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Knowledge for Health

PERU: Knowledge for Health Results of a Reproductive Health Information Needs Assessment



*PERU: Knowledge for Health
Results of a Reproductive Health Information Needs Assessment*

PERU: Knowledge for Health. Results of a Reproductive Health Information Needs Assessment
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Knowledge for Health (K4H) is a global information initiative that synthesizes and provides high-quality information, knowledge, and best practices for family planning, reproductive health and other health programs to multiple audiences. USAID/Washington awarded the Leader with Associates Cooperative Agreement in 2008. It is scheduled to conclude in September 2013. The project is based at Johns Hopkins Bloomberg School of Public Health's Center for Communication Programs (JHU/CCP) in partnership with Family Health International (FHI) and Management Sciences for Health (MSH).

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Abbreviations

AF	Armed Forces
AIDS	Acquired Immunodeficiency Syndrome
CBHCA	Community-Based Healthcare Agent
CCP	Center for Communication Programs
CD	Compact Disc
COSALE	Consejo de Salud del Ejército del Perú (Peruvian Army's Health Council)
DIRESA	Regional Health Administration
ESSALUD	Social Security
FHI	Family Health International
GDP	Gross Domestic Product
GF	Global Fund
GFR	Global Fertility Rate
GTZ	German Technical Cooperation
HC	Health Center
HCF	Healthcare Facility
HCP	Healthcare Provider
HIS	Health Information Systems
HIV	Human Immunodeficiency Virus
ICT	Information and Communication Technologies
IEC	Information, Education, and Communication
K4Health	Knowledge for Health
MEF	Ministry of the Economy and Finance
MINEDU	Ministry of Education
MINSA	Ministry of Health
MSH	Management Sciences for Health
NGO	Non-governmental Organization
PAHO	Pan-American Health Organization
PD	Program Developer
PM	Program Manager
SRH	Sexual and Reproductive Health
STI	Sexually Transmitted Infections
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNICEF	United Nations Children's Fund
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
WHO	World Health Organization

Executive Summary

The Knowledge for Health (K4Health) project is a knowledge management project designed to increase the dissemination and use of evidence-based and up-to-date health information, in order to improve the delivery of health services in developing countries. K4Health facilitates how this information is captured, synthesized, shared, adapted, and used.

K4Health's activities are intended to inform potential country-based interventions, while also contributing to the global knowledge base about information needs and interventions. One element of these activities has been to conduct a series of needs assessments in different sites around the world, including Peru, Malawi, Ethiopia, Senegal, India, and several Southern African countries.

K4Health conducted the health information needs assessment in Peru from October 2010 to February 2011. The assessment had the following objectives: a) to understand current systems for health knowledge management and the extent of in-country resources; b) to identify areas that need improvement; and c) to make recommendations to strengthen the availability and use of health-related information.

The assessment was carried out using the social network mapping methodology (Net-Map), through which 29 individual interviews and 10 focus group discussions were conducted in Lima, Ayacucho, Ica, and Ucayali. Participants included public officials from the Ministry of Health (MINSa), regional health and social security departments, reproductive health program coordinators from international cooperation agencies and NGOs, healthcare providers from the MINSa and the army's health department, and community-based healthcare agents.

Principal Conclusions:

- **Information needs:** Specific needs for health information differ at each level of the health system. Policymakers, program managers, and service providers each have unique information needs based on their roles. Policy makers need current, evidence-based information that enables them to design policies and health programs and to develop norms and guidelines. Program managers need information that supports their planning and programming actions as well as program implementation, training and supervision. Service providers need information that supports care, treatment and referrals, while community health workers need simple, clearly packaged materials for use with clients to encourage behavior change and to educate the community.
- **Information access:** Access to information and information technologies decreases as one descends from the national level to the local level. The highest levels in the health system are characterized by an excess of information and the lowest levels by a shortage of information. Both national policymakers and program managers have broad access to national and international information, and their main source is the Internet. Regional policymakers have limited access to international information because they usually rely on printed documents from the health sector. Service providers, especially those in rural health facilities, and community health workers have little access to any current technical information. Their main source of

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information is training and technical assistance, but these are sporadic, untimely and they do not reach all providers or health workers.

As a result, policymakers and national program managers need systematized information that is organized and preferably accessible through email. Regional program managers and urban service providers prefer CDs with organized information because they have limited access to the Internet. Rural service providers and both urban and rural community health workers prefer receiving updated printed documents on a regular basis.

- Information exchange network: There are countless existing networks among the different actors in Peru's health system, for example friendship, money exchange, and medication flows. For this study, we focused on information flows in the health system and discovered a network of 199 organizations involved in the exchange of technical information in health. These include government institutions, donors, non-governmental organizations, professional networks, academic institutions, and grassroots organizations, among others. In this network, information is shared primarily through training, supervision, technical assistance, expert opinion, and funding.

Training and technical assistance are important links that enable information exchange among actors in the network. Health centers and health posts receive the greatest amount of training, and MINSA receives the greatest amount of technical assistance. Supervision presents some weaknesses, which do not favor information exchange. Funding from international cooperation agencies encourages information exchange, but largely through technical assistance.

- Use of information and communication technologies: Important technological gaps exist between urban and rural healthcare facilities. In Lima, the Internet and email are the most widely used technologies for exchanging information. In other urban areas, healthcare facilities may have computers but often these are shared among different areas resulting in limited access for service providers. Rural facilities tend to lack computers, Internet service, reliable electricity and landlines telephones.

Thus the Internet is not a viable solution for improving information flows in rural areas or outside of Lima because managers and providers either lack access to the Internet and or lack the time to browse the Internet and search for information. In addition, bandwidth problems slow down communications in rural areas as any dial-up connections that do exist are slow and unreliable. In contrast, every healthcare provider interviewed had a mobile phone for personal use, even providers in rural areas who use them when they can get a signal.

Recommendations:

The health system in Peru is characterized by a slow flow of health information, particularly down to the periphery. Improving the exchange of information is critical to the increasing access to and use of knowledge for improving health services. To this end, the assessment produced four broad recommendations:

1. Promote mechanisms that will improve the flow of information in order to increase access to information at peripheral levels and to reduce information overload at the national and regional

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levels. Surprisingly, almost all study participants preferred a directed and facilitated approach to searching for information, instead of having access to all possible knowledge (such as browsing the Internet for information). Users prefer a supply-based approach in which they receive well-structured, focused information such as a limited number of email messages with abstracts of documents and links to full-text documents. Thus there is a clear need for a knowledge exchange platform in Peru that provides users with selected, culled information which is similar to the role of the librarian who recommends books to readers overwhelmed by complexity.

Any knowledge management mechanism should be structured so that it functions for healthcare providers at the local level as well. Their main objective is to work with clients and they have limited time or motivation to seek information themselves. Therefore, providers also need a directed or facilitated approach, such as a well-structured program of information products that are updated on a regular basis. Service providers in urban areas have limited access to the Internet and they prefer CDs with organized documents, which they can review in different places (at home, at work or in public booths). Healthcare providers (HCPs) in rural areas prefer printed documents due to their limited access to email, computers and the Internet. Community health workers in urban and rural areas prefer printed documents which they can refer to as needed. Information sent out to them has to be brief and easy to apply to their practical work, reliable and regular, and in combination with materials they can use with their clients.

2. Improve training, technical assistance and supervision processes to strengthen the exchange of technical information for managers and providers who need it. While a knowledge exchange platform may be part of the answer, it is also necessary to improve and systematize training processes because these are a key source of information for lower levels. Training for service providers seems to be an unmet need, probably for two reasons: due to the pyramid shape of the health system (where many people need information and fewer actors provide it) and because training is an ongoing activity, as there is always new information and providers need to be updated.
3. Generate essential health information in Peru that is adapted to the needs of managers and providers at different levels in the health system and packaged in appropriate formats. This could require creating or strengthening a process of synthesizing content from publications, manuals, guidelines, and best practices and packaging this in electronic and print forms, depending on the end-user. Content should be tailored to the specific audience so that it is relevant to their particular needs.
4. Establish an entity responsible for producing synthesized, tailored health information for providers at all levels in the health system. In Peru there is no authority for knowledge management in sexual and reproductive health. Likewise there is no one in charge of gathering, organizing, systematizing and disseminating technical information nationally and globally. Thus it is necessary to identify and select the organization, department or group that will be responsible for knowledge management for the information exchange network. In addition, the selected entity may need capacity strengthening in knowledge management to help ensure the push of information from the central level to the periphery and also to encourage the pull of community-based knowledge and experience to enrich the central level.

1. Background

1.1 Country Background

Peru is located in the central-western part of South America. It covers a surface area of 1.28 Km² and its rugged topography features the Andes, which span the country from north to south. As a result, Peru is divided into three topographical regions: the coast, the highlands, and the rainforests.

Between 2004 and 2009, the Peruvian economy experienced significant growth (the GDP increased an average of 6.4% annually), despite the international crisis, which affected growth in 2009. In 2010, the GDP increased 8.8%, and in January 2011 the GDP rose 10%.

In spite of this growth, poverty levels are still high, although between 2004¹ and 2009² total poverty decreased from 51.6% to 34.8% and extreme poverty decreased from 19.2% to 11.5%. The highest percentage of poverty can be seen in the rural highlands (where 65.6% of the population is poor). The Gini index, which measures inequality in income distribution, decreased from 0.49 in 2004 to 0.48 in 2009³. This shows that while poverty decreased significantly during these years, there is still inequality.

Population projections for mid-2010⁴ reached a total of 29.5 million inhabitants, with an annual mean growth rate of 1.16%. For that same year, 29.94% of the population was less than 15 years of age; 64.19% was between the ages of 15 and 64; and 5.87% was 65 years or older. The median age was 25.26 years.

For 2006-2009⁵, the GFR was estimated at 2.6 children per woman, which is evidence of a 10.3% decrease in the GFR in 2000. However, there were still differentials between urban and rural areas (2.3 and 3.6 children per woman, respectively) and between poverty levels (1.6 children per woman in the highest quintile and 4.2 in the lowest poorest quintile).

Eighty-two per cent of childbirths were assisted in a healthcare facility; however, there were gaps between urban and rural areas (82.2% and 57.6% respectively)⁶.

As for contraceptive prevalence⁷, 49.2% of the total number of women of reproductive age use some type of contraceptive method. Of that total, 34.2% use a modern method (the injectable being the most widely used: 11.5%) and 15% use a traditional method.

¹ INEI. Condiciones de vida en el Perú: evolución 1997-2004. Lima, 2006.

² INEI. Evolución de la pobreza al 2009. Informe técnico. Lima, mayo 2010.

³ Ibidem.

⁴ INEI. Perú: Estimaciones y Proyecciones de Población, 1950-2050. Boletín de Análisis Demográfico N° 36. UNFPA. CEPAL. CELADE. Lima, marzo 2009.

⁵ INEI. Perú. Encuesta Demográfica y de Salud Familiar 2009. Visión nacional y departamental. Mayo 2010.

⁶ Ibidem.

⁷ Ibidem.

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With respect to sexually transmitted infections, 364,433 cases were reported in 2008⁸. Infections reported most frequently included vaginitis (40%), vaginal candidiasis (15.6%), cervicitis (13.3%), lower abdominal pain (9.8%) and bacterial vaginosis (10.4%).

Between 1983, when the first case of AIDS was reported in Peru, and December 2010, 42,886 cases of HIV-infected individuals and 27,161 cases of AIDS were reported. The principal means of transmission is sexual (97% of cases), followed by vertical transmission from mother to child (2%), and in third place transmission through blood (1% of cases). “The HIV/AIDS epidemic in Peru, according to UNAIDS parameters is still at the “concentrated” epidemic level, because HIV prevalence in men who have sex with men (MSM) is higher than 5%, and HIV prevalence among pregnant women remains under 1%. In this regard, based on studies of HIV vigilance among the MSM population, HIV prevalence is 13.9%; while HIV prevalence among pregnant women was 0.3% in 2008”¹⁰.

The national health system has multiple actors, including social security (ESSalud), which provides social services to the wage-earning population, the Ministry of Health (MINSa), regional governments (due to the decentralization process initiated years ago, healthcare services were transferred to regional authorities), Armed Forces and Police Health Departments, and the private sector. In 2009, 82.4% of healthcare facilities were operated by MINSa¹¹.

However, “approximately 20% of the country’s population is able to access social security services; only 12% has access to private services; and 3% is assisted by the Health Departments of the Armed Forces (FFAA) and Peru’s National Police (PNP). The other 65% depends on public health care; an estimated 25% of the total cannot access any type of healthcare service”¹². As for family planning, the main provider of modern contraceptive methods is MINSa facilities (where 59.8% of the total number of women of reproductive age receive contraceptives), followed by social security services (8.4%), while 29.9% of women rely on private services as a source of contraceptive supply.

