

# Digital technology and health inequalities

*Lessons for changing health and social care systems*



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“...to take more responsibility enabled through different forms of engagement, for example using social media and digital platforms, linked to a better understanding of what influences behavior”

**DIGITAL**

## THE INVERSE CARE LAW



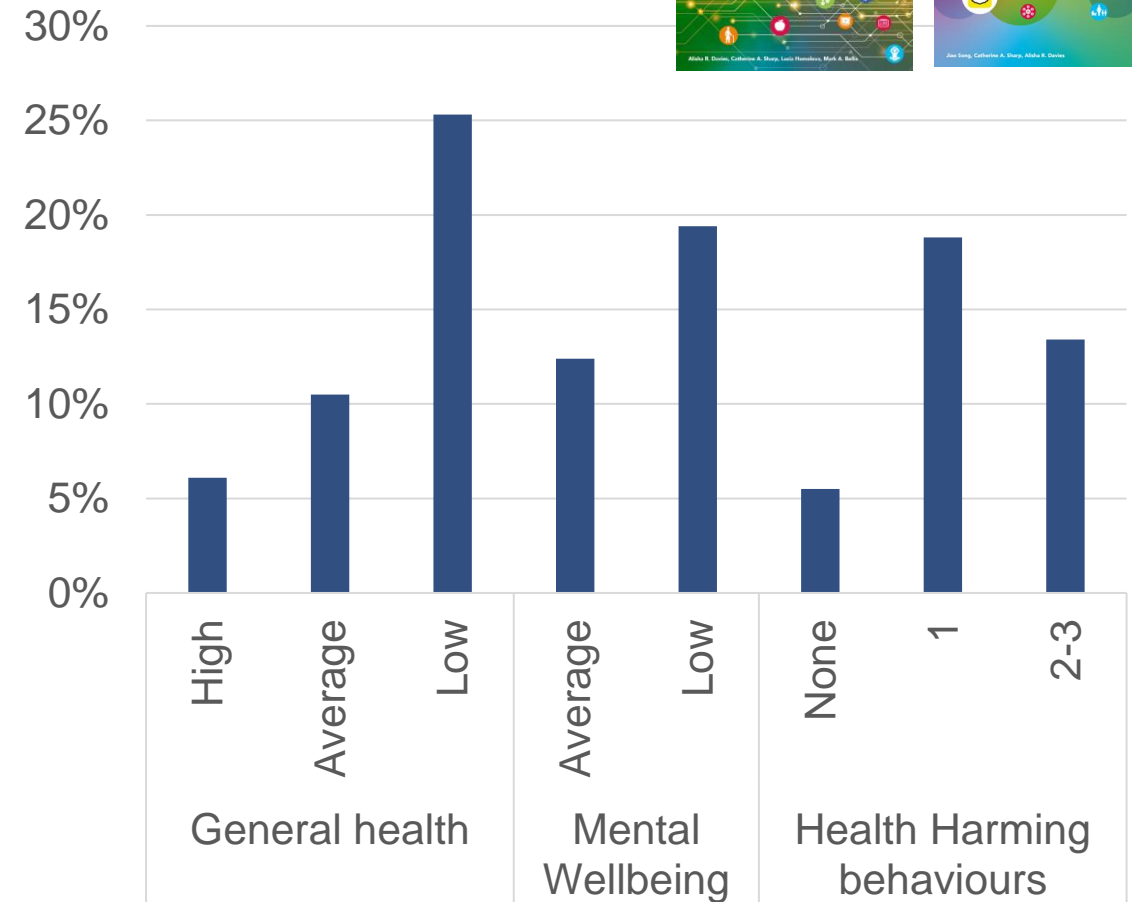
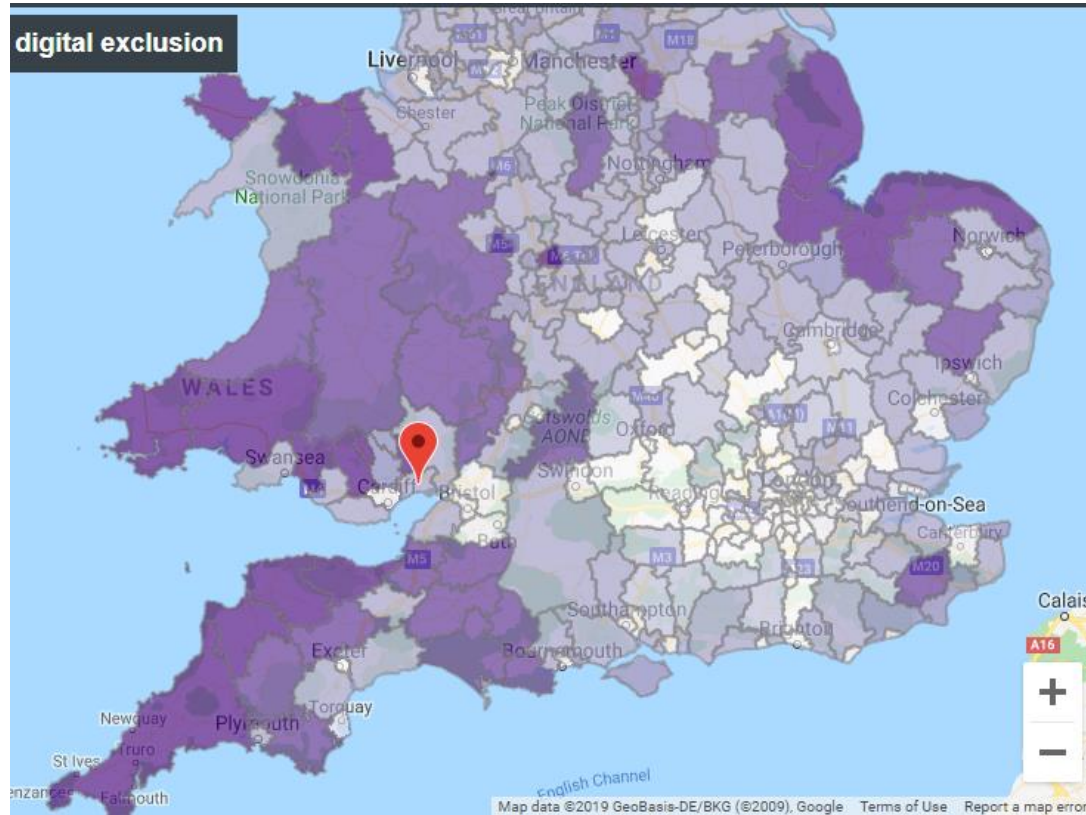
JULIAN TUDOR HART

