

Liverpool Antimicrobial Resistance (AMR) Citizens' Jury

Liverpool AMR Citizens' Jury Executive Summary

19-21 January + 24-26 January 2022

Commissioned by:



Designed and delivered by:



This project was funded by the University of Liverpool and Pfizer Inc. The findings and results in this report do not necessarily reflect those of the commissioning bodies, funders, or project team.

This initiative was codeveloped between Pfizer Inc, the University of Liverpool and the Center for New Democratic Processes. Pfizer Inc. provided funding and support to the project. Pfizer Inc. collaborated with this project as it aligned closely with Pfizer's commitment to understanding the public perception of antimicrobial stewardship and related issues.

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Foreword:

University of Liverpool Programme Directors

Antimicrobial resistance is one of the top 10 global health threats that we all face. Tackling such big and complex problems requires a large team effort enabling us to understand the best way to support communities to implement the changes they need to protect their health and wellbeing.

It is our belief that the best way to combat such large global threats is through a system approach that is codesigned with the community that will be most impacted. To design the right system, we need to ensure that all voices are heard, and actions are taken to implement the best solutions on their behalf. For our team in Liverpool that means working with the local community to understand their opinions and then to use those insights to start to build the foundation of our future research and development activities. It is for this reason we commissioned the Citizen Jury to be undertaken by the Centre for Democratic Processes on our behalf.

We were delighted with the insights that the people of Liverpool City Region so generously shared with us during this Citizen Jury. There was strong understating of the urgency to act. A strong understanding of the need for multiple organisations to work together for the greater good. There was also a lot of detail for us to consider, particularly in our future planning around the use and access of data.

Our commitment is to take forward these insights and start to build them into our plans as they develop. We will work alongside the people of Liverpool City Region to implement a system that works with them, provides benefit for them and the global community as we work together to combat antimicrobial resistance.

Dr Amanda Lamb, on behalf of the University of Liverpool Programme Directors

Project Background

A Citizens' Jury was commissioned by the University of Liverpool and Pfizer Inc. to explore attitudes and perspectives about relationships among public and private entities collaborating to monitor and develop responses to antimicrobial resistance in the Liverpool City Region.

The jury has been commissioned by the University of Liverpool as part of its strategic commitment to involving local citizens in the codesign of research and development. It will provide insights for two University of Liverpool programmes. The first is the Centre of Excellence in Infectious Disease Research (CEIDR) from grant funding provided by Pfizer Inc. CEIDR recognises the urgent need to develop antimicrobials to tackle emerging resistance in 'superbugs' and plans to develop a programme in the Liverpool City Region that tackles the treatment of AMR. The second is the Civic Data Cooperative (CDC) which has been established with funding from the Liverpool City Region Combined Authority. The CDC works with organisations that want to use data about citizens to better inform decisions, policies, and new ideas, helping to improve health, well-being, and wealth across the region. CDC projects must involve the public to demonstrate transparent and trustworthy use of data.

University of Liverpool project activities were managed by an experienced team in an initiative called Health Innovation Liverpool (known as the HILL). The HILL supports better translation of research into positive public impact by working with the public to understand their perspectives before research is designed and developed.

In addition to funding, Pfizer Inc. supported this collaboration with question design and scenario development. Pfizer Inc. had no input with identification, enrolment or management of the jurors. Pfizer Inc. collaborated with this project as it aligned closely with Pfizer's commitment to understanding the public perception of antimicrobial stewardship and related issues.

Project sponsors commissioned the [Center for New Democratic Processes](#), creators of the Citizens' Jury process and global leaders in deliberative public participation and civic engagement, to design and facilitate this event in partnership with [Citizens' Juries CIC](#), a Manchester (UK) based social enterprise.

The jury has been funded by contributions from Pfizer Inc., the CDC, and the University of Liverpool.

This six-day, online Citizens' Jury was conducted digitally on Wednesday 19 January through Friday 21 January 2022 and from Monday 24 January through Wednesday 26 January 2022. Jury participants were selected from within the Liverpool City Region to include a broadly representative mix of people in terms of age, gender, ethnic group, educational attainment, employment status and geographical spread.

Project sponsors will use the results of the Jury to shape the development of a multi-party project to investigate and tackle issues of antimicrobial resistance (AMR). Jurors assessed scenarios covering multiple patient pathways in order to provide recommendations for information sharing and the structure of relationships among public and private actors whose goal is to monitor and respond to antimicrobial resistance (AMR) in the Liverpool City Region.

“

It is important to know that the process has been collaborative, that it has allowed me to ask lots of questions to the scientists, and that I have been able to share my own personal opinion on this topic.

