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**How Use of Information Technologies Has Affected
Publication and Dissemination Programs at FHI**

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Introduction

I'm delighted to have been asked to speak with you about how use of information technologies – such as email and the internet – have affected publications and dissemination programs at Family Health International. As most of you have experienced profound changes related to use of information technologies, I consider it a challenge to make observations that may have either theoretical or practical implications for your own thinking.

I'll start out with a brief overview of our programs, which are a hybrid of traditional and electronic dissemination approaches, and will then talk about how to take information technology into account when developing and implementing information strategies and dissemination activities. I'll conclude by discussing the evaluation of electronic dissemination, and suggesting indicators we might use to measure whether our work is having an impact on reproductive health knowledge and utilization.

Overview of FHI information dissemination programs

I have directed Family Health International's global reproductive health information dissemination programs since 1985. We produce, synthesize, translate and disseminate biomedical and social science research findings related to reproductive health, family planning, and HIV/STI prevention and care. We also identify and communicate lessons learned that bear practical relevance at the service delivery level.

Our intended audiences are international and national health policymakers, program managers, family planning providers, women's health advocates, NGOs, AIDS organizations, research scientists, donors and media in more than 200 countries.

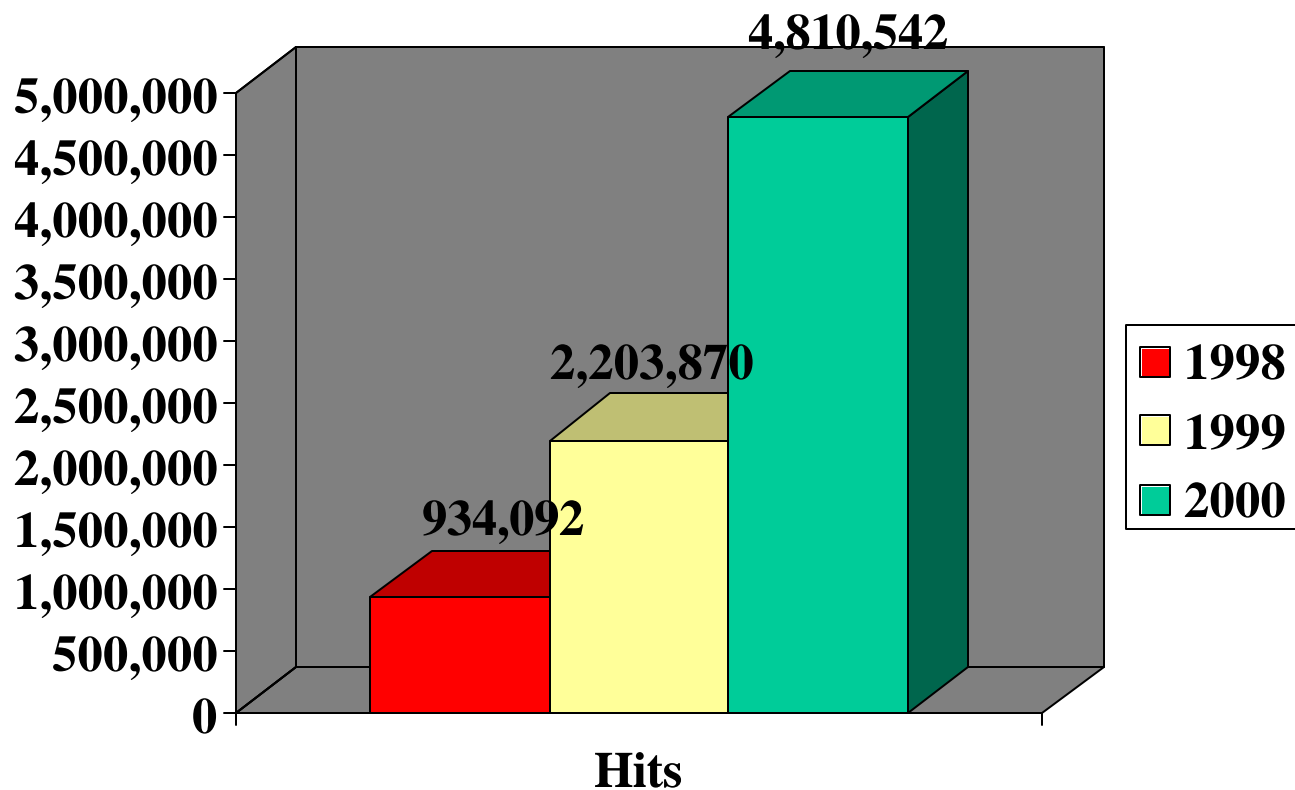
We produce information in English, French, Spanish, Portuguese, Arabic and Russian. We are fortunate to have support from USAID and other donors to provide publications at no cost to developing country groups. We mail hundreds of thousands of publications each year, and receive more than 10,000 letters each year from readers, such as subscribers to *Network* and *IMPACT on HIV*.

