Guide to Monitoring and Evaluating Health Information Products and Services



by Tara M. Sullivan, Molly Strachan, Barbara K. Timmons

Ward Rinehart, Editor



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Acronyms

ADRA Adventist Development and Relief Agency
AED Academy for Educational Development

AGI The Alan Guttmacher Institute

AIDS Acquired Immune Deficiency Syndrome

AIM AIDS Impact Model
AOL America On Line

ASRH Adolescent Sexual and Reproductive Health

BIOSIS Biosciences Information Service

CA Cooperating Agency

CCP Center for Communication Programs
CD-ROM Compact Disc Read-Only memory
CHBC Community Home-Based Care

COPE Client-Oriented Provider Efficient Services

CORHA Consortium of Reproductive Health Associations (Ethiopia)

DEC Development Experience Clearinghouse

DVD Digital Video Disc

EMBASE Excerpta Medica Database

FDA Food and Drug Administration (USA)

FGC Female Genital Cutting
FGM Female Genital Mutilation
FHI Family Health International

FF Family Planning
FS Field Support

GH United States Agency for International Development Bureau for Global Health

HC Host Country

HIPNET Health Information and Publications Network

HIV Human Immunodeficiency Virus
HTML Hypertext Markup Language

IEC Information, Education, and Communication

INFO Information and Knowledge for Optimal Health Project

IR Intermediate Result

ISI Institute for Scientific Information

ISP Internet Service Provider
IT Information Technology

IUCD Intrauterine Contraceptive Device

IUD Intrauterine Device

JHU Johns Hopkins University

JSI John Snow, Inc.

M&E Monitoring and Evaluation

MOH Ministry of Health

MOU Memorandum of Understanding

MSH Management Sciences for Health

NACO National AIDS Control Organization (India)

NGO Non-Governmental Organization
NHS National Health Service (UK)

OPRH United States Agency for International Development Office of

Population and Reproductive Health

OR Operations Research
PAC Postabortion Care

PAIS Public Affairs Information Service

PATH Program for Appropriate Technology in Health

PDF Portable Document Format
PLHA People Living with HIV/AIDS
PRB Population Reference Bureau

PRH United States Agency for International Development Office of

Population and Reproductive Health

PVO Private Voluntary Organization

RH Reproductive Health

STI Sexually Transmitted Infection

TA Technical Assistance

UNC University of North Carolina
URC University Research Co., LLC
URL Uniform Resource Locator

US United States

USAID United States Agency for International Development

USAID/W United States Agency for International Development/Washington

WHO World Health Organization

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Foreword

s demand for health resources in developing countries increases, it is imperative that high-quality information products and services flow to health care practitioners and policymakers responsible for improving public health.

What works? What doesn't work? What looks promising? Can these efforts be replicated elsewhere? How do you begin? How do you evaluate? Where does the emerging evidence lead? What is sustainable? Health information products and services must continue to communicate the answers to these and other such questions to audiences throughout the health sector. A successful health promotion intervention for women in Burkina Faso, for example, might well have a

Well-crafted information products and services help assure that project implementation and lessons learned reach others trying to achieve similar results.

great local impact, but an effective, timely, and accurate account of what makes it work communicated to the right people, in the right way, at the right time will ensure that its benefits spread well beyond Burkina Faso.

Well-crafted information products and services help assure that project implementation and lessons learned reach others trying to achieve similar results (efficient replication), that wasteful duplication is avoided, and that the next generation of health care providers has a comprehensive knowledge base on which to draw.

While effective face-to-face technical assistance by an experienced consultant often culminates in a successful activity, such consultancies are costly and by their nature narrow in scope. We must strive to make sure that the results of such efforts are multiplied and expanded through clear and concise information products and services—handbooks, guides, case studies, manuals, distance education courses, CD-ROMs, databases, Web sites, journals, and reports. As new information technologies come online and more and more developing countries have access to them, the danger of information overload is apparent. At the same time, once implemented, new technologies can help users access the exact information they are after with a minimum of time and expense.

For these reasons it is crucial that information products and services remain of the highest quality and reach their audiences in the most effective manner. The *Guide to Monitoring and Evaluating Health Information Products and Services* provides publishers, knowledge managers, program managers, M&E specialists, and health

information communicators with a standardized way to evaluate whether their print or electronic products and services meet the requirements needed to make them effective, used, and adapted by health care practitioners and policymakers in the field.

The 29 indicators in the Guide measure the reach, usefulness, and use, as well as the collaboration, and capacity building engendered through information products and services. The innovative "Conceptual Framework for Monitoring and Evaluating Health Information Products and Services" shows how they contribute to the initial, intermediate, and long-term outcomes of health

This Guide...brings together knowledge about monitoring and evaluating information products and services from dozens of health organizations.

development efforts—something which perhaps we all instinctively recognize but have failed to track in the past. Such a track record will go a long way to making information products and services an integral part of future global health development efforts.

What makes this guide special is that it brings together knowledge about monitoring and evaluating information products and services from dozens of health organizations—all members of the HIPNET community of practice. USAID thanks the many health professionals and organizations who contributed to the Guide and hopes this collective effort will help health care providers and policy-makers to better access relevant, accurate, and vital information in a user-friendly and efficient manner. We urge all those in a position to do so to make use of the Guide and to monitor and evaluate their information products and services. We also invite users of the Guide to provide feedback so that future updates will benefit from their experience.

Scott Radloff
Director, Office of Population and Reproductive Health
Bureau for Global Health, USAID

Preface

This guide results from a collaborative process involving members of HIPNET (Health Information and Publications Network) with expertise and interest in monitoring and evaluation (M&E) of information products and services. HIPNET is a working group that facilitates collaboration among organizations that provide information products and services in the field of international health. HIPNET member organizations address the key need for technical information on health, delivered through appropriate technologies that strengthen health care programs around the world.

Over the years members of HIPNET have discussed and exchanged ideas on how best to monitor and evaluate information products and services. Thus HIPNET members recognized the value of a resource that would describe key indicators and discuss methodological issues related to M&E of information products and services. As with other components of health services, it is important that those who produce and disseminate health-related information agree on how best to measure and demonstrate the effect of their work.

The Guide to Monitoring and Evaluating Health Information Products and Services has been produced to meet this need. The set of indicators presented in the Guide reflect the indicators that HIPNET members have used to assess the effect of their products and services. We do not expect that users of this guide will employ all of the indicators presented; rather, users can draw from the "menu" of indicators to apply those most relevant and appropriate to their work. Still, it is important to select indicators from every part of the conceptual framework, including indicators of inputs, processes, outputs, and outcomes (see pp. 4-5). By doing so, evaluators can trace the sequence of results and identify areas of weakness and strength.



Overview

Rationale and Objectives of the Guide

High-quality information products and services are essential components of public health programs. Accurate communication of emerging scientific and programmatic evidence and the practical assessment of its implications are vital to health care practitioners and policymakers, who can then apply this knowledge to improve public health. The information products and services of international public health organizations support technical assistance not only by transferring technical information but also by communicating best practices, evidence-based policies and guidelines, and innovative approaches to service delivery. Information products and services extend the reach of technical assistance programs far beyond what face-to-face technical assistance can accomplish.

Because resources available to improve global health are limited, it is becoming increasingly important for those who produce and disseminate health-related information and services to gauge the impact of their work. Indeed, information programs are often asked to demonstrate how their products and services "make a difference." However, while there are a variety of published M&E guidelines for other health program components (e.g., quality, logistics, management) and for health activities directed at specific populations (e.g., youth, men), few guidelines pertain specifically to assessing information products and services.

Consequently, the *Guide to Monitoring and Evalu*ating Health Information Products and Services was produced to:

- provide a core list of indicators to measure the reach, usefulness, use, and impact of information services and products in a consistent way;
- (2) improve monitoring and evaluation by simplifying the selection and application of indicators; and
- (3) define, standardize, and categorize indicators so as to promote agreement on their appropriate application and interpretation.

The Guide offers guidance and 29 indicators to measure how information products and services contribute to improving health programs. The Guide includes the "Conceptual Framework for Monitoring and Evaluating Health Information Products and Services" (see p. 4), which illustrates how improving the reach and usefulness of information products and services facilitates and increases their use—which in turn enhances public health policy and practice. Together, the elements in the Guide can help health professionals to better evaluate the contribution of their knowledge management work to crucial health outcomes.

Intended Audience

The intended audiences for this guide are program staff, M&E teams, and information professionals working in international health (e.g., publishing and communication professionals, information scientists, and specialists in electronic products). Such audiences can use the Guide to facilitate consistent measurement, enable organizations and projects to more effectively benchmark their achievements, and streamline reporting to donors

such as USAID. It can be used in other sectors as well as in international health.

Development of the Guide

The HIPNET Monitoring and Evaluation Subcommittee collected evaluation indicators and instruments from HIPNET members. The Subcommittee then compared, defined, and consolidated to arrive at a core list that can best measure the reach and effect of information products and services. Members of the HIPNET M&E Subcommittee organized the indicators into logical groupings and wrote, assembled, and edited the Guide. Reviews came from members of HIPNET, members of USAID's Office of Population and Reproductive Health (OPRH) Monitoring and Evaluation Working Group, other USAID staff, and other experts in M&E and information sciences. Developing the Guide in this participatory manner has yielded a set of indicators that reflect the needs of health information professionals.

Not only was the Guide developed with wide participation, but it has also been designed to respond to USAID's OPRH results framework. USAID's OPRH results framework includes three key intermediate results:

- IR 1.0: Global leadership demonstrated in family planning (FP)/reproductive health (RH) policy, advocacy, and services;
- IR 2.0: Knowledge generated, organized, and communicated in response to field needs; and
- **IR 3.0:** Support provided to the field to implement effective and sustainable FP/RH programs.

The specific links between USAID OPRH results and the indicators described in this guide can be found in Appendix 1.

Organization of the Guide

This guide organizes indicators into four major categories, each of which represents a specific type of measurement: (1) reach, (2) usefulness, (3) use, and (4) collaboration and capacity building. These categories are further divided into areas, which group similar indicators. Each indicator is described in detail, including a definition, data requirements, data sources, purposes, issues, and examples. (See Box 1 for key terms used in this guide.) Users of this guide can select indicators relevant to their specific needs.

Framework for Monitoring and Evaluating Health Information Products and Services

In recent years those involved in public health policy and professional practice have become interested in better understanding and facilitating the use of health information. Organizations providing health information products and services take a strategic approach to this work and have developed and applied conceptual frameworks specifically designed to achieve the goals of a particular project. Conceptual frameworks are useful tools to guide M&E efforts because they show how program activities lead to changes in behavior that in turn yield better health outcomes.

The "Conceptual Framework for Monitoring and Evaluating Health Information Products and Services (Overview and Detailed)" is one such framework. It was created to help its users better understand the pathways through which health information products and services inform policy and improve programs, practice, training, edu-

¹ In December 2005 the Johns Hopkins University Bloomberg School of Public Health, Center for Communication Programs (CCP) developed an operational framework to guide the production and dissemination of its information products. From that operational framework, CCP, with input from members of HIPNET, developed this more generic conceptual framework, which covers the provision of information products and services generally.

BOX 1

Definitions of key terms

Information product. A written or illustrated work made available (published) to more than one person at a time. Information products can be printed or online, CD-ROMs, computer software, audiovisual materials, or recordings (that is, they can be published in any print or electronic medium). Content can take the form of tools, protocols, procedures, manuals, research reports, syntheses of research findings and program experience, methodologies, guides, curricula, meeting and conference summaries and consensus statements, indices, and key actionable findings. They can be sold or distributed free through various channels, including mail, email, and Web sites. (See Appendix 2 for an illustrative list of types of products and publications.)

Network. A system of interconnected individuals or organizations that establish and maintain links through which they share information. Networking refers to the process of creating, developing, and maintaining these linkages. A similar, commonly used term for information networks is "knowledge communities."

Reach. The breadth and saturation of product dissemination. It describes the extent to which information is distributed, redistributed, and referred to by organizations and individual users.

Service. An effort undertaken by an organization to benefit a defined group or individuals that uses it at their election. Examples of information services include interactive tools such as searchable databases, online libraries, online discussions, and learning programs.

Use. What is done with knowledge gained from an information product or service. It is the way in which information products or services are absorbed and applied to institute or implement changes (NCDDR, 1996; Malchup, 1993).

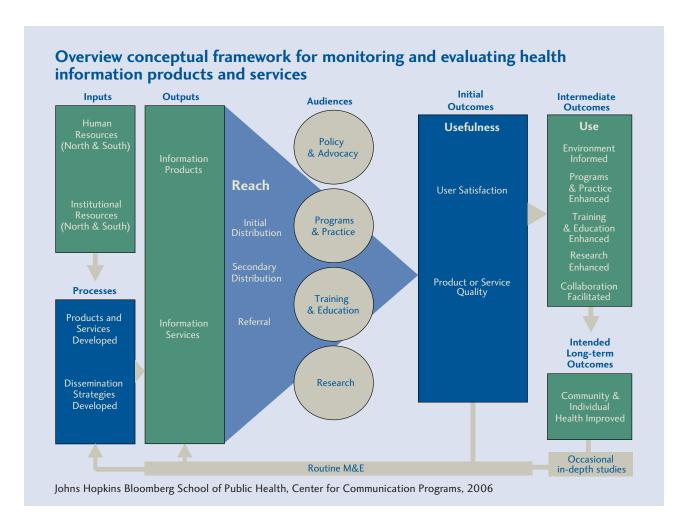
Usefulness. The quality of information products and services that is appropriate, applicable, and practical. Usefulness may include such aspects as user satisfaction, quality, innovation, and relevance.

User/audience/recipient. An individual or entity who receives information products and services.

cation, and research. The framework maps how inputs, processes, and outputs logically link to one another to reach outcomes at multiple levels (initial, intermediate, and intended long-term). The framework focuses primarily on the supply side of information programs, showing how inputs and processes contribute to effective information products and services. Some aspects of user demand also are captured through the M&E portion of the framework, where audience members' reactions and preferences and findings from indepth research feed back into product and service development.

Information products and services play an important supporting role and complement other public health activities such as those focused on service delivery, commodities and logistics, training, management, or policy development. Therefore, the outcomes in the framework are carefully phrased to convey that, while information products and services are an important and often necessary component of public health efforts, generally they work in concert with other activities.

