Bridging the gap: Tackling health inequalities in data driven health systems

BMJ Future Health Conference

Josh Keith
Assistant Director of Data Analytics
The Health Foundation

Mavis Machirori
Senior Researcher
Ada Lovelace Institute

BMJ Future Health Conference

Bridging the Gap: Tackling Health Inequalities in Data-Driven Health Systems

#BMJFH

futurehealth.bmj.com

Our session

Our objectives:

- Uncover compelling evidence on the effects of data-driven health systems on health disparities.
- Cultivate a shared understanding of practical steps to reduce these inequalities.
- Highlight the crucial role of prioritizing health equity in policy-making, development and deployment of digital health technologies.

Structure:

- Evidence from our research partnership
- Reflections from clinical practice and national policy
- Discussion and Q&A with our panellists

Our speakers

Mavis Machirori, PhD
Senior Researcher
Ada Lovelace Institute

Dr Lia Ali
Clinical Advisor
NHS England

Evidence from our research partnership

Ada Lovelace Institute

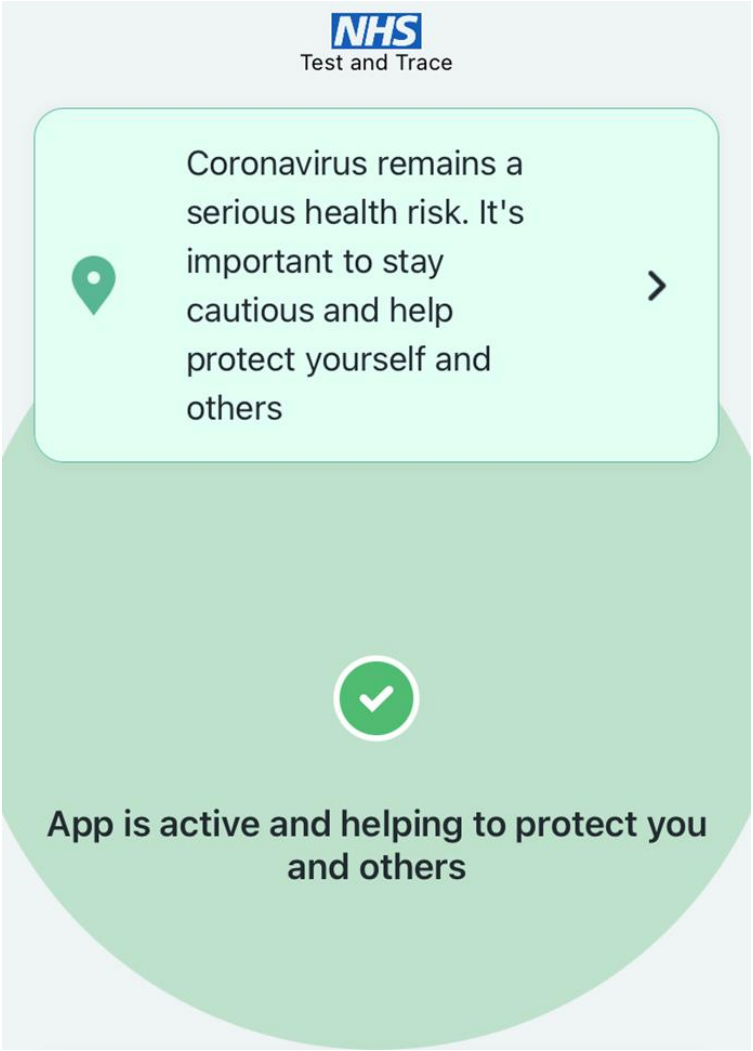
BMJ Future Health

Independent research institute and deliberative body with a mission to ensure data and AI work for people and society

Background

Data-driven systems (DDS) and health and social inequalities

- The increasing use of technologies to respond to societal concerns → data-driven interventions
- Paradigm shift and ‘digital surge’ in tech adoption
- Health inequality is being exacerbated by digital exclusion
- Great potential to design more inclusive and accessible approaches to health technologies



Project summary

How has the accelerated adoption of data-driven technologies and systems during the pandemic affected inequalities, and what are the implications for health and social care looking forward?

Objectives

- To **develop the evidence-base** around the interaction between data-driven systems and inequalities in health

- To **build a shared understanding** of what action is needed to reduce health inequalities

- **Encourage prioritisation of health inequalities** in the design of policy and in the development/use of data-driven systems.