In 2009 the total number of healthcare facilities reached 8,955¹³; of those, 7,382 belong to the Ministry of Health. Of the latter, 80% are health posts, 18% health centers, and 2% hospitals. That same year, MINSa had 107,973 healthcare professionals, technicians, auxiliaries and administrators. Not counting administrative staff, physicians represent 17.9% of the total (15,056), nurses 18.4% (15,486), obstetricians 8.8% (7,390), and health technicians and auxiliaries 49.8% (41,848).¹⁴

⁸ INEI. Estado de la población peruana 2009. Situación de la mujer. UNFPA. Lima, diciembre 2009.

⁹ Ministerio de Salud. Dirección General de Epidemiología. Situación del VIH/SIDA en el Perú. Boletín Epidemiológico Mensual. Diciembre 2010.

¹⁰ MINSa. Dirección General de Salud de las Personas. Perú. Informe Nacional sobre los Progresos realizados en la Aplicación del UNGASS Perú. Periodo: enero 2008 – diciembre 2009. 2010. Página 12.

¹¹ MINSa. Oficina General de Estadística e Informática.

<http://www.minsa.gob.pe/estadisticas/estadisticas/indicadoresSalud/recursos/>

¹² MINSa. Lineamientos de Política Sectorial para el Período 2002 - 2012 y Principios Fundamentales para el Plan Estratégico Sectorial del Quinquenio Agosto 2001 - Julio 2006. Julio, 2002.

¹³ MINSa. General Office of Statistics and Information Technology.

<http://www.minsa.gob.pe/estadisticas/estadisticas/indicadoresSalud/recursos/establecimientos/ESTABMacros.asp?00>

¹⁴ MINSa General Office of Statistics and Information Technology.

<http://www.minsa.gob.pe/estadisticas/estadisticas/Recursos/RRHHMacros.asp?00>

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With respect to access to information technologies, access increased significantly in the last decade, but there are still differences in access between urban and rural areas, primarily due to the complexity of installation in rural areas and to high costs.

In 2009,¹⁵ 32.1% of households had a landline telephone, but only 1.6% of rural households had this service. More than half of the households in metropolitan Lima and a third of the other urban households had landlines. Household access to mobile phones is higher than access to landlines (67% of households nationwide had access to mobile phones), while in rural areas this percentage was lower. 23.1% had cable television, but this service is clearly urban and especially available in metropolitan Lima. This reflects not only the service's technical possibilities, but also the households' purchasing power.

As for access to computers, slightly more than a fifth of Peruvian homes have one, but there is a wide gap between those who have computers in metropolitan Lima and those in rural areas who don't. Nationwide, 11.0% of households had Internet service, and in metropolitan Lima almost a fourth, while in the rest of the urban homes and in rural homes, the percentage is low (8.6% and 0.1% respectively).

Most Internet users access this service in public booths (65.9%) due to lower costs, at home (26.5%), and at work (14.7%).

There are no recent statistics on the availability of computers and the Internet in healthcare facilities. In 2002¹⁶ it was estimated that of the total number of MINSA staff, only 42.9% had access to a computer, and 13.8% had Internet access.

1.2 Needs Assessment Study

K4Health is a knowledge management project designed to increase the use and dissemination of evidence-based, accurate and up-to-date health information, to improve health service delivery and health outcomes worldwide. K4Health facilitates how this information is captured, synthesized, shared, adapted, and used.

The project is funded by USAID and implemented by the Johns Hopkins Bloomberg School of Public Health Center for Communication Programs (CCP), Family Health International (FHI), and Management Sciences for Health (MSH).

In 2009-2010, the K4Health Project conducted different needs assessments on health information needs in several countries in Sub-Saharan Africa, Asia, the Middle East and Latin America (India, Malawi, Ethiopia, Senegal, and Peru), with the objective of identifying global patterns of information needs, barriers, and opportunities for developing knowledge management programs that would be adapted according to regional and national needs. These studies had the following three objectives:

¹⁵ INEI. Las tecnologías de información y comunicación en los hogares. Trimestre Julio-agosto-septiembre 2010. Informe Técnico N° 4. Diciembre 2010.

¹⁶ INEI. IV Encuesta Nacional de Recursos Informáticos y Tecnológicos de la Administración Pública. Octubre 2002.

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- a) Understanding current health knowledge management systems and existing in-country resources.
- b) Identifying areas that need improvement.
- c) Making recommendations to strengthen the availability and use of health information.

As a result of this information needs assessments, K4Health will be able to work with USAID missions and its local partners to address the challenges identified and improve the flow of information.

The guiding questions during the research were:

Needs. What are the health information needs of USAID health officials, policymakers, program managers, service providers and community-based healthcare workers? How do these different audiences meet their health information needs? What are the gaps and how can they be filled by K4Health and others? What specific type of content will help audiences be more effective and efficient in their work?

Networks. What are the existing health information networks? What is their purpose? What lessons can be learned from these networks? With which networks should K4Health partner to maximize its impact and minimize duplication? Is there a gap in existing networks that could be filled by K4Health? What are some examples of efficient uses of the networks? What is the viewpoint of network members with respect to the networks' efficacy?

Technology and tools. What are the most promising technologies and tools for knowledge management? What channels do international organizations use to contact their staff, colleagues, partners and clients? Other technologies? How are they being used? What are some success stories? What are the challenges?

Infrastructure. Is there Internet access in the country? How does Internet access vary in a given country? Is there access to mobile phones? What issues should be considered when creating websites and other mechanisms for sharing knowledge online (e.g., bandwidth, existence of Internet cafés, etc.)?

Principal stakeholders. Who are the principal stakeholders and opinion leaders in health information? What are the main health topics of interest to these groups?

2. Methodology

2.1 Study Design

The main question in Peru's needs assessment was: How can we improve the exchange of information about family planning and reproductive health, and what are the health information needs of providers at the different levels of the health system?

The assessment took place in four stages: a) design, b) implementation, c) development of the report, and d) dissemination of the results.

In the first stage, the K4Health team proposed a qualitative methodology based on individual interviews and focus groups, and developed question guides. These tools were validated by the local team so these instruments would have an internal logic, were well translated and their language could be easily understood. The validation was done by various NGO and public-sector healthcare professionals. Study sites and participants were also identified during this stage.

In the second stage, the K4Health team made the decision to use the network mapping (Net-Map)¹⁷ focus in Peru's needs assessment, as it allows analyzing a complex problem through the analysis of social networks and power dynamics. Net-Map combines the two study methods: analysis of social networks and mapping of actors. A Social network is a series of links or relations that are established between different nodes or actors. Net-Map is a technique based on individual or group interviews, during which relations and power dynamics among different actors are examined.

Due to this change in methodology, the interview guides that were developed during the first stage had to be adapted for the network mapping technique and validated once again. With this technique, we probed about four types of links or relations established among actors: training, supervision, technical assistance, expert opinion or advice, and funding.

Validation took place through individual interviews with two NGO healthcare professionals and through a focus group discussion with community-based healthcare agents in an outlying area of Lima (the final instrument can be found in Annex 1). Study participants were also identified per each department selected. In addition, the local team was trained in the implementation, processing and analysis of network mapping.

¹⁷ SCHIFFER, Eva. **Net-Map. Toolbox. Influence Mapping of Social Networks.** International Food Policy Research Institute. May, 2008.

2.2 Study Site

For the assessment, we considered selecting three regions in the country located in different topographical areas (coast, highlands, and rainforests); in addition, we considered differentiating between urban and rural areas in each region. The study sites were as follows:

- Metropolitan Lima. As this is the country’s capital, most governmental institutions, international cooperation agencies and NGOs are found here.
- Ayacucho Region. Located in Peru’s southern mountain range. The study was carried out in the city of Huamanga, capital of the region, and in the districts of Jesús Nazareno (urban) and Iguaín (rural).
- Ucayali Region. Located in the central rainforest. The assessment was conducted in the city of Pucallpa, capital of the region and in the districts of Manantay (urban) and Campo Verde (rural).
- Ica Region. Located on the southern coast. The assessment was conducted in the city of Ica, the region’s capital, and in the city’s outskirts.

2.3 Study Participants

We planned for participation of different groups linked to reproductive health and family planning programs or projects run by the central and regional government, international cooperation agencies, non-governmental organizations, networks or associations and community-based groups. We conducted a total of 39 individual interviews and focus groups, whose participants came from different sectors and administrative levels (national, regional, local), see Table 1.

Table 1. Number of participants by sector and administrative level

Sector	Administrative Level				Total
	National	Regional	Urban District	Rural District	
Government	3	4	3	2	12
International cooperation	5	1	-	-	6
NGOs	9	4	-	-	13
Community-based groups	1	1	2	2	7
Networks or associations	2	-	-	-	1
Total	20	10	5	4	39

The study participants represented different types of actors (Table 2): i) policymakers, ii) program or project managers, iii) service providers, and iv) community-based healthcare agents. A list of the interviewees can be found in Annex 2.

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Table 2. Number of participants by type of actor and region

Type of actor	Region				Total
	Lima	Ayacucho	Ucayali	Ica	
Policymakers	2	1	2	1	6
Program managers	16	3	1	1	21
Service providers	1	2	2	1	6
Community-based agents	1	2	2	1	6
Total	20	8	7	4	39

We conducted 29 individual interviews and 10 focus groups, by type of technique used to collect the information (Table 3).

Table 3. Number of interviews conducted

Sector / Technique	Region				Total
	Lima	Ayacucho	Ucayali	Ica	
<i>Individual interviews</i>					
Government	1	1	4	2	8
International cooperation	5	1	-	-	6
NGOs	9	2	1	1	13
Community-based groups	-	-	-	1	2
Networks or associations	1	-	-	-	1
Total individual interviews	16	4	5	4	29
<i>Focus groups</i>					
Government	2	2	-	-	4
Community-based groups	1	2	2	-	5
Networks or associations	1	-	-	-	1
Total focus groups	4	4	2	-	10

In Lima, data collection was initiated in mid-October 2010 and completed in mid-February 2011. In Ayacucho and Ucayali, interviews and focus groups were conducted in December 2010; in Ica, they were conducted in February 2011.

2.4 Information Processing

A recorder was used throughout the interviews and focus group discussions to record participants' answers and group discussions, which were later transcribed by hired staff. In addition, notes were taken, reviewed, and expanded upon at the end of each interview or focus group discussion. The transcriptions were downloaded to matrixes for analysis at a later date.

Maps were processed with Visualizer 2.0¹⁸ software, which enables processing, visualizing and analyzing data from social networks.

¹⁸ <http://www.mdlogix.com>

2.5 Data Analysis

Data analysis was carried out as follows: processed maps were analyzed individually, and then by type of actor and national or regional level. Then, summary maps were developed to enable the synthesis of relations found by each group of actors. Qualitative data were analyzed according to the group of actors, site and study questions.

The analysis identified particularities, similarities and discrepancies among groups of actors and study sites.

2.6 Ethical Issues

The protocol for the assessment was approved by the Ethics Committee of the National Health Institute. In addition, prior to initiating the interviews or focus group discussions, participants were explained the study's objectives and asked to provide their verbal consent. They were also explained that their answers would remain confidential and that they could end the interview at any time they wished to do so.

2.7 Team

MSH hired a principal investigator (Susana Guevara) and an assistant investigator (Liz Girón), who were in charge of validating the instruments, conducting the interviews and focus group discussions, and developing the network maps. The assistant worked with the team until January 2011. The principal investigator completed her work with data collection and analysis and developing the report. In Lima, the team had the support of an assistant (Ivy Álvarez), who was responsible for scheduling appointments for the interviews, and organizing site visits as well as the results presentation event. In the regions of Ayacucho and Ucayali, there were local assistants (Carmen Vallejo and Katerina Berríos, respectively), who were in charge of scheduling the interviews, convening the focus group discussions, and providing administrative support throughout the interviews and discussions.

3. Results

3.1 Information Needs

a) Information Needs by Type of Actor

It was noted that each group interviewed had different information needs, and those needs are related to their roles.

Policymakers

Policymakers are public officials from MINSA and ESSALUD at national and regional levels, whose roles are to guide public policies related to specific issues, such as sexual and reproductive health, HIV/AIDS prevention, and adolescents' health.

Policymakers at a national level need information that supports their policymaking and prioritizing sites and populations, such as national and regional statistics, research and evaluations of interventions. They also mentioned the need to know more about other countries' intervention strategies and management models to learn from their experiences.

I think that, at the management level, what is needed most are some indicators and studies... so we can make more detailed decisions. Managers should have more information about evidence-based studies.
(National policymaker)

On the other hand, regional policymakers identified three information groups: a) local research, evaluations of NGO interventions; b) technical norms and national healthcare guidelines that support their policies; and c) information systems, monitoring techniques, adult training techniques and service providers' behavior changes to improve programs.