”

Quote from Jury member

Why a Citizens' Jury?

One proven method for bringing complex challenges to the public is a citizens' jury. A jury – wherein people are recruited to broadly reflect the demographics of a particular catchment area – can be asked to hear and weigh the evidence, deliberate together, and use their values to assess trade-offs and make judgements regarding their remit. The evidence comes from expert witnesses who are briefed to make presentations that provide the jury with a fair balance of relevant information. As a multi-day event, jurors encounter and engage a series of frameworks to assess the challenge(s) at hand, learn from presenters, and work collaboratively with one another to weigh the benefits and trade-offs of proposed solutions.

A cornerstone of Citizens' Juries is that they are independent processes, which utilise a series of safeguards to ensure that the jury is designed and implemented without undue influence from project sponsors and those with vested interests in the outcomes. Steps are taken to shield the work of the jurors from external influence and minimise the unintentional introduction of bias from project sponsors and convenors. Project materials (including the Jury Questions and expert presentations) are reviewed by a project Oversight Panel whose role is to monitor for potential bias in the development and implementation of the Jury. Citizens' juries are independently designed and facilitated so that project sponsors and commissioners gain valuable insights into the public's assessment of the topic under consideration while ensuring that these insights are representative of the participants' views.

¹ Wellcome (2020). "The Global Response to AMR: Momentum, success, and critical gaps" (pg. iii).

Why a Citizens' Jury on AMR?

Antimicrobial Resistance (AMR), which occurs when bacteria and other pathogens evolve in response to medicines, can cause medicines such as antibiotics to stop working effectively.¹

The World Health Organisation has labelled AMR as one of the top 10 global public health threats facing humanity. AMR is considered a significant global health and development threat.

Healthcare providers, researchers, and drug developers need to be able to interface with one another and analyse large data sets to develop immediate and long-term mitigation and treatment strategies. Yet addressing AMR presents a series of complex challenges. Often, AMR outbreaks are regional, but healthcare professionals and hospital systems are unable to quickly communicate with one another in order to understand and purposefully monitor situations as they evolve. Researchers also often lack timely access to data in order to better understand AMR, how it is treated and transmitted, and how to best slow the spread of existing AMR while forecasting the emergence of new AMR strains. Finally, the development of new drugs to treat AMR is a slow and expensive process for pharmaceutical companies, particularly as the spread of AMR continues to outpace drug companies' ability to develop new, targeted treatments.

The complexity of these challenges requires the input not only of healthcare professionals, researchers, and drug developers, but members of the public, as well. It is, after all, the public whose data will be shared in these systems. In this case, the University of Liverpool and Pfizer commissioned a Citizens' Jury to invite a diverse microcosm of Liverpool residents to learn about AMR and the proposed AMR monitoring network, to deliberate about the potential benefits and risks of such a system, and to make informed recommendations regarding the legal, ethical, and regulatory aspects of this undertaking.

AMR Citizens' Jury Remit

The Citizens' Jury participants (jurors) were tasked with learning about AMR as it relates to research and development of antimicrobial pathologies, prescribing patterns, treatment plans, and drug development. More specifically, jurors learned about a proposed collaboration between the University of Liverpool and a network of (yet-to-be-determined) public and private partners collaborating to develop a system with the goal of more effectively tracking, researching, treating, and mitigating AMR.

This collaboration would rely upon pseudo-anonymised patient data such as comprehensive care histories, prescribing, and treatment patterns. Access to this information would allow parties in the system to anticipate and mitigate AMR, understand and improve treatments, and better understand and develop treatments to address AMR. It is therefore essential for healthcare professionals, researchers, governmental agencies, pharmaceutical companies, and other interested parties to gain a more comprehensive understanding of the public's attitudes and opinions about the use of healthcare records for these purposes.

Jurors were charged with evaluating patient healthcare data for AMR treatment and mitigation from multiple perspectives and for multiple ends. Participants assessed scenarios covering four patient pathways while in hospital and registered their level of comfort with sharing pseudo-anonymised data about their medical history, response to AMR-related treatment, and other healthcare information with the proposed AMR system. Jurors also provided recommendations for information sharing and the structure of relationships among public and private actors whose goal is to monitor and respond to AMR in the Liverpool City Region. The jury considered how organisations might collect, share, and utilise pseudo-anonymised patient data for purposes including:

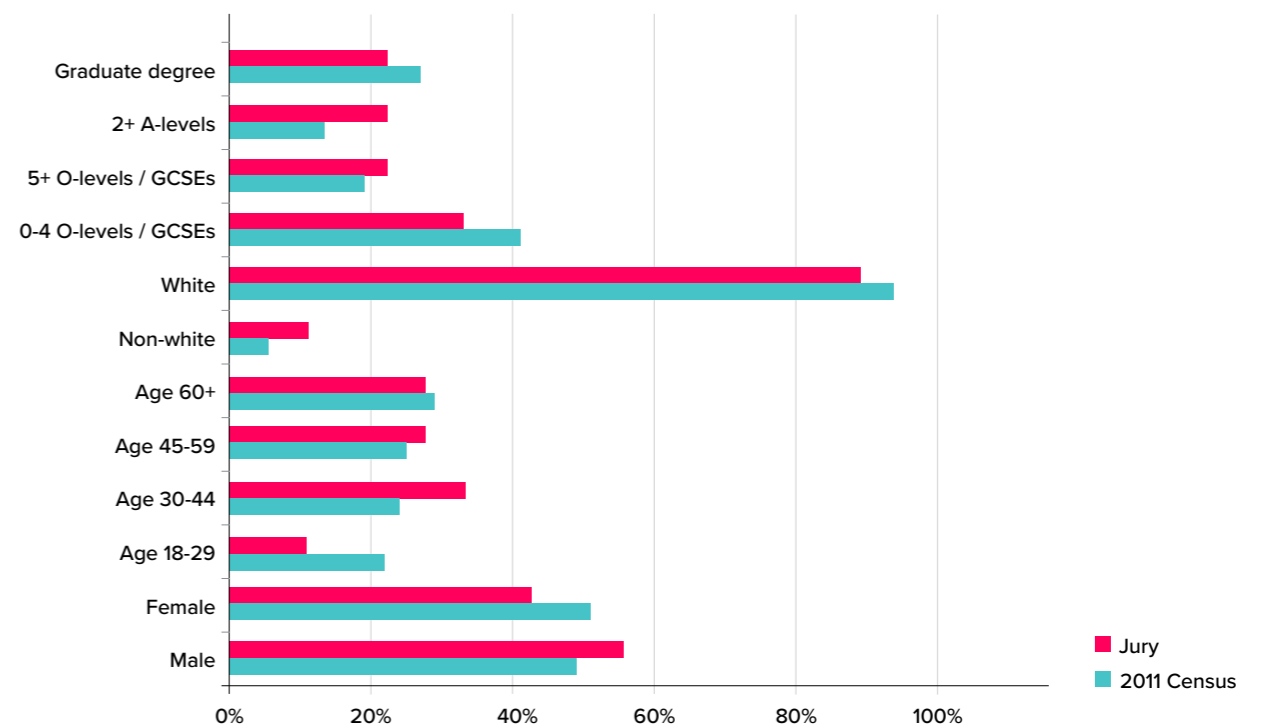
- Guiding individual treatment and informing hospital utilisation
- Identifying trends in antimicrobial resistance to current medications (microbiological surveillance)
- Identifying areas of unmet clinical need for future research into the development of new medicines
- Shaping public policy and determining the public benefit of AMR treatments (including public investment in research and development)

Juror Recruitment and Demographics

Jury applicants were recruited from within the Liverpool City Region. Jury applicants entered their personal details, including relevant demographic information, into an online survey. Applicants were then pseudo-anonymised and a Sortition Foundation algorithm was used to select a stratified sample to closely map onto the population of the Liverpool City Region. Selected jurors were stratified to broadly represent a mix of Liverpool residents in terms of age, gender, ethnic group, educational attainment, employment status, and geographical spread within the Liverpool City Region. Citizens' Juries CIC led participant recruitment and selection activities.

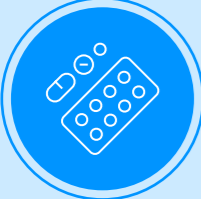
Participants were compensated for their participation in the project upon completion of the event. Laptops and other equipment and/or materials were provided to participants to ensure ability to participate virtually. Juror onboarding and orientation procedures included inquiries into what (if any) necessary accommodations for juror participation were to be provided by and/or addressed by organisers.


Demographic breakdown of jury participants compared to 2011 census data for England





Expert Witness Presentations


Jurors heard from and asked questions of a range of expert witnesses. Presentation topics included an introduction to AMR, an overview of the ethical and regulatory environment for pharmaceuticals, commercial pharmaceutical research and development processes, academic and clinical research on AMR, the hospital care journey and patient pathway, an overview of the proposed collaborative network, and various scenarios and care pathways for antimicrobial resistance in hospital settings.