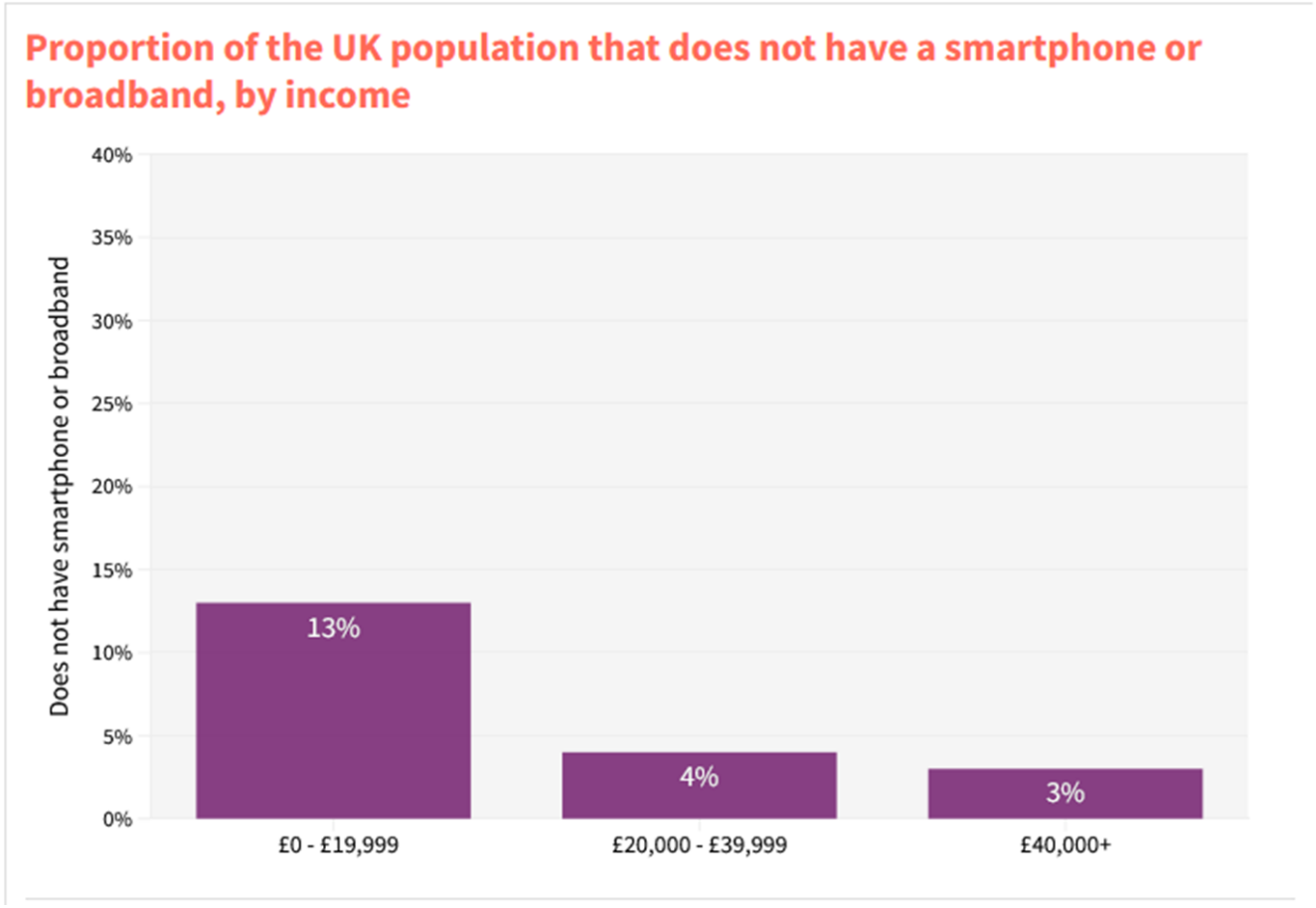
Methods (1)

Workstream 1

Public attitudes survey

- 2,032 UK adults
- mental and physical health apps,
- symptom tracking apps, digital contact tracing apps and vaccine passports