There follow two versions of the Conceptual Framework. The first version provides an overview and

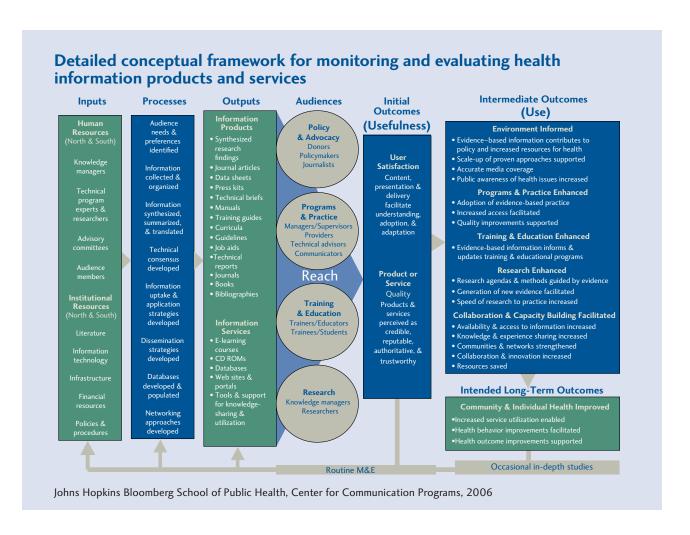


shows only the major headings. This version highlights the key indicator categories—reach, usefulness, and use. The second version provides more detail on the specific elements that make up inputs, processes, outputs, and outcomes at multiple levels.

The framework groups inputs, processes, outputs (Bertrand and Escudero, 2002), initial outcomes, intermediate outcomes, and intended long-term outcomes (United Way of America, 1996). The indicators in this guide address reach, usefulness, and use and are discussed below in relation to these framework categories. These categories are defined below (see first figure, above) and then each is discussed further in reference to the second figure (see p. 5):

► **Inputs:** all resources put into a project, such as human and financial capital, equipment, and facilities that enable a program activity to occur.

- ▶ **Processes:** activities undertaken to achieve a specific goal, usually using inputs; refers to how and how well an activity is carried out.
- ▶ Outputs: the products or services resulting from processes at the program level. These outputs reach audience members.
- ➤ Outcomes: the benefits for audiences during or after their exposure to a product, service, or program. Outcomes are at three levels:
 - Initial outcomes: the usefulness of information products and services as determined by audiences' satisfaction with and perceptions of the quality of products and services.
 - Intermediate outcomes: relate to use or adaptation of information products and services to inform policy, improve programs,



enhance training and education, and promote research efforts.

• Intended long-term outcomes: improvements in health condition or status that may be related to the exposure of health care providers and allied professionals to health information or products. Programs develop health information products and services bearing in mind how they will contribute to intended long-term outcomes such as improvements in service utilization, health behavior, and health status of the population.

Below, inputs, processes, outputs, and the three levels of outcomes are described as they relate to the detailed conceptual framework (see above).

Inputs. Projects providing information products and services start with inputs, which can be divided into

two main categories: human resources and institutional resources. Human resources are especially important in the provision of information products and services: as the second figure shows (above), knowledge managers (e.g., writers, research analysts, librarians) work with technical experts, researchers, advisory committees, and audience members to develop high-quality products and services. Institutional resources are also a crucial input. They range from "the literature" to management and administration and policy and procedures (e.g., donor and other institutional guidelines) that influence how partners and grantees conduct their work.

Processes. A number of important processes take place in the development of information products and services: audience members' needs and preferences are identified; health information is generated, collected, and organized; and information is synthesized, summarized, and translated. Health

information products and services are designed so that they facilitate use and application of their content. For example, publications often advise how evidence-based program approaches can be adopted and adapted to local contexts. Use and application of information products and services is further facilitated by:

- Illustrating the benefits of emerging evidencebased programs and practice;
- Relating new policy, programs, and research findings to existing practices;
- Providing clear steps for application;
- Providing examples;
- Facilitating exchange among policymakers, program managers, and researchers of experience with different approaches; and
- Suggesting simple ways to try these approaches.²

One key strategy of some information programs is to work together and with others to develop and disseminate technical consensus in a given health area. This process involves bringing technical experts together with the aim of developing guidance that is endorsed and adopted by the group and its collaborating partners. Other programs develop networking approaches to facilitate collaboration and information-sharing. And, of course, information programs develop strategies to disseminate information products and services to key audiences through a number of communication channels, ranging from mailing and shipping to the Internet and CD-ROM.

Outputs. The outputs are information products and services that may range from print and electronic publications to various types of information services such as searchable online databases. These products and services are developed to

reach one or more of the following audiences—those involved in policy and advocacy, programs and practice, training and education, or research. These key audiences are reached through primary distribution, secondary distribution, and referral. Indicators of reach included in this guide gauge the results of strategic dissemination to the audiences defined in the framework.

Outcomes. Outcomes—that is, benefits to the audience—may relate to knowledge, skills, attitudes, behavior, health condition, or health status. For a particular program, outcomes are expected at different levels. For the purposes of this guide, we define three outcome levels: initial, intermediate, and intended long-term outcomes.

Initial outcomes. Indicators of initial outcomes capture audiences' attitudes toward publications and services: Did the audience find the publication or service useful? Usefulness is largely determined by audience satisfaction with content, presentation, and delivery mechanisms and perceived quality of a product or services. More specifically, are audiences satisfied with the extent to which content, presentation, and delivery facilitate understanding, adaptation, adoption, or use? Do users feel that products and services are high-quality (e.g., credible, authoritative, trustworthy, and reputable)? Initial outcomes are comparatively easy to measure, if measurement takes place soon after the audience receives the information products or uses services. Publications and services that the audience deems "useful" are more likely to play a role in policy development or improvements in professional practice.

Intermediate outcomes. The perceived usefulness of information products or services in turn translates into intermediate outcomes, which broadly relate to improvements in service delivery. Such improvements resulting from use of information products and services may include enabling quality improvement and increasing access, supporting the

² This section draws from diffusion of innovations theory, specifically the discussion of how "perceived attributes of innovations" can influence the rate of innovation adoption (Rogers, 2003).

scale-up of proven approaches, helping to speed the application of research findings to practice, and contributing to efficiency. Intermediate outcomes are more difficult to evaluate than initial outcomes because users seldom adapt or use information to change the way that they do things (behavior change) unless there are other sources that add to, confirm, or endorse the knowledge presented. Such change in practice is usually the result of multiple factors and thus is difficult to attribute to a specific information product or service.

Intended long-term outcomes. Ultimately, information products and services can contribute to intended long-term outcomes, such as increased service utilization, improved health behaviors, and improvements in the health status of the population. This level of outcomes is included to show that information products and services play a supporting role in health outcomes, such as increased service utilization and improved health behaviors and health status. Measuring intended long-term outcomes is beyond the scope of most information projects due to the high resource investment required and the difficulty of attributing such outcomes to exposure to information products and services, since information products and services are often just one aspect of an array of health interventions and a host of environmental influences.

To complete the loop, data from routine **monitoring and evaluation** efforts and occasional, in-depth studies of intermediate outcomes are fed back into inputs, processes, and outputs, informing and improving the development and provision of information products and services. (See lower edge of both graphics.)

Use of Quantitative and **Qualitative Data**

In order to monitor and evaluate information products and services, evaluators may draw on quantitative and qualitative data. Quantitative and qualitative data are complementary, and both can be used to guide program improvements. While quantitative indicators are essential for measuring results and gauging impact (Bertrand and Escudero, 2002), qualitative indicators can provide a more nuanced understanding of results. In this guide some of the quantitative indicators can be enhanced by qualitative data, particularly those in the "Use" section, where indicators focus on documenting use and contextual information around reported use. While it is useful to obtain a sense of how much products and services have been used, it is also helpful to gather additional information related to the context in which the use took place. Such information can be applied to develop broader strategies that encourage application of information. Box 2 (p. 8) describes the information that should be included in a comprehensive description of qualitative results.

Relative Costs of Data Collection Methods

Sound research and evaluation require adequate resources—people, time, and funds. Guidelines suggest that M&E costs comprise between 3 and 11 percent of total project funds. In an uncertain and often changing funding environment, programs that provide information products and services are challenged to develop effective information products and services in an efficient manner and to achieve and to demonstrate results with limited resources. As shown in Table 1 (p. 9), routine monitoring activities are relatively low cost, whereas more indepth research efforts cost more. The table shows the relative cost (low, medium, high) of data collection methodologies that are typically used for M&E of information products and services.

Stories of successes with some of these data collection methodologies can be found in Appendix 3 (p. 40). Each success story describes the data collection methodology and its advantages and disadvantages. A separate discussion on Web usage statistics is included in Appendix 4 (p. 44). Each of the above methods has methodological limitations. For example, routine records may not be upto-date, readership surveys are subject to courtesy

7

BOX 2

Writing up a qualitative result

When writing up the achievement of a result, make sure to completely describe what occurred and why it is a result. Apply the basic tenets of good reporting by describing **WHO**, **WHAT**, **WHERE**, **WHY**, **WHEN**, and **HOW** in your description. Make sure that it is clear how your assistance/funding/help contributed to the achievement of the result. The description need not be lengthy, but it should be complete.

Here is general guidance in writing up qualitative results:

- **Who** used information? For example, **who** submitted the policy or plan for approval? **Who** approved the policy or plan? Who mobilized resources? Who are network members? **Who** developed or used curricula?
- What happened? For example, what is the new policy, practice, or approach, and what issues does it address? What amount or kind of resources increased? What advocacy campaigns took place? What kinds of courses were offered?
- Why is the event important? Describe the significance of the result and include other information as appropriate (for example, the first time an event occurred, a major increase in funding over previous levels, possibilities for future impact, or replication in other areas).
- Where did the result occur? (Mention country name, region/state, university/training program.)
- When did this occur? (Include month and year at a minimum and over what period of time.)
- **How** did the result occur? How is the result linked to your efforts and/or financial assistance? (Capture the essence of the work leading up to the achievement of the result.)

Adapted from: POLICY Project. "Project Design, Evaluation, and Quality Assurance Manual." Washington, D.C., Futures Group, POLICY Project, 2002.

bias (respondents answer questions in a socially acceptable way) and recall bias (respondents do not accurately remember past events), and research methods are vulnerable to various threats to validity, dependent on the research design.

One overarching challenge to monitoring and evaluating information products and services is the difficulty in identifying and contacting those who have received or should have received those products and services. Many program evaluations are focused on a geographically concentrated area, where a program intervention has been implemented and evaluators can use sampling techniques to draw a representative sample of the intended population. Information programs often serve audiences that are widely dispersed geographically, however. Thus, it is difficult to find out exactly who has received and used information products and services,

particularly if information products and services are shared widely with initial recipients' networks. While evaluating data from a representative sample of the intended audience would produce the most valid results, it is often a methodologically challenging and costly endeavor in the case of information products and services. Therefore, many programs favor readership surveys, even though results may be considered biased because those who already favor the product may be more likely to reply (Bertrand, 2007).

Summary List of Indicators

Table 2, on page 10, contains the summary list of indicators for assessing the provision of information products and services. Some of the indicators listed provide the user with the option of reporting a number or a percentage. Users of this guide

TABLE 1
Relative cost of data collection methods

	Low	Medium	High
Routine records			
Records of initial dissemination	x		
Records of materials requested	х		
Web use statistics	x		
Journal citation impact indicators	x		
Readership surveys			
Bounce-back questionnaires	x		
Online surveys	x		
Telephone surveys		x	
Individual interviews		х	
Focus group discussions		х	
Research			
Content analysis ³		х	
Examining use of information in specific work activities			х
Case studies			х
Comparison of interventions			х

Adapted from: Family Health International. "Evaluation on Impact of Publications/Dissemination." Research Triangle Park, N.C., Family Health International, 2006.

are given this option because reporting percentage requires a numerator and a dominator, and at times it may be difficult to determine the denominator. For example, when collecting and summarizing anecdotal evidence, it is not possible to know the total number of possible respondents. In other cases, for example, through survey results, it is quite easy to ascertain the total number of people who responded to the survey (the denominator) and the number of respondents with the characteristics required for inclusion in the numerator (for example, those reporting they are satisfied with a product or service).

A tool to assist health information specialists in developing useful products and services can be found in Appendix 5 (p. 46). An illustrative user survey that measures many of the indicators in Table 2 can be found in Appendix 6 (p. 47). In addition, HIPNET members ranked the relevance of many of the indicators to give users of this guide a sense of the degree of importance attached to each indicator. This ranking can be found in Appendix 7 (p. 49).

³ Content analysis is a term that describes a variety of approaches for drawing conclusions from communication resources (text, video, audio) (Bernard, 1995). It is used to count concepts and examine relationships among concepts in a text based on specific research questions.

TABLE 2 **Indicators for M&E of Information Products and Services**

No.	INDICATOR
	REACH
1 2	Area 1: Primary Distribution (Push) Number of copies of a product initially distributed to existing lists Number of copies of a product distributed by a publisher through additional distribution
3 4 5 6 7 8 9	Area 2: Secondary Distribution (Pull) Numbers of products distributed in response to orders Number of file downloads in a time period Number of times a product is reprinted by recipients Number of people reached by media coverage of the material or generated by it Area 3: Referrals Number of instances that products are indexed or archived in bibliographic databases Number of postings of products by other Web sites or links to products from other Web sites Number of instances that products are selected for inclusion in a library Percentage of users who share their copies or transmit information verbally to colleagues
	USEFULNESS
11 12 13 14 15 16	Area 1: User Satisfaction Percentage of those receiving a product or service that read or browsed it Percentage of users who are satisfied with a product or service Percentage of users who rate the format or presentation of a product or service as usable Percentage of users who rate the content of a product or service as useful Number/percentage of users who report knowledge gained from a product or service Number/percentage of users who report that a product or service changed their views Area 2: Product or Service Quality Number and quality assessment of reviews of a product in periodicals
18 19 20 21 22	Number and significance of awards given to a product or service Number of citations of a journal article or other information product Journal impact factor Number/percentage of users who pay for a product or service Number/percentage of information products or services guided by theories of behavior change and communication
	USE
23 24 25 26	Number/percentage of users intending to use an information product or service Number/percentage of users adapting information products or services Number/percentage of users using an information product or service to inform policy and advocacy or to enhance programs, training, education, or research Number/percentage of users using an information product or service to improve their own practice or performance
	COLLABORATION & CAPACITY BUILDING
27 28	Area 1: Collaboration Number of instances of products or services developed or disseminated with partners Number of instances of South-to-South or South-to-North information sharing
29	Area 2: Capacity Building Number and type of capacity-building efforts

PART.

