THE LANCET
Digital Health

Supplementary appendix

This appendix formed part of the original submission. We post it as supplied by the authors.

APPENDIX

	Total	UK	US
	n (%)	*n* (%)	*n* (%)
Total	3194	2080 (100.0)	1114 (100.0)
Gender			
Male	1563 (48.9)	1009 (48.5)	554 (49.7)
Female	1631 (51.1)	1071 (51.5)	560 (50.3)
Age			
18-24	356 (11.1)	234 (11.3)	122 (11.0)
25-34	557 (17.4)	336 (16.2)	221 (19.8)
35-44	549 (17.2)	347 (16.7)	202 (18.1)
45-54	444 (13.9)	324 (15.6)	120 (10.8)
55+	1289 (40.4)	839 (40.3)	450 (40.4)

Table S1: **Profile of the sample population**

Figure S1: **Citizens' perception of usefulness of access to their EHRs**
For complete data, see appendix pp 4–5.

a) Respondents who stated it is/would be useful to have access to their EHRs, by country (%)
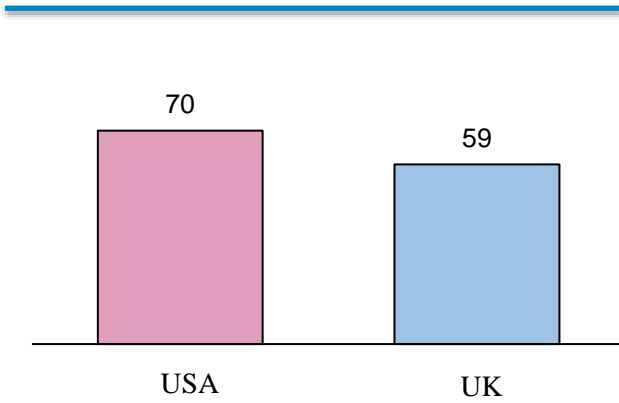
c) Respondents who stated it is/would be useful to have access to their EHRs by age, USA (%)
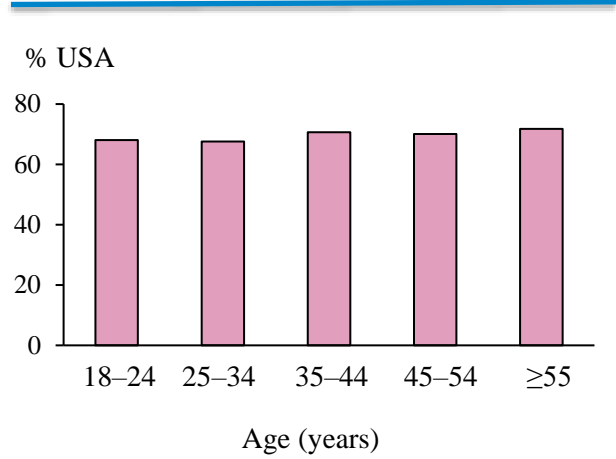
b) Respondents who stated it is/would be useful to have access to their EHRs, by country and gender (%)
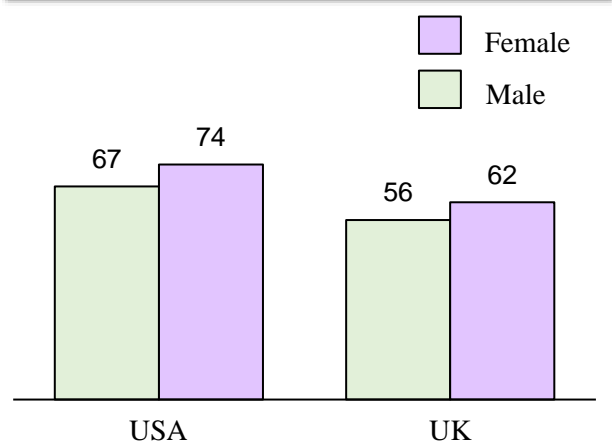
d) Respondents who stated it is/would be useful to have access to their EHRs by age, UK (%)
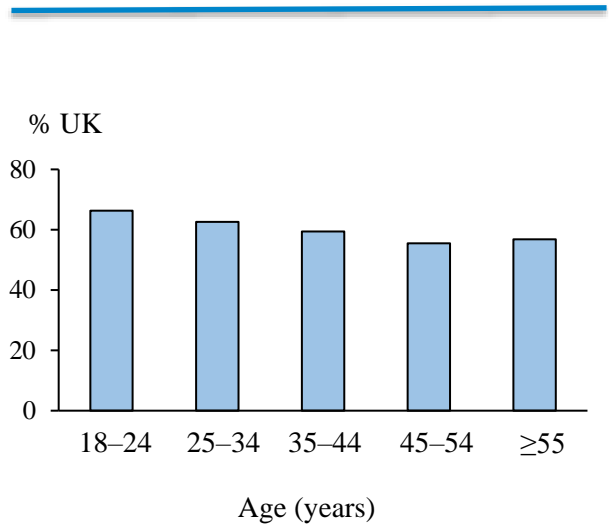
Figure S2: **Citizens' willingness to receive advice on their healthcare from an AI robot assistant, without input from a doctor/nurse, by country and age group (%)**
For complete data, see appendix pp 4–5.

