USAID FROM THE AMERICAN PEOPLE | K4Health™ Knowledge for Health

# Health Information Needs Assessment 2009
# Summary Report: Global Online Survey


## Knowledge for Health (K4Health)
## www.k4health.org

Leader with Associate Cooperative Agreement Award
GPO-A-OO-08-00006-00

**November 2009**

JOHNS HOPKINS BLOOMBERG SCHOOL of PUBLIC HEALTH
*Center for Communication Programs*

fhi Family Health International

msh Management Sciences for Health

# Acknowledgements

The K4Health project would like to acknowledge the following people who have contributed to this report.

The **K4Health Global Online Survey Report** was written by Saori Ohkubo (CCP) with editorial assistance from Chris Rottler (CCP) and Adrienne Kols (Independent Consultant). K4Health would also like to thank CCP staff Tara Sullivan, Philippe LeMay, Vanessa Mitchell, Ruwaida Salem and Sean Stewart for their thorough review of the report. This report was greatly enhanced by the research, data analysis, and writing assistance of the following CCP staff: Elizabeth Frazee, Cassandra Mickish, Sarah Sabshon, Kathleen Dunn, and Dylan Cote.

K4Health would also like to acknowledge key contributors to the development of the **K4Health Global Online Survey.** Tara Sullivan and Saori Ohkubo took the lead in developing the questionnaire with the assistance of the following contributors: Guy Chalk (CCP), Debbie Dickson (CCP), Stephen Goldstein (CCP), Nancy LeMay (MSH), Philippe LeMay (CCP), Vanessa Mitchell (CCP), Megan O'Brien (CCP), Beth Robinson (FHI) and Ruwaida Salem (CCP). K4Health would also like to thank translators/reviewers of the survey: Mary Bean (FHI) Nancy LeMay (MSH), Philippe LeMay (CCP), Marina McCune (FHI), Vanessa Mitchell (CCP) and Libby Skolnik (CCP). Ruwaida Salem and Sean Stewart, both from CCP copy-edited the survey and David Alexander (CCP) for formatting the summary report.

We are extremely grateful to USAID for supporting this undertaking. Specifically, we would like to thank Marissa Bohrer and Peggy D'Adamo for providing sound advice.

# Acronyms

| | |
|---|---|
| **AIDS** | Acquired immune deficiency syndrome |
| **ARH** | Adolescent reproductive health |
| **BCC** | Behavior change communication |
| **CBFP** | Community-based family planning |
| **DSL** | Digital subscriber line |
| **FP** | Family planning |
| **FP/HIV** | Family planning and HIV integration |
| **HIFA 2015** | Healthy Information for All by 2015 |
| **HIPNET** | Health Information and Publications Network |
| **HIV** | Human immune-deficiency virus |
| **ICT** | Information and communication technology |
| **IT** | Information technology |
| **LAC** | Latin America and the Caribbean |
| **M&E** | Monitoring and evaluation |
| **MCH** | Maternal and child health |
| **MP3** | MPEG-1 Audio layer 3 |
| **MTCT** | Mother to child transmission |
| **NA/ME** | North Africa and the Middle East |
| **NGO** | Nongovernmental organization |
| **OS** | Operating System |
| **PDA** | Personal digital assistant |
| **PMTCT** | Prevention of mother-to-child transmission |
| **PVO** | Private voluntary organization |
| **RH** | Reproductive health |
| **RSS** | Really simple syndication |
| **SMS** | Short message service |
| **SSA** | Sub-Saharan Africa |
| **STI** | Sexually transmitted infection |
| **UNFPA** | United Nations Population Fund |
| **USAID** | United States Agency for International Development |
| **VoIP** | Voice over Internet Protocol |
| **WHO** | World Health Organization |

# Table of Contents

# Executive Summary

## Background

The global online survey is one component of a broader needs assessment undertaken by the Knowledge for Health (K4Health) project, which seeks to bring relevant, evidence-based information to professionals working in family planning and reproductive health (FP/RH) in international public health settings. It was conducted in three languages—including English, French, and Spanish—from March 25, 2009 to April 24, 2009. The other components of the needs assessment—an environment scan and a multi-country qualitative study—complement the global online survey.

## Survey Participants

A total of 808 health professionals, equally divided between men and women, responded to the survey. Ninety percent work in low and middle income countries. Those who participated reported serving as program managers (27%), technical advisors (20%), service providers and clinicians (13%), teachers and trainers (13%), and researchers and evaluators (12%). Over 80% have a master's or more advanced degree. Over 40% of respondents are affiliated with non-governmental and private voluntary organizations (NGO/ PVOs), 20% with academic and research institutions, and 20% with government ministries and agencies.

## Health Information Needs

The top four FP/RH information needs include adolescent reproductive health (54%); integrating FP with maternal and child health (51%); community-based FP services (49%); and integrating FP with HIV/STI care and prevention (49%). The top four program management topics include evidence-based programming (64%); behavior change communication (63%); staff training, supervision, and motivation (61%); and performance and quality improvement (58%).

## Obtaining Information

Among print materials, respondents consider research and journal articles the most useful resource for obtaining health information, followed closely by handbooks, implementation guides, fact sheets, and reviews. Web search engines are considered the most useful electronic resource, followed closely by databases, online training and eLearning courses, and CD-ROMs

## Information Sharing

Email is the most widely used method to share information and to communicate with professionals in other locations—65% of respondents use email daily. Over 65% of respondents develop health information products—including manuals, articles, guidelines, and curricula—as part of their work. They see a clear need to adapt health information products and make them more appropriate to the local context.

## Information Technology

Over 80% of respondents have unrestricted access to computers with CD-ROM drives, Internet connections, and to printers that can be used for work-related activities. About 70% of respondents spend more than one hour daily searching for and sharing health information on the Internet. The majority (87%) of respondents have unrestricted access to mobile phones for work-related activities.

# Introduction to the K4Health Global Online Survey

## Background

Health information programs seek to reach target audiences with relevant, evidence-based information that can improve decision-making, program quality, and professional practice. To help achieve this goal, the Knowledge for Health (K4Health) project and its local partners implemented a needs assessment in 2009 that examined family planning and reproductive health (FP/RH) information needs, promising information and communication technologies (ICTs) and tools, knowledge networks, and stakeholders in low- and middle-income countries. The three components of the needs assessment—an environment scan, a global online survey, and a multi-country qualitative study—were designed to complement one another. This summary report presents the results of the global online survey. The findings—along with the results of the other components of the needs assessment—will inform the design and implementation of health information programs at the global, regional, and local levels and improve FP/RH knowledge management practices.

## Online survey methods

The global online survey was conducted in three languages over a one-month period (March 25, 2009 to April 24, 2009). The survey was disseminated by a targeted email announcement that was sent to the headquarters and field offices of UNFPA, USAID, WHO, and numerous public health organizations. The survey announcement was also posted on relevant global listservs, including the Implementing Best Practices (IBP) Knowledge Gateway, Health Information for All 2015 (HIFA2015), and the Health Information and Publication Network (HIPNET).

The survey instrument consisted of 39 questions about health and management information needs, preferred sources of health information, information-sharing preferences, and use of ICTs. The survey yielded 808 responses from 110 countries, and although most responses (540) were in English, 180 respondents completed the Spanish version of the survey instrument, and 88 the French version. Data from all three versions of the instrument were combined into one comprehensive dataset and analyzed using Microsoft Excel. Data from close-ended questions were disaggregated by region, job function, organizational affiliation, education, and gender to examine needs and interests shared by particular audience groups.

## Intended audience

This summary report is intended for technical advisers and program managers (including M&E and information officers) who design, implement, monitor, and evaluate health information programs focusing on FP/RH and other global health issues.

## Organization of the report

The report consists of a series of 18 information sheets, each of which is one or two pages in length. They are divided into five color-coded groups, which cover:

- Implications of the survey and characteristics of survey respondents (p. 1-2);
- Expressed information needs (p. 3-8);
- Preferred resources for obtaining health information (p.9-15);
- Information-sharing (p. 15-17); and
- Access to and use of information technologies (p. 18-22).

Appendices present the findings by job function and region.

# Implications of the Survey for Health Information Programs

## Scope of the survey

Health information programs produce products and services that aim to make the latest research-based evidence and programmatic innovations readily accessible to multiple audiences. Products include policy briefs, guidelines, manuals, job aides, and project reports. Services include searchable databases, eLearning courses and more. With the introduction and use of Internet technologies, services have expanded to facilitate communication and knowledge exchange through online forums and networks.[1]

Knowing an audience's preference for content and format is crucial to develop appropriate products and services, yet few programs have invested substantial resources to systematically gauge audience needs to guide knowledge management program design and implementation.

This online survey collected feedback from audiences representing different professional, technical, and geographic areas. Due to its methodology, the survey successfully reached international public health professionals (e.g., technical advisors, program managers, and higher level service providers), who have reliable internet access and are well connected to the global health agenda and to most current research findings and technical guidance. Despite the survey's limitations (online survey reaching only respondents with access to the internet), it is important to note that survey respondents likely play a key role in effectively informing, facilitating and persuading front-line health care providers to adopt new knowledge and practice to improve service delivery and public health outcomes.

## Use of the survey results

Health information program designers and implementers can use the results of this survey to:

- Develop activities and tools to help international public health professionals identify, capture, synthesize, and communicate knowledge at the global level;
- Tailor and repackage information products and services to meet specific health information needs of specific audiences;
- Identify innovative and appropriate technologies and channels—internet-based, mobile, or interpersonal—to widely disseminate and share knowledge in a cost-effective way; and
- Inform the design of future needs assessments focusing on specific audience groups or settings.

