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# Digital public health and health inequalities: a view from the UK

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# Being online enables us to participate in life

- Shop for food and essential supplies
- Keep in touch with friends and family
- Work from home
- Take part in online classes
- Apply for benefits and financial support
- Manage our own health
- Access reliable health information
- Share our health experiences

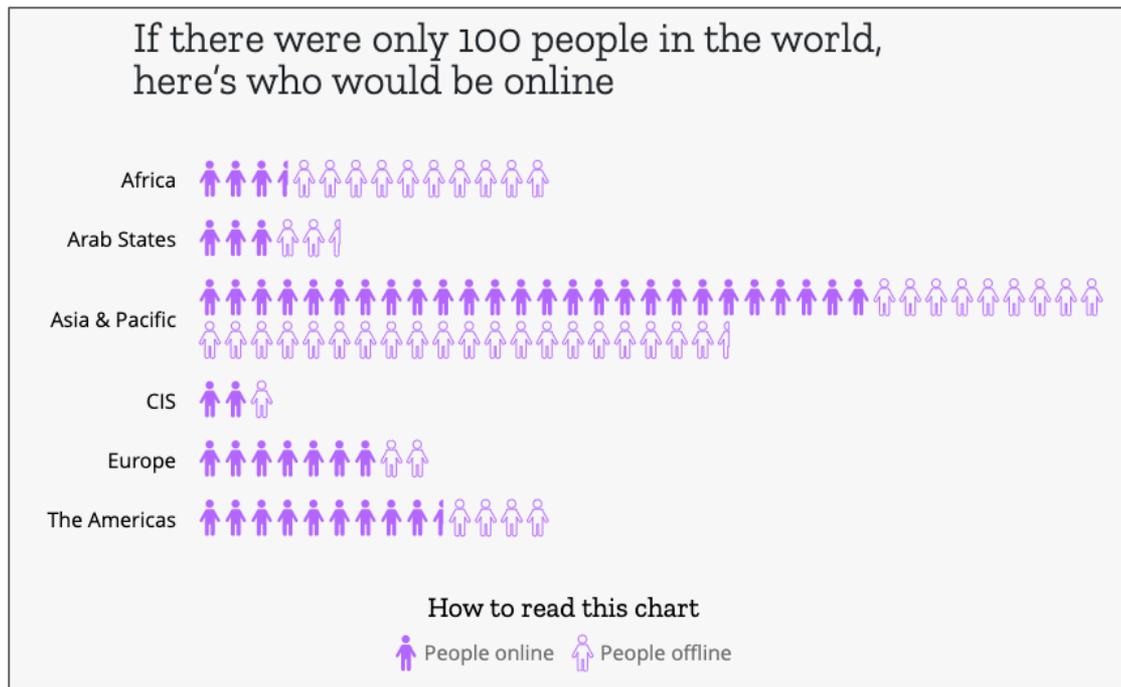


# 40% of the world is not online

4.5 billion people are active internet users

4 billion unique mobile users

But 40% of the world is not online



Global digital population 2020.  
Statista

Mozilla Internet Health Report 2019

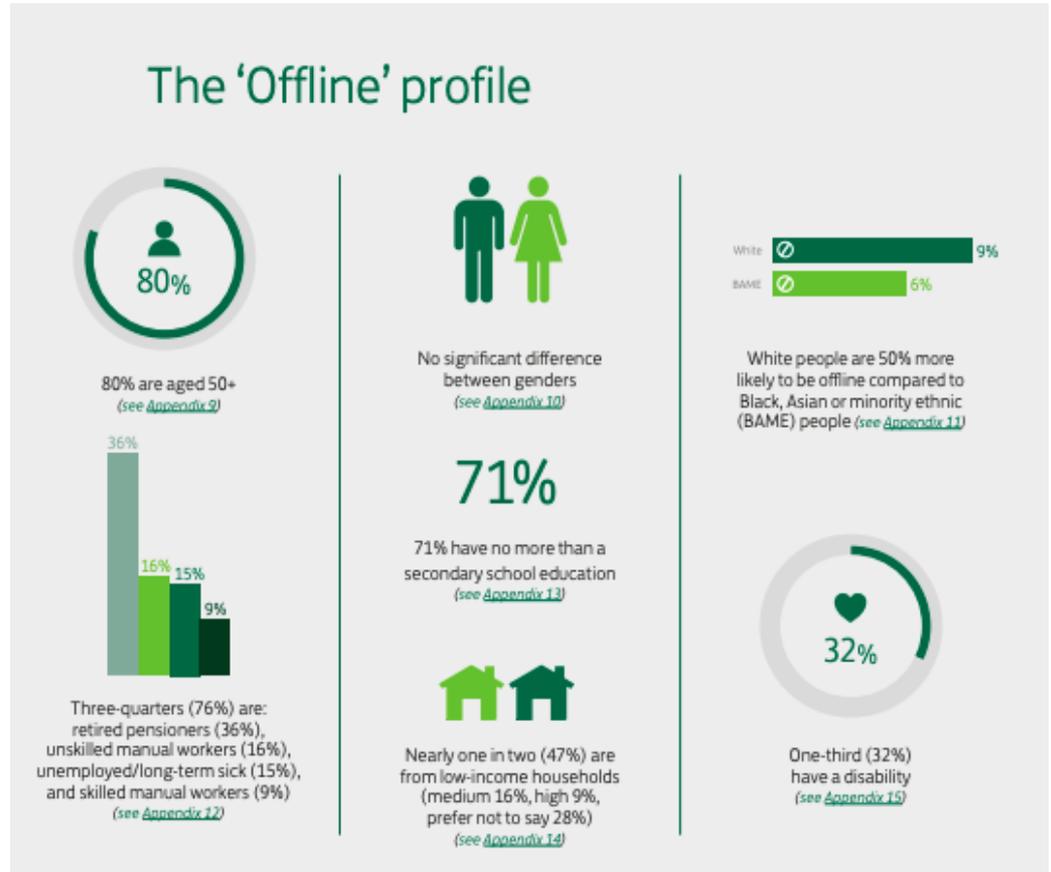
# Digital exclusion in the UK

22% of population of the UK do not have essential digital skills needed for everyday life

8% of the population are not online at all

Those who are digitally excluded are more likely to be older, have lower income, and be less educated

*UK Consumer Digital Index 2020*



# Reasons for digital exclusion

- Access
- Knowledge, awareness & skills
- Accessibility & comfort
- Motivation & perceived benefit

The data divide

Justice and equalities

Public attitudes to tackling social and health inequalities in the COVID-19 pandemic and beyond

Ada Lovelace Institute

March 2021

# Digital inverse care law

People with lower health literacy less likely to use preventative services or access treatment, have more hospitalisation & higher rates of treatment errors

As health information & services are increasingly delivered digitally we risk widening health inequalities even further

A new digital inverse care law?

## **THE INVERSE CARE LAW**

JULIAN TUDOR HART

*Glyncorrwg 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.

*Tudor Hart, J. Lancet, 1971*



# Digital public health innovations

During Covid-19 we have seen a rapid acceleration in digital public health, including:

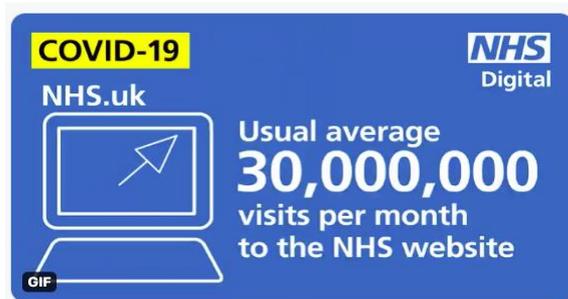
- Public information
- Rapid data gathering
- Contact tracing
- Remote access to care

We risk leaving behind those who are least likely to be online and increase rather than reduce health inequalities.

# Trusted public messaging through NHS website

People with low digital health literacy can be vulnerable to misinformation.