Indicators That Measure Reach

Reach Indicators

No. 1 2	Area 1: Primary Distribution (Push) Number of copies of a product initially distributed to existing lists Number of copies of a product distributed by a publisher through additional distribution
3 4 5 6	Area 2: Secondary Distribution (Pull) Numbers of products distributed in response to orders Number of file downloads in a time period Number of times a product is reprinted by recipients Number of people reached by media coverage of the material or generated by it
7 8 9 10	Area 3: Referrals Number of instances that products are indexed or archived in bibliographic databases Number of postings of products by other Web sites or links to products from other Web sites Number of instances that products are selected for inclusion in a library Percentage of users who share their copies or transmit information verbally to colleagues

This section describes indicators that measure the reach of information products. "Reach" is defined as the breadth and saturation of dissemination, distribution, or referral of the product in both hard copy and/or electronic forms. The purpose of measuring reach is to quantify dissemination so as to inform the planning, promotion, and budgeting of current and future information products and services, and to improve management of product development and printing. Measuring reach also can provide valuable information on the extent to which products get into the hands of intended audiences.

Indicators for reach are grouped into three main areas:

- (1) **Primary** distribution of the product by the publisher,
- (2) **Secondary** distribution as a result of user-initiated requests or downloads, and
- (3) Dissemination through **referrals**, such as Web site links, workshops, or word of mouth.

Primary distribution refers to distribution directly from the publisher to the end user or to a secondary distributor. The end user could be a person or organization on a mailing list or a subscriber to a specific information product—for example, a quarterly magazine. A subscriber may pay for the product or may receive the product at no cost.

Secondary distribution is user-initiated distribution that occurs after the initial mass mailing or listserv announcement. (A listserv is an email mailing or discussion list.) In secondary distribution the user requests or downloads the material.

Primary and secondary distribution relate to the Push-Pull Model for information in the health field. The Push-Pull Model represents the contrast between organizations investing resources in assumed areas of need—push—and populations requesting certain products or services—pull. Indicators under primary distribution refer to the "push" or supply side of the information market. Indicators listed under secondary distribution refer to the "pull," or the demand side of the information market. There can be a slight overlap in "push" and "pull," as a user may initially request to be placed on a mailing list, suggesting more of a "pull" than a "push." After that initial "pull," however, future unsolicited distribution is considered "push." In addition, the result of publicity for publications is typically an increase in "pull," or secondary distribution.

Indicators in the third area of reach—referral—relate to various means through which people can find their way to information resources through Web sites, databases, libraries, word of mouth, and other channels.

Unlike the other indicators under "referral," the indicator "Number of instances that products are indexed or archived in bibliographic databases" relies on bibliometric research. Bibliometric data, as defined in *Journal Citation Reports*, are "quantifiable statistical data that provide a systematic, objective way to evaluate products and services and their impact and influence in the global research community." One common way of conducting bibliometric research in the field of public health is to use PubMed or similar archives or indices to trace citations. Another area of bibliometric research uses citation analysis to examine linkages among authors through their works. Bibliometric research enables evaluators to deter-

mine the impact of a specific study or author on other research publications. In a sense, bibliometric data reflect, in a single measurement, both the reach of a publication in the scholarly or research community *and* the perceived value and relevance of its content.

AREA 1:

Primary distribution (Push)

Primary distribution refers to distribution directly from the publisher to the end user or to a secondary distributor.

Indicator 1:

Number of copies of a product initially distributed to existing lists

Definition: This indicator refers to the first mass mailing to one or more existing lists (mailed to subscribers or to lists assembled for other purposes (e.g., trainees) or emailing to listservs, newsgroups, or individuals).

Data Requirement: Numbers of copies sent or numbers of recipients on mailing list, subscriber list, listserv subscribers, characteristics of subscribers (e.g., country of origin, type of organization, job type).

Data Source(s): Mailing list, subscriber list, listserv, class registration lists, conference or meeting attendee lists.

Purpose and Issues: This is one of the most basic indicators for measuring dissemination. While organizations continue to disseminate hard copies of products to institutional mailing or subscription lists, many organizations now enhance the scope of dissemination through electronic communication. For example, many organizations also use electronic forums to publicize or announce the availability of new products and to send electronic versions or Web links to potential users. Listservs present a challenge to evaluation because it may

not be possible to track the number of subscribers for a given listserv if the organization does not moderate the listserv.

Examples:

From July 1, 2005 to June 30, 2006, the INFO Project sent out a total of 342,103 copies of the *Population Reports* in English, French, and Spanish to subscribers on its mailing list.

In February 2002 the POLICY Project/Futures Group mailed 2,000 copies of "Reforming Operational Policies: A Pathway to Improving Reproductive Health Policies" to recipients on the Futures Group institutional mailing list.

Indicator 2:

Number of copies of a product distributed by a publisher through additional distribution

Definition: This indicator refers to distribution that occurs after the initial mass mailing. It is initiated by the publishing organization. For example, an organization may distribute selected products while carrying out technical assistance or e-learning activities, or at workshops, conferences, training sessions, and the annual meetings of professional associations.

Data Requirement: Number of copies, venue, and date distributed.

Data Source(s): Administrative records.

Purpose and Issues: This kind of secondary distribution (dissemination from the supply side) is important to track because it relates directly to the achievement of the goals of technical assistance, including capacity building. This indicator does not measure demand from users, but it does help track distribution that occurs in tandem with other, related events, which could have the effect of increasing the chances that the information will be understood and applied. This could also help build demand for the product.

AREA 2:

Secondary distribution (Pull)

Secondary distribution is further dissemination of products by the original publisher that may be either solicited or unsolicited. As an example of solicited requests, a note distributed to colleagues might request them to order products as needed. These orders would be specifically requested by the users. Similarly, finding a document when browsing the Web or conducting a database search and then downloading it is "pulling" information directly or indirectly from the publisher.

Indicator 3:

Numbers of products distributed in response to orders

Definition: "Orders" include any user-initiated method of requesting copies of a product, including telephone calls, email, mailing of an order form, online order form, requests to be placed on a mailing list, or asking a colleague from the publishing organization in person.

Data Requirement: Number of phone orders, emails, order forms, interpersonal requests.

Data Source(s): Administrative records; Web statistics; user surveys or questionnaires.

Purpose and Issues: Secondary distribution is an important component of reach because it measures demand and thus indirectly gauges perceived value, appropriateness, and quality. After primary distribution, requests result from learning about a product from the Internet, a library, a colleague, a flier, a listserv announcement, news release, review, index, bibliography, class reading list, etc. Recommendation of a colleague—"word of mouth"—is an effective form of publicity, especially when an organization can provide products to local, national, or international opinion leaders who can help further the reach of the product. This is a relatively easy indicator on which to collect information, at a low cost.

In some instances underreporting is an issue for this indicator, since secondary distribution cannot be tracked in its entirety. For example, it is not possible to count how many copies of the article, which was published in an open-access journal, are circulated among initial readers' colleagues.

Examples:

From July 1, 2005 to June 30, 2006 the INFO Project sent out a total of 41,597 *Population Reports* in English, French, and Spanish in response to requests.

Each year Horizons sends out an average of 500 copies of "Designing HIV/AIDS Intervention Studies: An Operations Research Handbook" in response to new requests.

Indicator 4:

Number of file downloads in a time period

Definition: "File downloads" refers to an Internet user's transfer of content from a Web site to her or his own electronic storage medium.

Data Requirements: Web server log files.

Data Source(s): Web server log analysis software (e.g., WebTrends®, Google™ Analytics, IBM® Surfaid, HitBox, StatCounter, ClickTracks, and NetGenius).

Purpose and Issues: File downloads captured in a Web server log file provide insight into the types of information products and topics of products that are used the most among those offered on a Web site. (A log file is a list of actions that have taken place.) Web site usage programs can also be used to get a general sense of which countries or regions and organizations are making most use of a Web site (see Appendix 4, p. 44). When linked to special events, these statistics also can help pinpoint which promotional events reach online audiences most interested in a topic: Web site activity will increase after a promotional event.

The Web server normally produces log files automatically, so the raw data are readily available. The Web server reliably records every transaction it makes. Furthermore, the data are on the organization's own servers. It is important to use caution, however, because Web site activity can also change due to unrelated events such as Web site upgrades, broken links, offline servers, and other problems. Also, log files contain information on visits from search engine spiders as well as from human users of the Internet. (A spider is code that automatically searches Web pages and fetches links to those pages.) Although visits by search engine spiders should not be reported as part of the human activity at the Web site, they are important information for search engine optimization of a Web site.

Switching log analysis software, as programs sometimes do for various reasons, limits the ability to assess trends, because different programs collect different information or define common terms in different ways. To address this problem, it may be feasible to use both old and new programs for a time and to compare the results, and/or to analyze historical data with the new program. However, while log file analysis is easy to conduct, it is often difficult to interpret (see Appendix 4).

Examples:

From January to September 2005, Family Health International's online *Research Ethics Training Curriculum* was downloaded 43,877 times in English, 21,013 in French, and 50,860 in Spanish.

In its first week on the World Health Organization's Web site, the entire 376-page file of *Family Planning: A Global Handbook for Providers* was downloaded 373 times.

Indicator 5:

Number of times a product is reprinted by recipients

Definition: "Reprinting by recipient" refers to an organization, other than the one that authored,

funded, published, or sponsored the product that uses its own resources to replicate the product or part of the product. For example, some users request permission to reproduce the entire product or a part of the product such as a graph, table, checklist, or chart. This indicator includes translations published by those other than the original publisher. Note: The initial print run and reprints from the original publisher are not included in this indicator.

Data Requirements: Requests for approval or permission to reprint, stating numbers reprinted. Copy of reprint or translation received over the transom.

Data Source(s): Letter, email, or other communication request or acknowledging, providing numbers reprinted. Receipt of product sent by publisher.

Purpose and Issues: Reprints demonstrate demand for the information products and extend the reach of a particular product beyond what was originally feasible. An added value of this indicator is that desire to reprint suggests an independent judgment that the product is useful and of high quality. One common form of republishing is inclusion of all or a large part of a text from another publisher in a set of training materials.

A limitation of this indicator is that the original publishers have to rely on what is reported to them or sent to them after reprinting, or that they happen across. It is not possible to know with certainty the extent of reprinting. (Some republishers think that they would not receive permission to reprint, and so they do not want to let the original publisher know.) Also, it may be difficult to find out the extent of dissemination and the use of the reprint.

Example:

In May 2004 ADRA International contained content from the Futures Group/POLICY Project's "What Works: A Policy and Program Guide to the Evidence

on Family Planning, Safe Motherhood, and STI/HIV/AIDS Interventions: Module 1: Safe Motherhood" in a training curriculum on reproductive health that includes a section on safe motherhood.

Indicator 6:

Number of people reached by media coverage of the material or generated by it

Definition: Media articles or supplements and radio/TV broadcasts on key issues that result from a given information product or service.

Data Requirements: Number and description of articles and radio/TV broadcasts; audience reach of media outlets.

Data Source(s): Media outlets, clippings, reports on broadcasts, reports from clipping services; media industry statistics (for information on audiences).

Purposes and Issues: This indicator provides information on the extended reach of an information product or service through mass media coverage. This indicator can include media coverage about the publication itself and coverage of the issue addressed by the publication, if the publication has sparked that coverage.

It may be difficult to capture all instances of media coverage, however, especially broadcasts. When a news-making report comes out, staff can be organized to monitor various news media outlets for coverage of the story.

Example:

Print media coverage of FHI's Cochrane Review on oral contraceptives and weight gain has reached as many as 19.5 million readers as of August 2007. Print coverage ranged from *Parents Magazine* and *Ladies Home Journal* to the *Daily Mail* and *The Times*. Millions more were reached through broadcast coverage.

AREA 3:

Referrals

Indicator 7:

Number of instances that products are indexed or archived in bibliographic databases

Definition: This indicator refers to selection of information products for inclusion in a bibliographic database. Examples of these types of databases include the National Library of Medicine's PubMED Central, BioMed Central, PAIS Index, POPLINE®, Social Science Citation or Science Citation, Medline/Index Medicus, EMBASE, Biological Abstracts/BIOSIS, and Scopus™. Databases such as USAID's Development Experience Clearinghouse (DEC) and other publicly available development-oriented databases are included in this category. Typically, databases record such bibliographic information as authors, journal citation, authors' abstract, links to full text, if available, and/or to related articles, and sometimes cited references. These databases enable their users to search by author, topic, journal, and other criteria.

Data Requirements: Search results of bibliographic databases (online and hard copy).

Data Source(s): Bibliographic databases (online and hard copy).

Purpose and Issues: As noted earlier (see p. 12), this indicator relies on bibliometric research through tracing of citations or citation analysis. Some of these databases, such as PubMed and BioMed, offer free access. (PubMed is the U.S. National Institutes of Health's free digital archive of biomedical and life sciences journal literature.) Others are available only by paid subscription. Results for this indicator may be underreported if evaluators do not subscribe to certain databases requiring a subscription.

Products from well-known, developed-country publishers are more likely to be indexed, because

publishers' selection of products is considered to be a proxy for quality when the selection process is competitive (as it is for major journals in the social, medical, and biological sciences). In other words, the reputation of publishers and their use of peer review often determine whether their products are indexed. In fact, some databases include articles from a restricted list of journals only.

Some listings of information products will have abstracts; others will not. It should be noted that abstracts included in databases are a means of secondary dissemination of content, while a link to the entire article is a referral. Some users may only read an abstract to obtain basic information and not read the entire article. Others may use databases solely to identify sources, which they then obtain in full. Evaluators using this indicator need to consider whether to track citations in bibliographic databases as secondary dissemination or referral.

Example:

In March 2006 Futures Group staff published an article in the journal *Science*. "The Global Impact of Scaling-Up HIV/AIDS Prevention Programs in Low-and Middle-Income Countries" was indexed in PubMed. ID# 16456039.

Indicator 8:

Number of postings of products by other Web sites or links to products from other Web sites

Definition: A "posting" is making the full text (for example, an Adobe® Portable Document Format (PDF) file of a product) available at a Uniform Resource Locator (URL) other than that of the original publisher. A "link" is providing the URL on another Web site that directs the users who click on the link to the original publisher's Web site. These links are created by a user of the information product or service, not by the original publisher of the product.

Data Requirements: Data from links analysis software programs or from a search engine. Inter-

net search engine to identify additional product postings.

Data Source(s): Links analysis software or a search engine or requests from users; findings from an Internet search.

Purpose and Issues: Links analysis looks at reach by measuring the numbers of Web sites linked to a Web site or specific product on a Web site. The number of links can be a proxy for authority—in other words, an indication that those who selected the links perceived the product to be of high quality and considered the site an authority on a particular subject. One program that conducts this analysis is called "link popularity" and can be accessed at http://www.linkpopularity.com/.

