

DIGITAL HEALTH

Denis Onyango & Maria Dutarte

M-Care Module 2, Stiges Barcelona, 11-15 Dec 2019

Session Outline

- **Definitions of Digital Health and eHealth**
- **Different facets of eHealth**
- **Social and economic context of the eHealth**
- **Changing roles and relationships between patients and health care providers**
- **Patient engagement; shared decision-making health literacy.**
- **Selected examples of digital systems aimed at patients e.g. AFYA, Emerge**

What is Digital Health?

Digital Health is an umbrella term for all healthcare-related applications, technologies and delivery systems

Makes use of interconnected technologies (healthcare providers, researchers, consumers) to ensure the delivery of cutting-edge care that's comprehensive, collaborative, efficient, and individualised to patient needs

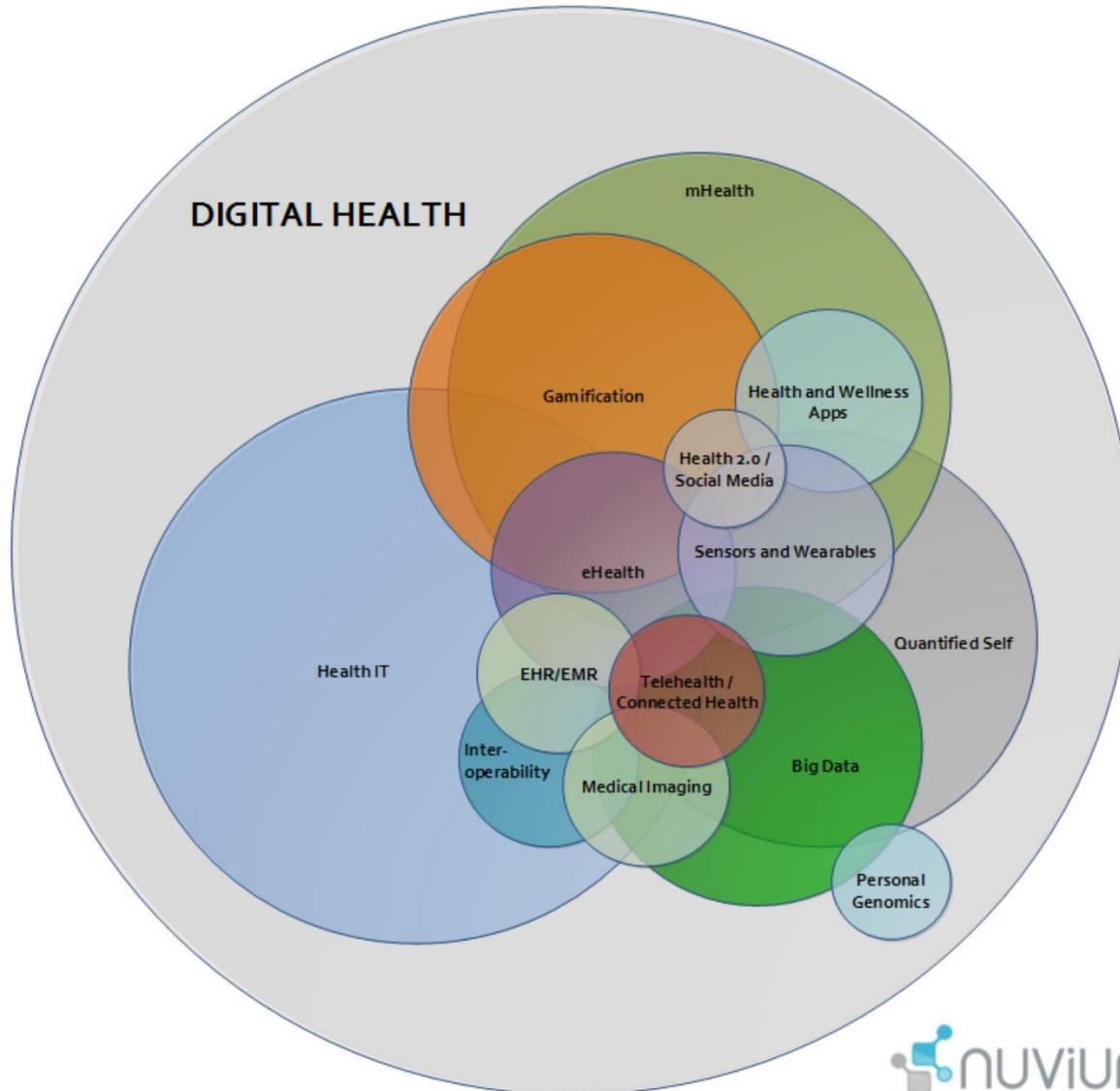
What is Digital Health?