Promotion of trusted national source of regularly updated public health information.



# Gathering public health data

- Mobility data from Facebook, Google Maps, Apple Maps
- Rapid surveys via smart phones, social media
- Crowd sourcing infection and symptom data (eg Zoe Covid Symptom Study)
- Early adopters of Zoe app tended to be younger, female, higher economic status and live in more affluent South of country



# Contact tracing

NHS Contact Tracing App  
20m downloads

But 16% of UK population cannot carry out basic activities with digital devices, including turning on a device, connecting to wi-fi, enabling bluetooth, or downloading an app



Survey by Health Foundation (2020) found clear digital divide by age, occupation & education in public readiness to download app

# Remote access to care

- During Covid-19, majority of primary care consultations carried out remotely, including by videoconference
- Patients spared cost, stress, time and inconvenience of travel
- But those who could benefit most, including in remote rural areas and care homes, less likely to have digital access
- Digital Communities Wales providing digital devices to care homes



**1000 extra digital devices will enable the rapid expansion of digital health services in Wales**

The Wales Co-operative Centre is about to distribute the devices to care homes and hospital wards to help people in care access vital health services and stay connected, writes Derek Walker.

# Interventions to combat digital health inequalities

- Distributing **digital devices** and data SIMS to those most in need
- Training **digital champions** in communities via video conferencing
- Signposting to **digital tools and resources** including free online training
- Facilitating adoption of NHS **self management** tools and apps
- **Mapping** availability of free public wi-fi



**SUPPORTING  
DIGITAL  
INCLUSION IN THE  
FACE OF COVID-19**



# Thank you

More information:

Davies AR, Honeyman M, Gann B. (2021) Addressing the digital inverse care law in the time of COVID-19: potential for digital technology to exacerbate or mitigate health inequalities. *Journal of Medical Internet Research* 23(3) [www.jmir.org/2021/4/e21726](http://www.jmir.org/2021/4/e21726)

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