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Health Policy Outlook

Do Aid Agencies Want to Know When Their Medicines Go Missing?

By Roger Bate

Lifesaving drugs donated by taxpayers to developing countries are being stolen, strengthening criminal gangs and undermining donor intent. More worryingly, some donors are not investigating this problem sufficiently; rather, they are moving ahead with programs that have the same inherent weaknesses, which may worsen the theft problem. The U.S. government should conduct an independent review of practices at donor agencies such as the Global Fund to Fight AIDS, Tuberculosis, and Malaria (GFATM) to ensure that drugs are used by those intended, rather than facilitating illegal parallel drug-distribution systems in recipient countries. The incentive structure should change so donors receive taxpayer funds only when they show that the drugs they buy actually reach intended patients in developing countries, not just government medical stores.

Aid agencies aim to do good; those providing medicines for fatal diseases literally save lives. But there is a constant tension between the desire to provide immediate help and the long-run dependence that develops. Recipient governments and the donors of the medicines become addicted to aid, since for many it is their livelihood. This means that agencies perpetuate aid even when they know it is not particularly effective.

Many aid agencies purchase medicines, some of them in significant amounts. Take malaria: in 2009, the U.S. government's President's Malaria Initiative (PMI) bought 29 million treatments. The Global Fund to Fight AIDS, Tuberculosis, and Malaria (GFATM) had acquired 90 million treatment courses for sub-Saharan Africa alone over the same period.[1] In other words, the two largest agencies annually procure about 120 million treatments of the best antimalarial medicines, primarily for use in Africa.[2]

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Donors intend that these 120 million treatments will reach people with malaria, especially

Key points in this *Outlook*:

- Drugs donated to developing countries are being stolen by criminal groups, which harms patients, encourages criminal networks, and probably leads to dangerous counterfeiting.
- Aid agencies do a poor job of assessing whether donated drugs reach those in need.
- The U.S. government should launch an independent investigation of the aid agencies U.S. taxpayers fund to estimate the size of the problem.
- Taxpayer funds should go only to agencies that demonstrate that donated medicines reach the intended recipients.

the poorest, who are unable to buy the best treatments. Inevitably, however, many drug-distribution systems are plagued by waste, delay, and theft. This is certainly true with lifesaving malaria medicines in the world's poorest countries. These problems are so severe that any short-term benefit from well-meaning donors could be outweighed in the long run by unintended, perverse outcomes.

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Assessing the Diversion Problem

Anecdotal evidence of diversion is rife. Free media, where they exist, report numerous examples of drugs not reaching their intended targets. Uganda, for example, found that in one district only 20 percent of antimalarials dispensed from clinics actually went to those with malaria. The other "patients" were speculators who hoarded the top-quality free handouts for future use or sold them to dealers.[3] Since most clinics do not have diagnostic tests for malaria, patients with fevers, especially children, are presumptively treated for malaria. Although there are numerous other causes of fever, malaria is usually the most lethal disease a doctor will see, and immediate treatment is considered the cautious approach. Patients know this, so some fraudulently claim malarial fever, demand treatment, and then sell the medicines in the private market.

The theft of medicines is also widespread in Uganda. According to Stephen Malinga, the Ugandan health minister, some drugs stolen from Ugandan government stores have been diverted to private pharmacies in Sudan.[4]

Numerous colleagues and I have been sampling drugs from pharmacies in Africa since October 2007. Based on these samples, we assessed the diversion problem in private pharmacies in eleven African cities. The decision to focus on pharmacies was based on practicality and budgetary constraints—pharmacies are visible, permanent, and accessible, which makes them easy and relatively cheap to survey. (It also makes them highly vulnerable to surprise raids, as an increasing number of purveyors of fake products are finding out.)

Our recently published study found that 6.5 percent of the antimalarial drugs in the private sector had been stolen from the public sector.[5] These medicines had been donated to stores and clinics and should have been available free of charge. Of the clinically superior, most expensive, and widely donated products, closer to 30 percent had been diverted from free clinics and government stores. The percentage of stolen drugs diverted from the public sector accelerated over the three years of study. During that time, some efforts were made to crack down on diversion.

