Overview of developments in eHealth and eLearning

Clayton Hamilton, eHealth and Innovation
WHO Regional Office for Europe
Helsekompetanse 2015
June 11, Tromsø, Norway

Special acknowledgement to Diana Zandi, WHO/HQ
Geography of the WHO European Region

WHO Regional Office for Europe
Copenhagen, Denmark

53 Member States
900 million population
The role of WHO in eHealth

WHO’s key undertaking within eHealth is to provide independent advice and assistance to countries towards the long-term development of sustainable national eHealth solutions - in particular - in relation to strengthening health systems performance and the capacity for countries to gather and analyze health information.
How does WHO deliver for eHealth?

In Europe, WHO delivers on this mandate in 3 ways:

• As a **knowledge-broker and facilitator** between nations and the International Community at large.

• By **developing and sharing best practices and standards** precipitated from successful eHealth implementations.

• By **working directly with Ministries of Health** to address their technical and strategic needs for eHealth & Health Information.
Universal Health Coverage

“In 2005, all WHO Member States made the commitment to achieve Universal Health Coverage (UHC).

The commitment was a collective expression of the belief that all people should have access to the health services they need without risk of financial ruin or impoverishment.

Working towards universal health coverage is a powerful mechanism for achieving better health and well-being, and for promoting human development.”

Achieving Universal Health Coverage

eHealth and eLearning are viewed as major contributors of the “How” in attaining Universal Health Coverage

“Who”
Population: who is covered?

“What”
Services: which services are covered?

“How much”
Direct costs: proportion of the costs covered

Reduce cost sharing and fees
Include other services
Extend to non-covered
Current pooled funds
Health 2020

Health 2020 is the new European health policy framework. It aims to support action across government and society to: “significantly improve the health and well-being of populations, reduce health inequalities, strengthen public health and ensure people-centred health systems that are universal, equitable, sustainable and of high quality”.

It has two strategic objectives, constructed around equity, gender and human rights and improved governance for health.
The European Health Information Initiative is committed to improving the health of the people of the European Region by improving the information that underpins policy. This involves fostering international cooperation in order to exchange expertise, build capacity and harmonize data collection.
European Health Information Initiative

1. Expert group developing new indicators on well-being and health for WHO’s Health 2020 strategy.

2. Collaboration with the Dutch Institute for Public Health and the Environment to create a new web portal for health information at the Regional Office.

3. The WHO Autumn School on Health Information and Evidence for Policy Making.

4. Setup of new health information networks such as the Central Asian Republics Information Networks (CARINFONET).

5. A dedicated working group is creating a tool to support countries developing health information strategies.
International eHealth milestone

Recognized the value of adoption of standards for interoperability and Health on the Internet

National context for eHealth development

Established ICT environment

Emerging ICT environment

Emerging enabling environment for eHealth

Developing and Building up

Early adoption

Experimentation

Strengthening eHealth enabling environment, create foundations

Strengthening infrastructure, make the case for eHealth

Scaling-up and integration, cost-effectiveness, policies for privacy, security and innovation

Governance, policy, standards and human resources

Overall market and penetration of infrastructure

Mainstreaming

Source: http://www.who.int/goe/en/
A baseline review compiling information from 64 of the 75 Commission on Information and Accountability for Women’s and Children’s Health (CoIA) countries which together have 98% of the world’s maternal and infant mortality.

It demonstrates how, every day, eHealth is saving the lives of women, their babies and infants in some of the most vulnerable populations around the world, in a wide variety of innovative ways.
mHealth for Noncommunicable Diseases (NCDs)

Fighting the global health burden through collaboration & technology

Globally 57 million total deaths in 2008 of which 36 million were due to NCDs
mHealth scale-up programme

2013 – 2016: Be Healthy Be Mobile Programme
- Develop best practice for mHealth at scale
- WHO-ITU build & trial reusable tools to be shared globally

Beyond 2016
- Scale mHealth globally in a meaningful way
- Develop light touch service models
National eHealth Strategy Toolkit

- A resource for developing or renewing a country’s eHealth strategy
- From countries just setting out to those that have already invested in eHealth
- A framework and method for the development of a vision, action plan and monitoring framework

Source: Dr. Ramesh Krishnamurthy, WHO/HQ. Toolkit source: [http://apps.who.int/iris/bitstream/10665/75211/1/9789241548465_eng.pdf](http://apps.who.int/iris/bitstream/10665/75211/1/9789241548465_eng.pdf)
WHO Health Academy

• WHO’s global eLearning platform with a goal to improving knowledge about attaining and maintaining good health. Primarily aimed at an age demographic of 12-18 year olds.

• Established at the end of 2003 with a pilot in 2 countries and mandated to extend to all Member States based on WHA resolution 58.28 (which in 2005 called on WHO to provide support to countries in relation to integrating eHealth into their health systems and services).

• Rudimentary platform, focus on low and low-middle income countries and multi-lingual content delivery.

• [http://who.int/healthacademy](http://who.int/healthacademy)

Source: Diana Zandi, WHO/HQ.
eLearning in low resource settings

- **AMREF** (Africa Medical Research Foundation) delivered a national-wide nursing upgrade training program in Kenya, and is now offering eLearning courses for a Bachelor of science degree in Nursing (in Kenya).

- The eLearning Nurse Upgrading course helps address the critical shortage of qualified nurses in Kenya and results in improved health services, particularly to disadvantaged communities.