[1] Sullivan, T.M., Ohkubo, S., Rinehart, W., & Storey, D. (Forthcoming) Form Research to Practice: Developing a Logic Model to Measure the Impact of Health Information Programs. *Knowledge Management for Development Journal* 5(1).

# Characteristics of Survey Respondents

## Country and region

Ninety percent of respondents work in low- and middle-income countries (see Figure 1), and 20% work in more than one country. The top ten countries represented in the survey—from most to least frequent—are the United States, India, Peru, Nigeria, Mexico, Kenya, Ethiopia, Haiti, Rwanda, and Tanzania.

## Job function

Almost half of survey respondents are either program managers (26%) or technical advisors (20%). Three other categories—service provider/clinician, teacher/trainer, and researcher/evaluator—accounted for more than 10% of respondents (see Figure 2).

**Figure 1: Distribution of Respondents, by Region**

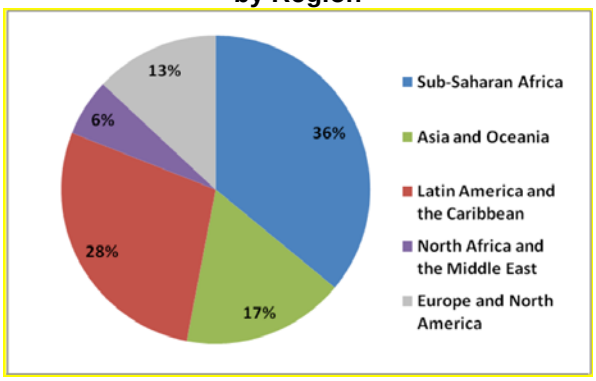
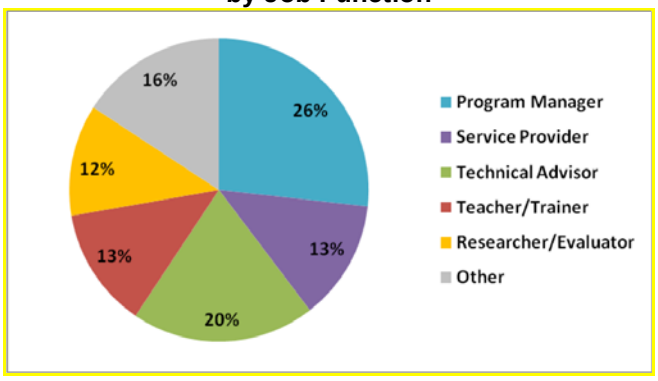



**Figure 2: Distribution of Respondents, by Job Function**




## Organization or clinical institution

Most respondents work for non-governmental and private voluntary organizations (NGO/PVOs) (40%), academic and research institutions (20%), or government ministries and agencies (20%). Another 6% work for USAID missions. About 50% of these organizations operate at the country and/or sub-country level, and about 25% of the organizations operate at the global and/or regional level.

## Programmatic and subject areas

Over 65% of respondents work in one of four programmatic areas, including health service delivery, research, monitoring and evaluation, health systems strengthening, and health communication. Over 50% are currently engaged in work in each of the following subject areas: family planning/reproductive health (FP/RH), maternal and child health (MCH), and HIV/AIDS.

## Education and gender

The vast majority of respondents have advanced education: 13% have a bachelor's degree, 46% have a master's degree, 10% have a PhD, and 25% have a MD. Men and women are equally represented in the sample.

# Information Needs: Family Planning/Reproductive Health

## Overall findings

Survey respondents express a variety of information needs on FP/RH topics needed to do their jobs.

The top four FP/RH information needs include adolescent reproductive health (54%), integrating FP with maternal and child health (51%), community-based family planning (CBFP) services (49%), and integrating FP with HIV/STI care and prevention (49%).

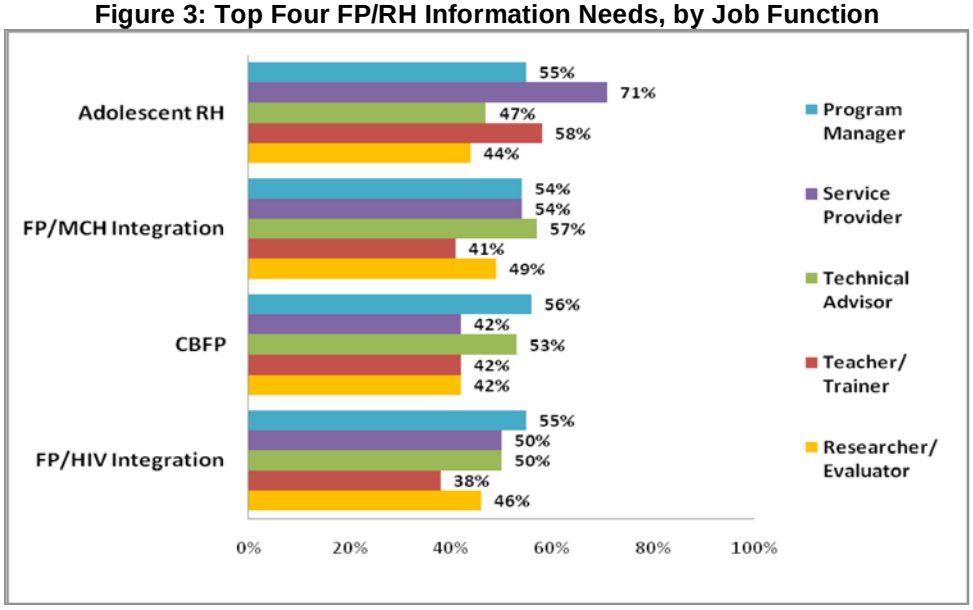
About 45% of respondents said they need more information on empowerment of women to ensure reproductive rights, engagement of boys and men in family planning programs, advocacy for better family planning policy and practice, STIs (including HIV) and health equity in FP/RH for low-income and underserved populations.

About 30% of respondents said they need more information on population, health, and the environment; gender-based violence; ensuring essential RH medicines and contraceptives; long-acting and permanent family planning methods; postpartum family planning; and healthy timing and spacing of pregnancies. There is little demand for information on post-abortion care and obstetric fistula.

## Findings by job function

Information needs vary by job function (see Figure 3). Program managers are most interested in learning more about CBFP, ARH, and FP/HIV integration. Over 65% of service providers said they need information about ARH, followed by STIs (including HIV), and women's empowerment. Technical advisors are most interested in FP/MCH integration, engagement of boys and men in family planning programs, and CBFP. Among teachers and trainers, ARH is the most common information need, followed by women's empowerment, and STIs (including HIV). Researchers and evaluators are most interested in learning more about FP/MCH integration, FP/HIV integration, and family planning advocacy.

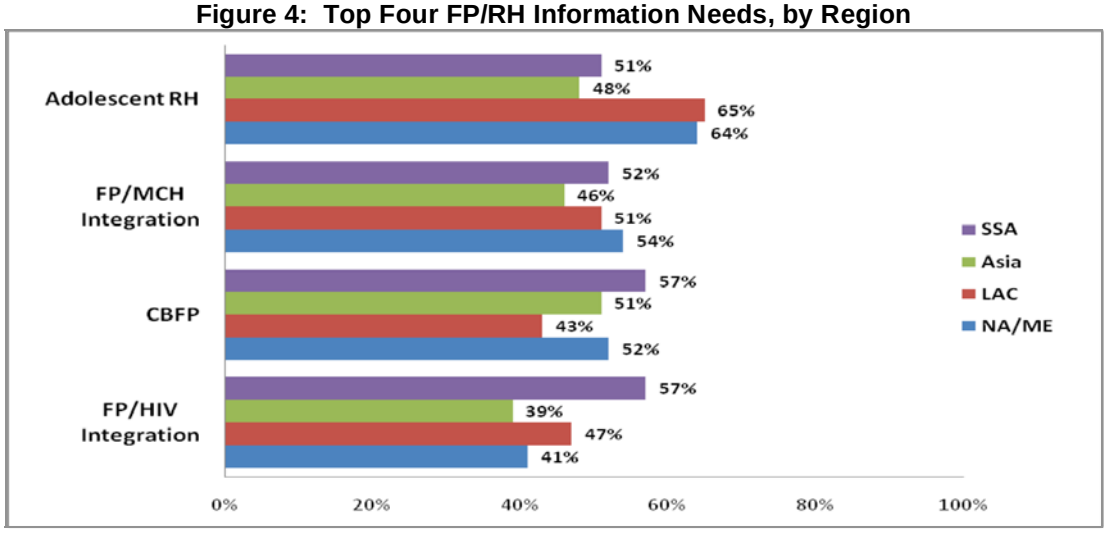
**Figure 3: Top Four FP/RH Information Needs, by Job Function**



## Findings by region

Information on ARH is the leading information need in Latin America and the Caribbean (LAC) and North Africa and the Middle East (NA/ME). The need for information on CBFP is more common in sub-Saharan Africa (SSA) and Asia and Oceania. Information on FP/HIV integration is also a reported need in SSA.

**Figure 4: Top Four FP/RH Information Needs, by Region**




## Findings by organizational affiliation

ARH and FP/MCH integration are the leading information needs among respondents affiliated with government or academic institutions. CBFP and family planning advocacy are the top two interests for respondents from USAID missions. Respondents working at NGO/PVOs are most concerned with learning more about FP/HIV integration and CBFP.