GFATM. After our study was published, GFATM announced that it was conducting an investigation into medicine theft.[6] GFATM's regular audit reports highlighted product theft as a problem in 2008 and 2009, and the Secretariat received information in mid-2010 from pharmaceutical companies, government officials, and customs officers indicating that the problem warranted an investigation.[7] But as a funding agency, GFATM likely lacks the competence for a thorough investigation. GFATM requires help from the police and other security agents within each country, and if that is not forthcoming, its investigations are severely hampered.

Interpol. It is rumored that Interpol—the only international organization with a track record of coordinating action against pharmaceutical crime—will assist in the investigation. Even Interpol, however, relies on local security-agency support, since it is primarily a coordinating and data-gathering and data-dissemination organization. Sources familiar with GFATM say that Interpol's involvement might be disconcerting to the GFATM staff, since Interpol will undoubtedly find that GFATM's lack of oversight is at least partly to blame.

NAFDAC. NAFDAC, Nigeria's drug authority, is making good progress against pharmacists selling counterfeit or substandard medicines, and collaborative efforts among drug regulators, police, courts, and Interpol in the East African Community countries—where diversion of donated medicines is a major problem—have paid off. Operation Mamba III, conducted simultaneously in five countries during summer 2010, seized ten tons of counterfeit and illegally diverted medical products and led to more than eighty arrests of individuals suspected of involvement in the illegal manufacture, trafficking, or sale of such products.[8]

These successes have been highly publicized to deter other offenders. But those trading and selling diverted

products respond to incentives, and they alter their behavior to minimize the risk of detection, product confiscation, and arrest. In an October 2010 review of the pharmacies originally sampled in eleven cities, colleagues found diverted drugs in only one city (Nairobi), whereas eight months earlier nine cities were found to have diverted drugs. But diverted products are still readily available outside city pharmacies. Investigators addressing the problem now will find that the game has changed; much trade has been driven away from the previously lucrative and substantial market of urban pharmacies into informal or rural markets. My colleagues and I found diverted and counterfeit products at every street market in all six towns surveyed on both sides of the Benin-Nigeria border.

If my study, other research findings, and anecdotal reports of hundreds of different batch numbers of stolen products accurately represent the scale of diversion, out of the 100 million high-quality antimalarial dosages donated to Africa, approximately 30 million are diverted. About 20 percent of these drugs are diverted by those individuals who seek free treatments from clinics and then sell the drugs via private channels. More disturbing to taxpayers and humanitarians alike, the vast majority of diversion (80 percent, or 24 million treatments) takes place directly from government-run storage and distribution facilities—with the support of local government officials, or at least without their interference. Some of these stolen products find their way to the police, army, and other branches of government. With malaria poorly treated among the lower ranks and their families, diversion ensures ample high-quality supplies for military personnel. Some may be complicit in the trade; more accept drugs as payoffs for not preventing smuggling.

Donor Responses

The rhetoric of donors and recipients suggests that efforts would be made to curtail this illegal trade, but donors do not like to discuss bad news. While some individuals care enough to risk their jobs by talking, most lack the incentive to call attention to the problem.

It is easy to see why: no one suffers in the short run, other than patients (and taxpayers). Even though the drugs are stolen, the decision makers (donors, drug companies, recipient finance and health departments, and even some clinicians) all benefit from the current system. Financial incentives in drug companies, and career advancement in aid groups, are based on how much product is delivered, not how many lives are saved. Of course, product delivery and saving lives are linked, but international health aid programs have rarely monitored health outcomes—that is, whether their aid reduces disease. In fact, certain parties actually benefit more when orders have to be duplicated due to theft.

Given the lack of incentives to expose the problem, donor responses have generally been limited. Most do not publish any information about product theft. Some donors, notably PMI, publish audit reports and insist that the most egregiously corrupt recipients are removed or bypassed. When repeated thefts occurred from government stores in Angola, for example, PMI began using only bonded private warehouses.[9] Similar problems have occurred in Malawi, and PMI has indicated that it is initiating the same action there.

