



Family Planning Professionals' Behavioral Journey in Knowledge Management

SEPTEMBER 2020

Findings from
Formative Research

Knowledge
SUCCESS

Acknowledgments

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Acronyms

Busara	Busara Center for Behavioral Economics
BE	Behavioral Economics
CCP	Johns Hopkins Center for Communication Programs
CoP	Community of Practice
FP/RH	Family Planning and Reproductive Health
K4Health	Knowledge for Health
KM	Knowledge Management
Knowledge SUCCESS	Knowledge Strengthening Use, Capacity, Collaboration, Exchange, Synthesis, and Sharing
USAID	United States Agency for International Development
VARK	Visual, Aural, Read/write, and Kinesthetic

Glossary

Behavioral Archetypes: An analysis framework to understand user behavior, focused on group needs, motivations, challenges, and how they think, feel, and act in particular situations or scenarios.

Behavioral Economics: A method of economic analysis that applies psychological insights into human behavior to explain economic decision-making.

Behavioral Science: A branch of science (such as psychology, sociology, or anthropology) that deals primarily with human action and seeks to generalize about human behavior in society.

Choice Overload: The effect of having too many choices leading to undesired outcomes such as unhappiness and inaction.

Cognitive Overload: A situation where too much information is given simultaneously so that it exceeds the cognitive processing capability of the individual.

Explicit Knowledge: Knowledge that is in a format that can be stored and shared with others, such as in databases or publications.

Inertia: The endurance of a stable state associated with inaction.

Knowledge Management: The systematic process of collecting knowledge and connecting people to it so they can act effectively and efficiently.

Learning Preferences: How individuals prefer to receive information, which can influence how well they are able to internalize, understand, and even act on the information they receive. Seven learning styles are commonly referenced:

- **Visual:** Preference for images, pictures, diagrams, and charts to represent what could have been presented in words.
- **Aural:** Preference for information that is heard or spoken, such as lectures, speaking, and discussions.
- **Verbal:** Preference to take in information displayed as words and text.
- **Physical:** Preference to learn information through the body and sense of touch (e.g., direct experience, hands-on activities).
- **Logical:** Preference for logic, reasoning, and systems.
- **Social:** Preference to learn in groups or with other people.
- **Solitary:** Preference to working alone through self-study.

Pro-social: Behavior that benefits other people or society as a whole.

Social Norms: Establishing behavioral expectations or rules within a group of people.

Status Quo Bias: A psychological preference for the current state of affairs.

Tacit Knowledge: Knowledge that is in people's heads, for example, their experiences and know-how.

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Executive Summary

There is a wealth of family planning and reproductive health (FP/RH) knowledge accumulated through research and practical programmatic experience. However, ensuring that this knowledge is shared among FP/RH professionals, accessible to all, and applied in practice remains a challenge. Knowledge SUCCESS (Strengthening Use, Capacity, Collaboration, Exchange, Synthesis, and Sharing) is working directly with FP/RH professionals around the world to design better tools and solutions to support their work in FP/RH programs as they seek relevant information, share evidence and best practices, and apply learnings to their context. Funded by the United States Agency for International Development (USAID), the project is led by the Johns Hopkins Center for Communication Programs (CCP) in partnership with Amref Health Africa, the Busara Center for Behavioral Economics (Busara), and FHI 360. A critical component of the project's work is to apply behavioral science methodologies and a behavioral economics (BE) framework to designing new KM solutions and improving existing ones.

This report sets out the methodology, findings, and recommendations from formative qualitative and quantitative research conducted with a specific BE lens, led by partner Busara. We sought to identify the current behaviors, motivations, needs, and opportunities with regards to knowledge management (KM)—specifically focusing on seeking, sharing, and using knowledge—among the FP/RH community.

Methodology

We undertook quantitative and qualitative research between July 8, 2019, and November 29, 2019, to gain a deeper understanding of the current KM habits and needs of FP/RH professionals. We first conducted **preliminary interviews** with 7 FP/RH professionals from Kenya, Nigeria, and the United States to get an initial understanding of their needs and experiences in KM. These findings informed the development of an online survey instrument and an in-depth interview guide.

We then conducted the **online survey** with a convenience sample of global health professionals to collect data on background demographic characteristics, information seeking, sharing, and use practices, KM culture within their organizations, and learning style preferences, using Neil Fleming's VARK learning model that identifies 7 learning styles: Visual (use of images and pictures), Aural (use of sound and music), Verbal (speech and writing), Physical (sense of touch), Logical (logic, reason and systems), Social (group activities or with other people), and Solitary (studying or working alone). We included data from respondents who identified FP/RH as one of their primary technical health areas that they work in and excluded data from respondents who identified their job function solely as a service provider (since service providers are not a direct audience of Knowledge SUCCESS). In addition to using descriptive statistics to summarize the data, we used correlational analysis and chi-squared tests to

investigate whether there were any significant associations between variables of interest, with the aim of identifying sub-groups of FP/RH professionals with different KM behaviors based on demographic characteristics, learning styles, motivations, and/or attitudes in order to develop behavioral archetypes—models of the typical behaviors of audience sub-groups, focusing on what the audience sub-groups do, why they do it, and how.

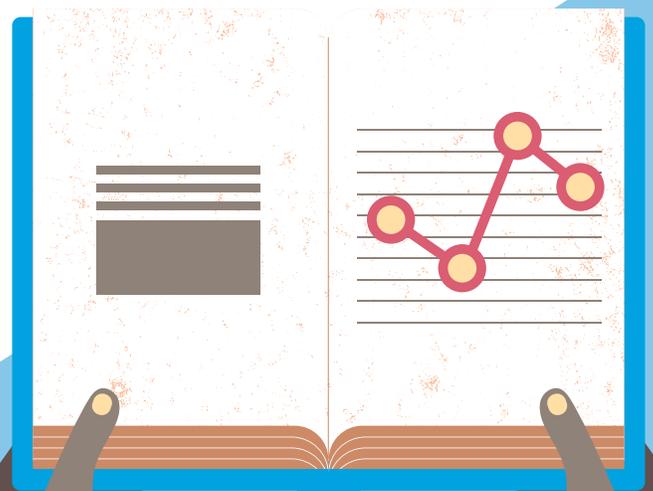
Finally, we conducted **in-depth interviews** with FP/RH professionals across the world, representing four professional groups: Program Managers, Technical Advisors, Researchers and Evaluators, and Policy Makers. Our inquiry focused on how these different professional groups seek, share, and use knowledge to inform FP/RH programs and policy, including barriers and opportunities experienced throughout their journey. We used information gathered from the interviews to construct journey maps for each professional group—visualizations of the process that these audience groups undertake to accomplish their KM goals. We also applied a BE framework to identify common BE concepts that can explain core barriers and opportunities that the audiences identified.

Findings

ONLINE SURVEY AND BEHAVIORAL ARCHETYPES

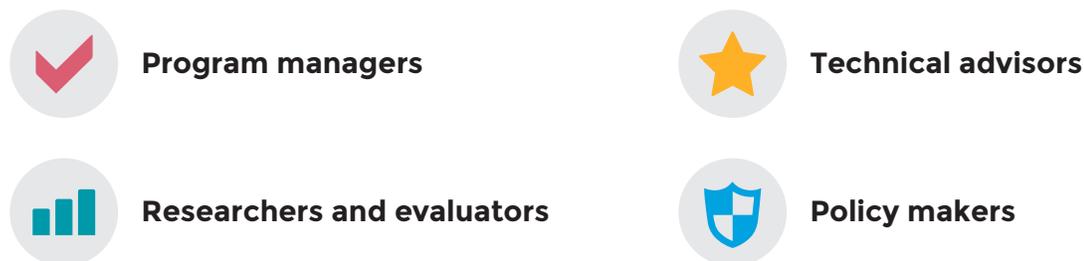
In total, 759 respondents completed the online survey in either English or French. After removing incomplete cases and applying our inclusion and exclusion criteria, 273 respondents remained in our analysis sample. Of the 273 respondents, the majority (63.0%) were men and most had a Master's degree or above (64.9%). They represented a range of professional roles, with the top three being program managers (28.5%), researchers/evaluators (17.7%), and technical advisors (15.4%). The most frequently mentioned type of organization for which the respondents worked was NGOs (44.3%), followed by academic/research institutions and medical organizations (14.5% each). The respondents came from a total of 52 different countries. In total, 71.0% of the respondents were from the Africa region and 16.0% from Asia.

Respondents reported **seeking information** most commonly through Google and other online sources (39.9%), as well as peer-to-peer interactions (33.2%). To **share information** (within their organization), respondents reported most commonly using email (22.5%) and face-to-face interactions (22.2%). Chat apps (12.4%), print materials (11.3%), and phone (10.4%) also comprised notable percentages. When asked why respondents **use FP/RH information** resources, such as the Global Health eLearning Center and K4Health Toolkits, the most commonly reported reasons were for training and learning (29.0%), sharing with others (20.7%), to inform program implementation (18.3%), for research (18.2%), and for advocacy (13.1%). In general, most respondents indicated that their organizations have positive **KM cultures**. For example, three-quarters agreed or strongly agreed that their organization has a strong culture of information sharing



with external parties. The most commonly reported preferred **learning style** was aural at 22.2% while social was the least preferred at 6.4%. The other learning styles were relatively evenly distributed, from 12.8% (solitary) to 16.9% (visual).

Additional analyses focused more specifically on the four FP/RH professional groups deemed to be priority audiences for Knowledge SUCCESS (N=207):



In general, our statistical analyses using demographic or behavioral factors did not produce sub-groups with meaningful or actionable implications. We therefore created descriptive profiles of the KM seeking and sharing methods and preferred learning styles for each of the four professional groups of interest (see audience profile infographics).

IN-DEPTH INTERVIEWS AND JOURNEY MAPS

We interviewed 27 FP/RH professionals in total, but 4 of the individuals had been incorrectly identified as belonging to one of the four professional groups of interest and were thus excluded from the journey mapping analysis, leaving a final sample of 23 individuals. Of the 23 in-depth interviewees, 11 were Program Managers, 7 were Researchers and Evaluators, 3 were Technical Advisors, and 2 were Policy Makers. Most of the interviewees were based in Africa (n=19), while the remaining were from the United States (n=2), Indonesia (n=1), and Switzerland (n=1). There was a relatively even number of women (10) and men interviewed (13).

The following key insights emerged from the interviews:



Program Managers:

Mostly search for FP/RH information in order to inform program decision making and monitoring and evaluation, and to document success stories. The program managers interviewed had a preference for searching through online sources (most notably Google and trusted websites and online publications such as PubMed and K4Health). In addition, some had a strong preference for gathering information from face-to-face and phone interactions with resource persons. The interviewed program managers said they shared information mostly with stakeholders and donors but also communities of practice. They typically use internal platforms (e.g., Slack, Microsoft Teams, OneDrive) to share information with colleagues as well as email and less formal platforms like WhatsApp to share information with both colleagues and external partners.



Technical Advisors:

Primarily engage in searching for FP/RH information in order to update their knowledge in their area of technical expertise and to use that information to inform high-level program and policy decision making. They repeatedly use platforms that gain them recognition for their contributions and allow them to access information that is niche or hard to find. The technical advisors interviewed search for information primarily through online sources, starting with Google and following sources they consider to be reputable. Some have sources they trust for specific kinds of information and often start their searches there. They also use internal information sources (i.e., office intranet and resource persons) when available. In terms of information sharing, this mostly takes place through email but they also use other digital platforms, such as K4Health's platforms, as well as interactive methods like technical brown bags.



Researchers and Evaluators:

Have a preference for academically rigorous findings and use this information to fill knowledge gaps. They share based on the information needs of peers, a practice that is sometimes motivated by a desire to form collaborations. They repeatedly use information sources that allow them to keep up with the work of colleagues and to access multiple sources at a time. Those interviewed indicated they gather information from both primary research (e.g., interviews, focus group discussions, and surveys) and secondary sources (mostly from official and academic sources such as the World Health Organization, Google Scholar, PubMed, and K4Health). Their research is often collated into a report format and mostly disseminated by email, but they also share through formal dissemination meetings and informal platforms, most notably WhatsApp.



Policy Makers:

Seek information in order to serve the public interest, which they accomplish by conducting needs assessments to identify policy gaps and new developments in FP/RH that might affect the country. They seek to understand the impact of the policies, develop standards, and draft policies. Policy makers have a strong preference for official data, so they prefer to search for information from existing official sources as well as globally recognized online sources such as the Implementing Best Practices initiative. They prefer to share the findings and policy recommendations they develop through dissemination meetings with key stakeholders.

Program Managers, Technical Advisors, and Researchers and Evaluators all reported common barriers in seeking, using, and sharing information. This included **choice overload** (too many sources of information) and **cognitive overload** (challenges in knowing what information to engage with and how to apply it). These barriers often manifest in different ways. For example, cognitive overload emerges for Program Managers when evidence is not contextualized to their local setting. For Technical Advisors, however, cognitive overload is due to challenges translating technical information into actionable information. We also identified a need for **intrinsic incentives** (motivation driven by internal rewards) to share information, as opposed to extrinsic incentives (motivation driven by external rewards) driven by donor or role requirements. For more detailed information about the journey of these FP/RH professionals in KM, including an analysis of the behavioral barriers and opportunities at play at different touchpoints in the process, see the journey maps.

Recommendations

The insights from this research have broad applicability that can inform USAID's investment in KM across all of its FP/RH projects as well as for other donors and organizations. Below are key recommendations to put the behavioral research findings into action.

Continue using a mix of online and interactive face-to-face KM tools and techniques to meet FP/RH professionals' needs efficiently and effectively. Through both the survey and in-depth interviews, FP/RH professionals expressed using a mix of online and face-to-face KM tools and techniques to seek and share information. This confirms our experience under predecessor projects in which we found that effective KM strategies use both online products that are adept at capturing, synthesizing, and sharing explicit knowledge and interactive techniques that help connect people with each other and to the knowledge they need, particularly tacit knowledge that may otherwise be difficult to capture.

Create content in a range of formats to meet FP/RH audiences' different preferred learning styles. Although FP/RH professionals' stated learning preferences cut across a wide range of styles, aural, visual, and logical learning featured prominently among survey respondents. Much of the existing FP/RH content is verbal (written) in nature, so focusing on creating content in additional formats may be well-received by the FP/RH community.

Leverage existing online KM best practices and innovations that resonate with FP/RH professionals to address common BE barriers and opportunities. For example, innovative search methodologies that use visual elements, such as icons, can help users find the information they need to help address choice overload (having too many choices, potentially leading to inaction). Tailored information push strategies can help with cognitive overload (having too much information at the same time so that it exceeds an individual's ability to process the information). Certificates can provide motivation and incentives to complete certain KM behaviors, such as completing a course or sharing information.

Design and promote new KM platforms in collaboration with the KM champions of organizations, to ensure the platform has buy-in from the beginning and is likely to be taken up as a network or organizational norm. Capitalizing on this “social norm” mechanism can particularly help with information sharing behavior, which was found to be driven strongly by the existence of organizational KM policies and training.

Explore the use of incentives and commitment devices to reframe the benefits of sharing information, thus creating a more dynamic and interactive community of sharing. Sharing behavior currently appears to often be reactive, conducted in response to donor or job requirements or when someone specifically asks for a particular type of information, suggesting a lack of intrinsic motivation to share information. Fostering this type of intrinsic motivation through, for example, social recognition, could motivate increased knowledge sharing. Prompting audiences to make public commitments to share or contribute knowledge on a platform could also help motivate people to take action.

Consider how to implement specific recommendations expressed by FP/RH professionals. These recommendations included standardizing how information is presented, encouraging people to more proactively share information, and making use of machine learning. For example, the Global Health: Science and Practice journal is well-placed to provide more specific guidance to their readers on how to implement interventions that are synthesized in their journal articles.

In addition, some project-specific recommendations emerge from the research findings as the Knowledge SUCCESS project rolls out some key activities related to audience segmentation and co-creation workshops.

Segment audiences by professional role to design effective and efficient project strategies to reach and engage with audiences. Although no clear insights emerged from the online survey on specific factors that predict FP/RH professionals’ KM behaviors, the qualitative research did find some distinct behavioral factors by professional role. Providing targeted KM support for different professional groups could enhance the ability of FP/RH professionals to access and use relevant information suitable for their specific roles.

Use the project’s upcoming co-creation workshops to gain a deeper understanding of the key BE mechanisms experienced by different professional groups and factor them into the design of KM solutions. This will ensure that KM solutions speak to as broad a user group as possible while still being tailored to the needs of each professional group. Product solutions that emerge from the co-creation workshops can then be optimized by incorporating mechanisms that address the identified BE barriers and leverage the BE opportunities.

Conclusion

Insights from this formative research will shape the focus of KM solution design under Knowledge SUCCESS and has broader implications for how to improve the effectiveness and efficiency of KM efforts in the global health field. In particular, KM solutions should reduce cognitive and choice overload, foster intrinsic motivation for sharing, and obtain the buy-in from KM brokers at the organization or network level. In addition, while a range of learning styles resonated with different FP/RH professionals, visual, aural, and logical styles seem to feature more prominently. Given that much of the existing FP/RH content is verbal in nature, creating content in different formats might prove to enhance accessibility to and use of critical FP/RH information. Finally, the research confirmed that using a mix of KM tools and techniques to make critical FP/RH information available and accessible and facilitate its use to inform FP/RH programs and policy is an effective strategy for meeting FP/RH professionals where they already are.

As the Knowledge SUCCESS project rolls out implementation of co-creation workshops in Africa, Asia, and the United States, we will collect additional information on FP/RH professionals' KM needs, barriers, and opportunities to validate and build upon the current research, particularly as it relates to commonalities or differences by gender, culture, professional role, or other characteristics, and use this important information as a foundation to co-create new KM solutions to meet FP/RH professionals' needs.

Introduction

Knowledge SUCCESS (Strengthening Use, Capacity, Collaboration, Exchange, Synthesis, and Sharing) champions the strategic and systematic use of knowledge by individuals and organizations who design, implement, manage, and evaluate voluntary family planning and reproductive health (FP/RH) programs and policies. The project directly addresses the needs of a wide range of FP/RH professionals across the globe.¹ Funded by the Office of Population and Reproductive Health at the United States Agency for International Development (USAID), the project is led by the Johns Hopkins Center for Communication Programs (CCP) in partnership with Amref Health Africa, Busara Center for Behavioral Economics (Busara), and FHI 360.

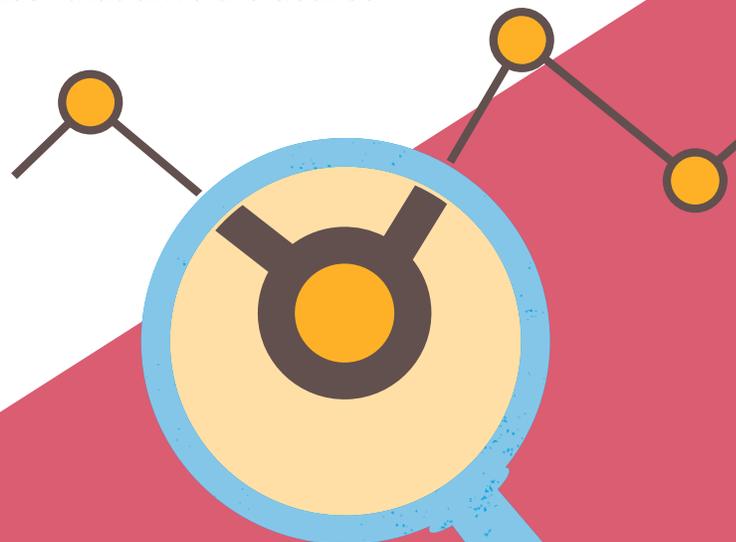
One of the project's strategies is to apply behavioral economics (BE), and more broadly behavioral science, approaches to make knowledge salient and timely and easy and attractive for people to use. In addition, by understanding the needs of the intended users and involving them in designing knowledge management (KM) solutions, Knowledge SUCCESS aims to ensure that project activities and outputs are driven by bottom-up demand and design, and therefore more likely to be adopted and sustained.

This report summarizes findings from formative research conducted to understand the needs and context of our audiences in order to inform future project activities, including how to best segment our audiences and how to design upcoming co-creation workshops and KM solutions and activities at large.

Knowledge Management Framework

The [Knowledge Management for Global Health Logic Model](#) highlights the key stages in the knowledge management process—knowledge assessment, generation, capture, synthesis, and sharing, leading to knowledge use—that drive the desired outcomes that health programs are trying to achieve. This formative research focuses on three distinct but interacting KM stages or behaviors that FP/RH professionals undertake in their work—knowledge seeking (which incorporates assessment and capture), sharing (which could entail synthesis), and use (Figure 1).

¹ The exception is FP/RH service providers because many other projects work directly with service providers. Knowledge SUCCESS therefore supports those projects, and thus indirectly supports providers.



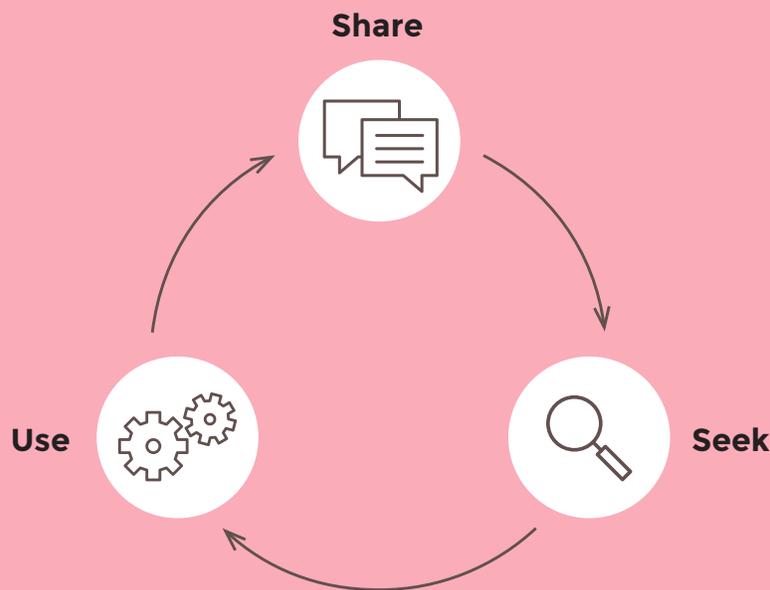
Knowledge **seeking** is defined as the act of acquiring new information to fill an identified knowledge gap or to keep up-to-date with new knowledge as it emerges.

