detects M. tuberculosis as well as rifampicin resistance-conferring mutations with a high degree of specificity, with results directly from sputum in less than two hours.

In June 2011, GDF was given exceptional approval by the WHO Contract Review Committee to procure GeneXpert for TB REACH with funding provided by CIDA. Launched in 2010, TB REACH is an initiative of the Stop TB Partnership to promote early and increased TB case detection. Working closely with the supplier, GDF and the TB REACH team tailored its procurement process to optimally meet client needs, incorporating this new technology into their laboratory landscape. GDF achieved an outstanding delivery track record, with all shipments on average delivered within the estimated target arrival date. GDF procured a total of 141 GeneXpert machines and 240 860 cartridges for to 25 countries, with a total value of $4 060 900. Further details of quantities and country recipients are outlined in Annex 5.

First-line drugs and diagnostics

An analysis of expenditure trends from 2009 to 2011 indicates that 2FDC and 4FDC continue to dominate demand and represent 62% of GDF's total expenditure on FLDs. In 2011 GDF had problems finding manufacturers willing to pack products from other manufacturers combined with their own products in a single patient kit. In future, GDF plans to have all kit packing done by a single provider to make the process more efficient.

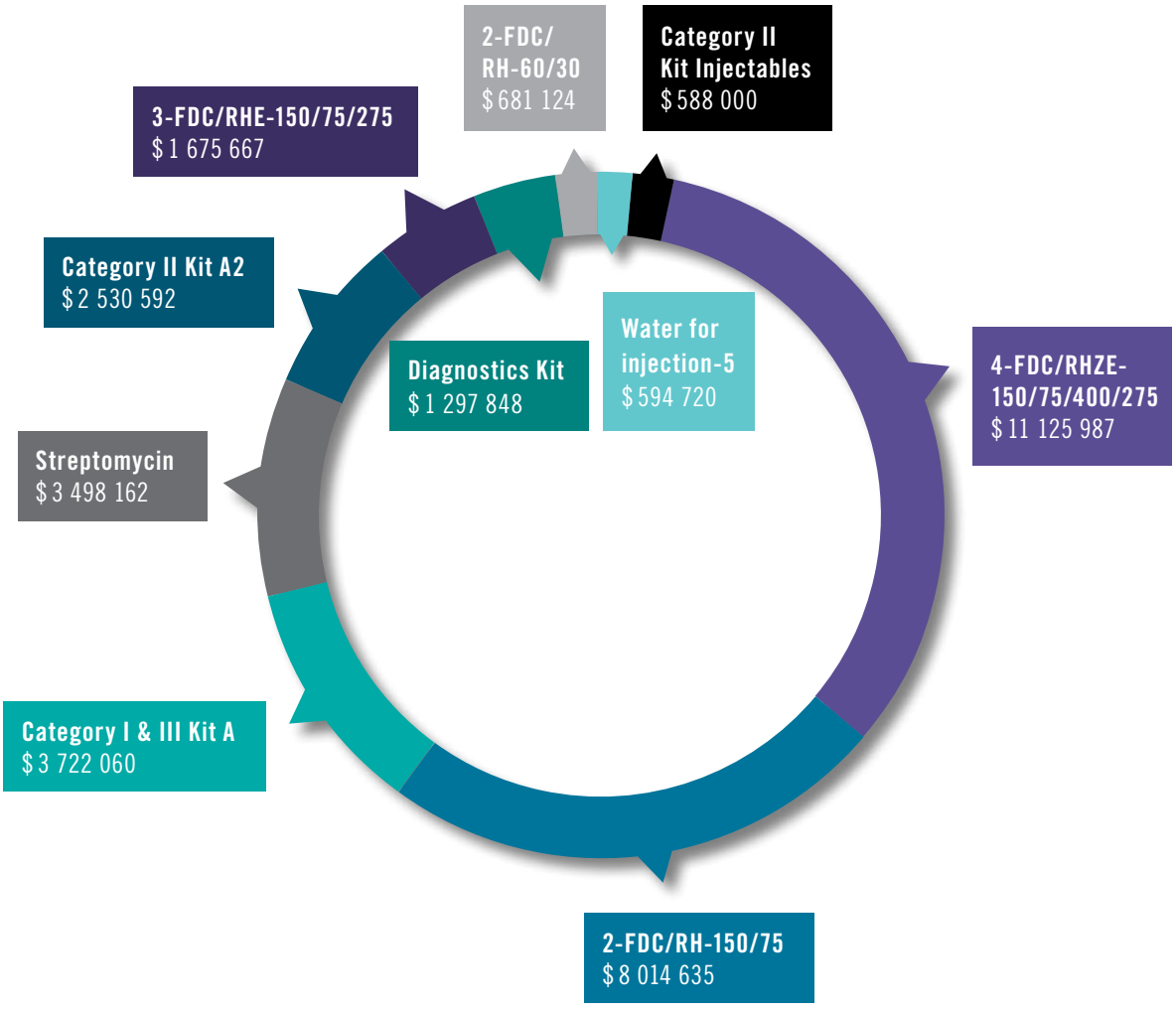


Figure 12 Top 10 FLDs, 2011

Note: The figures presented here are only the value of goods procured and do not include the cost of freight, insurance, procurement agent handling fees, quality control and pre shipment inspection charges.

Second-line drugs

An analysis of expenditure from 2009 to 2011 indicated that cycloserine, PAS, capreomycin and kanamycin represent 80% of GDF's total SLD costs. It is therefore clear that if GDF is to have an impact on the overall price of the SLD regimen, additional attention must be given to these drugs. GDF hopes to work with partners in consolidating demand to allow for bulk procurement of the active pharmaceutical ingredients by manufacturers, planned production and firm order commitments as soon as donor/country funding is made available.