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Table 4. Policymakers' Information Needs

Types of Information	National	Regional
Topics	<ul style="list-style-type: none"> - National and regional statistics on program performance and coverage - Research and evaluation of interventions - Studies of interventions' cost-effectiveness - New contraceptive technology - Other countries' experiences with intervention strategies, program management 	<ul style="list-style-type: none"> - Systematization of experiences - Reproductive health research - Evaluation of interventions carried out by the public sector and NGOs - Obstetrical emergencies
Legal norms		<ul style="list-style-type: none"> - Technical norms - Guidelines
Techniques		<ul style="list-style-type: none"> - Use of HIS (health information system) - Monitoring - Adult training methodologies - Strategies for changing service providers' behavior

Program Managers (PM)

Program Managers include professionals from NGOs and international cooperation agencies at national and regional levels, who manage sexual and reproductive health programs or projects.

*I need statistical information about program management and performance, households' healthcare expenditures, unemployment rates, socio-demographical, social and labor statistics... recent research (behaviors, prevalence of HIV/STIs, sexual and reproductive health, condom use), learn what cooperating agencies do to avoid duplicating efforts... *We need very rigorous evaluations of interventions...*
(National Program Manager)

PM's information needs at a national level focus on disaggregated data by geographical areas and population groups that will support them in planning interventions. For this reason, they noted the need for systematizing interventions, conducting research and evaluation of impacts in order to replicate successful experiences. They also mentioned specific issues, such as healthcare expenditures, innovations in contraceptive technology advances, and screening of cervical cancer (Table 5).

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... Specific information related to gender, rights, standardization, recent innovations, what is happening, we don't know... For example, the Constitutional Court's decision about emergency contraception generated confusion among service providers...they did not provide methods because they thought it was the same... things like that, everyday issues; I don't know, recent innovations...
(Regional Program Manager)

Regional Program Managers need to be updated with national and international information, statistics and local research to develop public budgets, because, since 2010, the regions have been implementing the management-by-outcomes approach (Table 5).

... Some information about the impact of interventions carried out, so we can see changes in service providers' behaviors, including interventions with the population. We don't know why we can't reach those we should be reaching, users... thus, we need a very clear study and we need to say what has been done and whether it is working...
(Regional Program Manager)

Table 5. Program Managers' Information Needs

Types of Information	National	Regional
Topics	<ul style="list-style-type: none"> - National and regional statistics about program performance and coverage - Household healthcare expenditures - National and international research on behavior change (condom use) - Evaluation of interventions and HIV/AIDS prevention strategies, institutional childbirth, conducted in-country and throughout Latin America. - New contraceptive technology - Alternatives for screening cervical cancer - International Cooperation Agencies' Programs 	<ul style="list-style-type: none"> - Regional and local statistics on reproductive health - Local research - Contraceptive methods - Cervical cancer - Violence against women
Legal norms	<ul style="list-style-type: none"> - MINSA's rules and regulations - Regional governments' and DIRESAS rules and regulations 	-
Techniques	<ul style="list-style-type: none"> - Use of new technologies to inform adolescents and youth - New research methodologies 	<ul style="list-style-type: none"> - Developing public policies - Methodologies to provide technical assistance

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Service providers

Service providers (HCPs) who participated in the study were professionals (midwives and nurses) and nursing technicians, who are permanent staff members of the healthcare facilities who serve the population.

In urban healthcare facilities there is a greater number of HCPs, and roles are differentiated: some professionals work in maternal health; others in reproductive health. Healthcare facilities in rural areas have a professional (nurse or midwife) or technician who is responsible for providing care for all services.

I believe that refresher training is always necessary for everything; it should be provided periodically, as we always forget one thing or another... We need updates on current norms and guidelines, because they also change... guidelines may be issued, but, how do I say this, sometimes if they are not socialized through workshops, suddenly the habit of reading, or lack thereof, and you don't have access to the changes that have been implemented.
(Healthcare provider in an urban area)

HCPs need to be different types of information: a) information that allows them to improve the care they provide to the population, for example: information about contraceptive methods and how to manage side effects and sexually transmitted infections; b) technical norms and national guidelines for reproductive health, STIs, HIV/AIDS, infection prevention, and adolescents' health. They mentioned that the information does not reach them in a timely manner and does not reach all staff members. For this reason, some of the interviewees believe that their work could be outdated or does not comply with the legal norms (Table 6).

Only HCPs in rural areas stated that they need to learn techniques to work with the community, especially with youth and adolescents.

Table 6. Service providers' Information Needs

Types of Information	Urban	Rural
Topics	<ul style="list-style-type: none"> - Contraceptive methods - Female condom - Alternatives to handle contraceptive methods' side effects - Obstetric emergencies - STIs 	<ul style="list-style-type: none"> - Contraceptive methods - Prenatal control - STIs
Legal norms	<ul style="list-style-type: none"> - Technical norms and guidelines for sexual and reproductive health, HIV prevention, adolescents, infection prevention 	<ul style="list-style-type: none"> - Technical norms and guidelines for sexual and reproductive health, HIV prevention, adolescents, infection prevention
Techniques		<ul style="list-style-type: none"> - Work with the community - Work with youth and adolescents

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Community-Based Healthcare Agents

Community-based healthcare agents (CBHCAs) are community volunteers who carry out healthcare prevention and promotion activities. They are part of the community’s organization and are elected by community members. They may be healthcare promoters, traditional birth attendants, vigilantes, volunteers, healthcare delegates, or pastoral healthcare agents. Guidance, training, and monitoring the activities they carry out are the responsibility of the team in charge of healthcare promotion at the local level.¹⁹

The document noted identifies the profile, knowledge, skills and attitudes of community-based healthcare agents. Their roles include conducting information and education home visits, mapping and follow-up of at-risk families, carrying out prevention and healthcare promotion campaigns. “Volunteer tasks that can be performed by community-based healthcare agents include primary care activities, with special emphasis on disease prevention activities and promotion of healthy behaviors and settings”²⁰.

Two types of community-based agents were interviewed: healthcare promoters and HIV/AIDS prevention promoters among at-risk populations.

CBHCAs have various information needs: on sexual and reproductive health issues, tools and techniques for working with the population to improve their interventions and bring about positive health-related changes for their community. For CBHCAs who work on HIV/AIDS prevention, information needs are more specific, related to this disease and the stigma and discrimination experienced by healthcare facilities (Table 7).

Table 7. Community-based Healthcare Agents’ Information Needs

Type of Information	Healthcare Promoters	HIV Prevention Promoters
Topics	<ul style="list-style-type: none"> - Contraceptive methods - Violence against women - Cervical cancer - Sexually Transmitted Infections - HIV/AIDS - Prenatal control - Adolescent pregnancy 	<ul style="list-style-type: none"> - Research advances on HIV vaccines - Use of contraceptive methods by HIV-positive people - Pregnancy among HIV-positive people - Adherence to treatments - Alcohol and drug abuse and HIV
Legal norms	-	- Legislation against discrimination
Techniques	<ul style="list-style-type: none"> - Internet use - Work with the community - Work with youth and adolescents - Work with couples and women who are victims of violence 	<ul style="list-style-type: none"> - Project development - How to report discrimination or abuse

¹⁹ Ministry of Health’s General Office for Healthcare Promotion. Department of Community Involvement in Health Care. Documento Técnico para el Trabajo con los Agentes Comunitarios de Salud. 2007.

²⁰ Ibid. Page 31.

b) Actors Most in Need of Information

In this section, we present the interviewees' opinion with respect to other groups' information needs and what type of information they need.

Policymakers feel that actors most in need of information are program managers and service providers (especially in rural areas). The information identified coincides with that mentioned by PMs and HCPs, but they added reproductive health research for program managers.

Program managers have a broader view of the different groups' information needs. They believe that all actors need information to improve their work. They mentioned that policymakers need statistics and identification of gaps to develop national and regional policies, because at the regional level budgets are developed by outcome.

Everyone needs some specific information... We need to know information that is produced to provide support where gaps are identified... We also need information to have a realistic overview of the country, which allows us to direct investments or budgets where they are needed. The public sector needs information for coherent policies. This would be, this level, the upper level, so to speak. The public sector, the lower level, needs information for adequate programming, so that no money is wasted on poor programming. In the case of individuals responsible for implementation, it is very similar to the public sector's operational level; they also need information to be able to implement adequately what they have to do and not lose themselves along the way due to overproduction or poor programming.

(National Program Manager)

In addition, program managers believe that service providers need all types of information about sexual and reproductive health, because they are the ones in contact with the population, as well as information about gender focus, interculturalism, client rights and quality of care.

Service providers believe that they are the actors most in need of information, as well as HCPs who work in private facilities (pharmacies, clinics and local doctor's offices), local authorities and the population (especially adolescents and youth).

From the perspective of community-based healthcare agents, youth and adolescents are the ones who do not receive information about contraceptive methods and STI/HIV/AIDS prevention. Promoters who work on HIV believe that hospital and health center directors need information to combat stigma and discrimination against individuals affected by HIV/AIDS.

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Table 8. Actors' opinions about groups most in need of information

Actor	Actors most in need of information	Information
Policymakers	- Program managers	- Research and evaluation
	- Service providers	- Technical norms - Pathologies - Contraceptive methods - Intervention strategies - Reproductive health research
Program managers	- Policymakers	- National, regional, and local statistics
	- Program managers	- National, regional, and local statistics - Research and evaluation of impact
	- Service providers	- Technical norms - Contraceptive methods, identifying obstetric emergencies, sexual health, sexual and reproductive rights, gender, interculturalism, quality of care - Counseling and intervention strategies - Community information
	- Community-based healthcare agents	- Family planning, sexual and reproductive rights, gender, and interculturalism
Service providers	- Professional staff and technicians in health centers and posts	- Sexual and reproductive health, contraceptive methods
	- Private facility staff	- Sexual and reproductive health, contraceptive methods
	- Community-based healthcare agents	- Maternal health, family planning
	- Local authorities	- Sexual and reproductive rights, violence against women
	- Youth and adolescents	- Contraceptive methods
Community-based healthcare agents	- Youth and adolescents	- Contraceptive methods, STIs, HIV/AIDS
	- Service providers	- HIV-related stigma and discrimination

3.2 Information Network

Net-Map allowed us to identify the different institutions involved in sharing technical information, the different links or interactions that are established among actors, and actors' power and influence.

A link is a connection, relationship or exchange among actors –for the purposes of this study it is specifically the exchange of information among actors. By analyzing links, one can understand how each actor is related to the others and to how many other actors he or she is linked. Net-Map presents the totality of this information in the form of a network among the actors that are being linked for information exchange. Thus, the methodology allows us to visualize the flow of information to the different levels of the health system.

The assessment considered five potential links for information exchange among institutions: training, supervision, technical assistance, expert opinion or advice, and funding. In addition, they kept in mind that “information” is that found in technical reports, research, evaluation, protocols, program guides, and information and communication material, not statistical information.

They identified an information exchange network with 199 actors who participate through any of the training, supervision and technical assistance links. This network is not formal or organized, but it exists and functions among the actors identified in the study. By actor we mean national, regional and community FP and RH organizations. Actors identified are institutions or national, regional or local government programs (56), international cooperation institutions (20), non-governmental organizations (55), professional networks or associations (31), community-based groups (22), universities (4), other public-sector institutions (5), and other actors (6).

Clearly, there are countless existing networks among actors in Peru's health system, for example, friendship, flow of money, and flow of medications. This study focused on the information exchange network. This network is made up of 199 actors who participate through any of the training, supervision, technical assistance, expert opinion, or funding links. The network includes 48 nodes or actors and 141 links. In order to draw the network map, NGOs were grouped into three types: national NGOs (based in Lima with interventions in different parts of the country), regional or local NGOs (based in the region with regional interventions only), and NGOs that intervene within the framework of those projects supported by the Global Fund to Fight AIDS, Tuberculosis and Malaria (these may be national or regional NGOs, but they intervene in partnership). Likewise, universities and community-based groups were grouped together (Map 1).

The network shows that three actors cover most of the information exchange links: MINSA, health centers and posts, and in third place Diresas. It is not a network with a high concentration of links, as the different actors may interact with others without intermediation.

Most of the actors identified do not have conflicts with respect to sexual and reproductive health objectives and goals. However, there are conflicts between MINSA and MINEDU as far as addressing reproductive health issues. Other conflicts emerged at certain times with the Catholic Church and some fundamentalist NGOs regarding specific issues (such as emergency oral contraception, or the use of condoms).