## Findings by level of education

Respondents with a bachelor's degree are most interested in learning about CBFP and FP/HIV integration. The top two interests among respondents with a master's degree are FP/MCH integration and the engagement of boys and men in family planning. Respondents with PhDs or MDs are most concerned with learning more about ARH and FP/MCH integration.

## Findings by gender

ARH is a leading information need for both men and women. Women are equally concerned with learning more about women's empowerment, but this is a lower priority for men. Women also are more interested than men in the engagement of boys and men in family planning programs.

# Information Needs: HIV/AIDS

## Overall findings

Survey respondents express a variety of information needs on HIV/AIDS-related topics in order to do their jobs.

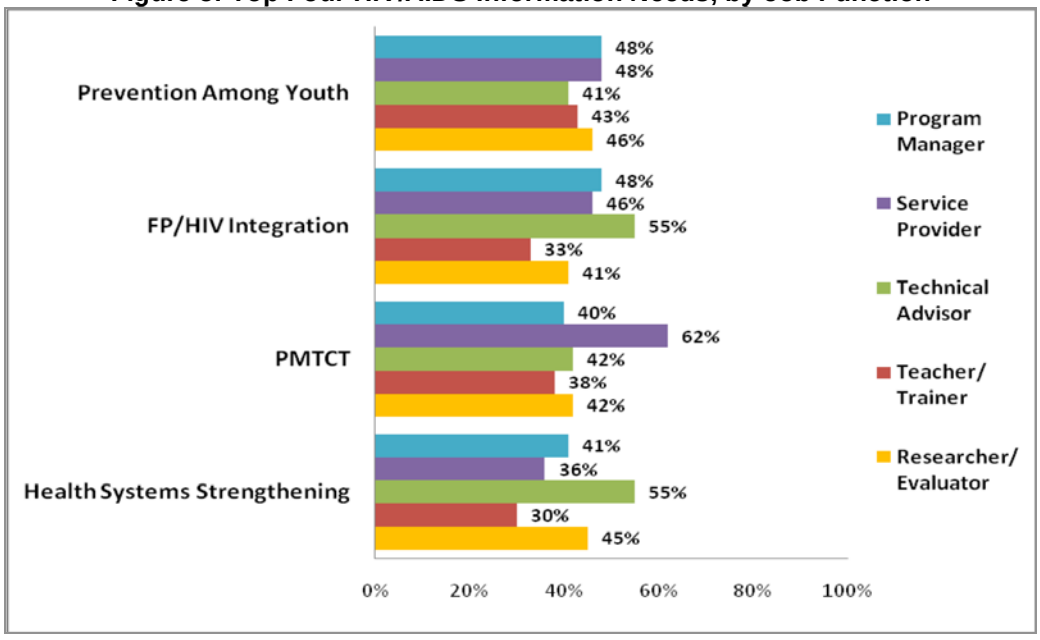
The top four topics include prevention among youth (47%), integrating FP with HIV/STI care and prevention (46%), prevention of mother-to-child transmission (PMTCT) of HIV (44%), and health systems strengthening (42%).

About 35% of respondents said they need more information on stigma and discrimination reduction, gender issues, prevention among at-risk populations, strategic information, counseling and testing, prevention of sexual transmission of HIV, adolescent care, quality assurance and quality improvement, and organizational development.

## Findings by job function

Prevention among youth and FP/HIV integration are the leading information needs for program managers (see Figure 5). Service providers are especially interested in PMTCT. Technical advisors have a high need for information on FP/HIV integration and health systems strengthening. Teachers and trainers are most interested in prevention among youth, and researchers and evaluators are most interested in strategic information needs (data not shown).

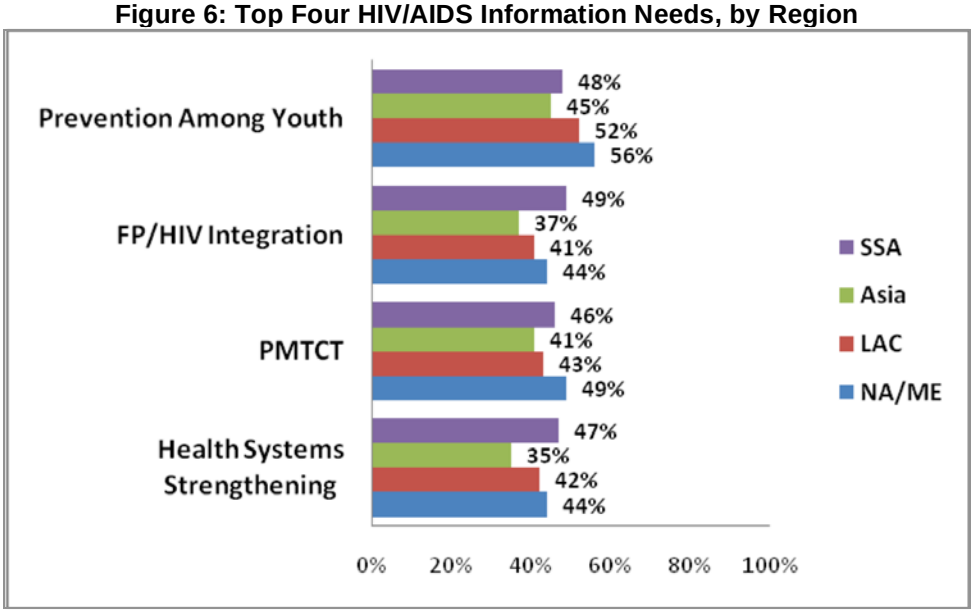
**Figure 5: Top Four HIV/AIDS Information Needs, by Job Function**



## Findings by region

Figure 6 shows the top four HIV/AIDS information needs among all respondents. Prevention among youth is a topic of high interest in all regions. FP/HIV integration is the top information need among respondents from SSA. Respondents from Asia and Oceania also have an interest in PMTCT and respondents in LAC are also interested in adolescent care. Prevention of sexual transmission of HIV is the most pressing information need in NA/ME.

**Figure 6: Top Four HIV/AIDS Information Needs, by Region**




## Findings by organizational affiliation

Health systems strengthening and prevention among at-risk populations are the leading information needs among respondents from USAID missions. Those working in government are most interested in PMTCT and health systems strengthening. Respondents from academic institutions are most likely to need more information on prevention among youth and PMTCT. Respondents at NGO/PVOs are primarily concerned with FP/HIV integration and prevention among youth.

## Findings by level of education

Respondents with a bachelor's degree are most interested in learning about FP/HIV integration and counseling and testing. Information regarding health systems strengthening is the leading information need among respondents with a master's degree and PhD. Respondents with MDs are most likely to need information about PMTCT and prevention among at-risk populations.

## Findings by gender

Men are most likely to need information about prevention among youth, PMTCT, and health systems strengthening. Among women, FP/HIV integration is the most common information need, followed by prevention among youth and PMTCT. Men are more interested in prevention among populations most at risk, while women are more concerned with gender issues.

# Information Needs: Program Management

## Overall findings

Survey respondents express a wide variety of information needs about program management in order to do their jobs.

The top four program management topics, include evidence-based programming (64%), behavior change communication (BCC) (63%), staff training, supervision, and motivation (61%), and performance and quality improvement (58%).

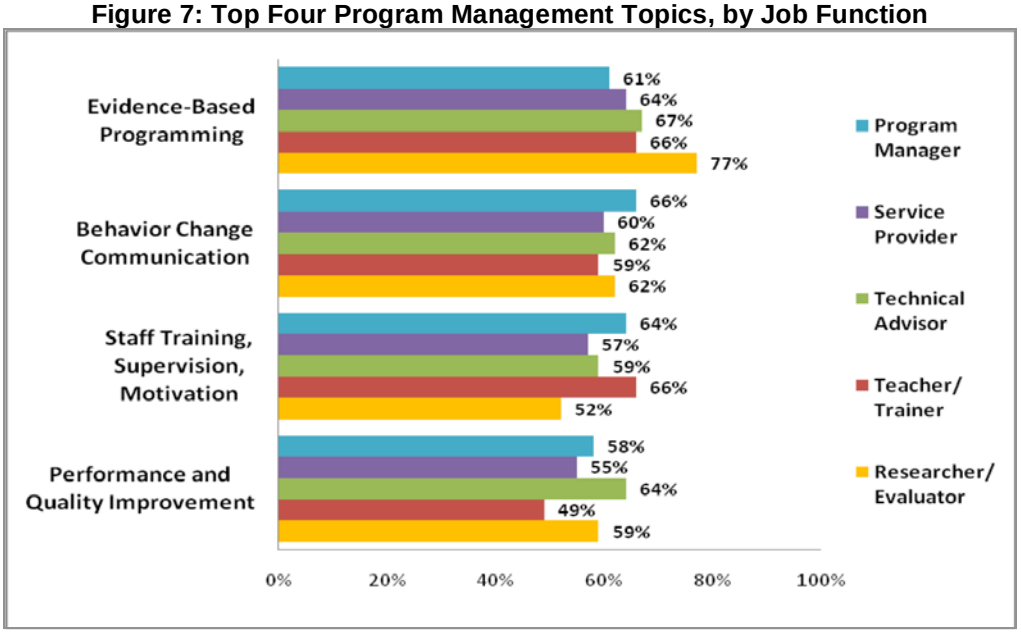
About 35% of all respondents said they need information on health systems financing, client-centered care, public-private partnerships, and peer education.

Less than 30% of respondents express a need for information on operational planning, social marketing, supportive policies, budgeting, logistics and supply chain management, diversification of service delivery points, and diversification of the contraceptive method mix.