A simple Internet search with a search engine such as Google™ or Yahoo!® also will provide a list of links to the product other than the original publisher. The number of links found by a specific search engine reflects how thorough that search engine is. Search engines may not find a product that is not appropriately tagged (i.e., if keywords or metadata (information about particular content) do not appear in the right place).

Examples:

In August 2006 Pathfinder International's publication, "Preparing a Case Study: A Guide for Designing and Conducting a Case Study for Evaluation Input," was featured on the Communications Initiative home page for one week (http://www.comminit.com/#materials). In 2005 the Communications Initiative also featured Pathfinder's publication, "Preventing Mother-to-Child Transmission of HIV in Kenya." Both included links to Pathfinder International's Web site.

The WHO Web site hosts a downloadable copy of the PDF file of *Family Planning*: A Global Handbook for Providers at http://www.who.int/reproductive-health/publications/fp_globalhandbook/index.htm. It also offers a link to related resources at the INFO Project's Handbook Web site, http://www.fphandbook.org.

Indicator 9:

Number of instances that products are selected for inclusion in a library

Definition: This indicator refers to selection of information products of any type by a library or information center, whether it is public, academic, corporate, or organizational. The material may be purchased by a library in a developed country; sometimes developing country libraries can acquire materials at no cost or at a reduced price.

Data Requirements: Administrative data on the number of libraries receiving products.

Data Source(s): Administrative data.

Purpose and Issues: Selection of products for inclusion in libraries is a proxy measure of quality as well as reach, since librarians choose publications that they determine will meet the needs and interests of library users and that are worth the costs of acquisition, accessioning, and shelf space. Such judgments can be based on factors ranging from the reputations of the authors and the publisher to the presence of features such as indexes and bibliographies. Published reviews often influence librarians' choices, too. Using similar criteria, librarians may also select materials for inclusion in bibliographies or resource lists. For example, a library Web site may recommend other sites as good sources of information on selected topics.

At the same time, publishers send products to libraries unsolicited, and the librarians then decide whether or not to include them in the library's collection. It is difficult to know what librarians decide in these circumstances. In resource-poor settings librarians may opt to include in the collection all materials they receive, regardless of quality.

The definition of a library should be agreed upon at the outset when using this indicator. What is called a library varies greatly even within a country. Defining terminology in advance will ensure that the data collected remain comparable.

Examples:

Between June 2006 and July 2006, five Pathfinder International publications were incorporated into the Southern Africa HIV/AIDS Information Dissemination Service (SAfAIDS) Library: HIV/AIDS Fact Sheets; "Monitoring & Evaluation Guides on Preparing a Case Study;" "In-Depth Interviews;" "Mystery Client Interviews;" and "Mapping CHBC Services in Five Regions of the Tanzania Mainland."

IUCD Method Briefs: A New Look at IUDs, published by FHI in collaboration with the Kenya Ministry of Health, is available in Kenyatta National Hospital Library, Kenya MOH Division of Reproductive Health Library, and Moi University Library, as well as in resource collections of 23 Kenyan NGOs.

Indicator 10:

Percentage of users who share their copies or transmit information verbally to colleagues

Definition: This indicator suggests how information is transmitted from person to person. Transmission may be through sharing a copy with another person or by word of mouth.

Data Requirements: Name of product, number of copies shared, number with whom copies are

shared or number referred to the product.

Data Source(s): Focus group discussions, key informant interviews, returned surveys, or Web statistics.

Purpose and Issues: Because publications are often scarce in developing countries, there is much more resource sharing than in developed countries. Most publications have readership far exceeding the number of copies distributed. Numbers for this indicator may be estimates unless an organization has an in-office circulation list, in which case the numbers can be easily counted. In the absence of a list, publishers probably may not know about additional pass-along and thus may underestimate the actual number of readers per copy.

Web statistics programs can track how many times people have clicked on "send to a friend" buttons, which is an electronic equivalent of sharing a print copy.

Example:

In Pathfinder's Packard Adolescent Sexual and Reproductive Health (ASRH) project, 70% of Philippine survey respondents shared their materials with others in their office, while 95% disseminated materials to either local branches of their organization or other smaller NGOs.



Indicators That Measure Usefulness

Usefulness Indicators

No.	
	Area 1: User Satisfaction
11	Percentage of those receiving a product or service that read or browsed it
12	Percentage of users who are satisfied with a product or service
13	Percentage of users who rate the format or presentation of a product or service as usable
14	Percentage of users who rate the content of a product or service as useful
15	Number/percentage of users who report knowledge gained from a product or service
16	Number/percentage of users reporting that a product or service changed their views
	Area 2: Product or Service Quality
17	Number and quality assessment of reviews of a product in periodicals
18	Number and significance of awards given to a product or service
19	Number of citations of a journal article or other information product
20	Journal impact factor
21	Number/percentage of users who pay for a product or service
22	Number/percentage of information products or services guided by theories of behavior
	change and communication

Evaluators want to collect both qualitative and quantitative information about the usefulness of an information product to its users. In a way, usefulness is a proxy for perceived value of a product or service. Usefulness indicators help rate the customer's satisfaction with the product. This type of measurement is important because it can help information specialists design products that respond to the interests and meet the expectations of users. Thus, information specialists can facilitate the use of information, improving the uptake of content into policy, programs, and professional practice.

This part has two sections: user satisfaction and product or service quality. The indicators in Area 1, user satisfaction, measure how useful users

deem a specific product to be overall in providing needed information. The indicators in this section can help provide a sense of the intended audience's preferences as to the *presentation* of information as well as their perception of its *content*. Both are important to measure. For example, some users may not need a 200-page report but would appreciate instead a shorter summary of the report's findings and recommendations. Other audiences may need or want the entire text.

The measures of usefulness in Area 2, product or service quality, relate to users' perceptions of the quality of products and services in terms of authority, credibility, reputability, and trustworthiness. The indicators in this area include items such as number of times a product is cited in journals or other scientific materials. The assumption is that authors generally cite materials that they perceive to be credible and reputable (except in the less common case when they cite materials they wish to refute). Thus, the more useful, original, and authoritative a product is perceived to be, the more likely that it will be cited and used—other things, such as accessibility, being equal. This type of measurement is valuable for gauging the usefulness of scientific literature because it provides an evidence-based approach to assessing quality. This area also includes a quantitative indicator about payment for products, as a proxy for perceived value.

AREA 1:

User Satisfaction

Indicator 11:

Percentage of those receiving a product or service that read or browsed it

Definition: To "read" is to receive and comprehend messages in an information product or service. "Browse" is a term often used for online or electronic review of a product or service. It is used to describe how users move from place to place scanning the information contained in an online or electronic resource.

Data Requirements: Self-report from survey.

Data Source(s): User surveys distributed with the product or after a product has been disseminated (bounce-back questionnaires, online surveys, telephone surveys).

Purpose and Issues: This indicator provides critical information about whether a person who has received a product or service has actually read or browsed through it. Even if a publisher has evidence that a user was reached with an information product or service, it is important to verify that the user actually read it or browsed through it before determining the user's assessment of product or service usefulness.

Indicator 12:

Percentage of users who are satisfied with a product or service

Definition: "Satisfied" refers to a user's judgment of the adequacy of a product for that user and, therefore, measures perceived quality. Satisfaction reflects the user's perception of the performance of a product or service. Satisfaction is an overall psychological state that includes cognitive, affective (like/dislike), and behavioral response elements.

Data Requirements: Evaluators can measure attitude/satisfaction using a Likert scale—i.e., by asking users how strongly they agree or disagree with statements (usually, the respondent can choose among "strongly disagree," "disagree," "not sure," "agree," and "strongly agree").

Data Source(s): Feedback forms or user surveys distributed with the product or after a product has been disseminated (bounce-back questionnaires, online surveys, telephone surveys); interviews with users; focus group discussions.

Purpose and Issues: Users' perceptions are important because they govern users' decisions about what action to take with the information they have obtained. If the information source passes muster with the user, there is some likelihood the information will influence that user's actions. But if the user considers the information irrelevant or its presentation impenetrable, it certainly will not be applied. Users' opinions are often easier to collect than reports of actions taken. Therefore, this indicator often must serve as a rough gauge of the likelihood that the respondent makes use of the information.

To understand users' applications of, experiences with, and the impact of products, evaluators may need also to conduct in-depth interviews or focus group discussions with selected users.

Example:

When queried on their satisfaction with different aspects of *The Pop Reporter* (n=512), 94% of respondents strongly agreed/agreed that they were "satis-

fied with the frequency of the publication," and 93% strongly agreed/agreed that they were "satisfied with the amount of headlines and links in each issue." Also, 83% strongly agreed/agreed that "the variety of subject categories in *The Pop Reporter* meets my needs."

Indicator 13:

Percentage of users who rate the format or presentation of a product or service as usable

Definition: "Usability" applies to the design features or presentation of a product or service. For Web sites, this indicator can include information on the navigability of the information architecture.

Data Requirements: Evaluators measure attitude/satisfaction, often using a Likert scale to gauge reactions to statements related to writing style and design features, organization of the information, ease of finding information, etc. Using a Likert scale allows respondents to rate statements along a continuum (1 to 5, for example, where "1" is "strongly agree" and "5" is "strongly disagree").

Data Source(s): Feedback forms or user surveys distributed with the product or after a product has been disseminated; focus group discussions; observation (user testing).

Purpose and Issues: This indicator is intended to provide an overall assessment of how practical readers found a product or service. Format and presentation largely determine practicality. To assess how usable a product or service is, it is helpful to conduct user surveys several months after a product or service has been disseminated, so that users have time to put the product to use.

For online products accessibility and connectivity are important aspects of usability. Consequently, it is important that products delivered via the Internet are specifically designed for those who have low bandwidth (for example by limiting the use of large graphical elements). In addition, it is important to present information in multiple

formats (for example, offering text transcripts of audio clips or presenting multiple formats such as Microsoft® Word, PDF, and HTML).

For Web sites, this indicator encompasses whether the organization of a Web site enables a user to find relevant information quickly. Usability testing should be a step in product design. Since the audience's experience with online resources generally will affect responses, it is important to test with members of the intended audience if at all possible, as well as with staff and colleagues. Usability testing also can be an element of monitoring and evaluation.

What has been seen with Web users may well be true for users of print products as well—that what users say about their perceptions of usability may not coincide with their behavior. Observation of people using a Web site helps overcome this discrepancy. A simple equivalent for print reference materials is to ask audience members to find some specific information in the reference and then to observe if and how they locate it.

Example:

In a user survey conducted in 2002 (n=2854), 83% of the respondents rated the layout and design of *Population Reports* as good or excellent.

Indicator 14:

Percentage of users who rate the content of a product or services as useful

Definition: "Useful" here reflects the relevance and practical applicability of the content of a product as perceived by the respondent.

Data Requirements: Responses to questions such as "Was the topic(s) covered in the product interesting and useful to you?"

Data Source(s): Feedback forms or user surveys distributed with the product or after a product has been disseminated; interviews; focus group discussions.

Purpose and Issues: This indicator is intended to provide an overall assessment of how useful the content of a product is. It can suggest areas for improvement, which helps to guide product or service development. As with questions concerning usability, asking the question several months after dissemination can help obtain considered responses.

Example:

Readers of *The Manager* (n=282) ranked the publication as extremely or very useful (77%) or as useful or somewhat useful (22%).

Indicator 15:

Number/Percentage of users who report knowledge gained from a product or service

Definition: This indicator of usefulness gauges whether users feel that they have learned from an information product or service.

Data Requirements: Self-report in survey; anecdotal reports from users.

Data Source(s): Feedback forms or user surveys distributed with the product or service or after a product or service has been disseminated.

Purpose and Issues: Questions can be designed to gauge whether users learned something that they can apply to their work and whether they learned something that they have shared or plan to share with others.

In yes/no format, responses to this question usually are not sufficiently informative. It can be followed up with an open-ended request for the most important point learned or a checklist of topics areas.

Indicator 16:

Number/Percentage of users reporting that a product or service changed their views

Definition: This indicator gauges whether users' views, attitudes, opinions, or beliefs changed as a

result of the information in the product or service. Views may be a favorable or unfavorable state of mind or feeling toward something.

Data Requirements: Self-report in survey; anecdotal reports from users.

Data Source(s): User surveys distributed with the product or service or after a product or service has been disseminated.

Purpose and Issues: Questions about whether users changed their views following the receipt of information can help reveal whether the information was internalized and whether the new knowledge transformed the user in a significant way. Like questions about knowledge gained, questions about views need to cover what views changed and in what direction. People often act in ways that are compatible with their views. Consequently, those who are favorable toward the content presented are likely to adopt desired behaviors in the future (Bertrand and Escudero, 2002).

Example:

The Population Reference Bureau published *Abandoning Female Genital Cutting*, a report on the prevalence of the practice in Africa and examples of programs designed to end the practice. Readers were asked if and how the publication changed their views. The following are sample responses:

"It made me more determined to include FGM as a subject in our week-long trainings for traditional healers and birth attendants"

Coordinator, Community-based Health Promotion Program, HIV/AIDS Prevention and Control Unit, Dar es Salaam, Tanzania

"I was helpless in ways to stop FGC. Now I know that international organizations are concerned and provide support. I am convening NGOs in northern Ghana to form a network for FGM elimination."

Director, Community Welfare Foundation, Kumasi, Ghana "I thought it was impossible to change that culture, but after reading your [report], I have known the methods to employ to end the practice."

Reproductive Health Trainer, Ministry of Health, Bushenyi, Uganda

AREA 2:

Product or service quality

Indicator 17:

Number and quality assessment of reviews of a product in periodicals

Definition: "Reviewed" refers to a written assessment of a publication that is published in a periodical. "Periodical" may refer to a peer-reviewed research journal, an organizational newsletter, or a book review medium such as *Library Journal*.

Data Requirements: Information about the number of reviews that a product has received in a periodical and their assessment of the quality of the product.

Data Source(s): Tearsheets, offprints, or reports from periodicals; searches in periodicals.

Purpose and Issues: A positive review not only testifies to the quality of the product but also extends its reach by alerting the review's readers. A negative review may actually limit reach by discouraging orders.

Reviews are not easy to obtain, because publications usually must be sent to review media before they are published, and in most journals there is competition for the space allotted to reviews. In considering how well the review actually reflects the quality of the product, who wrote and who published the review need consideration.

Example:

In 2002 two MSH publications—Fees for Health Services: Guidelines for Protecting the Poor and Ensuring Equal Access to Health Services: User Fee Systems and the Poor—were each reviewed in Health Economics, 11 (2002): 181–82: "Taken together, these two publications provide a thorough and readable guide to an important area of health policy in developing countries. They are balanced on the advantages and disadvantages of user fees, and eminently practical."