a) Respondents that stated they are happy to receive advice on their health care, by country and source of advice (%)

b) Respondents that stated they are happy to receive advice on their health care from an AI robot assistant, without input from a doctor/nurse, by country and age group (%)

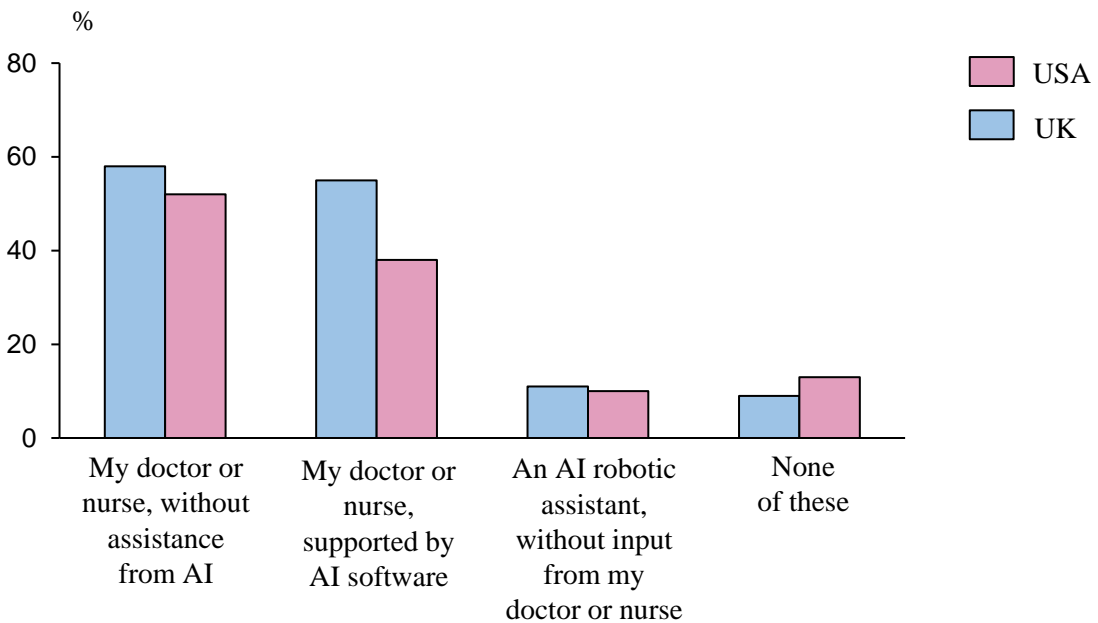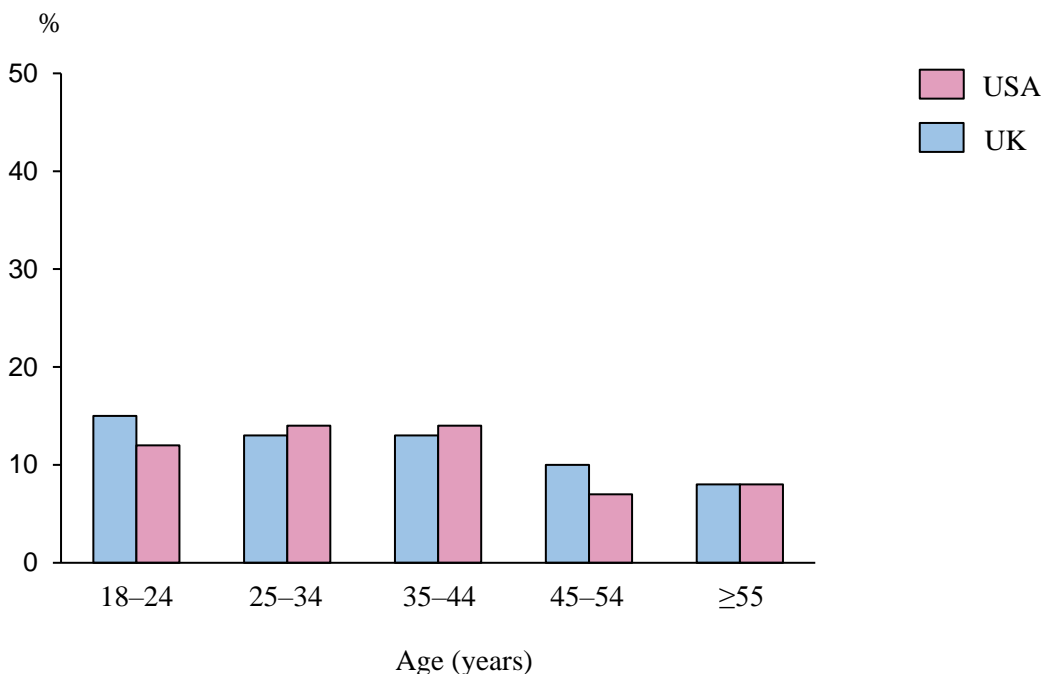|	Response	All respondents	By sex		By age				
			Male	Female	18–24 years	25–34 years	35–44 years	45–54 years	≥55 years
UK									
Do you have access?	Yes, I do	14·3% (12·8–15·8)	13·0% (11·6–14·5)	15·5% (14·0–17·1)	8·4% (7·2–9·6)	14·6% (13·1–16·2)	12·3% (10·8–13·7)	13·7% (12·2–15·1)	16·9% (15·3–18·5)
	No, I do not	66·2% (64·1–68·2)	65·9% (63·8–67·9)	66·5% (64·4–68·5)	67·8% (65·8–69·8)	64·8% (62·7–66·8)	71·3% (69·3–73·2)	70·7% (68·7–72·7)	62·4% (60·3–64·5)
	Don't know	19·5% (17·8–21·2)	21·1% (19·4–22·9)	18·0% (16·4–19·7)	23·8% (21·9–25·6)	20·6% (18·9–22·3)	16·5% (14·9–18·1)	15·7% (14·1–17·2)	20·7% (18·9–22·4)
How useful do you find access?	Very useful or fairly useful	59·0% (56·9–61·2)	56·2% (54·0–58·3)	61·7% (59·7–63·8)	66·3% (64·3–68·4)	62·6% (60·5–64·7)	59·4% (57·3–61·5)	55·5% (53·4–57·6)	56·8% (54·7–58·9)
USA									
Do you have access?	Yes, I do	44·5% (41·6–58·4)	41·4% (38·5–61·5)	47·6% (44·7–55·3)	32·0% (29·3–70·7)	45·1% (42·2–57·8)	41·6% (38·7–61·3)	39·2% (36·3–63·7)	50·3% (47·4–52·6)
	No, I do not	35·5% (32·7–67·3)	37·2% (34·4–65·6)	33·7% (31·0–69·0)	44·0% (41·1–58·9)	33·9% (31·1–68·9)	37·5% (34·6–65·4)	42·2% (39·3–60·7)	31·2% (28·5–71·5)
	Don't know	20·0% (17·7–82·3)	21·4% (19·0–81·0)	18·6% (16·4–83·6)	24·0% (21·5–78·5)	21·0% (18·6–81·4)	20·9% (18·5–81·5)	18·6% (16·4–83·6)	18·4% (16·2–83·8)
How useful do you find access?	Very useful or fairly useful	70·1% (67·5–32·5)	66·7% (63·9–36·1)	73·5% (70·9–29·1)	68·1% (65·3–34·7)	67·6% (64·8–35·2)	70·7% (68·0–32·0)	70·1% (67·4–32·6)	71·8% (69·1–30·9)