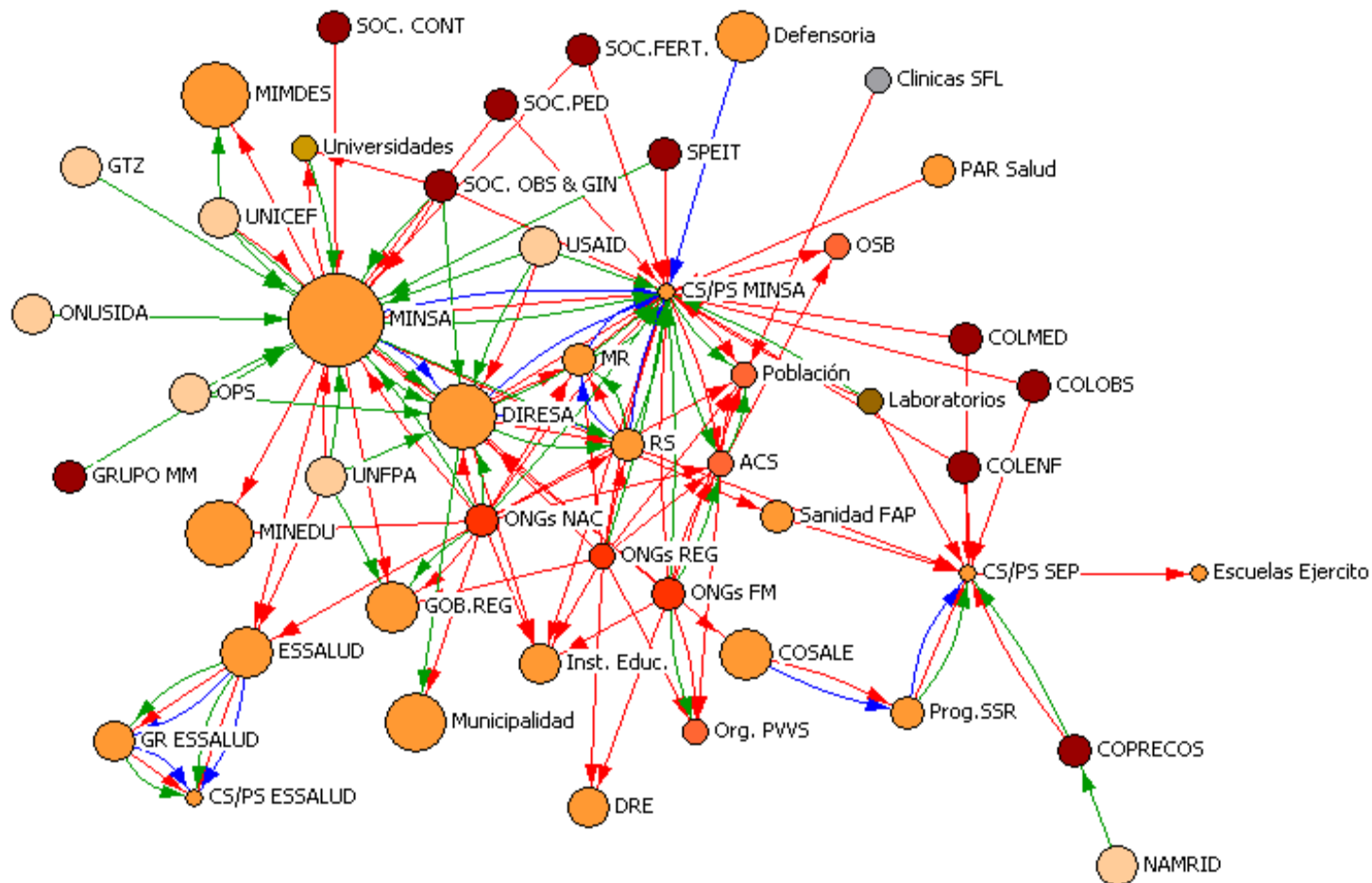
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An aspect emphasized by the interviewees was lack of coordination: a) within MINSA, healthcare strategies related to SRH, HIV/AIDS and adolescents do not coordinate priorities or strategies to address the different sexual and reproductive health issues; b) between MINSA and DIRESAS there is no coordination of the priorities identified at both national and regional levels; c) in the regional setting, the Regional Government and DIRESA do not coordinate health policy priorities; e) while most national NGOs coordinate with national health strategies, interventions are not articulated. The same thing happens regionally and locally, where some NGO interventions are not coordinated with health centers and posts, and service providers at this level are not aware of their work with the population.

Power is represented by the size of the node. In this case, the different actors noted that MINSA has the most power to improve information exchange, as it is a guiding and regulating entity in the health field. MINSA sets priorities for training and supervision. Second in power is DIRESA, due to its role in implementing policies in a decentralized setting.

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Map 1. Technical Information Exchange – All Actors



Key:			
Training	→	→	
Supervision	→	→	
Technical assistance	→	→	

Grupo de actor	
□	Donante
□	Gobierno
□	Grupos Comunitarios
□	ONG
□	Otros
□	Redes o asociaciones profesionales
□	Sector privado
□	Universidades

a) Information Exchange through Training

Training is understood as sessions organized with the objective of improving trainees' reproductive health knowledge and practices.

Map 2 presents the network for information exchange through training. They identified 42 actors and 83 links that participate in this exchange. This network has no defined core, and actors communicate with each other without intermediations.

Service providers at health centers and posts are the main recipients of training. There are 15 training links. Actors who most often provide training are national NGOs.

Currently, HCPs at those health facilities receive training from MINSA, DIRESA, health network and Micro-network, national, regional and Global Fund NGOs, PARSalud, professional colleges (physicians, nurse-midwives), from scientific societies (obstetrics and gynecology, pediatrics, fertility and infectious diseases). In addition, health centers and posts are visited by laboratory representatives, who invite staff to training activities organized by these companies. At the same time, service providers provide training to educational institutions, community-based healthcare agents and the population in general.

Despite the high number of actors who provide training to service providers in health centers and posts, neither MINSA nor DIRESAS have training plans to respond to a training needs assessment in relation to the roles they fulfill; thus, training activities are dispersed. According to an official at the national level, they barely reach 10% of the healthcare staff with various contents and methodologies.

... even though it is trickling in, we are not able to complete the training so they learn all the processes..., This is due to high rotation; we cannot reach all of them; we must prioritize... for example, there was a time when we had to prioritize some areas; thus, inaccessibility prevents training from being consistent.
(National Policymaker)

This situation is compounded by the fact that trained healthcare staff do not remain in their positions for a long time. There is high rotation of staff because many professionals belong to SERUMS—Rural and Urban Marginalized Health Service—and they remain in their positions for only one year. Another factor is that training is provided only to one cadre of professionals, i.e. program coordinators, who have the obligation of sharing what they learn with the rest of the staff.

... You have to mobilize staff at health centers, so what we do is select, generally coordinators attend. And that coordinator later has to replicate the training for micro-networks, and micro-networks train facilities. That is how DIRESA reaches a minimum percentage of health facilities. What is the objective? For 100% of training to reach that facility, but that does not happen ...
(Regional Policymaker)

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MINSA is the second actor where training links merge (7 links) It receives training from UNFPA, UNICEF, USAID, scientific societies of obstetrics and gynecology, pediatrics, fertility and contraception, and national NGOs. MINSA trains DIRESAS, health centers, the ministries of education and women's affairs, Armed Forces and Police Health Departments, social security, regional governments, and universities.

DIRESA has 5 training links from national, regional and Global Fund NGOs, as well as MINSA and USAID. DIRESA, in turn, trains educational institutions, networks, micro-networks and healthcare facilities.

Information is also exchanged among public-sector actors. Thus, health networks provide training to the army's health centers.

Workshops are the most common training strategy, but not all of them develop participatory methodologies; they do not implement adult-learning methodologies; and they limit themselves to raising the issues. MINSA develops the cascade training methodology: the central level trains regional coordinators of healthcare strategies, and they replicate the training with coordinators of health networks, who in turn train micro-networks, and finally micro-networks train service providers. The problem is that there is no follow-up to ensure that training is replicated with the quality and content defined at the national level.

... The methodology we use currently to conduct trainings... each coordinator can choose or also imitate that methodology that we brought from Lima. But it is up to each coordinator to determine how best to reach his or her audience...

(Regional Policymaker)

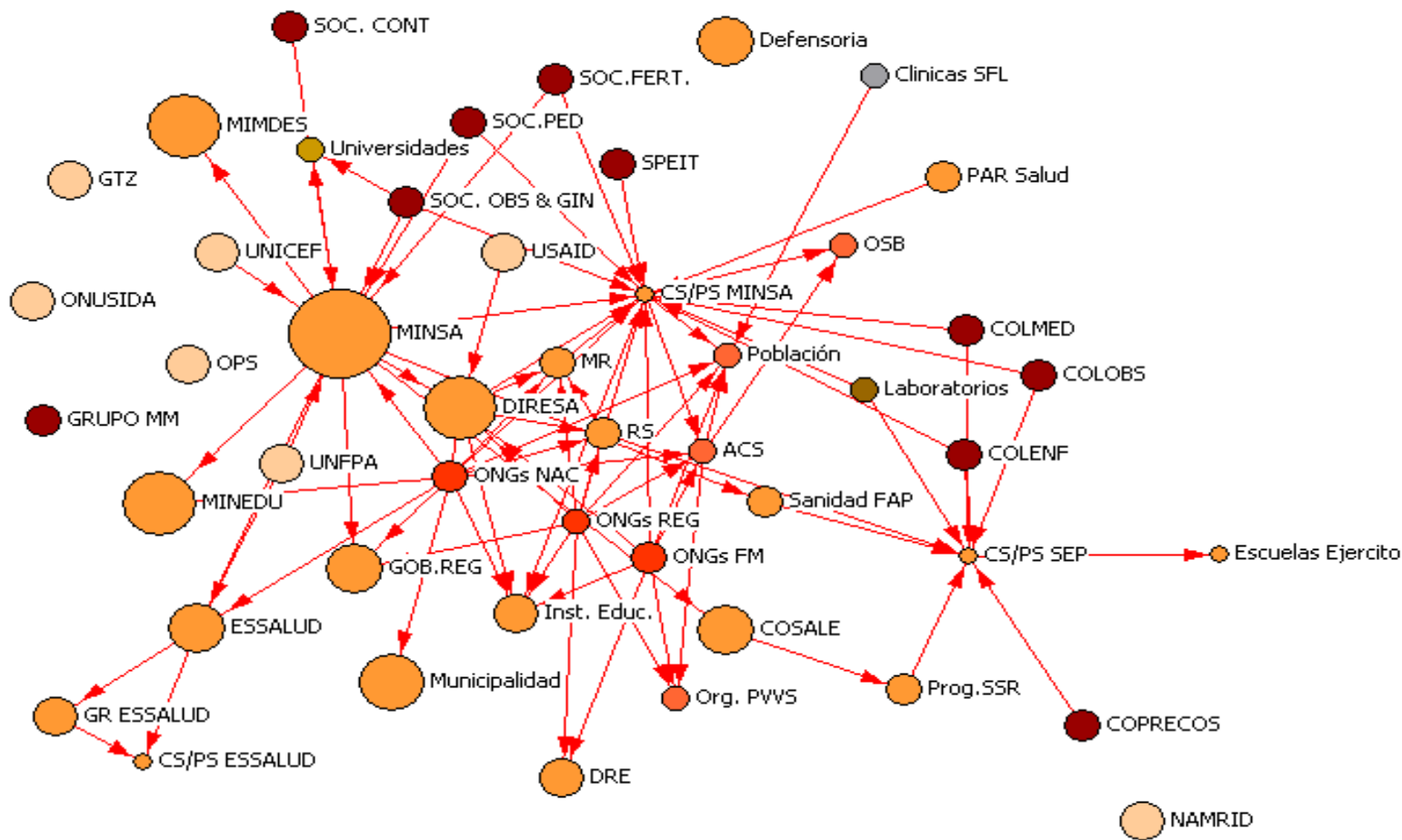
With respect to training content, MINSA develops the topics for technical norms and guidelines, while NGOs and international cooperation agencies can provide training on more innovative issues. Most training events carried out by NGOs are coordinated with DIRESAS as far as content and timelines, but there are interventions that are unknown to DIRESAS.

A training weakness in MINSA and DIRESAS is that they do not keep records of trainees, topics addressed and trainees' current workplace. Much less have there been assessments of changes produced in trainees' workplace and institutions.

Interviewees at the central and regional levels mentioned the lack of budgets for staff training activities, which should be ongoing. The same opinion was held by service providers, who do not have budget funds to train community-based agents and the population. Currently, resources for training activities are found in local facilities (health micro-networks), but those funds are not spent because the staff does not know how public budgets are managed and what are the mechanisms for implementation.

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Map 2. Technical Information Exchange – Training Link



Key:

Training



Grupo de actor

- Donante
- Gobierno
- Grupos Comunitarios
- ONG
- Otros
- Redes o asociaciones profesionales
- Sector privado
- Universidades

b) Information Exchange through Supervision

Supervision was conceptualized as visits to review practices, services or local data.

Supervision links were identified only in institutions with a hierarchy, such as MINSA, ESSALUD and the Army's Health Department. It is a link which could lead to information exchange, but does not.

As can be seen in Map 3, the network is shown to be dispersed, with three groups, each one with independent relations. There are 12 actors with 12 supervision links.

Supervision within MINSA takes place by levels: from the central level to the regional level, and from the regional level to the local level (health networks and micro-networks). In other words, MINSA oversees DIREAS, and they in turn oversee their networks. The networks oversee the micro-networks, and they in turn oversee healthcare facilities. At times MINSA oversees the functioning of healthcare facilities, skipping regional levels. DIREAS oversee micro-networks and healthcare facilities, skipping networks.

