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HEALTH REPORTER: focus on information and communication technologies for health promotion 12 September 2006

produced by the [IDS Health and Development Information](#) team
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This is our monthly email bulletin, bringing together research to inform policy debates on health in developing countries.

The Health Reporter aims to provide readers with a more in-depth look at a particular area of health policy. This month's theme is **information and communication technologies for health promotion**. The bulletin also features summaries of new documents and other additions to the [Health Resource Guide](#).

All documents listed below are available free on the web. If you are unable to access any of these materials online and would like to receive a copy of a document as an email attachment, please contact s.cameron@ids.ac.uk.

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Feature: information and communication technologies for health promotion

The application of ICTs to health promotion efforts is both broad and rapidly shifting. Conventional terrestrial technologies such as radio, film, video and television have long held an important place in shaping public information environments and in advocating for more equitable health service delivery and pro-poor public health policy. Conventional media are very widespread in the developing world; the costs to both producers and users of these media are relatively low. Because of this, conventional media are effective in raising awareness of health issues, in strengthening disease prevention, and in helping to reduce the stigma and discrimination that is often associated with certain diseases.

Parallel to the use of conventional media, the last decade has witnessed the rapid emergence of new digital information communication technologies and information systems. The result has been a significant shift in the way that health care, health information and health communications are both organised and accessed. The advent of telemedicine -- the use of new communication technologies such as cellular phones and the internet to provide consultation, diagnostic services, health information and health sector support services -- is one such example that has the potential to revolutionise the way rural and remote populations interact with health service providers. As access to new technologies deepens within developing countries the breadth of health promotion opportunities also widens, from text messaging to remind people living with tuberculosis or HIV to take their medication, to dedicated local language internet sites dedicated to specific health issues.

Many thanks to Dr Andrew Skuse for writing this introduction and advising on key readings.

For more information see:

- Healthlink Worldwide: ICT for development
www.healthlink.org.uk/projects/ict/infodev.html
 - Source: ICT and health resources
www.asksource.info/res_library/ict.htm
 - Information for Development (infodev) Programme: ICTs for health
www.infodev.org/section/programs/mainstreaming_icts/health
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Recommended readings on ICTs for health promotion

1. Improving health, connecting people: the role of ICTs in the health sector of developing countries - a framework paper

Authors: Chetley, A.; Davies, J.; Trude, B.; et al

Produced by: Information for Development Program (Infodev) (2006)

This paper, published by Information for Development (infodev), looks at information and communication technology (ICT) interventions in the health sector in developing countries. It argues that ICTs have enormous potential as tools to increase information flows, disseminate evidence-based knowledge, and empower citizens. ICTs have been used to enable remote consultation through telemedicine; encourage collaboration among health workers; and support more effective health research. Pilot projects have demonstrated outcomes such as improved health system productivity and reduced mortality rates. Yet ICTs have not been widely used to advance equitable healthcare access, and there are still few ICT users amongst professionals and communities in developing countries.

The paper recommends that governments or agencies implementing ICT projects in the health sector should: keep the technology simple, relevant and local; build on what is there; involve users in the design of the system; strengthen capacity to use, work with and develop effective ICTs; introduce better monitoring and evaluation, particularly through participatory approaches; include communication strategies in the design of ICT projects; and continue to research and share learning about what works, and what fails. The paper also identifies areas where more research

Available online at: <http://www.eldis.org/cf/rdr/rdr.cfm?doc=DOC22557>

2. Health communication insights: information and communication technologies for the developing world

Authors: Maxfield, A.; Health Communication Partnership (HCP)

Produced by: Center for Communication Programs (JHU/CCP), Johns Hopkins University (2004)

Published by the Center for Communication Programs (CCP), this report is the first in a new series entitled "Health and Communication Insights". The author suggests that the use of information and communication technologies (ICTs) and e-health (electronic health) applications, such as interactive websites, can be effective in helping people manage diseases, access health services and obtain assistance with behaviour change. Acknowledging the rich-poor digital divide, he notes that access to new technologies is increasing rapidly in developing countries. He further argues that the internet has the potential to replace health clinics as the key provider of health information. However, he emphasises that it can also be a source of inaccurate and misleading information, particularly with regard to infectious diseases and HIV/AIDS.