## Findings by job function

Program managers are most interested in BCC, followed by staff training, supervision, and motivation. The leading interests of service providers are evidence-based programming and BCC, as well as client-centered care. Technical advisors most often express a need for information on evidence-based programming and performance and quality improvement. Teachers and trainers are most interested in evidence-based programming and staff training, supervision, and motivation; they are less interested in performance and quality improvement, compared with other respondents. Researchers and evaluators are most interested in evidence-based programming and BCC.

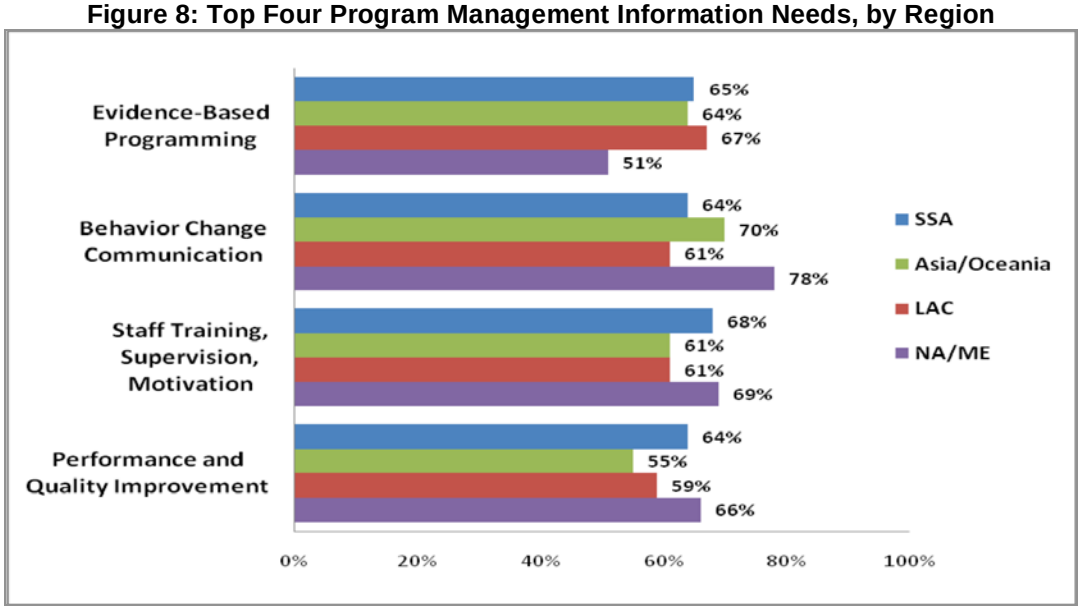
**Figure 7: Top Four Program Management Topics, by Job Function**



## Findings by region

Figure 8 shows the top four program management information needs among all respondents. Staff training, supervision, and motivation is a topic of high interest across all regions. Evidence-based training is the top information need among respondents from SSA and LAC. BCC was of high interest in Asia/Oceania and NA/ME. Respondents from NA/ME also are interested in performance and quality improvement.

**Figure 8: Top Four Program Management Information Needs, by Region**




## Findings by organizational affiliation

BCC and performance and quality improvement are the leading information needs among respondents at USAID missions. In contrast, respondents in government are most interested in evidence-based programming, followed by BCC and staff training, supervision, and motivation. They also have a greater interest in client-centered care, compared with other respondents. Respondents affiliated with academic institutions are most interested in evidence-based programming, followed by staff training, supervision, and motivation. Respondents working for NGO/PVOs are concerned with BCC, evidence-based programming, staff training, supervision, and motivation, and performance and quality improvement.

## Findings by level of education

Evidence-based programming is the leading information need for respondents with master's degrees and PhDs. Those with MDs are most interested in BCC and performance and quality improvement, and are more interested in client-centered care, compared with other respondents. Respondents with a bachelor's degree said they need to learn more about BCC and performance and quality improvement. They also are more interested in health systems financing, compared with others.

## Findings by gender

The leading information needs for both men and women are evidence-based programming and BCC. However, men are more interested than women in staff training, supervision, and motivation and health systems financing.

# Obtaining Information: Sources of Health Information

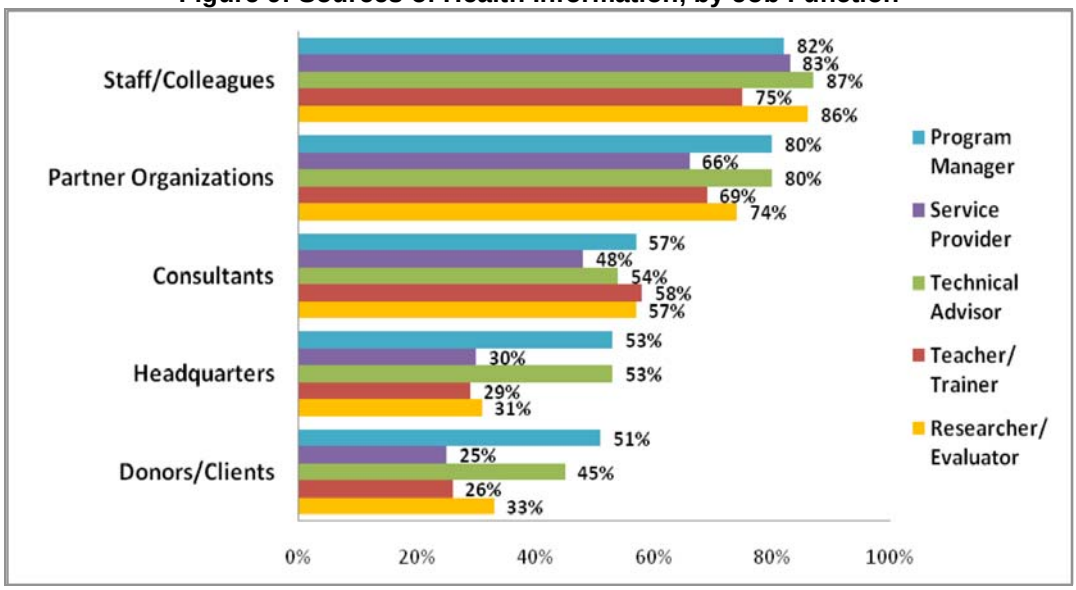
## Overall findings

Over 75% of respondents obtain health information from fellow staff and colleagues, and from partner organizations. Less than 50% obtain information from headquarters or donors and clients.

## Findings by job function

Fellow staff and colleagues are the leading source of information for all respondents, regardless of their job function (see Figure 9). Partner organizations are also a common source of health information for researchers and evaluators, technical advisors, program managers, and—to a lesser extent—teachers, trainers and service providers. Program managers and technical advisors are more likely to obtain health information from donors and clients compared with respondents serving in other positions.

**Figure 9: Sources of Health Information, by Job Function**




## Findings by region

Fellow staff and colleagues are the leading source of health information in every region, followed by partner organizations. However, there is greater reliance on partner organizations in SSA and on consultants in NA/ME, compared with other regions.

## Findings by organizational affiliation

Regardless of their organizational affiliation, respondents rely most on fellow staff and colleagues and partner organizations for health information. However, respondents working at academic and research institutions obtain information from partner organizations less often than respondents affiliated with other types of organizations. Respondents at USAID missions are the most likely to obtain health information from headquarters.

# Obtaining Information: Print Resources

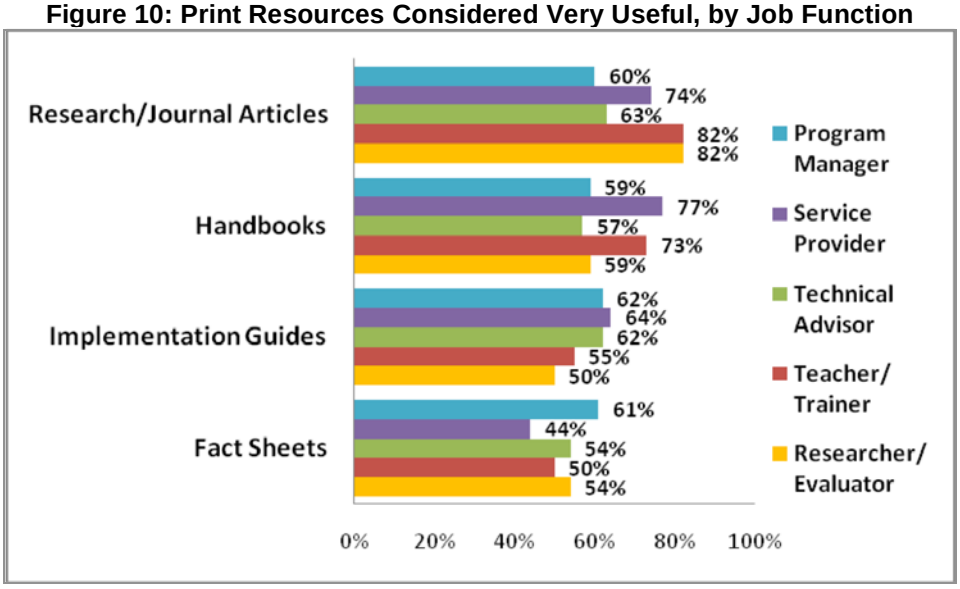
## Overall findings

Respondents selected preferred sources of health information from a comprehensive list of print materials, including research and journal articles, fact sheets, photos, wall charts, newsletters, implementation guides, training curricula, and checklists. About 70% of respondents consider research and journal articles to be the most useful print resource for obtaining health information, while handbooks are the second most useful. Memory/cue cards, flipcharts, photos, and wall charts are generally considered of little help.

