



European Union

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Digital Orphans

What is missing from the health care service delivery?

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Leverage from
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2014–2020



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Setting the stage

- Healthcare is a complex matter – it always has
 - It has never been just about health and care, but also about power, wealth, and equality (just to name few)
- Today, healthcare is still about these issues, but also much more
 - Wellbeing, economics, society, consumerism... are all part of modern healthcare
 - Some call convergence of these aspects a healthcare revolution
- One harbinger of this revolution is technology
 - Others include societal drivers, such as the so-called “changing patient”, that has an impact on the patient-physician relationship
 - Naturally, there are economic drivers at play as well, such as the economic dependency ratio (i.e. the ratio of benefit recipients to working population)



Who will struggle?

- Not all will cope with the ongoing revolution
 - There will be individuals who will be left in the fringe of modern (ICT-mediated) healthcare delivery
 - Some will be left in the fringe due to
 - ...mental or cognitive declines, or limiting factors in their physiology
 - ...lack of skill or competence
 - ...economic reasons
 - ...attitudes and motivation
 - These individuals, who are not able – or willing – to use electronic healthcare services are called the *Digital Orphans*



Definition

Digital Orphan

“An individual who is unable, or unwilling, to use electronic services or devices in relation to one’s health or wellbeing”

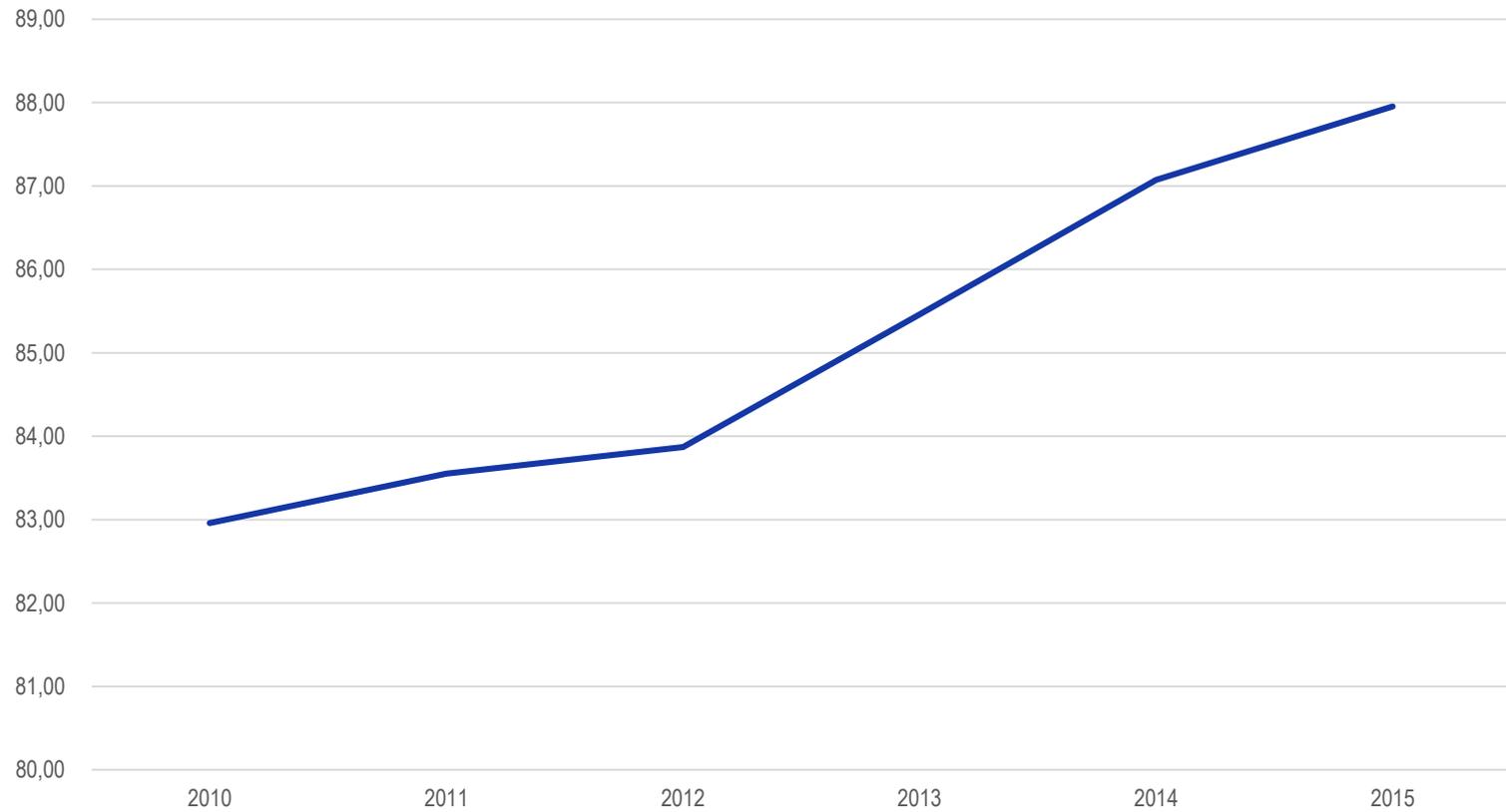


Are there really Digital Orphans?

- Digital Orphans are not individuals who belong to a specific heterogeneous demographic group (we all know at least one)
 - As such, understanding the scope of the phenomenon is a challenge
- If we look into the recent statistics by the OECD, we can make an *estimate* that will lead to a *hypothesis*