*Glyncorrug Health Centre, Port Talbot, Glamorgan, Wales*

**Summary** The availability of good medical care tends to vary inversely with the need for it in the population served. This inverse care law operates more completely where medical care is most exposed to market forces, and less so where such exposure is reduced. The market distribution of medical care is a primitive and historically outdated social form, and any return to it would further exaggerate the maldistribution of medical resources.

# 13%

## no internet access at home - higher amongst those in poorer health



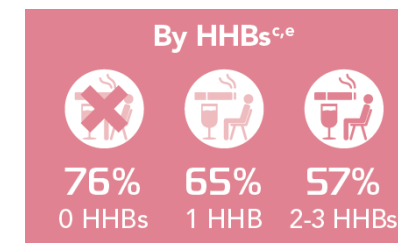
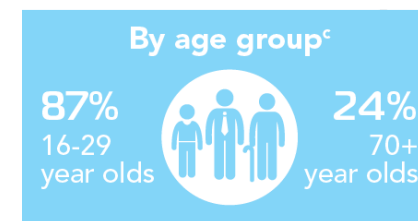
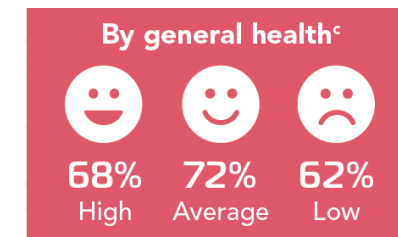
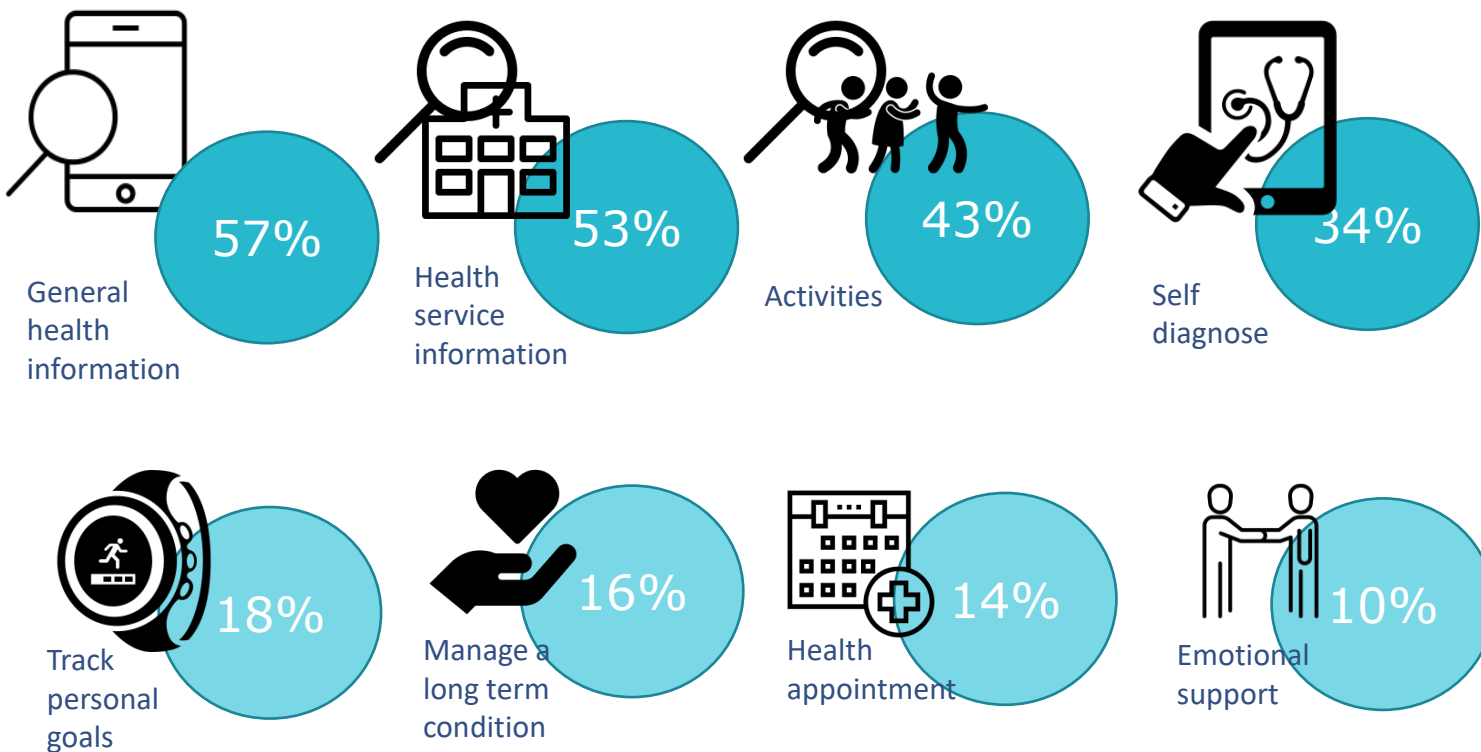
Source: TechHealth partnership heat map, 2017;

<https://phw.nhs.wales/topics/digital-technology-and-health/>

Within population sampled (unadjusted proportion)