The author recommends that health professionals be ready to confront the rapid spread of misinformation which the internet makes possible. He outlines key areas of health communication where ICTs could be applied. These include: dissemination of information from community health workers to policy-makers; distance learning for field workers; and advocacy and mobilisation via the internet with SMS back-up for offline activities. He also suggests integrating new technologies into existing low-tech (radio or telephone- based) health communications for maximum impact. [adapted from author]

Available online at: <http://www.eldis.org/cf/rdr/rdr.cfm?doc=DOC15730>

3. Gender and ICTs for development: a global sourcebook

Authors: Guihuan, L. et al

Produced by: Royal Tropical Institute (KIT) (2005)

This book is a collection of case studies about women and their communities in developing countries and how they have been influenced by information and communication technologies (ICTs). The book proposes that ICTs and policies to encourage their development can have profound implications for women and men in terms of employment, education, health, environmental sustainability and community development. As such, policy is needed to ensure that investment in ICTs contributes to more equitable and sustainable development as these technologies are neither gender-neutral nor irrelevant to the lives of resource-poor women.

The book is made up of five chapters, covering topics including:

- the effect of ICT on women's enterprise creation: a practical example from China
- e-business piloting and readiness for rural women weavers in Bhutan: lessons learned
- fishers and radios: a case study of Radio Ada in Ghana
- development through radio: a case study from Sierra Leone
- gender, ICTs and health in the Caribbean

The paper also includes an annotated bibliography and list of web resources relating to gender and ICTs for development.

Available online at: <http://www.eldis.org/cf/rdr/rdr.cfm?doc=DOC18856>

4. Case study of the SATELLIFE PDA Project

Authors: Bridges

Produced by: Bridges.org (2003)

The goal of the SATELLIFE Personal Digital Assistants (PDA) Project was to demonstrate the viability of handheld computers -- also called Personal Digital Assistants or PDAs -- for addressing the digital divide among health professionals working in Africa.

The project was carried out in Uganda and Kenya, where ICT access is low and Personal Digital Assistants virtually unknown. This study explored questions related to the selection and design of appropriate, affordable technology and locally relevant content for use in African healthcare environment, specifically targeted at assessing the usefulness of the PDA for (1) data collection and (2) information dissemination. Physicians, medical officers, and medical students tested the PDA in the context of their daily work environments in order to gain a perspective on the real issues that affect the adoption of technology.

Three different studies were carried out to collect epidemiological information, monitor immunisation campaigns and allow students access to study texts. The study concludes that, despite a number of difficulties, the use of PDAs was validated for the healthcare sector in Africa.

Available online at: <http://www.eldis.org/cf/rdr/rdr.cfm?doc=DOC11786>

5. Improving health, fighting poverty: the role of information and communication technology (ICT)

Authors: Chetley, A.

Produced by: Exchange (2001)

This short paper provides a review of opinions on uses of information and communications technologies for health communication.

The paper argues that the 'communication' element of ICTs is often forgotten as practitioners and policy makers tend to focus more on technology and infrastructure. The author states that communication should be the central concern. Evidence is emerging that where attention is paid to communication processes and systems in introducing ICTs, their use, relevance and contribution to development increases.

The paper draws from the experience of a number of experienced practitioners in the field and argues that there are many project failures, due mainly to interventions being designed in a top down approach and not, therefore meeting the needs of the potential users. It draws a number of lessons and states the following needs

- strengthen and build upon basic systems and infrastructure
- invest heavily in strengthening local human resources and capacity
- focus on community-led initiatives that use relevant local content
- involve women in planning and use
- encourage long-term planning and policies
- seek cooperative partnerships
- combine old and new technologies

The overall conclusion of the briefing is that ICT projects for health communication must be locally relevant and successful first in terms of communications, rather than new technologies.