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GFATM has pressured recipients to punish those involved in theft. In October 2010, the Ugandan government upheld a hefty criminal conviction of a high-level official for embezzling Global Fund money, but as local media note, only low- and mid-level operators were sanctioned.[10]

GFATM also publishes audit reports; although more reticent than PMI, it is dealing more proactively with these problems than most other bilateral and multilateral donors. Unfortunately, public access to audits of such donors—the World Bank, for example—is rare and almost never makes a difference. Yet concerns over the misuse of grant money in several countries have led at least one donor (Sweden) to withhold funding from GFATM.[11]

Zambia is one example of the limitations of audits. A 2009 audit conducted by GFATM's Office of the Inspector General found that all the principal recipients of grant monies in Zambia (including two government ministries) have "shown evidence of significant financial management and control weaknesses, episodes of misappropriation and fraud."[12] It is a positive step that GFATM publishes this information, but it continues to work extensively in Zambia. Furthermore, it has not revealed the quantity of drugs diverted (unlike PMI) and gives

the impression that the problem is minimal.[13] If 30 million treatments are going missing, the vast majority are likely from GFATM donations, due to both the organization's quantity of donations and its lack of efficacy in combating diversion.

One reason GFATM has been less aggressive than PMI is that it was established to help poor countries manage their own drug-procurement and delivery processes. GFATM's approach follows the predominant international health policy goal of at least the past forty years: to assist poor countries in building the competence to deliver health care to their own people. Not only is this aim noble, it is also essential since no level of foreign assistance can, on its own, improve another country's health for an extended period. If the local health systems do not evolve, aid has little effect in the long run.

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While this is a sensible long-term strategy, in the short run drugs are being stolen, almost certainly with high-level political support—and consequently, not a great deal is being done about it. Some wish to return to the older, arguably more paternalistic, model of separate distribution systems to bypass the greatest corruption problem: African government officials. To a certain extent, this is what the U.S. government and PMI are doing in places like Angola.

The crux of the problem is that too many poor countries, and their identified drug recipients, are simply not capable of supervising drug delivery to patients. If GFATM's approach helps these countries move toward better health care delivery, one could make the case that the aid is worthwhile, even if only 20 percent of malaria drugs reach patients. But the aid system's culture of dependence hinders progress on that front, which makes even successful programs perform poorly over time.

A second problem is the rise of counterfeiting operations. Criminal groups will continue to gain a foothold as large-scale networks develop to distribute stolen and fake drugs. Kenya has already been named a "safe haven" for such cartels by the World Health Organization.[14] Evidence from countries in the Middle East indicates that what starts out as a smuggling operation can quickly become one devoted to the higher profits of counterfeiting.[15] With more counterfeit medicines comes the danger of increased drug resistance. Currently, the concern about drug resistance to the newest antimalarial products is confined to Southeast Asia (primarily Burma, Cambodia, and Thailand), but counterfeit antimalarials could easily bring the problem to Africa, with disastrous results. If that happens, patients will be without recourse to any effective drugs.

A third problem is not as self-evident—boredom and frustration among those within GFATM and other agencies. The entrepreneurs who started the organization established channels and raised funds to buy medicines for poor countries, and they garnered a lot of positive publicity as a result. It was exciting, and they loved the attention and the prospect of success. Sadly, the fun was short-lived. They or their successors subsequently encountered the difficult slog of maintaining funding every year, which requires that they report their programs' efficacy—often resulting in significant exaggerations. Reports, and especially projections about expected future performance, require a masterful sleight of hand because the organizations do not systematically gather performance data. Their arcane modeling exercises do not actually measure lives saved, just how many drugs are distributed. The systematic investigations that are undertaken find that many recipient countries are simply incapable of delivering drugs to the patients who need them.

