The potential of internet-based technologies for sharing data of public health importance

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As professionals in data processing, analysis and information technology, we read with interest the Bulletin’s coverage of the barriers to data sharing in public health.1 We contend that there are many existing solutions for low-cost, high-quality data collection, management and analysis. Many of these systems are built on open-source technologies and thus are more amenable to receiving input for their design and operation from information technologists and researchers in low-income countries. The information technology gap between rich and poor countries may not be as large as some may think. For example, a recent map of Facebook “friend” linkages shows areas of high internet connectivity in low-income countries, with specific interest to us being the connection into Rwanda from Mombasa, Kenya.2

In our institutions, after some consideration,3 we adopted a web-based, open source clinical trials package called OpenClinica (Akaza Research, Waltham, MA, United States of America) for a large (n > 3000) multi-site trial (more information available at: http://www.feast-trial.org). For observational epidemiological and clinical studies that rely on, or are derived from, surveillance systems there are several free, easy-to-install systems such as RedCap,4 OpenMRS5 and OpenXdata. Indeed, there are novel technologies that have come from low-income countries that are now in use in high-income countries, e.g. software developer Ushahidi.6 As Tom Smith of the Swiss Tropical Institute said at the Pan-African Malaria Conference in 2009 when introducing a presentation on a mobile phone-based system for malaria surveillance in Zanzibar, United Republic of Tanzania: “Africa is in the vanguard in the use of such technology.” Indeed the Kenyan mobile phone-based money transfer system, M-Pesa, is highly regarded and has spread rapidly across the whole population.7

Editorials

We think technology and shared data have the potential to radically transform the health systems of low-income countries within our lifetime. We believe that technology and data should be shared equitably across all countries and that everyone should be enabled to use the results from the acquired knowledge. n

References


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