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Institute of Health & Society

Digital health literacy

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This presentation

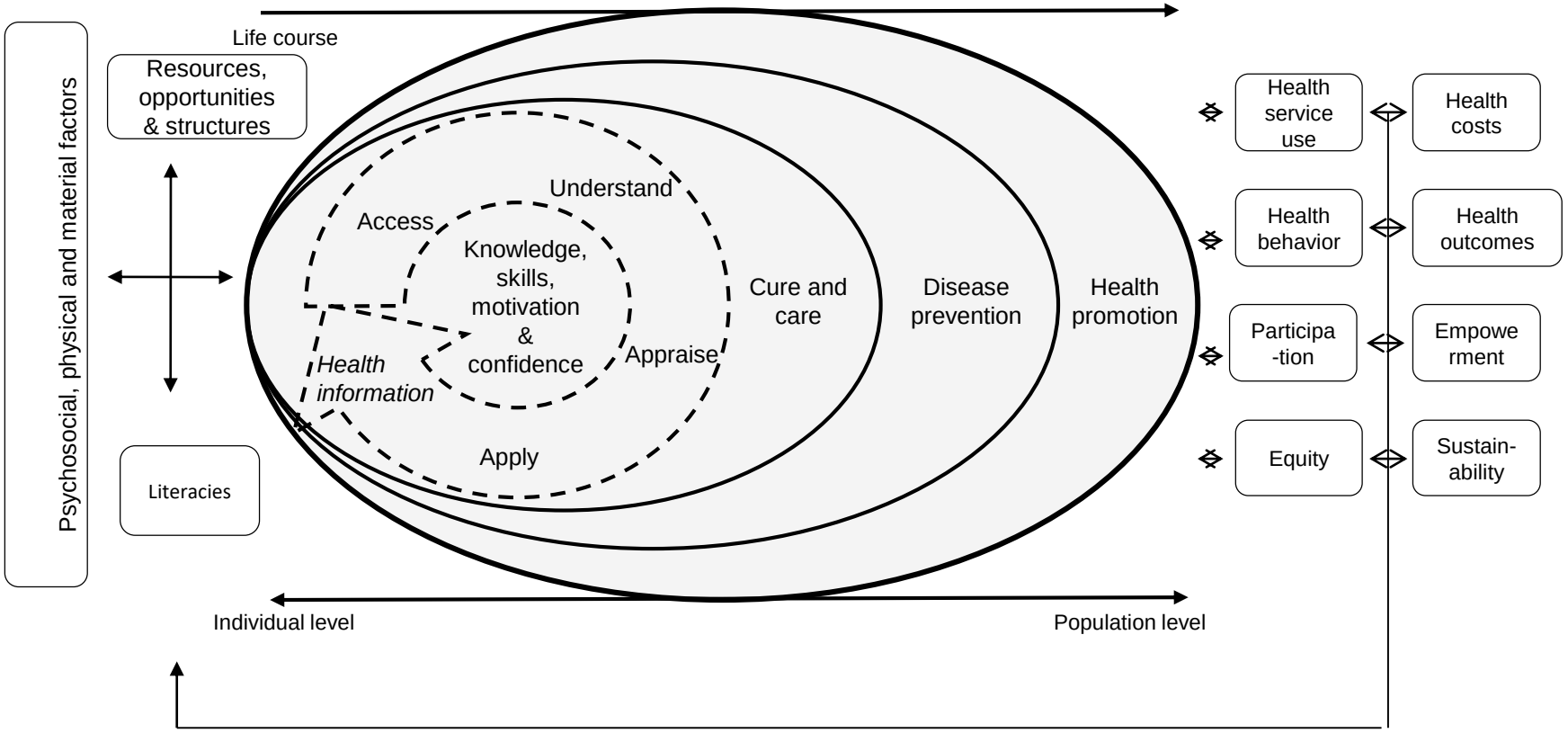
- Definitions: digital health, digital health literacy
- Models
- The possibilities brought by digital technology advances
- The digital world and social and health inequalities
- A health literacy approach to digital health: Building digital capacity
- Some thoughts

Definitions

- Digital health: '… is the convergence of the digital revolution and genetics revolutions within healthcare…empowering us to better track, manage and improve healthcare…reduce inefficiencies in healthcare delivery, improve access, reduce costs, increase quality, and make medicine more personalised.' [1]
- E-health literacy: 'the ability to seek, find, understand, and appraise health information from electronic sources and apply the knowledge gained to addressing or solving a health problem' [2]

1. Digital Health Institute: http://dhi-scotland.com/about-dhi/ 2. Norman CD, et al, 2006.

HLS-EU CONCEPTUAL MODEL



Sorensen K et al: Health literacy and public health: A systematic review and integration of definitions and models, BMC Public health, 2012

