

Embedding participatory approaches to Al ethics in healthcare

October 2022



What the NHS AI Lab AI Ethics Initiative does



Invest in research and practical interventions that could strengthen the ethical adoption of AI within health and care.

Complement and strengthen existing efforts to validate, evaluate and regulate Al-driven technologies.

Al Ethics - A responsible approach





Patient-centred



Inclusive



Impactful

How Al Ethics Initiative makes an impact



Al in Health and Care Awards

Skunkworks

Al Imaging

Al Regulatory Programme

Al Ethics Initiative

The Ethics Initiative focus



1



Striving for health equity

2



Building confidence in clinical use of Al 3



Governing the use of data for Al

Striving for health equity





Understanding and enabling opportunities to use AI to address health inequalities

Assessing the acceptability, utilisation and disclosure of health information to an automated **chatbot** for advice about sexually transmitted infections in minoritised ethnic populations

I-SIRch - Using artificial intelligence to improve the investigation of factors contributing to adverse maternity incidents involving Black mothers and families

Optimising datasets, and improving Al development, testing, and deployment

Ethnic differences in performance and perceptions of Al retinal image analysis systems (ARIAS) for the detection of diabetic retinopathy in the NHS Diabetic Screening Programme

STANDING together (STANdards for Data INclusivity and Generalisability) - Develop standards for datasets underpinning Al systems, to ensure they are diverse, inclusive

Building confidence in clinical use of Al





Health Education England

Developing appropriate confidence in Al among healthcare workers

- We have explored the factors influencing healthcare workers' confidence in AI technologies and how these can be addressed through education and training
- This project will inform an iterative skills and capabilities framework developed by Health Education England and the University of Manchester that will support and empower healthcare professionals to make the most of AI



Strengthening accountability for Al through 'trustworthiness auditing'

- We are collaborating with the Wellcome Trust and Sloan Foundation to support the Oxford Internet Institute (OII) with developing the necessary evidence base and tools to assess and enhance the efficacy of AI accountability toolkits used in health and care
- The OII research team will ultimately produce a 'meta-toolkit' for trustworthy and accountable AI that comprises technical methods, best practice standards, and guidelines

Governing the use of data for Al





Improving how decisions about data access are made

- We have partnered with the Ada Lovelace Institute to design a model for an Algorithmic Impact Assessment (AIA)
- The AIA is being trialled from spring 2022 as part of the data access process for national medical imaging assets



Honing approaches to data stewardship

- We have partnered with Sciencewise (UKRI) to hold a public dialogue on data stewardship models
- The dialogue will inform which model(s) we should invest in developing and refining through further research, with reference to national medical imaging assets

Structure of the public dialogue – a recap

Workshops 2 and 3: Different approaches to data stewardship (delegated, collective, individual) Workshop 1: Purpose of the Benefits · Downsides and risks dialogue · Real world constraints What is health data Exploration of trustworthiness for AI? Scenarios designed to bring to life the different approaches What is Al What is Data Stewardship? **Outcome:** Through the lens of scenarios, these workshops **Generating Values** will generate an understanding of how people negotiate and Principles trade offs and tensions between delegated, collective and individualised approaches to data stewardship. **Exploring** Deliberating

Workshop 4: Co-production

Play back of analysis of group discussions to inform:

- a set of cross-cutting principles
- the basis of a set of draft specific principles relating to the three approaches to data stewardship (delegated, collective, individual)

Outcome: Participant principles which can feed into the TOR for the research competition

Co-producing

Project Outputs

- Creation of a <u>Stakeholder</u> <u>Network</u> & Scoping Workshop
- 2. Creative stimulus materials (those which represent the benefits and risks associated with different data stewardship approaches and some data stewardship scenarios)
- 3. Interim stakeholder briefing and interim findings of dialogue (PowerPoint)
- 4. Full and final <u>Sciencewise</u> report
- 5. <u>Stakeholder workshop</u> for full and final findings



Questions or areas to explore within the research competition

1

The feasibility and cost effectiveness of implementing the proposed models

2

The need for transparency about individual data rights and involvement mechanisms

3

The importance of ensuring equitable involvement and inclusivity

4

Creating and managing a collaborative dynamic between the public, patients, specialists and independent organisations

5

Exploring ways to enable broad, diverse and ongoing participation in collective and individual approaches

6

Ensuring the Five Safes framework is adhered to and complements the decision-making models being used





What is the AI Ethics Initiative working towards?



- Make evidence-based policy recommendations and produce guidance on ethical assurance for AI in health and care.
- Final output will bring together disparate research projects as part of a cohesive narrative about how we can meaningfully put ethics into practice in the public sector and embed these principles when AI is used as part of clinical pathways.
- This will include recommended changes to processes about how decisions are made internally as well as in relation to data for AI