The result is blind advocacy, which is surprisingly effective at raising funds, regardless of a lack of evidence of success in combating disease. The majority of those in Congress who recently supported increases in funding for GFATM have never pushed for a proper investigation of the efficacy of these disbursements. Most of the supporters—101 Democrats in the House of Representatives signed a letter of support—like the idea of supporting multilateral efforts like GFATM;[16] it is the mantra of the Obama administration to do more with multilateral partners. But it appears that neither the White House nor Congress actually wants to know that their chosen method—multilateral distribution of funds—does not work.

A secondary result is the increase in the *appearance* of performance. Two efforts adopted by GFATM spring to mind: health system strengthening and the Affordable Medicines Facility for malaria (AMFm).

Health System Strengthening. Although GFATM was established to fund commodities like pharmaceuticals, it

also funds health system strengthening in poor countries, partly because it belatedly realized that national systems are too weak to deliver the drugs they are providing. However, GFATM is not equipped to develop health systems; it has allowed its own mission to creep without the requisite competence to complete it. (Recall that it does not even attempt to properly measure whether its core mission is working.)[17]

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AMFm. GFATM backed and now runs AMFm, a financing mechanism for subsidizing high-quality malaria treatments in the private sector. AMFm is arguably a smart intervention in some locations, but GFATM does not have the competence to manage this either. It does not understand local markets (no one does, since they have not been properly investigated), and it relies on self-serving reports that show the system will work.[18] AMFm does not even address the question of product theft, and it barely considers the possibility of counterfeit AMFm products. It claims that special packaging will be used to identify its discounted products, failing to realize that counterfeiters copy packaging for a living and that AMFm packaging will be no exception.

GFATM and AMFm have publicly declared that they have no intention of showing whether the program's "pilot phase," costing hundreds of millions of dollars, has achieved its aim. In a recent article, the director of AMFm and the director of the strategy, performance, and evaluation cluster at GFATM wrote: "Expectations of attributable and rapid increases in measures of service delivery at the household level, which are neither new nor unique to AMFm, are inappropriate and unrealistic within the duration of the pilot studies."[19] In other words, taxpayers could subsidize another program that strengthens criminal networks, and no one will even measure whether it has a positive effect.

This position is in direct contradiction of the demands of the Global Fund Board. As one board member, who asked not to be identified, told me recently: "failure to provide evidence on whether there has been an increase in the use of good quality ACTs [the key antimalarial artemisinin combination therapy], including by the poorest two quintiles, will be a red line for many Board delegations."

Conclusion

Many lifesaving drugs are being stolen before they reach their intended recipients. Most donors, including GFATM, are reluctant to admit that this is a problem. The threat continues to grow, and if donors allow these practices to go unchecked, criminal groups will continue to gain a foothold as large-scale networks develop to distribute stolen and fake drugs. The long-run impact on the distribution systems and available medicines could be severe, especially if drug resistance spreads. It is hard to see how the GFATM aid model can work satisfactorily, given the lack of competence in many recipient countries.

The U.S. government should push for an independent review of practices at GFATM to ensure that drugs are used by those intended, rather than facilitating illegal parallel drug-distribution systems in recipient countries. We know that patients are benefiting from GFATM drug distributions, but criminals are also making money; we know taxpayer funds are being wasted, but we have no idea which of these forces is dominant. Do criminal networks, building over time, negate any short-run progress? We do not know whether major changes to the entire system or just minor tweaks are required, although given available evidence it is likely the former. The lack of measurement means we are largely relying on guesswork, and although that is fine for most aid-industry insiders, it perpetuates the dysfunctional status quo.

Kimberly Hess and Lorraine Mooney assisted with this Outlook.

Notes

1. Global Fund to Fight AIDS, Tuberculosis, and Malaria (GFATM), "World Malaria Day: 2010 Is Critical Year for Global Efforts to Defeat Malaria," news release, April 25, 2010, available at www.theglobalfund.org/en/pressreleases/?pr=pr_100414 (accessed October 22, 2010).

2. In this *Outlook*, I primarily deal with antimalarials, but it is clear that diversion and counterfeiting is a significant problem ranging across many types of therapeutic medicines.