Knowledge **sharing** is the distribution of knowledge, whether produced themselves or by a third party, to internal and external audiences, whether through articles, fact sheets, videos, images, or face-to-face interactions.

Knowledge **use** is the consumption and internalization of this newly acquired knowledge and then putting that knowledge into action to inform FP/RH programs and policies, possibly resulting in the generation of new knowledge and further sharing.

Indeed, this process is not linear, with people potentially moving in and out of different stages throughout the KM cycle.

FIGURE 1.
KEY KNOWLEDGE
MANAGEMENT
BEHAVIORS



Research Objectives

The purpose of the research was to gain a better understanding of:

- The relationship between learning preferences and current KM behavior and attitudes, across gender, profession, and type of organization.
- The day-to-day experience of FP/RH professionals with regards to acquiring new knowledge and sharing it with their internal and external networks.
- The current KM barriers and challenges faced by FP/RH professionals.
- Opportunities for improving existing solutions or creating new, innovative solutions to meet FP/RH professionals' KM needs.

To meet these objectives, we conducted a mixed-methods study using both an online survey and in-depth interviews.

Methods

For this formative research, we used a three-phased approach using both quantitative and qualitative data. First, we started with **preliminary interviews** with a small sample of FP/RH professionals to gain a better understanding of the FP/RH landscape and inform the development of a quantitative survey instrument and in-depth interview guide. We then launched an **online survey** to collect data from a large sample of FP/RH professionals on a range of dimensions including background demographic characteristics, learning style, KM behaviors and attitudes, and organizational culture. This allowed us to look for any relationships between variables of interest and better understand how different factors may be interacting to influence ultimate KM outcomes, with a view to defining audience segments focused on specific KM behaviors and needs—what is referred to as behavioral archetypes. Finally, we conducted **in-depth interviews** with a sample of FP/RH professionals to gain a detailed understanding of their lived experience throughout the KM process including how they seek, share, and engage with information to inform their work, the platforms and resources they use to do this, how they engage with their colleagues and peers within and outside their organization to share information, and the barriers they currently face in seeking, sharing, and using information. From this information, we developed journey maps for four different professional groups. The resulting journey maps synthesize commonalities and differences across professional groups with regards to their KM behavior, as well as the barriers and opportunities they experience. Taken together, the journey maps and archetypes provide a comprehensive understanding of the current KM experience of FP/RH professionals.

Preliminary Interviews

As a first step, we conducted seven interviews over the phone and Skype with stakeholders in the health sector between July 8 and July 23, 2019, to gather an initial understanding of the KM landscape in this sector, such as how respondents engage with information to inform their work, how they engage with their colleagues and peers within and outside their organization to share programmatic experiences and lessons, and understanding their learning style and preferences. (See [Annex A](#) for the preliminary interview guide.) The interviewers took detailed notes,



including direct quotes, and entered them into a stripping sheet that organized the information by different key questions and themes, making it easier to analyze responses across different types of respondents.

Interviewees came from Kenya (2), Nigeria (3), and the United States (2). These countries were selected because they are key target countries for the Knowledge SUCCESS project and are representative of the health systems that exist in many developing countries. Moreover, the Busara research team has a strong presence in both Kenya and Nigeria. CCP and Busara jointly identified potential interviewees.

The respondents were senior and mid-level professionals in the FP/RH space, with 3 to 27 years of experience. All of the interviewees were women, working in different roles such as Senior Technical Advisors, Program Officers, and Technical Directors. They worked for such organizations as USAID and Pathfinder International. Each interview lasted approximately 45 minutes to 1 hour.

We used findings and insights from these preliminary interviews to inform the development of the online survey instrument ([Annex B](#)) and the interview guide for the core in-depth interviews ([Annex C](#)).

Online Survey

DATA COLLECTION

Using insights from the preliminary interviews, we developed an online survey instrument that asked respondents questions on:

- **Demographics** including geographic location, educational attainment, primary job function, type of organization where they work, years of work experience, sex, and primary health technical areas that they focus on
- **Learning preferences:** How they engage with and internalize the information they receive. Neil Fleming's VARK (Visual, Aural, Read/write, and Kinesthetic) learning model of 7 different styles was used, which consist of:
 - Visual:** Preference for images, pictures, diagrams, and charts to represent what could have been presented in words.
 - Aural:** Preference for information that is heard or spoken, such as lectures, speaking, and discussions.
 - Verbal:** Preference to take in information displayed as words and text.
 - Physical:** Preference to learn information through the body and sense of touch (e.g., direct experience, hands-on activities).
 - Logical:** Preference for logic, reasoning, and systems.
 - Social:** Preference to learn in groups or with other people.
 - Solitary:** Preference to working alone through self-study.
- **Information seeking:** How respondents access information, how often they search for information, what methods they use, and how easy they find it

- **Information sharing:** How often they share information, what methods they use, and why they share
- **KM culture and practices:** The existence of KM protocols, training, and figureheads within their organizations

The survey was programmed using Survey CTO in both English and French.

We sent a link to the survey to K4Health and associated product distribution lists (i.e., K4Health newsletter subscribers, *Global Health: Science and Practice* journal subscribers, Global Health eLearning Center registered users), broader global health listservs (Health Information for All [HIFA], HIFA-French, Global Health Knowledge Collaborative, KM4Dev), and CCP and FHI 360 field offices in both English and French. Subscribers to these lists are mostly professionals working on a variety of health issues across the world and at different levels, with a large number working on FP/RH. The survey was left open for a total of 8 days, between August 15 and August 22, 2019.

DATA ANALYSIS

Once the survey was closed, the raw data were downloaded from the Survey CTO repository. We conducted initial cleaning and labeling of variables in Microsoft Excel. All analysis, including descriptive statistics, was then conducted in R statistical computing and graphics software (www.r-project.org). In our analyses, we included data from respondents who selected FP/RH as a topic of focus in their work and excluded respondents who identified their job function as solely being a service provider (since they are not direct audiences of Knowledge SUCCESS). If respondents chose service provider plus another job function, we assumed their professional responsibilities consisted of an equal split across all professional groups selected. In other words, responses were weighted depending on the number of job functions that they selected. For example, if a respondent selected Program Manager and Service Provider, they were scored as 0.5 Program Manager and 0.5 Service Provider.

We used correlations and chi-squared tests (depending on the nature of the variables) to explore whether any relationships existed between core variables of interest. For this analysis, we focused on a specific subset of respondents who mapped to the project's priority audiences of FP/RH program managers, technical advisors, researchers and evaluators, and policy makers. In the analysis, we explored whether there were any associations between background demographic characteristics (gender, professional role, organization type, geographic region, years of experience, and years of education), learning preference, most commonly used method to seek information, most commonly used method to share information, information use attitudes (whether they found information materials difficult to use or difficult to understand), information seeking attitudes (whether they find it easy to find the information), and information sharing attitudes (whether they felt they had the necessary tools to share information). For learning preferences, we used the variable in which respondents self-reported their preferred learning style from among the seven VARK learning categories, rather than the series of binary learning preference questions where respondents indicated their likely behavior under a number of scenarios, because the self-reported data pointed toward the respondents' conscious learning preference of how they prefer to engage with information and also because the single-option response from the self-reported data facilitated the correlational analysis.

The aim of the statistical analyses was to identify if there were any strong, consistent relationships between variables that would allow us to conduct audience segmentation analysis, in which we could form distinct sub-groups within the dataset based on clusters of variables that were all related. We did not focus on knowledge use in the statistical analyses for a number of reasons. First, in contrast to the knowledge seeking and sharing survey questions, the knowledge use survey questions were specifically focused on K4Health products, rather than more general categories of KM solutions, in order to provide the respondents a specific use-case to consider when answering the use questions. Conclusions around general use solely based on K4Health products therefore risked lacking validity. Secondly, we see seeking and sharing as a necessary precursor to effective usage: creating a healthy exchange of information among a network relies on people sharing and seeking information in the first instance. We therefore focused on this necessary first step to understand the potential need gaps.

Core In-Depth Interviews

DATA COLLECTION

After closing the online survey and conducting preliminary analysis of the survey data, the project team decided to concentrate on four main professional groups for the in-depth interviews, based on project priorities:



Program Managers: Individuals who are involved in the management of programs or projects that directly or indirectly serve FP/RH clients. They work across a wide range of organizations, including NGOs and medical organizations.



Technical Advisors: Individuals with in-depth experience and expertise in their respective fields, often working in senior management positions in health organizations. They tend to work in organizations such as donor agencies and NGOs, providing technical advice to inform program approaches and policy.



Researchers and Evaluators: Individuals who are primarily involved in research, writing reports, and disseminating findings in an academic or evaluation setting. They may work for academic bodies, research institutions, or government statistics bureaus.



Policy Makers: Individuals who indicated that their primary role within their organization is developing policies in the FP/RH setting. They can be found in organizations like government ministries and policy think tanks.

We identified individuals for interviewing through the online survey, whereby respondents were asked whether they would be willing for a member of the research team to follow-up with them for an in-depth interview. The final convenience sample of individuals chosen for an interview was based on whether they identified in the online survey as being one of the four professional groups of interest, whether they indicated they were willing to participate in the follow-up interview, and whether they were available for an interview during the research period. We also took into account geographic location of the participant to obtain as wide representation as possible and attempted to interview an even number of women and men.

We conducted the interviews via Skype between August 28, 2019, and November 29, 2019. The data from the interviews were recorded directly into a Microsoft Excel data stripping sheet, which was structured around the questionnaire allowing the research team to identify emerging themes from the exercise. The interviews were conducted in English or French, depending on the language of choice of the interviewee. Each interview lasted approximately 45 minutes to one hour.

DATA ANALYSIS

We stripped the data from the qualitative interviews and conducted an inductive thematic analysis by professional group.

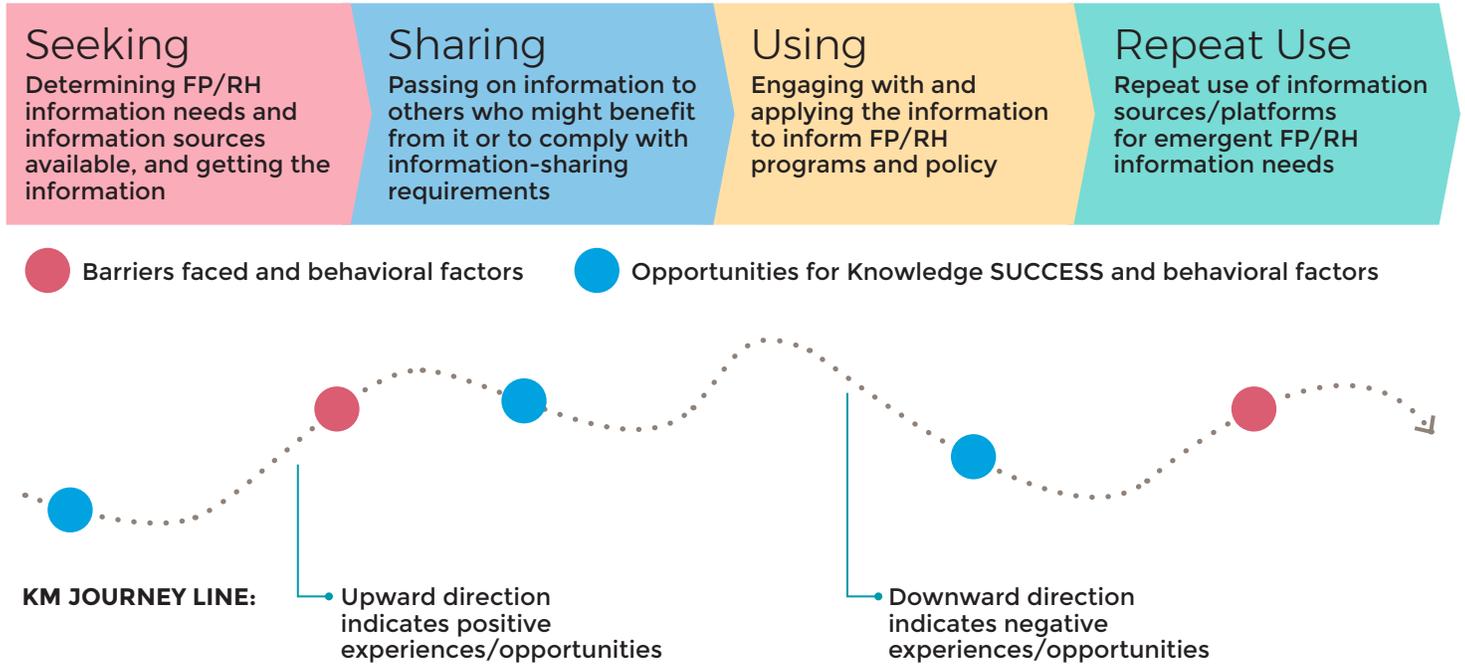
For each professional group, we sought to identify:

- The steps they take in the KM process—how they seek, share, and use information, as well as what makes them decide to use an information source or platform repeatedly. This “repeat use” lens helps us to better understand sustained engagement with an information platform.
- The KM barriers and opportunities individuals commonly reported. Here we applied a specific BE lens, linking barriers identified to known BE mechanisms.
- The commonalities and differences that exist between and across professional groups, specifically with regards to BE barriers and opportunities.

We used the findings from the analysis to develop journey maps for each professional group (see the framework in Figure 2). In the journey map, the dotted line represents the journey that each professional group takes in the KM process as they seek, share, and use information, and undertake repeat use of a platform. The upward direction of this line indicates a positive experience or opportunity whereas a downward direction indicates a negative experience or barrier. The barriers are further identified as red dots on the map and opportunities as green dots, and these barriers and opportunities are linked with BE mechanisms, labeled in boldface font. The actions of the professional group along the KM behavioral process are summarized at the bottom of the journey map, along with an illustrative quote from one of the respondents.

When designing new KM solutions or improving existing solutions, we want to tailor the solutions to users' needs, thus ensuring maximal usefulness, uptake, and impact. However, as we generally want solutions to be taken up by a global audience, we need to balance individual tailoring with generalizability. Understanding the common BE barriers and opportunities that different professional groups face allows us to identify areas to focus design of KM solutions that are important to as many FP/RH professionals as possible. The journey maps aim to summarize the general experience of FP/RH professionals in each audience group as they seek, share, and use knowledge.

FIGURE 2. KM JOURNEY MAP FRAMEWORK



WHAT THEY DO

"An illustrative quote from the audience group describing how they share information."

"An illustrative quote from the audience group describing how they share information."

"An illustrative quote from the audience group describing how they share information."

"An illustrative quote from the audience group describing how they share information."

Findings

Quantitative Survey

A total of 699 respondents completed the online survey in English and 60 in French (N=759). From this total, 3 English and 3 French responses were identified as test cases and removed from the dataset, as were 30 individuals who did not consent to completing the survey at the start (and therefore had blank responses for all remaining survey questions), leaving 723 respondents. After applying our inclusion and exclusion criteria, 74 individuals who selected service provider only as their job function were excluded, as were 376 individuals who did not select FP/RH as one of the three primary health areas in which they work. This left a final analysis sample of 273 respondents.

BACKGROUND CHARACTERISTICS

Of the 273 respondents in the analysis sample, the majority (63.0%) were men (Table 1). Most respondents had a Masters degree (50.2%) or above (14.7%). They represented a range of professional roles, with the top three being program managers (28.5%), researchers/evaluators (17.7%), and technical advisors (15.4%). The most frequently mentioned type of organization for which the respondents worked was NGOs (44.3%), followed by academic/research institutions and medical organizations (14.5% each).

TABLE 1. Background Characteristics of Survey Respondents (N=273)

CHARACTERISTIC	PERCENT		
Sex		Professional Role	
Men	63.0	Program managers	28.5
Women	35.9	Researchers/evaluators	17.7
Prefer not to answer	1.1	Technical advisors	16.4
Education		Trainers/teachers	10.4
Doctorate	14.7	Service providers	10.1
Masters	50.2	ICT officers	6.6
Undergraduate	23.8	Policy makers	3.0
Secondary school	2.6	Writers	0.9
Religious seminary	0.7	Other	6.3
Other	8.1	Years of Experience	
Type of Organization		0-9	54.2
NGO	44.3	10-19	30.0
Academic/research institution	14.5	20-29	9.9
Medical organization	14.5	30+	5.9
Government body	9.8	Geographic Region	
Donor agency	4.6	Africa	71.0
Private company	2.7	Asia	16.0
Faith-based organization	2.5	North America	11.0
Private voluntary organization	1.9	Europe	1.0
News media organization	0.8	South America	1.0
Other	4.4		

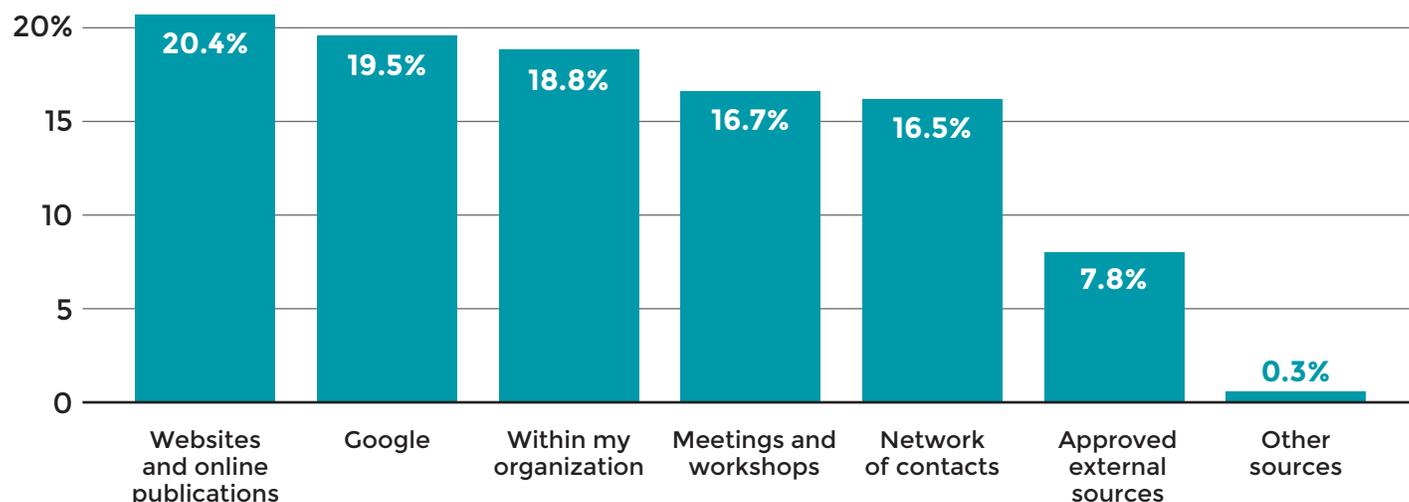
The majority (54.2%) of the respondents were early-career professionals, with 0-9 years of experience, but a substantial proportion (30.0%) were mid-career professionals with 10-19 years of experience. The respondents came from a total of 52 different countries. The greatest representation was from Nigeria (19.8%), followed by Kenya (12.1%) and the United States (9.2%) (data not shown). In total, 71.0% were from the Africa region and 16.0% from Asia.

KM BEHAVIORS

Survey respondents were asked a number of questions about their KM seeking, sharing, and use behaviors, including the different methods they use to seek and share information as well as the most commonly used method to seek and share information. Below, we focus on the most commonly used methods to identify FP/RH professionals' preferences while recognizing that individuals can, and likely do, use multiple methods to seek and share information.

Respondents reported that they most commonly seek information through Google and other online sources (39.9%), as well as peer-to-peer interactions consisting of meetings and workshops and networks of contacts (33.2%) (Figure 3).