The possibilities brought by digital technology advances

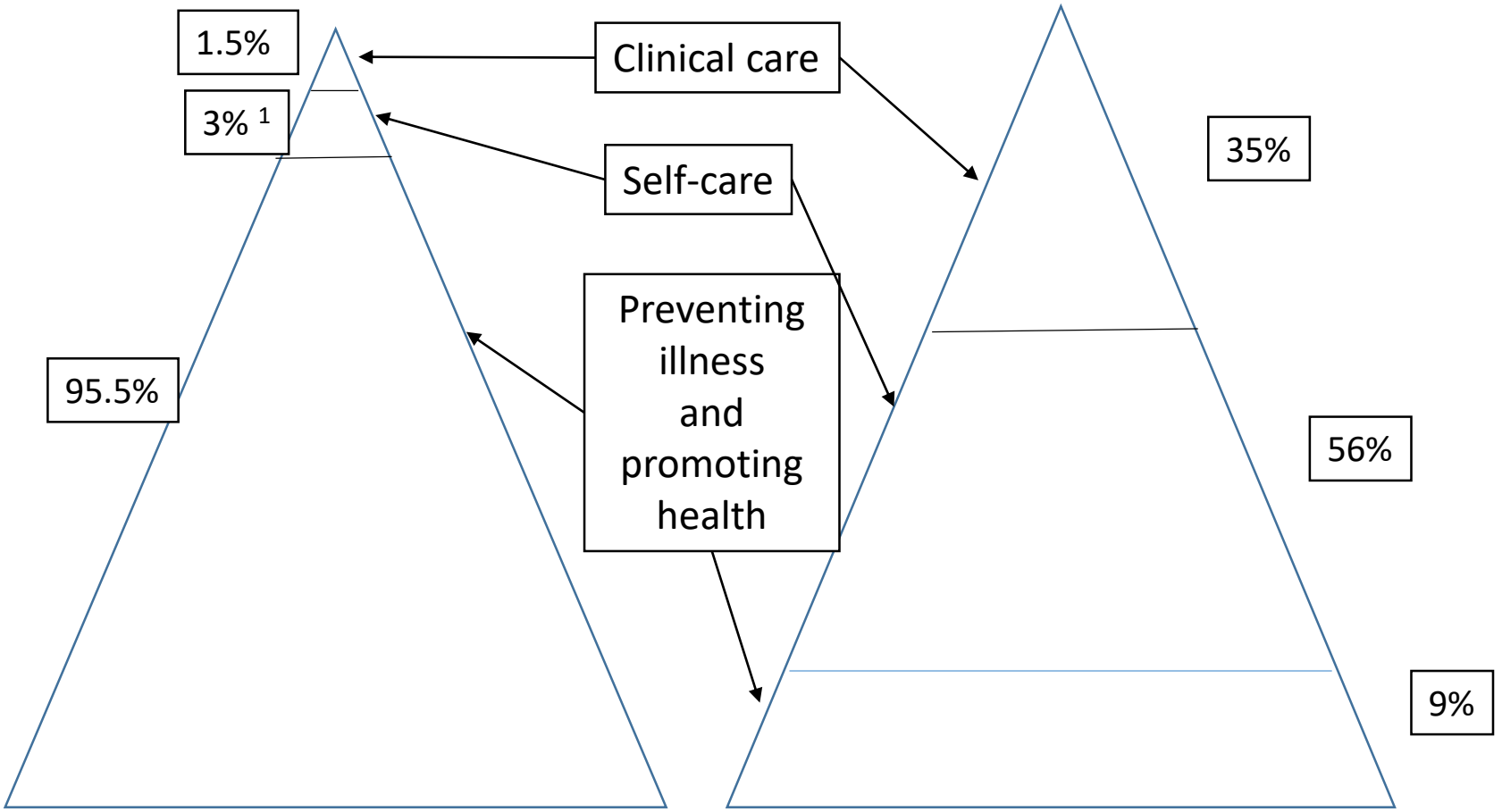
- Clinical care
  - Telemedicine (remote exchange of data between an individual and healthcare professionals e.g. monitoring of heart failure) and telehealth (remote monitoring of an individual e.g. sensors to monitor falls)
  - Higher quality and accuracy in collecting and sharing health data across platforms