Indicator 18:

Number and significance of awards given to a product or service

Definition: Awards are defined as formal recognition of the quality of a product by an independent external source that selects the product in a formal or implicit competition.

Data Requirements: Notification that an award has been received, name of award, source of award, feature of product or service that is receiving recognition (e.g., design, content).

Data Source(s): Communication, such as a letter, from the agency or organization making the award.

Purpose and Issues: Sources of awards include the Society for Technical Communication, the National Association of Government Communicators, and the Population Institute's Global Media Awards. Thomson Gale publishes an international directory entitled *Awards, Honors and Prizes*.

An award may be made for content, design, dissemination, impact, or other features of an information product. In terms of value, the significance and degree of competitiveness of an award should be considered. For example, it is much more difficult to earn a Pulitzer prize than an honorable mention in a design competition.

Example:

In 2006 the INFO Project won two awards for its Web site http://www.infoforhealth.org. The Web site won the Web Marketing Association's 2006 WebAward for Outstanding Achievement in Web site Development and the 2006 Spring/Summer World Wide Web Health Award.

Indicator 19:

Number of citations of a journal article or other information product

Definition: This indicator is used to count the number of times a journal article or other information product (such as a book) is referenced in other information products.

Data Requirements: Data from citation studies or *Journal Citation Reports—Science Edition* (ISI) and *Journal Citation Reports—Social Sciences Edition* (ISI).

Data Source(s): Citation studies; Web search engines; citation indexes. Internet search engines such as Google™ can provide partial information on the number of times a publication is cited online. Citation reports are costly but easy to obtain.

Purpose and Issues: This indicator is a collective measure of the perceived authority and quality of a scientific publication in the research community. The more useful a publication is to those who publish other scientific articles, the more it is cited.

A limitation of indicators based on citation counts is that they do not apply to all types of information products but only to published scientific literature, where influence in the scientific community is a goal and a sign of success. For many information products (e.g., a database, a curriculum), influence in the scientific community is not a goal. Citation counts would not measure whether such a product had achieved its purposes.

Even when influence in the scientific community is a goal, authors in developing countries often face the well-known biases and other limitations that make it difficult for them to make their work known to others in the scientific community. A related limitation is that many relevant journals published in developing countries are not included in some widely used databases such as MEDLINE.

Example:

As of 2004 MSH's *Managing Drug Supply* (1997) had been cited 10 times in the following publications:

Annals of Tropical Medicine and Parasitology, Health Policy, Health Policy and Planning, Journal of Clinical Epidemiology, Salud Pública de México, and Social Science and Medicine.

Indicator 20:

Journal impact factor

Definition: "The journal impact factor is a measure of the frequency with which the 'average article' in a journal has been cited in a particular year. The impact factor will help you evaluate a journal's relative importance, especially when you compare it to others in the same field (Institute for Science Information, 2000)."

Data Requirements: "The impact factor is calculated by dividing the number of current citations to articles published in the two previous years by the total number of articles published in the two previous years (Institute for Science Information, 2000)."

Data Source(s): *Journal Citation Reports*

Purpose and Issues: This indicator is an objective measure of the impact of a journal among writers of scientific articles, not that of a particular article in a journal. The acceptance and publication of an article in a journal with a high impact factor, however, is an indicator of the high quality of that article. In 2003, for example, the *American Journal of Public Health* had an impact factor of 3.363 (López-Abente and Muñoz-Tinoco, 2005), compared with an impact factor in 2004 of 38.570 for the *New England Journal of Medicine* and 21.713 for *The Lancet* (Eugene, 2005).

This indicator, calculated by *Journal Citation Reports*, needs to be used carefully, comparing journals with similar intended audiences. It can be used to compare journals within a field, such as public health. For example in the field of family planning, *Perspectives on Sexual and Reproductive Health* has an impact factor of 3.417 whereas *Studies in Family Planning*

has an impact factor of 1.311. A large circulation journal that covers a wide variety of topics, such as the *New England Journal of Medicine*, may have a high impact factor. That does not mean, however, that it reaches reproductive health program decision-makers in developing countries, for example, better than a highly focused publication reaching a small but well-targeted audience.

The impact factor calculation is necessarily based on review of citations in a defined list of major publications. These may not be the publications of the most importance to intended audiences or the most accessible to them.

Indicator 21:

Number/percentage of users who pay for a product or service

Definition: Payment is the exchange of money for a product.

Data Requirements: Number and type of users who pay for products.

Data Source(s): Sales records from the publisher or redistributors; sales receipts, feedback forms or user surveys distributed with the product or after a product has been disseminated.

Purpose and Issues: Many donor-funded projects disseminate information free upon request to users in developing countries or make it available to download from the Internet at no charge. A practical assessment of utility is determining what percentage of users do pay, will or would be willing to pay for a product and/or how much users do or would pay. Willingness to pay indicates that the product is of perceived utility and value. Of course, pricing affects willingness to pay but is not considered here, except to note that it may be appropriate to charge only the cost of production and/or shipping or to set prices to recover the unit cost of the product or to realize a profit so the funds can be used, for example, for reprinting.

Example:

UNC School of Public Health purchases 35 copies each semester of *Qualitative Methods for Public Health*— written by authors from Family Health International and published by Jossey-Bass—for graduate students in health behavior and health education courses.

Indicator 22:

Number/percentage of informaton products or services guided by theories of behavior change and communication

Definition: Theory helps to guide the creation of effective health messages. Behavior change and communication theory is used to design persuasive messages that will motivate audience members to adopt new behavior.

Data Requirements: Key messages and objectives of information products or services, behavior change or communication theory used.

Data Source(s): Information products and services, project records.

Purpose and Issues: Information products and services are intended not only to inform users about particular health issues, but also to persuade audience members to adopt new behaviors, whether personal behaviors that promote one's own health or professional behavior that promotes the public health. By using behavior change and communication theory, producers of information products and services can help ensure that they develop persuasive messages. Different types of behavior change and communication theories can inform the development of information products and services. Stage or step theories center on a set of phases that an individual passes through toward behavior change while models of behavioral prediction are centered on cognitive, emotional, and social factors that determine behavior performance or nonperformance (Fishbein et al., 2000; Kincaid, 2000). A tool that shows how writers can apply diffusion of innovations theory to their work can be found in Appendix 5 (p.46).

Diffusion of innovations is one example of a stage theory (Rogers, 2003). It describes two sets of processes: (1) dissemination of an innovation within a social system (what, where, and to whom) and (2) a decision process where individuals learn about, evaluate, decide, and adopt an innovation (how and why) (Kincaid, 2000). By addressing the attributes of an innovation, producers of information products and services can enhance the likelihood that an individual will try a new behavior. Information products, whether intended for health professionals or consumers, can be designed to incorporate these attributes:

- Relative advantage—demonstrating the benefits of certain practices or approaches over others—particularly of new practices over those of current practices;
- Compatibility—relating emerging policy and program and research practices to current practices;
- Complexity—providing clear steps for application;
- Observability—providing examples and models and facilitating the exchange of experiences among health professionals; and
- Trialability—suggesting easy ways to try these new practices (Rogers, 2000).

Other types of theory focus on a set of cognitive, emotional, and social factors that determine behavioral performance or nonperformance, rather than a set of stages or steps that individuals

pass through as they try to change their behavior (Fishbein et al., 2000). In 1991, scholars agreed upon a list of eight variables or factors that are the best determinants of behavior at a workshop sponsored by the National Institute of Mental Health (Fishbein et al., 2000). At the meeting the group identified a total of eight variables: three direct causes of behavior (intention, skill, environmental constraints) and five indirect causes (attitude, norms, self-standards (image), emotion, and self-efficacy). The latter indirect causes are expected to influence behavioral intentions, which in turn can affect behavior (Fishbein et al., 2000; Kincaid, 2000).

To facilitate behavior change, those developing information products and services can produce products and services that provide instruction, build skills, and promote new behaviors by increasing knowledge, altering attitudes, increasing self-efficacy, and promoting social interaction. Theories that address the eight variables discussed above include cognitive theories (e.g., Theory of Reasoned Action/Theory of Planned Behavior (Ajzen & Fishbein, 1975), Social Cognitive/Learning Theory (Bandura, 1977, 1986)), social process theories, and emotional response theories (Piotrow et al., 1997).

Content analysis is one method that can be used to evaluate the extent to which behavior change and communication theory has guided creation of an information resource. Content analysis is a term that describes a variety of approaches for drawing conclusions from communication resources (text, video, audio)(Bernard, 1995).



Indicators That Measure Use

Use Indicators

No. 23

Number/percentage of users intending to use an information product or service

24 Number/percentage of users adapting information products or services

Number/percentage of users using an information product or service to inform policy and advocacy or to enhance programs, training, education, or research

Number/percentage of users using an information product or service to improve their own practice or performance

Fully capturing the use of information products and services can be a challenge. While it is fairly feasible to track the reach of information products and services and even to assess how useful they are judged to be, it can sometimes be more difficult to gauge the application of information in short- or long-term user behavior, in programs, or in policies. Dissemination to an intended audience does not guarantee that information will be appreciated or applied. Similarly, even if information users indicate that they have learned something (see Indicator 15, p. 22), the timing and frequency of its application in a practical setting may be hard to observe (NCDDR, 1996; Malchup, 1993).

Use of information can be categorized as instrumental, conceptual, and symbolic. Instrumental use relates to use of information for a particular purpose, conceptual use describes use of information for general enlightenment, and symbolic use refers to information use for the purpose of supporting a predetermined position (Lavis et al., 2003). In this guide we use the general term "use"

to encompass all three types of information use. As part of a specific evaluation effort, an evaluation team may decide to better understand the nature of information use and so examine particular types of use—instrumental, conceptual, or symbolic.

Intention to use precedes use. Both are influenced by perception of usefulness (see Indicators 11–16, pp. 20–23). Measuring intention to use is important because it gives an indication of future use. When potential users are first exposed to a product or service, they may have a plan to use the product or service in the future, but they may not have done so yet.

Information can be used exactly as originally produced or can be adapted to fit users' needs and environmental context. Rogers notes that adaptation (also referred to as reinvention) can occur in order to simplify a complex innovation or to encourage local customization and application. Such reinvention can speed up adoption and enhance the sustainability of an innovation (Rogers, 2003).

To find out about use of information and outcomes stemming from use of information, a researcher can ask users or observe their actions. Asking those who have been exposed to information if they have applied the information products or services, how they have applied them, and what affect they have had is relatively straightforward. While courtesy bias or recall bias may be problems, in some cases the reported use or its result can be verified objectively.

In contrast, observing use of information and outcomes related to use is much more challenging. Determining what information resources were factors in generating a change in behavior or an improvement in clinical practice is difficult. Finding the causal chain and isolating the effect of a specific information resource usually are not practical. Indeed, the person or group taking the action (for example, a policymaker) may not know the source of information acted upon (as when an aide or a lobbyist argues for a proposed policy using information from the resource under evaluation). An exception is the case in which some unique "tag" (for example, a slogan or an acronym) from the information resource shows up as an integral part of the change in policy or practice. Sometimes such a tag can be designed into an information product or service expressly to make its effects easier to track.

Indicator 23:

Number/percentage of users intending to use an information product or service

Definition: "Intention" is a plan to put to use in the future the guidance, concepts, or data from an information product or service.

Data Requirements: Self-report from audience members on intention to implement changes in behavior or practice based on information from an information product or service, including identification of the product or service and the purpose, scope, and nature of the intended application.

Data Source(s): User surveys, distributed with the product or service or after it has been disseminated (online, mail), informal (unsolicited) feedback, in-depth interviews (phone or in person).

Purpose and Issues: This indicator helps determine if recipients of a product or service plan to make use of its content in the future. In ongoing monitoring, it may be possible to check back with respondents later to find out if plans have been carried out.

Indicator 24:

Number/percentage of users adapting information products or services

Definition: "Adaptation" means the original information product or service has been altered to meet the needs of users in their context. Adaptation might entail translation or simply inserting locally used phrases and terminology or modifying artwork, or it could involve changing the product to take account of local policy, resource availability, and cultural norms. Adaptations also include new (expanded or updated) editions, abridgments, modules for training, modification to address another topic, and transfer to another medium, when these actions are taken by organizations or people other than the original publisher.

Data Requirements: Self-report from users regarding adaptation, including identification of product or service adapted, purpose, extent, and nature of adaptation, outcomes resulting from adaptation (if known).

Data Source(s): User survey (online, email, telephone); letters, email, or other communication requesting permission to create a derivative work; copies of adapted work; requests for technical assistance or funding for adaptation.

Purpose and Issues: This indicator gauges the extended life and increased relevance that an information resource may gain when adapted to meet local needs. In fact, research shows that

guidelines, for example, are more effective when they account for local circumstances (NHS Centre for Reviews and Dissemination, 1999). Documenting adaptations is valuable, but it is not possible to know whether one has the complete tally of adaptations. A user may adapt a publication without notifying the original authors or publisher. When adaptations are undertaken independently of the original publisher, they constitute evidence of the adaptors' judgment that the product will be useful enough in their setting to merit the effort and cost involved in adaptation and publication.

Example:

In Pathfinder's Packard ASRH project, the Module 16 (Reproductive Health Services for Adolescents) curriculum was adapted by users in all four participating countries. The Philippines and Pakistan changed the content of the curriculum, including adapting case studies to the local context. Ethiopia translated the curriculum into Amharic and cultural adaptations were made by CORHA/Ethiopia, the local partner. Sudan translated the curriculum into Arabic and adapted it to the country context.

Indicator 25:

Number/Percentage of users using an information product or service to inform policy and advocacy or to enhance programs, training, education, or research

Definition: This broad indicator relates to use, and, where known, outcomes of use, of information products or services. "Use" refers to what is done with knowledge gained from an information product or service to change or enhance policies, programmatic or practice guidance, procedures, products, or research methods. Information products (which may include tools, protocols, procedures, manuals, software, systems, methodologies, guides, curricula, indices, key actionable findings) may be used to develop better-informed policies and to improve practice guidelines, program design and management, or curricula, resulting in higher-quality service delivery, more efficient

programs, better training and education, or stronger research designs.

Data Requirements: Description of information product or service used, approximate timeframe of use, organization(s) involved, how programs or practice benefited from applying the information, further outcomes associated with use (if known).

Data Source(s): User surveys (online, mail, telephone), usually distributed after the product has been disseminated; informal (unsolicited) feedback; in-depth interviews (phone or in person); copies of policies, guidelines, or protocols referencing or incorporating information from products or services.