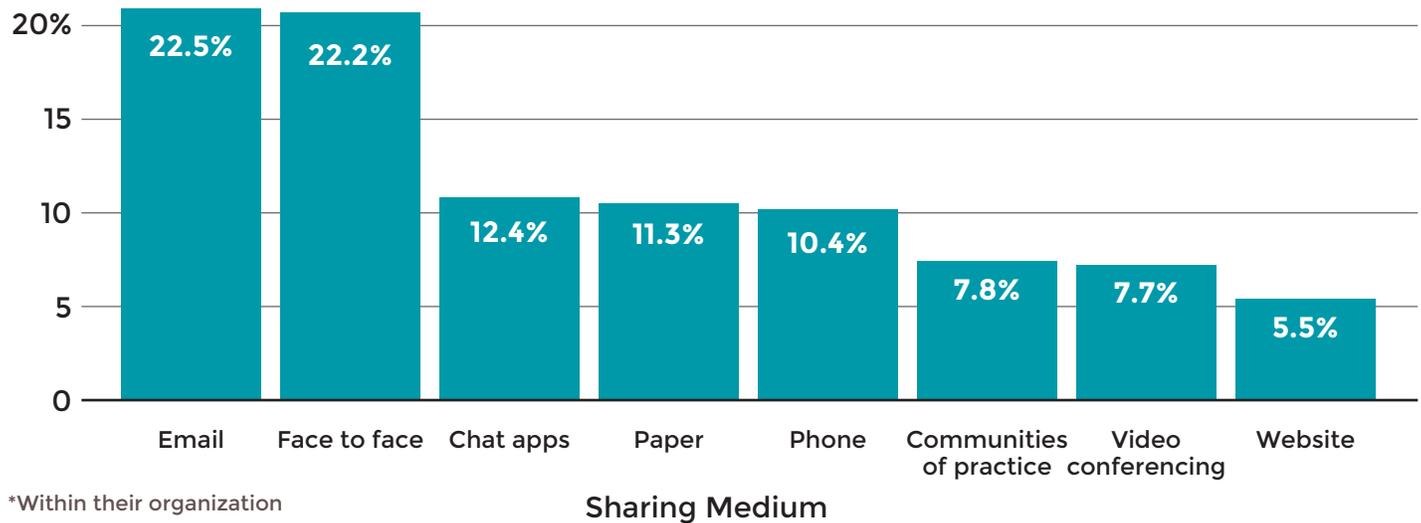
FIGURE 3. Most Commonly Used Methods by FP/RH Professionals to Seek Information (N=273)



To **share information** (within their organization), respondents said they most commonly use email (22.5%) and face-to-face interactions (22.2%). Chat apps also comprised a notable percentage, at 12.4%. Print materials (paper) are still used by 11.3% of the respondents and phone by 10.4%. Other types of methods (communities of practice, video conferencing, websites) were used as the primary sharing method by less than 10% of the respondents (Figure 4).

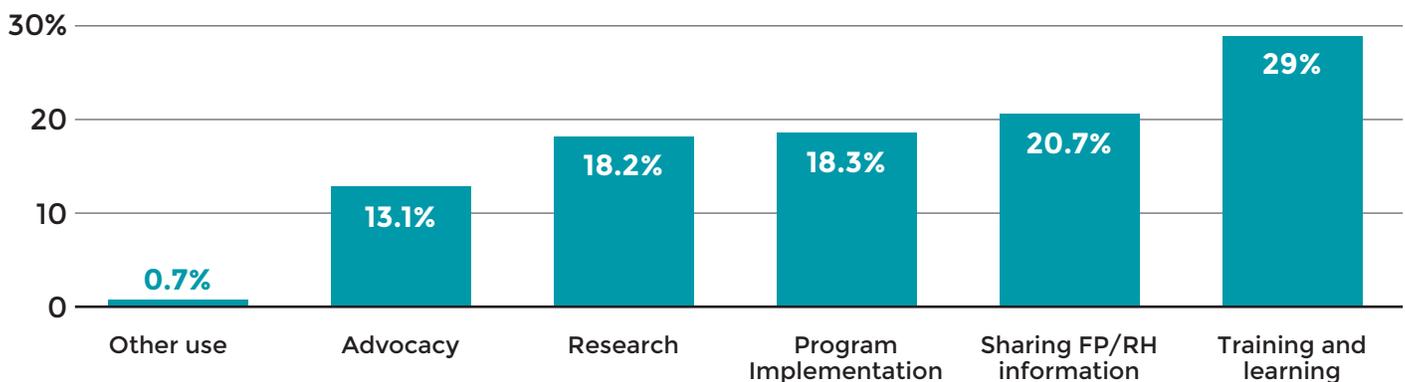
The most commonly reported type of information that respondents shared was programmatic evidence (44.7%), followed by peer-reviewed publications and technical guidelines (16.5% each) and training materials (10.6%). Visual resources were reported by 8.8% of respondents while blogs were reported by less than 1% of respondents (data not shown).

FIGURE 4. Most Commonly Used Methods by FP/RH Professionals to Share Information* (N=273)



When asked why respondents use FP/RH information resources, such as the Global Health eLearning Center, K4Health Toolkits, and the Global Health: Science and Practice journal, the most commonly reported reason was for training and learning (29.0%). However, a wide range of other reasons were also reported including sharing with others (20.7%), to inform program implementation (18.3%), for research (18.2%), and for advocacy (13.1%) (Figure 5). The respondents indicated that what they valued the most about these resources is their comprehensive nature (20.7%), the user-friendly interface (18.0%), the easy navigation (16.3%), and that they are up-to-date and timely (13.8%) (data not shown).

FIGURE 5. Most Commonly Reported Reason for Using FP/RH Information* by FP/RH Professionals (N=273)



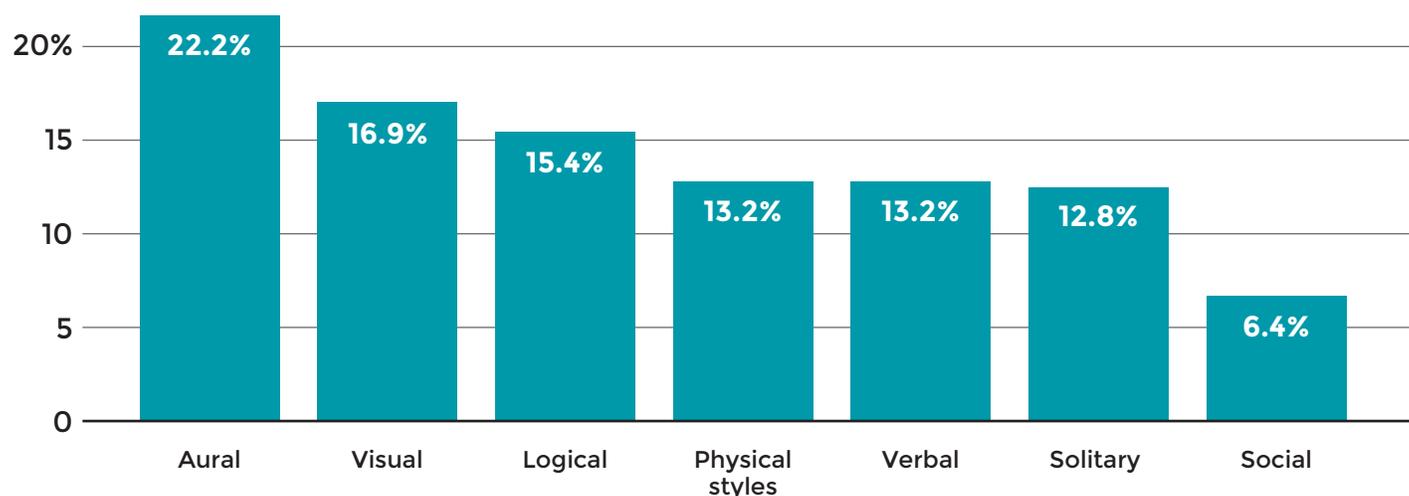
*Respondents were asked specifically about use of K4Health-supported resources, such as the Global Health eLearning Center, K4Health Toolkits, and the Global Health: Science and Practice journal.

In general, most respondents indicated that their organizations have positive **KM cultures**. For example, three-quarters of respondents agreed or strongly agreed that their organization has a strong culture of information sharing with external parties. Furthermore, 55% said their organizations have provided their staff with KM training to at least some extent and 79% said they have dedicated staff, at least to some extent, to support KM (data not shown). (See [Annex D](#) for additional findings from the online survey.)

LEARNING STYLES

When asked about which format they preferred to learn new information, respondents most commonly reported aural at 22.2% while social was the least preferred at 6.4%. The other learning styles were relatively evenly distributed, from 12.8% (solitary) to 16.9% (visual) (Figure 6). When considering content presented in text versus visual format, the survey data suggest a need for both visual and verbal (text) information. For example, when the respondents were asked whether they thought about what they did the previous day in terms of pictures or words, the majority (66.7%) said pictures. But when asked if they prefer to focus on pictures, text, or both in books, the large majority (72.5%) said both. (See [Annex D](#) for detailed findings about learning styles from the online survey.)

FIGURE 6. Preferred Learning Style Reported by FP/RH Professionals (N=273)



BEHAVIORAL ARCHETYPES

Additional analyses to create behavioral archetypes focused more specifically on the four FP/RH professional groups deemed to be priority audiences for Knowledge SUCCESS: program managers, technical advisors, researchers and evaluators, and policy makers (N=207). Of the 207 respondents, 43% were program managers, 27% were researchers and evaluators, 25% were technical advisors, and 5% were policy makers.

In the correlational analysis to develop behavioral archetypes, we found weak associations between the following:

- Seeking attitude (finding it easy to find information) and sharing attitude (feeling like they

- have the tools to share information)
- The two measures of using attitude: finding materials difficult to understand and finding materials difficult to use
- Seeking attitude (finding it easy to find information) and learning preference (preferred learning style)

We also found some statistically significant associations between self-reported learning style and geographic region. For example, the preference for verbal learning was significantly high (40.7%) in high-income countries than across the sample as a whole and the preference for visual learning was significantly high (30.6%) in Asia compared with the entire sample. These findings, however, should be interpreted with caution given the small sample sizes for some geographical sub-groups and require further investigation. In addition, the existing literature does not point to variations in learning style preferences by geography.

In general, our statistical analysis found that neither gender, learning preference, nor professional group were significantly associated with each other, nor with seeking or sharing behavior or attitudes. Due to the lack of strong statistical relationships between any of the variables of interest, we did not proceed with audience segmentation using data clustering, as this would unlikely result in any meaningful sub-groups. Instead, we created descriptive profiles of the KM seeking and sharing methods and preferred learning styles for each of the four professional groups of interest (see infographics on the following pages). Note that none of the differences across professional groups were statistically significant in our analysis.



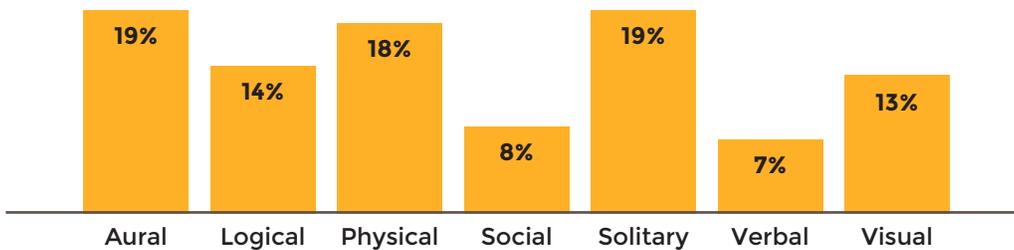


Program managers

Individuals involved in the day-to-day management of projects and teams that directly or indirectly serve FP/RH clients.



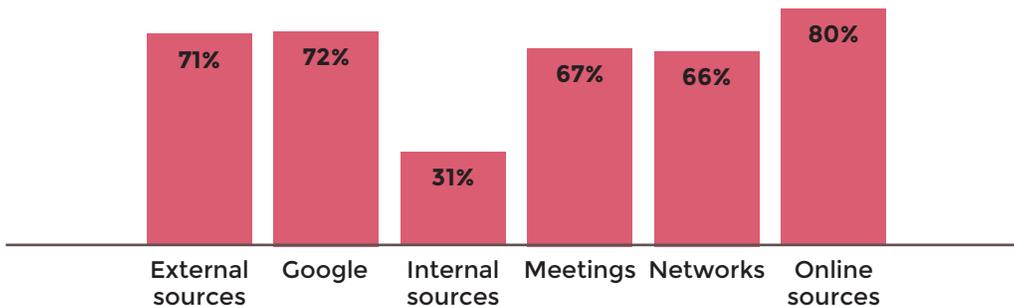
Preferred learning style



The most popular learning styles reported by program managers are aural, solitary, and physical.



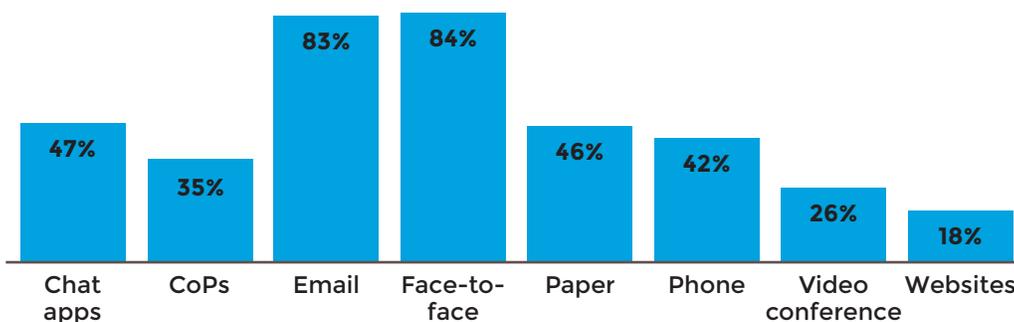
How they seek information



Program managers use a mix of online sources, including Google, and face-to-face interactions to seek information.



How they share information



Although they mostly use face-to-face and email to share information, program managers also make use of other methods such as chat apps and CoPs.

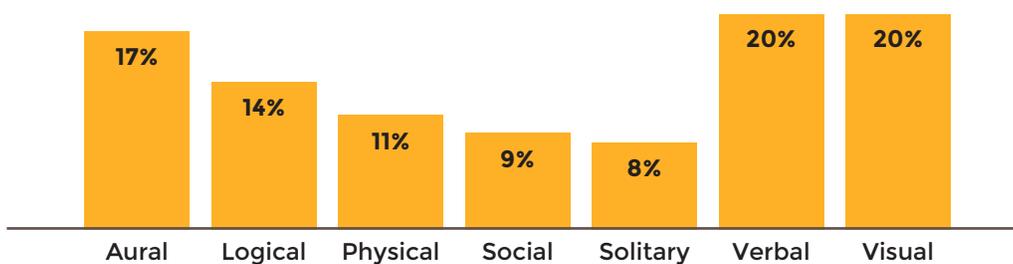


Technical advisors

Individuals with deep experience and expertise in FP/RH programs who play primarily a strategic advisory role across projects.



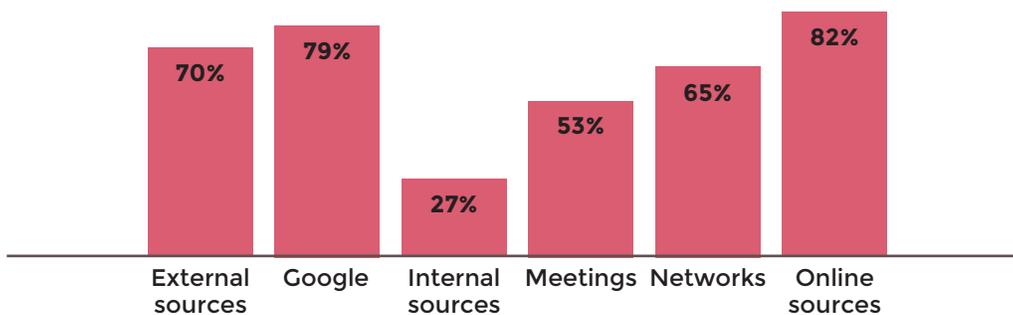
Preferred learning style



The most popular learning styles reported by technical advisors are visual and verbal.



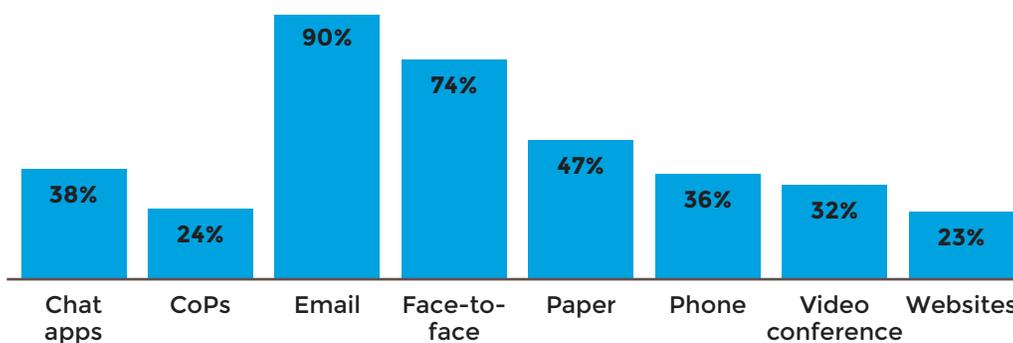
How they seek information



Technical advisors use a mix of online sources, including Google, and face-to-face interactions to seek information.



How they share information



Email is a very popular information sharing tool for technical advisors, as is face-to-face interactions.

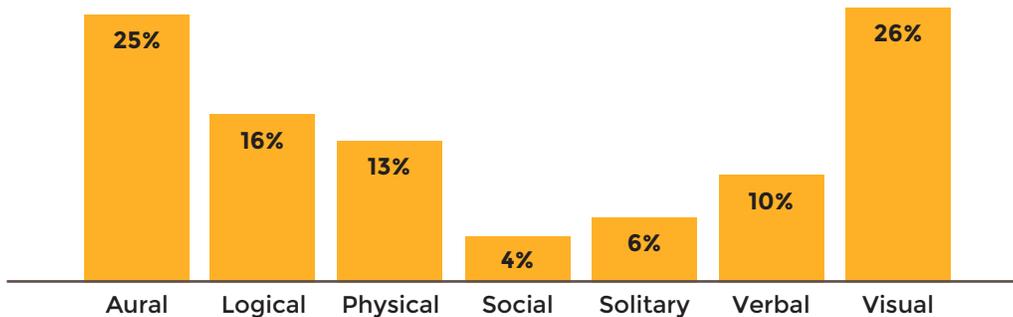


Researchers and Evaluators

Individuals who primarily conduct and manage research or project evaluations, write reports, and disseminate findings.



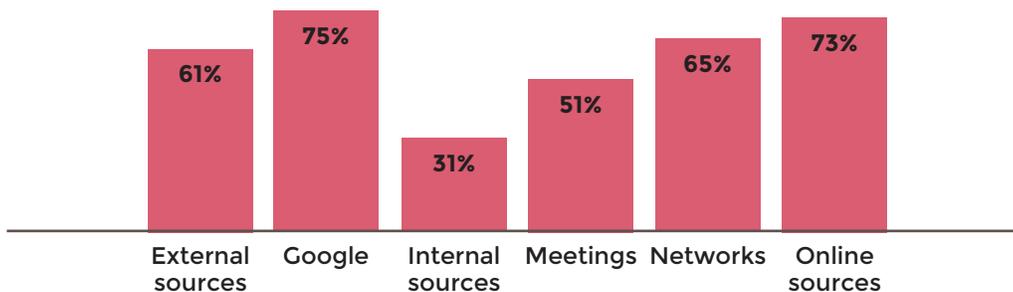
Preferred learning style



The most popular learning styles reported by researchers and evaluators are visual and aural.



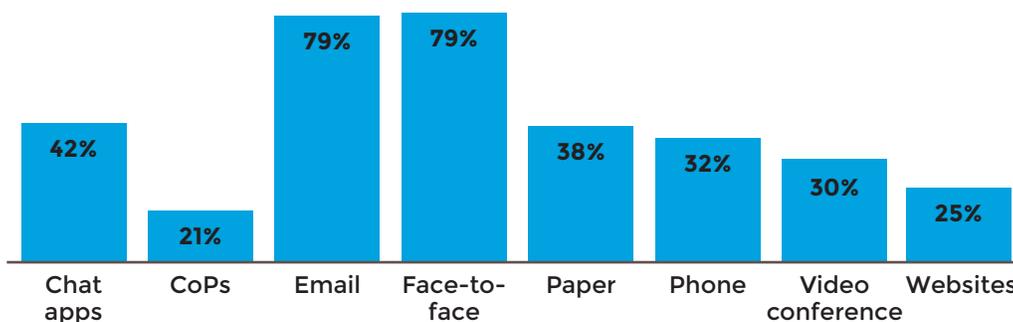
How they seek information



Researchers and evaluators use a mix of online sources, including Google, and face-to-face interactions to seek information.



How they share information



Researchers and evaluators rely heavily on face-to-face interactions and email to share information.

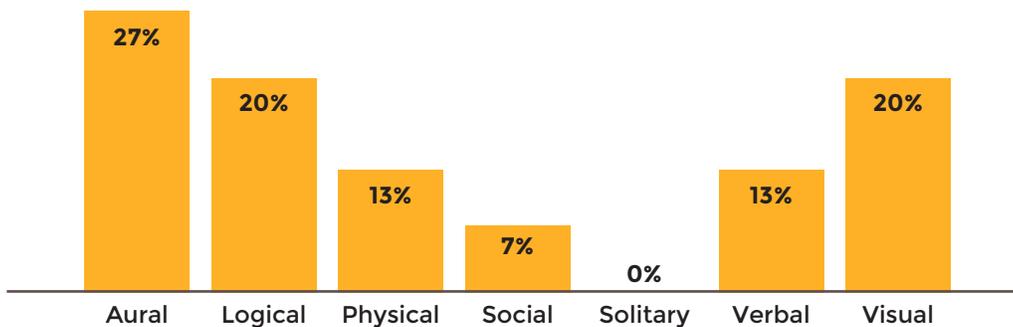


Policy makers

Individuals in government and policy think tanks who develop, update, and disseminate FP/RH policies.



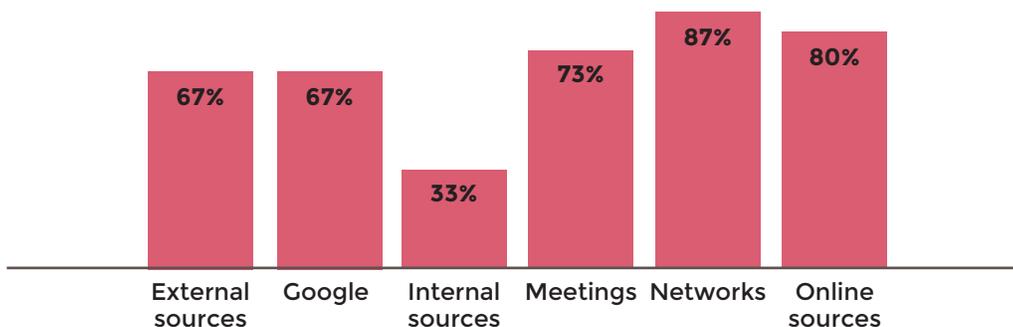
Preferred learning style



The most popular learning style reported by policy makers is aural.