In addition to dissemination through traditional publications, we work to increase developing country access to reproductive health information through activities ranging from health journalism training workshops and contraceptive technology seminars, to policy seminars and electronic dissemination activities. We also provide technical

assistance in communication and information dissemination to developing country NGOs and faculties of medicine.

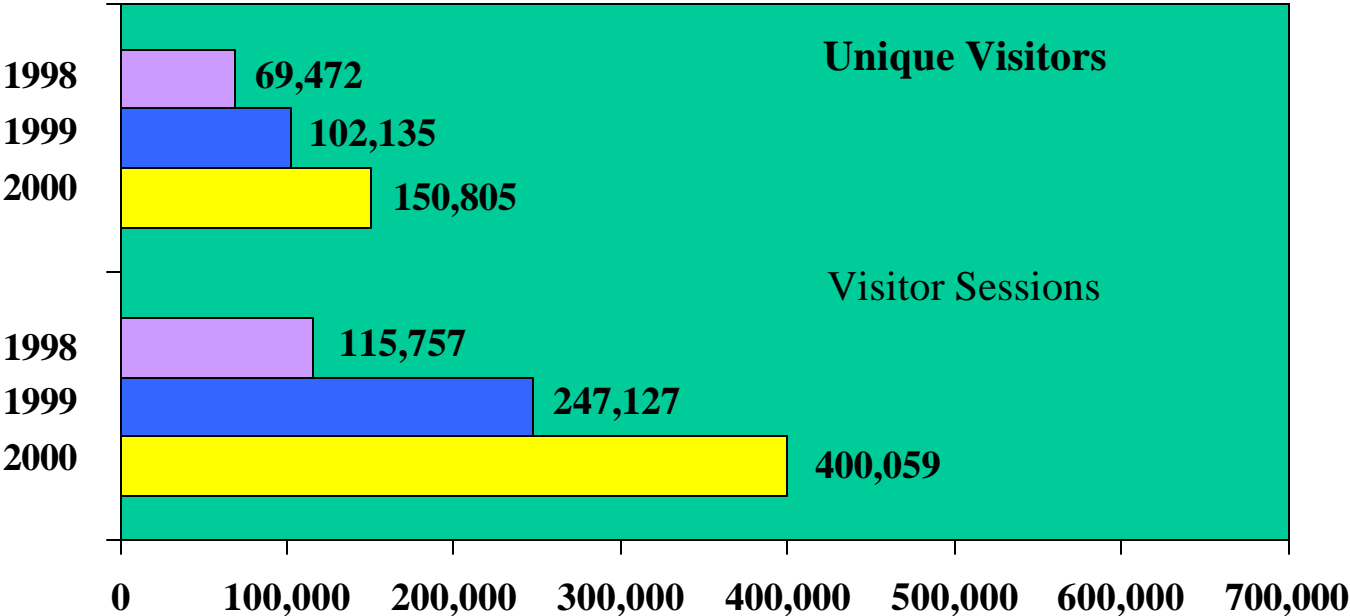
We established our Web site in 1996, using a team approach, calling on editorial, graphics and library staff help. It is primarily a publications archive site, an electronic library. We developed it as a multilingual site, and one can click on all the main pages between the same material in five languages. We now have upwards of 1,700 full-text materials on the Web site, and we attempt to post all FHI publications for which we hold the copyright. These charts summarize aspects of our current electronic dissemination efforts:

Number of Hits to FHI's Web Site, by Year



Family Health International, 2000

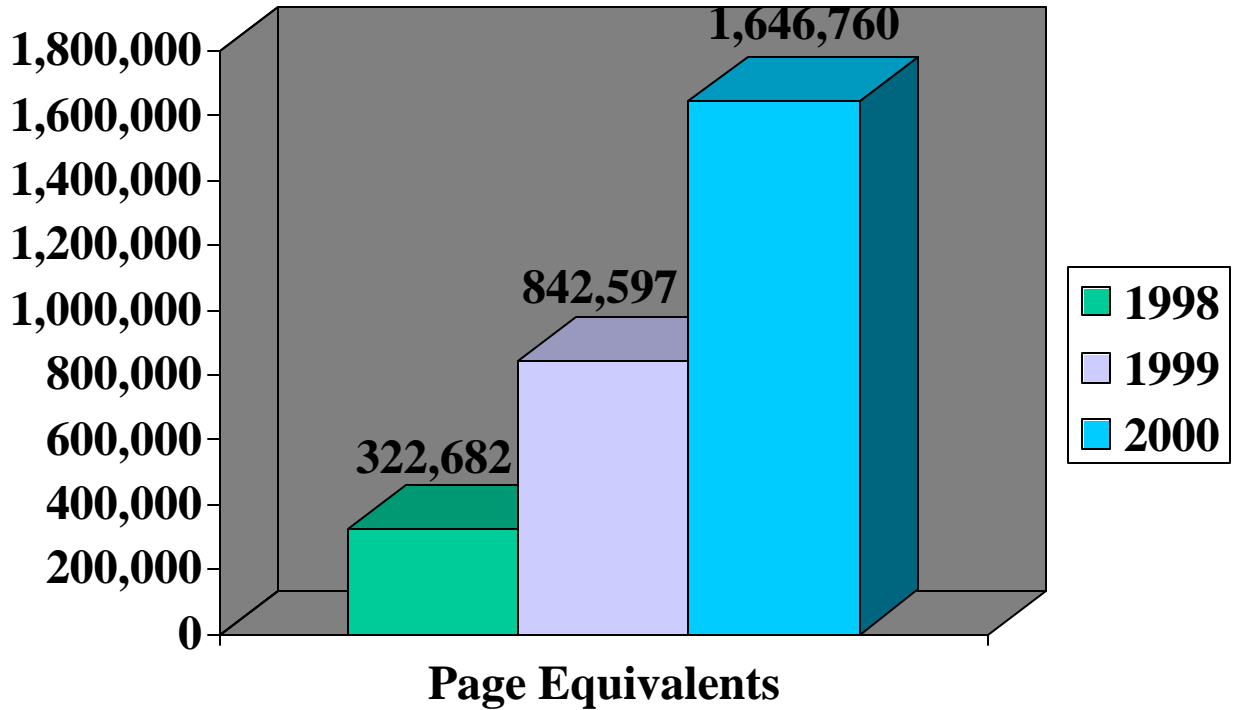
Number of Visitors to FHI's Web Site, by Year



Web visitors represent over 160 countries (After the US, **Mexico** is the most active country, with approximately 22% of visitor sessions.)

Family Health International, 2000

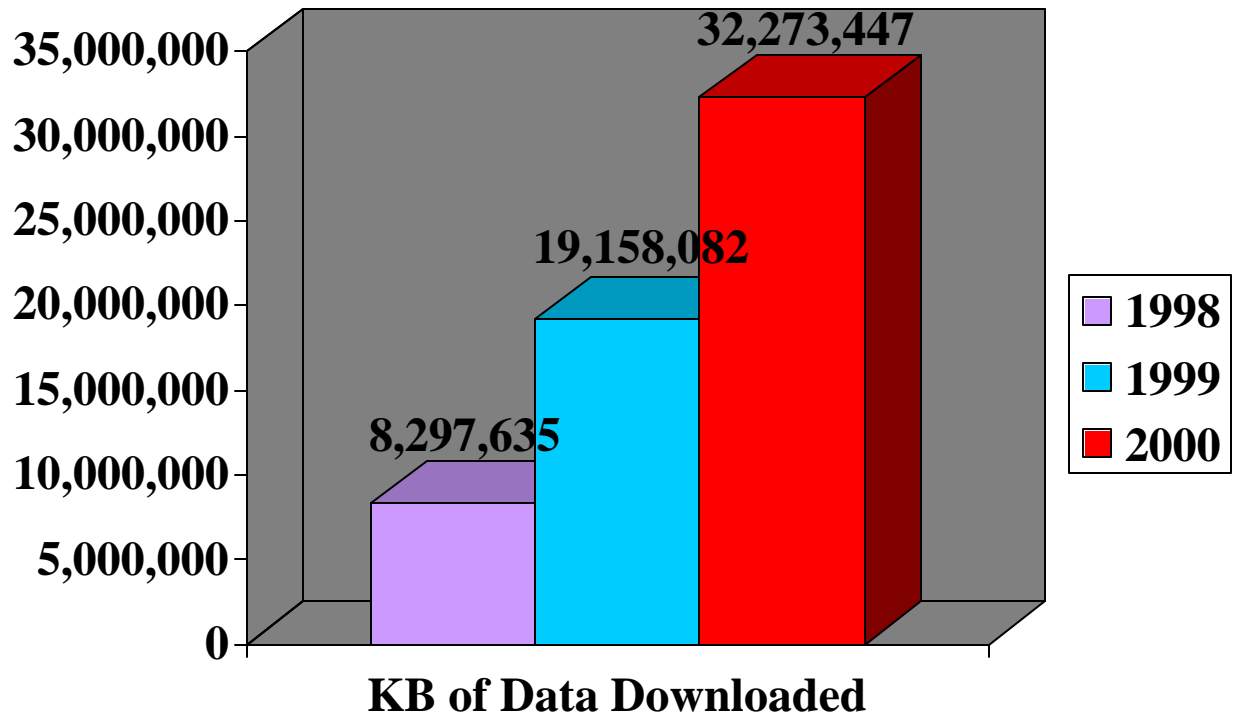
Number of Page Equivalents Downloaded from FHI's Web Site, by Year



