ICT in the Health Sector:  
A Knowledge Map and a Framework Paper

Country: International
Notice/Contract Number: 1254
Publication Date: June 8, 2005
Deadline: June 27, 2005
Funding Agency: information For Development Program (infoDev)

Implementing Organization:

infoDev (a consortium of public international development organizations and other partners, facilitated by a secretariat at the World Bank, which is a founder of and major donor to infoDev).

Eligibility of Bidders:

The consultants are expected to be a team of experts, consisting of personnel with knowledge and demonstrated experience in ICT in the health sector in developing countries. The consultants should have a minimum of 10 years of experience of relevant experience and a proven record of expertise showing that they are qualified in the field of the assignment and have previous experience in similar studies.

Expression of Interest (EOI)

infoDev intends to finance the assignment described below under the funding to be made available by infoDev Donors.

infoDev invites eligible consultants to indicate their interest in providing the services to develop a knowledge map and a framework paper on the role and use of ICT in the Health sector in developing countries.

The overall objective of this assignment is to perform a knowledge mapping exercise and an expert analysis to produce a paper that presents the current knowledge on the role and use of ICT in the health sector and outlines knowledge gaps. The paper will draw recommendations on priority issues and future trends for policy makers in developing countries and donors working in the health sector. Interested consultants must provide information indicating that they are qualified to perform the services (brochures, description of similar assignments, experience in similar conditions, availability of appropriate skills among staff, etc.). Consultants may associate to enhance their qualifications.

The assignment is expected to be completed within 15 weeks from the date of signing the contract agreement. The assignment is expected to require a level of effort of approximately 3.5 person-months to be completed within the available lump-sum budget of US$80,000, which includes all fees, travel, audit and other expenses.
For this assignment, we specifically request submission of a five-page note outlining how the consultants would conduct this assignment if selected. The note should include the following: (i) an analytical framework and a process by which the research will be conducted; (ii) a timeline that demonstrates the consultants ability to meet the deadlines as noted in the Terms of Reference below; (iii) a brief narrative on resource allocation; and (iv) brief summaries of key personnel to be involved in the work, particularly their experience that directly relates to needs of this study. In order to prepare the note, interested consultants should review the Terms of Reference, which is provided below. We suggest that the EOI including the five-page note should not exceed 15 pages in length.

Consultants will be selected in accordance with the procedures set out in the World Bank's Guidelines: Selection and Employment of Consultants by World Bank Borrowers May 2004 (current edition). Electronic submission of the EOI, including the note, is preferred. The EOI can be submitted either as a Microsoft Word or as PDF file.

Interested consultants may obtain further information at the address below from 10:00am – 5:00pm US Eastern Daylight Time.

Expressions of interest must be delivered to the address below by June 27, 2005.

Jacqueline Dubow, infoDev
2121 Pennsylvania Ave., NW,
M/S: F P5-503
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Terms of Reference

- Background

The health sector has always relied on technologies, as reliable information and effective communication are crucial elements in public health practices. When information covers needs assessments, health strategies and monitoring, communication is the essential element for disseminating knowledge to patients and to health practitioners. The use of appropriate technologies can increase the quality and the reach of both information and communication. Good health is knowledge based and socially driven. On one hand, the knowledge base is about information, which enables people to produce their own health. On the other hand, social organizations help people to achieve health through health care systems and public health.

The major public health functions can be grouped into five basic categories: policy development; collection and dissemination of evidence for health policies, strategies and action; prevention and control of diseases; inter-sectoral actions for better health; and human resources development and capacity building. A wide range of activities falls under the public health functions, from surveillance to social mobilization.

Information and Communication Technology (ICT) presents opportunities and challenges to improve public health, but the use of ICT should not isolate poor communities, which do not have access to information technologies. Despite all its potential, a major challenge is that ICT has not been yet proven a tool that will advance health equity among poor people. Many health challenges are well beyond the health sector. The HIV/AIDS epidemic, for example, requires political commitment, behavior change and large-scale
distribution of anti-retroviral therapies. ICT can facilitate but is not the solution. Therefore, it is key to determine the scope and boundaries of ICT within the health sector.

