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The Challenges of Creating a Global Health Resource Tracking System

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Sponsored by the Bill & Melinda Gates Foundation
This research was sponsored by the Global Health Policy Research Network, a program of the Center for Global Development, sponsored by the Bill & Melinda Gates Foundation and conducted by RAND Health, a division of the RAND Corporation.

Library of Congress Cataloging-in-Publication Data
Eiseman, Elisa.
The challenges of creating a global health resource tracking system / Elisa Eiseman, Donna Fossum.
p. cm.
"MG-317."
Includes bibliographical references.
RA441.E375 2005
362.1'072—dc22
2005003666

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Published 2005 by the RAND Corporation
1776 Main Street, P.O. Box 2138, Santa Monica, CA 90407-2138
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Developing countries are facing enormous health problems, notably from infectious diseases such as HIV/AIDS, malaria, and tuberculosis, and lack of access to basic health care, clean water, adequate sanitation, and food. Recognizing the magnitude of these problems, governments, international organizations, for-profit corporations, and nonprofit organizations throughout the world regularly provide both cash and in-kind resources to developing countries to help them address their health needs. In addition, the Millennium Development Goals (MDGs), which call for a dramatic reduction in poverty and marked improvements in the health of the poor by the year 2015, have prompted increased political and financial support. Even so, much more remains to be done if the health needs of developing countries are to be adequately addressed and the MDGs are to be reached (United Nations, 2003, United Nations Development Programme, 2003).

While it is clear that serious resource gaps remain, the exact magnitude and structure of these gaps are ill documented. Furthermore, as health resources flow from ever more actors—including the governments of both developed and developing countries, international organizations, and the private sector—policymakers must have precise, real-time data on these flows in order to identify resource gaps, target assistance, avoid duplication of efforts, and track progress toward the MDGs.

Current Collections of Health Resource Data

A number of entities—including bilateral assistance agencies, multilateral and research/advocacy organizations, and governments of developing countries—are presently involved in significant efforts to track the flow of health resources to and/or within developing countries. We conducted an in-depth evaluation of these existing health resource data collections to determine how each one’s data are structured and to assess the extent to which they address the data needs of the global health community.

The data collections we evaluated represent significant efforts on the part of numerous entities to track the health resource flows to and within developing countries. Some of these data collection efforts have been ongoing for decades and were originated for specific purposes, such as long-term trend analysis, which they have served well. There are, however, significant gaps in the data and in the understanding of global health resource flows.

Currently, the available health resource data constitute a patchwork of information at different levels of aggregation and resolution and of varying quality and timeliness that falls short in meeting the needs of the many diverse objectives and organizations that require such data. Another problem is that many of these data collections focus exclusively either on the
health resources provided to developing countries by external sources ("external flows") or on the country-level resources expended on health ("domestic flows"); and the few that capture data on both of these essential elements tend to focus on no more than one disease (e.g., AIDS or malaria). In addition, information about the interface between external and domestic flows is lacking, which raises such critical issues as “additionality”—i.e., the degree to which external funds are truly additional to, rather than a substitute for, previously available domestic funds. And finally, many current data collections rely on labor-intensive collection techniques that require extensive planning and the skills of specially trained teams, which can prove burdensome to those providing the data and may be detrimental to the data’s accuracy and timeliness.

Because of these drawbacks, the existing data collections are of limited use in addressing key health policy issues, such as resource mobilization and allocation, for which they were not designed to serve. In sum, the collections are

- Not always sufficiently comprehensive
- Sometimes inaccurate
- Often lacking in timeliness and detail.

The result is that policymakers in developing and developed countries alike have no ongoing access to complete, accurate, up-to-date, detailed data on the resources being devoted to health in developing countries. And without these data, none of the parties trying to address the health problems of developing countries has the empirical knowledge required to answer a variety of questions and to inform policy decisions about health resource mobilization and allocation, strategic planning, priority setting, monitoring and evaluation, advocacy, and general policymaking.

Creating a Global Health Resource Tracking System

To provide an up-to-date, comprehensive picture of the health resources available to developing countries, the existing data collections would have to be improved or a new, less burdensome approach would have to be developed. Any new strategy for collecting current, comprehensive data on global health resource flows would have to (1) be designed for the express purpose of tracking global health resources, (2) include methods for collecting the most up-to-date information available (preferably real-time data, whenever available), and (3) rely on data fed directly from transactional sources so as to reduce (perhaps eliminate) the reporting burden placed on data contributors.