The possibilities brought by digital technology advances

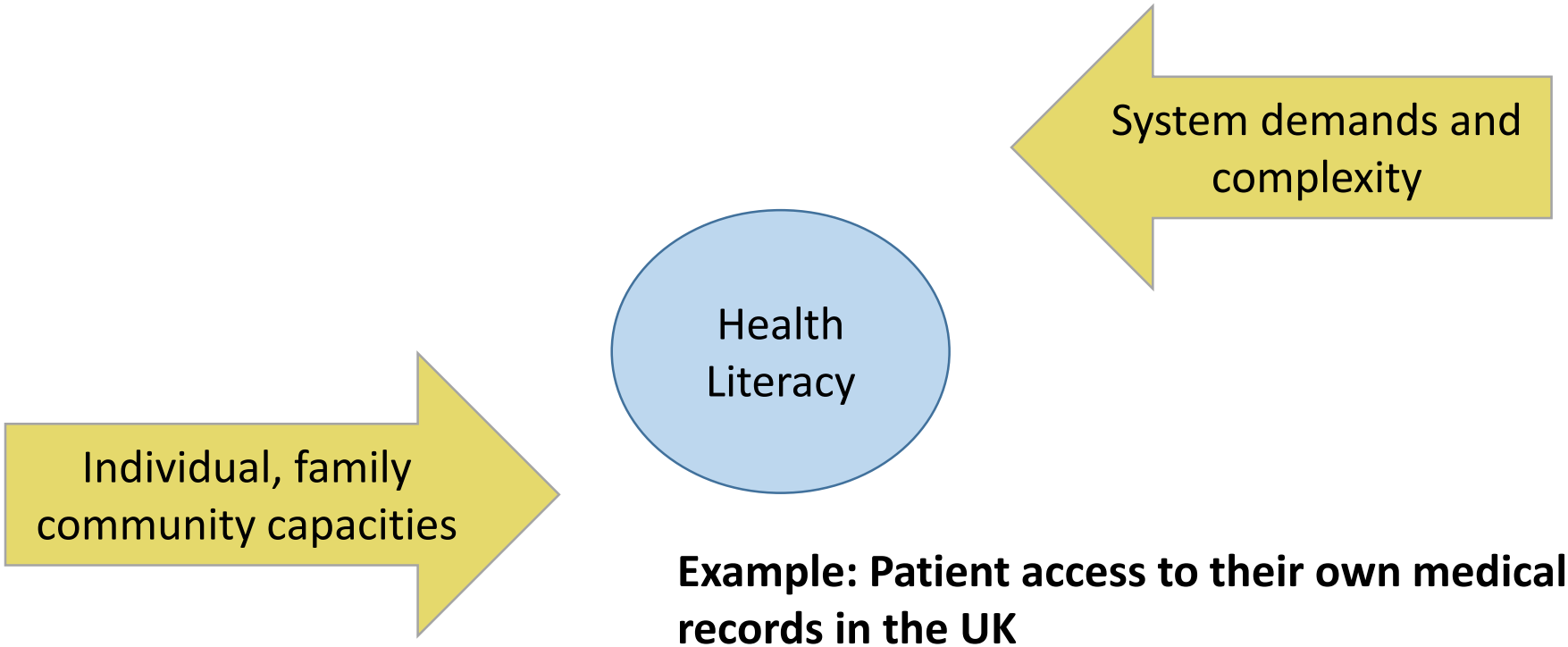
- Self-care
  - Better functionality with external access for patients, clinicians and researchers e.g.
  - Managing contacts (consultations, medication requests)
  - Access to records
  - E-health (e.g. websites) and m-health (e.g. apps)
  - Wearables (e.g. activity tracker, pulse monitoring)
- Preventing illness and promoting health
  - E-health
  - M-health
  - Wearables