In 2000, the number and length of materials downloaded equaled *1.6 million printed pages*, double the volume downloaded in 1999.

Family Health International, 2000

Number of KB Downloaded from FHI's Web Site, by Year



FHI's multilingual Web site contains more than 1,700 books, articles and reports. These amount to the *equivalent of 63,000 printed pages of text* only, plus many thousands of printed pages of graphics, such as algorithms, bar charts, photos and health education images.

- We have licensing agreements with commercial on-line news and database services
- We provide permission to sister agencies to reprint our materials electronically
- We burn copies of our Web site onto CD-ROMs for audiences without adequate access to the Internet, such as university libraries and NGOs

Surprisingly, FHI's evolution from publications, technical assistance, training and traditional face-to-face communications activities to a "mirror universe" of electronic postings has been organic – a fairly straightforward effort to extend the impact of our research and health intervention efforts. We have let "form follow function", and see the move to a higher level of electronic outreach as a way to reach new audiences while being more cost-effective. I'd like to demonstrate why this is the case, and also point out what falls through the cracks.

If we begin with the basics of dissemination, what changes when using information technologies? Are we creating a new space, a virtual space, in which dialog on reproductive health is changing what people do and think? If we created a framework to describe the changes, what would we have to look at?

First of all, what has changed?

As producers of information, we all experience

- Changes in access to scientific, organizational, geographic information via Web
- Changes in storage of information collections (fewer paper files, more on Web)
- Easier collaboration with field for information gathering, interviewing, needs assessments, fact-checking, review of documents

As disseminators of information, we are now able to

- Able to publish information without devoting resources to printing or mailing. It is very cost efficient to email information or post it on Web
- We are able to reach large global audience (although not all are intended audiences, many more “public” audiences)

As conduits of information we are recipients of

- Many more anonymous questions on contraception and fertility
- Much more information to screen and digest – everyone is “pushing” information at us

The purposes for dissemination can vary, and may include:

- Strengthening and increasing the frequency of communication between the researcher and study stakeholders
- Providing tools or materials for researchers and health advocates to communicate in support of policy change
- Helping researchers, scientists or decision-makers understand the social, cultural, political or economic factors that influence reproductive health
- Empowering marginalized, silenced groups (such as victims of sexual violence)
- Providing practical information to solve programmatic problems
- Keeping reproductive health issues alive in the international media, donor and public health community

To accomplish such purposes, we engage in dissemination activities that may include:

- individual or group discussions before, during or after study completion
- meetings
- publication in peer-reviewed journals
- distribution of factsheets, use of traditional media (e.g., puppet theater)
- coverage by news media
- audiovisual presentations

- training workshops
- dissemination via listservs, newsgroups, CD-ROMs and Web sites

When we introduce ourselves to Ministry of Health officials or community leaders, we are also actively disseminating information on the purposes, scope and potential impacts of our work. When we ask our colleagues if our project plans make sense, we are opening a collaborative dialog – in short, engaging in dissemination. But can we say that our electronic dissemination activities reflect an iterative, interactive process?

At its best, we believe dissemination should be an ongoing part of the dialog with stakeholders. Working in research and program implementation brings us into repeated contact with opinion leaders, community members, and other stakeholders. How can we make sure these interactions serve both to gather and to share information?

Let me ask you a question: how many of you are involved in developing either traditional or electronic dissemination strategies for your organization? [Many hands in the APLIC audience were raised.] And how many of you are called on by researchers in the US or at the country level to plan for dissemination? [Very few hands in the APLIC audience were raised.]

Many researchers believe either that research dissemination is outside of their professional capacity or is not their responsibility. This is where communications professionals and professional librarians can play an important role.

