Closing the "Know-Do" Gap: eHealth Strategies for the Global South

For years, the Internet has been the new black, the "in" thing, the must have. And the virtual fever is spreading. According to the World Bank, global Internet use more than quadrupled between 2000 and 2005, from 15 users per 1000 population to 67.[1] Yet, many Global South countries are stalled on the Information Superhighway: the same World Bank report found that only 15 per 1000 population in sub-Saharan Africa are connected to the Internet, and only 21 per 1000 in South Asia. To say nothing of glaring access inequalities within countries, lack of foreign investment in the communications sector of developing nations, and deficient connectivity in key areas of national infrastructure – schools, government centers, and health facilities. Yet the same World Bank report noted that eHealth initiatives ranked last in a list of technology strategies among countries surveyed.[1]

The sluggish use of information and communication technologies (ICTs) in the Global South health sector is particularly worrisome; research as far back as 1997 found that "providing access to reliable health information for health workers in developing countries is potentially the single most cost-effective and achievable strategy for sustainable improvement in health care."[2] There is perhaps no faster, more affordable way to make relevant, reliable scientific information accessible than through the use of existing and emerging technologies – but only if a virtual infrastructure and government policies (social, educational, economic, technological) are in place to do so.

Formulating and implementing a national eHealth strategy is complex in any context, but even harder in resource-scarce settings, where adverse social determinants, weak public health systems, a risky or soft investment climate, lack of political will, and other factors may conspire against it. Herein lies the irony, since it's precisely in these resource-scarce environments where an initial (admittedly large) investment in eHealth can deliver measurable, most cost-effective outcomes. Cuba's experience building a patient-centered virtual health infrastructure contributes to the body of knowledge on closing the "know-do gap" for successful eHealth applications in developing countries.

As the economy went into a freefall dive in the early 90s, Cuban authorities were faced with tough decisions, especially concerning the health sector and strategies for maintaining the gains in population health. Among the measures implemented was what amounted to an intrepid leap into the digital divide with the creation of INFOMED (*Cuba & ICTs: Real Crisis Leads to Virtual Innovation; A Case Analysis of INFOMED*), a virtual health infrastructure making scientific and medical resources freely accessible to health professionals throughout the national health system.

Easier said than done, as such an infrastructure requires integration (sometimes among sectors with little previous collaborative experience), governmental standardization policies to create a common framework – something that hamstrings the development of a national eHealth infrastructure in many countries, including the United States[3] – and ICT investment (*Cuba's National eHealth Strategy*). From its modest beginnings as a national health intranet, INFOMED has evolved into an international health gateway offering post-graduate degrees, Supercourses, open access to international journals, virtual libraries, clinical consultations, specialized databases, and more (*Cuba's Virtual Libraries; The Virtual Health University: An eLearning Model within the Cuban Health System*).

Yet making the knowledge available is only part of the eHealth equation, since connectivity and computer literacy have posed serious challenges in the Cuban context, (*Open Access Journals: Knowledge and Attitudes among Cuban Health Researchers*), prompting capacity-building in virtual environments to become one of the country's top priorities. Indeed, the present push to render the population computer literate is Cuba's 21st Century version of its 1960s literacy campaign; the hope is that the virtual literacy program will deliver equally spectacular results.

Cuba's dedication to creating an Information Society extends to a national software industry that has already developed several health and epidemiology applications (*Interview with Jacinto Duverger*). Such programs also hold potential for Cuba's South-South health cooperation with 70 other developing countries, agreements where knowledge and technology transfer are cornerstones.

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This issue's theme presents a special challenge to a small publication like *MEDICC Review*. Our mission is based on broad sharing of scientific knowledge to benefit population health, but our finances don't allow us to carry out that mission without assistance from paid subscribers – in our case, from those in industrialized countries. If you're one of them, we hope you will take pride in the fact that your contribution helps sustain our commitment to offer the online journal free to readers in the developing world, as we have since 1999.

As always, we invite our readers to go beyond the theme focus, to peruse some of the best Cuban medical literature in other fields (*Epidemiology of Prenatal Genetic and Environmental Factors of Mental Retardation in Cuba*) and to meet the people behind the health system (*Interview with Pedro Ordúñez*).

Finally, we would like to thank *MEDICC Review's* scholarly community, and particularly our reviewers for 2007 (listed on page 5), whose expertise has proven invaluable in the crafting of the journal's new look and expanded, peer-reviewed content.

We wish you all a healthy, happy, and peaceful New Year. ⎍⎍

The Editors

1. Global Information and Communication Technologies Department & Development Economics Data Group. Information and Communications for Development 2006: Global Trends and Policies. Washington DC: The World Bank; 2006. Available from: www.worldbank.org/ic4d
2. Editors. Meeting the information needs of health workers in developing countries, BMJ.1997;314:90
3. According to the 2006 WHO report Building Foundations for eHealth, only 55% of countries responding to a survey on eHealth strategies had a national plan for the development of ICT in health in place by 2005; only 50% had established some form of governance mechanisms for eHealth.