An actor who is not part of MINSA and the regions it oversees is the Office of the Ombudsman, an institution in charge of overseeing the public administration's performance.

All we've done is cross-supervision among us, for example FON bases, neonatal obstetric roles; I think we've had one from SIS; in other words, there is minimum supervision, once or twice a year, of some strategy. Suddenly in the rural areas, for example, where we used to work more, we would schedule one per quarter, and we would make an effort to reach every facility. But here in the network, I see that there are many facilities, and it seems that those responsible do not stock up. I think they are limited by their budget, but although we are in a rural area, we're only a step away and they could come here, but they don't... it is minimal.
(Service providers in urban areas)

In general, supervision is not very frequent (some of the healthcare facilities visited did not have any supervision in the past year), and interviewees believe there is no flow of information because it takes place in a traditional manner, where supervisors limit themselves to reviewing the information, but do not provide feedback.

With respect to supervision... I see supervision as a means to provide feedback about a service, to identify any deficiencies we may have, and to improve. That is what I think is the objective of supervision. However, some supervisors come here... and do not give you any support that could help you improve. Instead, they come to judge. Thus, in my opinion, that is not supervision.
(Service providers in rural areas)

Some of the supervision weaknesses identified were: a) emphasis on quantitative data (reaching goals) and not on quality of care; b) neither MINSA nor DIREAS have standardized methodologies and formats for supervision; c) there is a lack of funds and staff for these activities.

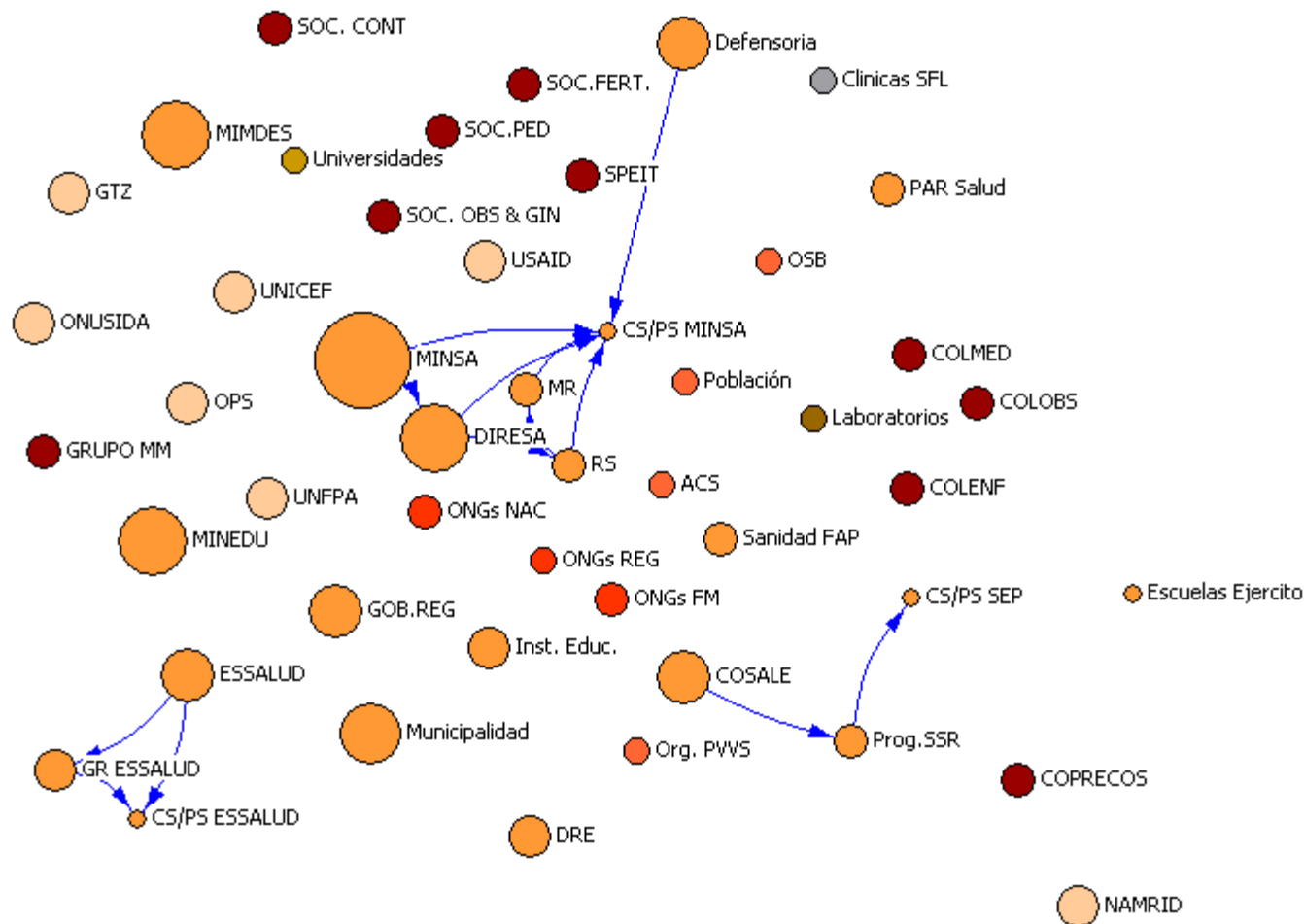
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At ESSALUD, supervision originates at the national level and covers networks and operational levels. In addition, networks supervise healthcare facilities. The Healthcare Service Delivery Administration (central-national level) has standardized methodologies and instruments for supervision. Twice a year they select the facilities they will supervise, based on performance indicators and the reports sent. Networks' supervision of healthcare facilities is more ongoing.

In the Peruvian Army's Health Department, supervision (which they call inspection) takes place hierarchically. COSALE oversees programs twice a year, and programs oversee healthcare facilities monthly. They have supervision guidelines, and they develop a plan each time they carry out this activity.

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Map 3. Technical Information Exchange – Supervision Link



Key:

Supervision



Grupo de actor

- Donante
- Gobierno
- Grupos Comunitarios
- ONG
- Otros
- Redes o asociaciones profesionales
- Sector privado
- Universidades

c) Information Exchange through Technical Assistance

Technical assistance is understood as the delivery of technical information to develop, improve, or disseminate policies, procedures, protocols, guides, manuals, curricula, information, education, communication (IEC) materials, instruments to conduct surveys, including evaluation meetings or national informational meetings.

Map 4 presents the different actors' technical assistance links. One can see that this type of relation favors information exchange. We identified 32 actors and 45 technical assistance links, although this number does not reflect the actual amount because NGOs were grouped for practical purposes.

The map also presents three separate groups (clusters) without links among them: MINSA's health system, social security, and the Army's Health Department. This means that each of those groups has its own relations for technical assistance and they do not interact with each other.

Within MINSA the largest number of technical assistance links converge (11) originating from international cooperation agencies (USAID, GTZ, UNAIDS, PAHO, UNICEF, and UNFPA), national NGOs, professional associations (Peruvian Society of Obstetrics and Gynecology and Peruvian Society of Infectious and Tropical Diseases), universities, and the intersectoral group for the reduction of maternal mortality. MINSA in turn provides technical assistance to DIRESAS, networks and healthcare facilities.

Health centers and posts have 9 technical assistance links from USAID, MINSA, DIRESA, health networks and micro-networks, NGOs (national, regional and those linked with the Global Fund), and laboratories. These facilities provide technical assistance to community-based healthcare agents and the organized population.

DIRESA has 7 technical assistance links. It receives technical assistance from international cooperation agencies (USAID, UNICEF, PAHO, and UNFPA), from national NGOs, from the Peruvian Society of Obstetrics and Gynecology, and from MINSA. DIRESA provides technical assistance to health networks and health centers and posts, as well as municipalities.

Social security interviewees did not identify actors external to their system that provide technical assistance. ESSALUD's central level provides technical assistance to regional management offices, and they in turn provide technical assistance to healthcare facilities. Technical assistance is also provided from the central level to healthcare facilities.

In the Army's Health Department, technical assistance related to HIV/AIDS is provided by NAMRID to the COPRECOS (Armed Forces and Police Prevention and Control Committee) program, and the latter provides technical assistance to healthcare staff. On the other hand, national SRH programs provide technical assistance to healthcare facilities.

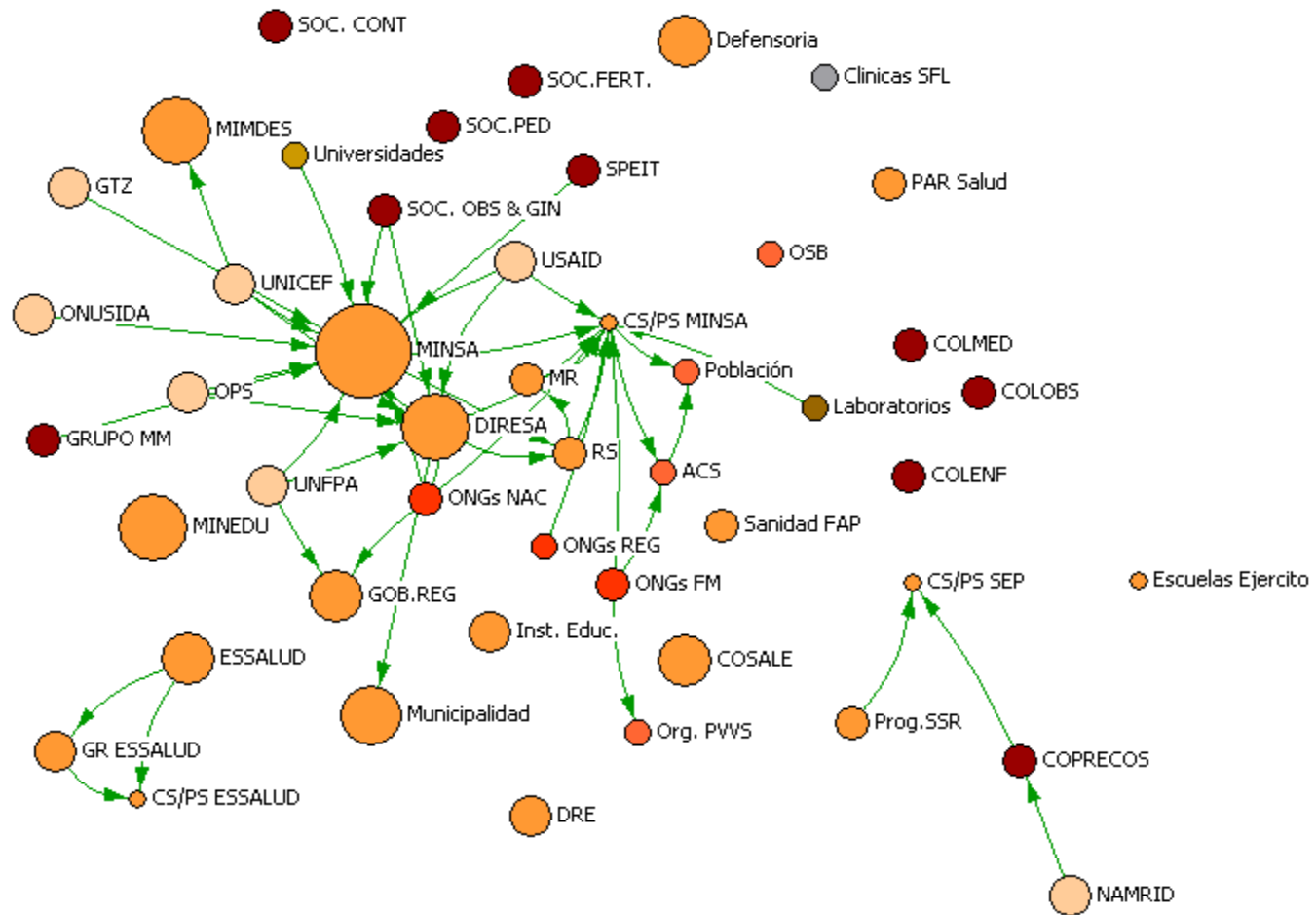
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Despite the importance of technical assistance for information exchange, some challenges were identified, including:

1. Public institutions do not have plans to identify specific areas that need technical assistance, which results in duplication of efforts and greater time to identify the type and content of technical assistance required.
2. There is a lack of coordination among the different institutions that provide technical assistance to public entities, including lack of consistency in content and duplication of interventions.
3. Lack of resources (budget and human resources) to provide technical assistance, from MINSA to Diresas and from Diresas to the local level, for which reason they are very sporadic.
4. Some policymakers understand technical assistance as financial support, and when it is not available, technical assistance is devalued.

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Map 4. Technical Information Exchange – Technical Assistance Link



Key:

Technical assistance →

Grupo de actor

- Donante
- Gobierno
- Grupos Comunitarios
- ONG
- Otros
- Redes o asociaciones profesionales
- Sector privado
- Universidades

d) Information Exchange through Expert Opinion or Advice

Expert opinion or advice is an informal exchange of information, where experts provide advice about family planning and reproductive health.