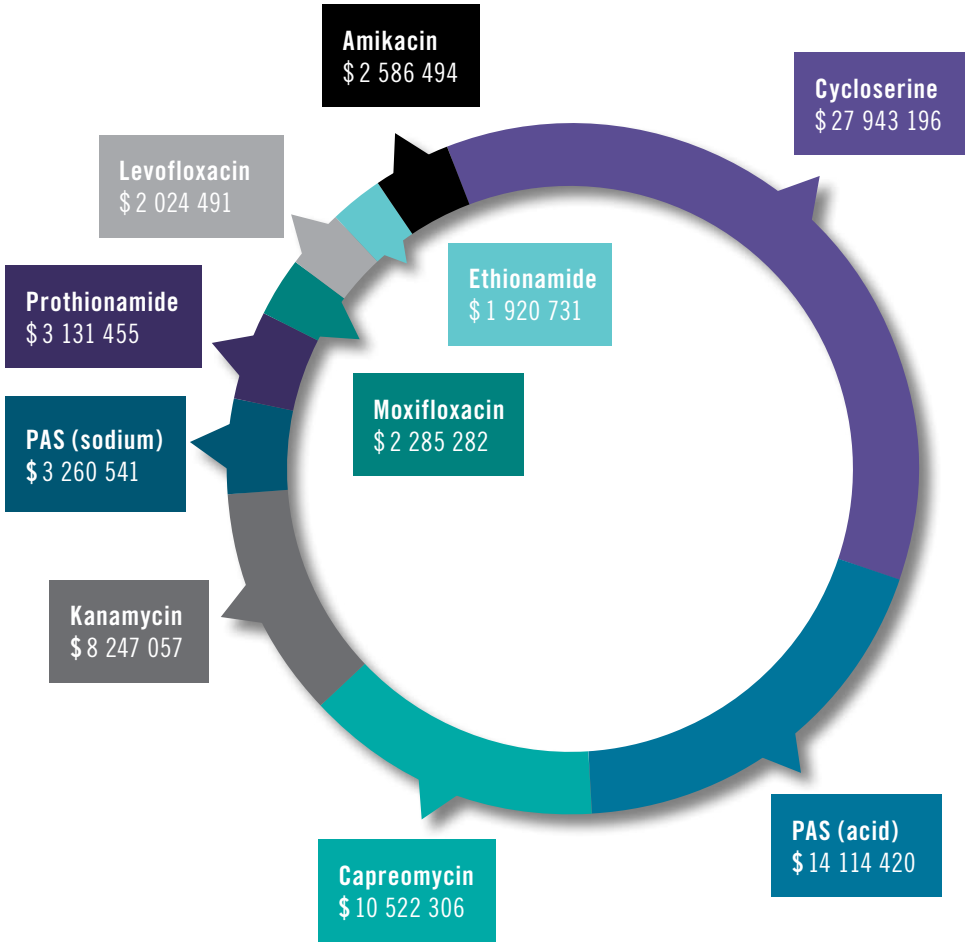


Figure 13 Top 10 SLD's 2011

Note: The figures presented here are only the value of goods procured and do not include the cost of freight, insurance, procurement agent handling fees, quality control and pre shipment inspection charges.

MDR-TB through a patient's eyes

Ko Min Min is 38 years old and lives in Aung Myae Thar Zan, Myanmar. He lost his brother and sister six years ago, after both became ill with TB. Three years later, Min became ill. To his horror, he saw family history repeating itself, because the treatment did not seem to be working in his case either.

He was receiving the standard FLDs used to treat TB – just as his sister and brother had. However drug susceptibility testing at the Upper Myanmar TB Centre Reference Laboratory in Patheingyi revealed that his TB was resistant to all known FLDs (isoniazid, ethambutol, rifampicin and streptomycin). This explained why he was not getting better – and why his siblings had died, despite treatment.

Min was enrolled in the National TB Programme's DOTS Plus pilot project, for the treatment of multidrug-resistant TB (MDR-TB). This programme receives SLDs from GDF, with funding from UNITAID. Min received counselling, nutritional support and direct observation of his treatment. After two months in the hospital, he was able to return home and take his treatment under the supervision of a midwife trained as a DOTS Plus provider. He was also visited once a month by the township's medical officer, who provided psychological support, encouraging him to finish his full course of treatment.

Despite experiencing difficult side effects including dizziness, loss of appetite, joint pains and a disorder of the thyroid gland, Min was successfully cured of MDR-TB in July 2011, after two years of treatment. He has reopened his shop, married a young woman from his neighbourhood and is living happily with his family.