Source: Diana Zandi, WHO/HQ.
Digital Literacy/Health Informatics curricula

• One of the major barriers for eHealth adoption by citizens is Digital Literacy. Studies in the UK have shown that those population groups with the least access to the Internet and lowest levels of Digital Literacy are significantly more likely to draw upon services of the health system.

• Another significant barrier is ensuring Healthcare Professionals are sufficiently trained in the use of ICT for Health. WHO is raising the need for countries to include Health Informatics within core curricula for Healthcare professionals and to promote a culture of continuous education through eLearning.

• With the uptake of eHealth in support of strengthening health systems in countries, the specific adoption of eLearning in education and training of health workforce has been proposed as one of the possible approaches to address the development of health workers globally.

Contribution: Diana Zandi, WHO/HQ.
Efficacy of eLearning as a mode of delivery for healthcare professionals

• Use of eLearning as a potential approach in support of training of health workforce was mentioned in the *World Health Report* and also was mentioned in *Human Resources for Health guidelines* for transforming and scaling up education and training of health professionals.

• To look for evidence and better understand the landscape, WHO/HIS commissioned two systematic reviews evaluating the use of eLearning in pre-service and in-service education and training of the health workforce. We also looked at other publications, including an earlier systematic review (2008) on the effectiveness of eLearning, which reported that eLearning could be at least as effective as face-to-face learning under certain conditions.

• WHO has been looking for evidence to see what is the best way to guide countries on use of eLearning in support of education and training of healthcare professionals (possibly developing a guiding document).

Source: Diana Zandi, WHO/HQ.
Measuring success/monitoring and evaluation

• In many cases success of eLearning programmes is measured with the level of completion rate. Courses need to be developed in such a way to give the learners a good reason to want to start and complete a course.

• Factors such as access to learning, relevance to student’s practice and values, cost saving, convenience, ease of use, accessible in their language (and literacy term) all play roles in the complexity and success evaluation.

Source: Diana Zandi, WHO/HQ.
Future adoption of eLearning

- Many countries are planning for eLearning within their national eHealth strategies.
- Strategic and successful use of eLearning requires engagement from policy makers, heads of institutions, faculties and students to come together and be willing to work in a digital environment.
- Within WHO: Many technical departments have moved to use of eLearning for training of their target audiences (trainings are always localized for country use), examples of such courses include: eLearning on ETC (emergency and trauma care) for facilitators (also for frontline health professionals), ICATT (training on management of childhood illnesses) and IMPAC (training on Integrated management of pregnancy and childbirth) are among many others now being offered/developed by WHO.

Source: Diana Zandi, WHO/HQ.
The landscape of eHealth in the WHO European Region in 2015
What does it look like?
eHealth in Europe in 2015 (Drivers)

Factors driving the shift towards technology employment in the health sector

- An increasing cost of healthcare, stable or slight decline in health spending proportion of GDP
- Decline in the number of healthcare workers
- An ageing population, decline in birth rates
- An increasingly mobile population.
- Continued austerity measures and other cost containment
- Broadband penetration and mobile network usage is high, with data costs rapidly declining for both
- Technology, product and market maturation. Emerging standards.
- More tangible Return on Investment from eHealth.
eHealth in Europe in 2015 (Actions & Trends)

• Across the European Region, the development of eHealth continues to be an important factor in the strategic transition to citizen-centric healthcare and the empowerment of citizens to make informed decisions regarding their own health and wellbeing.

• In responding to demands for greater transparency, accountability and more integrated care, governments have recently begun adopting a “No decision about me, without me” policy approach - reflecting the importance given to patient engagement and the willingness of citizens to have access to their own health information.

• Investments in eHealth are showing promising results and are quickly becoming a popular “channel” for citizen interaction with the healthcare system. At the same time governments are embracing “digital by default” policies across all sectors, which places increased demands on national data and service integration and highlights the importance of intersectoral engagement in achieving national health objectives.
Common eHealth challenges observed in Europe

• To truly leverage the benefits of eHealth investments and transition to the digital era, healthcare organizations are looking to restructure and reengineer care processes, supported by staff with new competency profiles.

• The role of the patient has changed from being a passive receiver to an active user of healthcare services and information. This transformation is driving the demand for new models of healthcare delivery and is challenging the traditional roles and skills base of healthcare providers.

• Having a strong, national governance framework for eHealth & mHealth that leverages other national digital platforms (e.g. a national electronic identifier) is a vital component for success.
Common eHealth challenges observed in Europe

• Achieving interoperability of eHealth solutions continues to pose a great challenge for national authorities, though tools and frameworks to support activities are becoming more mature and available.

• Privacy and security of health data continue to be at the forefront of consumer concern in adopting eHealth solutions.

• Important gaps in health and digital literacy need to be adequately addressed to ensure that people are able to access healthcare services through eHealth channels.

• Reimbursement models for eHealth and mHealth are inadequate and are considered to be a significant barrier to adoption.
Conclusions

Key Messages

• WHO has both a normative role and a support role to Member States in the field of eHealth and eLearning.

• It is heavily engaged in bringing together representatives from all Member States to advocate for national eHealth strategy development, standards adoption for interoperability and promoting the use of eHealth for attaining Universal Health Coverage.

• WHO’s unique position in public health will continue to drive a focus on eHealth for attaining Universal Health Coverage through improvement of national health information systems in addition to the adoption of eHealth and eLearning for clinical excellence.
Thank you!

http://www.euro.who.int
http://www.who.int