Interviewees mentioned expert opinion or advice is sought at all levels and by all groups of actors. Through that link information is obtained quickly and practically to resolve problems in a timely manner.

Expert opinion can be shared among peers (for example between two professionals at the same healthcare facility or between two professionals from different institutions), or between subordinate and supervisor (for example between service providers at a health facility and the coordinator of the health strategy for a micro-network or for DIRESA).

e) Information Exchange through Funding

Funding is the transfer of resources, including funds and commodities. This link was considered as a way to facilitate information exchange, since funders have their own supervision mechanisms. It was confirmed that funding from international cooperation agencies facilitates technical information exchange because it is linked to technical assistance. However, the same is not true of funding from the Treasury, whose processes are merely financial. Only recently has there been a shift to output-driven management, where budgets are developed by objectives, which can be tracked. This should favor the exchange of information.

In the country's past decade, there's been a reduction in funding from international cooperation agencies for sexual and reproductive health interventions, due to the fact that the State assumed acquisition of contraceptives and because economic growth indicators positioned the country at a level at which it is not eligible to receive funds from many international cooperation agencies. Currently there are some international cooperation resources intended for timely interventions in maternal health (childbirth assistance), prevention of adolescent pregnancy, and promotion of reproductive rights. NGO interviewees mentioned that they have very timely resources to work on these issues.

However, since 2002 Peru has received US\$ 67.7 to implement programs for the prevention, care and treatment of HIV/AIDS from the Global Fund to Fight AIDS, Tuberculosis and Malaria. One of the programs ended in 2008; the other programs will end between 2011 and 2012.

Implementation is carried out by NGOs grouped in Consortiums, in coordination with national and regional Health Strategies to fight HIV/AIDS. Through these interventions they have conducted many training activities for service providers and community-based healthcare agents.

MINSA's health strategies related to SRH and HIV/AIDS receive funds from the Ministry of Economy and Finance (MEF), but the budget does not include specific line items for training, technical assistance, and supervision.

The decentralization process changed the flow of transferring resources, which are transferred from the Ministry of the Economy and Finance to regional governments, who then allocate them to

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sectors such as DIRESA. The budget is assigned to implementing units and the healthcare budget is assigned directly to Health Networks, which are the entities that manage the budget.

DIRESA's officials have limited financial resources for training, technical assistance and supervision, due to the lack of planning or knowledge to incorporate these actions in the budget by output. Health Networks have funds for training, supervision and technical assistance, but they do not spend them because they don't know how to manage them.

At ESSALUD, the operating budget is allocated from the central level directly to each Health Network. Each Network has the autonomy to implement its budgets in materials, equipment and personnel. The only challenge identified is when they fall behind in implementing the budget, resulting in rescheduling, which is a long process.

3.3 Sources of Information

In addition to the information networks identified, each group of actors identified different sources through which they currently obtain information. Actors in Lima have access to the widest range of information sources, the main one being the Internet (email, Websites), while there is less variety in information sources available to individuals in rural areas, where the main sources of information are printed documents, information received in trainings, or technical assistance (information received orally) from administrative health authorities.

National and regional policymakers mentioned that the primary source of information is the Internet, because they access their institutional or personal emails, (through which they receive information or have subscriptions to electronic networks) and specialized Websites. Other sources of information are courses, technical meetings and printed documents. Actors in Lima can receive documents from national and international institutions. Regional policymakers are not as knowledgeable about specialized Websites, and have fewer possibilities of attending international trainings (technical meetings mentioned are those convened by MINSa) and most of the printed documents are provided by MINSa.

Program managers have access to different sources of information, the main one being the Internet, which allows them access to email (where they receive information from or subscribe to electronic networks) and specialized Websites. The majority of the interviewees were also familiar with Websites of specialized institutions, highly specialized virtual libraries. In addition, program managers from international cooperation agencies and international NGOs mentioned the existence of intra-institutional information systems, which provide international information. Some program managers mentioned informal sources, that is, sharing information with colleagues or friends from various institutions.

The primary source of information for service providers is trainings conducted by their institution and senior staff. For example, for service providers who work in a health post, their main source of information is the health center, and for the latter DIRESA. A key source of information for service providers in peri-urban areas is training provided by professional colleges and scientific societies.

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For community-based healthcare agents, their primary source of information is service providers, both in urban and rural areas. However, those who work on HIV prevention have another source of information—email—through which they receive information from national networks.

Table 9. Current and Sought Sources of Information

Type of Actor	Current Sources of Information	Sought Sources of Information
Policymakers	<ul style="list-style-type: none"> - Technical assistance - Training - Internet: email, websites (PAHO, WHO, Path) - Printed documents 	<ul style="list-style-type: none"> - Email - Electronic newsletters with abstracts of articles and links to access full-text documents - CD with documents
Program managers	<ul style="list-style-type: none"> - Internet: email, websites (scientific societies, professional colleges, APHA, POPLINE, BIREME, LILACS, BVS, MEDLINE) - Institutional information systems 	<ul style="list-style-type: none"> - Email - Electronic newsletters with abstracts of articles and links to access full-text documents - Printed documents - CD with documents
Service providers	<ul style="list-style-type: none"> - Trainings provided by scientific societies and professional colleges - Technical assistance 	<ul style="list-style-type: none"> - CD with documents for urban areas - Printed documents for both areas
Community-based healthcare agents	<ul style="list-style-type: none"> - Training of staff at healthcare facilities - Email 	<ul style="list-style-type: none"> - Printed material

Both policymakers and program managers mentioned the Internet, especially email, as a preferred source of information. However, since they have access to a lot of information, they suggested that the information should be organized, with abstracts and links allowing access to full-text documents.

Regional program managers, who have less access to the Internet, indicated that another source is CDs, as this format allows them to review the information anywhere. Some policymakers and program managers mentioned their preference for printed documents because they are easier to read.

For service providers in urban areas, CDs with documents are their preferred source of information, as they can use them in the computers at their facilities, at home, or in Internet booths. HCPs in rural areas prefer printed documents, because they have no electricity, computers or Internet service. Printed documents include research summaries, intervention manuals or guides that are clear and simple.

Community-based healthcare agents also prefer printed documents, as these allow them to review their contents constantly and because they do not have computers or Internet service in their communities. These documents can be flipcharts to work with the population or manuals to review contents.

3.4 Barriers to Access and Use of Technical Information

The assessment identified different barriers to access and use of technical information, including information, technological, institutional and personal barriers.

- **Information barriers**

These barriers are related to the information and constitute strong obstacles to accessibility and use of technical information, as well as the availability, timeliness and usefulness of the information.

Policymakers and some program managers at the national level stated that the country has a great wealth of information that is produced in the public sector. However, most of that information is not available to just any user, despite the Law of Transparency and Access to Public Information. The information that is available is often outdated. For example, the information published in MINSA's Website is incomplete and outdated. Likewise, there is restricted dissemination of research and evaluation conducted in different programs and projects, both public and private. Some of the research studies carried out in Peru are published abroad for academic purposes.

However, in spite of the high production of information, it is not always quality information; some of the research and evaluation activities do not use rigorous methodology.

There are many barriers. First, in the production of quality timely information, from a statistical, monitoring, vigilance and research perspective, there are significant weaknesses in the production of information, of serious studies that are methodologically rigorous. The same thing can be said of statistics; there is no type of quality control.... Some are not true to reality...thus, obviously, when something is not true to what has taken place, it cannot be replicated.

(National Program Manager)

Technical information is less available at the regional and local levels, despite the high demand for planning and programming, because it is not produced locally or there is little or no dissemination of studies or evaluations conducted at local sites (universities, NGOs).

Another barrier identified was the use of information. The actors have access to technical information, but they don't analyze it or apply it in their work.

- **Technological barriers**

The gap observed was the availability of computers and Internet access in urban and rural healthcare facilities. In urban areas, healthcare facilities had computers that were shared among different areas, resulting in limited access for service providers. In rural areas, healthcare facilities did not have computers or reliable electricity. With respect to the Internet, urban and rural healthcare facilities visited did not have Internet access –the former because they did not purchase this service and the latter because the service is not available.

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As for healthcare services provided by ESSALUD, the technological gap resides in telephone communication failures, which produce Internet failures.

- **Institutional barriers**

As noted previously, there are institutional barriers to information exchange through training, technical assistance and supervision. Here they identified other institutional barriers.

The reduced number of staff in healthcare facilities and heavy workload prevents service providers from obtaining institutional permission so they can attend trainings, and their lack of time to read the information available or seek new information. The latter was also mentioned by national policymakers, which is due to their heavy workload and the reduced number of staff in technical teams.

MINSA at the central level is pretty permeable; I think that in the past few years, it has had a close relationship, for example, with society. Its technical cadres increasingly participate in international fora and abstract proposals and try to implement them. They revise their norms periodically, every two or three years. They are trying to update their norms, but they are consumed by day-to-day tasks, which should not be their duty; their duty should be to stay abreast of the information and research, and, based on that, develop norms and monitor, which is the role of the central level.

(National Program Manager)

Currently, public institutions cannot afford the costs of training at national and international events due to budgetary restrictions. This limits possibilities for specialization, particularly for HCPs. Another difficulty is the limited dissemination of training opportunities provided by MINSA and DIRESAS, which do not reach service providers.

- **Individual barriers**

Interviewees identified different barriers to access and use of information related to knowledge, skills, expertise and personal motivation.

Almost all policymakers and program managers know of national and international institutions that produce information about sexual and reproductive health. They have easy access to all the information they produce and disseminate through different formats (e.g., Websites, printed documents, technical meetings). However, most of these actors, especially regional ones, are not familiar with specialized Websites, such as virtual libraries or advanced browsers.

Service providers are not familiar with sources of information from specialized institutions, and community-based healthcare agents do not know of sources of information from institutions that produce information.

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Another barrier at the individual level is possessing technical skills to use computers and the Internet. Use of computers by HCPs in urban and rural areas is limited; many of them don't use the Internet. Some professionals have email, but check them sporadically. Most of the CBHCAs do not know how to use computers or the Internet, but CBHCAs who work on HIV prevention do access the Internet but do not know how to search for and obtain technical information.

A limited reading habit is another individual barrier identified. All the actors noted that professional and technical staff at the national, regional and local levels do not read a lot. Policymakers and program managers noted lack of time as the main obstacle for reading, and they believe that HCPs do not read because they don't like to read and they cannot understand complex documents. In general, the country's reading level is low, as is reading comprehension. There are no recent statistics about reading habits among the Peruvian population, but a survey conducted in 2004²¹ found that 74% of Peru's population reads an average of one book per year and, of those who read, 71.6% read newspapers. Studies were the primary reason to read (29.4%), followed by entertainment (19.7%) and personal development (18.7%). For those who don't read, their main reason is lack of time and lack of a reading habit (29.1% and 12.7%, respectively). As for reading comprehension, in 2009, in an assessment of reading comprehension among 15-year-old students, the country ranked 61 of 65 and came in last out of 8 countries in Latin America and Central America.

A barrier to access and use of information is individuals' lack of motivation to seek new information. Some HCPs showed a passive attitude with respect to seeking technical documents and stated that they just wait to receive information.

3.5 Access to Information and Communication Technologies

The assessment confirmed that in Lima, both policymakers and program managers have computers for individual use, which have Internet access. All of them reported having computers and Internet service at home. All authorities have a landline and public officials have mobile phones assigned to them by the State and private mobile phones.

In the regions, the situation is different: program managers have a computer and Internet access only in their workplace. Only one of the interviewees had Internet service at home, which was installed a few days before the interview. They all have a landline and a mobile phone.

Policymakers in the regions also face different situations: in Ayacucho, DGSP has computers with Internet connection for individual use for each of its directors and coordinators. In Ucayali, computers have Internet, but they are shared by two or three people. In Ica, at DGSP most employees have a computer, but there was only one computer with Internet service, which was shared by directors and coordinators. At the three Diresas, there is a landline with one or two phone lines for the entire institution. Some regional policymakers have computers at home with Internet service.

²¹ Biblioteca Nacional del Perú. UniverSIDAd Nacional de Ingeniería Encuesta "Hábitos de lectura y ciudadanía informada en la población peruana-2004". En: Consejo Nacional de Democratización del Libro y de Fomento de la Lectura. Plan Nacional del Libro y la Lectura del Perú (PNLL) 2006-202. Versión preliminar. Lima, mayo 2006.

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All three regions noted that all health networks have computers, but there is a percentage of micro-networks that still do not have computers. To a lesser degree, the same holds true for the Internet: only some health networks, and even fewer micro-networks, have Internet access.

Healthcare facilities in urban areas have computers, but these are assigned to information and administrative areas. In Ayacucho, staff at CLAS Jesús Nazareno facilities had computers and acquired Internet service, but it had not been activated. In rural areas, none of the healthcare facilities had a computer or telephone. In Ucayali, they reported that they have neither reliable electricity nor computers. Healthcare facilities do not have a landline. Every healthcare provider had a mobile phone for personal use, even providers in rural areas who use them when they can get a signal.

