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## Health Information as Health Care: The Role of Technology in Unlocking Data and Wellness

*Part of the Access to Communications Publication Series*

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### About this Discussion Paper

Aligned with its commitment to thought leadership, the United Nations Foundation and Vodafone Foundation, in collaboration with the mHealth Alliance, have commissioned a new discussion paper called [\*Health Information and Health Care: The Role of Technology in Unlocking Data and Wellness\*](#). Lead author Jody Ranck provides a landscape of the role of ICT in facilitating health data sharing in the three major healthcare domains: surveillance systems, human resources, and supply chain.

### ICT and Healthcare

It is clear that good healthcare is dependent on timely, accurate data. Information and communication technologies (ICTs), and mobile technology in particular, can enable the timely and accurate delivery of data. Though the integration of mobile technology into health systems would yield invaluable results, on-the-ground implementation and coordination can be quite difficult. This paper addresses these key challenges and offers recommendations to leverage ICT's potential in the health sector.

### Surveillance Systems

Effective surveillance systems monitor disease trends in a population and help identify and control epidemics through the allocation of necessary resources. However, in many developing countries this surveillance is inhibited by bottlenecks in the flow of health data, caused by lack of unique personal identifiers like social security numbers, poor data quality, and jurisdictional barriers to sharing information, just to name a few. ICTs can help overcome these challenges by requiring data standards, setting the stage for interoperability between platforms, and automating information-sharing.

### Human Resources

Better data on health worker supply and demand can help allocate human resources appropriately across geographies and specialties. This is particularly important where there is a shortage of healthcare workers and only a portion of those are adequately trained. Yet many clinics and governments don't have the technology to track the availability of their own health workers, efficiently communicate with each other about staffing, and certainly not deploy and track health workers in response to changing needs. ICTs can help overcome these challenges

by enabling distance learning, tracking the number of certified professionals, and promoting two-way information-sharing between local and national entities.

### Supply Chain

Managers are tasked with providing medical goods such as vaccines, drugs, and equipment to clinics, hospitals, and community health workers at various service delivery points. Underperforming health systems are frequently traced back to broken supply chains, which often result from poor data flows. Chokepoints in the health system are rooted in a lack of inventory data, which is neither recorded electronically nor shared across localities or with suppliers. ICTs can help overcome these challenges by tracking inventory electronically and making it transparent both horizontally and vertically.

### Recommendations

The following recommendations are offered for discussion:

- Develop a culture of data and information.
- Develop tools for capacity building in eHealth across the public health professions.
- Design the layout of data-collection forms in a logical manner to ease data collection and subsequent integration into workflows.
- Build systems from the ground up, beginning with the end users.
- Crowd-source an inventory of "best-in-class" tools and approaches to which ministries of health and other healthcare players can turn.

### Discussion

To facilitate an ongoing dialogue on the use of mobile technology in healthcare, the series will be available on the [www.HealthUnBound.org](http://www.HealthUnBound.org) (HUB) knowledge-sharing platform, in the "Data Flows" workspace at [bit.ly/InfoAsCare](http://bit.ly/InfoAsCare).

*This discussion paper is the first in a three-part series examining the role of ICT, and mobile in particular, in strengthening health information flows. This landscape report will be followed by white papers mapping the mHealth opportunity in Brazil and in Kenya.*

**For more information on this study please contact:**

Sarah Hiller, UN Foundation/Vodafone Foundation, [shiller@unfoundation.org](mailto:shiller@unfoundation.org)