What is Digital Health?

Digital Health is an umbrella term for all healthcare-related applications, technologies and delivery systems

Makes use of interconnected technologies (healthcare providers, researchers, consumers) to ensure the delivery of cutting-edge care that's comprehensive, collaborative, efficient, and individualised to patient needs

The Digital Health Landscape



What is eHealth?

What is eHealth?

eHealth is a broad term, and refers to the use of information and communications technologies in healthcare.

An intersection of medical informatics, public health and business i.e. health services and information delivered or enhanced through the Internet and related technologies.

All aspects of digital health are aimed at;

- **Improved care quality**
- **Increased care access**
- **A reduction in the cost of providing healthcare.**

What is eHealth?

eHealth is a broad term, and refers to the use of information and communications technologies in healthcare.

The [European Commission defines eHealth](#) as:

“...the use of modern information and communication technologies to meet needs of citizens, patients, healthcare professionals, healthcare providers, as well as policy makers.”

The [World Health Organization \(WHO\) defines eHealth](#) as:

“...the cost-effective and secure use of information and communication technologies in support of the health and health-related fields including healthcare, health surveillance and health education, knowledge and research.”

Different Facets of eHealth

- **Electronic Health Records (EHR)**
- **Electronic Medical Records (EMR)**
- **Telehealth and telemedicine**
- **Health IT systems**
- **Consumer health IT data**
- **Virtual healthcare**
- **Mobile Health (mHealth)**
- **Big data systems used in digital health**

Social and economic context of the eHealth

EU healthcare systems face significant challenges that are creating concerns about the sustainability of healthcare delivery.

- **Increased prevalence of chronic disease**
- **An ageing population that continues to grow is exacerbating the burden on healthcare delivery and costs across multiple EU member states**

To address these challenges, EU healthcare systems are moving care for chronic conditions and ageing population from hospitals to community homes

An increasing focus on making care more patient-centric so that patients can be empowered to manage their care.

eHealth is playing a major role and in particular mhealth

- **mobile technologies becoming pervasive across the continent and mobile solutions are beginning to support these new healthcare delivery solutions.**
- **mHealth solutions can influence patient behaviour to improve lifestyles, enable remote treatment of chronic conditions and equip healthcare providers to make better clinical decisions.**
- **Patients can stay healthier**
- **Resources can be better utilised, whilst also limiting the demand for healthcare and lowering the costs of care.**

4 Key Areas of Potential Impact

- ***Wellness and prevention:*** Supporting citizens in making lives healthier by improving lifestyles and reducing the incidence of disease through education, awareness and behavioral changes.
- ***Diagnosis:*** Expediting the diagnosis of chronic diseases in order to limit their severity and associated treatment costs.
- **Treatment and monitoring:** Administering care remotely through mobile-based communication technologies that support patient mobility and reduce the need to visit hospitals.
- **Stronger healthcare systems:** Enhancing clinical decision-making and improving the utilisation of physical and human healthcare resources by providing the system and staff more information and analysis.



**Total healthcare
cost savings**



Wellness and
prevention



Diagnosis



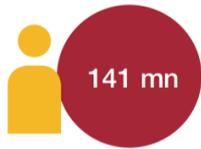
Treatment and
monitoring



Cost savings
in ADE



**Workforce to
support mHealth**



**Patients that could
improve their
lifestyles**



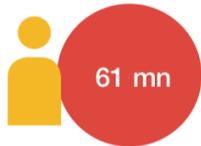
Chronic patients that
could benefit from
enhanced wellness
and prevention



Chronic and
ageing population
that could benefit
from treatment and
monitoring



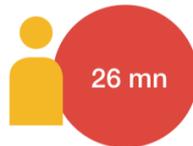
Patients that
could expedite
diagnosis



Patients with one
or more lifestyle
disorders



Patients at risk of
developing lifestyle
disorders



Ageing population

Changing roles and relationships between patients and health care providers

- Roles in the doctor-patient relationship are changing and patient participation in health care is increasingly emphasized
- e-health platforms have provided a new source of health knowledge for patients
- Doctors tackling challenges related to e-health i.e increasing number of informed patients.
- E-health affecting physician–patient relationship, as patients become more (well or badly) informed.
- Patient’s role is progressively shifting from the compliant or silent patient, to the patient who wants to take his/her own decisions.
- A collaborative decision-making process could be crucial in the development of a better patient empowerment.

Selected examples of digital systems aimed at patients e.g. EmERGE and AFYA App