## Findings by job function

Regardless of job function, respondents generally consider research and journal articles, handbooks, implementation guides, and fact sheets to be very useful sources of health information (see Figure 10). Reviews and syntheses are also regarded as very useful by teachers and trainers, researchers and evaluators, and technical advisors. Teachers and trainers and technical advisors are more likely than others to find photos and illustrations useful.

**Figure 10: Print Resources Considered Very Useful, by Job Function**




## Findings by region

The majority (up to 70%) of respondents in every region find research and journal articles, handbooks, implementation guides, and fact sheets to be very useful sources of health information—especially those in LAC. In NA/ME, respondents consider handbooks and training curricula more useful than research and journal articles, but respondents in other regions consider them less useful. Reviews and syntheses are regarded more highly in Asia and Oceania than in other regions, and training curricula are regarded more highly in NA/ME than elsewhere. Respondents in every region rated wall charts, newsletters, flipcharts, memory and cue cards, and photos as the least useful print resources.

# Obtaining Information: Electronic Resources

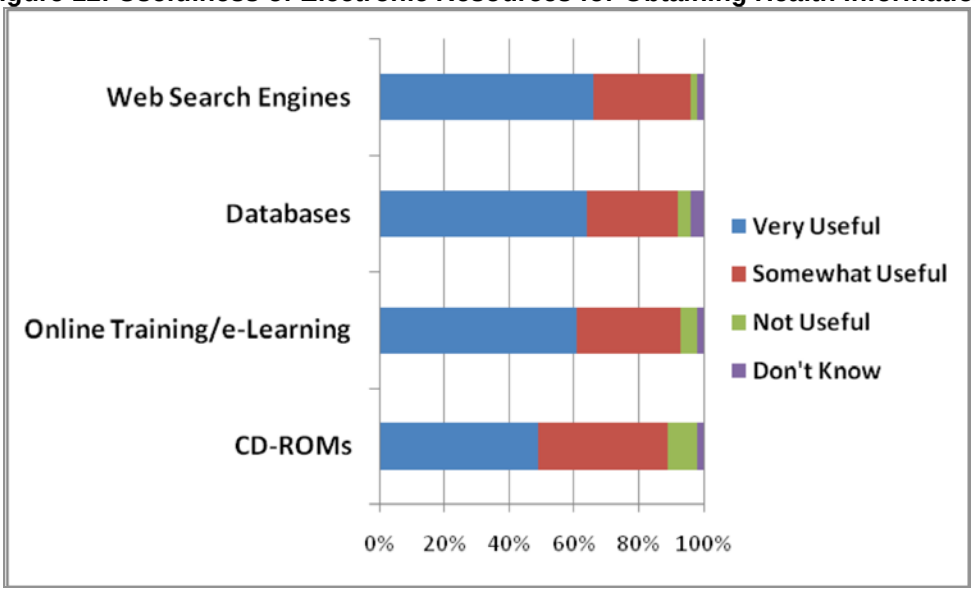
## Overall findings

Respondents consider the following electronic resources most useful for obtaining health information:

- Web search engines;
- Databases;
- Online training and eLearning courses; and
- CD-ROMs.

Although over 50% of respondents rate these resources as very useful for obtaining health information, less than 35% said the same about listservs and email discussion groups, video clips, and social or professional networking Web sites. Less than 20% of respondents find instant messages, SMS messages, Web logs, online chat, and RSS feeds to be useful sources of health information.

**Figure 12: Usefulness of Electronic Resources for Obtaining Health Information**




## Findings by job function

Teachers and trainers, and researchers and evaluators regard databases as the single most useful electronic resource for obtaining health information, and online training and Web search engines second and third, respectively. Technical advisors and program managers find Web search engines most useful, followed by databases and online training. Service providers find online training most useful, followed by databases, Web search engines, and online conferences. Service providers also have a high regard for online training and online conferences compared with other respondents.

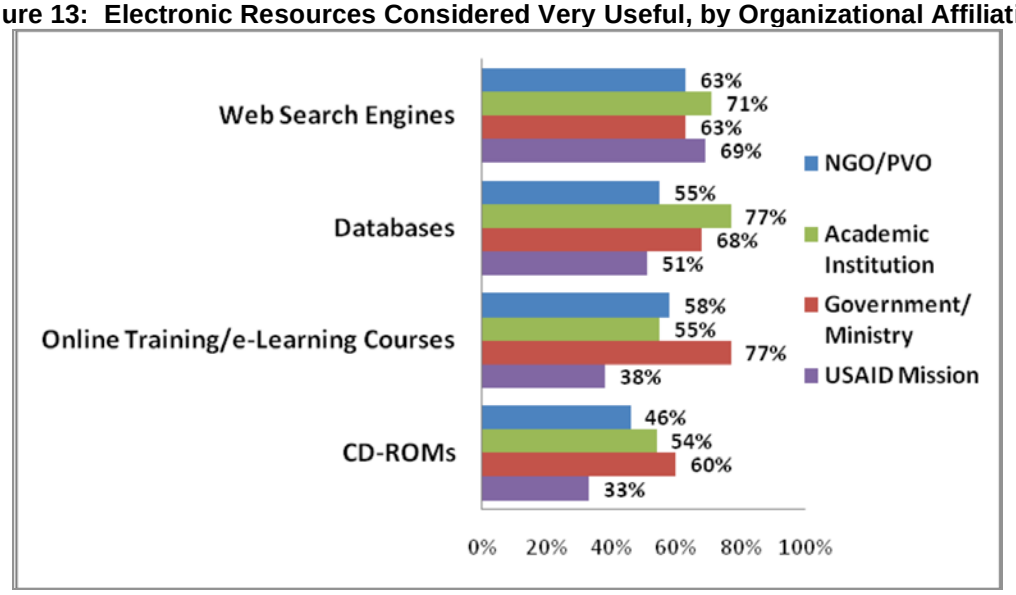
## Findings by region

Respondents in every region consider Web search engines to be the most useful electronic resource, followed by databases, online training, and CD-ROMs. Respondents from SSA are less likely than those in other regions to consider Web search engines very useful, even though they are the most commonly reported useful resource.

## Findings by organizational affiliation

Respondents from both USAID missions and NGO/PVOs regard Web search engines as the most useful of all electronic resources (see Figure 13). However, respondents from USAID missions are the least likely to consider other electronic resources to be very useful. Respondents in government consider online training the most useful, but also have a high regard for other electronic resources. Over 70% of respondents from academic institutions consider databases and Web search engines to be very useful.

**Figure 13: Electronic Resources Considered Very Useful, by Organizational Affiliation**




## Findings by level of education

Respondents with bachelor's and master's degrees consider databases the most useful of all electronic resources, followed by online training and Web search engines. Respondents at the doctoral level, including both MDs and PhDs, rate Web search engines most highly. PhDs also consider databases and online training very useful, while MDs prefer online training and databases.

## Findings by gender

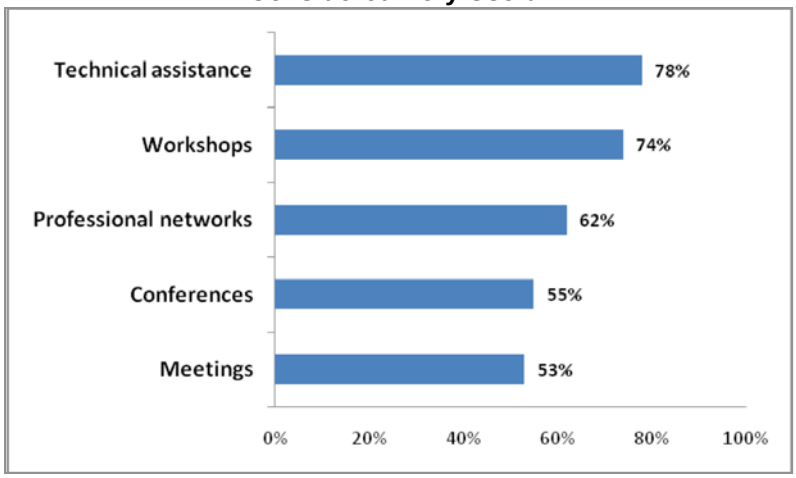
Both men and women consider Web search engines to be the most useful electronic resource, followed by databases, online training, and CD-ROMs; however, men regard CD-ROMs more highly than women.

# Obtaining Information: Interpersonal Communication

## Overall findings

The majority of respondents consider all forms of interpersonal communication to be very useful in obtaining health information, but technical assistance and workshops top the list (see Figure 11).

**Figure 11: Forms of Interpersonal Communication Considered Very Useful**




## Findings by job function

Regardless of their job function, respondents agree that technical assistance and workshops are the most useful forms of interpersonal communication. Teachers, trainers, and technical advisors consider conferences least helpful, while researchers and evaluators, program managers, and service providers indicate that meetings are the least useful.

## Findings by region

Respondents in every region prefer technical assistance over all other forms of interpersonal communication except those in NA/ME who prefer workshops. In all other regions, workshops rank second.

## Findings by organizational affiliation

Respondents from USAID missions, academic institutions, and NGO/PVOs all consider technical assistance the most useful form of interpersonal communication. Those in government prefer workshops but also view technical assistance as very useful.

## Findings by level of education

Respondents of all educational levels consider technical assistance the most useful form of interpersonal communication, except for MDs, who regard workshops slightly more highly. While PhDs consider conferences least useful, everyone else places meetings at the bottom.