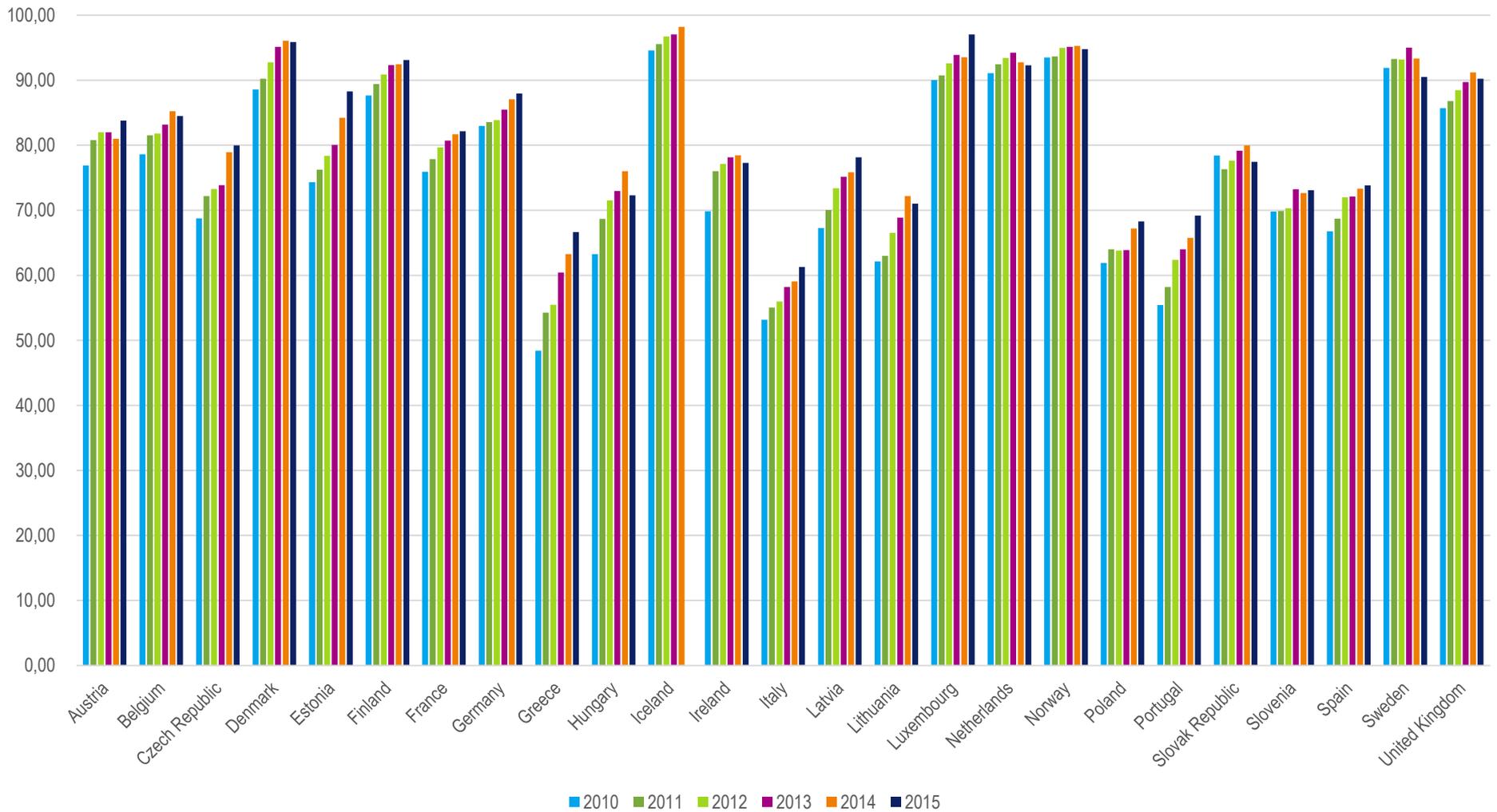


Germany
Individuals using a computer - last 3 months (%)



Individuals using a computer - last 3 months (%)

Data extracted 04 Sep 2017



The hypothesis

“In the near future (5-10 years), approximately 10 % of the population in the OECD countries is in a risk of falling into the fringe of modern health care as they are not able or willing to use the related technology”



The Counterargument

- The most common argument on Digital Orphans (and related corrective measures) is that this is a generation problem and it will take care of itself
- True to a degree but...
- ...what about the “Indians”?



*Retired hockey player Timo Jutila
in a commercial by Lidl in 2013*



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Case Denmark

- One of the most interesting case on “ICT-Indians” was in Denmark 2014
- At that time, Danish citizens were *required* to use digital self-services for a wide range of services (incl. digital letters, notices and messages from public authorities)
- By the end of 2015, approximately 90 % of the citizens had done just that
 - A huge success
- However, no-one was ready for the “ICT-Indians”
 - A number of 15-17 year old teenagers refused to use the services as they simply didn't care



Case Finland

- In a recent survey (May, 2017 by Consumer Compass Ltd.) 1.125 Finnish citizens gave their opinion on the use of (public) electronic services
 - 69 % were interested, around 20 % were enthusiastic
 - 30 % wanted to use face-to-face services instead
 - The most negative views presented on the use of public ICT services was presented by the middle-aged (men and women)
 - The younger and the older were not so critical
 - Interestingly, the age of division in Finland is 44 years (2017); after that, the attitudes and skills related to the use of ICT start to decline



What about the Digital Orphans?

- Assuming that the Hypothesis is correct and 10 % of the population in the near future will be left on the fringe of modern healthcare services, something must be done
- Education, focusing on usability issues, etc. are of importance but their impact is not immediate nor is it necessarily a positive one