Time spent on health – people with long-term health conditions

Focus of digital research and service development



1. Jonas DE et al, 2011



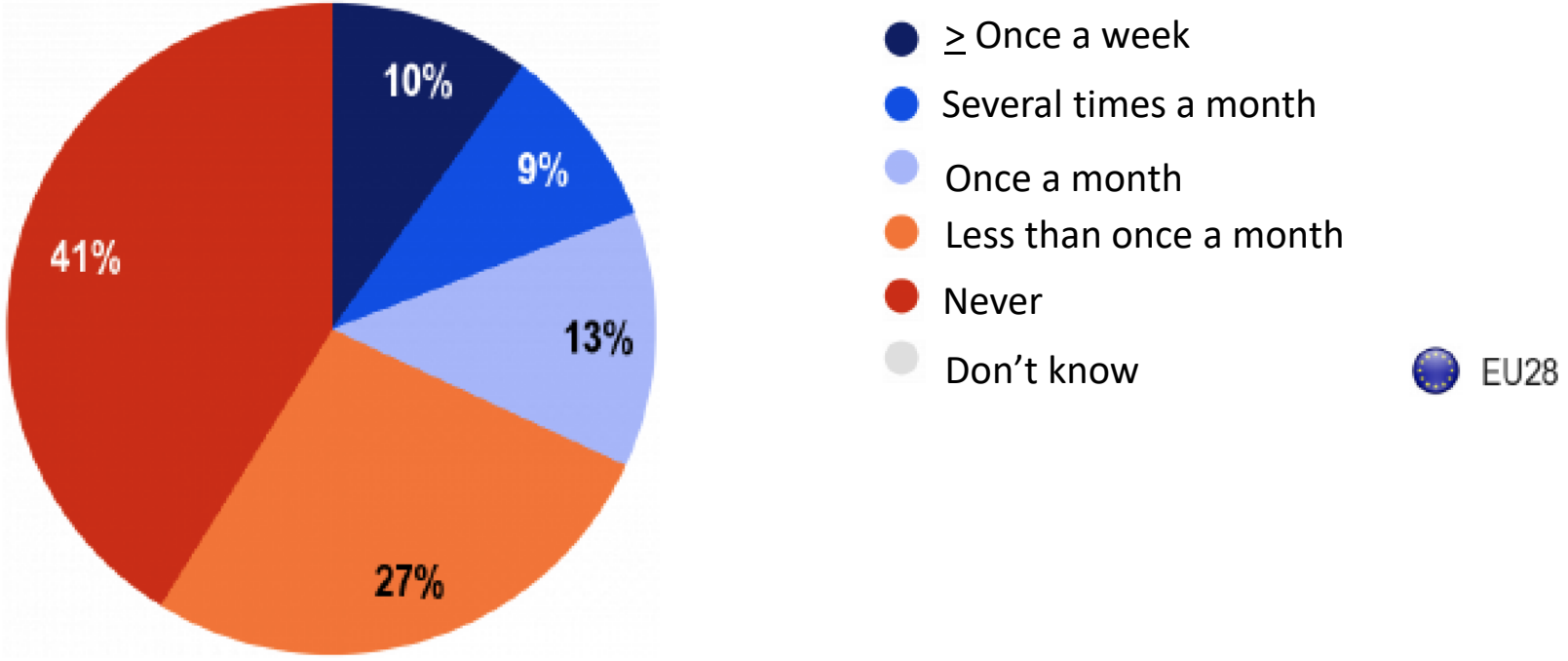
Example: Patient access to their own medical records in the UK

Capability: technology available to 92% of patients

Awareness: 5.2% of patients aware that this is available

Usage: 0.9% of patients used the service

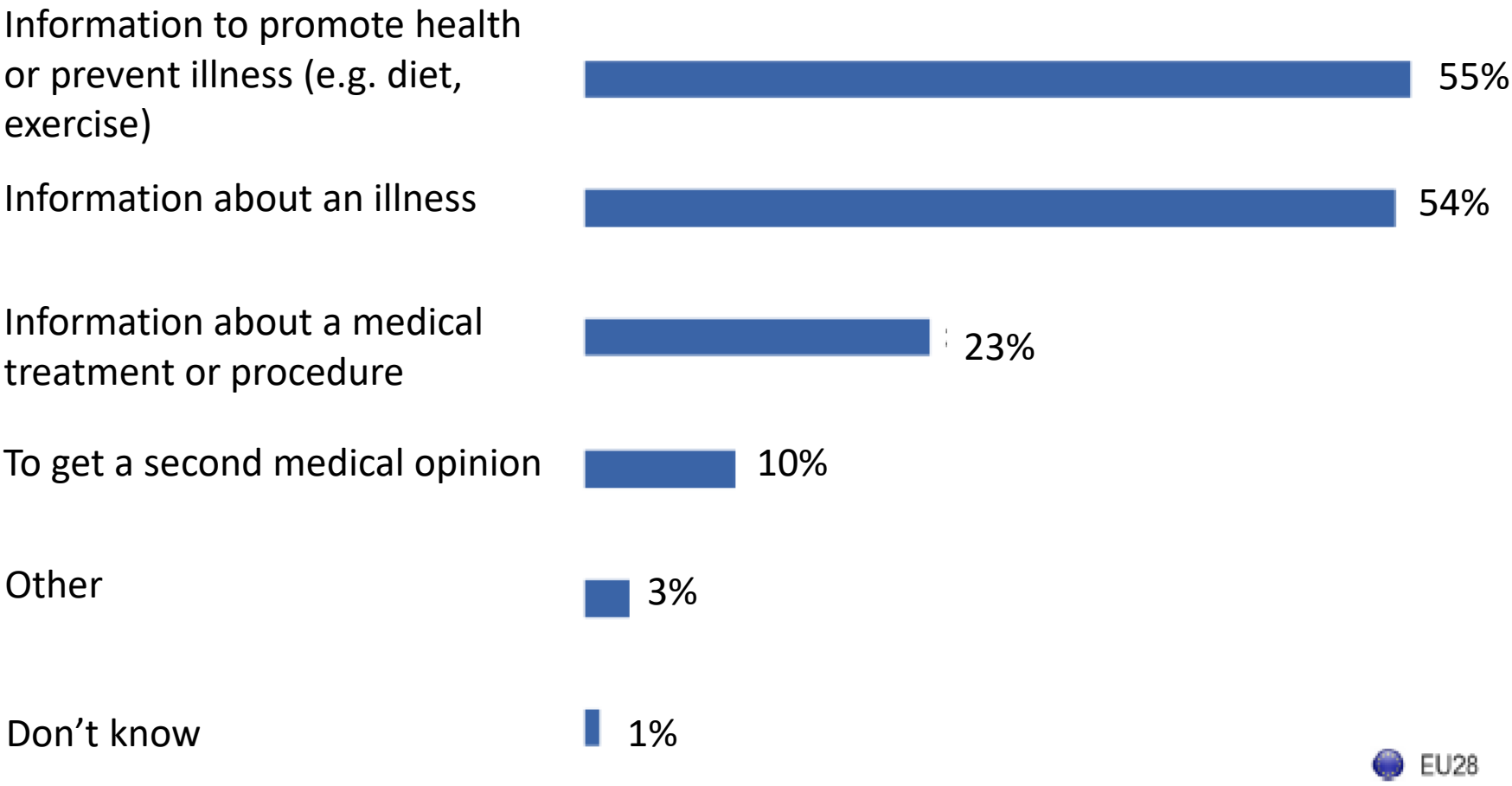
Prevalence of use of internet to search for health information (EU)