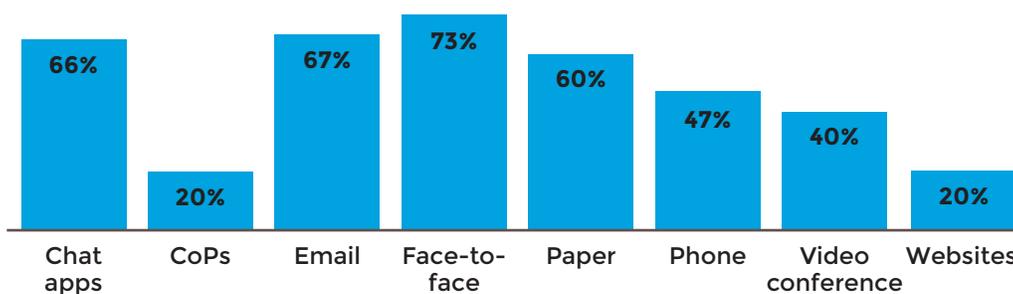
How they seek information



Policy makers rely on their networks and on meetings, in addition to online sources, to seek information.



How they share information



Policy makers use a range of KM tools to share information, from face-to-face interactions and email to chat apps and traditional paper.

Core In-Depth Interviews

We interviewed 27 FP/RH professionals in total, but 4 of the individuals had been incorrectly identified as belonging to one of the four professional groups of interest and were thus excluded from the journey mapping analysis, leaving a final sample of 23 individuals.

BACKGROUND CHARACTERISTICS

Of the 23 in-depth interviewees, 11 were Program Managers, 7 were Researchers and Evaluators, 3 were Technical Advisors, and 2 were Policy Makers (Table 2). The majority of the interviewees (19 of 23) were from Africa (Burkina Faso, Democratic Republic of the Congo, Ghana, Kenya, Malawi, Nigeria, Rwanda, South Sudan, Togo, Uganda, and Zimbabwe), while 2 were from North America (USA), 1 from Asia (Indonesia), and 1 from Europe (Switzerland). There was a relatively even number of women and men interviewed: 10 women and 13 men. The majority of the interviews were conducted in English. Only three interviews were conducted in French.

TABLE 2. Background Characteristics of In-Depth Interviewees (N=23)

CHARACTERISTIC	NUMBER				
Professional Group		Geographic Region		Sex	
Program Managers	11	Africa	19	Women	10
Researchers and Evaluators	7	Asia	1	Men	13
Technical Advisors	3	North America	2		
Policy Makers	2	Europe	1		

We first present findings by professional group, outlining the process that Program Managers, Technical Advisors, Researchers and Evaluators, and Policy Makers each undertake to seek, share, and use information to inform programs and policy (and repeat use of information sources), and the BE barriers experienced along the way. The [journey maps](#) for each of these audience groups are included at the end of this section, along with a [summary](#) of the similarities and differences across the audience groups.



PROGRAM MANAGERS

Information Seeking

Program Managers seek information to understand the impact of the projects and programs that they are operating. This may be a reporting requirement for donors or to improve the implementation of the projects that they manage. They collect data on project inputs and outputs by searching internal repositories and by engaging with other project team members in meetings. Similar to the findings from the online survey, those interviewed had a preference for searching through online sources (most notably Google and trusted websites and online publications such as PubMed and K4Health). In addition, some had a strong preference for gathering information from face-to-face and phone interactions with resource persons.

Information Sharing

Program Managers share information related to their project with donors, either through meetings or written documentation, often in order to comply with contractual obligations and to secure funding.

They also share information with colleagues and peers through internal platforms (e.g., Slack, Microsoft Teams, OneDrive), meetings, training sessions, and informal channels such as WhatsApp. This may be to comply with internal KM policies but also due to the intrinsic desire to share what works. Some Program Managers specifically mentioned that they like to share success stories, rather than research or technical papers, to drive people to take action.

"People are interested in sharing stories. They increase success and are more inspiring than a research paper."

Information Use

Program Managers synthesize and repackage information about their projects, driven by the needs of the intended users. This may take the form of:

- Case studies or outreach materials, such as videos and brochures
- Reports of their projects, for donors, Policy Makers, or Researchers and Evaluators
- Updated work plans based on project progress

Repeat Use of Information Sources

Program Managers report that they repeatedly use KM platforms for a number of reasons:

- To regularly update their FP/RH knowledge and understanding of best practices
- To answer specific technical questions related to their project or programs
- To update and understand the findings from project implementation

The repeat use of platforms enables Program Managers to develop networks with individuals and organizations working on similar projects and to gain recognition for their work within these networks.

Barriers

Along the KM journey, Program Managers identified a number of barriers:

- Information sources are scattered and not all in one place. This can lead to indecision and frustration.

"It would be good if I could find all [information on FP/RH products] in one place."

"It's difficult and frustrating knowing there's a whole host of information out there and it's not all in one place. ... I hope the outcome of this [Knowledge SUCCESS] research is someone will build a repository."

- They have to sift through the information that they find to make sure it is relevant and actionable for their project. The information they find is often not contextualized or specific enough for their area of work. This limits the extent to which it is useful.
- They are restricted in the types of information sources they can use by KM guidelines or policies set by their organization or by donors. The restrictions are often placed to ensure that the information used comes from verified or trusted sources that the organization approves of, such as government data.
- They often face poor internal knowledge management practices, particularly within small-scale organizations that lack the KM tools and capacity.

"There needs to be better tools out there to support the KM needs of small organizations in limited-resource contexts."

- Some recommended that information sources be cognizant that individuals engage with and share information at different paces, driven by different internal and external motivations.

"The culture of sharing within any institution is influenced by people's different behaviors. There are always early adopters, early majority, late majority and laggards. ... there needs to be more proactivity in sharing."

Opportunities

Program Managers also identified a number of common opportunities:

- Program Managers are often able to draw on the support of M&E staff and experts to provide information they need. This interdependency with a wide range of other professional groups means they are accustomed to using a diversity of KM platforms.
- Program Managers are also able to draw on the support of communications staff to share information. Communications specialists help Program Managers repackage information into a format that can be widely shared and used among diverse audiences.
- The majority of organizations, even small FP/RH organizations, store project information digitally. This promotes ease of internal referring and external sharing. Program Managers often use internal sharing platforms such as Microsoft Teams or Slack to communicate and share information internally.
- Program Managers often have a list of trusted sources that they repeatedly use for information. They rely on these platforms to proactively search for information but to also passively receive it through mechanisms such as periodic digests.
- Some respondents suggested more intentional and active use of technological advancements, such as machine learning and artificial intelligence, to replace repetitive tasks that many professionals in the FP/RH space do.

"We should use machine learning and AI [artificial intelligence] to direct people to where they want to go. There is no reason why anyone should be doing literature reviews. How do we make this information accessible and usable to organizations on the ground? AI can give information on what works and what doesn't."



TECHNICAL ADVISORS

Information Seeking

Technical Advisors primarily seek information to keep up to date with the latest developments in FP/RH technology, evidence, and policies. They search information primarily through online sources such as Google. Some have a list of preferred sources that they use as a starting point when searching for information. If these sources do not have the information they need, they turn to searching Google. They also use internal information sources (i.e., office intranet and resource persons) when available. In most cases, they are looking for official or peer-reviewed information that answers a specific technical question.

Information Use

Once Technical Advisors have found the information they need, they use it to update their own knowledge and respond to technical questions, providing advice on FP/RH products, processes, or policies. They analyze the information, conduct quality assurance of it, and apply it to the specific context or question.

Repeat Use of Information Sources

Technical Advisors have significant experience in searching for information in the field and have developed heuristics, or mental models, with regards to which sources are best for which kinds of information. They, therefore, refer to specific sources for specific types of information.

Technical Advisors are also particularly likely to engage with platforms that allow them to share and receive recognition for filling information gaps in the field. This results in them seeking out platforms with niche, harder-to-find, information.

Barriers

Along the KM journey, Technical Advisors identified a number of barriers:

- Information that Technical Advisors provide is not always acted on and used. Program Managers, for example, may lack the resources to implement recommendations or Policy Makers may face competing priorities. This may also be due to challenges in contextualizing the information that Technical Advisors provide.
- Technical Advisors face challenges in directly comparing information from different sources. Different studies often use different methodologies; synthesizing findings to provide clear actionable recommendations, therefore, poses a heavy cognitive burden. As noted by one respondent, the FP/RH community could benefit by trying to standardize elements of how information is presented.

"The FP/RH community should develop standard legends on 'here's how you implement x.'"

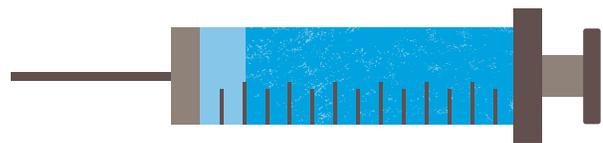
- Technical Advisors are prone to sharing information reactively rather than proactively—that is, providing information when prompted by others to do so but otherwise operating in a state of inertia.
- Some Technical Advisors expressed concern around losing comparative advantage if they share information with external parties.

“If you give too much, others can take advantage of that.”

Opportunities

Technical Advisors also identified a number of common opportunities:

- Technical Advisors feel confident navigating KM platforms to find the information they need. They are readily able to identify a new platform that makes it easier to find information and are open to using new platforms.
- Technical Advisors often sign up to receive updates on FP/RH, being proactive in ensuring they receive new information (in contrast to their sharing inertia).
- Technical Advisors are highly engaged within networks—whether formal communities of practice or informal networks of peers/experts—and leverage these to access the information they need.





RESEARCHERS AND EVALUATORS

Information Seeking

Researchers and Evaluators gather information from their own primary research (e.g., interviews, focus group discussions, surveys) and rely heavily on referrals from colleagues and peers for new information. They also use platforms such as Google Scholar to search for information online:

“[Google Scholar and PubMed] are the only serious platforms I trust.”

Researchers and Evaluators are often looking for specialized information in response to a specific information need. There is, therefore, a strong preference for information that is either peer-reviewed or from official sources that they know are reliable, such as governments or international organizations (e.g., World Health Organization [WHO] and the United Nations Population Fund [UNFPA]). As Researchers and Evaluators are driven to verify the findings that they come across, they also often seek to triangulate the information they use.

Information Sharing

Researchers and Evaluators report sharing two main types of FP/RH information:

- Technical reports with colleagues or peers via e-mail. This serves as a reciprocal action and fosters collaboration. It requires understanding the information needs of peers and motivation to fill these gaps.

"Information sharing leads to collaborations."

- Insights and findings repackaged into non-technical policy briefs or presentations for decision makers and non-technical stakeholders. These are often output requirements for their role and are mostly disseminated by email, formal dissemination meetings, and informal platforms, most notably WhatsApp.

Information Use

Researchers and Evaluators use information to fill knowledge gaps, for example, in a project's theory of change, log frame, or monitoring and evaluation (M&E) indicators. Information is used to provide insight about the effectiveness of different projects or programs. This professional group also uses information to identify best practices that can then be applied to project or program design within their respective organizations. This information may be directly taken from evaluation reports or come from statistical analysis of open datasets.

Repeat Use of Information Sources

Researchers and Evaluators repeatedly use platforms that (1) allow them to access information that they believe to be reliable and credible and (2) enable them to network and develop potential collaborations. They, therefore, often use platforms that specifically target other

Researchers and Evaluators. This allows them to keep up with new developments in their field and the work that their colleagues are doing.

Barriers

Researchers and Evaluators identified a number of barriers that they face in KM:

- When searching for information, Researchers and Evaluators often struggle to access the information they need due to a 'paywall' that requires them to have a subscription or pay a fee. Although this poses less of a barrier for large international organizations (who tend to have the subscriptions or be able to pay the fee), it is a challenge for Researchers and Evaluators working in smaller, local institutions.
- Information is often scattered across multiple sites. This requires Researchers and Evaluators to spend time searching many platforms, synthesize and compare findings, and make a judgment about which information to use. As the reliability and validity of information is particularly important, Researchers and Evaluators need to judge the quality of different sources of information. This is not only time consuming but also cognitively challenging. This can lead to both choice overload (too many options) and cognitive overload (difficulty in knowing what to use).

"In most cases there is evidence. The challenge is whether it is peer-reviewed and to look at the broader applicability. ... How do you make evidence more universal? How do you increase the usefulness of models?"

- Researchers and Evaluators often work with confidential information, for example, data collected as part of an impact evaluation. This limits the extent to which they can share their findings.
- Information is often in written format, which risks neglecting the needs of visual or aural learners.

Opportunities

Researchers and Evaluators also identified a number of opportunities:

- Large organizations often have dedicated staff such as librarians or M&E officers to help them find the information they need. These staff members are highly effective and familiar with the available sources of information.
- Academic publications often have standardized guidelines and format. This makes it easier for Researchers and Evaluators to engage with the content.
- There is a strong social expectation and norm among Researchers and Evaluators to only share information they know to be accurate and reliable. This provides motivation to conduct due diligence before they share it, enhancing the quality of the information that is shared. (There is, however, individual variation as to what is viewed as accurate and reliable.)



POLICY MAKERS

Information Seeking

Policy Makers search for information to identify gaps in their policy framework and any new developments that may help to fill these gaps. They look for information at five different levels:

1. **Global:** Information on the latest technologies or developments in FP/RH to inform international and national policy. They get this information from online sources, such as the WHO website or the Implementing Best Practices initiative, and from interactions with experts at international conferences or other meetings.
2. **National:** Information from national (usually government-collected) data to understand the state of FP/RH in the country and to track the impact of policy and programs. This kind of information may also come from regular meetings with government agencies and international NGOs.
3. **County/province:** Information collected at the administrative unit level to understand the implementation of existing policies.
4. **Community:** Information from health facilities to supplement the understanding of policy implementation.
5. **Individual:** Information about family planning users and their needs, to identify potential barriers and opportunities they face when accessing FP/RH services and, therefore, policy changes that may be required.

Information Sharing

When talking about sharing information, Policy Makers largely discussed elements of sharing that are inherent to their role and the process of policy formulation, rather than wider sharing of best practices or learnings from implementation. For example, they described the sharing requirements that are inherent in the policy consultation process: sharing of draft policy internally within a government ministry and then widely with technical working groups and stakeholder forums, before passing to debate and legal adoption through the government legislative process. They did explain that an important function once the policy is adopted is to disseminate information about the policy to the wider public, often with supplementary tools to aid in its implementation.

“After validation [of the policy] ... a national dissemination meeting is called and we share printed copies of the policies. These are expensive though, so we don’t print for everyone. Most people leave with a digital copy of the policy. We also share a PowerPoint presentation.”

Policy Makers also reported sharing raw data, usually health survey data, through open data initiatives. This allows other professional groups such as Researchers and Evaluators, Technical

Advisors, and Program Managers to access national, regional, and facility-level health data over different time periods and to use the data for program evaluation or needs assessments.

“[Sharing information is] part of our job. We share the raw data from the Demographic and Health Survey. For family enumeration data, we don’t share it [the raw data] because it has identifying information. We provide all data for free.”

Policy Makers are also often members of communities of practice and they use these platforms to share information regarding the current FP/RH state within their context, the progress of policies and programs in place, and lessons learned from previous policy measures, with experts and other stakeholders such as donors and Researchers and Evaluators.

Information Use

Policy Makers use information to understand the impacts of policies and identify any changes required. They review information received from different stakeholders (e.g., research institutions, donor agencies, and think tanks) to determine whether and how they affect policy priorities and resource allocation. Once implemented, they then review information available from official government or international NGO sources to determine the impact of new policies. Information received is adapted to the context (if required) and used to develop new policies or modify/repeal existing ones.

Repeat Use of Information Sources

Policy Makers repeatedly use platforms that allow them to assess the implementation of policies and track whether adaptations or additional capacity is needed. This often takes the form of information that is regularly collated from facility and administrative units. They also repeatedly use dissemination platforms that allow them to share policy impact with governments, Researchers and Evaluators, and Technical Advisors in different countries.

Barriers

Policy Makers identified a number of barriers:

- Policy Makers are not able to use or share information that contradicts government policies or priorities. They also need to be cautious about sharing information that goes against public sentiment or interest. This restricts the kind of information that they are willing or able to share.
- Policy Makers often face challenges accessing high-quality, complete data, especially once disaggregated at the community and facility level. They often have to depend on incomplete and sometimes inaccurate data. This may come from a lack of resources to collect the data, challenges in systemizing and streamlining collection, and connectivity or infrastructure limitations.

“I’m not too sure how storage of information happens. It’s very ad hoc and donor dependent. The Ministry doesn’t do a good job of storage and it’s based on other people’s interest.”

- Policy Makers are not always able to act on the information they receive. Government agencies may have competing priorities or agendas that limit their ability or desire to implement policies as recommended by information received.

“Local governments don’t see family planning as a priority. They don’t see tangible results.”

- Policy Makers face challenges in disseminating information about new policies or policy changes. This is largely due to resource constraints that may limit the number of physical copies of policies they can produce or the scope and effectiveness of forums to spread the desired information.

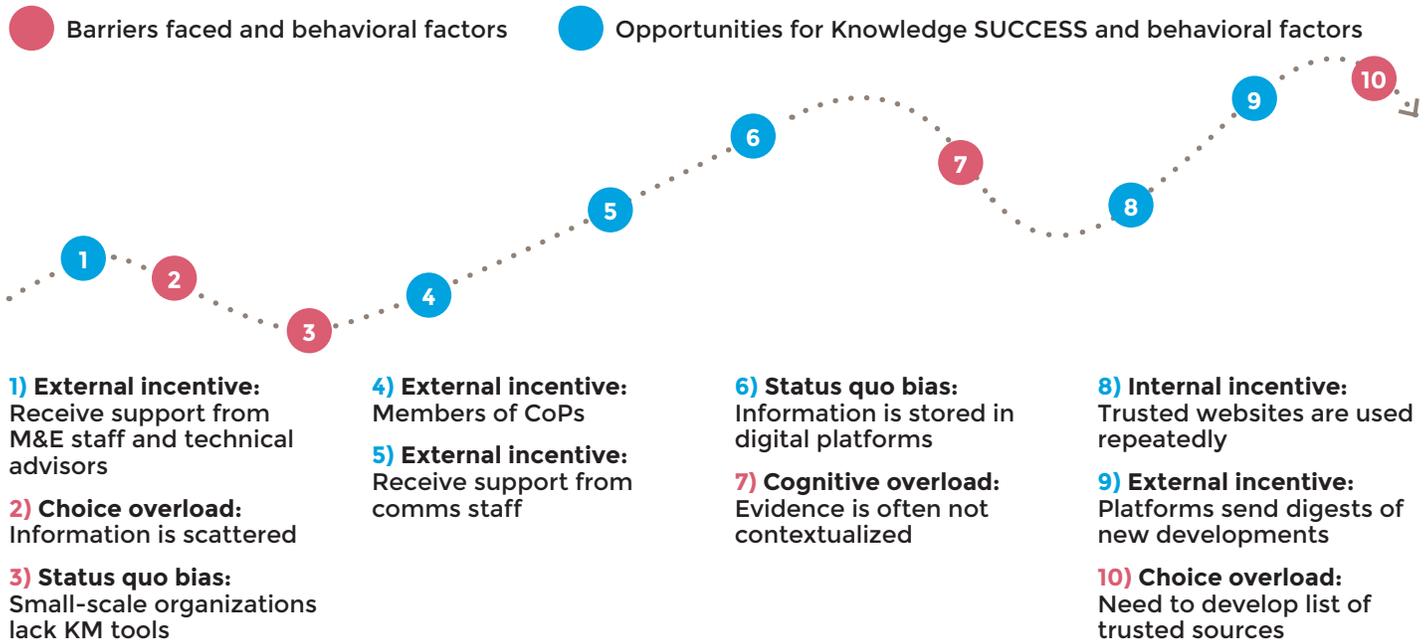
“We cut costs by having combined dissemination meetings. We need to focus on key messages to prevent messages being lost. There isn’t a proper plan for dissemination. One person from each county government is often sent, but then they don’t share with their colleagues.”

Opportunities

Policy Makers also identified a number of common opportunities:

- Governments are increasingly making data open source. This allows all FP/RH professionals to access and use the data to conduct their own research, develop recommendations, and publish findings. This provides huge opportunities for cross-collaboration, evidence-based policy making, and buy-in of governments from the start.
- Policy Makers have access to networks of experts and resource persons through communities of practice and technical working groups who they can rely on to provide them with accurate information on what works and what doesn’t. They also get recommendations from them on which platforms are the most helpful to find the information they need.
- For countries with consultative processes, there is an opportunity to develop platforms to support this process, enabling stakeholders to discuss proposed policies without having to physically meet. This would cut costs and enable debate on policies in an open public forum. Linking this platform to other online resources could also guide the validation of policies.

Program managers



WHAT THEY DO

- Identify learnings and findings from FP/RH project implementation
- Meet with project stakeholders (including government, local partners, and community members)
- Search internal repositories

"It's difficult and frustrating... I know where to go, but I really worry for people trying to break into this field."

- Share documented learnings and findings from project implementation
- Required to share information with donors
- Participate in internal learning activities (e.g., meetings and trainings)
- Share with colleagues and peers through informal channels (e.g., WhatsApp)

"Sharing information is quite important, given the different stakeholders. You can't know it all."