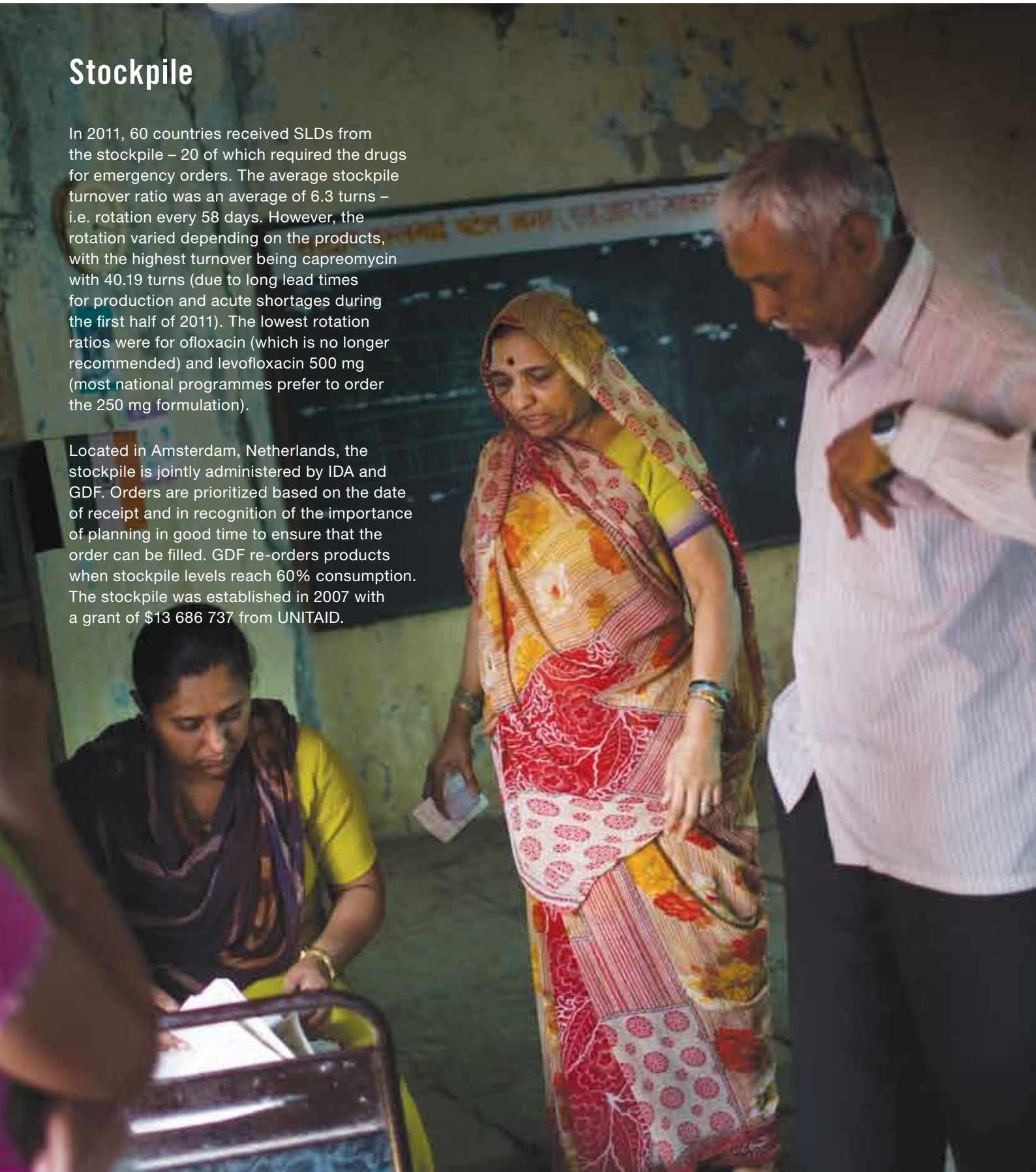
Green Light Committee

> "The 2011 framework aims at encouraging all countries to adopt international standards of MDR-TB management and decentralize to the regional level provision of services."

The Green Light Committee (GLC) was established in 2000 to enable access to affordable and high-quality SLDs for treating multidrug-resistant TB (MDR-TB). Until mid-2011, GDF was not permitted to procure SLDs on behalf of clients, unless prior review and approval had been given by GLC.

Given the slow enrolment of the people estimated to have MDR-TB among notified TB cases, key stakeholders supporting the expansion of MDR-TB services and care concluded in 2010 that a revision of the global framework that addresses MDR-TB diagnosis and management was needed. A shift in GLC from a controlling to a standard-setting body, making use of its current well-recognized brand and aiming at universal access to MDR-TB treatment was agreed on. The new framework, implemented in 2011, aims at encouraging all countries to adopt international standards of MDR-TB management and decentralize to the regional level provision of services to support scale-up of MDR-TB management. A major focus of the new framework is the building up of national capacity to plan, implement and monitor expanded MDR-TB services and care through increased technical assistance to countries.

As of July 2011, access to quality-assured SLDs through the GDF became open to all countries and no longer required approval by GLC.



Stockpile

In 2011, 60 countries received SLDs from the stockpile – 20 of which required the drugs for emergency orders. The average stockpile turnover ratio was an average of 6.3 turns – i.e. rotation every 58 days. However, the rotation varied depending on the products, with the highest turnover being capreomycin with 40.19 turns (due to long lead times for production and acute shortages during the first half of 2011). The lowest rotation ratios were for ofloxacin (which is no longer recommended) and levofloxacin 500 mg (most national programmes prefer to order the 250 mg formulation).

Located in Amsterdam, Netherlands, the stockpile is jointly administered by IDA and GDF. Orders are prioritized based on the date of receipt and in recognition of the importance of planning in good time to ensure that the order can be filled. GDF re-orders products when stockpile levels reach 60% consumption. The stockpile was established in 2007 with a grant of $13 686 737 from UNITAID.

Manufacturers' meetings

In 2011, GDF convened manufacturers' meetings in China and India. The meetings with manufacturers and all partners interested in TB served to galvanize attention on issues around quality assurance and procurement. The meetings additionally brought together stakeholders able collectively to address market dynamic problems with SLDs.

Both countries have the potential to make a global contribution to the TB drug market, but many challenges remain. The cost of obtaining prequalification to produce TB drugs is high, demand is uncertain and the small market for drugs – particularly to treat drug-resistant TB – makes it difficult for companies to turn a profit.

Priority actions highlighted at both meetings included consolidating demand for drug ingredients and formulations, increasing the number of patients put on treatment in order to reduce the price of drugs and reforming processes to make the market more attractive for manufacturers. The meetings represented an important step towards strengthening the capacity of China and India to produce quality-assured anti-TB drugs.

Key performance indicators (KPIs)

In 2011, GDF developed a series of key performance indicators. The indicators that will be used to measure performance in 2012 are presented in Annex 1.

Planning and supply chain management

Good planning ensures that quality goods can be delivered to the right people at the right price and at the right time. In particular, planning ensures that there are no stock outs and patients are not prevented from taking the medication that they need. Simply put, if countries fail to plan, they can plan to fail.

Figure 15 illustrates the supply chain management cycle, actors responsible and estimated time frames.

Stock outs were experienced in 14 countries in 2011: Burundi, Cape Verde, Central African Republic, Eritrea, Ghana, Kenya, Madagascar, Malawi, Mali, Nigeria, Rwanda, Swaziland, Tanzania and Uzbekistan. Monitoring mission reports suggest that poor planning, late disbursement of funds by governments and donors and manufacturing delays all contributed to these stock outs.
In 2011, Management Sciences for Health and GDF began collaboration on a project to implement an early warning stock out system that can detect stock out risk so that preventive action can be taken.