Out of twelve Millennium Development Goals (MDGs), six are health-related. The recent Global Monitoring Report 2005 calls for bold actions to reach the MDGs. The need to scale up and speed up actions is urgent and makes 2005 the crucial year where momentum has to be built for the MDGs. However, in many countries, and despite progresses, the MDGs will not be reached. Therefore, their monitoring is becoming crucial for future interventions. This is an area where ICT can play a critical role.

The activities are proposed in this request for Expression of Interest under this background. These activities will analyze current contexts and uses of ICT in the health sector and provide practical guidance for Donors and Decision-makers. Assuming no or little technical knowledge, the different outputs should provide ideas, tools and resources to think critically and creatively about current ICT practices in the health sector, specially those related to the MDGs, and to implement positive change at individual, team and organizational levels.

- **Scope Of Work**

To address the knowledge gaps noted above, and provide guidance and recommendations to policy makers and Donors, infoDev is inviting expressions of interest for the development of:

- A knowledge map that will present, within public health taxonomy, the current state of and major gaps in knowledge related to the role of ICT in the health sector in developing countries. The knowledge mapping is meant to serve as a tool to point to key general assertions and gaps in the knowledge base of what is known about ICTs in health, especially as such knowledge may relate to the health-related MDGs. The end goal of this knowledge mapping exercise is to aid in the formulation of a number of key research questions that point to existing important gaps in the knowledge base.
- An on-line consultation related to the knowledge mapping exercise and designed to incorporate the views and experiences of sectoral experts.
- A framework paper that will build upon the knowledge mapping exercise and the on-line discussion. The paper will identify issues and boundaries of the role of ICT in health and organize the issues to be used later by infoDev and its Donors to design future activities in the health sector, including the monitoring of health related MDGs.

The knowledge map on ICT in the Health Sector will include the following activities:

1. The development of an annotated bibliography, with a particular focus on materials and publications published between 2000-2005.
2. A comprehensive review of the literature on the topic of the use of ICT in the health sector in developing countries. This information should be organized by categories such as analytical work, impact assessments, and geographic focus.
3. The following types of information should be targeted: Previous exercises to map ICT in the heath sector in developing countries, White papers, technical reports, research reports on aspects of ICT and public health, policy issues-related, evaluations and trends.
4. The rationale and description of the taxonomy used to structure the annotated bibliography should be provided.
5. The Bibliographic entries should come from mining commercial and subscription resources available through major libraries, including the Joint library of the World Bank. International funding programs, ICT and health focused web sites, web logs and on-line journal should be consulted.
6. Each topic of the annotated bibliography should be completed with a brief synthesis note, summarizing the level of knowledge in particular topics, such as areas covered by substantive knowledge and areas where knowledge gaps remain.

7. The delivery of a Web-ready searchable knowledge map.

The on-line discussion will:

1. Target policy makers, health experts in Donors agencies, and practitioners in the field.
2. Serve as participatory needs assessment related to the issues and recommendations covered in the framework paper.
3. Have duration of 3 weeks.
4. Be organized using "d-groups", a software platform for managing online discussion groups created by a consortium of public agencies including the World Bank.

The framework paper will:

1. Delineate the emerging field of ICT and health in the development sector.
2. Identify the most effective and relevant uses of ICT in the health sector.
3. Identify major constraints, at the country and community levels, faced by the implementation of ICT within health activities or programs.
4. Synthesize guidelines and best practices in broad terms for using ICT in the health sector; this section should include cost-effectiveness of ICT supported activities, as well as uses of ICT for better monitoring of health-related MDGs.
5. Identify the major players, both public and private sector.
6. Identify priority issues related to ICT in the health sector that should be addressed by Donors.
7. Identify priority needs of policy makers, at the country level, to support the mainstreaming of ICT within the health sector.
8. Identify the emerging trends and technologies that will shape ICT tools in the health sector.

The primary audience for this study is health experts in Donor agencies, and policy makers in developing countries.

The consultants will:

- Consult extensively (both face-to-face and electronically) with the infoDev Task Manager, relevant experts and stakeholders both in development agencies and in developing countries
- Prepare draft versions of each component of the study for review and discussion, and participate in a review meeting
- Help design, moderate and participate actively in the online discussion;
- Revise and complete the study on the basis of feedback from these discussions;
- Present a final version of the study in a workshop.