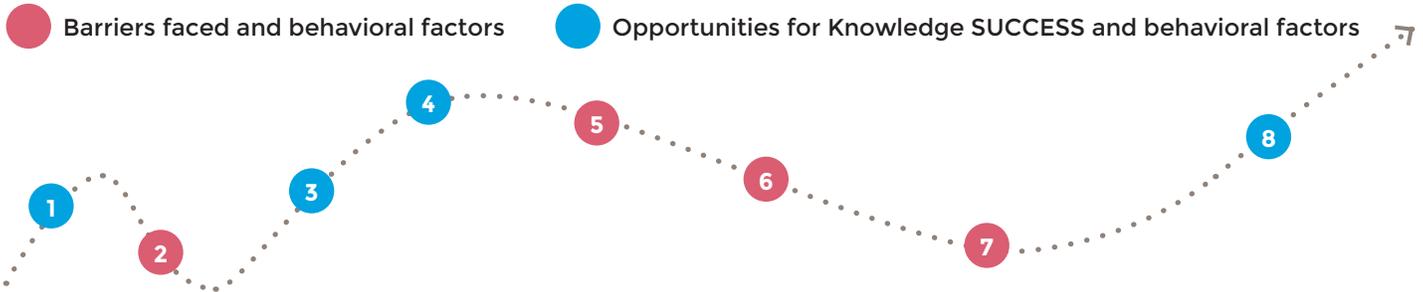
- Document stories, create outreach materials
- Design and update work plans
- Update/design projects based on new evidence
- Write analysis and synthesis reports for audiences (e.g., donors, government)

"There is a limit to the extent one can understand the context from reading... You can't be 100% positive you're making the right decisions."

- Update FP/RH knowledge and best practices regularly
- Answer specific technical questions
- Update project implementation findings
- Engage with and develop networks on platforms through repeated use

"It's difficult and frustrating knowing there's a whole host of information out there and it's not all in one place."

★ Technical advisors



- 1) External incentive:** Access to networks of experts and resource persons
- 2) Choice overload:** Difficult to prioritize sources
- 3) Primacy bias:** Comfort finding information needed through experience

- 4) External incentive:** Members of CoPs
- 5) Inertia:** Don't share information unless prompted

- 6) Cognitive overload:** Need to contextualize best practices
- 7) Cognitive overload:** Need to translate technical information to actionable recommendations

- 8) Internal incentive:** Receive updates of latest developments in FP/RH space

WHAT THEY DO

- Use list of preferred sources as starting point, then turn to Google searches
- Search for official/peer-reviewed information, usually to answer specific technical questions

"The biggest challenge ... is information overload. There is too much information out there. It's also difficult to know which sources to trust and verify for technical information in particular."

- Share evidence of what works with relevant stakeholders
- Sharing is usually targeted to stakeholders with an identified information need

"This is the tide of the times. You need to look for information needs and push it out."

- Analyze evidence of what works
- Conduct quality assurance of information
- Respond to technical needs related to FP/RH products, processes, and policies
- Document learnings and develop reports, thought pieces, and policy briefs

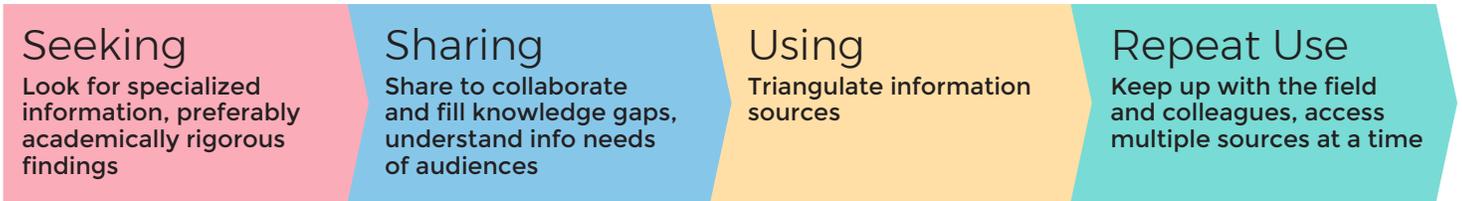
"The FP/RH community should develop standard legends on 'here's how you implement x.'"

- Use different sources for different types of information
- Engage with platforms that provide recognition for filing information gaps

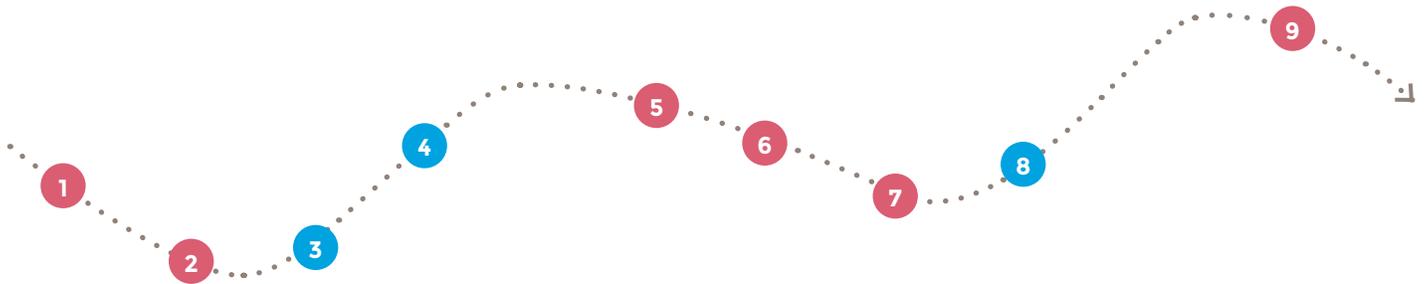
"KM is super important to my work to document success for future learning."



Researchers and evaluators



● Barriers faced and behavioral factors ● Opportunities for Knowledge SUCCESS and behavioral factors



- 1) Choice overload:** Information is scattered in multiple places
- 2) Accessibility:** Must pay for some publications
- 3) External incentive:** Receive support from dedicated staff (e.g., librarians, M&E officers)

- 4) Social norms:** Peer-review systems ensure sharing of robust information
- 5) Accessibility:** Restricted from sharing some information (e.g., internal evaluations)

- 6) Cognitive overload:** Hard to identify knowledge gaps in the field
- 7) Learning preferences:** Information not conducive for non-verbal learners
- 8) Social norms:** Standardized format of academic publications makes engagement easier

- 9) Status quo bias:** Networks ascribe which particular platforms to use

WHAT THEY DO

- Rely on referrals from colleagues/peers, Google Scholar, and official government and international NGO sources
- Starting point is either Google or a trusted source from previous searches
- Publish peer-reviewed research
- Participate in knowledge sharing forums
- Share technical papers with colleagues/peers through targeted emails
- Share insights repackaged in less technical policy briefs/presentations for decision makers and other non-technical audiences
- Analyze information for M&E use and for evidence of best practices
- Tell stories from data
- Identify knowledge gaps
- Develop new knowledge through primary research
- Use platforms that help find information and potential collaborations
- Repeatedly use trusted sources and evaluator-specific platforms

"[Google Scholar and PubMed] are the only serious platforms I trust."

"Sharing information leads to collaborations."

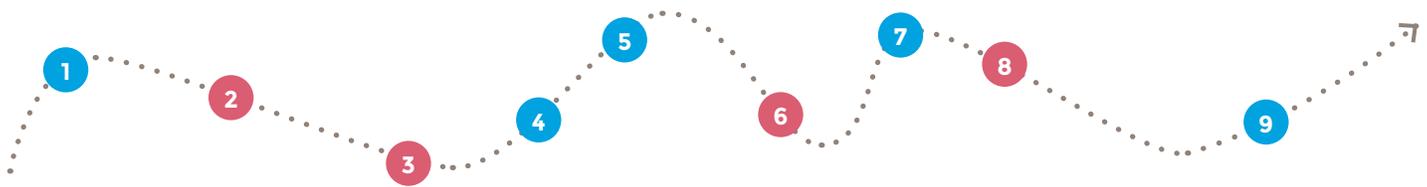
"In most cases, there is evidence. The challenge is whether it is peer-reviewed and to look at the broader applicability."

"Accessing relevant information I can use is very important; at the same time how I can access information from people I know."

Policy makers



● Barriers faced and behavioral factors ● Opportunities for Knowledge SUCCESS and behavioral factors



1) External incentive: Access to networks of experts and resource persons

2) Accessibility: Information is often inaccurate or incomplete

3) External motivation: Don't always act on findings due to competing priorities

4) External motivation: Open data initiatives support sharing of information

5) Social identity Policy dissemination forums facilitate information sharing

6) Accessibility: Information is often lacking, KM systems are limited

7) Accessibility: Consultative policy making processes also facilitate information use

8) External motivation: Cautious about sharing information that conflicts with public sentiment with possible unintended consequences

9) Pro-social: Platforms could help manage consultative policy processes

WHAT THEY DO

- Prefer official government data and searching through government archives
- Gather information on the latest FP/RH technologies and developments
- Gather high-level information
- Meet with other governments and int. NGO agencies to coordinate efforts

"[KM is] the ability to find the information you need, use it effectively, and share it for change."

- Develop policies
- Update FP/RH handbooks and protocols
- Share with experts and stakeholders through CoPs

"[Sharing information is] part of our job. We share the raw data from the Demographic and Health Survey."

- Review policy briefs of the impact of latest FP/RH technologies and developments on government priorities
- Evaluate the impact of government policies and programs
- Determine resource allocation
- Set government priorities

"It is so difficult to finalize a policy! It takes so long ... By the time the process is over, information changes."

- Access the implementation of policies to understand if further changes or capacity building are needed
- Review local policies against global bodies of knowledge and evidence
- Share learnings and best practices

"So much research takes place, but ... where are these findings? There needs to be a platform – physical or virtual. Anything."

SIMILARITIES AND DIFFERENCES ACROSS PROFESSIONAL GROUPS

Table 3 summarizes similarities and differences in KM barriers across professional groups while Table 4 summarizes similarities and differences in KM opportunities.

TABLE 3. Summary of KM Barriers and Related BE Mechanisms by Professional Group

BEHAVIORAL FACTOR	BARRIER				
		PROGRAM MANAGERS	TECHNICAL ADVISORS	RESEARCHERS & EVALUATORS	POLICY MAKERS
Accessibility	Some publications need to be paid for			●	
	Restrictions on sharing some information (e.g., internal evaluations)			●	
	Lack of information or poor knowledge management				●
	Resource constraints in knowledge generation				●
Choice Overload	Information scattered in multiple places	●		●	
	Need to develop their own list of trusted sources	●			
	Difficulty prioritizing sources		●		
Cognitive Overload	Hard to identify knowledge gaps in the field			●	
	Evidence often not locally contextualized	●			
	Translating technical information to actionable recommendations		●		
	Challenges contextualizing best practices		●		
External Motivation	Hard to anticipate unintended consequences				●
	Findings not always acted on and competing priorities				●
Inertia	Don't share unless prompted		●		
Learning Preferences	Information not presented in ways conducive for nonverbal learners			●	
Status Quo Bias	Networks/societies ascribe which particular platforms to use			●	
	Lack of KM tools for small-scale organizations working in FP/RH	●			

TABLE 4. Summary of KM Opportunities and Related BE Mechanisms by Professional Group

BEHAVIORAL FACTOR	BARRIER				
		PROGRAM MANAGERS	TECHNICAL ADVISORS	RESEARCHERS & EVALUATORS	POLICY MAKERS
Accessibility	Consultative policy making processes				●
External Motivation	Help searching from dedicated staff (e.g., librarians, M&E officers)			●	
	Platforms that send digests of new developments	●			
	Support in sharing from comms. staff	●			
Choice Overload	Support collecting program information from M&E staff and access to Technical Advisors	●			
	Membership in communities of practice	●	●		
	Access to networks of experts and resource persons		●		●
	Open data initiatives				●
Internal Incentive	List of trusted websites used repeatedly	●			
	Updates of latest developments in FP/RH space that meet information needs		●		
Primary Bias	Comfort finding information needed through experience		●		
Pro-social	Managing consultative processes				●
Status Quo Bias	Storage of FP/RH project info in digital platforms	●			
Social Norms	Peer-review systems ensure that robust information is shared			●	
	Academic publications have standardized guidelines, making engagement easier for those familiar			●	
Social Identity	Policy dissemination forums				●

Key Insights and Recommendations

Below we identify some key insights from the formative research that can inform USAID and other donor investments in KM across health and development projects, including FP/RH projects.

The majority of FP/RH professionals use a mix of online and face-to-face KM tools and techniques to seek and share information. When seeking information, FP/RH professionals noted they turn to Google and other online sources to find the information they need, as well as different types of face-to-face interactions such as meetings and their network of colleagues. Similarly, when sharing information with their colleagues, they use a mix of electronic and in-person techniques. This confirms our experience under predecessor projects in which we found that effective KM strategies use both online products that are adept at capturing, synthesizing, and sharing explicit information and interactive techniques that help connect people with each other and to the knowledge they need, particularly tacit knowledge that may otherwise be difficult to capture.

Recommendation: FP/RH projects should continue using a mix of online and interactive face-to-face KM tools and techniques to meet FP/RH professionals' KM needs efficiently and effectively.



FP/RH professionals' stated learning preferences cut across a wide range of styles. Aural learning featured prominently among survey respondents, as did visual and logical learning. While there were some magnitudes of difference in learning styles by professional group, the differences were not statistically significant.

Recommendation: Create FP/RH content in a range of formats to meet different audiences' learning preferences. Much of the existing FP/RH content is verbal (written) in nature, so focusing on creating content in additional formats, such as audio and visual, may be well-received by the FP/RH community. This could also be explored further in upcoming Knowledge SUCCESS co-creation workshops and/or ongoing project implementation to identify whether different content formats have an effect on FP/RH professionals' motivation and ability to engage with, share, and use information.

FP/RH professionals identify a large range of existing KM products, some with features that they particularly appreciate. Individuals looking for information related to FP/RH have an abundance of choices from which to select. As mentioned earlier, this does inevitably lead to some problems, such as choice overload when searching for information and cognitive overload when it comes to analyzing the information they find and determining which sources provide factual information and which don't. However, this wide range of existing solutions means that many respondents were able to identify some specific KM products or platforms that have features that serve to resolve some of the BE barriers.

Recommendation: The design of KM solutions should leverage existing online KM best practices and innovations in the FP/RH space. We should seek to incorporate the design features of existing KM platforms that FP/RH professionals appreciate into new solutions. These can serve to address some common BE barriers and incorporate BE opportunities to optimize solution design. Table 5 summarizes some specific examples.

TABLE 5. Examples of KM Solution Design to Address BE Barriers and Opportunities

BE MECHANISM	DESIGN FEATURE	DESCRIPTION/ EXAMPLE
Choice Overload	Innovative search methodologies	Using search terms to find information can be replaced by innovatively designed platforms that guide users to easily find the information they are looking for, such as through the use of icons and pictures.
Cognitive Overload	Tailored information push	For search term-based platforms, Google Scholar and PubMed provide regular updates to users based on their search terms used.
Cognitive Overload	Quick proxy guides to reliability	Search term-based platforms also provide information on the number of citations for search results, which serves as an easy guide for researchers to judge how accepted individual search results are.
Social Norms and Coordination	KM as a platform for networking and interaction	FP/RH professionals are used to using platforms to interact with people in virtual communities of practice (e.g., WHO's Implementing Best Practices network, ResearchGate, and others).
Relevance and Value	Filters to ensure geographical and topical relevance	Europe FP/RH organization websites often have the ability to easily search their archive of evidence by subject area or by country office.
Relevance and Value	Filters to ensure geographical and topical relevance	FP/RH organization websites often have the ability to easily search their archive of evidence by subject area or by country office.
Motivation and Incentives	Certification as a motivator	Respondents pointed out several platforms that they use for training on FP/RH, such as the Global Health eLearning Center, which provides certificates for users who successfully complete courses.

Sharing behavior is largely driven by organizational norms. The most common reason given for using the sharing method that they do was that it is what everyone else in the organization does. As sharing is a behavior that is by its nature more social than searching (information sharing assumes the existence of at least two parties), the strong role that social norms play is understandable. Similarly, sharing behavior appeared to be more strongly driven by the existence of KM policies or training than searching behavior, suggesting that greater efforts are made by an organization to align and standardize sharing behavior.

Recommendation: This role of social norms poses both barriers and opportunities. The intrinsic social nature of sharing, and the need for groups of people to all be sharing on the same platform, is required for the behavior itself to be effective. The strong role of social norms in sharing behavior means that instilling new behavior throughout an organization provides the opportunity for widespread adoption, but failure to do so risks leading to its non-adoption by all (or many). Designing and promoting a new KM platform must therefore be done in collaboration with the KM champions of an organization, ensuring that it has buy-in from the beginning and is likely to be taken up as a network or organizational norm. Knowledge SUCCESS could use this opportunity to target organizational-level changes as well as individual-level behavior change.

Sharing behavior appears to often be reactive, conducted in response to donor or job requirements or when someone specifically asks for a particular type of information, even though FP/RH organizations generally have a strong culture of knowledge sharing. This suggests that there is currently a lack of intrinsic motivation to share information—that is, some people do not share information out of an internal desire to share knowledge but because they are being required to do so. On the one hand, this kind of extrinsic motivation acts as an important commitment device, ensuring that information is being shared. On the other hand, it is motivating a specific, relatively formal, and written kind of sharing in the form of donor reports or academic papers—where clear extrinsic benefits exist to the individual. Extrinsic motivation of this kind tends to be weaker than intrinsic motivation, as sharing would cease as soon as the external requirement is removed. Furthermore, extrinsic motivation does not foster a culture of sharing that filters out into broader behavior. Rather, information sharing is kept to the specific scope of the required report or paper.

Recommendation: When developing KM solutions, we should explore the use of incentives and commitment devices that could reframe the benefits to sharing information, and thus create a more dynamic and interactive community of sharing. For example, a tracker on an online platform that lists the individuals who are the highest sharers of content could prove to be a possible incentive to prompt people to share information more regularly. An example of a commitment device would be to prompt individuals to share a selected number of articles they accessed (for example, 2 of 10 accessed articles) in order to continue viewing additional content.

FP/RH professionals provided specific recommendations on how KM solutions for FP/RH could be improved, including standardizing how information is presented, encouraging people to more proactively share information, and making use of machine learning. Participants noted that the FP/RH community could benefit by standardizing elements of how information is presented, for example, having clear guidance around how to implement certain interventions. Others recommended that the FP/RH community could facilitate more active information

sharing by adopting different strategies tailored to people's different needs and behaviors. Some respondents had recommendations for more radical shake-ups of the entire way that information is accessed in the FP/RH space, pointing to the use of technological advancements such as machine learning and artificial intelligence to replace repetitive KM tasks such as information searching on a particular topic. Intended users themselves are well placed to identify the challenges and opportunities in optimizing KM behavior. Self-reported data like this, however, can have its limitations. Techniques and activities in the Knowledge SUCCESS co-creation process should be designed to elicit what users really need and want.

Recommendation: Knowledge SUCCESS co-creation workshops should build on the above recommendations by ensuring that FP/RH professionals are continuously consulted and at the center of the design process, guiding it to ensure that it meets their needs. In the meantime, some specific improvements could be made to address expressed needs. For example, the *Global Health: Science and Practice* journal is well-placed to provide more specific guidance to their readers on how to implement interventions that are synthesized in their journal articles. In addition, the project can continue to explore how to capitalize on machine learning throughout our work.

Additional recommendations apply more specifically to upcoming Knowledge SUCCESS activities related to audience segmentation and co-creation workshops to design new KM solutions for improving access to and use of evidence and best practices in FP/RH programs.

Gender and other background characteristics do not seem to be good predictors of KM behavior among FP/RH professionals. These findings may have been a limitation of the survey in terms of selection bias given that it was based on a convenience sample, and so further exploration of the potential interactions during project implementation is warranted.

Recommendation: While the original intention was for the Knowledge SUCCESS project to segment audiences primarily by behavior, since no such clear insights emerged from the quantitative research, we recommend segmenting audiences by professional role. Segmenting by professional role would allow the project to easily identify and reach those audiences, and the qualitative research did find that there were some distinct behavioral factors by professional role that warrant the use of specific strategies to meet those audiences' unique KM needs. In addition, we should continue to explore FP/RH professionals' KM behaviors and factors that might impact those behaviors as the project continues to unfold.

Program Managers, Technical Advisors, and Researchers and Evaluators experience common BE barriers and opportunities, but these often manifest in different ways depending on the professional group. All three professional groups identified cognitive overload and choice overload as common barriers faced in the KM process. For Program Managers, cognitive overload emerged when evidence was not contextualized to their local setting. For Technical Advisors, however, cognitive overload was due to challenges translating technical information into actionable information. Regardless of how these BE barriers manifested among each professional group, a common frustration across all three groups was that the FP/RH information they needed was seldom in one platform or in an easy-to-use and applicable format.

Recommendation: A key focus of the upcoming Knowledge SUCCESS co-creation workshops should be to gain a deeper understanding of: (1) how the identified BE mechanisms are experienced by different professional groups, (2) which BE mechanisms are the most impactful and should therefore be prioritized when it comes to designing KM solutions, and (3) how best to design solutions that address these near-universal barriers that manifest in different ways. This will ensure that KM solutions speak to as broad a user group as possible while still being tailored to the needs of each professional group. Product solutions that emerge from the co-creation workshops can then be optimized by incorporating mechanisms that address the identified BE barriers and leverage on the BE opportunities. For example, as choice overload is a common barrier across professional groups, incorporating search or filter functions that specifically remove this barrier will optimize use of a platform.