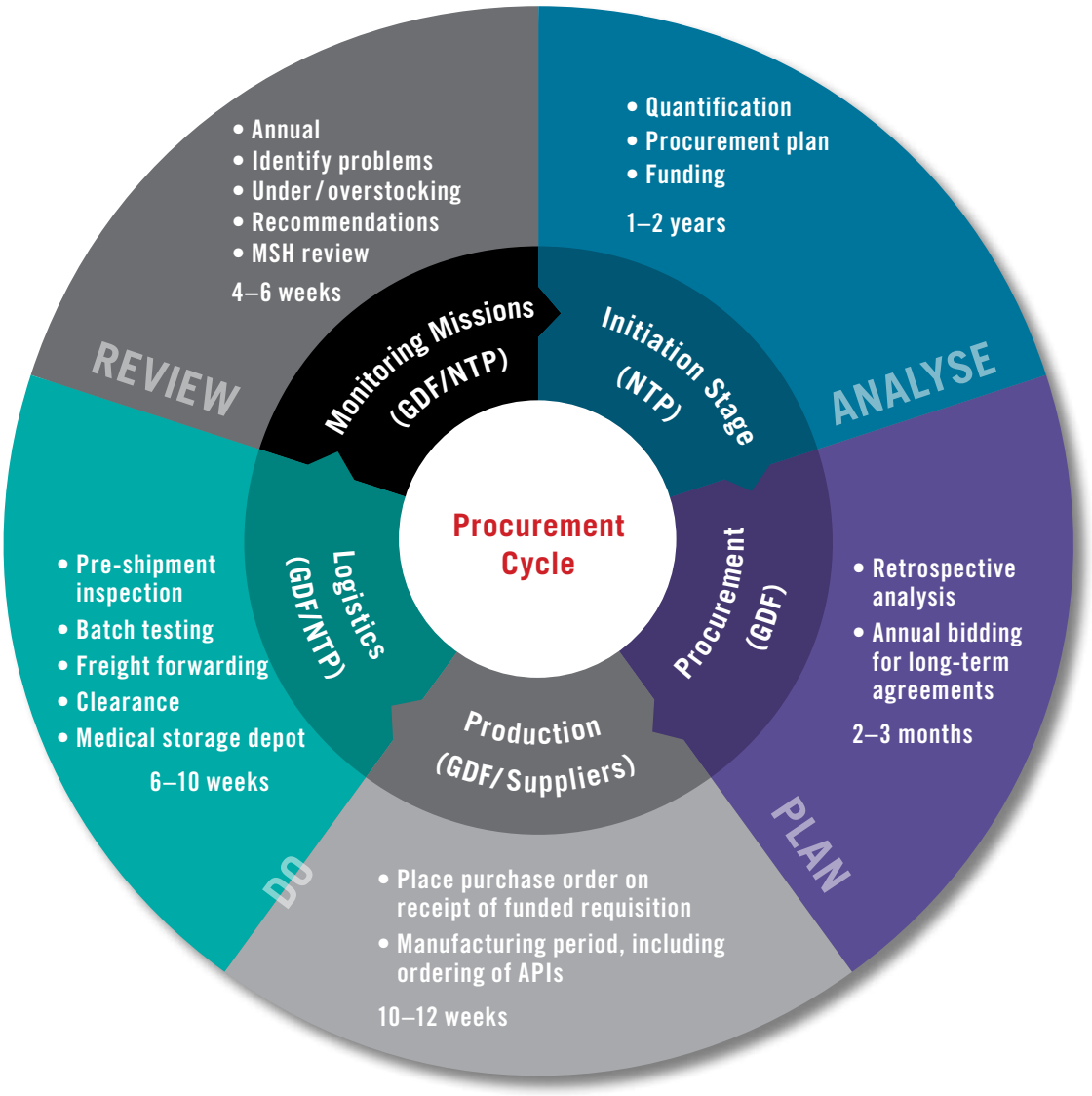


Figure 14 TB drug supply chain management cycle

Technical assistance

In addition to procuring FLDs, SLDs and diagnostics, GDF provides expert technical assistance in the form of monitoring missions, targeted technical assistance for specific drug management weaknesses and workshops on supply chain management. The number of countries and projects in the world that make use of GDF's technical assistance services and mechanisms continued to increase in 2011. GDF has successfully adopted a holistic approach to addressing immediate gaps in drug supply, while assisting countries in overcoming systematic problems and establishing long-term drug management capacity within drug procurement units of national tuberculosis control programmes and ministries of health. The annual monitoring and technical assistance missions form the cornerstone of this approach and contribute much to its success.

Monitoring missions

During 2011, 44 monitoring missions were conducted in as many countries (Annex 7). The objectives of the missions were to validate stock levels, assess overstocking and stock outs, follow up on Technical Review Committee recommendations and GDF terms and conditions, assist with planning for future requirements for Grant Procurement and Direct Procurement Services clients, and highlight challenges in the supply chain.

Workshops

GDF trained 30 warehouse managers on drug and supply management, including good storage practices, at the request of the Royal Government of Bhutan. A second workshop on strengthening procurement and supply chain management (PSM) for SLDs including 33 participants from 14 countries was organized by GDF and GLC in Colombo, Sri Lanka. As the result of the workshop, 12 nationwide PSM strengthening plans were developed for use by NTPs for donor funding proposals.