# Obtaining Information: Barriers to Access

## Overall findings

The most commonly noted barriers preventing access to accurate and up-to-date health information are:

- Too much information;
- Too little time;
- Limited access to computers and the Internet;
- Slow and unreliable Internet connections; and
- High cost of full-text articles and journals.

## Information issues

Many survey respondents said it is difficult to sort through the enormous amount of information available on the Internet and in print and determine which sources are the most relevant and appropriate for a given purpose. Respondents also note that they are unaware of a lot of available information. Some respondents also report language barriers, limited donations of materials, and a lack of information-sharing between partners as issues inhibiting use.

## Access issues

Many respondents report that they do not have much time to spend on searching for accurate and up-to-date health information. Some complain that they have limited access to technology, including computers and the Internet. Other concerns include the high cost of full-text journal articles, limited resources and weak infrastructure—such as the lack of a reliable electrical supply to operate computers consistently—denial of access to certain Web sites, and copyright restrictions.

## Operational issues

Weaknesses in both technology and information management undermine respondents' ability to access accurate and up-to-date health information. Many respondents working in low- and middle-income countries note that their Internet connections are often slow and unreliable, which reduces the amount of information they can access electronically. Human barriers include a shortage of trained workers and a lack of teaching aids to strengthen the human resources available. Structural barriers include weak country-level information systems and a lack of institutional support.

## Other issues

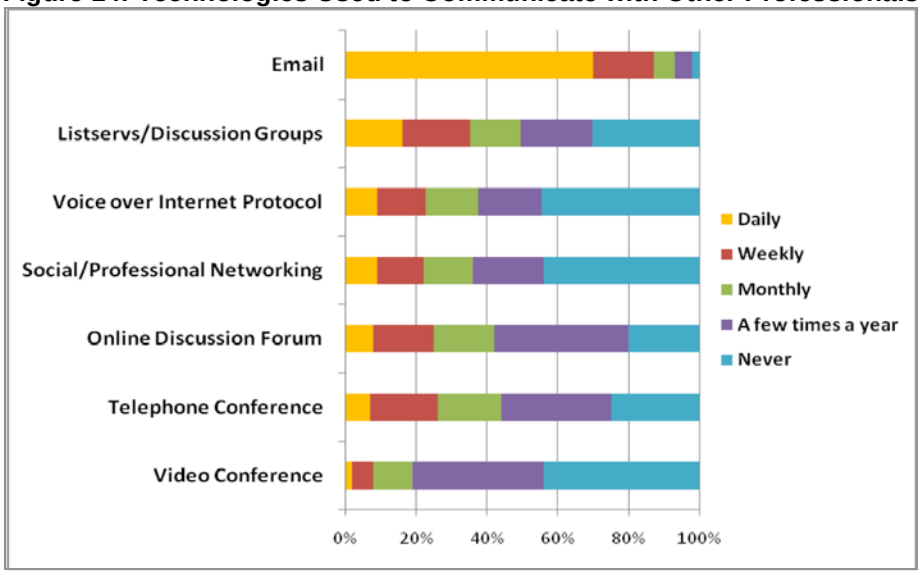
Respondents also point to a lack of cooperation with or bureaucratic barriers imposed by the state, as well as logistical problems.

# Information Sharing: Communicating with Professionals

## Overall findings

As Figure 14 shows, email is the most commonly used technology to communicate with other professionals in different locations. Seventy-percent of respondents use email daily. Every other technology is used much less frequently.

**Figure 14: Technologies Used to Communicate with Other Professionals**




## Findings by job function

Regardless of their job function, most respondents use email more frequently than any other communication technology. Compared with other respondents, teachers and trainers rely more on online discussion forums, and technical advisors rely more on Voice over Internet Protocol (VoIP) and telephone conferences.

## Findings by region

Email is the clear preference for daily communication in every region, although respondents from NA/ME use email somewhat less frequently than those in other regions. Both VoIP and video conferencing are used somewhat more often in LAC than elsewhere.

## Findings by organizational affiliation

No matter what the type of organization, email is the dominant method used to communicate with other professionals, although respondents working in government are less likely than others to use email on a daily basis. Respondents affiliated with academic institutions and NGO/PVOs are more likely than others to use listservs and online discussion forums, although not on a daily basis.

# Information Sharing: Preferences in Receiving Information

## Overall findings

Information about the preferences in receiving information was collected using a ranking question format. Respondents strongly prefer receiving health information via email. Sixty percent of the respondents ranked email as their first choice, followed by Web sites, interpersonal communication, and printed documents.

## Findings by job function

Regardless of job function, respondents prefer email for receiving health information; however, program managers (72%) preferred it the most, followed by technical advisors (67%), researchers and evaluators (60%), teachers and trainers (46%), and service providers (44%). Web sites are the second most frequently selected preference by every job function group (on average at 40%), except teachers and trainers, who prefer CD-ROMs over Web sites. Print documents are the third choice for teachers and trainers, researchers and evaluators, and service providers. Technical advisors and program managers rank interpersonal communication third. SMS messaging is the respondents' last choice, no matter what their job function.

## Findings by region

Email is preferred in every region, but is preferred more among respondents in SSA, Asia/Oceana, and LAC (all at over 60%), compared with those in NA/ME (48%). Web sites are a distant second choice. Print documents are the third choice, followed by CD-ROMs, interpersonal communication, and eBooks in SSA, NA/ME, and Asia/Oceania. Respondents from LAC have similar preferences except that they favor e-books over interpersonal communication. SMS text messaging ranks last in every region.

## Findings by organizational affiliation

No matter what their organizational affiliation, respondents prefer email for receiving health information. Respondents at USAID mission (67%) preferred it the most, and respondents at government/ministry (51%) preferred it the least. Following email, respondents at academic institutions or NGO/PVOs prefer Web sites, print documents and interpersonal communication. Respondents in government prefer print documents after email, which they regard more highly than respondents from any other type of organization. Respondents at USAID missions rank interpersonal communication second after email. Respondents from all organizations report that eBooks and SMS messaging are their least preferred ways to receive health information.

# Information Sharing: Health Information Products

## Developing health information products

Over 65% of survey respondents develop health information products, such as manuals, articles, guidelines, and curricula as part of their work. Teachers and trainers (83%) and technical advisors (78%) are the most likely to develop health information products, and service providers (55%) are the least likely to do so. Respondents from LAC are slightly less likely to develop health information products than those in other regions.

## Challenges in developing health information products

The most frequently mentioned barriers to developing health information products are:

- Inadequate access to up-to-date, evidence-based information and difficulty filtering available health information to identify high quality resources;
- Lack of funding to print materials, lack of manpower to develop products, and lack of resources for data collection, product design, and dissemination;
- Inadequate access to templates to adapt health information products and a lack of guidelines and training on how to develop and adapt health information products;
- Limited time to develop health information products, given other work obligations; and
- Lack of access to editing and surveying software and Internet technology, and a lack of technological expertise.

## Adapting health information products

Survey respondents see a need to adapt health information products to make them more appropriate to the local context, including editing text, translating it into other languages, and changing the design and layout. Teachers and trainers (81%) and technical advisors (76%) are more likely than other respondents to have a need to adapt health information products, and service providers (63%) are the least likely to have such a need. Respondents from Asia and Oceania and SSA have a greater need to adapt health information products than respondents from NA/ME and LAC.

## Challenges in adapting health information products

The most frequently mentioned barriers to adapting health information products are:

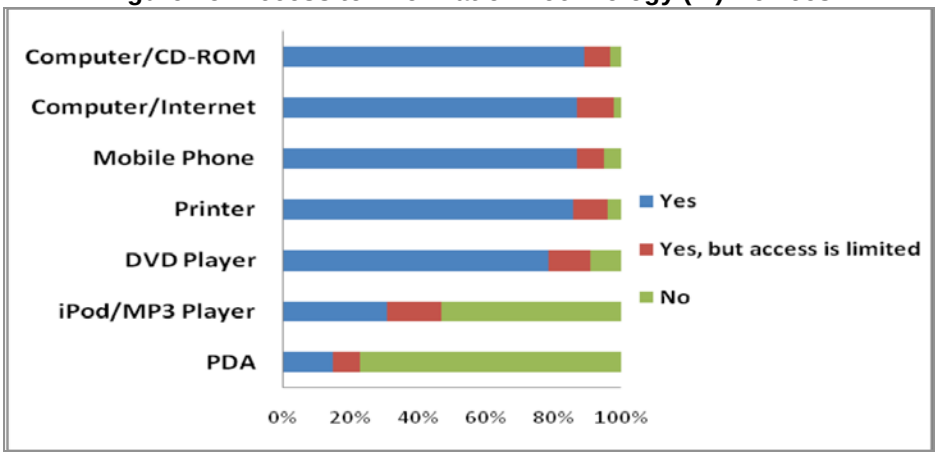
- Lack of expertise with translation services to meet the need for products in local languages;
- Lack of resources, such as reference books, surveying tools, and broadcasting tools, and lack of funding for materials and translation and editing services;
- Limited knowledge of local needs and lack of capacity to develop health information products that are tailored to the target community;
- Lack of access to editing and surveying software and Internet technology; and
- Lack of up-to-date information to adapt.

# Information Technology: Access to IT Devices

## Overall findings

Over 80% of all respondents have unrestricted access to computers with CD-ROM drives or Internet connections, mobile phones, and printers that can be used for work-related activities (see Figure 15). By contrast, access to ipod/MP3 players and PDAs for work activities is limited.