Interviewees at healthcare facilities operated by ESSALUD stated that all their facilities have computers, telephone landlines and Internet access. However, in some remote areas, the bandwidth is not adequate, so the Internet is not reliable.

In the Army's Health Department, only administrative areas in hospitals and health centers have computers and Internet access. All healthcare facilities have a landline and mobile phones assigned to coordinators. Other service providers have mobile phones for personal use.

4. Conclusions

- 1) The sexual and reproductive health information needs assessment identified differences in needs, access and use of technical information among the various groups of actors, which become wider in more rural and local settings.
- 2) Information is widely produced nationwide, but it is often of poor quality or not very methodologically rigorous (especially in research and evaluation). Information is not produced as often at the local and regional levels.
- 3) Policymakers at the national level have a high degree of access to national and international information, while regional policymakers have restricted access to international information. This group's information sources are diverse (Internet, training, technical assistance and printed documents), although regional policymakers only access printed documents from the health sector.

Despite the abundance of information, policymakers require information that is organized, systematized and summarized, which allows them to discern between strategic information and programmatic information so they can design policies or programs, prioritize intervention sites and focus on specific population groups. Regional policymakers require operational information that allows them to improve management.

- 4) Program managers at national and regional levels also have high degree of access to information. Their sources of information include different Internet services (email, specialized web browsers, and institutional information systems). The information required by this group is intended for planning and programming national and sub-national interventions.
- 5) Service providers have limited access to information in general and to information about national and international research in particular. HCPs in rural areas have less access to information than those in urban areas. Their main source of information is training and technical assistance, but these are sporadic, not timely and they do not reach all staff members.
- 6) Service providers in urban and rural areas need practical and accessible information that supports them in improving care provided at their facilities. They specifically noted the need to have information about contraceptive methods and sexually transmitted infections to update their knowledge, new contraceptive methods (such as female condoms), and prenatal control. They also would like to know more about national technical norms and guidelines.
- 7) Community-based healthcare agents have limited access to sexual and reproductive health information. Their information sources are training and technical assistance provided by healthcare facilities. Their information needs are related to thematic content and to practices for working with the community.

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- 8) Community-based healthcare agents need a wide range of health-related information about: contraceptive methods, violence against women, cervical cancer, sexually transmitted infections, HIV/AIDS, prenatal control, adolescent pregnancy, as well as tools and techniques to work with the population. More specifically, promoters and volunteers who work on HIV/AIDS need to know specific topics, including research advances on HIV vaccines, the use of contraceptive methods by people with HIV, pregnancy among people with HIV, adherence to treatments, and alcohol and drug abuse.
- 9) There are different barriers to access to technical information about sexual and reproductive health with respect to the information's availability, timeliness and usefulness. Technological barriers show gaps between urban and rural healthcare facilities, as the assessment showed that the latter do not have computers or Internet service. Institutional barriers refer to obstacles faced by healthcare staff when they try to attend training activities, and to scarce dissemination of training opportunities. Individual barriers are diverse in nature, including lack of knowledge about information sources, service providers' and community-based healthcare agents' limited technical skills to use ICTs, limited reading habits, individuals' lack of motivation to seek new information.
- 10) In Lima, access to ICTs is high, but the farther away from the city, the more reduced it is until it becomes inaccessible in rural areas. In addition, bandwidth problems slow down communications.

Policymakers and program managers in Lima have access to personal computers and the Internet in their facilities and at home; in their institutions and homes, they have institutional landlines, and public officials have personal mobile phones assigned to them by the State. At the regional level, program managers have a computer and Internet service at work, but not at home. Depending on the region, policymakers in the regions have computers with Internet access for individual use at work and some of them at home. Healthcare facilities in urban areas have a computer assigned to the information and administrative area, but in rural areas they have neither computers nor phones.

- 11) The Internet, especially email, is the information source preferred by policymakers and program managers. In addition to this source, regional program managers prefer CDs with information, because they have less access to the Internet. Due to information overload, this group requires organized information, with abstracts of documents and links that allow them to access full-text documents.

Due to urban service providers' limited access to the Internet, they prefer CDs with organized documents, which they can review in different places (at home, at work or in public booths). HCPs in rural areas prefer printed documents due to their limited access to email, computers and the Internet.

Community-based healthcare agents in urban and rural areas prefer printed documents, because they can review the contents constantly.

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- 12) As for the analysis of the 4 maps, there is an information exchange network among 199 governmental institutions, donors, non-governmental organizations, professional networks, academic institutions, grassroots organizations and others. It was determined that there are 141 links for information exchange among those actors, including training, supervision, technical assistance, expert opinion and funding.

The maps show that MINSA, health centers or posts, DIRESAS, and national NGOs (in that order) are at the core of the information exchange network.

- 13) This means that they are the key actors to improve the flow of information in Peru. MINSA receives training and shares what it learns with others, instead of being the end users. Service providers are the main recipients of training. The actors that most provide training are national NGOs.
- 14) Training is an important link, which enables the exchange of information. They identified 42 actors who exchange information through 83 different training links. This network shows that actors who most receive training are service providers in health centers or posts, and the institutions that most provide training are national NGOs.

Training has its weaknesses, including the lack of national training plans, records and tracking of staff trained by MINSA, and the scarce use training methodologies for adult-learning. In addition, training activities are dispersed, low-budget, and do not reach all staff members.

- 15) Technical assistance leads to information exchange. They identified 32 actors and 45 links for technical assistance. MINSA receives the greatest amount of technical assistance, and donors are the main providers of technical assistance.

However, there are weaknesses such as duplicating technical assistance due to the lack of plans, lack of coordination among the different institutions that provide technical assistance, and there is little consistency in contents.

- 16) Expert opinion or advice is an informal exchange of information, which occurs vertically (from subordinates to supervisors or specialists) or horizontally (among peers).
- 17) They identified supervision actions within MINSA's health system, social security and the armed forces' health department. There are 12 actors involved with 12 links established. Actors most supervised are MINSA's healthcare facilities, social security, and the Army.

Weaknesses identified in supervision (infrequent, no standardized methodologies, emphasis on quantitative data) do not favor the exchange of information.

- 18) Funding from international cooperation agencies encourages information exchange, but through another mechanism such as technical assistance, while public funding does not encourage the exchange of technical information about SRH because to this date it only has a financial mechanism.

5. Recommendations

The information needs assessment in Peru revealed information search habits, information needs, and abilities of policymakers, program directors and service providers. The assessment confirmed that access to information and information technologies decreases as one descends from the national level to the local level. The highest levels in the health system are characterized by an excess of information and the lowest levels by lack of information. It is evident that there is a need to generate and utilize mechanisms to improve the flow of information about sexual and reproductive health. Thus, the study produced four broad recommendations:

- 1) Promote the flow of information within the health system in Peru in order to reduce information overload, especially at the national and regional levels, and to increase access to information at the local level.

Any system or program of knowledge exchange that is developed in Peru should respond to the behaviors, needs and abilities of the different levels of the health system. One of the most surprising findings is that almost all study participants preferred a directed and facilitated approach to searching for information, instead of having access to all possible knowledge (as with the Internet approach). While information providers could propose a Web platform or a Website where users could access all existing information, the users themselves prefer an approach based on supply, where they receive well-structured focused information (for example, a limited number of email messages with information related to a given topic and links to follow). Even high-level actors prefer receiving specific email messages instead of having to browse the Internet for relevant information. Thus, there is a clear need for a knowledge exchange platform that could serve the role of the librarian who recommends books to readers who feel overwhelmed by complexity.

In addition, when developing an information exchange system, it is important to keep in mind that the Internet may be slow (low bandwidth) and that users may have limited time to use computers (either because they have to share them or because they access them at cybercafés). Any mechanism should be structured so that it functions for service providers at the local level. Their main objective is to work with clients; thus, they have limited time and little motivation to seek information themselves. Therefore, providers also need a directed or facilitated approach, such as a well-structured program of information products.

- 2) Improve processes related to training, technical assistance, and supervision in order to strengthen the exchange of technical information about sexual and reproductive health.

While a platform may be part of the answer, a common and important topic in the interviews was individual and institutional behavior change necessary to improve access and use of information, especially in lower levels. Training for service providers seems to be an unmet need, probably for two reasons: due to the pyramid shape of the health system (where many people need information and fewer actors provide it) and because training is an ongoing activity, as there is always new information and providers need to be updated.

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Generating training plans, processes for implementation, monitoring and evaluation, methodologies, and instruments would optimize scarce resources intended for training. Likewise, there should be coordination with the institutions that carry out training activities (universities, NGOs, and professional associations) to articulate interventions and ensure consistency in contents and methodologies. This would allow generating processes for ongoing training of human resources in the health field and broadening coverage.

This improvement would be the responsibility of the General Office of Human Resource Management, MINSA and DIRESAS, which are the authorities that should be responsible for improving training of human resources.

Technical assistance could be improved if thematic priorities could be identified periodically and disseminated in order to avoid duplications. It would also be useful to promote coordination among cooperating agencies and international and national NGOs in order to coordinate technical assistance. These actions are the responsibility of the programmatic areas of MINSA and DIRESAS.

Supervision processes should be planned, with methodologies and instruments that produce feedback from supervisees. This would allow strengthening the flow of internal information in MINSA. As with technical assistance, these actions are the responsibility of the programmatic areas of MINSA and DIRESAS.

3) Generate information according to actors' needs and adapt them in different formats.

Actors at the national level (policymakers and program managers) demand information that is processed, organized, summarized and sent by email, due to their work overload, lack of time, and excess information they receive.

Regional program managers and urban service providers also require select information, but in CDs or printed documents due to limited Internet access.

Rural service providers and community-based healthcare agents request practical, affordable information in printed documents due to electricity limitations and limited access to ICTs. The information should be brief and easy to apply in their practice, reliable and ongoing, and combined with materials that they can use with their clients.

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- 4) Identify the organization, department or group that will be responsible for knowledge management for the information exchange network.

In Peru there is no authority in charge of knowledge management in sexual and reproductive health. Likewise there is no one in charge of gathering, organizing, systematizing and disseminating technical information nationally and globally.

The entity responsible for knowledge management in sexual and reproductive health could be a university or the National Health Institute, which should rely on groups of experts to support the selection and review of content and materials before they are disseminated. It would also be responsible for processing information in different formats (e.g., electronic newsletters sent by email, CDs or printed documents) appropriate for the needs of different audiences.

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Annex 1: Field guide

Field Guide to Peru: Nationwide

Before the interview

- On a flipchart sheet write the date and the question at the top.
- Write the names of the links on the corner of the flipchart sheet, using a marker with the color that corresponds to each link.

Research Overview:

- Give a brief introduction of the team that is to conduct the interviews and of the K4Health Project.
- Explain the purpose of the interview and give a short summary of the network map (Net-map).
- Provide a short definition of the information on family planning and reproductive health and of the information flow.
- Enter the basic demographic data about the respondent.

Hello. I am <indicate your name>. I am part of a team that is conducting an assessment for the Knowledge for Health Project (K4Health) of the need people have for information on family planning and reproductive health in Peru. K4Health promotes the exchange of knowledge and encourages the use of the latest research for decision making and program implementation. The purpose of this assessment of needs in Peru is to analyze the demand, access and use of information on family planning and reproductive health among health professionals and managers at different levels of the health system, and to identify opportunities to increase the exchange of information where it is needed.

To achieve this purpose, we are using the Network Map (Net-Map) technique to interview participants at different levels of the national health system in Peru. Net-Map is an interview technique that studies the prospects and influence of different stakeholders involved in reproductive health in Peru, and examines how these individuals or entities interact with each other. Since you are an expert in this field, we would like to interview you to help us understand who is involved in the management and exchange of information and knowledge on reproductive health in Peru. We will begin by listing all the people (or players) involved in the exchange of information and then we shall determine how they are linked. We will examine how influential each person is in the process and finally, we will discuss ways to improve the flow of information to health providers at the lowest levels of the health system.

When using Net-Map, it is crucial to take into account how things actually happen and not how they should happen or what is printed on official documents. Therefore, we need the expertise of people like you who are part of the process and know it first-hand. We would like to know what kind of information on family planning and reproductive health providers of the Peruvian health system need, in order to better serve the needs for information on health and to improve the exchange of information in Peru.

The general question we seek to answer in this interview is:

How can we improve the exchange of information on family planning and reproductive health and what are the information needs of providers at different levels of the health system?

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Important terms:

- When we talk about the information on family planning and reproductive health, we mean information and knowledge such as best practices, clinical protocols, program guides, research articles, auxiliary equipment, information materials, education and communication (ECI). We are not referring to the statistics of services or other data provided by the Health Information System.
- When we talk about the exchange of information on family planning and reproductive health, we are referring to the collection, production and dissemination of technical information among the stakeholders of the national health system.
- When we talk about improving the exchange of information on family planning and reproductive health, we mean that health personnel should handle adequate technical information in a timely and high quality fashion in order to improve the quality of these services.