Annex 1 GDF Key Performance Indicators, 2012

High-level KPI	Detailed KPIs	Target
1.1. Number of manufacturers by product	Ratio of new eligible manufacturers awarded contracts per year	100%
1.2. Number of times emergency orders could not be met with stockpiles over one year	Deviation rate of forecasted versus actual annual volumes for FLDs and SLDs	+/- 20%
	Aggregated deviation rate of contractually agreed stockpile levels per supplier	+/- 10%
1.3. % of orders where the target lead time was achieved for emergency/routine orders	Average lead time from receipt of application to delivery of agreement to country for signing	< 5 days for Direct Proc Services < 20 days for Grants
	Average lead time from delivery of agreement to country to return of signed agreement to GDF	< 5 days
	Average lead time between receipt of country-signed agreement and request for price quote	< 3 days
	Average lead time between request for price quote and availability of price quote	< 2 days
	Average lead time between financial approval (grant)/receipt of funds (Procurement Services) and order placement	< 2 days
	Aggregated deviation rate of actual versus agreed lead time between order placement and order dispatch	< 10%
	Aggregated deviation rate of actual versus agreed lead time between dispatch and delivery at port	< 10 %
1.4. GDF price over time by drug	% of products for which best market price was achieved	90%
2.2. QA: % of products procured that are SRA or WHO PQ	% of TB products recommended by WHO that are available in GDF catalogue	100%
3.1. Number of monitoring missions performed in GDF-supported countries over one year	% of missions that did not fully meet the Terms of Reference	0%
	% of missions conducted by Stop TB Partners	> 80%
3.2. Number of TA (technical assistance) reports out of the number of monitoring missions per year	% of TA recommendations implemented	> 60%
	Ratio of TA needs shared with TA providers	100%
4.1. Composite index from 360° feedback	Average period vacant posts remain unfilled	< 120 days
	Ratio of skill gaps based on Team Leader assessment	5%
	% of skill gaps being addressed with training	100%
4.2. Staff retention/attrition rate	Number of sick days per employees	< 5 days/year
4.3. Ratio funding raised/required for GDF activities for staff, grants and operations	Funds required versus raised for GDF missions	100%
	Funds required versus raised for GDF grants	80%
	Funds required versus raised for administrative/operating costs	100%
4.4. Customer satisfaction score	Ratio of orders which are in line with country regimens	100%
	Number of deviations in routine maintenance of Order Management System	0%

Annex 2 Patient Treatments by Regions / Countries

Country	2011							
	FLD adult curative	FLD adult prophylaxis	FLD paediatric curative	FLD paediatric prophylaxis	All FLD curative	All FLD prophylaxis	All FLD curative & prophylaxis	SLD
Afghanistan	10 708		19 485	37 287	30 193	37 287	67 480	27
Armenia	3 653				3 653		3 653	99
Azerbaijan	1 550				1 550		1 550	940
Bangladesh	276 335				276 335		276 335	150
Belarus								93
Belize								
Bhutan								
Bolivia								17
Bosnia and Herzegovina								7
Benin	2 575				2 575		2 575	
Bhutan	2 396		266	123	2 663	123	2 786	
Botswana								153
Bulgaria								68
Burkina Faso			296	3 595	296	3 595	3 890	63
Burundi	5 107				5 107		5 107	
Cambodia	9 857		4 786		14 643		14 643	78
China								1 154
Cameroon			1 283	1 268	1 283	1 268	2 551	
Colombia								151
Cape Verde	411	464	24	76	435	540	975	
Central African Republic	14 354				14 354		14 354	
Congo	13 075				13 075		13 075	
Costa Rica								
Côte d'Ivoire	39 785		1 632	16 254	41 417	16 254	57 671	
Democratic People's Republic of Korea	134 890				134 890		134 890	
Democratic Republic of the Congo	42 945				42 945		42 945	138
Democratic Republic of Timor-Leste								11
Dominican Republic								41
Djibouti	3 786	7800	732	162	4 517	7 962	12 480	
Ecuador								119
Egypt								12
El Salvador								6

Country	2011							
	FLD adult curative	FLD adult prophylaxis	FLD paediatric curative	FLD paediatric prophylaxis	All FLD curative	All FLD prophylaxis	All FLD curative & prophylaxis	SLD
Eritrea	3 146				3 146		3 146	
Estonia								
Ethiopia			12 667		12 667		12 667	239
Fiji	290		72	184	362	184	546	
Gabon	4 995		836		5 832		5 832	
Gambia	2 382		90		2 472		2 472	
Georgia	18 034				18 034		18 034	680
Ghana			1 419	604	1 419	604	2 023	
Guatemala								17
Guinea	9 753				9 753		9 753	10
Guinea-Bissau								
Haiti	12 494				12 494		12 494	95
Honduras								
India	517 449		98 217		615 666		615 666	6 177
Indonesia								299
Iraq								50
Jordan								
Kazakhstan								2 071
Kenya			14 424		14 424		14 424	314
Kiribati			29		29		29	
Kyrgyzstan	9 559				9 559		9 559	232
Lao People's Democratic Republic	5 358				5 358		5 358	14
Lebanon	1 441				1 441		1 441	7
Lesotho	9 645				9 645		9 645	173
Liberia								
Libyan Arab Jamahiriya	4 628	1116	333	1 315	4 961	2 431	7 392	
Madagascar	53 090				53 090		53 090	
Malawi	27 462		5 792	317	33 255	317	33 572	
Maldives	400				400		400	
Mali	3 971	60	257	3 603	4 228	3 663	7 892	
Marshall Islands	308	52	71	218	379	270	649	
Mauritania			143		143		143	
Mexico								69
Mongolia	1 593		598	254	2 191	254	2 445	107
Morocco			2 526		2 526		2 526	50
Mozambique	58 179	30000	2 548		60 727	30 000	90 727	35
Myanmar								129
Nepal	28 767	2520	4 563	179	33 330	2 699	36 028	432