The Data Divide

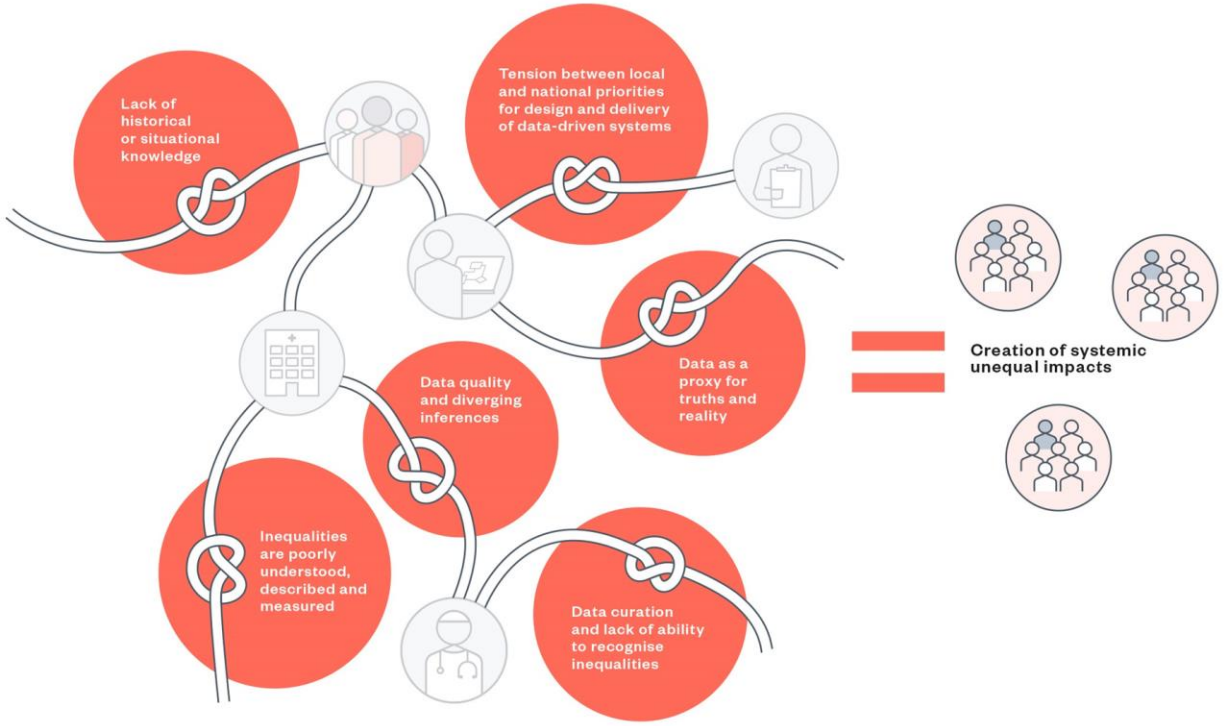


Methods (2)

Workstream 2

- Desk-based research of data-driven tech and stakeholder interviews
- OpenSAFELY
- Genomics England & GenOMICC
- NHSD and PHE – Covid19 Dashboards and Early Warning Systems
- Q-Covid Algorithm and Shielded Patient List
- Dr Doctor
- Babylon Health – Covid19 Care Assistant, Ask A&E, GP at Hand

A Knotted Pipeline



Methods (3)

Workstream 3

- Regional lived experience ethnography
- APLE Collective (Addressing Poverty through Lived Experience)
- Digital health technologies

Access Denied

Challenge 1

Digital exclusion compromises patients' experience of or access to medical care.

- Digital exclusion also leads to gaps in data: if you cannot participate, your experiences are not recorded and technologies are not designed with you in mind.

Challenge 2

Developers and procurers of digital health services often **do not establish clear metrics** for what success looks like around health inequalities before a service is rolled out.

- Impacts are also not monitored, understood and mitigated after a service is rolled out.

Challenge 3

People experiencing health inequalities **don’t feel confident about how their data is being used or protected** by health and care organisations and national NHS bodies.

- They may therefore be less inclined to participate in digital technologies, as they may not perceive that they will benefit them.

Challenge 4

At national levels, commissioners, developers, analysts and procurers of digital health services often **lack important social context in data needed** to understand the complexities of people's healthcare needs.

- As a result, they may fail to design and deploy their technologies to suit those needs.

Challenge 5

Communication between different actors in the health data ecosystem is fragmented – better coordination could improve datasets and quality of insights.

- Working in siloes, teams may adopt processes, or procure software and platforms, that hamper system changes that would otherwise enable nuanced responses to local concerns about inequalities.

Digital health services

Not considering people's experiences

- 'The systems themselves are quite exclusionary, you know, because I work with people with experiences of multiple disadvantages and they've been heavily, heavily excluded because they say they have complex needs, but what it is, is that **the system is unwilling to flex** to provide what those people need to access those services appropriately.' Addressing Poverty with Lived Experience

For more information

Anna Studman

astudman@adalovelaceinstitute.org

Mavis Machirori

mmachirori@adalovelaceinstitute.org

Reflections from clinical practice and policy

Discussion and Q&A