- In the field of healthcare, and electronic health services, a more hands-on approach is needed



Mediators

- In healthcare, we have different intermediary roles
- These include patient advocates and case managers
 - A challenge is that these roles reside on the service provider side
- There are very few beneficiary-side intermediary roles
 - Typically, relatives and friends are up for the task
 - The problem with these roles is that they are commonly performed by a layperson; in other words, without formal training
- An alternative for this is the use of mediators - beneficiary-side experts



Mediators

- Mediators are a hybrid role; the individuals are versed in ICT and health
- Unlike in the case of patient advocates and similar roles, the mediator is a beneficiary-side role
 - This allows the role to operate “outside” the framework of duties and responsibilities (power) set by a health service provider organization
- As such, the skill requirements for the role are a mix of those common to a practical nurse, and to a tech support
- In addition, specific skills are required, such as eHealth literacy



eHealth Literacy

- eHealth Literacy
 - “The use of emerging information and communications technology to improve or enable health and health care.”
 - “The ability to seek, find, understand and appraise health information from electronic sources and apply knowledge gained to addressing or solving a health problem.”



The Counterargument

- The most common argument on Mediators is formulation of the role; do we need human mediators if we have AI (and robots) in the future
- We could use technology for mediation but...
- ... when we have artefacts that can act in emotionally challenging situations – when can a robot “walk on a thin ice”?
- Healthcare is a complex matter related to health, care, power, wealth and whatsoever but it is still about the beneficiary; the patient



Thank you!



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Want to know more? see my upcoming article "*Mediator – Enabler for Successful Digital Health Care*" available in the next issue of Finnish Journal of eHealth and eWelfare