Table S2: **Access and usefulness of access, by age, sex, and country**

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Who would you share with?	UK	USA
My doctor	75·4% (73·5–77·3)	60·6% (57·7–42·3)
My family	40·4% (38·3–42·5)	41·1% (38·2–61·8)
A pharmacist	41·2% (39·1–43·3)	24·8% (22·2–77·8)
A tech company (eg, Google, Amazon etc·), for the purposes of improving health care	12·2% (10·8–13·6)	9·0% (7·3–92·7)
A tech company (eg, Google, Amazon etc), for commercial purposes	3·5% (2·7–4·3)	3·9% (2·8–97·2)
An academic or medical research institution	50·3% (48·1–52·4)	25·5% (22·9–77·1)
A pharmaceutical company	19·8% (18·1–21·5)	9·9% (8·1–91·9)
My country's government	21·8% (20·0–23·6)	6·6% (5·2–94·8)
An insurance company	13·2% (11·8–14·7)	18·1% (15·8–84·2)
Any other commercial company	1·6% (1·0–2·1)	2·4% (1·5–98·5)
Other	0·8% (0·4–1·2)	1·1% (0·5–99·5)
Don't know	7·4% (6·3–8·6)	10·9% (9·1–90·9)
Not applicable - I would not be willing to share my anonymised personal health information with anyone	10·8% (9·4–12·1)	15·0% (12·9–87·1)

