

## DIGITAL HEALTH IN THE **TB** RESPONSE

Scaling up the TB response through information and communication technologies

### **DIGITAL HEALTH FOR TB**

- The potential of information and communication technologies to combat TB still remains largely untapped.
- Many countries and partners have embarked on pilot projects to study how eHealth (electronic health) and mHealth (mobile health) can be used in the fight against TB.
- WHO is in the process of collating evidence and aims to eventually develop policies to maximize the impact of these technologies for people with TB.
- Support is needed to scale-up effective eHealth and mHealth approaches after evaluation.
- A framework on the roles of eHealth for the TB response with some country examples is presented below:

#### **Functions** Possible interventions Some innovative examples Drug administration monitoring devices Kenya- Cash transfers Patient care & "eDOT" through mobile banking to Video (virtual) supported treatment (VOT) **MDR-TB** patients: Kenya's extensive mobile SMS communication for treatment & follow ups communications network and Telephone-based, web-based interventions, SMS widespread use of cellular phones enable, among other for smoking cessation in TB patients things, cash transfers through mobile banking to MDR-TB Enablers/incentives for adherence (cash patients in support of their treatment. transfers, free airtime) Surveillance and Notification of TB episodes to existing electronic Swaziland- Matching MDR-TB Monitoring surveillance systems patients' residence to treatment supporters : In Swaziland, health Reporting of drug safety concerns Studies of social determinants managers can see maps of treatment facilities and how they Client satisfaction polls relate to the location of MDR-TB Operational research on transactions between patients and treatment supporters' homes (as captured on community health workers, patients and GPS-enabled phones). facilities **Drug forecasting-** Avoiding drug Programmatic Stock levels of drugs, medical devices and management reagents stock outs using software: To Management and coordination of logistics make sure no patient's treatment is interrupted due to lack of Drug ordering and management systems medicines, the QuanTB program Database of patient location, contacts and creates a dashboard for managers to see how long current health care facilities drug stocks are forecast to last and when new drug orders Access to medical files via mobile devices should be placed. Texting of laboratory results on TB and comorbidities (eg, HIV, diabetes) Self-teaching utilities eLearning Health professional education-Online platforms on clinical and Online courses and information on healthy public health topics including TB. lifestyles (eg, smoking cessation, diabetes control) Applications proposing content, such as guidelines and diagnostic aids Social networking tools, news forums

#### A framework on the role of digital health in TB prevention and care

#### **KEY DEFINITIONS**

**eHealth** (electronic health) is the cost-effective and secure use of information and communication technologies (ICTs) for health and health-related fields.

**mHealth** is a component of ehealth, and involves the provision of health services and information via mobile technologies such as mobile phones and Personal Digital Assistants (PDAs).

# **WHO RESPONSE**

### HARNESSING THE POTENTIAL OF DIGITAL HEALTH FOR TB

The WHO Global TB Programme is engaged in pursuing the potential of innovative information and communication technologies to improve TB patient outcomes, and aims to undertake several actions:

Expanded evidence on impact of digital health in the fight against TB	<ul> <li>Produce an overview of available evidence through systematic reviews and bringing together experts who combine knowledge of TB care and surveillance with information and communication technology.</li> <li>Compile an inventory of digital health interventions in TB prevention and care, highlighting lessons learnt, assessments and recommendations, best practices, and cost-effectiveness evaluations.</li> <li>Provide support for some studies which look at scalability.</li> </ul>
Improved technical assistance to countries	<ul> <li>Provide guidance to countries on channeling the necessary resources into eHealth interventions based on best practices proven to be effective.</li> </ul>
Policy development	<ul> <li>Develop key policy recommendations on digital health for TB care, prevention and surveillance for countries.</li> </ul>
Electronic recording and reporting for tuberculosis care and control	<ul> <li>WHO HANDBOOK ON ELECTRONIC RECORDING AND REPORTING FOR TB CARE AND CONTROL</li> <li>WHO has developed a handbook that helps countries to plan and introduce an electronic system or to enhance an existing system. The handbook helps to: <ul> <li>Identify general requirements of organization and scope.</li> </ul> </li> <li>Identify detailed requirements of capabilities, resources, and infrastructure.</li> <li>Select an electronic solution.</li> <li>Implement an electronic recording and reporting system.</li> </ul>

http://www.who.int/tb/publications/electronic recording reporting/

#### TB QUICK FACTS

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Tuberculosis (TB) is **contagious** and **airborne**. It ranks as the **second leading cause of death from a single infectious agent**, after the human immunodeficiency virus (HIV).

In 2013, 9 million people fell ill with TB and 1.5 million people died from it.

The WHO Global TB Programme aims to advance universal access to TB prevention, care and control, guide the global response to threats, and promote innovation. More information: <u>www.who.int/tb</u>