Range: Netherlands 74% to Romania 49%

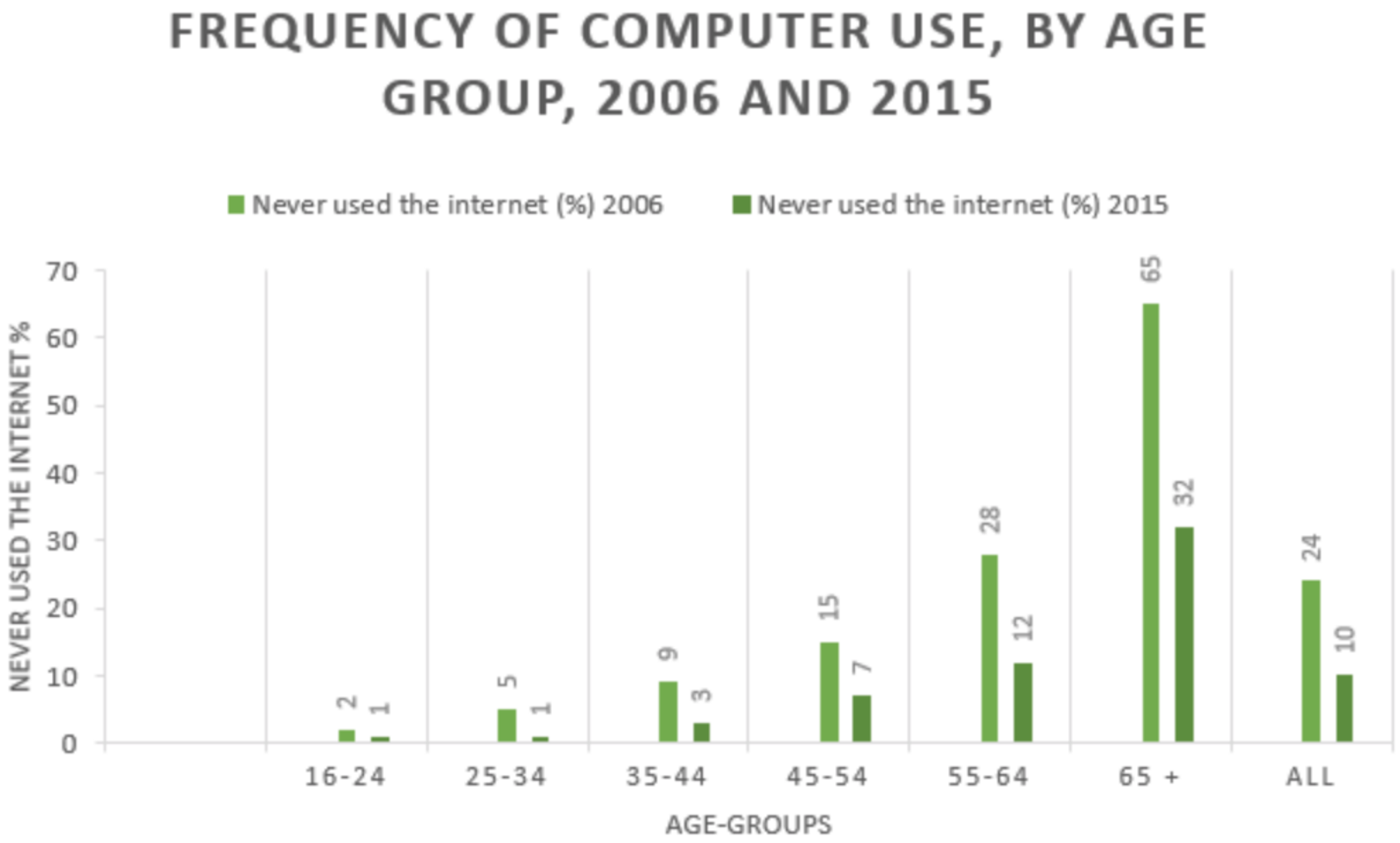
European citizens' digital health literacy. European commission. 2014