At FHI we are moving to a model where researchers, communications specialists and library science professionals contribute to dissemination planning for major projects. We try to plan strategies that take into account resources, opportunities, and partnerships with our local counterparts. A minimum strategy should assure that study reports and summaries are disseminated to study participants or communities, health advocates and the local and international research community. This might mean:

- writing a report and discussing it one-on-one with key health decision-makers
- planning a one-day seminar for health professionals and health advocacy organizations
- returning information to the community through community discussions, a brochure on findings, or Web postings
- distributing copies of study reports to local universities, libraries and key local and international organizations, as well as posting on the Web.

Maintaining frequent communication with key groups by email, for example, is a very powerful way to promote interest in and use of study findings.

But email is not the same as technical assistance. There is no substitute for ongoing capacity building, if our aim is to promote the utilization of knowledge. This has been demonstrated for decades, most recently in a recent randomized control trial (Kelley, 2000) on the dissemination of research-based HIV prevention models to U.S. community service providers. The study author, Jeffrey Kelley, found that dissemination efforts are

more successful when they “occur in the context of ongoing relationships between researchers and service providers, and when staff-training technical assistance is followed by opportunities to plan and problem solve how to implement the research-based intervention.” [Source: “Bridging the Gap Between the Science and Service of HIV Prevention: Transferring Effective Research-Based HIV Prevention Interventions to Community AIDS Service Providers,” AJPH, July 2000, Vol. 90, No. 7. Jeffrey A. Kelley, Anton M. Somlai, et al. Pg. 1087]

What does this mean for the Web? How do we evaluate what’s useful to Web audiences?

Evaluation

The following are key questions to consider when evaluating dissemination of research findings or practical programmatic information:

How appropriate were the approaches used?

- How effective were the approaches?
- What impact did these approaches have?
- What innovations were there?
- What strengths and weaknesses exist?

In contrast with traditional print publications, it is relatively easy to monitor who downloads what, or which emails are opened by recipients. We use tracking information to identify who’s interested in what, and thereby to provide feedback for other dissemination work. For example, each week I glance at the raw data to see who is visiting FHI’s web site and what they’re looking at. This shows me that STIs are of enormous concern in Latin America, as are steroidal methods of contraception. Also that fertility awareness and natural family planning are considerably more popular than one might imagine.

We don’t have time to discuss much more about what has changed with the use of information technologies, but it is just as important to discuss what hasn’t changed.

What hasn’t changed with the advent of information technologies

1. Whether for electronic or traditional dissemination, developing a strategy involves assessing the:

- Potential for impact on health policies and programs
- Scope of reach (number of people reached)
- Need for information to improve programs and policies, or to support changes in programs and policies
- Possibility of having a multiplier effect in the organization, community or country

2. Health professionals, especially researchers, want full-text copies of scientific journal articles for reference and in-depth information. We hope that Elsevier and ISI

and other major scientific publishers will do more to make materials available to developing country institutions, such as public health and medical schools.

3. Journalists use information more effectively if they have good relations with scientists whom they can contact for follow-up information. If we proactively send out information through emails, we need to be able to link the recipients with local experts whom they can contact for more information.

4. Program managers, media and other health professionals want timely publications that synthesize information from many data sources. For this reason our publications – whether in print or on the Web – typically include:

- A combination of technical and programmatic information
- Citations of key scientific literature
- Quotes, contributions or contributed input, “voices from the field”
- Presentation of clear take-home messages.

5. News media is still a much more penetrating force than individual NGO publications, webs or email efforts. (In 1993, FHI reached 27 million readers in tracked coverage, not counting broadcast media or wire service pickup, such as CNN, AP, ABC, Christian Science Monitor Radio network, VOA, etc. In 2000, we reached more than 172 million through news media.)

6. Sustainable dissemination requires a commitment to capacity building among developing country counterparts.

7. The credibility of dissemination rests on an unwavering commitment to accuracy.

8. Timing and timeliness matter.

9. Sometimes the most effective communication focuses on the human face of an issue. This is one reason that we revised our Web site to show the faces of people with work with.

Conclusion

Find as many ways as possible to report results back to key groups interested in the findings. Ask yourself who could best deliver the information. The knowledge dissemination and utilization literature shows that information produced internally – as opposed to information imported from the outside – is often more acceptable, and credible, two key factors in utilization. We try to find out if there are existing consortia, such as a national reproductive health task force, that can either integrate their dissemination efforts with our, or reinforce our efforts with supporting messages. More than ever, we need to build in opportunities for co-creation of knowledge, joint planning of dissemination, and local determination of needs.

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