Purpose and Issues: The purpose of this indicator is to track how information has been specifically used to inform policy and advocacy or enhance practice, programs, training, education, or research. A difficulty with measuring use is that users may not recall which particular information product was used and how it contributed to a specific outcome.

Research has found that the information contained in guidelines is more likely to be adopted if it is disseminated through educational or training interventions (NHS Centre for Reviews and Dissemination, 1999). A resulting difficulty of measuring the effect of information products (such as guidelines) is separating the effect of the training from that of the information product or service. At the same time, where training and information resources are both necessary components of the trainee's education or where training is necessary to use an information resource, then the training and information resource together constitute a package that should be evaluated together.

The value of unsolicited, anecdotal reports of use should not be dismissed, given the inherent difficulty in capturing and quantifying use and outcomes of use of information products and services. To that end, it is useful to collect unsolicited feedback from users of products or services, including improvements or achievements based on using a product or service, as well as any problems with using it.

Below are examples of use and, in some cases, outcomes associated with that use. An organization could count the "number" of instances that the use of an information product or service informed policy or advocacy or enhanced practice, programs, training, education, or research. Alternatively, an organization could conduct a survey (see Appendix 6, p. 47) and report on the percentage of respondents who said they used the information product or service.

Policy example:

Haiti's National HIV/AIDS Strategy, officially adopted in December 2001, used epidemiological projections prepared by POLICY using the AIDS Impact Model (AIM). In April 2002, when the Minister of Public Health and Population officially released the strategy, the technical group agreed that POLICY's projections were to be considered the official source of data on HIV/AIDS in Haiti, while awaiting the results of field research. First Lady Mildred T. Aristide also used POLICY's epidemiological projections in a national message in observance of the International AIDS Candlelight Memorial on May 19. That message was reprinted in the Haitian National Newspaper "Le Nouvelliste." The AIM projections also were used in the successful proposal to the Global Fund to Fight AIDS. In addition, the National AIDS Strategic Plan, also adopted in December 2001, used demographic and epidemiological projections prepared with POLICY assistance as well as results from the AIDS Program Effort Index for Haiti (POLICY Project, 2002).

Program example:

One of the tools Horizons developed for a study that examined methods for reducing stigma and discrimination in hospitals in India, the "PLHA-friendly Checklist," was endorsed by the National AIDS Control Organization (NACO) for use in public hospitals and was disseminated to all State Control Societies in the country, the Employees State Insurance Corporation hospitals, and the European Commission-funded HIV/STI Prevention and Care Program in India.

Education example:

Two issues of *Population Reports*, "Why Family Planning Matters," (Series J, No 49, July 1999) and "Birth Spacing: Three to Five Saves Lives," (Series L, No 13, November 2002), have been used each year in a class on Maternal and Child Health in Developing Countries at the University of Washington International Health Program.

Training example:

Fonseca-Becker and colleagues (2002) conducted a study in Guatemala examining the "Synergy of Training and Access to Information in Public Hospitals in Guatemala." Using a case-comparison approach with 87 reproductive health care providers in 12 hospitals, the team introduced a number of reference materials (*The Essentials of Contraceptive Technology* handbook and accompanying wall chart and relevant issues of *Population Reports*) through a training course. The study team found that there was a synergistic effect of training and reference materials on changes in both individual and institutional practice, particularly when an authority figure—the instructor—took part in the diffusion of information, compared with dissemination of the materials independent of the training.

Research example:

New Standard Operating Procedures for research were developed in five countries—Guatemala, Malawi, Panama, Peru, and Zambia—as a result of training for members of ethics committees in those countries using FHI's Research Ethics Training Curriculum.

Indicator 26:

Number/percentage of users using an information product or service to improve their own practice or performance

Definition: This indicator measures use and the outcomes of the use of information products at the individual level. The types of questions associated with this indicator would include: "Based on something you learned in this publication, have you made any changes in the way you counsel clients?" and "Have you changed the way you do X?" (Such questions could also be rephrased

and asked of a supervisor about her subordinates to gauge performance improvement, from the supervisor's perspective, based on information products.)

Data Requirements: Description of information product or service used, approximate timeframe of use, organization(s) involved, title or position of person(s) involved, how users benefited from applying the product or service, description of context of use, scope of application, further outcomes associated with use (if known).

Data Source(s): User survey (online, in-person, or telephone) conducted as part of product distribution or after a product has been disseminated; in-depth interviews; informal (unsolicited) feedback. Performance checklists (such as clinical skills checklists) and pre- and post-tests can also measure improvements before and after learning from use of information products.

Purpose and Issues: This indicator measures how information products have an effect on users' knowledge and, ultimately, improved their practice. As with the previous indicator, users may not be able to recall just which information products or services influenced their practice.

Evaluators can easily ask those exposed to a product or information whether and how it affected their practice or for examples of how they put it to use. Such a research approach yields both quantitative information (e.g., percentage of readers who changed their practice) and anecdotal information (what changes did respondents make) that may be quantifiable if there are enough responses to justify categorization. As with policy and program uses, it is helpful to capture feedback from individual practitioners regarding how they used the information product or service.

Example:

"After using the *Decision-Making Tool for Family Planning Providers and Clients*, there was a significant shift from provider-dominated to shared decision making. During the baseline round, providers were solely responsible for decisions (e.g., to adopt or switch methods) in 44% of sessions and largely responsible in the remaining 56%. After the intervention, providers were largely responsible for the decision in only 19% of sessions and shared the decision with clients in 81% of sessions." (Kim et al., 2005)



Indicators That Measure Collaboration and Capacity Building

Collaboration & Capacity Building Indicators

No.

Area 1: Collaboration

- 27 Number of instances of products or services developed or disseminated with partners
- Number of instances of South-to-South or South-to-North information sharing

Area 2: Capacity Building

29 Number and type of capacity-building efforts

Collaboration and capacity building contribute to the effectiveness and efficiency of public health interventions and associated health outcomes. Collaboration enables partners to share ideas, leverage resources, and jointly develop innovative solutions. Capacity building strengthens organizations and communities and plays a crucial role in the development of sustainable health programs. Both are powerful tools that can mobilize individuals, organizations, communities, and government entities to solve problems faster and generate long-lasting improvements.

AREA 1:

Collaboration

Indicator 27:

Number of instances of products or services developed or disseminated with partners

Definition: Cooperatively developed products or services are those that have been planned, designed, and/or prepared with a collaborating partner (FHI, 2006). Jointly disseminated

products or services are those in which two or more entities work together, each with a role in improving awareness and ensuring targeted distribution of health information products and services.

Data Requirements: Names of partners involved, resources committed (from each partner); purpose, objectives, and anticipated or actual outcomes of the collaboration.

Data Source(s): Memorandum of understanding, concept proposals, work plans, administrative records, annual reports, results reports.

Purpose and Issues: Collaborating with others to develop or disseminate health information products and services generally increases synergy and reduces overall cost. At the same time, it should be recognized that coordination itself takes time and thus entails a cost. It is important to capture and demonstrate the degree to which each partner contributes to the jointly planned activity (FHI, 2006). Joint financial support for printing and distribution is one type of collaboration.

Examples:

Two examples of collaboration appear below. To quantify this indicator, one would count the instances of collaboration. Adding descriptions of the activities and their results can create a strong evidence-based narrative.

More than 30 technical assistance and service delivery organizations, working under the aegis of WHO and coordinated by WHO and the INFO Project, jointly developed the follow-on to INFO's Essentials of Contraceptive Technology handbook. Development of the new book, Family Planning: A Global Handbook for Providers, has engaged technical experts from USAID, WHO, numerous USAID Cooperating Agencies (CAs), and other organizations in building consensus on appropriate, evidence-based guidance on the delivery of major family planning methods and on related health topics. The new book is one of WHO's Four Cornerstones of Family Planning Guidance and also has received the endorsement of dozens of technical assistance and health care professionals' organizations, many of whom have contributed to printing and are participating in dissemination.

Members of HIPNET coordinated a collaborative mass mailing of 133 publications, contributed by 18 organizations, to 433 libraries in developing countries. Consolidated shipping led to a savings of more than US\$53,000.

Indicator 28:

Number of instances of South-to-South or South-to-North information sharing

Definition: South-to-South and South-to-North information sharing includes exchange of expertise, information, products, or services among individuals or organizations at the local, regional or global level. Information sharing occurs when individuals or organizations exchange publications or participate in networks and communities of practice (online or face-to-face), study tours, training events, meetings, or workshops (FHI, 2006).

Data Requirements: Countries, organizations, individuals participating in exchange, objectives,

description and duration of information sharing activity, technical area or topic of exchange.

Data Source(s): Administrative records, reports, email or other communication documenting the information sharing, volume of message traffic, and number of participants in a network or community of practice.

Purpose and Issues: Today, more than ever, individuals and organizations have increased opportunities for information sharing across geographic boundaries. Information sharing can occur face-to-face or through Internet technology. South-to-South and South-to-North information sharing facilitates individual and organizational learning and can enhance activities, outputs, and outcomes. Information sharing exchanges can also save time and resources (CTA, KIT, IICD, 2005). In addition, the innovations and solutions that are developed in one setting may be adaptable to similar settings elsewhere (FHI, 2006).

Internet technologies can facilitate information sharing through listservs, discussion forums, chat rooms, and the like. While the Internet provides new opportunities for South-to-South and South-to-North information sharing, it also has its drawbacks. Internet connectivity is still scarce and expensive in much of the South.

Examples:

An example of information sharing among individuals from the North and the South appears below. To quantify this indicator, one could count the instances of such information sharing that occurred in a time period. Providing descriptions of the activities and their results can produce an even stronger report on results.

The INFO Project, YouthNet, and the Implementing Best Practices Initiative sponsored a month-long discussion forum on issues concerning youth and then launched an online community on youth reproductive health. More than 650 people in 86 countries joined the forum.

AREA 2:

Capacity Building

Indicator 29:

Number and type of capacity-building efforts

Definition: Capacity building is defined as a "process or activity that improves the ability of a person or entity to 'carry out stated objectives'" (LaFond et al., 2002). Capacity building can occur at any level of the system: organization, health personnel, community, or individual.

Outcomes of capacity building efforts can be measured on a continuum (see IR 3.3 of USAID Office of Population and Reproductive Health Results Framework, p. 37):

- implementing with significant technical assistance (TA),
- implementing/replicating with limited TA,
- implementing/replicating independently,
- serving as a resource for others/leveraging resources.

Data Requirements: Description of capacitybuilding effort, including scope and scale; description of entities or individuals assisted.

Data Sources: Administrative records, annual reports, trip reports, work plans, budgets, financial statements.

Purposes and Issues: Capacity building in the area of provision of information products and services may relate to building capacity to use

information and communication technologies such as computers, telephones, cell phones, and more. It may also relate to strengthening the ability to share knowledge through online discussion forums, blogs (a Web log or journal), wikis (collaborative Web site that can be edited by anyone), and communities of practice or to access knowledge through the Internet or to search for information. Organizations that provide information products and services also may offer training to use new guidelines or manuals or to implement curricula.

Capacity building is an integral part of international health and development work. Indeed, a major goal of foreign assistance is to strengthen local ability to develop sustainable solutions and thus decrease reliance on foreign investment and technical assistance. The purpose of this indicator is to count and describe capacity building efforts and, where known, their results. While capacity building is generally seen as important, there is less agreement on exactly what constitutes capacity building and how to best measure the effects of capacity-building efforts on performance. Information products or services can be used as part of larger capacity-building efforts, or they may have effects on their own.

Example:

In February 2006 regional health officials in Nairobi launched the scale-up of an IUD service delivery model at two new sites. In partnership with FHI Kenya staff, they trained 35 health care personnel at the two sites to apply the model.

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Map of Information Products and Services Indicators to USAID Results Framework Indicators

| IR 1.0: Global | IR 2.0: Knowledge | IR 3.0: Support

No.	Information Products and Services Indicator	leadership demonstrated	generated, organized & communicated	provided to the field
	REACH			
	Area 1: Primary Distribution (Push)			
1	Number of copies of a product initially distributed to existing lists		IR 2.3	
2	Number of copies of a product distributed by a publisher through			
	additional distribution		IR 2.3	
	Area 2: Secondary Distribution (Pull)			
3	Numbers of products distributed in response to orders		IR 2.3	
4	Number of file downloads in a time period		IR 2.3	
5	Number of times a product is reprinted by recipients Number of people reached by media coverage of the material		IR 2.3	
١	or generated by it		IR 2.3	
	·		2.3	
7	Area 3: Referrals Number of instances that products are indexed or archived in			
	bibliographic databases		IR 2.3	
8	Number of postings of products by other Web sites or			
	links to products from other Web sites		IR 2.3	
9	Number of instances that products are selected for inclusion in a library		IR 2.3	
10	Percentage of users who share their copies or transmit		IR 2.3	
	information verbally to colleagues		IK 2.3	
	USEFULNESS			
	Area 1: User Satisfaction			
11	Percentage of those receiving a product or service who have read		ID 2.7	
12	or browsed it Percentage of users who are satisfied with a product or service		IR 2.3 IR 2.3	
13	Percentage of users who rate the format or presentation		II 2.3	
	of a product or service as usable		IR 2.3	
14	Percentage of users who rate the content of a product or			
	service as useful		IR 2.3	
15	Number/percentage of users who report knowledge		ID 2.7	
16	gained from a product or service Number/percentage of users who report that a product		IR 2.3	
	or service changed their views		IR 2.3	
	•			
17	Area 2: Product or Service Quality Number and quality assessment of reviews of a product in periodicals		IR 2.1 & IR 2.3	
18	Number and significance of awards given to a product or service		IR 2.1 & IR 2.3	
19	Number of citations of a journal article or other			
	information product	IR 1.1	IR 2.1 & IR 2.3	IR 3.1
20	Journal impact factor		IR 2.1 & IR 2.3	
21 22	Number/percentage of users who pay for a product or service Number/percentage of information products or services		IR 2.3	
22	guided by theories of behavior change and communication		IR 2.3	
			2.0	
	USE			
23	Number/percentage of users intending to use an	ID 1 1	ID 2.1	ID 7 1
24	information product or service Number/percentage of users adapting information	IR 1.1	IR 2.1	IR 3.1
24	products or services	IR 1.1	IR 2.1	IR 3.1
	products of services		2.1	311