Available online at: <http://www.eldis.org/cf/rdr/rdr.cfm?doc=DOC10748>

6. ICT for mitigating HIV/AIDS in Southern Africa

Authors: SPIDER; Sida; TU Delft; Safaids

Produced by: Swedish Program for ICT in Developing Regions (SPIDER) (2005)

This report looks at opportunities for Sida to support the use of information and communication technology (ICT) for mitigating HIV and AIDS in Southern Africa. It asks:

- how can ICT contribute to the empowerment of people living with HIV and AIDS

- how can ICT improve ongoing and planned HIV and AIDS programmes in the region

Stakeholder meetings have been held in Lusaka (Zambia), Gaborone (Botswana) and Maputo (Mozambique). These recommended that ICT can be instrumental for documenting and sharing experience and knowledge on HIV and AIDS; for improving the efficiency and effectiveness of the organisations involved, for coordinating, monitoring and evaluation of HIV and AIDS prevention, care and treatment programmes; and for monitoring the development of the epidemic.

Suggested interventions include:

- providing CAP clients (radio stations, schools, health clinics) in Zambia and Mozambique with ICT resources
- developing and implementing a system for distance consultation in Botswana (and if successful, in Mozambique and Zambia at a later stage)
- improving the logistic support for the distribution of drugs in Botswana
- supporting research on "expert" systems (systems which support health workers to diagnose and treat clients) for health clinics (in all three countries)
- facilitating the process of awareness and vision building on how ICT can be used (in all three countries).

Available online at: <http://www.eldis.org/cf/rdr/rdr.cfm?doc=DOC17937>

Other recommended readings

1. Selected papers on the social aspects of arsenic and arsenic mitigation in Bangladesh

Authors: Hanchett, S.; Sultana, F.; Mannan, F.

Produced by: Arsenic Policy Support Unit (APSU) (2006)

This document is a collection of three articles addressing the arsenic crisis in Bangladesh. Arsenic not only poses serious health risks for communities affected, but also has severe social consequences. The document points out that the social implications of the arsenic crisis has not received as much attention as the technical and health aspects. However, due to poor nutrition and limited access to water supplies, poor access to health services, the poor are at an increased risk of the effects of arsenicosis. As a consequence of these factors, arsenic can be a shock from which poor people are unable to recover.

The first chapter of the document gives a detailed overview of the relevant social issues of this crisis. This chapter also looks at the current strategies in mitigating these effects in Bangladesh and West Bengal. It makes several findings on the social aspects of the arsenic contamination, including the following:

- poor people are more affected than others by arsenic-related diseases
- epidemiological studies are the most reliable sources of information to establish prevalence rates. Also, while patient surveys are useful, they tend to be biased, depending on how study respondents are identified
- women are more socially damaged than men by arsenic related illnesses, most likely because of their generally lower social status. If unmarried, they find it difficult to find a husband; and if married they may be abandoned or divorced. Women are less likely to talk about arsenic related health problems and are more likely to attend to the health needs of others than those they themselves face
- arsenicosis poses some severe economic consequences particularly for the poor. For instance, many who are ill are either too weak to work or lose employment opportunities because of widespread fears of contagion.

The second chapter deals with the gendered impact of the arsenic contamination. It highlights key experiences of poor women and men of how arsenic has affected their lives and how they are able to participate in arsenic mitigation. The chapter also provides details of the ongoing problems of exclusion and gender differentials in increased workloads as a result of arsenic.

