### Health and inclusion in the Digital Single Market

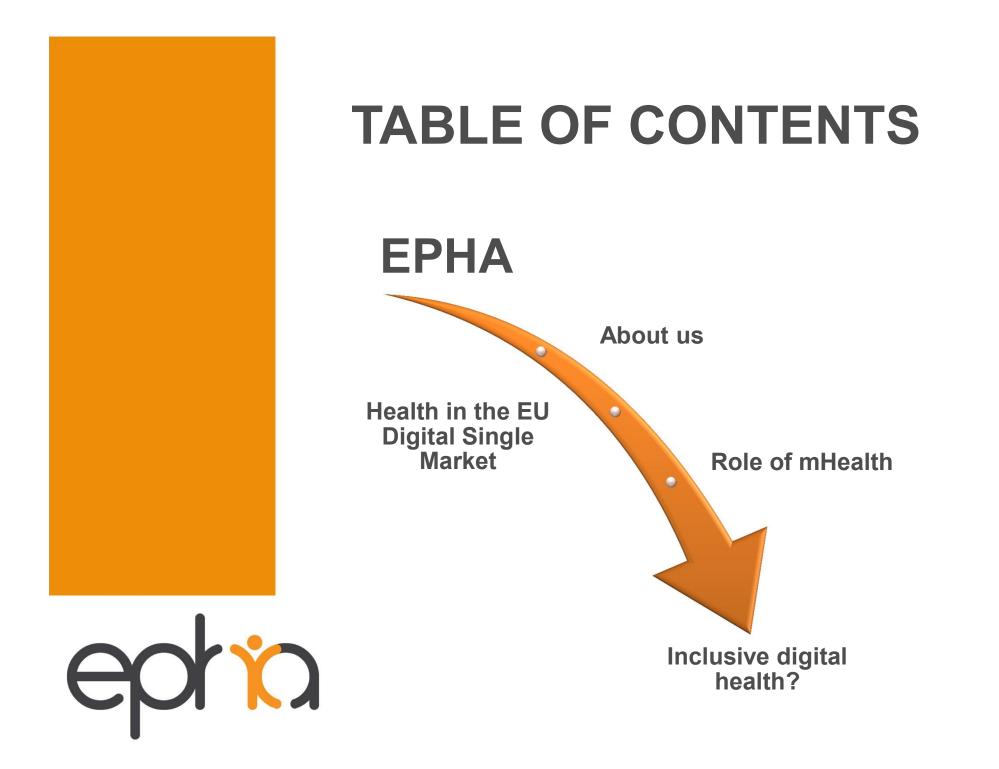


Sascha Marschang Acting Director, European Public Health Alliance (EPHA)

19 September 2018 - Sopot, Poland

european public health alliance







### WHO ARE WE ?

### MISSION

- Bring together the public health community
- Provide leadership and facilitate change
- Build capacity to deliver equitable solutions
- Improve health and reduce inequalities

PUBLIC HEALTH

VISION

- A Europe with universal good health & wellbeing, where all have access to a sustainable, high quality health system
- A Europe whose policies & practices contribute to health, within and beyond its borders

### **Common health challenges**

- > Ageing European society (20% 65+, 7% 80+)
- Growing burden of NCDs (80% of costs)
- Little spending on prevention (3% of health budgets)
- More (health) inequalities within/between countries: economic crisis, youth unemployment, globalisation, migration, etc.
- Access to healthcare
- Cross-border threats to health, e.g. AMR, infectious diseases
- Squeeze on public sector resources
- Health worker shortages
- Climate change
- > (...)







# Health & care in the Digital Single Market





#### > European Commission

- 2012-2020 eHealth Action Plan Innovative healthcare for the 21<sup>st</sup> century
- Digital Single Market Strategy
- European Innovation Partnership on Healthy & Active Ageing
- Green Paper on mHealth (2015)
  - mHealth assessment guidelines re: data quality & reliability
  - Industry Code of Conduct re: privacy & security
- Study re: Big Data in public health, telemedicine & healthcare (2016)
- Transatlantic cooperation EU/US (Roadmap)
- Cross-border Patients' Rights Directive
- Legislation re: medical devices, GDPR, clinical trials, ePrivacy, etc.



