

New study identifies how information technology is used to solve global health challenges

May 1 2012

In response to the considerable challenges in providing high-quality, affordable and universally accessible care in low- and middle-income countries, policy makers, donors and program implementers are increasingly looking at the potential of e-health and m-health (the use of information communication technology for health) as a solution.

Today, Results for Development Institute published a study in the May 1 issue of the *Bulletin of the [World Health Organization](#)* demonstrating that information technology is being increasingly employed to solve some of the world's biggest health systems challenges. The study, "E-health in low- and middle-income countries: findings from the Center for Health Market Innovations," is the most comprehensive survey to date in peer reviewed literature of programs using e-health to improve the quality, accessibility, and affordability of privately delivered health care for the poor in developing countries.

The Center for Health Market Innovations (CHMI) maintains an interactive database that now includes nearly 1200 health programs in more than 100 developing countries. Partners in 16 countries around the world search for these programs and compile detailed profiles. The data are supplemented through literature reviews and with self-reported data supplied by the programs themselves. For this study, authors analyzed CHMI data to identify programs that are enabled by information technology, and determined what kinds of technologies are being

employed, and for what purpose.

The study finds that [information technology](#) is a fundamental component of the model for 176 of 657 health programs in the study sample. In recent years, there has been much interest in how specific technologies can improve health in the developing world, but this is the first study to use a large sample size of health programs to assess the extent to which e-health is proliferating in low- and middle-income countries and to determine how it is used.

"By identifying emerging global trends in e-health, the study provides guidance on how technologies can help solve common health systems challenges in developing countries, such as reaching patients in rural areas," said Gina Lagomarsino, Managing Director at Results for Development Institute. Lagomarsino adds, "As e-health continues to evolve, managers of programs in developing countries are turning to technology to solve a wide array of problems."

The study's findings identify options for program managers, funders, and policy makers to more effectively utilize information technologies to make good quality health care more affordable and accessible in [developing countries](#). It highlights six ways technology is being used:

- Extending geographical access to overcome distance between physicians and patients,
- Facilitating communications between health workers and patients,
- Improving diagnosis and treatment for health workers,
- Improving data management,
- Streamlining financial transactions, and
- Mitigating fraud and abuse

Authors also find that despite the heightened focus around the use of text messages for health, voice and software applications are more frequently used. In addition, programs launched before recent advances in information technologies are not rapidly adopting new technologies when compared to newer programs with technology built in from the start. The study also finds that about half of programs using e-health received their primary funding from donors. This heavy reliance on donor funding could jeopardize their long-term success.

"We have found that various types of information technologies are being employed by private organizations to address key health system challenges," said Lagomarsino. "For successful implementation it is critically important that more sustainable sources of funding, greater support for the adoption of new technologies and better ways of evaluating impact are found."

Provided by Results for Development Institute

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