A truly global health resource tracking system would begin by identifying all health resources the moment they enter any one of the “streams” contributing to the worldwide flow of such resources and would then follow these resources through all of their “handlers” and “transformations” to the point at which they were finally “provided.” Specifically, such a data system would be able to annually identify and assemble information on all planned activities set forth in the budgets of all (including developing) countries and private entities around the world that were designed to address any of the health needs of any developing country. Then, as these planned activities were set into motion, the funds budgeted to pay for them would be tracked as they were first converted into obligations and then into actual
outlays/expenditures. The ideal health resource tracking system would seamlessly follow and integrate all cash and in-kind resource streams in real time without double-counting, and would do so without placing a reporting burden on any of the entities involved.

In short, a truly global health resource tracking system would

- Contain valid, detailed data (who, what, where, how much) on all health resources (cash and in-kind) provided last year (expenditures) and this year (obligations) and to be provided next year (budgeted) to all developing countries by all public and private entities in virtually real time without double-counting any resources.
- Impose on any public or private entity no more than a minimal burden in terms of its provision of the information needed to populate the system.
- Readily harmonize with and connect to the existing data systems of receiving countries and all donor entities.
- Be easily accessible via the Web and flexibly searchable by every data element in a variety of languages.
- Enjoy broad ownership, official buy-in, and use, with long-term support from a diversified funding base.

**Using Unobtrusive Measures to Track Health Resources**

Many global health resource tracking activities rely on information collected through surveys of government, nongovernmental organization (NGO), bank, foundation, organization, or corporate officials about the institutions for which they are responsible. While definitely of value, surveys have distinct limitations as data collection tools: (1) they typically are unable to filter out the subjective perceptions of respondents, and (2) they are “intrusive” and require the time and cooperation of respondents who will receive little, if any, benefit from their effort.

The use of “unobtrusive measures” is an alternative way to collect data that avoids these problems. The most common type of unobtrusive measure is the running record that a government or other entity creates as it conducts its routine business. And since the most common type of running record is a transactional record that memorializes an exchange of money, this approach is ideally suited for tracking the flow of resources among various entities.

Every entity that provides health resources to the world’s developing countries maintains records of the resources it provides each year and the recipients of such resources. In the developed countries, international organizations, and NGOs that provide developing countries with cash for purchasing health resources, these records are budgets and/or procurement and disbursement documents. In the entities that provide in-kind health resources to developing countries (e.g., pharmaceuticals), these records are product distribution and/or shipping documents. Once these resources are received by the developing countries and combined with the resources provided by the developing countries themselves, they can be tracked in-country using the internal disbursement and distribution documents maintained by the national, regional, and/or local governments, as well as by the international organizations and NGOs operating internally in these countries.
These routinely generated business records are the unobtrusive measures upon which a global health resource tracking system could, and indeed should, be based. There are two reasons for using these records: Running records are of unparalleled accuracy and cost nothing to collect, and piggybacking on these running records will ensure that the information in the system is virtually real-time data.

There are, however, limitations to the use of unobtrusive measures. For example, the task of accessing and linking data from different large, complex databases with disparate structures and formats can be quite challenging—especially when different countries and organizations have their own ways of organizing and/or maintaining records. In addition, such data are not always accurate, reliable, or valid: Definitions of terms may change from year to year without being noted, archival records can be subject to errors and changes in record-keeping procedures, and sometimes data are altered for political reasons. However, the data obtained through unobtrusive measures can be checked against information obtained from other sources to verify their accuracy (i.e., triangulation).

There are also other challenges associated with using unobtrusive measures. For example, developing countries that have few resources and little institutional capacity may not maintain centralized, electronic records of health resource flows. However, a significant number of countries with large populations and considerable health expenditures and needs (e.g., Brazil, South Africa, India) do have data systems that are likely to be sufficiently advanced for the use of unobtrusive measures to be feasible. In addition, some entities, such as private corporations and foundations, may be unwilling to share information they regard as proprietary. In contrast, information is usually accessible from public entities (e.g., governments, international organizations, NGOs), many of which are required to publicly report financial data. Several other factors can also make the collection and comparison of data from different countries challenging—for instance, different languages and currencies; diverse accounting practices, data collection procedures, and data gathering systems; and similarly structured health care systems.

In short, while it would not be a trivial matter to create and continuously update a global health resource tracking system that employs unobtrusive measures, it appears feasible to do so on a technical level. The open question is whether it is feasible on a political level.

**Conclusions**

Policymakers and the entities that are providing health resources to developing countries need better and more-reliable information for their decisionmaking. To supply that information, a comprehensive data collection strategy is needed, one that makes it possible to accurately show the resources being brought to bear by all parties—developing countries, developed countries, international organizations, corporations, and private nonprofit organizations—to combat disease and improve health in developing countries. Such a strategy cannot be created without a fundamental rethinking of how to track health resources on a global basis. Furthermore, given both the complexity of the problem and the general lack of data that are complete, accurate, up to date, and detailed, any workable solution is likely to require a great deal of cooperation and commitment on the part of the providers of health resources and the recipients of those resources alike.