### **POLICY FRAMEWORK**

- Member States / Council of the EU
  - eHealth Network GL on ePrescription, electronic patient summary data
  - National & regional Action Plans / legislation / collaboration / projects
  - Estonian Presidency Council conclusions (Dec 2017)
- > European Parliament
  - INI Report on eHealth Action Plan (MEP Ayuso, ES)
  - Safer healthcare in Europe: improving patient safety & fighting AMR (MEP Pedicini, IT)
- > WHO European Region
  - Report on eHealth in WHO European Region (2016)











### **Digital Single Market**

- Better access for consumers and business to online goods helping to make the EU's digital world a seamless & level marketplace
- The right environment for digital networks & services Designing rules which match the pace of technology & support infrastructure development
- Economy and society ensuring that Europe's economy, industry & employment take full advantage of what digitisation offers





### **2017 State of Health Report – Key findings**

- Patient-centred data contributes to patient outcomes whilst reducing wasteful spending
- Health promotion & disease prevention pave the way for a more effective & efficient health system
- Integrated care ensures that a patient receives joined-up care. It avoids the situation (...) where care is fragmented & patients have to search their way through a maze of care facilities



# Digital Health and Care 🟻 🔊

TRANSFORMATION OF HEALTH AND CARE IN THE DIGITAL SINGLE MARKET - Hamessing the potential of data to empower citizens and build a healthier society

#### European health challenges

- 88 Ageing population and chronic diseases putting pressure on health budgets
- Unequal quality and access to healthcare services 88
- 88 Shortage of health professionals

#### Potential of digital applications and data to improve health

- 0 Efficient and integrated healthcare systems
- Personalised health research, diagnosis and treatment 0
- Prevention and citizen-centred health services 10

#### What EU citizens expect...



To access their own health data (requiring interoperable and quality health data)

#### 80%



(if privacy and security are ensured)

#### 80% agree

To provide feedback on quality of treatments

To share their health data

#### Support European Commission:

Citizens securely access their health data and health providers

(doctors, pharmacies...) can

exchange them across the EU.

Ambition:









- eHealth Digital Service Infrastructure will deliver initial cross-border services (patient summaries and ePrescriptions) and cooperation between participating countries will be strengthened. - Proposals to extend scope of eHealth cross-border services to additional cases, e.g. full electronic health records. - Recommended exchange format for interoperability of existing electronic health records in Europe.



#### Health data pooled for research and personalised medicine

#### Ambition: Actions:

Shared health resources (data, infrastructure, expertise...) allowing targeted and faster research, diagnosis and

### - Voluntary collaboration mechanisms for health research and clinical

practice (starting with 'one million genomes by 2022' target). - Specifications for secure access and exchange of health data. - Pilot actions on rare diseases, infectious diseases and impact data.



treatment.

Digital tools and data for citizen empowerment and person-centred healthcare



Actions: **Otizens can monitor their** health, adapt their lifestyle and interact with their doctors and carers (receiving and providing feedback).

- Facilitate supply of innovative digital-based solutions for health, also by SMEs, with common principles and certification. - Support demand uptake of innovative dioital-based solutions for health, notably by healthcare authorities and providers, with exchange of practices and technical assistance. - Mobilise more efficiently public funding for innovative digital-based solutions for health, including EU funding.

#DigitalSingleMarket #DigitalHealth @eHealth\_EU @EU\_Health



### Integrated care

- Involves many things, e.g. electronic patient summaries/EHRs, ePrescription, digital imaging, online patient portals, decision support systems, home care solutions, virtual consultations, electronic referrals.... (see e.g. Estonian National Health Information System)
- Allows primary & secondary prevention, early diagnosis & intervention, actively engages patients, enables collaboration / education – for the benefit of individuals, health professionals, health system managers and public health at large
- But: needs to be accompanied by appropriate legal & financial frameworks, a "culture"







