Digital Health Innovation: From Proof of Concept to Public Value

Daniela Paolotti
ISI Foundation
Torino, Italy
daniela.paolotti@gmail.com

Umair Shah
Harris County Public Health
Houston, Texas USA
ushahmd@gmail.com

Onicio Leal Neto
University of Zurich / EpiTrack
Zurich, Switzerland
onio@epitrack.tech

Patty Kostkova
UCL IRDR Centre for Digital Public Health in Emergencies
London, United Kingdom
p.kostkova@ucl.ac.uk

Michael Edelstein
Public Health England
London, United Kingdom
michael.edelstein@phe.gov.uk

Caroline Wood
UCL IRDR Centre for Digital Public Health in Emergencies
London, United Kingdom
Caroline.wood@ucl.ac.uk

ABSTRACT

With the increase in availability and affordability of digital technology, there has been a proliferation of pilot projects demonstrating the potential and opportunities of digital health interventions to improve public health outcomes. According to a BMJ Open survey, there were over 100,000 health-focused smartphone apps in 2016. However, not all pilots and products are scaled up or can demonstrate added public health value. The journey from a successful pilot to a fully scaled-up intervention adopted at the local, national or global level is slow and rare. Pilots are vulnerable to a lack of rigorous evaluation, changes in government policy, lack of long-term funding and lost appetite from donors to support ongoing maintenance and user engagement, to name a few.

Through a series of examples, this joint workshop between the International Conference on Digital Public Health (DPH) and the EUPHA Infections disease control section (IDC) will illustrate barriers and enablers to scale up, adoption and sustainability of digital health interventions. Lessons learned and ongoing challenges will be outlined to better understand the hurdles and expedite research adoption and long-term sustainability of real-world public health interventions in the future. This is of critical importance for all stakeholders: researchers, public health experts, policymakers, governments, national and international agencies as well as funding bodies and industry.

Examples included in this workshop include a crowdsourced disease surveillance platform successfully implemented in several EU countries; a participatory surveillance app for citizens’ mapping diseases during mass gatherings; an example of the vulnerability of publicly-funded digital health projects; and an example of a collaborative approach to digital innovation through the creation of a multi-agency Data Warehouse providing access to timely and accurate data across multiple datasets to fight emerging infectious diseases such as Zika, measles outbreaks, or seasonal influenza.

KEYWORDS

Digital Health, Public Health, Innovation, Technologies, Healthcare, Mobile Health, Infection Control, Disease, Interventions