# 66%

## use internet enabled technology to support their health – but differences by demographic and health groups

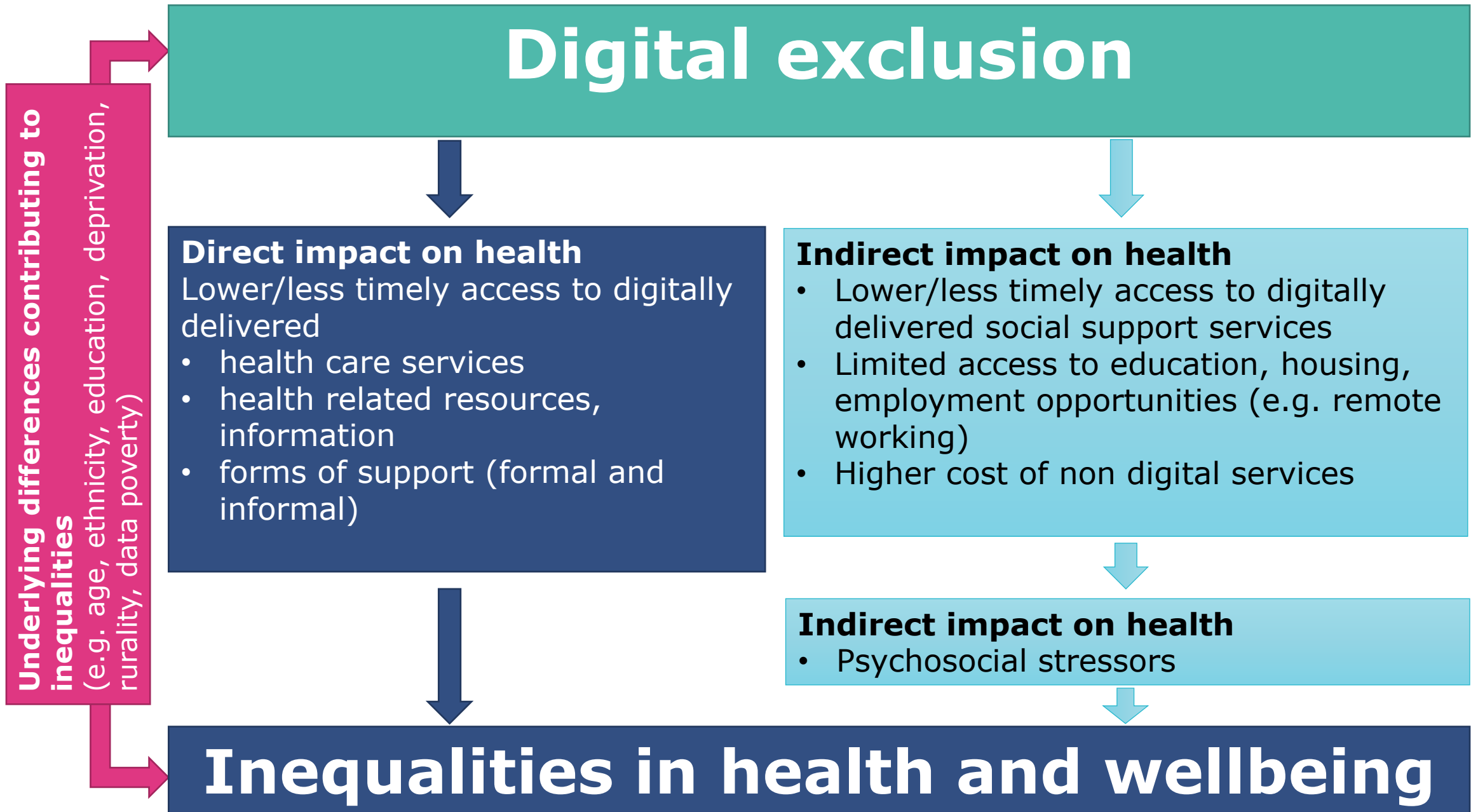


Figures are estimated marginal means adjusted for age, sex and deprivation. Multivariate logistic regression  $p < 0.05$