Country	2011							
	FLD adult curative	FLD adult prophylaxis	FLD paediatric curative	FLD paediatric prophylaxis	All FLD curative	All FLD prophylaxis	All FLD curative & prophylaxis	SLD
Nicaragua								10
Niger			440	1 476	440	1 476	1 916	
Nigeria	201 080		6 727	6 139	207 807	6 139	213 946	18
Pakistan	293 599		90	183	293 689	183	293 872	208
Papua New Guinea	28 500				28 500		28 500	
Paraguay								4
Peru								123
Philippines								1 702
Republic of Moldova								358
Republic of Serbia								14
Romania								83
Russian Federation								275
Rwanda	8 274	4000			8 274	4 000	12 274	63
Senegal	12 912		630	4 590	13 542	4 590	18 132	31
Sierra Leone	15 045		2 322		17 366		17 366	
Solomon Islands	480				480		480	
Somalia	24 995		361	259	25 355	259	25 614	
South Africa								
Sri Lanka	13 270				13 270		13 270	12
Sudan			3 490	7 763	3 490	7 763	11 254	
Swaziland								197
Syrian Arab Republic								1
Tajikistan			552	6 336	552	6 336	6 888	272
Thailand	638				638		638	43
The Former Yugoslav Republic of Macedonia	618		33	346	651	346	997	
Togo			182		182		182	
Tunisia	8 000				8 000		8 000	14
Tuvalu	35				35		35	
Uganda	673		76		749		749	
Ukraine								0
United Republic of Tanzania								3
Uruguay								1
Uzbekistan	26 850				26 850		26 850	1 256
Viet Nam								289
Yemen	13 775				13 775		13 775	
Zimbabwe								6
Grand total	**1 983 112**	**46 012**	**187 996**	**92 530**	**2 171 108**	**138 542**	**2 309 651**	**19 605**

Annex 3 Procurement by Supplier / Country

Country	Supplier	Product	Value ($)
Cyprus	Medochemie	Drugs	2 869 772
France	Panpharma	Drugs	65 028
Germany	B. Braun Melsungen	Consumables	226 497
	Bayer Europe	Drugs	972 574
	Fatol Arzneimittel	Drugs	3 225 912
	Hain Lifescience GmbH	Laboratory, miscellaneous	264 847
		Microbiological tests and test systems	344 725
		Mixers, shakers, stirrers	194 518
	Hain Lifescience GmbH Total		804 089
	TTM	Centrifuges	326 253
		Chemicals	154 741
		Disinfectants and cleaning	57 440
		Hoods, cabinets, workstations	402 214
		Incubators	81 350
		Laboratory, miscellaneous	1 231 408
		Meters	78 528
		Microbiological tests and test systems	5 204
		Mixers, shakers, stirrers	79 879
		Pipetting	502 989
		Plastic and glassware	23 550
		Sample collection and media transport	4 090
		Sterilization	139 446
		Tubes	315 952
		Weighing and analytical balances	9 577
	TTM Total		3 412 621
Greece	VIANEX SA	Drugs	518 443

Country	Supplier	Product	Value ($)
India	Cadila Total		580 977
	Cipla	Drugs	2 045 928
	Hindustan Syringes & Medical Devices Ltd	Consumables	276 048
	Lupin Total		17124301
	Macleods	Drugs	40 380 438
	Micro Labs Ltd (Brown and Burk)		174 503
	Micro Labs Ltd (Veerasandra)		40 424
	Strides Sandoz	Drugs	13 126 705
	Svizera	Diagnostics	1 983 398
		Drugs	4 189 649
	Svizera Total		6 173 047
Japan	Meiji Seika Kaisha Ltd.	Drugs	8 182 029
Latvia	Olainfarm	Drugs	1 266 863
Portugal	Labesfal	Consumables	420 259
Republic of Korea	Standard Diagnostics, Inc.	Microbiological tests and test systems	14 140
Spain	Becton Dickinson International	Consumables	25 721
	Reig Jofré	Drugs	3 230 544
United Kingdom	BD Europe	Microbiological tests and test systems	929 657
		Other	26 500
		Plastic and glassware	17 703
	BD Europe Total		973 860
United States of America	Cepheid SAS	Diagnostics	6 216 885
	Eli Lilly	Drugs	1 736 263
	Jacobus Pharmaceutical Company Inc.	Drugs	14 114 420
	The Chao Center	Drugs	29 000
	Akorn Inc.	Drugs	8 267 600
Grand total			**136 452 354**

Note: Figures are for the cost of products only and do not include the cost of freight, insurance, procurement agent handling fee, quality control and pre-shipment inspection charges

Annex 4 Procurement for Regions/Countries

WHO Region	Country	FLD ($)	MDR ($)	New diagnostics ($)	Total ($)
AFRO	Botswana		329 189		329 189
	Burkina Faso	256 025	170 813		426 838
	Burundi	141 299			141 299
	Cameroon			300 553	300 553
	Cape Verde	23 730			23 730
	Central African Republic	986 482			986 482
	Congo	370 120			370 120
	Côte d'Ivoire			17 452	17 452
	Democratic Republic of the Congo	245 423		827 510	1 072 933
	Eritrea	122 433			122 433
	Ethiopia	296 473	1 964 897	345 477	2 606 846
	Gabon	160 364			160 364
	Gambia	62 151		55 070	117 221
	Ghana	8 486	86 068		94 554
	Guinea	370 866	41 994		412 859
	Guinea-Bissau	34 277	26 213		60 490
	Kenya	260 505		156 092	416 597
	Lesotho		405 953	84 039	489 993
	Liberia		6 214		6 214
	Madagascar	1 421 649	22 536	214 055	1 658 240
	Malawi	1 167 415		578 685	1 746 100
	Mauritania	16 056			16 056
	Mozambique	749 687		314 424	1 064 111
	Niger	39 981			39 981
	Nigeria	8 670 263	285 231	319 143	9 274 636
	Rwanda	199 525	186 504		386 029
	Senegal	695 168	118 397		813 565
	Sierra Leone	497 736			497 736
	South Africa			256 404	256 404
	Swaziland	585 016	472 159	732 815	1 789 991
	Togo	12 564			12 564
	Uganda	36 732		340 835	377 567
	United Republic of Tanzania	3 468 421	25 590	191 398	3 685 409
	Zambia			300 260	300 260
	Zimbabwe			248 483	248 483
AFRO Total		**20 898 849**	**4 141 757**	**5 282 696**	**30 323 301**