Policy Makers emerged as a more unique group than the other three professional groups, with distinct challenges and opportunities that are specific to their function. Policy Makers highlighted unique KM use-cases, for example, needing to share and consult on draft policies with external and internal stakeholders. They also tended to experience a different range of BE barriers and opportunities than the other three groups. For example, they were the only professional group that didn't express experiencing choice or cognitive overload.

Recommendation: Policy Makers appear to have a particularly unique set of needs and therefore likely require specific KM solutions tailored to those needs. Since other projects besides Knowledge SUCCESS focus more directly on reaching and meeting the needs of Policy Makers (e.g., Advance Family Planning project, Health Policy Plus, PACE), it may be more practical for Knowledge SUCCESS to support the KM needs of those other projects rather than attempting to directly meet the needs of Policy Makers themselves.

Limitations

There are several limitations to this research that should be noted. The online survey has an element of selection bias since participants voluntarily opted in to take the survey. In other words, we reached individuals who engage with e-mail listservs and have the motivation and time to respond to a survey, so they are likely to represent a certain type of person who may not be representative of the entire population of FP/RH professionals. In addition, the majority (63%) of survey respondents were men. For these reasons, there may be limitations in generalizing findings from the quantitative analysis to the wider FP/RH professional population. This may be a particular limitation due to the topic of this research—that is, KM—because those not engaging in these listservs are likely to be those particularly in need of new KM solutions.

Due to an error in survey programming, respondents were able to select more than one professional category. This means if an individual selected more than one category, we were not able to identify their primary professional role. Instead, we weighted their responses depending on the number of professional categories they selected. This may not be accurate and a respondent's true role may therefore be over-represented in one professional group while being under-represented in another. In the case of Service Providers, they were kept in the sample if they selected Service Provider as well as another role that did fit the inclusion criteria (they were excluded from the sample if they solely selected Service Providers).

In addition, although we did not find statistical correlations between survey respondents' background characteristics and their KM behaviors, this could have been a limitation of the survey itself. For example, respondents may have interpreted the survey questions differently than they were intended. Furthermore, since KM is an interactive and dynamic process, multiple-choice questions with preset categories may represent an overly simplistic view of reality. Additional exploration of the interactions between audience characteristics and their KM behaviors is warranted.

For the in-depth interviews, rather than being randomly chosen, we interviewed people who had indicated a willingness to be interviewed after completing the online survey. While we strove to capture geographic, gender, and professional diversity, it is possible that those who were willing to participate in the interviews are not fully representative of the wider FP/RH community. Rather, they might be people who are particularly active and interested in KM and therefore not the core group that the project is trying to reach. We should therefore exercise a degree of caution in generalizing their experience, views, and attitudes around KM to our intended audiences as a whole.

We also experienced challenges in recruiting Policy Makers for interview. The findings for Policy Makers are therefore based on interviews with just two individuals, supplemented by findings from other respondents who work closely with Policy Makers.

Conclusion

This formative research serves as an essential stage in the design process for developing improved and new KM solutions.

Through the qualitative research, we developed journey maps for FP/RH Program Managers, Technical Advisors, Researchers and Evaluators, and Policy Makers. These journey maps provide in-depth understanding of the current KM actions, motivations, and needs of these four key audience groups, which can help guide KM solution design for FP/RH professionals to optimize impact. In particular, KM solutions should reduce cognitive and choice overload and foster intrinsic motivation for sharing. Currently, the primary motivators are extrinsic—based on requirements of their job role—which limits dynamism in KM.

The online survey also provided important insights. For example, it confirmed that using a mix of KM tools and techniques to make critical FP/RH information available and accessible and facilitate its use to inform FP/RH programs and policy is an effective strategy for meeting FP/RH professionals where they already are. The research also delved into new behavioral science topics, such as learning styles, uncovering that while a range of learning styles resonated with different FP/RH professionals, visual, aural, and logical styles seem to feature more prominently. Given that much of the existing FP/RH content is verbal in nature, creating content in different formats might prove to enhance accessibility to and use of critical FP/RH information. Furthermore, the research demonstrated the strong role that social norms and organizational requirements play with regards to sharing platforms. Roll-out of any KM solution will likely be more successful if done at an organization or network-wide level, with buy-in from KM owners.

The Knowledge SUCCESS project will take the insights from this research specifically to shape the focus of KM solution design moving forward. In addition, during the next phase of the project involving a series of design workshops in Africa, Asia, and North America, we will continue to explore FP/RH professionals' KM needs, barriers, and opportunities to validate and build upon the current journey maps, particularly as it relates to commonalities or differences by gender, culture, professional role, or other characteristics. This information will form the foundation for co-creating new KM solutions to meet FP/RH professionals' needs.



Annexes

[**ANNEX A: PRELIMINARY QUALITATIVE INTERVIEW GUIDE**](#) [links out to Google Drive]

[**ANNEX B: QUANTITATIVE ONLINE SURVEY INSTRUMENT**](#) [links out to Google Drive]

[**ANNEX C: CORE IN-DEPTH INTERVIEW GUIDE**](#) [links out to Google Drive]

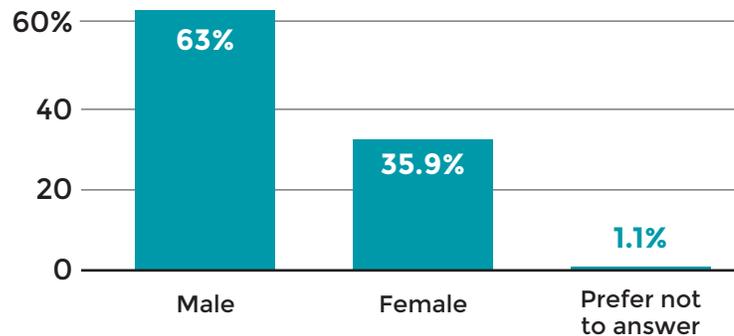
[**ANNEX D: COMPREHENSIVE ONLINE SURVEY FINDINGS**](#)

Annex D: Comprehensive Online Survey Findings

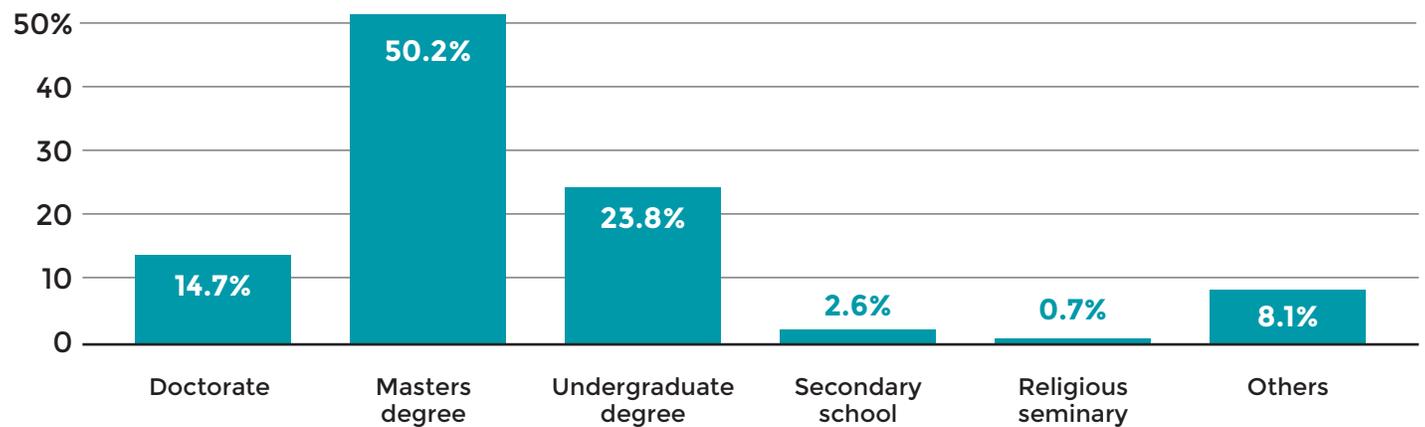
Note: The sample size for all graphs in this annex is 273 respondents (FP/RH professionals only, excluding those who selected only service provider as their job function).

DEMOGRAPHICS

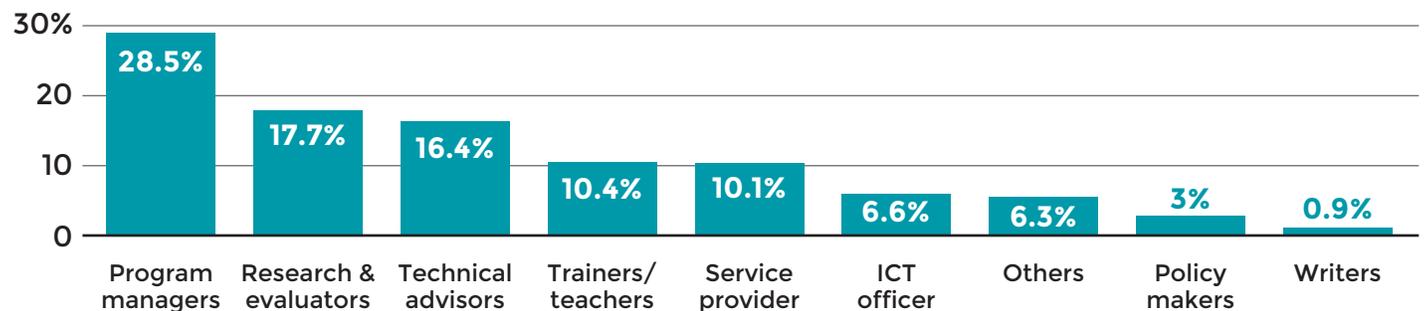
Respondents distribution by sex



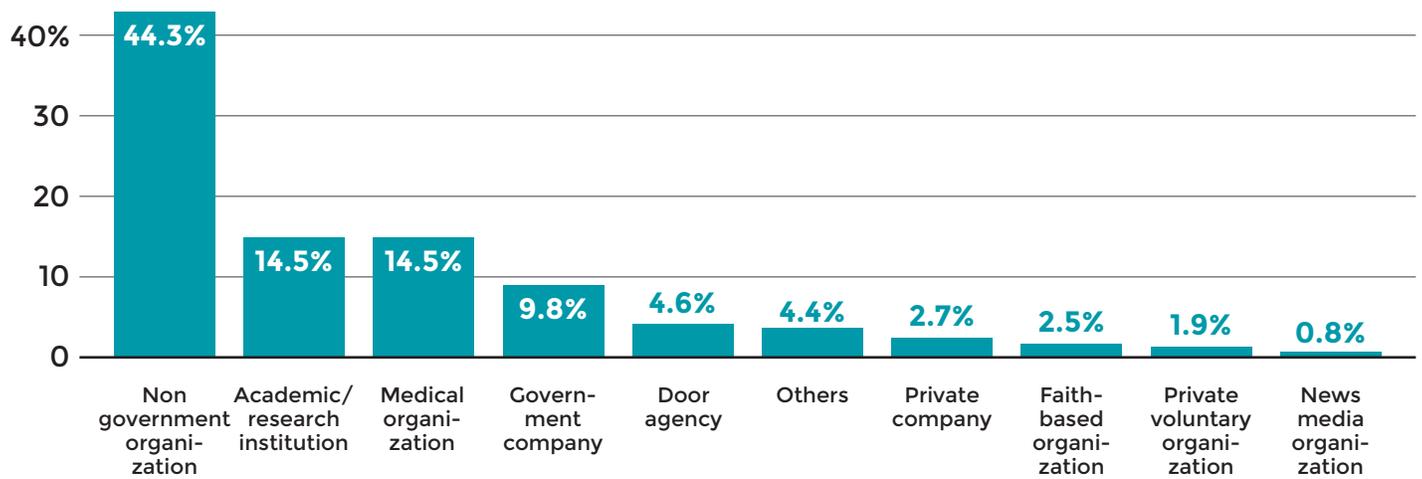
Respondents distribution by education level



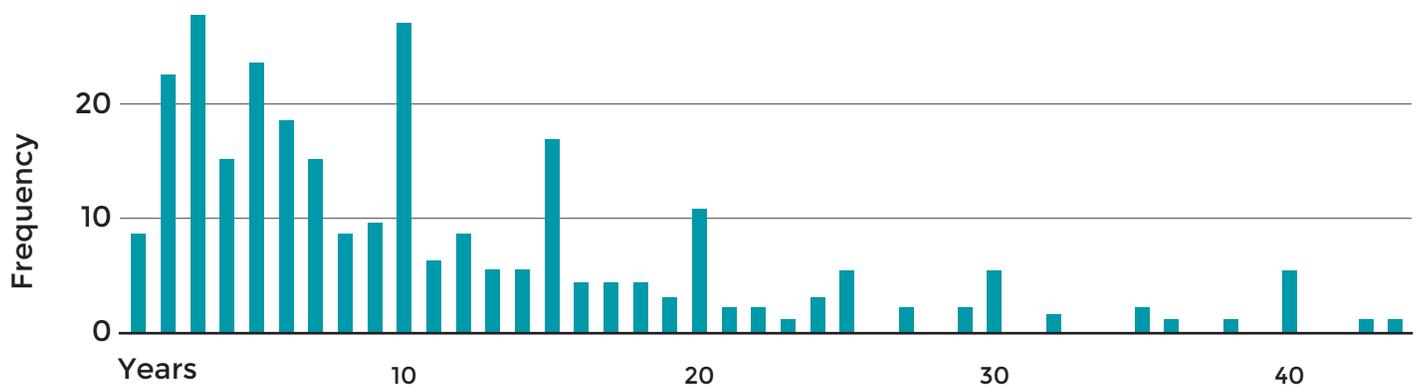
Distribution of respondents by primary role



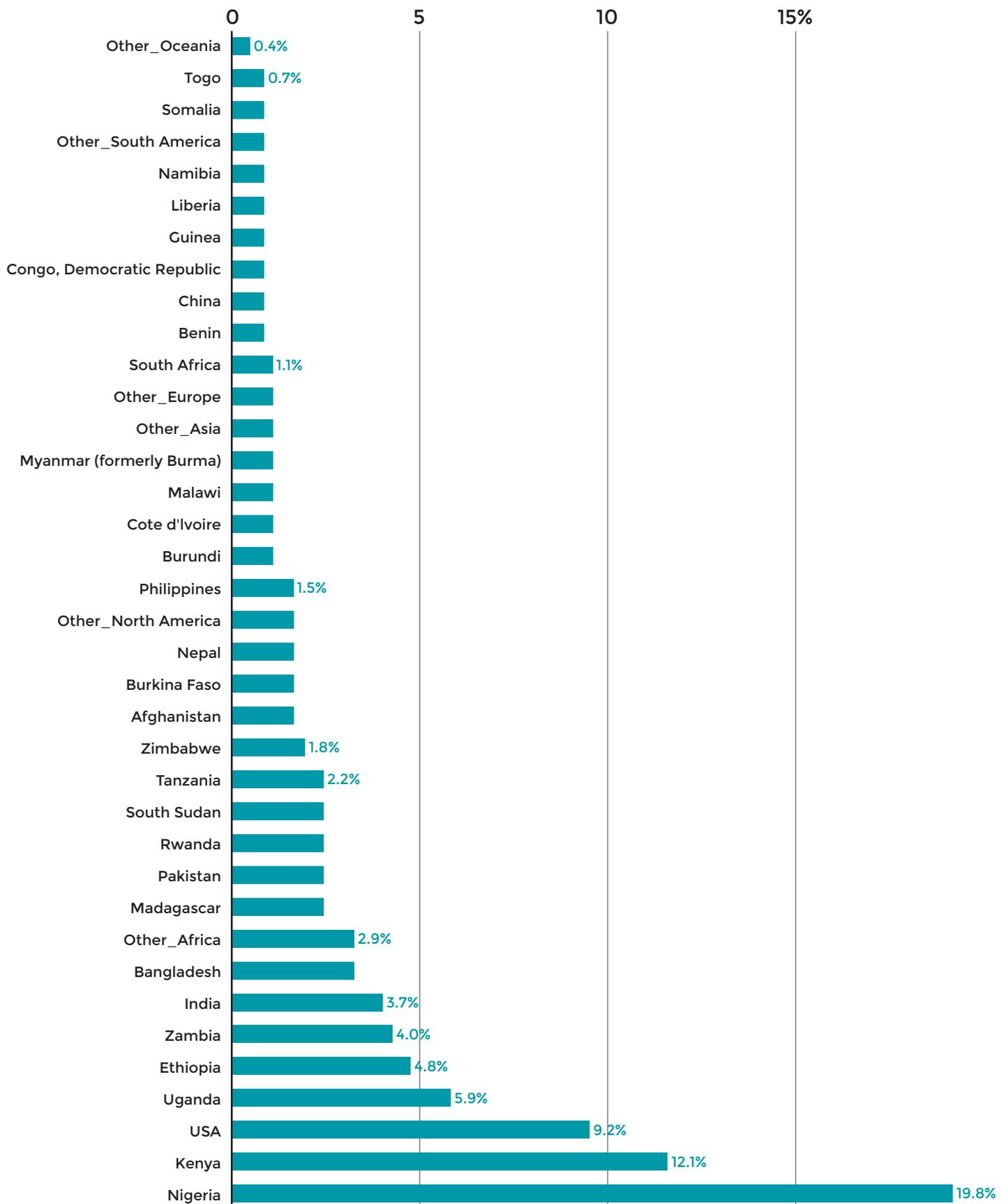
Type of organization that the respondent works for



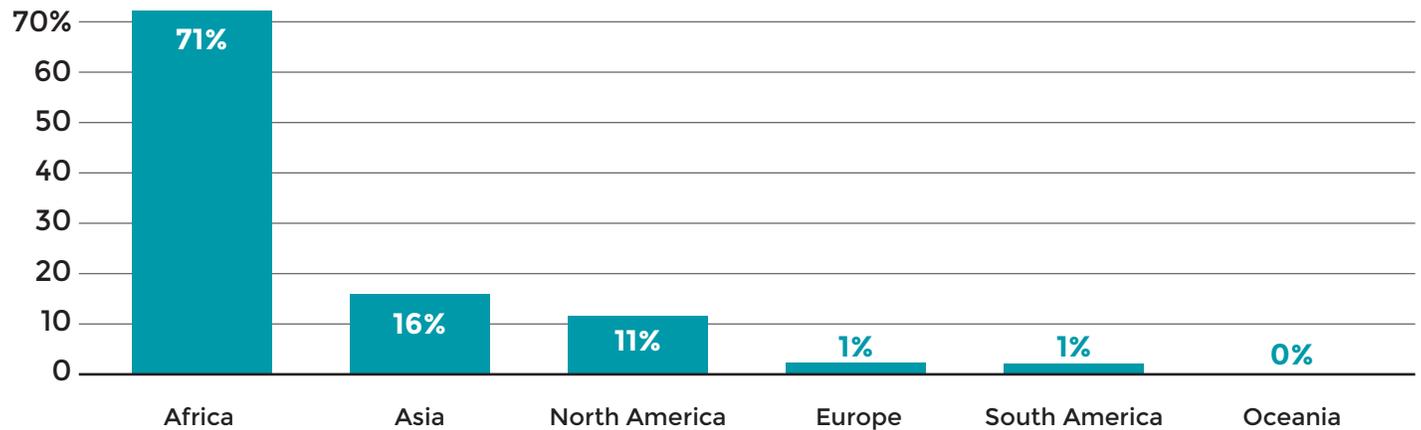
Number of years respondents have worked in the area of health care