**Figure 15: Access to Information Technology (IT) Devices**




## Findings by job function

Teachers, trainers, and service providers are more likely to have unrestricted access to mobile phones than computers; however, the reverse is true for other job functions. Teachers, trainers, and service providers also are less likely than other respondents to have access to computers with an Internet connection, printers, DVD players, or ipod/MP3 players.

## Findings by region

Access to mobile phones is greatest in Asia and Oceania and SSA. Access to computers with an Internet connection is greatest in Asia and Oceania, and access to computers with a CD-ROM drive is greatest in NA/ME. Few respondents report not having access to any of the top four IT devices.

## Findings by organizational affiliation

Access to a computer with an Internet connection or CD-ROM drive is greater in academic institutions, NGO/PVOs, and USAID missions, compared with government ministries or agencies. Respondents working in government are more likely to have access to mobile phones than to computers, while the reverse is true for other types of organizations.

## Findings by level of education

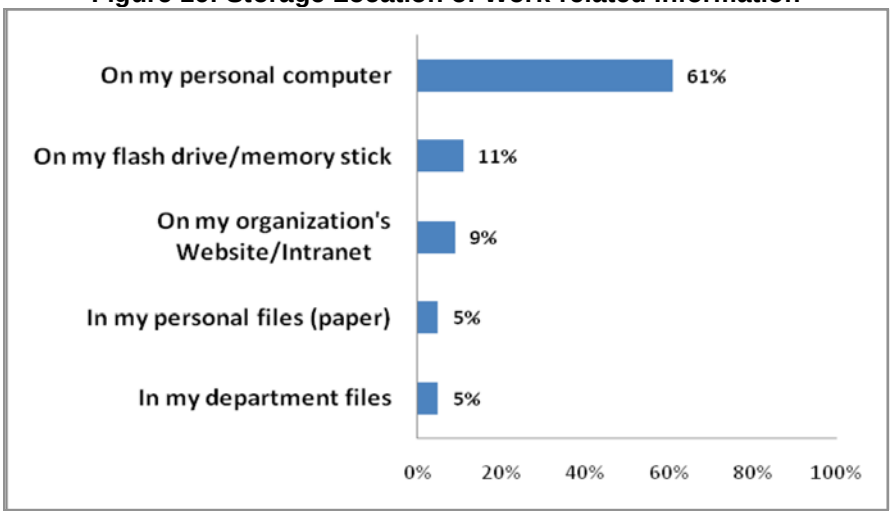
Respondents with Bachelor's degrees have greater access to mobile phones, but less access to computers, compared with respondents with advanced degrees.

# Information Technology: Storing Information

## Overall findings

A majority of respondents store work-related information on a personal computer (see Figure 16); however, storage on a flash drive or memory stick or on an organization's Web site or Intranet is less common. Use of personal or departmental files, an organization's library or resource center, or CD-ROMs to store work-related information is minimal.

**Figure 16: Storage Location of Work-related Information**




## Findings by job function

Regardless of the job respondents hold, around 60% to 70% report storing work-related information on a personal computer. Compared with other respondents, service providers, teachers, and trainers are less likely to keep information on the organization's Web site or Intranet, and more likely to use a flash drive or personal files.

## Findings by region

In every region, the majority of respondents prefer to store work-related information on personal computers. However, respondents from LAC are less likely to store information on the organization's Web site or Intranet, but more likely to store information in personal files, department files, or CD-ROMs, compared with other regions.

## Findings by organizational affiliation

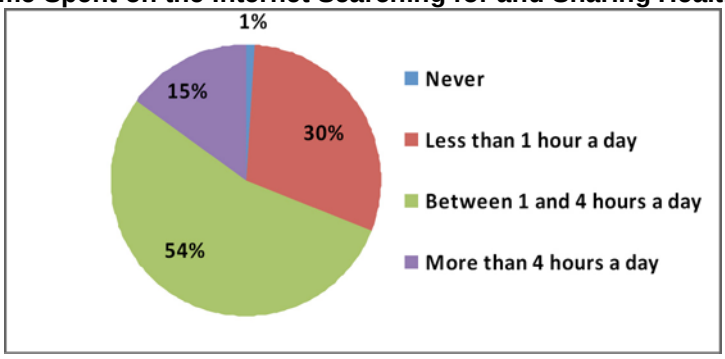
Regardless of organizational affiliation, over 50% of respondents store work-related information on a personal computer. For respondents affiliated with USAID missions and NGO/PVOs, the second most common place to store information is the organization's Web site or Intranet. For respondents from government ministries and academic institutions, the second most common storage location is a flash drive or memory stick. Respondents from USAID missions also store information in department files.

# Information Technology: Time Spent on the Internet

## Overall findings

Just over 50% of survey respondents spend one to four hours daily searching for and sharing health information on the Internet (see Figure 17). Fifteen percent of respondents spend more than four hours, while 30% spend less.

**Figure 17: Time Spent on the Internet Searching for and Sharing Health Information**




## Findings by job function

Program managers tend to spend less time on the Internet than other respondents. In all other job functions, time spent on the Internet varies minimally.

## Findings by region

There is little difference between regions on the time spent on the Internet. In every developing country region, from 50% to 65% of respondents spend one to four hours a day searching for and sharing health information on the Internet; the remaining respondents are more likely to spend less time than that each day, not more.

## Findings by organizational affiliation

Over 50% of respondents at USAID missions spend less than one hour a day on the Internet searching for and sharing information. Over 50% of respondents working for government, academic institutions, and non-governmental and private voluntary organizations (NGO/PVOs) spend one to four hours a day doing so.

## Findings by level of education

Respondents with master's degrees tend to spend a less time on the Internet, compared with those with bachelor's degrees, PhDs, or MDs; otherwise, time spent on the Internet varies minimally.

## Findings by gender

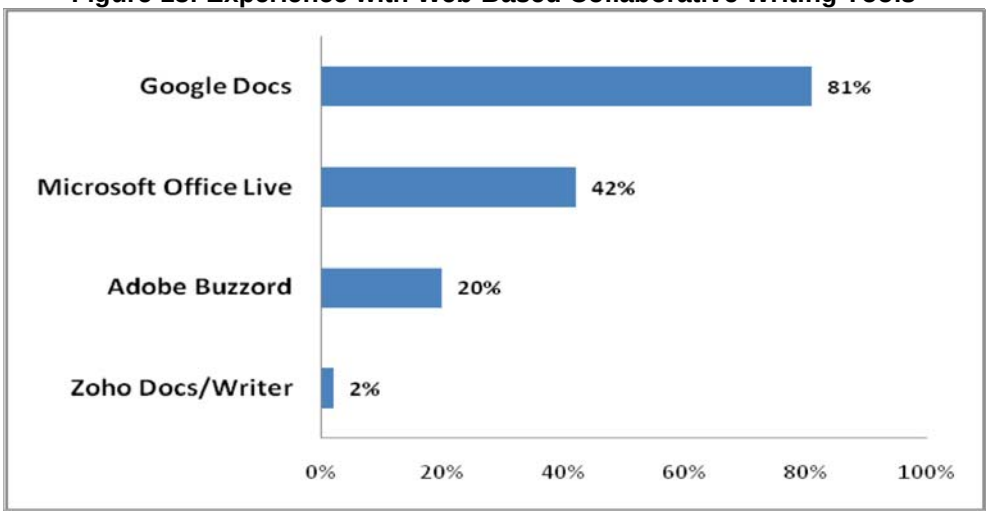
Just over half of both men and women spend one to four hours each day searching for and sharing health information on the Internet. However, men are twice as likely as women to spend more than four hours a day on the Internet. Conversely, women are more likely than men to spend less than one hour a day on the Internet.

# Information Technology: Web-based Tools

## Familiarity with web-based collaborative writing tools

Thirty-seven percent of respondents are familiar with Web-based collaborative writing tools. Among those familiar with such tools, over 80% have used Google Docs, and many have a working knowledge of Microsoft Office Live (see Figure 18).

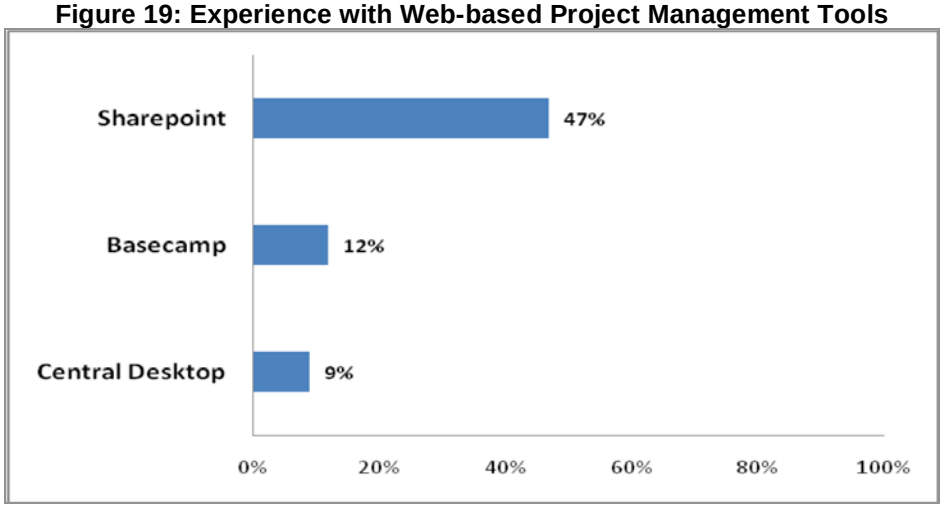
**Figure 18: Experience with Web-Based Collaborative Writing Tools**




## Familiarity with Web-based project management tools

Only 25% of respondents are familiar with Web-based project management tools. About half of them have used Sharepoint (see Figure 19).

