

# Embedding participatory approaches to AI 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 AI-driven technologies.



**Patient-centred**



**Inclusive**



**Impactful**

# How AI Ethics Initiative makes an impact



**AI in Health  
and Care  
Awards**

**Skunkworks**

**AI Imaging**

**AI  
Regulatory  
Programme**

**AI Ethics Initiative**

1



**Striving for  
health  
equity**

2



**Building  
confidence in  
clinical use of  
AI**

3



**Governing the  
use of data for  
AI**



## 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 AI development, testing, and deployment

Ethnic differences in performance and perceptions of AI 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 AI systems, to ensure they are diverse, inclusive



*Health Education England*

## Developing appropriate confidence in AI 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 AI 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



## 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

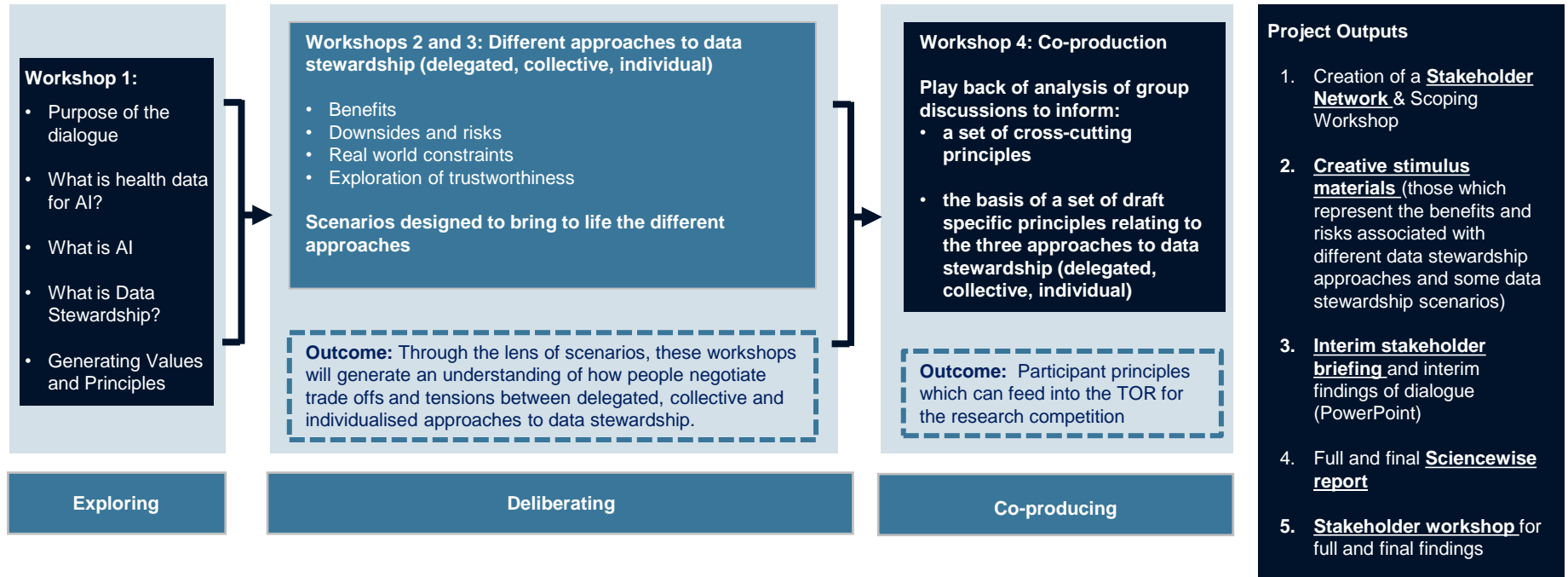


## Honing approaches to data stewardship

- 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



# 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