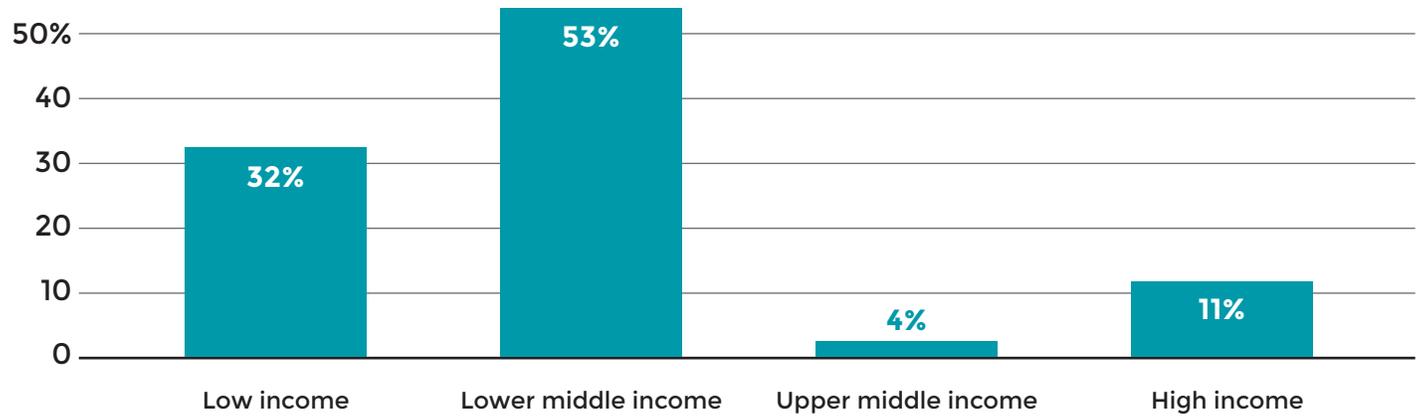
Distribution of respondents by country



Distribution of respondents by geographic region

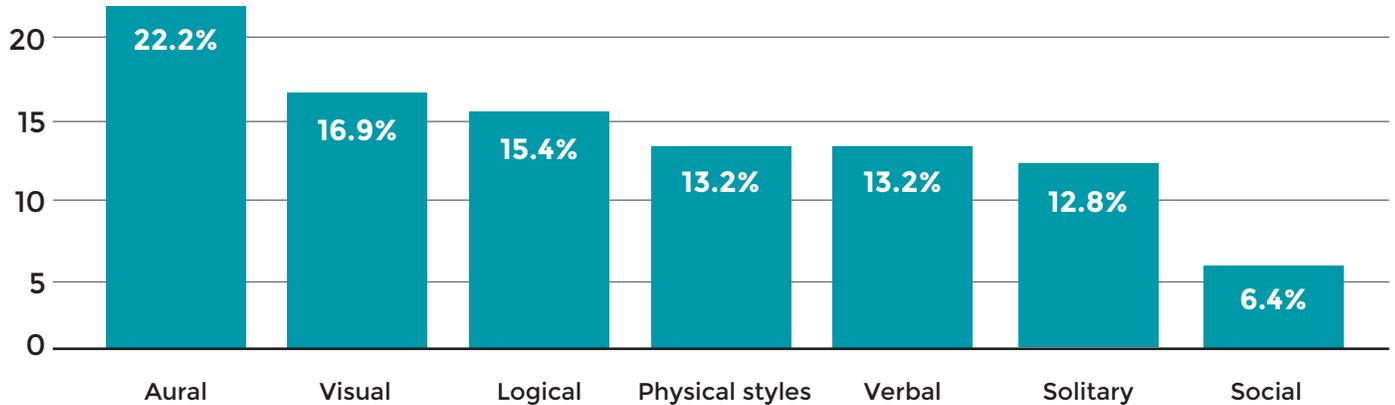


Distribution of respondents by economic region



LEARNING PREFERENCES

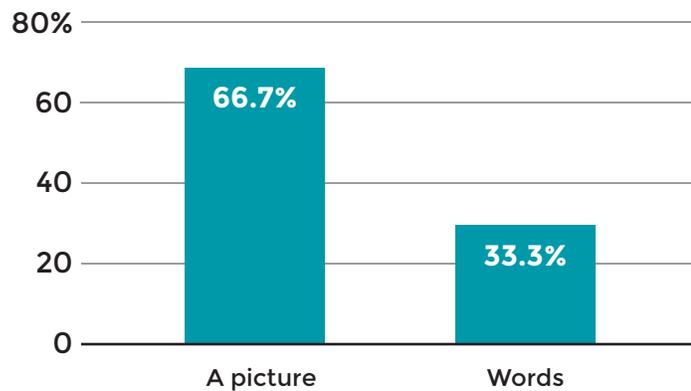
Preferred learning style



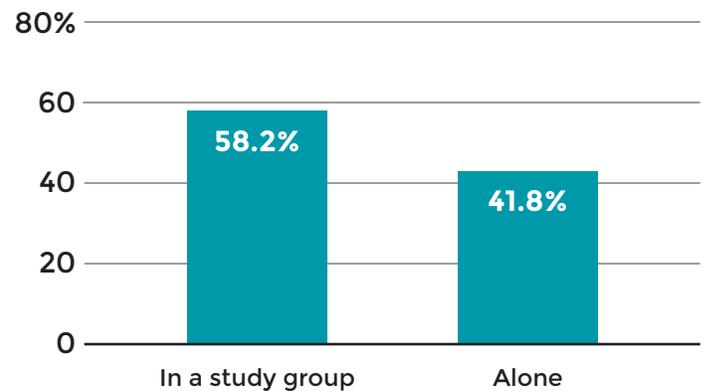
Neil Fleming's VARK learning model of 7 different styles was used. The different learning styles are:

1. **Visual** (use of images and pictures)
2. **Aural** (use of sound and music)
3. **Verbal** (speech and writing)
4. **Physical** (sense of touch)
5. **Logical** (logic, reason and systems)
6. **Social** (group activities or with other people)
7. **Solitary** (studying or working alone)

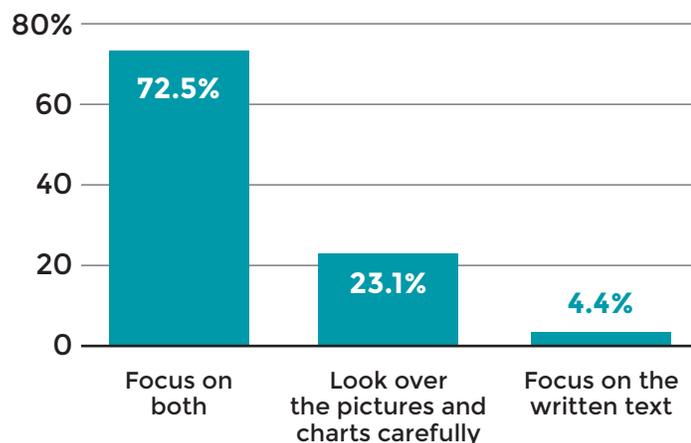
When respondents think about what they did yesterday, what are they more likely to get?



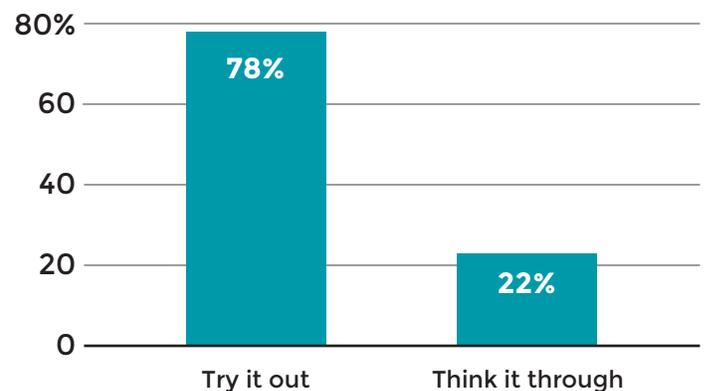
How respondents prefer to study or take in new information



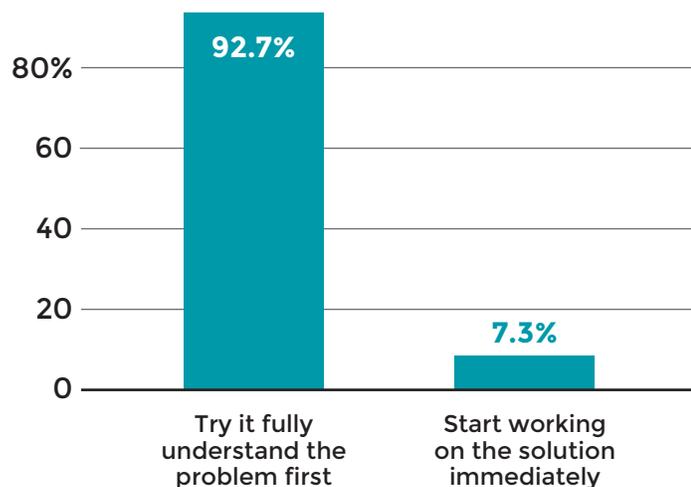
In a book with lots of pictures and charts, respondents are most likely to?



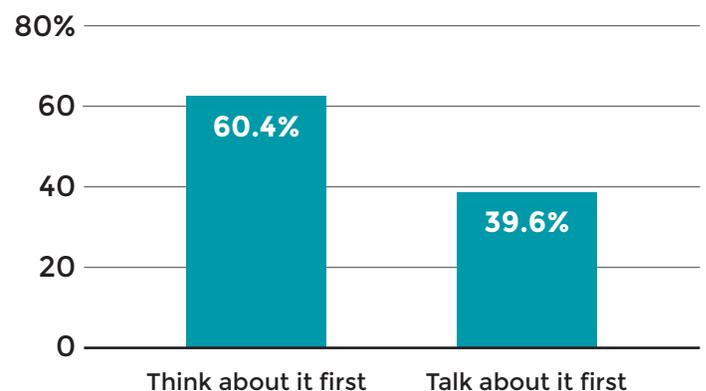
What respondents do in order to understand something better



What respondents do when faced with a difficult problem

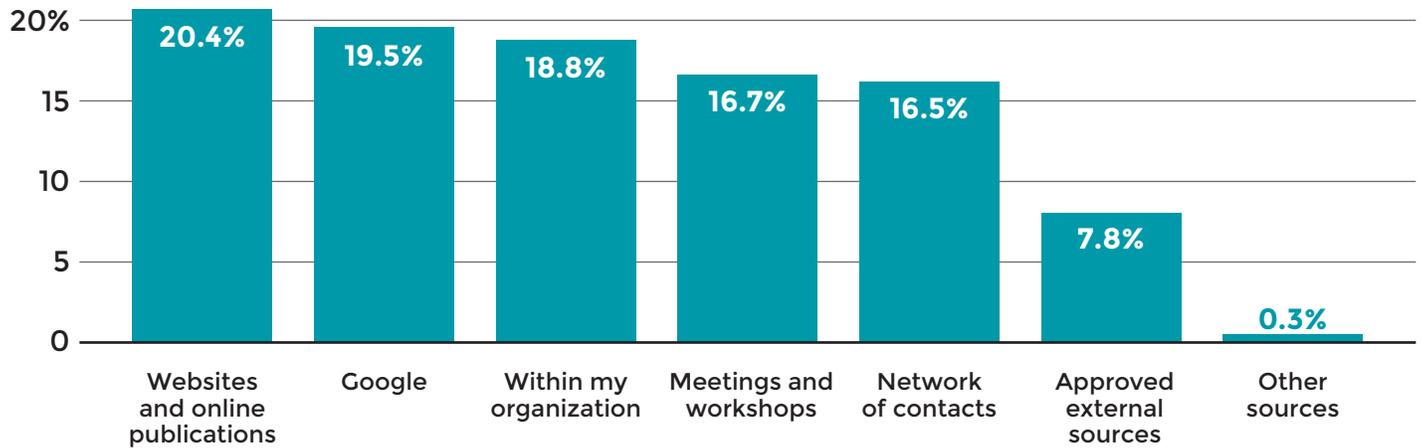


What respondents prefer to do when learning something new

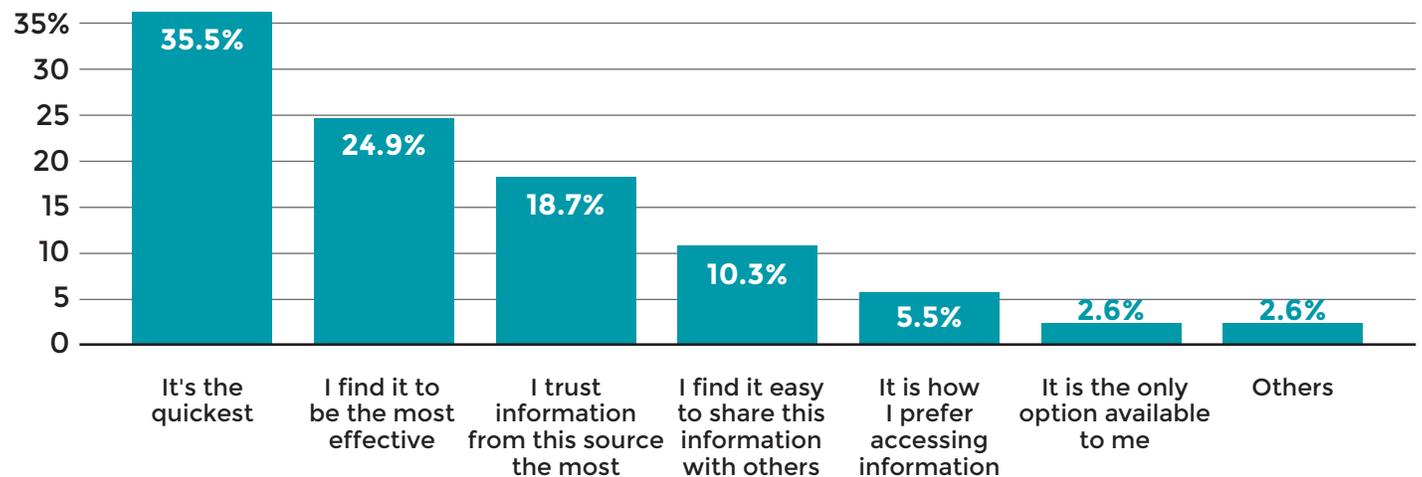


INFORMATION SEEKING

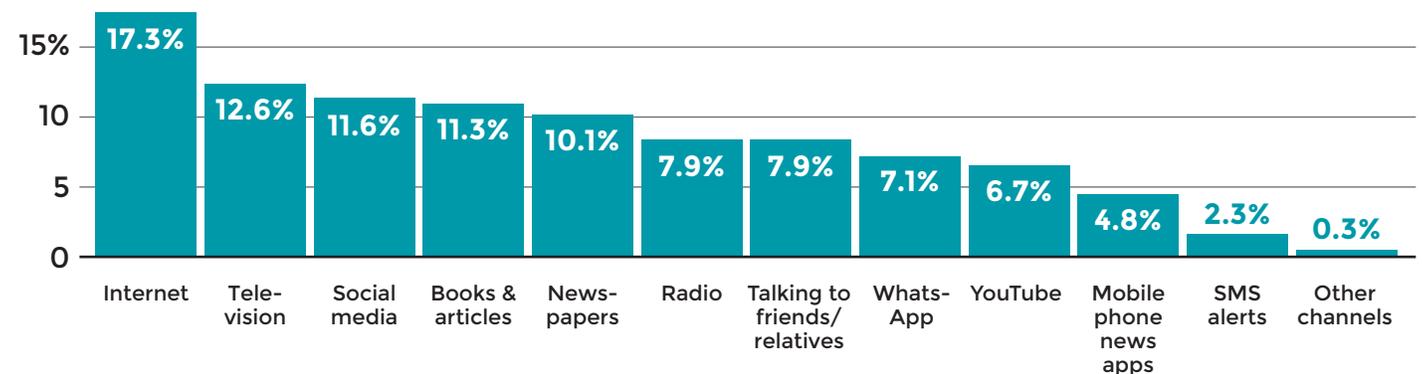
How do respondents seek for information?



Why do respondents seek information in this way?

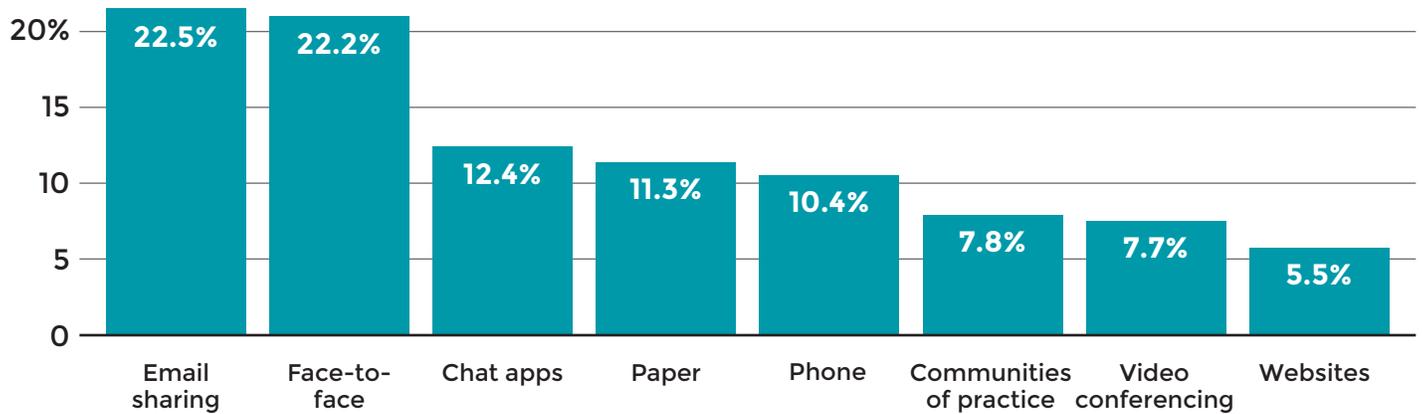


Which channels do respondents use to access general news and information?

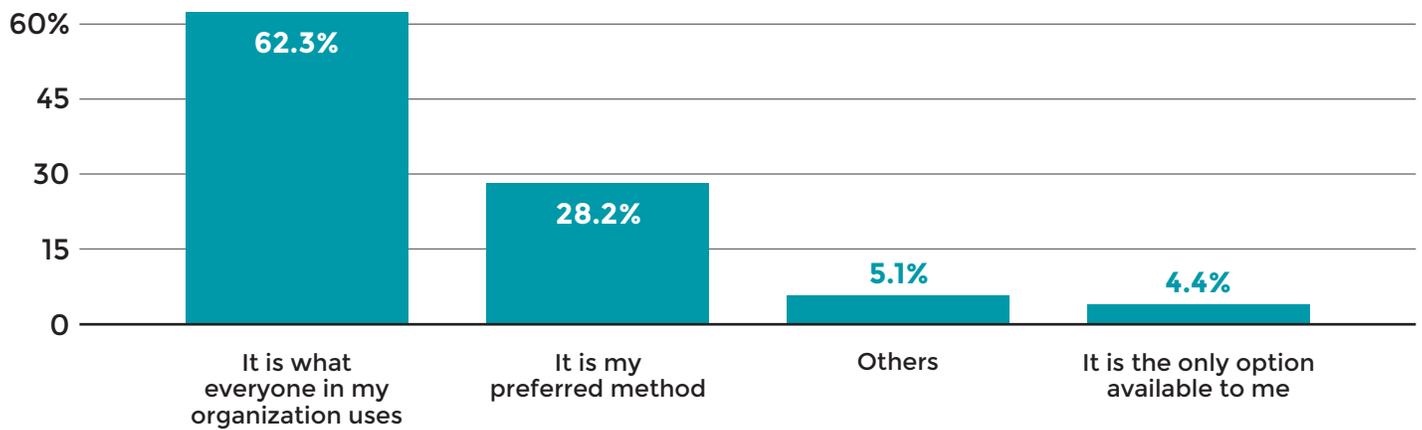


INFORMATION SHARING

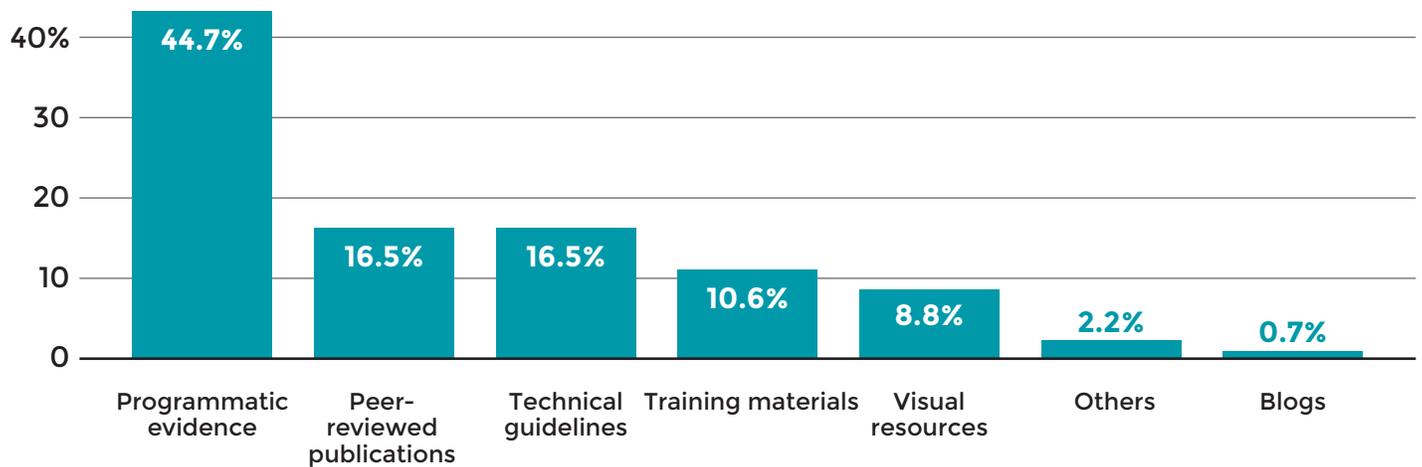
How do respondents share information?



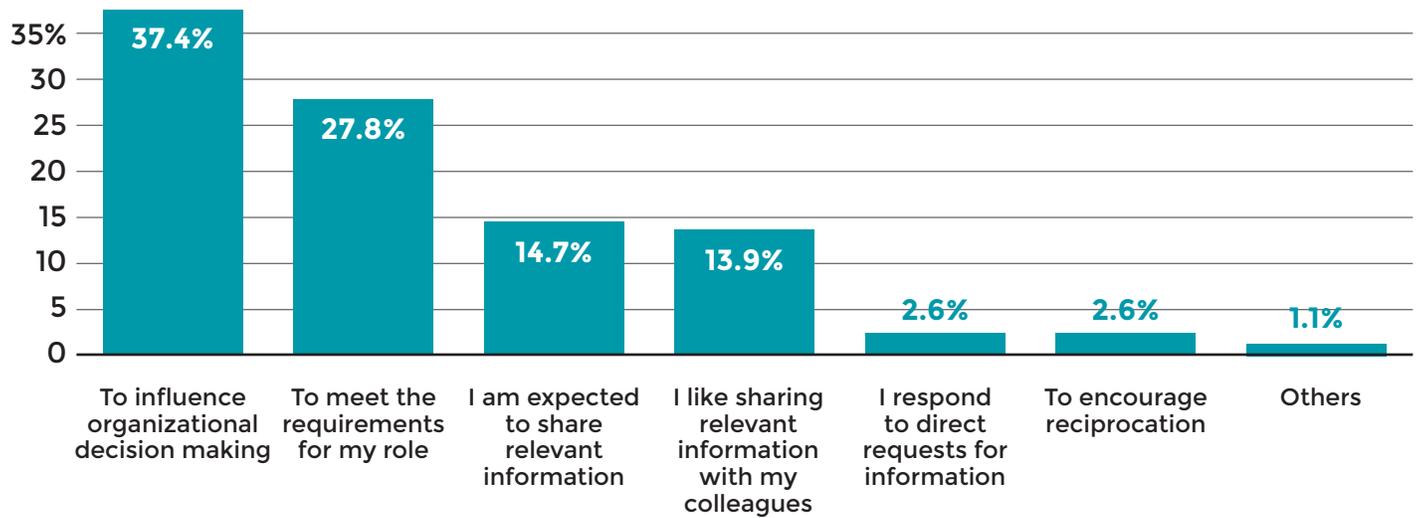
Why do respondents share information in this way?