Reasons for using the internet



European citizens' digital health literacy. European commission. 2014

Social inequality and internet use



Significance (Website of the UK Royal Statistical Society)
https://www.statslife.org.uk/science-technology/2445-mind-the-gap-the-digital-divide-and-digital-inclusion

Social inequality and internet use

	Never used the internet?
No formal qualifications	55%
Degree level education	2%
Semi-routine or routine occupation	33%
Management or professional occupation	9%
Annual income less than £20,000	17%
Annual income more than £43,000	2%

Significance (Website of the UK Royal Statistical Society)
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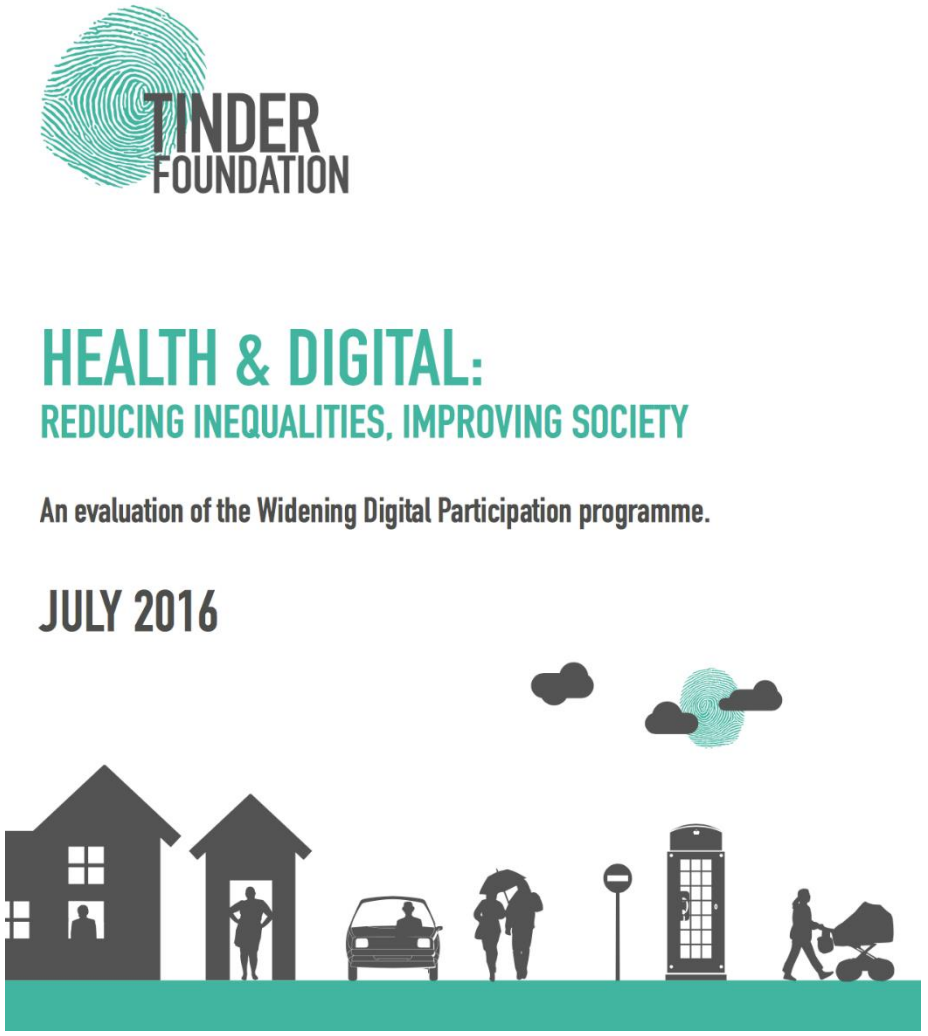
Social inequality and internet use

- Compared with people with higher health literacy, people with low health literacy are less likely to have access to the internet (Odds Ratio 10.75, 95% CI 7.08 to 16.33, p< 0.0001) or to use the internet to gather health information (OR 2.35, 95% CI 1.53 to 3.60, p p< 0.001) [1]

1. Estacio & Protheroe, 2017.

Building digital skills for health



http://nhs.tinderfoundation.org/wp-content/uploads/2016/07/Improving_Digital_Health_Skills_Report_2016.pdf

- Ran from 2013 to 2016
- Designed for ’digital muggles’ – older people, socio-economically deprived and excluded groups
- Locally embedded – aimed to develop self-sustaining momentum
- Partnerships between communities and local providers
- 221941 people trained
- 387470 additional people reached
- 8138 local Digital Champions and volunteers trained

- 56% of learners went on to find information on the internet about health conditions, symptoms or tips for staying healthy.
- 54% of learners in need of non-urgent medical advice said they would now go to the internet before consulting their GP, to look at sites such as NHS Choices.
- 51% of learners have used the internet to explore ways to improve mental health and wellbeing.