## 4<sup>th</sup> Industrial Revolution





Digital  
revolution



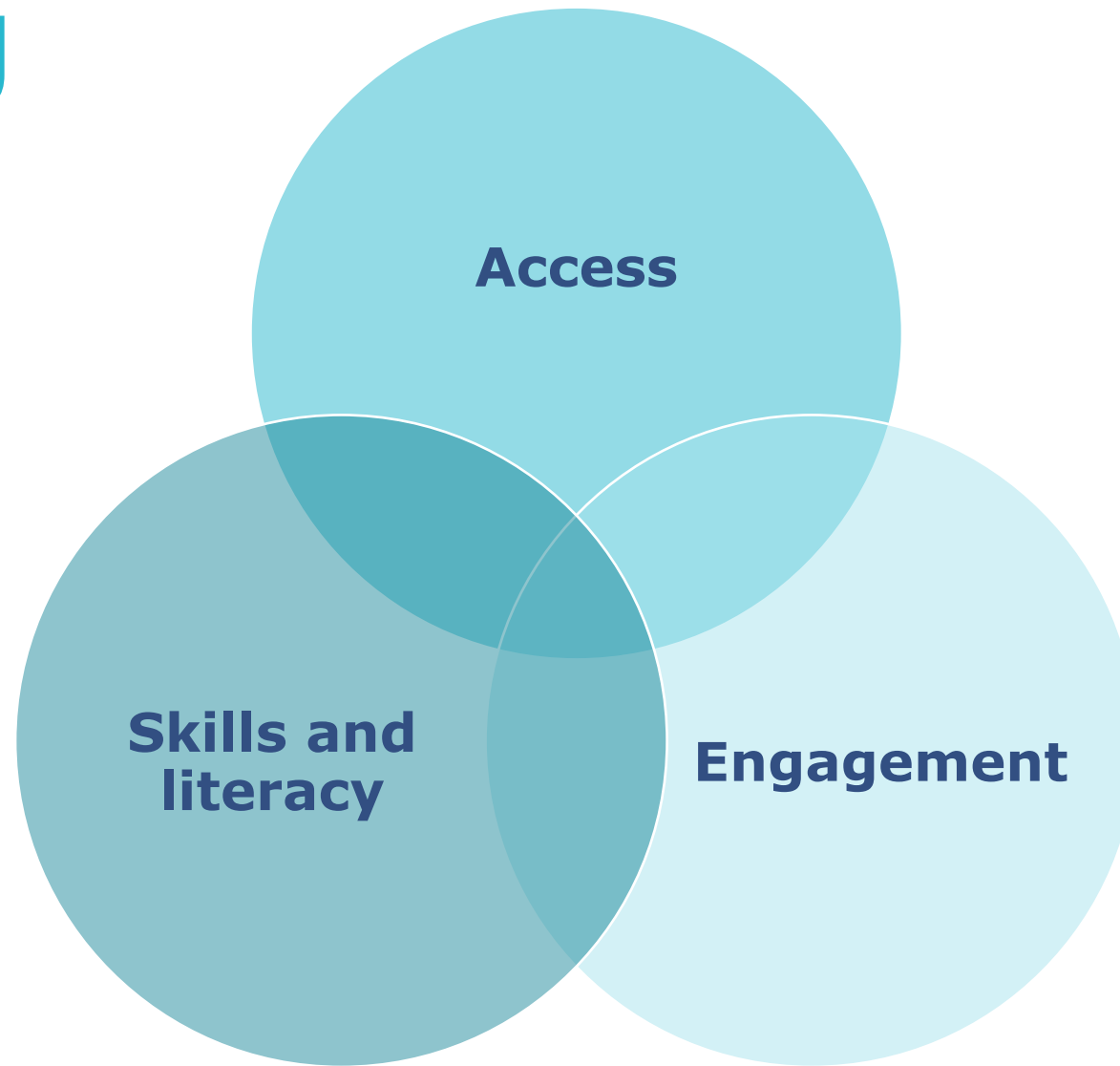
Equitable  
benefits?