The interview will last approximately two hours and you can stop the interview at any time if you so desire. Please share your views, both positive and negative. Everything you say today will remain confidential. I will take notes during the interview and I would like to record our conversation to back up my notes. The team members who are assessing needs are the only ones who will be reading my notes and listening to the recording.

Is it OK that I record this conversation?

Let me pause for a moment to answer any questions you have. Do you have any questions? [PAUSE: ANSWER QUESTIONS]. <Turn on the recorder.>

Step 1: Enter demographic data

- 1) Name of person interviewed:
- 2) Institution/organization the person interviewed belongs to:
- 3) Position of person interviewed:
- 4) Gender: Male / Female
- 5) Age: <25 years old / 25-40 years old/40 years old or more
- 6) What is your level of education:
- 7) Location: District, province, department
- 8) Telephone:
- 9) Email:
- 10) Date of interview:
- 11) Interviewer:
- 12) Time the interview begins: Time the interview ends:
- 13) Interview duration:

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Step 2: Identifying the players

1. Explain that the first step in developing the map is to identify the key players who work in family planning and reproductive health. By players we mean the organizations that work in FP and RH, including government institutions, NGOs, professional associations, private clinics, and donors. Present the global list of players so that the person or group can select the key players. Then ask the following questions:

- a) Which players are involved in exchanging information on family planning and reproductive health with first-level health workers?

Please list all organizations that work on family planning and reproductive health at all levels of the national health system, including social security, police and armed forces health service, private clinics, NGOs and other services you know. Do not forget to place yourselves on the map.

- Who are the players that produce, distribute and collect technical data on family planning and reproductive health?
- Who are the players who can influence people who do this, or develop policies that determine how to do this?
- Who are the players who are involved directly or indirectly in exchanging information?

2. Explain that the different-colored sticky notes represent the various categories of players:
 - Government (Pink)
 - NGOs (Yellow)
 - Donor (Blue)
 - Networks or professional associations (Green)
 - Community groups (Purple)
 - Other (White)
3. Place the players on the flip chart sheet, in no particular order.

Step 3: Draw links between the players

Explain that in this step the links between the players are identified and analyzed. Explain the meaning of link: "A link is a connection, relationship or exchange between players". In this study, we are looking specifically at the information exchange between players. The purpose of the link in the development of the map is to understand how each player relates to other players and to how many other players he is connected - this way we are trying to visualize the flow of information between players. Links should be related to the main question (information on family planning and reproductive health). Then ask the following question, explaining every time what the meaning of each link is:

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For the following links, who provides _____ to whom?

a. Capacity-building

Meaning: sessions organized with the aim of improving reproductive health knowledge and practices of the people receiving capacity-building

- **MAKE A NOTE OF WHAT KIND OF TECHNICAL INFORMATION IS REFERRED TO IN THE LINK**

b. Supervision

Meaning: visits aimed at reviewing local practices, services or data

- **MAKE A NOTE OF WHAT KIND OF TECHNICAL INFORMATION IS REFERRED TO IN THE LINK**

c. Technical Assistance

Meaning: providing technical information to develop, enhance, and distribute policies, procedures, protocols, guidelines / manuals, curricula, information / education / communication materials (IEC), tools to conduct surveys. Includes evaluation meetings or national informative meetings.

- **MAKE A NOTE OF WHAT KIND OF TECHNICAL INFORMATION IS REFERRED TO IN THE LINK**

d. Consultancy / counsel

Meaning: expert counsel given on family planning and reproductive health; this relation is more informal than that of technical assistance

- **MAKE A NOTE OF WHAT KIND OF TECHNICAL INFORMATION IS REFERRED TO IN THE LINK**

e. Financing

Meaning: the transfer of resources, including funds and supplies

- **MAKE A NOTE OF WHAT KIND OF TECHNICAL INFORMATION IS REFERRED TO IN THE LINK**

1. Draw arrows between stakeholders using a different color for each link. Draw only one link at a time (for example, complete all links related to *capacity-building* before starting with the links related to *supervision*), but allow them to add links afterwards if they remember anything else.
 - If it seems the interviewee is not clear on the differences between the links, or is talking about exchanges which are off the subject, repeat the definitions and ask the question about the arrow once again.
 - If the interviewee is unsure about the arrow—does not know if it happens or not, does not know how often it happens, or does not know if it really happens or should happen—draw it if the arrow refers to something that:
 - the interviewee is sure that happens and
 - occurs frequently or is important (for example, a meeting with the Ministry, which only happens once a year, is very important though not frequently occurring).

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Step 4: Analyze the map

1. Explain that this step consists of analyzing the map and the exchange of technical information between the stakeholders. Ask the following questions:

- a) How does the exchange of information between different stakeholders occur?
- b) What are the occurring challenges in the information exchange?
- c) What are the barriers to the access and use of information on family planning and reproductive health?
- d) Who are the stakeholders that need technical information on FP / RH but that are not receiving it?
- e) What kind of specific information do they need?

Step 5: Attribute decision-making power

1. Explain that in this step the decision-making power or influence of each stakeholder is identified. Explain the meaning of decision-making power or influence: *“When we talk about decision-making power or influence, we mean.....” The capacity or ability to implement, change or improve the exchange of information.* Then, ask the following questions:

- a) What are the different ways in which someone can influence the exchange of information on family planning and reproductive health in Peru?

Facilitator: If you forget anything, you can mention some examples: formal supervision, financing / funding, technical information, counsel, advocacy and pressure, or professional level / respect.
- b) Who has more power to change or modify the exchange of information on family planning and reproductive health toward first level workers?

2. Explain that in this section the power of decision / influence of each stakeholder is attributed. Explains the levels used for the attribution and the meaning of each level: *“.....”* Then, ask the following questions:

- a) What is the level of influence of each stakeholder, beginning with the most influential stakeholders?

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3. Then, ask the interviewee to explain the level of influence of each player:

- a) Where does the influence of each stakeholder come from and how is it used?
- b) What is the origin of the influence of all stakeholders whose influence is very high, very low, or appears to vary, or is not very clear?
- c) Ask for explanations, for example:

"Stakeholders X and Y have the greatest degree of influence. Where does that influence come from?"

"Why is Stakeholder W more influential than Stakeholder Z if Stakeholder W does not have many links?"

DO NOT ASK INTERVIEWEE TO CHANGE THE LEVEL OF INFLUENCE. SIMPLY, CONTINUE ASKING QUESTIONS UNTIL YOU UNDERSTAND THE INTERVIEWEE'S ANSWER OR UNTIL IT IS CHANGED BY THE INTERVIEWEE.

4. Finally, review the entire board, starting by stating the level of influence of the stakeholder with the highest level, down to the stakeholder with the lowest level. The goal of this exercise in three stages is to allow the interviewee to reflect upon his/her answers and possibly make changes whenever contradictions are noted.

Step 6: Determine the focus of each stakeholder

1. Explain that in this step each stakeholder's primary activity in the issue of family planning and reproductive health is identified—the organizational focus or programmatic priority. If interviewee wishes to attribute more than one, ask which is paramount and underline, marking the first letter on the map. Ask the following question:

- a) What is the organizational focus of each stakeholder and his/her programmatic emphasis on reproductive health and family planning?
 - (S) Services (meaning: organization with people for the delivery of contraceptive supplies and sexual and reproductive health care)
 - (A) Advocacy / communication (meaning: actions aimed at influencing people, perceptions, policies and decisions)
 - (I) Research (meaning: a process aimed at the pursuit of knowledge through methodologies)
 - (P) Technical assistance
 - (F) Funding

2. After determining the priorities of each stakeholder, reflect over the map and ask the following probing questions:

- a) Are there conflicting objectives or priorities among stakeholders?
- b) Are there synergistic objectives or priorities among stakeholders?
- c) What stands obstacle to cooperation or knowledge sharing between organizations?
- d) What contributes to or enhances cooperation or knowledge sharing between organizations?

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Step 7: Probing questions

Explain that, at this time, the interviewee may add, to the map, other stakeholders that are currently not on the map but should be, as well as signaling those important links that are weak, nonexistent or that have the potential of being fortified. This is an open discussion.

Based on the map that we have created and our discussion today, we talk about possible solutions:

- a) How could family planning and reproductive health information which arrives at health care providers of each level be improved?
- b) What are the mechanisms that could be created or improved in order to achieve those changes?
- c) Who are the stakeholders that are key to achieving those changes? Why them?

1. Explain that this final section focuses on the interviewee's organization specifically.

- a) What specific information about family planning and reproductive health does the health staff at your level need in order to better perform their job?
- b) Where do people at your level turn to for the latest information on family planning? Please give a recent example. [Ask about individuals, organizations, etc.]
- c) What are the communication channels staff members at your level prefer to use to receive information? [Inquire: Radio? Television? Internet? Mobile phone? Printed Documents? Interpersonal communication?] Please rate them. If Internet, what browser? Do they resort to any Web page from a specific institution? Which one?
- d) How could your organization better reach other professionals from remote areas in order to provide them with important information about health?

Annex 2: Interviewees

Site : Lima	
Sector : Government	
Institution	Title
Ministry of Health	Coordinator of the National Sexual and Reproductive Health Strategy Coordinator of the National Health Strategy for the Prevention and Control of STIs/HIV/AIDS Adolescent Coordinator
Social Security	Prevention Director, Primary Health Care Management Head of Sexual and Reproductive Health Issues
Health Department of the Peruvian Army	Obstetrician – Chorrillos Health Center Obstetrician – Medical Center of the Army’s Headquarters Nurse – Military Hospital Nurse, Head of STIs/HIV/AIDS – Military Polyclinic Nurse, Head of STIs/HIVAIDS – Military Hospital Obstetrician – Health Council of the Peruvian Army (COSALE) – Coordinator of the Sexual and Reproductive Health Strategy Nurse – Geriatrics Clinic
Sector : International Cooperation	
Institution	Name and Title
UNAIDS	M&E Official
UNFPA	Deputy Director
UNICEF	Health Official
USAID	Management Specialist Management Specialist
Sector : Non-governmental organizations	
Institution	Name and Title
APROPO	General Manager Research, Monitoring and Evaluation
CARE	National Maternal Health Advisor
FLORA TRISTAN	Official of the Sexual Rights and Health for Citizens Program
INPPARES	Director Planning and Development Director
MANUELA RAMOS	Coordinator of the Sexual and Reproductive Rights Program
HEALTH POLICIES (POLITICAS EN SALUD)	Deputy Chief
PROMSEX	Director
PATHFINDER	Director
PRISMA	Director of Human Development
Sector : Community-based Groups	
Institution	Title
Leaders of the 12 de Junio Human Settlement	Peer educator and promoter

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National Coordinator Peruanos Positivos	Peer educator –Surquillo Health Center Member of GAM Identity and Achievements Promoter, Surquillo Maternal-Child Health Center
Sector : Networks	
Institution	Title
Peruvian Society of Obstetrics and Gynecology	President of the SPOG Sexual and Reproductive Rights Committee Program Manager Health Specialist
FOROSALUD Patient Network	Coordinator of the Patient Committee and Coordinator of the APRODEH Disability Project

Site : Ayacucho	
Sector : Government	
Institution	Title
Regional Health Office	Regional Coordinator for the STI/HIV/AIDS Prevention and Control Strategy Technical Team for the Sexual and Reproductive Health Strategy
Jesús Nazareno Health Center	Head of Obstetrics Head of the TBC Program (representing Comprehensive Care for Adolescents and Sexual and Reproductive Health) Head of the Maternal and Perinatal Health Program
Iguaín Health Post	Head of the Charo Ore Cordero Health Post – Nursing Technician Nursing Technician
Sector : International Cooperation	
Institution	Title
UNFPA	Regional Coordinator
Sector : Non-governmental organizations	
Institution	Title
Manuela Ramos	Regional Coordinator
Salud sin Límites	Specialist
Sector : Community-based Groups	
Institution	Number and Title of Participants
Jesús Nazareno District	12 Health promoters
Iguaín District	9 Health promoters

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Site : Ica	
Sector : Government	
Institution	Title
Regional Health Office	Regional Coordinator of the STI/HIV/AIDS Prevention and Control Strategy
La Palma Health Center	HIV/AIDS Coordinator – Periodic Medical Care Unit
Sector : Non-governmental organizations	
Institution	Title
Casas de la Salud	Coordinator of the Acomayo Program
Sector : Community-based Groups	
Institution	Title
PVVS	Promoter-educator

Site : Ucayali	
Sector : Government	
Institution	Title
Regional Health Office	Regional Coordinator of the STI/HIV/AIDS Prevention and Control Strategy, Coordinator of the Ocular Health Strategy, Director of Comprehensive Care and Quality Health Care Regional Coordinator of the Sexual and Reproductive Health Strategy
Manantay Health Center	Obstetrician
Campo Verde Health Post	Nurse
Sector : Non-governmental organizations	
Institution	Title
Manuela Ramos	Technical Team Member and PROMSEX Consultant
Sector : Community-based Groups	
Institution	Number and Title of Participants
Manantay District	7 Health promoters
Campo Verde District	6 Health promoters