WHO Region	Country	FLD ($)	MDR ($)	New diagnostics ($)	Total ($)
AMRO	Bolivia		92 234		92 234
	Costa Rica		4 945		4 945
	Cuba		31 681		31 681
	Dominican Republic	475 792	278 920		754 712
	Ecuador		255 841		255 841
	El Salvador		6 799		6 799
	Guatemala	666	36 127		36 793
	Haiti	371 067	781 520	66 927	1 219 514
	Honduras	3 189	73 419		76 608
	Mexico		88 785		88 785
	Nicaragua		17 383		17 383
	Paraguay		8 980		8 980
	Peru		1 654 743		1 654 743
	Uruguay		8 478		8 478
AMRO Total		**850 714**	**3 339 856**	**66 927**	**4 257 497**
EMRO	Afghanistan	1 080 023			1 080 023
	Djibouti	192 430			192 430
	Iraq	722 759	288 790		1 011 549
	Jordan		34 566		34 566
	Lebanon	62 470	11 739		74 209
	Libyan Arab Jamahiriya	201 586			201 586
	Morocco	62 503			62 503
	Oman	11 680			11 680
	Pakistan	7 365 344	1 071 763	77 008	8 514 115
	Somalia	730 397		91 617	822 014
	Sudan	107 339	199 143		306 482
	Syrian Arab Republic		26 366		26 366
	Tunisia	195 034	86 742		281 777
	Yemen	234 781			234 781
EMRO Total		**10 966 347**	**1 719 109**	**168 625**	**12 854 082**
EURO	Armenia	167 115	814 828		981 943
	Azerbaijan	109 159	4 093 052	298 121	4 500 332
	Belarus		3 582 944		3 582 944
	Bulgaria	33 281			33 281
	Estonia		245 588		245 588
	Georgia	531 084	3 276 764	364 995	4 172 843
	Kazakhstan		3 748 514		3 748 514
	Kyrgyzstan		2 567 563	716 714	3 284 278
	Republic of Moldova	302 576	2 149 343	887 009	3 338 928
	Republic of Serbia		67 227		67 227

WHO Region	Country	FLD ($)	MDR ($)	New diagnostics ($)	Total ($)
EURO	Russian Federation		15 769		15 769
	Tajikistan	66 901	3 296 652	167 507	3 531 059
	The Former Yugoslav Rep of Macedonia	33 917			33 917
	Turkmenistan	14 485			14 485
	Ukraine	974 352	835		975 187
	Uzbekistan	2 604 236	7 245 643	36 041	9 885 920
EURO Total		**4 837 106**	**31 104 722**	**2 470 387**	**38 412 216**
SEARO	Bangladesh	286 598	107 152	36 541	430 291
	Bhutan	97 487			97 487
	Democratic People's Republic of Korea	5 265 944	75 899		5 341 842
	Democratic Republic of Timor-Leste	6 439	45 421		51 860
	India	9 977 937	18 891 739	3 261 805	32 131 481
	Maldives	20 498			20 498
	Myanmar	878 965	1 256 786	106 598	2 242 350
	Nepal	1 058 970	1 348 000	358 345	2 765 315
	Sri Lanka	372 735	20 459		393 194
	Thailand		89 385	207 855	297 240
SEARO Total		**17 965 573**	**21 834 842**	**3 971 144**	**43 771 559**
WPRO	Cambodia	389 666	201 579	306 201	897 446
	China		10 520 827		10 520 827
	Fiji	18 551			18 551
	Kiribati	49 153			49 153
	Lao People's Democratic Republic	195 556	29 796		225 351
	Marshall Islands	32 195			32 195
	Mongolia	144 264	769 412		913 676
	Papua New Guinea	102 522		43 568	146 090
	Philippines	24 360	9 551 277		9 575 637
	Solomon Islands	29 485			29 485
	Tuvalu	5 873			5 873
	Viet Nam	1 014	2 078 275	585 415	2 664 704
WPRO Total		**992 638**	**23 151 166**	**935 184**	**25 078 989**
Grand total		**56 511 259**	**85 291 452**	**12 894 933**	**154 697 644**

Annex 5 GeneXpert Procurement by Country

WHO Region	Country	GeneXpert machines	Value ($)	Cartridges	Value ($)	Total value ($)
AFRO	Democratic Republic of the Congo	23	265 683	32 000	561 827	827 510
	Ethiopia	2	35 842	1 200	20 719	56 561
	Gambia	1	18 458	2 000	36 612	55 070
	Kenya	3	53 765	2 000	34 532	88 297
	Madagascar	3	53 846	9 000	160 209	214 055
	Malawi	8	148 751	24 000	429 934	578 685
	Mozambique	4	72 785	13 390	241 640	314 424
	Nigeria	6	110 375	11 800	208 768	319 143
	South Africa	3	53 324	11 520	203 080	256 404
	Swaziland	5	88 984	20 000	353 003	441 987
	Uganda	11	159 430	9 100	157 206	316 636
	United Republic of Tanzania	1	11 509	1 650	28 727	40 236
	Zambia	6	106 542	11 000	193 718	300 260
	Zimbabwe	4	59 087	10 530	189 396	248 483
EMRO	Pakistan	4	44 005	1 870	33 003	77 008
	Somalia	2	37 151	3 000	54 466	91 617
EURO	Kyrgyzstan	4	71 387	15 000	265 499	336 886
	Republic of Moldova	25	331 226	17 000	293 774	625 000
SEARO	Bangladesh	2	22 040	830	14 501	36 541
	India	2	34 698	3 000	51 618	86 316
	Myanmar	1	17 698	2 500	43 882	61 580
	Nepal	9	131 816	13 000	226 529	358 345
	Thailand	3	52 287	9 000	155 568	207 855
WPRO	Cambodia	4	71 345	13 470	234 856	306 201
	Viet Nam	5	67 162	3 000	51 544	118 706
Total		**141**	**2 119 197**	**240 860**	**4 244 610**	**6 363 807**