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New opportunities
With NHS Digital

www.healthliteracy.org.uk

20 Pathfinders,

over 3 years,

each lasting 1 year.

A pathfinder is a year-long experiment to design and test new ways to tackle digital exclusion in health

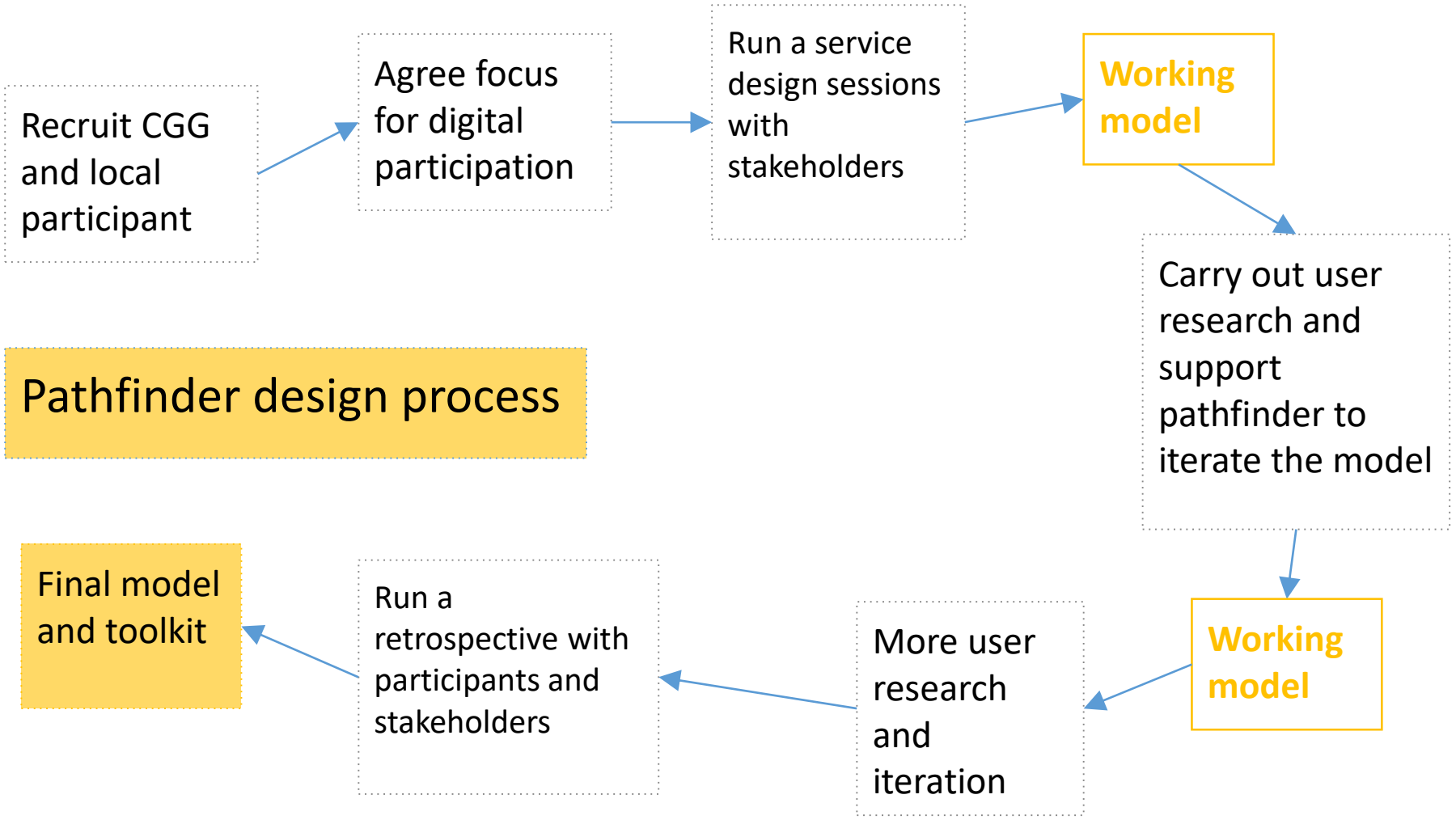
Pathfinders being recruited in different waves starting every 6 months:

1. April 2017 (Sheffield and North Central London)
2. October 2017 (Nailsea, Hastings, Stoke, Wakefield, Bradford)
3. April 2018
4. October 2018
5. April 2019

Each pathfinder

- lasts for one year with a £50,000 budget
- Is **co-designed**, working with health professionals and patients, to understand what works

Pathfinder design process



Pathfinders will need to meet some core KPIs:

Key Performance Indicator	Target
Number of **people engaged** with and supported to use digital health services and information	500
Number of **people engaged through in-depth user testing**, user insight and co-creation sessions	50
Number of **Digital Champions recruited**	60
Number of **case studies** collected	3