**Figure 19: Experience with Web-based Project Management Tools**



# Information Technology: Computer Systems

## Overall findings

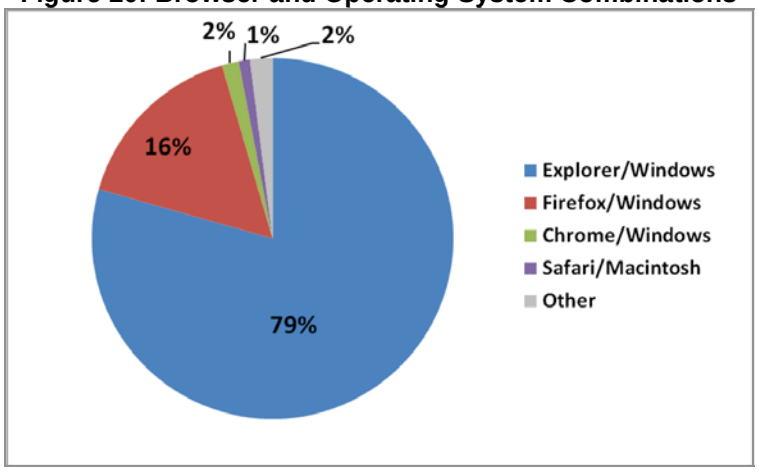
Google Analytics was used to collect data on the browsers and operating systems used by respondents accessing the online survey. Variation in the use of Internet browsers and operating systems (OS) is minimal, with 80% of respondents using Internet Explorer, and 97% using Microsoft Windows.

## Browsers and operating systems

Almost all respondents (97%) use a computer that operates on Microsoft Windows, and about 80% of them rely on Internet Explorer to browse the Web (see Figure 20). However, a significant minority of Windows users (16%) use the Mozilla Firefox browser. Less than 2% of respondents use Windows in combination with the Google Chrome browser.

Only 2% of respondents use the Macintosh operating system, most often with the Safari browser. Even fewer (less than half a percent) use the Linux operating system.

**Figure 20: Browser and Operating System Combinations**




## Screen colors

Ninety percent of respondents report using computer displays with 32-bit color; about 4% use displays with 16-bit color and 4% use 24-bit color monitors.

## Screen resolution

About 40% of respondents have a computer monitor with a screen resolution of 1024x768 pixels, and about 20% have a 1280x800 resolution. Fifteen percent have a screen resolution of 1280x1024, and less than 15% of respondents use computers with either 800x600 or 1440x900 displays.

## Connection speed

Sixty percent of respondents do not know the speed of their Internet connections. The remaining respondents have broadband Internet connections, including DSL (17%), T-1 lines (13%), and cable modems (7%).

# Appendix 1:
# Highlights of Results by Job Function

## Program Managers

- Program managers make up more than 25% of all respondents.
- Over half (50%) work for a NGO/PVO.
- They tend to work at the country level.
- Nearly half (50%) have master's degrees.
- Health service delivery is their leading programmatic area of work.
- Most work in FP/RH and (MCH).
- Their leading information needs are evidence-based programming, BCC, and staff training, supervision, and motivation.
- Implementation guides, fact sheets, and research and journal articles are the print resources they find most useful for obtaining health information.
- Program managers find technical assistance and workshops more useful than other forms of interpersonal communication for obtaining health information.
- Almost 75% use email daily to communicate with other professionals, and email is their most preferred way to receive health information.
- They have greater than average access to computers, mobile phones, and other information technology (IT) devices.
- Over 70% are not familiar with Web-based tools for either collaborative writing or project management.

## Service Providers and Clinicians

- Service providers and clinicians make up 13% of all respondents.
- Almost half (50%) work for a government ministry or agency.
- They tend to work at a sub-country level and have either a master's degree or a MD.
- Health service delivery is their leading programmatic area of work.
- About 75% work in MCH.
- Their primary information needs are adolescent reproductive health and postpartum family planning.
- Handbooks and research and journal articles are the print resources they find most useful for obtaining health information.
- About 75% consider online training and eLearning to be a very useful electronic resource for obtaining health information.
- They most often obtain health information from fellow staff and colleagues.
- Almost half (50%) have a working knowledge of Web-based collaborative writing tools, but few are familiar with Web-based project management tools.

## Technical Advisors

- Technical advisors make up 20% of all respondents.
- Over half (50%) work for a NGO/PVO.
- Health service delivery is their leading programmatic area of work.
- Their leading information needs are (1) integrating family planning with care and prevention of HIV and other STIs, and (2) health systems strengthening in the area of HIV/AIDS.
- 80% obtain health information from partner organizations, and 87% get health information from fellow staff and colleagues.
- Over 70% consider Web search engines to be a very useful electronic resource for obtaining health information.
- About 90% communicate with other professionals by email daily.
- About 95% have access to computers with an Internet connection and CD-ROM drive, and about 85% also have access to printers, mobile phones, and DVD players.
- 35% have a working knowledge of Web-based project management tools, but far fewer are familiar with Web-based collaborative writing tools.

## Teachers and Trainers

- Teachers and trainers make up 13% of all respondents.
- 60% work for an academic or research institution.
- Health service delivery is their leading programmatic area of work.
- They find technical assistance more useful than other forms of interpersonal communication for obtaining health information.
- Compared with other respondents, teachers and trainers are more likely to develop health information products and have a greater need to adapt these products to make them more appropriate to local contexts.
- They are more likely to have unrestricted access to a mobile phone than a computer, and they have less access to printers and DVD players than respondents with other job functions.
- 35% are familiar with Web-based collaborative writing tools, but far fewer are familiar with Web-based project management tools.

## Researchers and Evaluators

- Researchers and evaluators make up 12% of all respondents.
- Almost half (50%) are affiliated with an academic or research institution.
- Research, monitoring, and evaluation is their leading programmatic area of work.
- Their primary information need is for additional information on monitoring and evaluation in the area of leadership and management.
- Almost 80% consider databases to be a very useful electronic resource for obtaining health information.
- Nearly half (50%) are familiar with Web-based collaborative writing tools, especially Google Docs.

# Appendix 2:
# Highlights of Results by Regions

## Sub-Saharan Africa (SSA)

- More than 35% of all survey respondents work in SSA.
- Over half (50%) of respondents in SSA work for a NGO/PVO.
- Respondents in SSA are the most likely to work at the country level.
- Health service delivery is the leading programmatic area of work.
- The top three job functions are program manager, technical advisor, and teacher/trainer.
- About 65% of respondents are currently working on HIV/AIDS; this is higher than in any other region.
- Compared with other regions, respondents in SSA are more likely to need information on income generation for people living with HIV/AIDS and orphans and vulnerable children.
- About 65% of respondents say they need more information on staff training, supervision, and motivation and evidence-based programming.
- Although access to a mobile phone is high in SSA, respondents there are the least likely to want to receive health information by SMS messaging.
- SSA has the least access to computers with a CD-ROM drive or Internet connection.
- Only 27% of respondents are familiar with Web-based collaborative writing tools, lower than in any other region.

## Latin America and the Caribbean (LAC)

- Almost 30% of all survey respondents work in LAC.
- Most respondents work for the government (32%) or a NGO/PVO (30%).
- Health service delivery is the leading programmatic area of work.
- The top three job functions are service provider/clinician, program manager, and teacher/trainer.
- The leading information need for FP/RH is adolescent reproductive health.
- The leading information need for program management is evidence-based programming.
- Respondents from LAC are less likely to obtain health information from partner organizations than in most other regions, with the exception of NA/ME.
- 80% of respondents find research and journal articles to be a very useful print resource for obtaining health information.
- 75% of respondents consider Web search engines to be a very useful electronic resource for obtaining health information.
- LAC has the highest percentage (82%) of respondents who consider technical assistance to be the most useful form of interpersonal communication for obtaining health information.
- Compared with respondents in other regions, respondents in LAC are the most familiar with Web-based collaborative writing tools.

## Asia and Oceania

- Nearly 20% of all survey respondents work in Asia and Oceania.
- Research, monitoring, and evaluation is the leading programmatic area of work.
- The top four job functions are program manager, technical advisor, researcher/evaluator, and teacher/trainer.
- Most respondents work for NGO/PVOs (36%) and academic/research institutions (30%).
- The leading information need for program management is BCC.
- Less than 20% of respondents said they need more information on care and support in HIV/AIDS, which is considerably lower than in other regions.
- 75% of respondents consider Web search engines to be the most useful electronic resource for obtaining health information.
- Asia and Oceania has the second highest proportion (73%) of respondents who develop health information products and the highest proportion (81%) of respondents who need to adapt such products to make them more appropriate to local contexts.
- Over 95% of respondents have access to a computer with an Internet connection.

## North Africa and the Middle East (NA/ME)

- More than 5% of all survey respondents work in NA/ME.
- NA/ME has the highest percentage (37%) of respondents who work for an academic/research institution.
- The four top job functions are program manager, teacher/trainer, service provider/clinician, and technical advisor.
- Most respondents have MDs.
- Health service delivery is the leading programmatic area of work.
- There is an unusually strong need for information on FP/RH topics in NA/ME, including postpartum family planning, healthy timing and spacing of pregnancies, and post-abortion care.
- Almost 80% of respondents expressed a need for information on BCC, which was higher than any other program management topic in any other region.
- Respondents consider handbooks to be the most useful print resource and workshops to be the most useful form of interpersonal communication for obtaining health information.
- 98% of respondents have access to a computer with a CD-ROM drive.