The third chapter is a critical analysis of the linkages between arsenic contamination of drinking water and human rights. It identifies the different rights on which arsenic contamination may impinge, are explored in this article. This chapter also lists some important strategic directions for addressing arsenic and human rights. [adapted from authors]

Available online at: <http://www.eldis.org/cf/rdr/rdr.cfm?doc=DOC22529>

2. International standards for tuberculosis care

Authors: Stop TB Partnership

Produced by: Stop TB Partnership (2006)

This document, published by the Stop TB Partnership, describes the level of care that all practitioners should seek to achieve in managing patients who have, or who are suspected of having, tuberculosis (TB). It states that the basic principles of care for persons with, or suspected of having, tuberculosis are the same worldwide: a diagnosis should be established promptly and accurately; standardised treatments of proven efficacy should be used with appropriate treatment support and supervision; the response to treatment should be monitored; and essential public health responsibilities must be carried out.

The document argues that providers who evaluate and treat patients with TB must recognise that they are assuming an important public health function as well as delivering care to an individual. Although the standards are mainly aimed at non-government health care providers, the document emphasises that government programmes may need to develop policies and procedures that make it possible for non- government providers to adhere to the standards. The document also suggests that having generally agreed-upon standards will empower patients to evaluate the quality of care they are being provided. It notes that the standards are not intended to replace local guidelines, and were written to accommodate local differences in practice.

Available online at: <http://www.eldis.org/cf/rdr/rdr.cfm?doc=DOC22585>

3. TB and poverty: are we doing enough?

Authors: EQUI-TB

(2006)

This report, published by Equi-TB, describes the outcomes of a 2005 meeting on tuberculosis (TB) and poverty. Topics discussed at the meeting included defining and measuring poverty; ensuring that tools for TB control such as "DOTS" -- the World Health Organization's recommended strategy -- reach the poor; and service delivery issues. The report notes that, although international targets on TB control may soon be reached, there is concern that the poor are still being missed. Improved TB control does not automatically reach the poor, due to a combination of weak health systems, lack of political will, and barriers of access for poor patients.

The report concludes that poverty is complicated and approaching it from one angle is not enough to make a lasting impact. It highlights the need to build up the evidence base on TB and poverty. Recommendations in this area include developing a core set of standardised indicators, and involving the affected community in monitoring policy change. The particular needs of people with both HIV and TB, and with multidrug-resistant TB, also need to be addressed. Finally, the report calls for more action on equity in the development and deployment of new tools for TB control.

Available online at: <http://www.eldis.org/cf/rdr/rdr.cfm?doc=DOC16060>

4. Lancet Chronic Diseases 3: Responding to the threat of chronic diseases in India

Authors: Srinath Reddy, K.; Shah, B.; Varghese, C.; Ramadoss, A.

(2005)

This paper, part of the Lancet's 2005 Chronic Diseases Series, examines the burden of chronic diseases in India. It reports that chronic diseases contribute to an estimated 53 per cent of deaths in India, and this burden is expected to increase sharply over the next twenty years. Cardiovascular diseases (diseases of the heart and blood vessels) and diabetes are highly prevalent in urban areas. Tobacco consumption is common, especially among the poor and rural populations, and a large proportion of cancers are

tobacco-related. Hypertension (high blood pressure) and dyslipidaemia (high levels of fat in the blood) are common, but are not adequately detected or treated.

The paper concludes that, as chronic disease epidemics gather pace in India, a comprehensive strategy for their prevention and control is needed. Some of the required elements are already in place, such as control programmes for tobacco use and cancer. The paper recommends that these efforts should be scaled up, and argues that more action is needed in areas such as diet and physical activity. Health systems need to be reoriented to accommodate the needs of chronic disease prevention and control, by enhancing the skills of health-care providers and equipping health-care facilities to provide services related to health promotion, risk detection, and risk reduction.

Available online at: <http://www.eldis.org/cf/rdr/rdr.cfm?doc=DOC22016>

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- Health Resource Guide - www.eldis.org/health
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The HRC provides access to technical assistance and information for the Department for International Development (DFID UK), and its partners, in support of pro-poor health policies as well as health systems, service delivery and public health topics and programmes.

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