3. Hamis Kaheru, "Shortage of Malaria Drugs Is Largely Artificial," allAfrica.com, September 21, 2010, available at

http://allafrica.com/stories/201009210515.html (accessed October 22, 2010).

4. Mark Honigsbaum, "The Killing Season," Al Jazeera, May 30, 2010, available at http://english.aljazeera.net/focus/2010/05/20105261374999817.html (accessed October 22, 2010).

5. Roger Bate, Kimberly Hess, and Lorraine Mooney, "Antimalarial Medicine Diversion: Stock-Outs and Other Public Health Problems," *Research and Reports in Tropical Medicine*, September 2, 2010, available at www.aei.org/paper/100136.

6. Talea Miller, "Global Fund Investigates Possible Theft, Sale of Malaria Medication," PBS NewsHour, September 4, 2010, available at www.pbs.org/newshour/rundown/2010/09/global-fund-investigating-possible-theft-of-malaria-medication.html (accessed October 22, 2010).

7. GFATM, Office of the Inspector General, *Audit Report on Global Fund Grants to Tanzania* (Geneva, Switzerland, June 10, 2009), available at www.theglobalfund.org/documents/oig/Tanzania_Country_Audit_Final_Report.pdf (accessed October 22, 2010).

8. Interpol, "East Africa's Operation Mamba III Bolsters Fight against Counterfeit Medicines with INTERPOL-IMPACT Support," news release, August 26, 2010, available at www.interpol.int/Public/ICPO/PressReleases/PR2010/PR065.asp (accessed October 22, 2010).

9. President's Malaria Initiative, "Malaria Operational Plan—Year Five (FY2010), Angola," available at www.fightingmalaria.gov/countries/mops/fy10/angola_mop-fy10.pdf (accessed October 22, 2010).

10. Josephine Maseruka, "Corruption Watchdog Hails Cheeye Conviction," New Vision, October 21, 2010, available at www.newvision.co.ug/D/8/13/735743 (accessed October 23, 2010).

11. Ann Danaiya Usher, "Defrauding of the Global Fund Gives Sweden Cold Feet," *The Lancet* 376, no. 9753 (November 13, 2010): 1631.

12. David Garmaise, "OIG Finds Serious Deficiencies in Performance of All Four PRs in Zambia," *Global Fund Observer*, no. 132 (November 2, 2010), available at www.aidspan.org/index.php?issue=132&article=1 (accessed November 2, 2010).

13. In the case of Zambia, we found stolen drugs from some of the same Zambian principal recipients in our peer-reviewed study.

14. George Omondi and Mwangi Muiruri, "WHO Names Kenya as Safe Haven for Fake Drug Cartels," Business Daily (Africa), November 10, 2010, available at www.businessdailyafrica.com/Corporate%20News/WHO%20names%20Kenya%20as%20safe%20haven%20for%20fake%20drug%20cartels/-/539550/1050938/-/jud3flz/-/index.html (accessed November 12, 2010).

15. Roger Bate, "Lessons from a Syrian Drug Bust," *Wall Street Journal*, April 28, 2010.

16. Letter to President Barack Obama from 101 Democrat members of the House of Representatives, July 27, 2010, available at www.results.org/uploads/files/global_fund_3_year_pledge_letter_to_president_7-29-10_final_with_list_of_co-signers.pdf (accessed October 28, 2010).

17. For a review of the problem of mission creep at the Global Fund, see Alex Shakow, "Global Fund—World Bank HIV/AIDS Programs: Comparative Advantage Study," prepared for GFATM and the World Bank HIV/AIDS Program, available at http://siteresources.worldbank.org/INTHIVAIDS/Resources/375798-1103037153392/GFWBReportFinalVersion.pdf (accessed November 30, 2010).

18. See, for example, GFATM, "Affordable Medicines Facility—Malaria," available at www.theglobalfund.org/documents/amfm/AMFmFAQs_en.pdf (accessed October 29, 2010).

19. Olusoji Adeyi and Rifat Atun, "Universal Access to Malaria Medicines: Innovation in Financing and Delivery," *The Lancet* 376, no. 9755 (November 27, 2010): 1869–71.