Deliverables

1. Preliminary work plan
2. Design the questionnaire, manage and summarize the findings of an on-line discussion –
3. Taxonomy to be used to frame the annotated bibliography
4. Final version of the annotated bibliography, including knowledge summaries by topics
5. Review meeting of the first draft of the framework paper
6. Final version of the framework paper
7. Workshop to present the results of the entire study, which are the knowledge map, the on-line discussion and the framework paper.

The consultants will also be expected to participate in a review workshop in Washington, DC (or in a regional hub, if infoDev and the consultants jointly agree that an alternative venue is preferable) to receive expert reactions to the draft study shortly after the submission of the draft.

**Timing and Available Budget**

The assignment is expected to be completed within 15 weeks of commencement. The assignment is expected to require a level of effort of approximately 3.5 person-months to be completed within a fixed lump-sum budget of US$80,000.00 which includes all fees, travel, audit and other expenses, etc.

**Conduct of the Assignment**

In undertaking this assignment, the consultants will work under the general direction of the task supervisor from infoDev. The consultants will take the lead and will be directly responsible for all tasks, while the task supervisor will be closely involved in reviewing reports and providing guidance as necessary.

**Consultant qualifications**

Consultants with a proven record in the following areas of knowledge will be considered:

- Expertise on the overall issues related to ICT in the health sector
- First class research capacity and ability to develop the annotated bibliography.
- Expertise in designing, moderating on-line discussions
- International experience in developing countries, particularly in the area of ICT/health sector.
- Reputation and expertise in the field amounting to 10 years of experience.

The team should include the following key staff: one specialized librarian on ICT/health sector; one health expert and one qualified expert to design and moderate on-line discussions on health sector.

**Tentative Timeline, Deliverables and Payment Schedule**

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<tr>
<th>Description</th>
<th>Date/Deadline</th>
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<tbody>
<tr>
<td>Publication of the EOIIs</td>
<td>June 10, 2005</td>
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<tr>
<td>Deadline for submission of EOIIs</td>
<td>June 27, 2005</td>
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<tr>
<td>Selection of firm</td>
<td>July 6, 2005</td>
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<tr>
<td>Request technical and financial proposal</td>
<td>July 7, 2005</td>
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<tr>
<td>Submission of technical and financial proposal</td>
<td>July 18, 2005</td>
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<tr>
<td>Firm invited to negotiate the contract</td>
<td>July 19, 2005</td>
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<tr>
<td>Announcement of Winning Application; signing of grant (&quot;effective date&quot;)</td>
<td>July 25, 2005 (payment-10 %)</td>
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<tr>
<td>Preliminary Work plan due to infoDev</td>
<td>10 days from the Effective Date</td>
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<td>Questionnaire of the on-line discussion designed</td>
<td>2 weeks from the Effective Date</td>
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<tr>
<td>Implementation of the on-line discussion</td>
<td>3 weeks from the Effective Date</td>
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<tr>
<td>On-line discussion summarized</td>
<td>7 weeks from the Effective Date</td>
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<td>(payment - 30%)</td>
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Taxonomy presented to infoDev 2 weeks from the Effective Date
Annotated bibliography finalized 6 weeks from the Effective Date

First draft of framework completed and submitted 9 weeks from the Effective Date
(payment - 30%)
Review meeting 10 weeks from the effective Date
Final version of framework submitted to infoDev 12 weeks from the Effective Date
Presentation workshop 15 weeks from the Effective Date
(payment - 30%)

**About infoDev**

infoDev is a consortium of public bilateral and multilateral development agencies, working in close cooperation with partners from civil society and the private sector, and assisted by an expert secretariat housed at the World Bank. Its mission is to help developing countries and their international partners use information and communication technologies (ICT) broadly and effectively as tools of poverty reduction, sustainable economic growth, and empowerment of individuals and communities. Its work is rooted in the conviction that information and communication are indispensable elements of effective and responsive institutions (including governments), markets and societies.

Web Site: [http://www.infodev.org](http://www.infodev.org)

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