# **M-HEALTH SOLUTIONS**

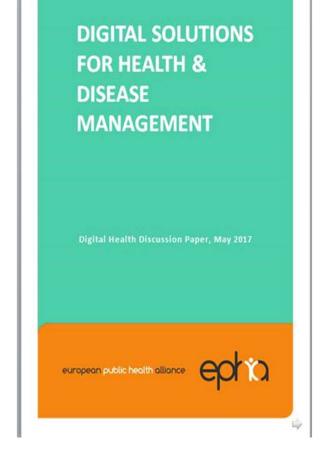




### EPHA Digital Health paper, 2017

- Pros & cons for end users, mainly mHealth
- Snapshot of experience in members' areas:
  - Diabetes
  - Cardiovascular
  - Cancer
  - Mental health
  - Healthy Ageing
  - Disadvantaged groups
- Universal vs specific benefits
- How do they make people *feel*?

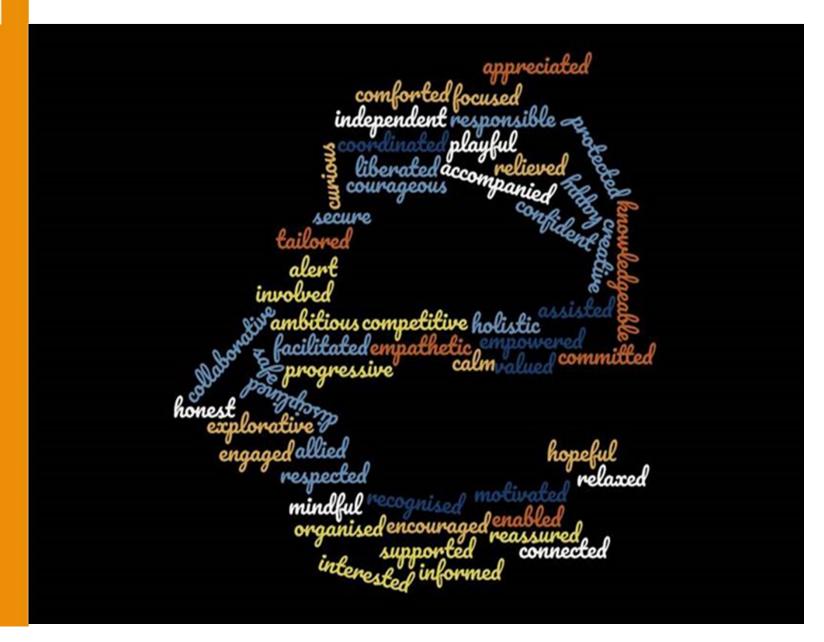






### **END USER PERCEPTIONS**

# epha Health is different





- Patients more involved in monitoring & improving their health and conditions
- Apps stimulating increased physical activity , goal-setting & competition
- Must be simple & uncomplicated, otherwise quickly abandoned
- Need to incorporate health "on the go"
- More patient knowledge = greater or lesser need for professional advice?



### **SELF-MANAGEMENT**

### Disease-specific (diabetes, cancer, cardiovascular...)

- Many difficult decisions taken every day, without support
- Daily monitoring & up-to-date data (blood glucose levels, blood pressure, etc.)
- Reminders (e.g., inject insulin, take pills) & automation to avoid drop-out
- Discipline: accurate documentation, timely & routine action
- Prevention & managing risk factors: encouraging & checking healthy nutrition, physical activity; smoking cessation (apps, wearables, sensors)
- Coaching & education: motivation, teleconsultations, product information...
- Continuous, real-time checks to reduce emergency admissions (e.g. Internet monitoring of implanted defibrillators)
- Follow-up, e.g. apps to improve patient adherence to rehabilitation programmes
- Survivorship care







- Overcoming stigma through eMental health = anonymous, available 24/7, no wait
- Support dealing with depression, suicidal tendencies, stress, addiction, etc.
- Real-time contact with qualified mental health professionals @ home
- Communication features adapted to mental/learning disabilities
- VR offering possibilities to overcome (social) phobias



### **MENTAL HEALTH**

### **Healthy & Active Ageing**

- Co-morbidities & disability, complex histories
- In & out of healthcare, dependent on family / carers
- Not "digital natives"
- Potentially isolated / resigned
- Technology can enable more active role in disease management
- Easier to see, speak, hear, move, identify objects, request help
- Independence at home (domotics, remote monitoring, AAL...)