Identify ways to measure patient outcomes that cover:

- Increase in access to digital health services and information
- Improved health outcomes
- Reduced inappropriate use of health services
- Improved patient experience and satisfaction

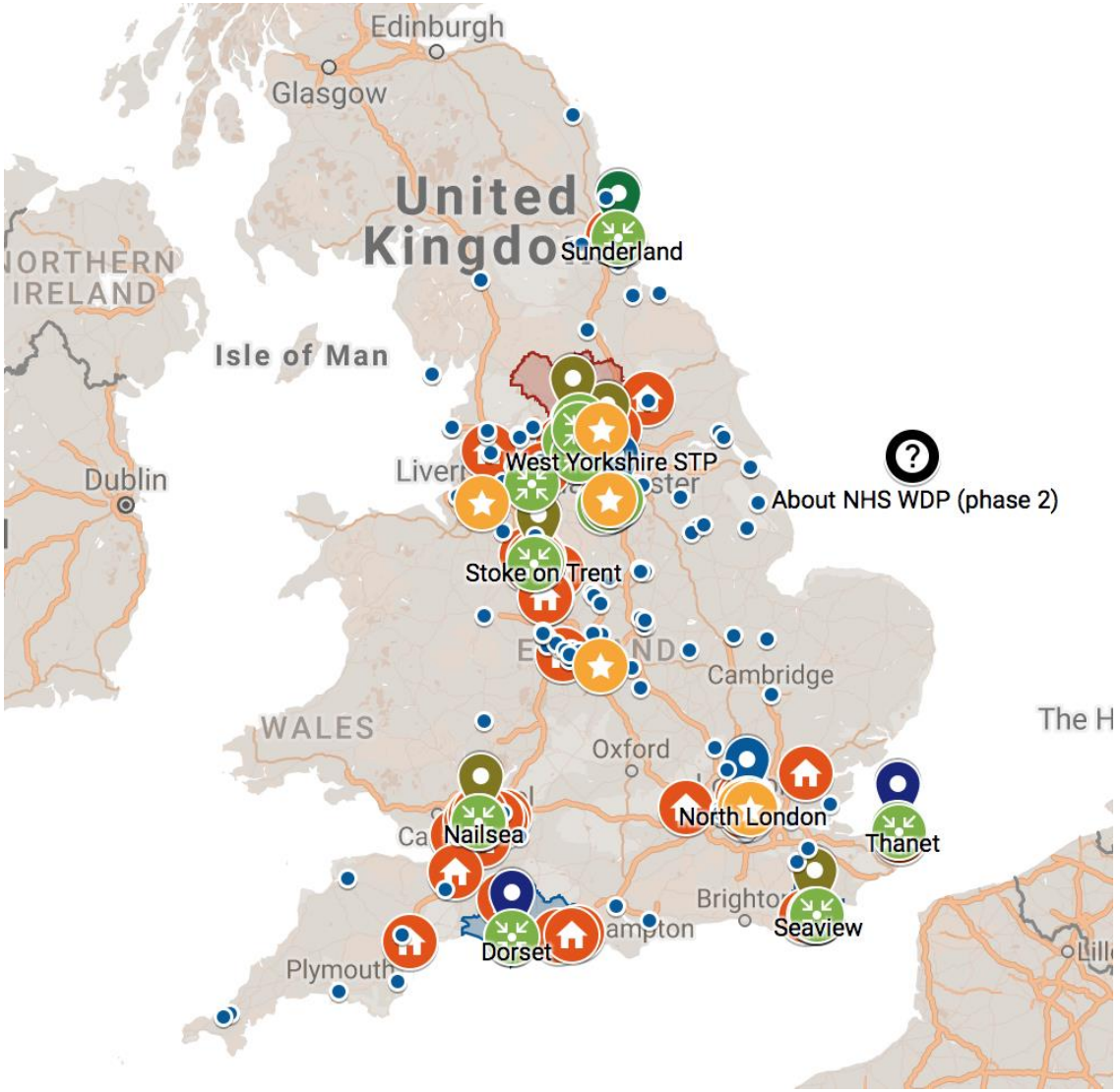
Develop new models for digital inclusion in health

Ensure scalability, adoption and sustainability

Map of pathfinder sites

https://www.google.com/maps/d/viewer?mid=1_bMCLYlp7Pqn-cMLGXJwdJji-ak&ll=52.92641967559903%2C-2.52154369268635&z=5

Map of pathfinder sites



Contacts

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Good things Foundation:

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Digital health literacy: some thoughts

- Digital technology brings many potential benefits for health, especially the prevention and treatment of NCDs
- As with many other health advances, those with the most need benefit least
- A health literacy approach can build citizens' confidence and skills to develop digital skills, and hence benefit from digital technology
- Such an approach should reduce, rather than widen, digital inequalities

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