Annex 6 FLD Grants Approved by the Technical Review Committee

Countries reviewed by TRC in 2011	TRC meeting	Type of application	TRC decision	Patient treatment	Prophylaxis	Value ($)
Afghanistan	24 & 25	2nd term paediatric & emergency grant	Approved for paediatric & yellow light for adult	27 877	12 325	365 615
Bangladesh	24	2nd term paediatric	Approved	5 000	5 000	300 000
Burkina Faso	25	Emergency	Approved	4 142		150 000
Burundi	25	2nd term paediatric	Approved	390		25 000
Cambodia	ad hoc	Emergency	Approved	9 513	600	299 245
Cape Verde	25	2nd term, 3rd year adults & 2nd term paediatric	Yellow light for both	460	230	23 076
Central African Republic	ad hoc & 25	Two emergency grants and 1st term paediatric	Yellow light for adult and non-approval for paediatric	9 434		1 257 336
Democratic People's Republic of Korea	25	2nd term paediatric	Yellow light	7 000	1 000	350 000
Egypt	25	emergency and 2nd term paediatric	Approved	9 703	2 000	958 992
Guinea	25	2nd term paediatric and 2nd term, 3rd year adults	Approved	380		35 546
Jordan	24	2nd term paediatric	Yellow light	138	828	2 270
Kyrgyzstan	24	2nd term paediatric	Yellow light	690	1 654	20 247
Lebanon	24	2nd term paediatric	Approved	40	50	6 293
Lesotho	25	2nd term, 2nd year adult & 1st term, 3rd year paediatric	Yellow light for adult and approval for paediatric	11 168	780	1 683 744
Libya	24	Emergency	Approved	2 250	2 000	170 000
Madagascar	24	2nd term paediatric & emergency	Approved for both	28 680		538 784
Malawi	25	2nd term adults, paediatric monitoring	Under consideration for adult & yellow light for paediatric	26 336	600	1 134 963
Mali	25	1st term, 3rd year	Approved	268	1 000	32 447
Mauritania	25	Emergency & 2nd term paediatric	Yellow light for both	3 215		220 375
Morocco	25	2nd term paediatric	Approved	2 375		88 560
Mozambique	25	1st term, 3rd year paediatric	Approved	4 000	6 000	305 771
Myanmar	ad hoc	2nd term paediatric	Approved	33 000		1 041 980

Countries reviewed by TRC in 2011	TRC meeting	Type of application	TRC decision	Patient treatment	Prophylaxis	Value ($)
Pakistan	ad hoc	Emergency adults	Approved	151 036		4 905 445
Sri Lanka	24	2nd term paediatric & 2nd term adults	Yellow light for paediatric & green light adult	12 183	4 000	468 000
Sudan	24	2nd term paediatric	Yellow light	2 830	18 148	90 000
Sudan South	25	2nd term paediatric	Yellow light	3 383	24 000	262 935
Syria	25	2nd term adults & 1st term paediatric	Approved	3 787		246 924
Swaziland	25	1st term, 3rd year paediatric	Approved	1 990	3 000	87 545
Tajikistan	25	2nd term paediatric	Yellow light	700	5 000	55 656
Tanzania	ad hoc	2nd term, 3rd year adults & 1st term, 3rd year paediatric	Approved	68 649	5 196	849 862
Turkmenistan	ad hoc	1st term, 3rd year paediatric	Yellow light	282	1 500	84 425
Uzbekistan	25	2nd term adults & 1st term paediatric	Yellow light	20 330	9 422	990 870
Zambia	25	2nd term paediatric & emergency	Approved	10 000		756 365
Zimbabwe	25	1st term, 2nd year adults	Approved	48 000		1 451 382
Totals				**509 229**	**104 333**	**19 259 653**

TRC = Technical Review Committee

Annex 7 GDF Monitoring Missions

WHO Region	Country recipient	Mission dates
AFRO	Burkina Faso	23–27.05.11
	Burundi	06–10.06.11
	Cape Verde (Praia)	07–11.11.11
	Eritrea	07–11.03.11
	Ghana	03–06.05.11
	Guinea	06–10.06.11
	Kenya (Nairobi)	26–30.09.11
	Lesotho	11–15.04.11
	Malawi (Lilongwe)	07–11.11.11
	Mali	27.06–01.07.11
	Mauritania	25–29.09.11
	Mozambique	03–06.05.11
	Nigeria (Abuja)	14–19.11.11
	Rwanda	26–29.06.11
	Swaziland	08–12.08.11
	Tanzania	07–11.02.11
	Tunisia	19–23.09.11
EURO	Kazakhstan (Almaty)	10–14.10.11
	Kyrgyzstan (Bishkek)	17–21.10.11
	Moldova (Chisinau)	03–07.10.11
	Uzbekistan	16–25.05.11

WHO Region	Country recipient	Mission dates
EMRO	Afghanistan	24–28.07.11
	Djibouti	04–08.12.11
	Djibouti	18–22.04.11
	Iraq	26–27.03.11
	Jordan	28–31.03.11
	Lebanon	16–20.05.11
	Morocco	14–18.03.11
	Somalia (Nairobi)	08–11.10.11
	South Sudan (Juba)	03–07.10.11
	Sudan	14–18.08.11
SEARO	Bhutan (Thimphu)	19–23.12.11
	DPRK	19–23.09.11
	Indonesia	14–25.02.11
	Maldives	26–29.06.11
	Myanmar (Yangon)	07–15.11.11
	Thailand	26–30.09.11
WPRO	Cambodia	14–18.02.11
	Kiribati	29–3.03.11
	Laos	02–06.05.11
	Marshall Islands	08–12.08.11
	Micronesia	15–19.08.11
	Mongolia	02–06.05.11
	Papua New Guinea	14–18.03.11

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