### **Opportunities: Patients**

- Increased feeling of safety, security, community (e.g. online fora)
- Stimulate interest, enthusiasm
- Help / advice at a click
- Integration of multiple functions (video, photo, avatars, GPS..)
- Tailored features, e.g. voicegenerated, text-to-speech, 'lip reading', translation...
- Willingness to share data is high
- Demand is there / progress inevitable

- ICT creates novel competences
- PH campaigns, e.g. via SMA
- Serious gaming
- Universal access to healthcare?





### **Opportunities: Healthcare providers**

### Work-related tools and apps:

- Facilitating timely & efficient administration & workflow
- Shared records / avoiding duplication
- Reducing medication errors
- Supporting HCPs at bedside & at home
- Enabling real-time remote monitoring
- Reducing consultations / hospital stays, etc.
- Inter-professional collaboration
- Direct communication with patients / educatio
- Fostering integrated care
- Supporting crucial public health functions
- Cost effective, growing evidence that it works



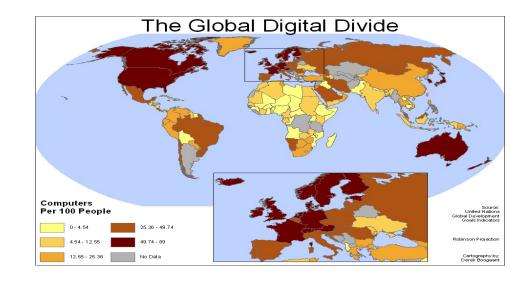


## DIGITAL HEALTH & HEALTH INEQUALITIES



### **Digital divide?**

- At least 10% of Europeans have never used the Internet
- 44% lack basic digital skills
- In 11 MS more than 20% are offline
- 37 % of Europe's workforce has only basic digital skills
- Only 57 % of people aged 55-74 use the Internet
- Highly educated individuals are regular users (96 %) vs. 60 %
  with a lower level of education
- Around 20% of Roma adults consider themselves as illiterate; 14% of Roma children don't attend school (FRA, 2012)



### Who is excluded?



- > (Working) poor & unemployed
- Homeless
- People with little or no formal education
- Persons suffering from physical / mental / learning disabilities
- Undocumented migrants
- > [Older people, children]
- > [People living in rural / isolated areas]
- Individuals / groups wishing to "opt out"
- ≻ (...)



### **Digital Health Literacy**

Digital health literacy is complex and involves a number of different *literacies* that require cognitive and behavioural competences applied simultaneously:

- basic literacy (reading, writing, speaking, numeracy)
- digital literacy (use and navigate ICT tools and Internet)
- media literacy
- health literacy (*find, understand, appraise and act upon* health info)





### Caution is the parent of safety....

- Cyberbullying
- Reputational damage / denunciation
- Profiling / data mining
- Health harmful marketing
- Fake news, dishonesty
- Fraud, identity theft
- Depression
- Online / smartphone addiction
- Extremism
- From liberation to control?

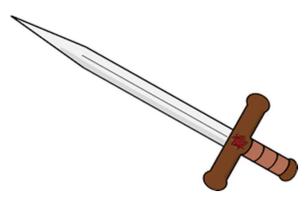




### **ONGOING CONCERNS**

• "By using digital solutions, such as wearables and mHealth apps, citizens can actively engage in health promotion and self-management of chronic conditions.

- EC COM(2018) 233 final, p.11



 "Big data in health may come from a variety of sources including social media, physical activity trackers, electronic health records, insurance claim databases, patient registries, health surveys and observational studies, provided that the requirements of the GDPR are complied with".
 EC SWD(2018) 126 final, p.36



### But...

- Cannot *replace* face-to-face contact: health is a result of individual histories
- Constant upgrades & upskilling required
- Data are never 100% safe
- Quality of information, devices & software
- Self-diagnosing & treatment can be dangerous
- Increasingly driven by non-health actors without public health objectives

#### Europeans need to decide what type of integrated health systems they want



### **ONGOING CONCERNS**