Table S3: **Data sharing, by country and entity**

Receive advice on health care	UK	USA
My doctor or nurse, supported by artificial intelligence software	54·8% (52·7–56·9)	38·2% (35·4–64·6)
An artificial intelligence robotic assistant, without input from my doctor or nurse	11·0% (9·6–12·3)	10·4% (8·6–91·4)
My doctor or nurse, without assistance from artificial intelligence	58·2% (56·1–60·3)	51·8% (48·8–51·2)
None of these	9·4% (8·1–10·7)	13·2% (11·2–88·8)
Don't know	12·3% (10·9–13·8)	18·1% (15·9–84·1)

Table S4: **Receiving advice on health care, by country**

	An artificial intelligence robotic assistant, without input from my doctor or nurse				
	18–24 years	25–34 years	35–44 years	45–54 years	≥55 years
UK	15·4% (13·9–17·0)	12·7% (11·3–14·2)	13·3% (11·8–14·8)	10·2% (8·9–11·5)	8·3% (7·1–9·5)
USA	11·6% (9·7–90·3)	13·6% (11·5–88·5)	13·7% (11·6–88·4)	6·8% (5·3–94·7)	8·1% (6·5–93·5)

Table S5: **Respondents that stated they are happy to receive advice on their health care from an AI robot assistant, without input from a doctor or nurse, by country and age group**

Appendix 2 - Methodology

Data from respondents (>18 years) from an online 2018 YouGov survey were used. YouGov is a widely used research platform that develops nationally representative surveys through active sampling. Active sampling ensures that only people selected by YouGov are allowed to participate. These people are identified from YouGov's panel of registered users and are selected on the basis of age, gender, social class and education in order to ensure that the sample is nationally representative. Access to the survey requires the respondent to sign in with their unique username and password. Each respondent can only fill out the survey once.

The final responses are statistically weighted to the national profile of each country for adults aged 18 and above. Sources for the weighted data in the UK include the census and official Office for National Statistics population estimates and the US from the US Census Bureau.

Responses from 3194 participants were included (**table 1**). The survey queried public opinion on attitudes towards the use and sharing of anonymised patient data and technology in healthcare.

https://yougov.co.uk/about/panel-methodology/

Appendix 3 – Questions asked in the survey

1. How useful, if at all, would you/ do you find access to your electronic medical records?
   - Very useful
   - Fairly useful
   - Not very useful
   - Not at all useful
   - Don't know

2. For which, if any, of the following reasons would you allow your anonymised personal health information to be used? (Please select all that apply. If you would not be willing to allow the use of your anonymised personal health information for any reason, please select the 'Not applicable' option)
   - To assist delivery of healthcare (e.g. test results being shared across departments in a hospital)
   - To support medical research undertaken by university researchers
   - To support medical research undertaken by commercial organisations
   - To inform future healthcare planning
   - Other
   - Don't know
   - Not applicable - I would not be willing to allow the use of my anonymised personal health information for any reason

3. With who, if anyone, would you be willing to share your anonymised personal health information? (Please select all that apply. If you would not be willing to share your anonymised personal health information with anyone, please select the 'Not applicable' option)
   - My doctor
   - My family
   - A pharmacist
   - A tech company for improvement of health care
   - A tech company for commercial purposes
   - An academic or medical research institution
   - A pharmaceutical company
   - My country's government
   - An insurance company
   - Any other commercial company
   - Other
   - Don't know
   - Not applicable - I would not be willing to share my anonymised personal health information with anyone

4. For the following question by 'keep your anonymised personal health information private', we mean keeping data safe from security breaches. Which, if any, of these organisations would you trust to keep your anonymised personal health information private? (Please select all that apply. If you would not trust any organisation to keep your anonymised personal health data private, please select the 'Not applicable' option)
   - My doctor
   - My family
   - A pharmacist
   - An academic or medical research institution

- A pharmaceutical company
- My country's government
- A tech company (e.g. Google, Amazon etc.)
- An insurance company
- Any other commercial company
- Other
- Don't know
- Not applicable - I would not trust any organisation to keep my anonymised personal health data private

5. For the following question, by "artificial intelligence software", we mean the use of algorithms and software to aid the analysis of complex medical data with the aim of understanding the relationships between prevention or treatment techniques and patient outcomes. From which, if any, of the following would you be happy to receive advice on your health care (e.g diagnoses, treatment plans, lifestyle advice etc.)? (Please select all that apply)
   - My doctor or nurse, supported by artificial intelligence software
   - An artificial intelligence robotic assistant, without input from my doctor or nurse
   - My doctor or nurse, without assistance from artificial intelligence
   - None of these
   - Don't know