No.	Information Products and Services Indicator	IR 1.0: Global leadership demonstrated	IR 2.0: Knowledge generated, organized & communicated	IR 3.0: Support provided to the field
25	Number/percentage of users using an information product or service to inform policy and advocacy or to enhance programs, training, education, or research	IR 1.1	IR 2.1	IR 3.1
26	Number/percentage of users using an information product or service to improve their own practice or performance	IR 1.1	IR 2.1	IR 3.1
	COLLABORATION AND CAPACITY BUILDING			
27	Area 1: Collaboration Number of instances of products or services developed or disseminated with partners	IR 1.2 & IR 1.3		IR 3.3
28	Number of instances of South-to-South or South-to-North information sharing		IR 2.3	IR 3.1 & IR 3.3
29	Area 2: Capacity Building Number and type of capacity-building efforts			IR 3.3

USAID Office of Population and Reproductive Health Results Framework

IR 1.0:

Global leadership demonstrated in FP/RH policy, advocacy, and services

- 1.1 Tools, protocols, procedures, systems, methodologies, guides, curricula, indices and/or key actionable findings incorporated into the work of other organizations
- 1.2 Resources leveraged globally for FP/RH activities from non-USAID sources by core or FS funds
- 1.3 Number of partnerships with organizations that do not traditionally focus on FP/RH

IR 2.0:

Knowledge generated, organized and communicated in response to field needs

- 2.1 Tools, protocols, procedures, systems, methodologies, guides, curricula or indices with demonstrated programmatic value validated, scaled up, and/or replicated in contexts other than where they were originally developed.
- 2.2 Key actionable findings and experiences identified, generated, pooled, or summarized and their lessons extracted
- 2.3 Target audiences reached with tools, protocols, procedures, systems, methodologies, guides, curricula, indices, key actionable findings (i.e., the products reported in 2.1 and/or 2.2)
- 2.4 Number of new and current contraceptive leads/methods under development or evaluation; advancing to the next stage; and/or approved by FDA

IR 3.0:

Support provided to the field to implement effective and sustainable FP/RH programs

- 3.1 Contraceptive methods, tools, protocols, procedures, systems, methodologies, guides, curricula, indices, and/or key actionable findings incorporated into mission or country programs (incorporation may be core or FS-funded, bilateral, HC gov't or other donor funded) or adopted/applied by other CAs
- 3.2 Percentage of total contraceptive shipments that are shipped on time (within one month from the desired ship date)
- 3.3 Organizational capacity to undertake activity as measured on a continuum from:
 - implementing w/significant TA
 - implementing/replicating with limited TA
 - implementing/replicating independently
 - serving as a resource for others/leveraging resources
- 3.4 Number of missions using PRH-designed or PRH-managed mechanisms for program implementation (includes non-PRH projects that PRH co-manages)
- 3.5 Ratio of field support to core funding within centrally funded projects designed to support the field, disaggregated by Pop FS/Pop core and all FS/all core
- 3.6 TA visits by PRH staff to support field programs
- 3.7 Percent of respondents based in missions that report being satisfied with TA provided by USAID/W and/or GH CAs

Types of Documents and Publications and Their Characteristics

Document or Publication Type (Format, Length, Medium)	Purposes and Objectives	Illustrative Audiences	Examples
Project and technical reports (unpublished)	Fulfill reporting requirements (periodic report, trip report, progress report)	Donors	Quarterly, semi-annual, annual reports to USAID
Evaluation, evaluation report, or assessment study	Inform client organizations about successes and improvements needed, fulfill reporting requirements	Client organizations, CAs, donors	Population Council/ FRONTIERS: Final reports
Case studies	Serve as teaching or training materials, illustrate lessons learned	Health professionals, trainers, CAs	AED, Speak for the Child: Community Care for Orphans and AIDS-Affected Children, Case Study, Kenya
Technical update/note/ brief, policy brief, research summary	Communicate technical or policy experience or research findings in short format for wide audience, sometimes for a specific country or region	Health professionals and managers worldwide or in-country, policy- makers, CAs, donors	Population Council/FRONTIERS: OR summaries; INFO Project: Global Health Technical Briefs; AGI: Facts in Brief, Issues in Brief, Research in Brief
Information, Education, and Communication (IEC) materials	Provide information to the public; health education, health communication and promotion	Clients, patients, communities	Poster or flier for local use; radio program, brochures on personal health and healthy behaviors
Success story or project final report	Illustrate partnerships and share successes with implementing organizations and donors	Donors, CAs, client organizations, health managers	FHI: Addressing Health Worker Shortages
Occasional paper, white paper, working/ issue/ concept/ position paper	Provide wide, low-cost access to discussions of timely topics	Professional/technical audiences	Population Council: Policy Research Division Working Papers
User's guide with CD-ROM or for software	Provide tools to implement specific public health or management functions and improvements; guide people in using software	Health workers, program or facility man- agers at multiple levels	MSH: Financial Management Assessment Tool (FIMAT); JSI: ProQ User's Manual
Interactive CD-ROM	Serve as an interactive learning/ training tool and/or means for sharing large volume of information in a widely accessible format	Various audiences (dependent on subject)	URC: Health Journalism CD-ROM
Technical poster	Summarize data or state-of-the-art information for quick reference	Professional/technical audiences	Population Reference Bureau: World Population Data Sheet
Monograph, booklet (medium length, on a narrowly defined topic)	Communicate experience, success, lessons learned	Donors, CAs, senior level in client organizations; some academics, libraries, professionals	AED: Community Health Worker Incentives and Disincentives
Manual, booklet, handbook, guidelines, textbook	Offer practical information on clinical or public health management topics; "how to"; clinical protocols; checklists; provide comprehensive, up-to-date information and teaching and reference materials on public health topic	Health care providers and managers at multiple levels, trainers, CAs	EngenderHealth: COPE® Handbook: A Process for Improving Quality in Health Services; MSH: Managers Who Lead Population Council: HIV/AIDS OR handbook

Document or Publication Type (Format, Length, Medium)	Purposes and Objectives	Illustrative Audiences	Examples
Audiovisual materials	Various	Various	Audiotapes, videotapes, Power- Point presentations, DVDs; URC: Everybody's Business: Media, Youth, and Drugs
Training guide or curriculum	Provide training modules or curricula for on-site training or virtual learning	Trainers, CAs, client institutions	FHI: HIV/AIDS Care and Treatment: A Clinical Course for People Caring for Persons Living with HIV/AIDS
Compilation or anthology (CD-ROM or book)	Collect a large body of separately authored materials on one topic	Health professionals and senior managers worldwide, CAs, donors, libraries	Population Council/ FRONTIERS: Findings from OR in 30 Countries, 1998-2005 (CD-ROM)
Serial technical newsletter	Disseminate state-of-the-art information widely, provide continuing education materials	Health managers at multiple levels, trainers	PATH: Directions in Global Health; Futures Group: Maternal and Neonatal Program Effort Index; INFO Project: Population Reports; MSH: The Manager
Conference paper, poster	Communicate technical experience widely; establish CA as an authority on certain topics	Academics (including students), health professionals, CAs	Presentation at Global Health Council conference
Book, including conference proceedings	Synthesize experience or research on clinical topics or public health management and health areas or countries; offer a long view	Senior-level policymakers and managers, profes- sionals, academics, libraries, CAs, and others	MSH: Community-Based Health Care
Journal, journal article	Communicate technical experience or research findings widely through professional (peer-reviewed) journals; establish publisher or author as an authority on certain topics	Academics (including students), researchers, libraries, health professionals and senior managers worldwide, CAs, donors	Population Council: Studies in Family Planning
Web site	Various, ranging from interactive learning to communicating technical experience widely. A site may serve as the medium to distribute virtually all of the materials listed above or contain original content available in no other medium.	All audiences	MSH: Provider's Guide to Cultural Competence

 $Notes: With \ the \ exception \ of \ CD-ROMs, \ all \ of \ these \ may \ be \ online, \ printed, \ or \ both. \ Promotional \ materials, \ such \ as \ brochures, \ have$ been omitted. "Unpublished" means not offered for sale and not widely distributed. (Online materials are considered published.) Compiled by Management Sciences for Health, Dec. 1, 2005.

Success Stories: Using Selected Data Collection Methodologies

Maintaining a Client Database and Mailing List for Initial Distributions and Requests

In 1997 the Center for Communication Programs (CCP) at the Johns Hopkins Bloomberg School of Public Health transformed its large mailing list—built up since 1973—into a client database. The database now includes more than 115,000 contacts. CCP has collected information to better serve its customers, including interest categories, job responsibilities, and organization types. This has enabled CCP to match clients' needs with resources. CCP maintains the accuracy of its records by employing advanced international and domestic address hygiene software and by directly contacting its clients for address updates. Electronic and printed order forms offer clients the opportunity to update their information.

The database also connects to requestors' order histories, which contain fields such as publication name, quantity requested, and request notes. Taken together, these records enable CCP to gauge the popularity of a particular product or topic. Staff also can analyze the data to see which materials do well in specific countries or regions, and how well various materials meet the needs of specific segments of the audience—for example, health care providers, program managers, policymakers, or trainers. In addition to content, the database keeps records of format requested—print, electronic (PDF or HTML), and CD-ROM. CCP has also established partnerships with various organizations listed in the database.

As a result even more people are being reached with the information and products they need at the right time and in the right format.

CCP's database also is used to formulate mailing lists for other organizations, tailored to specific regional or interest criteria. This approach also has been used to co-disseminate flyers or other materials to a portion of the database, thus saving mailing costs. Other collaborations arising from the client database have led to in-country redistribution through Southern organizations.

As can be seen above, there are **advantages** to keeping a client database/mailing list:

- 1. Requests can be analyzed to assess the popularity of topics, which can contribute to decision-making on future publication topics.
- 2. Histories of requests can be used to target promotions to the clients most likely to be interested.
- Mailing list databases are needed to verify subscription information, change of address, and requests for more materials.
- 4. Databases can be used to record detailed information about readers' interests, for promotion, and also for surveying and needs assessments, or for selecting potential participants in focus group discussions.
- 5. As more people come online, databases can be linked to Web sites and electronic ordering information such as shopping carts.

Disadvantages of client databases include the labor-intensive work, high maintenance costs (depending on number of records), and difficulties keeping records updated.

Establishing and Maintaining a System to Track Unsolicited Feedback about Information Products

Management Sciences for Health created an archive of "testimonials" in 2002 to track readers' unsolicited feedback about publications. The archive was developed in Microsoft Outlook in a public folder on the organization's computer network. Testimonials are entered monthly as new postings. (This system uses a customized form in Outlook Notes; reports can be generated using a simple program created in Access. Creating the form and program for Access took about half a day.) These records can be searched by the name, organization, or country of the author of the testimonial, by the name of the product, by date, by language, and by keywords in the testimonial.

As of September 2006, there were 530 records in this database. Each record is set up so that uses can be classified as follows:

- Change Systems or Procedures
- Develop Course
- In What Setting?
- Other
- Self-Development
- Share With Staff
- Training Material
- Unknown

Testimonials come from a wide range of people—nurses, doctors, clinic workers, health program directors; of countries, both developed and developing; and of institutions—ministries of health, NGOs, libraries, and health facilities, among others.

Advantages of maintaining a testimonials system include:

- 1. The system makes it possible for projects to report qualitative information about the usefulness of specific information products.
- 2. The system provides a convenient repository of unsolicited feedback about information products of all types throughout the "lives" of the products.

- 3. The information from the system can be used in publicizing products (for example, selected testimonials can be quoted in publications catalogs and fliers or on Web sites).
- 4. Some of the information collected illustrates outcomes.
- 5. Can be made easy to access and search.

Some **disadvantages** are:

- 1. Although easily done, the testimonials system has to be set up.
- 2. The system has to be maintained (by entering new records), which takes a few hours a month.
- 3. The system requires advocacy: a lot of information is missed because people do not know about the system or do not forward for entry the feedback they receive.

Tracking and Analyzing Visits to Web-Based Information Products

Management Sciences for Health does occasional research on the performance of selected electronic products, using a free Web-hosted tool called Google™ Analytics (https://www.google.com/analytics/home). This tool for analyzing Web usage can provide information about, for example, the number of unique views, number of page views, average time spent at a particular part of a Web site, and the percentage of users who exited the site from that point. The analysis can be carried out for a defined period such as a specific month. It is also possible to some degree to segment users by country. The program does not use cookies and does not collect any personal information about visitors.

For instance, eight months after the launch of MSH's first Occasional Paper, on expediting the financing of HIV/AIDS programs (which was announced via listservs and publicized at several conferences), analysis made it possible to report the following: "There have been 673 visits (816 page views) to the Occasional Papers part of MSH's

Web site since July 2005. Of those visits, one-third originated in the US (232, or 34%), and the remaining visits were made from South Africa (8%), the UK (5%), Kenya (3%), India (2%), France (2%), Brazil (2%), the Netherlands (2%), Uganda (2%), and other countries (40%)."

Advantages of using Google[™] Analytics to track visits include:

- 1. They provide quantitative information about the reach of an online information product.
- 2. Research can be done quickly.
- 3. Information about where visitors come from help with developing future online products. The visitors' countries help with designing future online products.
- 4. The amount of time users spend looking at a page suggests the value of the content (i.e., it might be inferred that the more time they spend, the more interesting or useful they found the content to be).
- 5. The performance of different products can be compared.

Some **disadvantages** are:

- 1. A Webmaster with HTML training is needed to tag Web pages using a special script.
- 2. Google™ Analytics is not intuitive to use, so people need some training, especially to produce the more sophisticated reports.
- 3. The location of users who access the Internet via satellite or through such services as America On Line (AOL) cannot be tracked in this way.

See also Appendix 4, p. 44.

Using "Bounceback" Questionnaires to Routinely Collect Client Feedback

To obtain quick feedback on a limited number of questions, the Population Reference Bureau (PRB) includes a "bounceback" questionnaire with new materials it disseminates through its mailing list. Questions are posed in both multiple choice and

open-ended formats. Typical questions ask recipients to rate the usefulness of the material, describe how they might use it, and estimate how many others will see or use it. The questionnaire doubles as an order form for additional copies. The results tell how information is used, its potential impact, and what topics and formats are useful.

In 2004 The Wealth Gap in Health data sheet in English was disseminated to 11,000 recipients worldwide using PRB's international mailing list. Some 222 recipients returned completed questionnaires, for a response rate of just over two percent (response rates usually range from one to five percent). Ninety-one percent of the respondents rated the material "very useful," while nine percent rated it "somewhat useful." When asked how they would use the publication, respondents listed a wide variety of uses, including writing reports and speeches (64 percent); research (60 percent); and in trainings and workshops (58 percent). Based on respondents' responses, it was projected that nearly 27,000 others would see the material and more than 6,000 would use it in their work.