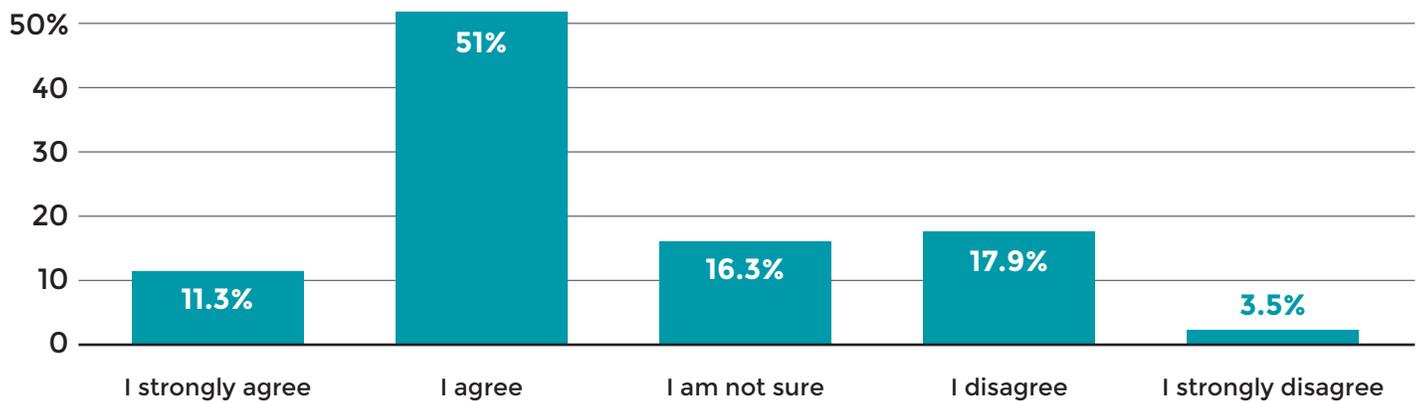
What type of information do respondents share?



Why do respondents share information?

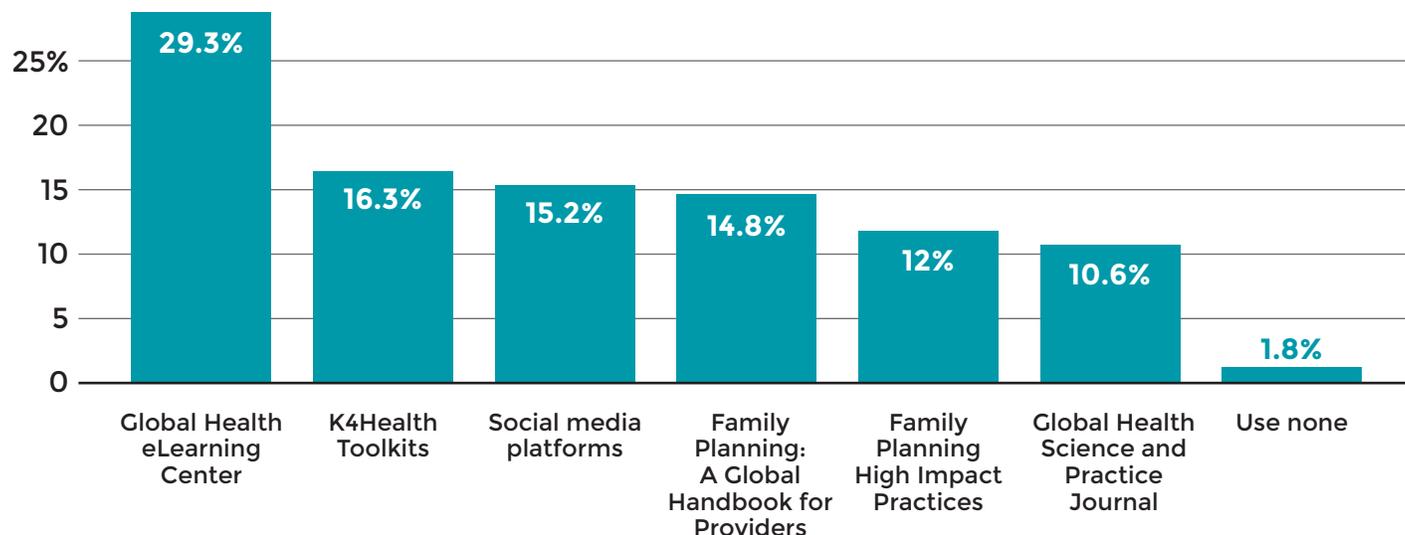


The extent to which respondents agree that they have the tools required to share information externally

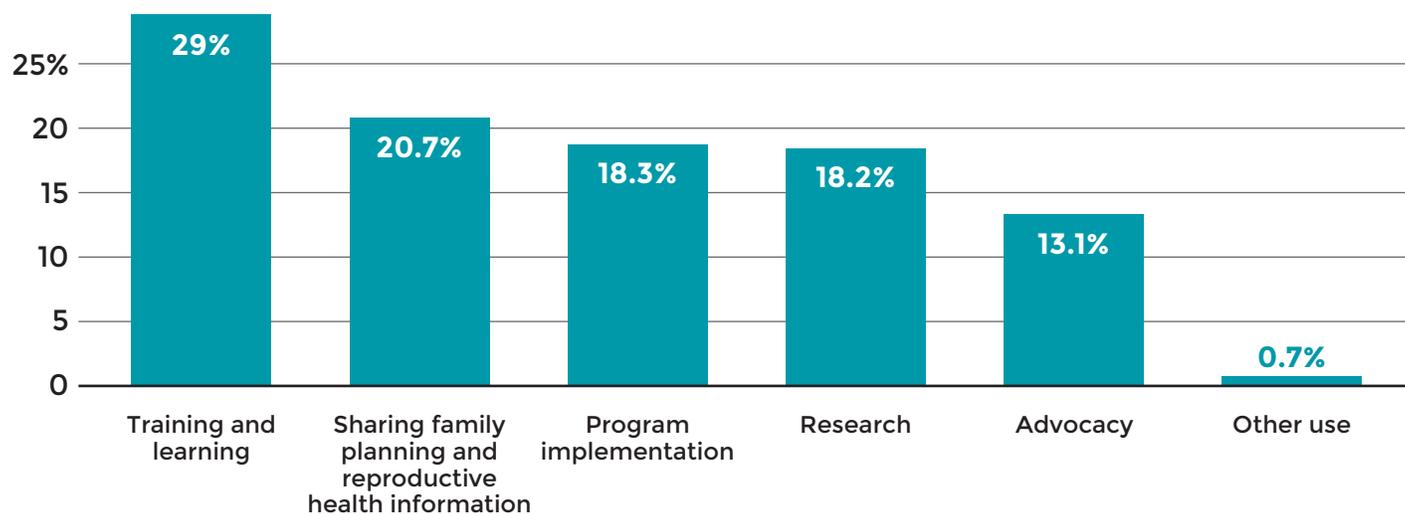


INFORMATION USE

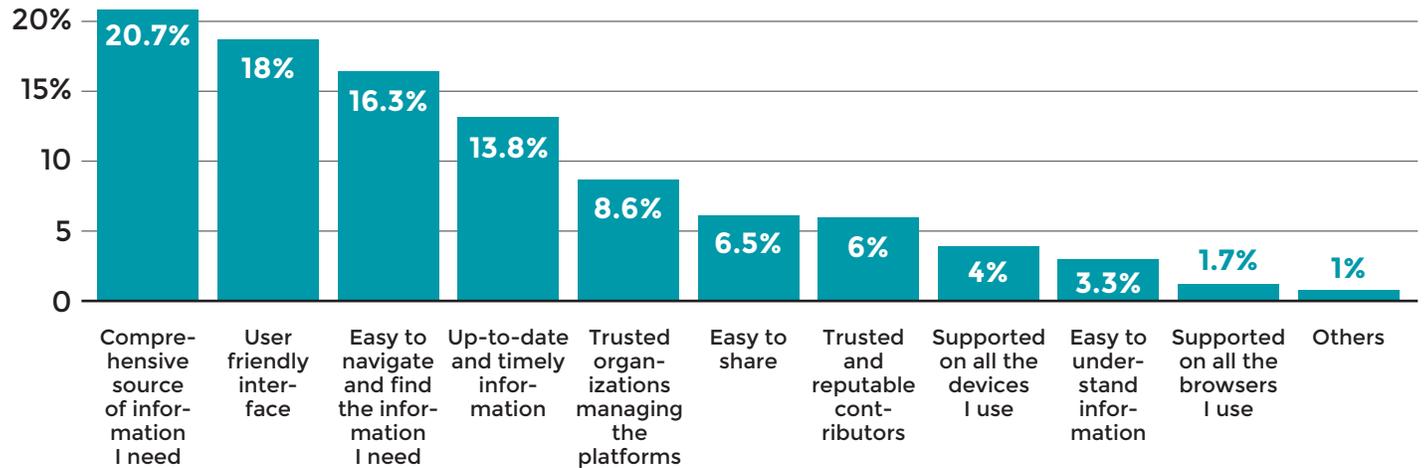
What family planning and reproductive health resources have respondents used before?



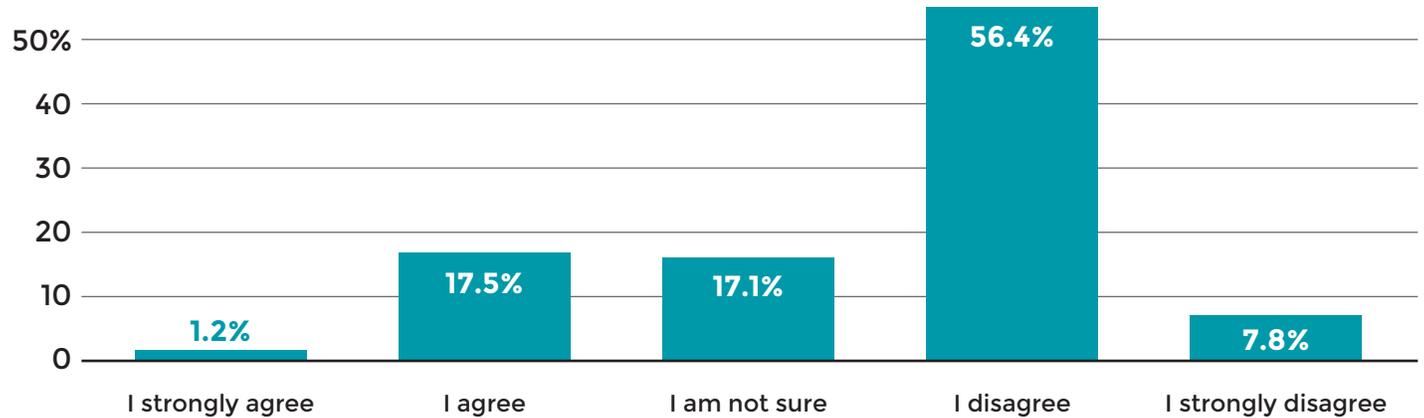
What do respondents use these online family planning and reproductive health resources for?



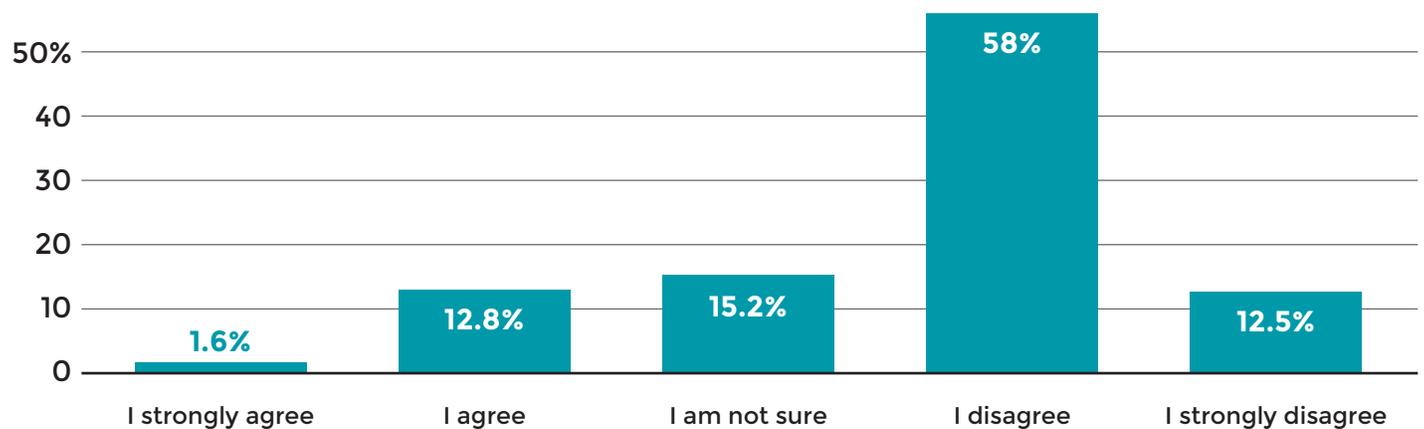
What do respondents value in online family planning and reproductive health resources?



The extent to which respondents agree that 'Information resources are often difficult to use'

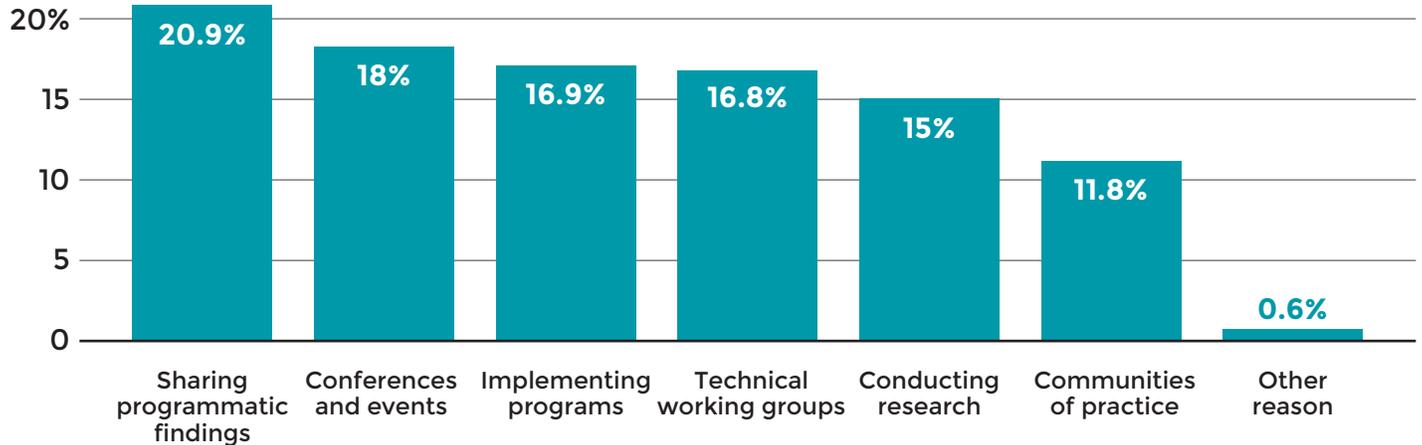


The extent to which respondents agree that 'Information materials are often too difficult to understand'

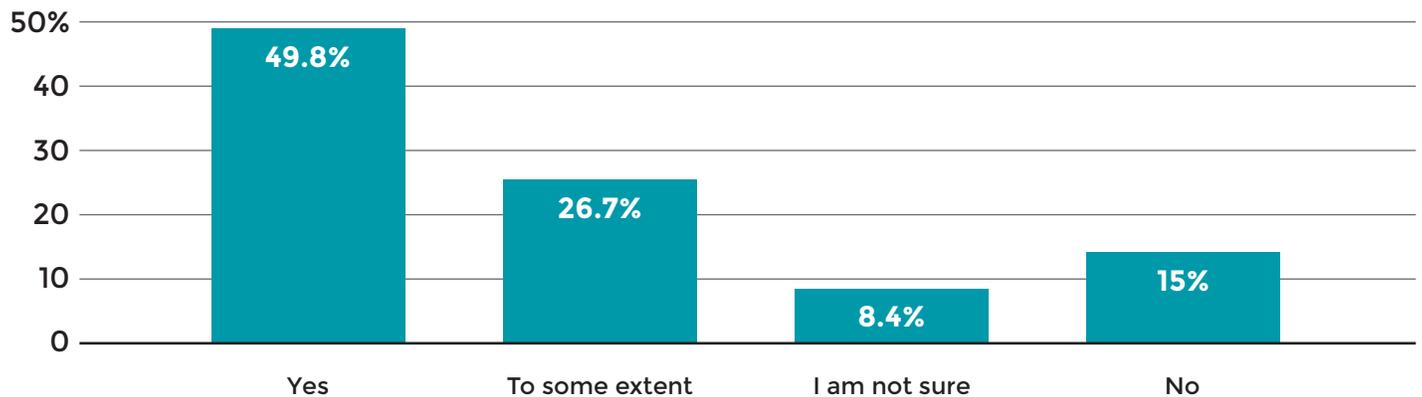


KM CULTURE

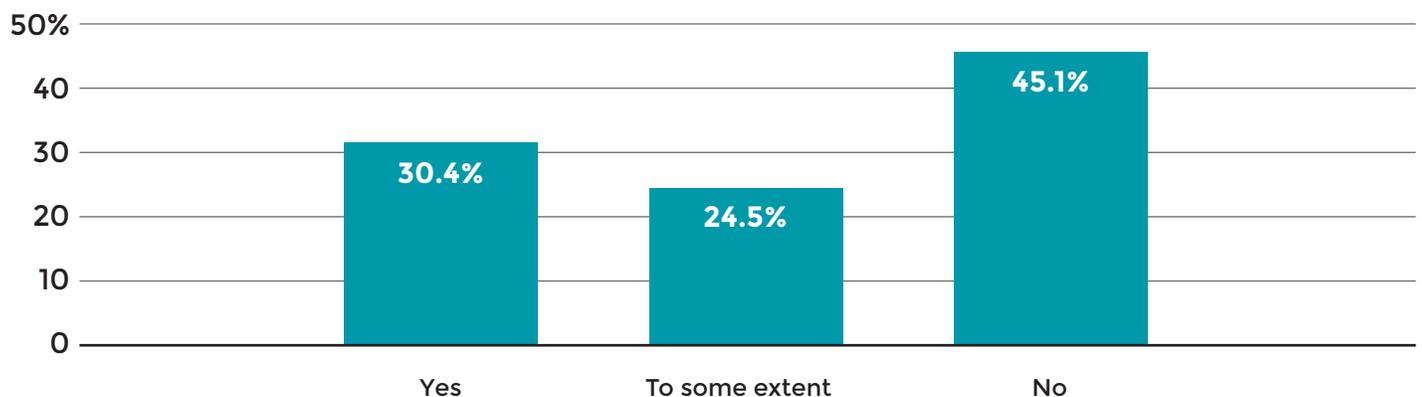
In what capacity do respondents interact with individuals from other family planning and reproductive health organizations?



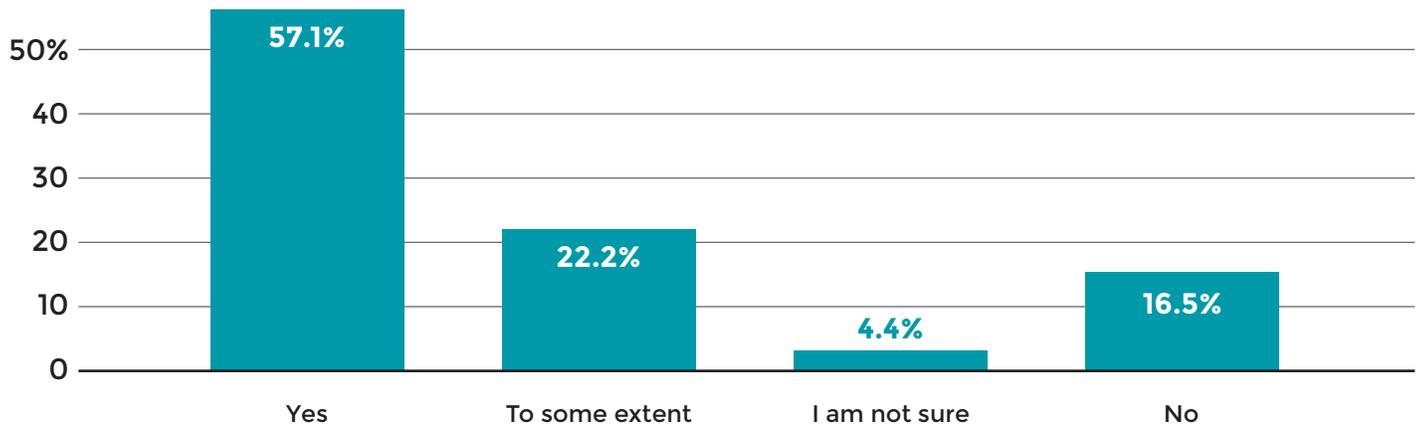
Does the respondents' organization have a formal document to guide internal and external knowledge sharing?



Has Knowledge Management training been provided at the respondent's organization?



Does the respondents' organization have dedicated staff for supporting knowledge management?



The extent to which respondents agree with the statement: 'In my organization, we have a strong culture of sharing FP/RH information with external parties'