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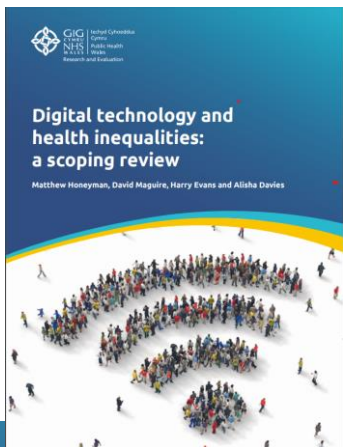
# Unlocking digital exclusion



Professional

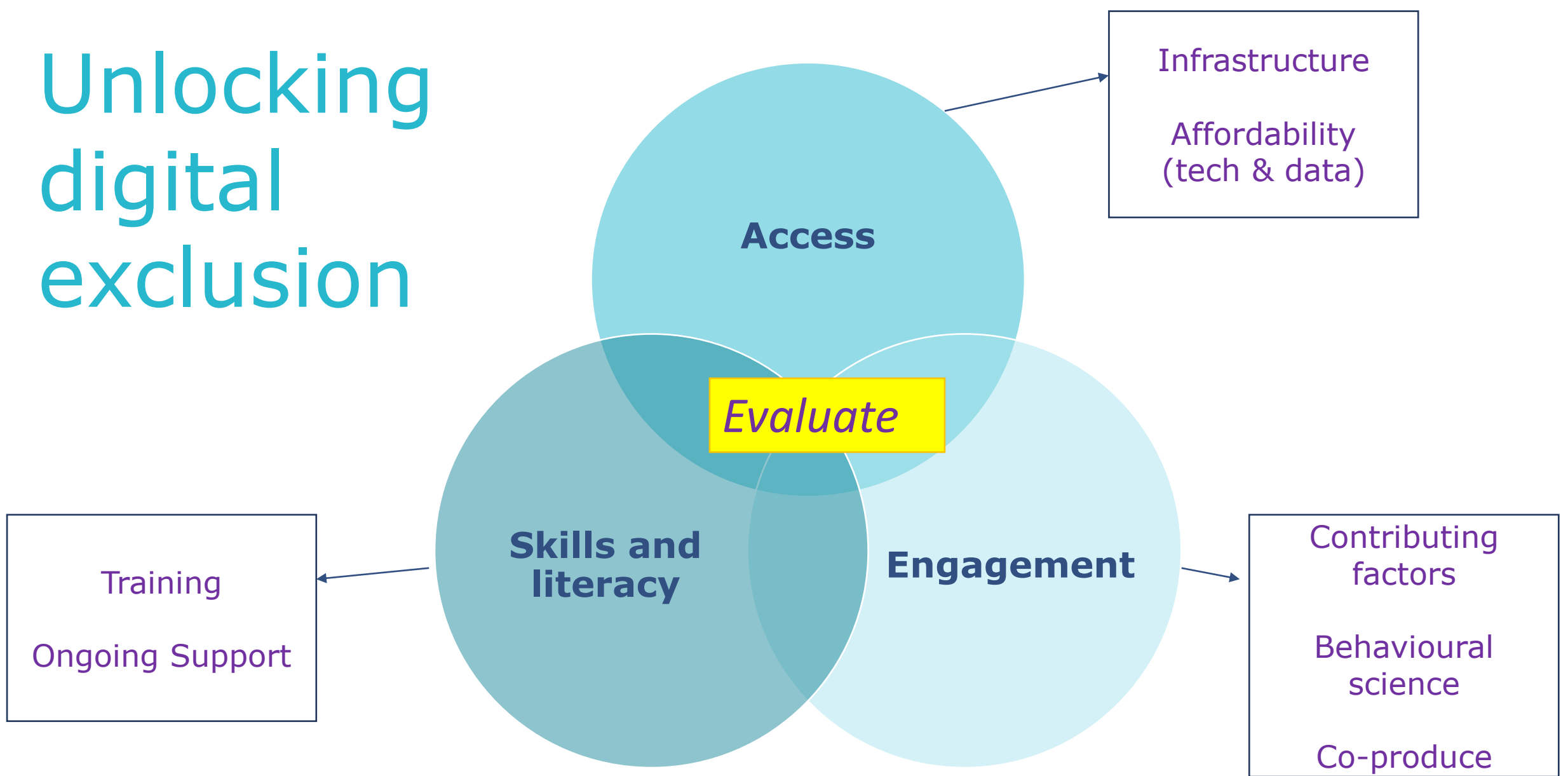


Public



<https://phw.nhs.wales/publications/publications1/digital-technology-and-health-inequalities-a-scoping-review/>