Some advantages of bounceback questionnaires:

- 1. Inexpensive way to solicit information
- 2. Can also be posted on a survey Web site such as Survey Monkey or Zoomerang, which may increase the response rate
- 3. Open-ended questions can provide a wealth of qualitative information
- 4. Provides opportunity to be responsive to highly motivated users.

Disadvantages of bounceback questionnaires:

- 1. Low response rate
- 2. Questionnaire "fatigue" on the part of responders
- 3. Too many responses can be a burden for staff to track; periodic questionnaires may be sufficient

While the multiple choice questions tend to yield predictable responses, comments and examples provide a wealth of qualitative information at low cost. Key informant interviews, requiring more time and resources, have not produced as much

specific information. Bounceback responses often describe potential use—for example:

"As researchers and program consultants for the country's health care programs, this information is vital to our work. The information can help us in future research works and programs directed to solve our country's health inequities."

Director, Institute of Clinical Epidemiology, National Institutes of Health, University of the Philippines, Manila

"I plan to use Wealth Gap figures to write an Africawoman article about women's health especially to do with pregnancy and antenatal care. I will also use the information in the rural newspaper (Bukedde) I write for."

Features Editor, New Vision Publications, Kampala, Uganda

Using Online Survey Tools to Collect Client Feedback on Products and Services

Over the years, the Center for Communication Programs (CCP) has used various types of information technology (IT) to reach public health professionals around the world in addition to print publications. CCP IT products and services include: online and CD-ROM versions of print publications, Web portals, online databases, virtual collaboration tools, and listservs and online forums. To gauge how the users view print and IT products, CCP has been using online surveys.

An online survey, or Web-based questionnaire, can identify the level of satisfaction regarding the usefulness and relevance of a publication, determine topics that clients would like covered in the future, and solicit suggestions for further improvement and enhancement of products and services. Because many electronic survey tools are affordable and easy to use, online surveys enable CCP to collect and analyze information from a large number of clients quickly and efficiently.

Electronic survey tools offer a variety of methods to invite people to respond to a Web-based questionnaire. A URL link can be emailed to clients and/or posted on a Web page, or a pop-up window can appear when a client visits a certain Web page. A combination of such approaches can be used to increase the number of responses. Using these methods, CCP has achieved up to a 25% response rate in voluntary online surveys.

The **advantages** of electronic survey tools are numerous and include:

- 1. Low cost: no printing or postage costs, no need for interviewers or data entry personnel.
- 2. Short data collection time: no need to wait for the mail. Clients have immediate access to a survey when it is launched, and the publisher has immediate access to their responses, regardless of their location.
- 3. Data accuracy: Web-based questionnaires can have automatic validation capabilities by structuring questions in a certain way (e.g., set the number of desired answers or type of answer and set skip patterns).
- Efficient data processing and analysis: Webbased questionnaires can be programmed to move responses automatically into data analysis software, such as SPSS or Excel.
- 5. Anonymity of survey respondents: online surveys allow respondents to answer questions anonymously, which can be especially useful when dealing with sensitive topics.

At the same time, online survey tools have some **disadvantages** that that must be considered. Because participation in an online survey requires an Internet connection, clients without Internet access cannot be included, potentially resulting in a biased sample when assessing print products. To address this limitation, online and print surveys can be used simultaneously. Another disadvantage is the limited survey design capabilities offered by some online survey tools. The creator of a print survey has complete control over layout and design, but the creator of an online survey must work within the templates of the survey tool.

Web Usage Statistics

The ability to monitor and evaluate how information is accessed, exchanged, and used improves every year. This is true across formats and access opportunities. There are more options today to track the use of print publications than there were ten years ago. With each option, evaluators must be careful to understand the factors that affect their data on use of print publications and the conclusions that they draw about that usage.

The same is true for Internet-mediated information access and exchange, but the situation is further complicated by the very dynamic nature of Internet use.

The indicators used to evaluate Internet-mediated information access and exchanges have evolved both in their focus and accuracy as use of the Internet has evolved. For instance, in the early nineties, it was common to track "hits to a page" over a period of time. In the ensuing years, this was largely replaced by the more informative "unique visitors to a page." This, too, has its limitations and grey areas of interpretation and will, no doubt, either be replaced in the coming years by a more meaningful indicator or be tracked by a better method.

Because the Internet and the indicators of its use are newer than print publications and their indicators, the issues around the meaningfulness and clarity of specific data can sometimes take on disproportionate importance in people's minds relative to print.

There are several approaches taken to deal with these concerns. One is simply not to track any data where provenance or accuracy is in any doubt. For instance, Web log software tracks the origin—usually the country—of each Web site visitor's Internet service provider (ISP). This may in fact be where the visitor is located, but perhaps not. For example, a user in one city may log onto the Internet via an ISP whose server is located in another city, state, or even country. For example, all America On Line (AOL) users, regardless of where they actually are, appear to be in Vienna, Virginia, where AOL's servers are located.

This complication has led some organizations to stop tracking some or all geographical data on Web site use. Other organizations take the approach of tracking data at a higher level or aggregating the data to a level where they have confidence that the conclusions of user origin are accurate. Examples of this are data gathered at a city level but reported out at a national or regional level.

Other organizations continue to track and report geographical data in tandem with an ongoing analysis of the data's usefulness. For instance, many organizations consider it still useful and reasonable to track Internet use at a national level in the developing world because currently there are not enough supranational ISPs such as AOL to seriously skew data on country of origin. This becomes less true as an organization's evaluation lens narrows from a global level to a regional, national, or even city level. An organization working in southern Africa may forgo country-level data collection if, for instance, it learns that many users from countries bordering South Africa are accessing the Internet via an ISP in South Africa.

That said, there are some indicators that are commonly tracked with varying levels of understanding of the data's accuracy. These indicators are usually tracked via software that analyzes log data maintained on a Web server of visits to a site. Examples are:

- unique visitors to a Web site within a certain period of time
- search terms used
- referring pages
- total number of views of specific pages
- number of minutes a page is viewed
- total number of times that documents are downloaded
- trends in any of the above over time (e.g., weekly, monthly)
- geographic origin of users.

Web site usage also can be tracked via other methods, including analysis of others' links to a Web site, as well as targeted user surveys and interviews.

Each organization needs to make its own judgment about the data it collects in light of its understanding of their dataset, their ability to evaluate those data, objectives in collecting the data, ability to act on the data, donor/stakeholder expectations, and standard practices for indicator tracking and reporting. These same considerations, which are receiving increasing attention in the evaluation of online services and products, deserve attention in the evaluation of other media as well, such as print and radio.

For Writers: Questions to Ask of an Outline

INFO developed this tool to assist writers in developing targeted information products, guided by communication theory. Evaluators may refer to this tool to assess how well these guidelines have been followed in developing an information product or service.

- 1. Who is the information product for?
- 2. What do you expect the audience to do as a result of reading it?

To make the answers to those first two questions more actionable when formulating the outline, researching, and writing consider:

- 3. Are you addressing the issues that most concern the intended audience(s)?
- 4. What practice, behavior, or policy do you want to encourage and enable through the presentation and analysis of evidence and experience?
 - a. For improving access?
 - b. For improving quality?
- 5. Are you emphasizing the facts that support or call for this new behavior?
- 6. Are the actions/practice/policy that the facts suggest sufficiently highlighted and easy to find? Will a browsing reader spot them?
- 7. Are facts linked with actions that the intended audience can take? (For example, when we discuss side effects of contraceptive methods, do we also discuss how to counsel about them and/or how to manage them? And when we

- discuss the gap between perfect effectiveness of a method and effectiveness as commonly used, do we discuss how that gap can be reduced?)
- 8. Are you presenting material—and presenting it in a way—that makes use of the five characteristics of readily adopted behavior?
 - Relative advantage
- Observability
- Compatibility
- Trialability
- Simplification
- 9. Have you **sacrificed for focus?** That is, have you held to a minimum, or else presented in the most efficient fashion, information that is supplemental or already well known, so as to focus readers' attention on what is essential to improving practice and services? (For example, can you use tables, with little or no explanatory text, to present standard information or unremarkable survey findings. Have you used graphics where graphics convey a point better than text?)

Source: Developed by Ward Rinehart for the editorial staff of the INFO Project, 2006.

Illustrative Readership Survey

We greatly value your feedback on our information	Question Indicator ⁴
products and services. Please take the time to fill out this short survey. We will use your answers to guide future product development in order to better meet your information needs. Question Indicator ⁴	5. How would you rate the length of this publication? (Check one) 13 Too short Just right Too long
REACH	Comments:
 Do you usually receive this publication? Yes No Comments: Other than you, how many people normally read at least some part of this publication? More than 10 people 6-10 people 	6. Please choose the answer that best describes the readability of this publication (Check one): ☐ Easy to read ☐ Somewhat easy to read ☐ Not easy to read Comments:
☐ 1-5 people ☐ No other people ☐ Other	 7. Please rate your satisfaction with the following elements of this publication: 13 Relevance of program examples □ Satisfied □ Somewhat satisfied □ Not satisfied
USEFULNESS	
 3. Do you usually read this publication? ☐ Yes, I read it cover to cover. ☐ Yes, I read the parts that interest me. ☐ No, I do not usually read it. Comments: 	Ease of understanding key points ☐ Satisfied ☐ Somewhat satisfied ☐ Not satisfied
 4. How useful is this publication in your daily work? (Check one) ☐ Highly useful ☐ Somewhat useful 	Ease of finding specific information ☐ Satisfied ☐ Somewhat satisfied ☐ Not satisfied
☐ Not useful Comments:	8. How would you rate the coverage of topics in this publication? (Check one) 14 ☐ Too little ☐ Just right ☐ Too much Comments:

⁴ This column provides the indicator number that corresponds to the question. It would not be included in a survey.

Question		indica	tor Qi	lestion	indicator
9. What suggestions do you he content of this public useful and relevant to your10. What other topics would	ation more r work? you like	_	14	Has the information in this publication led to changes in policies or procedure or influenced the provision of health services? Yes	
to see covered in this pul 11. Did you learn anything n		nic	14	☐ No Please explain.	
publication?	icw mom ti	113	15 16	Please give specific examples of how	
Yes				you (or your colleagues) have used th	is
□ No				publication in your work and explain	
Please explain.				the results of that use (if known).	26
12. Did the information cont	tained in t	his		BACKGROUND INFORMATION	
publication change your specific issue?	mind abou	ut a	17. 16	In which country do you work?	
☐ Yes				Please select the category that best d	escribes
□ No				your organization type (Check one):	
Please explain.				☐ Academic institution	
				☐ Private sector (for profit)	
USE				☐ Government or ministry	
13. Have you or do you inten	_			☐ News media	
this publication for a spe		23,	24	☐ Medical or health organization	10
Yes, I have adapted this	~			☐ NGO or PVO (local or international	al)
☐ Yes, I intend to adapt t☐ No	this public	cation.		Research institution	
Please explain.				☐ Religious/Faith-based organization☐ USAID	1
т сазе схратт.				G OSAID	
14. How often have you used	this		19	Please choose the category that best	describes
publication for the follow	_			the focus of your work (Check one):	
purposes? (Check in all r	rows			Advocacy	
that apply)		25,		Health communication	
Fre To develop policy	equently Son		ver I	Health or medical service delivery	
To ensure accurate				☐ Journalism☐ Policymaking	
media coverage]	☐ Program development or managem	ont
To increase public awareness]]	Research or evaluation	ieiit
To design projects or programs To develop training programs	Ц		_	☐ Teaching or training	
or workshops			3	☐ Student	
To design educational materials]	_ student	
To improve service quality			20	. Are you:	
To guide research agendas or methods]	☐ Male	
To write funding proposals			_	☐ Female	
To develop presentations			3		
To write reports or articles			□ Sou	arce: This illustrative survey draws heavily from t	the
For reference in daily work			□ Pop	ulation Reports Reader Survey developed by INFO) in 2006.
For professional or academic interest or development			_		

Indicators for M&E of Provision of Information Products and Services:

Results of Ranking at August 9, 2006, HIPNET Meeting

HIPNET members ranked these indicators according to their relevance to their organizations work on a scale from 1 (highly relevant) to 5 (not very relevant). Some of the indicators, marked as not applicable (N/A), were not included in the list of indicators reviewed at the August 9, 2006, meeting and so do not have a rank.

N.I.		Average
No.	Indicator	Rank
	REACH	
	Area 1: Primary Distribution (Push)	
1	Number of copies of a product initially distributed to existing lists	1.3
2	Number of copies of a product distributed by a publisher through additional distribution	2.3
	Area 2: Secondary Distribution (Pull)	
3	Numbers of products distributed in response to orders	1.4
4	Number of file downloads in a time period	1.4
5	Number of times a product is reprinted by recipients	2.0
6	Number of people reached by media coverage of the material or generated by it	2.3
	Area 3: Referrals	
7	Number of instances that products are indexed or archived in bibliographic databases	2.6
8	Number of postings of products by other Web sites or links to products from other Web sites	2.0
9	Number of instances that products are selected for inclusion in a library	2.3
10	Percentage of users who share their copy or transmit the information verbally to colleagues	2.2
	USEFULNESS	
	Area 1: User Satisfaction	
11	Percentage of those receiving a product or service who have read or browsed it	N/A
12	Percentage of users who are satisfied with a product or service	1.3
13	Percentage of users who rate the format or presentation of a product or service as usable	1.7
14	Percentage of users who rate the content of a product or service as useful	1.3
15	Number/percentage of users who report knowledge gained from a product or service	1.5
16	Number/percentage of users who report that a product or service changed their views	N/A
	Area 2: Product or Service Quality	
17	Number and quality assessment of reviews of a product in periodicals	2.7
18	Number and significance of awards given to a product or service	3.1
19	Number of citations of a journal article or other information product	2.6
20	Journal impact factor	3.0
21	Number/percentage of users who pay for a product or service	3.2
22	Number/percentage of information products or services guided theories of behavior change	
	and communication	N/A

(continued on page 50)

APPENDIX 7 (continued)

No.	Indicator	Average Rank
	USE	
23	Number/percentage of users intending to use an information product or service	N/A
24	Number/percentage of users adapting information products or services	1.4
25	Number/percentage of users using an information product or service to inform policy and	
	advocacy or to enhance programs, training, education, or research	1.3
26	Number/percentage of users using an information product to improve their own practice or performance	e 1.6
	COLLABORATION AND CAPACITY BUILDING	
	Area 1: Collaboration	
27	Number of instances of products or services developed or disseminated with partners	1.8
28	Number of instances of South-to-South or South-to-North information sharing	2.0
	Area 2: Capacity Building	
29	Number and type of capacity-building efforts	N/A