# Unlocking digital exclusion



Disadvantaged groups	Themes from literature
<b>Cross cutting</b>	<ul style="list-style-type: none"> <li>• involve users</li> <li>• tailor services and interventions to address context</li> <li>• make sure sources of information, products and services are credible to the groups involved (often, but not always 'people like me')</li> <li>• have a realistic and actionable model of how changed behaviour leads to better health outcomes.</li> </ul>
Specific groups	
<b>Low income and deprived groups</b>	<ul style="list-style-type: none"> <li>• Consider ability to afford technology and access infrastructure</li> <li>• Design for employment situations that affect when they are able to use technology</li> </ul>
<b>Ethnic minority groups</b>	<ul style="list-style-type: none"> <li>• Design culturally appropriate content</li> <li>• Tailor content to language skills</li> <li>• Recent migrant groups may also have challenges of language and geography</li> </ul>
<b>People with disabilities</b>	<ul style="list-style-type: none"> <li>• Meet accessibility standards where appropriate</li> <li>• Enable tailoring to the needs of individual users with disabilities as much as possible</li> </ul>
<b>Rural areas</b>	<ul style="list-style-type: none"> <li>• Design with an understanding of rural internet infrastructure in mind</li> <li>• Remote services can overcome distance problem in rural areas, once users are online</li> </ul>

# Digital Inclusion Guide for Health and Care in Wales

July 2019



<https://nwis.nhs.wales/files/publications/digital-inc-guide-0619-english-pdf/>



POLICY AND STRATEGY

## Digital Inclusion Forward Look: towards a digitally confident Wales

What we are and will be doing to help more people use digital technology with confidence.

First published: 10 December 2020

Last updated: 10 December 2020

<https://gov.wales/digital-inclusion-forward-look-towards-digitally-confident-wales-html#section-56791>



1. Embedding digital inclusion across all sectors
2. Mainstreaming digital inclusion in health and social care
3. Addressing data poverty as a key issue
4. Prioritising digital skills in the post-Covid economy
5. Setting a new minimum digital living standard

<https://www.digitalcommunities.gov.wales/>



Thank you

— Diolch

Merci



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# Data Poverty

Table 3: Dimensions and attributes of data poverty

Dimension	Attributes
Affordability	Data costs cannot be met without having to cut spending on other basic needs such as rent/mortgage, food, heating or clothing.
Choice	Lack of access to the open market of data services (e.g. barriers to preferential rates offered via contracts).
Infrastructure	Lack of coverage by sufficiently fast and reliable broadband or mobile infrastructure at an affordable price.
Privacy and security	Lack of private internet access – it is accessible only via a shared device or public connection.
Quantity	Lack of access to an appropriate amount of data to meet an individual's essential needs for information (e.g. health, financial, safety, democratic), services (e.g. education), support (e.g. welfare benefits) and social needs (e.g. connection with family, friends and community).
Skills	Lack of digital skills sufficient to access affordable data or understand their data needs.
Usability	Presence of additional usability needs (including language and communication needs, disabilities, and long-term conditions) which demand greater bandwidth and online support.

## Age Friendly Recovery, 2020

- “the pandemic has highlighted a stark digital divide in Wales, as well as the significant impact that digital exclusion can have on many aspects of people’s lives. This is particularly concerning given that many public bodies have been forced by the pandemic to accelerate the introduction of digital services for the public.”



# Data Exclusion, UK

<https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/articles/exploringtheuksdigitaldivide/2019-03-04#what-are-the-barriers-to-digital-inclusion>