	What is AMR?
	<i>Presented by:</i>
	Professor Esmita Charani (Imperial College London; University of Cape Town; Amrita University)
<i>Followed by Questions & Answers</i>	


	Introduction to AMR Research Environment and Relationships
	<i>Presented by:</i>
	Professor William Hope (Director, Centre of Excellence in Infectious Diseases Research (CEIDR), University of Liverpool)
<i>Followed by Questions & Answers</i>	


	Regulatory and Ethical Environment Overview
	<i>Presented by:</i>
	Dr. Sumati Nambiar Child Health Innovation and Leadership Department, Johnson and Johnson; former U.S. Food and Drug Administration)
<i>Followed by Questions & Answers</i>	

	Antimicrobial Resistance (AMR) and the Role of the Pharmaceutical Industry
	<i>Presented by:</i>
	Seema Patel (Pfizer Hospital Medical Lead - Northern Cluster)
<i>Followed by Questions & Answers</i>	

	Hospital Care Journey and Patient Pathway Overview
	<i>Presented by:</i>
	Dr. Stacy Todd (Infectious Disease Consultant, Liverpool University Hospitals)
<i>Followed by Questions & Answers</i>	

	Introduction to Data Sharing and Information Governance
	<i>Presented by:</i>
	Gary Leeming (Director, Liverpool Civic Data Cooperative) Helen Duckworth (Deputy Director of Planning, Performance and Delivery, Liverpool CCG)
<i>Followed by Questions & Answers</i>	

	CEIDR Proposed Collaborative Network and Project Overview
	<i>Presented by:</i>
	Professor William Hope (CEIDR) Andy Townsend (Pfizer Hospital External Medical Engagement Director)
<i>Followed by Questions & Answers</i>	

	AMR Scenario Explanations and Discussion
	<i>Presented by:</i>
	Dr. Alex Howard (Consultant Microbiologist, Liverpool University Hospitals)
<i>Followed by Questions & Answers</i>	

Jury Results & Findings

Jury Scenarios

Jurors were asked to evaluate four discrete scenarios pertaining to a patient in hospital who has been diagnosed with a urinary tract infection. Jurors subsequently explored and reflected upon this patient's data use for the following purposes by a range of actors.

Scenario A

1. Patient A is in hospital recovering from a routine medical procedure when they begin to notice symptoms of a urinary tract infection.
2. The Consultant runs a series of tests, including a test for a urinary tract infection, which they have had in the past.
3. The test confirms a urinary tract infection.
4. The Consultant prescribes STANDARD DRUG.
5. Within one week, the patient reports that symptoms have subsided.

Scenario C

1. Patient C is in hospital recovering from a routine medical procedure when they begin to notice symptoms of a urinary tract infection.
2. The Consultant runs a series of tests, including a test for a urinary tract infection, which they have had in the past.
3. The test confirms a urinary tract infection.
4. The Consultant prescribes STANDARD DRUG and within one week, the patient reports symptoms have not subsided and have become worse.
5. A follow-up test confirms that the patient now has developed a persistent urinary tract infection.
6. The Consultant prescribes NEWLY APPROVED DRUG.
7. After a total of three weeks from the initial test, the patient reports symptoms have subsided.

Scenario B

1. Patient B is in hospital recovering from a routine medical procedure when they begin to notice symptoms of a urinary tract infection.
2. The Consultant runs a series of tests, including a test for a urinary tract infection, which they have had in the past.
3. The test confirms a urinary tract infection.
4. The Consultant prescribes STANDARD DRUG and within one week, the patient reports symptoms have not subsided.
5. The Consultant prescribes NEWLY APPROVED DRUG.
6. After a total of three weeks from the initial test, the patient reports symptoms have subsided.

Scenario D

1. Patient D is in hospital recovering from a routine medical procedure when they begin to notice symptoms of a urinary tract infection.
2. The Consultant runs a series of tests, including a test for a urinary tract infection, which they have had in the past.
3. The test confirms a urinary tract infection.
4. The Consultant prescribes NEWLY APPROVED DRUG.
5. Within one week, the patient reports symptoms have subsided.

The Project Commissioners identified a series of key questions and four corresponding patient pathway Scenarios for the jurors to consider during the Liverpool AMR Citizens' Jury. Jurors deliberated about and responded to these Jury Questions during their time together.

Jury Questions

The jurors were asked to rate these questions on a scale and were then asked to explain the rationale for their rating.

1. If you were patient A/B/C (see Scenarios below) how comfortable would you be with your data about the STANDARD drug's efficacy, sensitivity patterns, etc., taken from your medical records and made into pseudo-anonymised data and incorporated into a larger dataset about that drug via this newly proposed (University of Liverpool) system?

- Very Uncomfortable - Somewhat Uncomfortable - Neither Uncomfortable nor Comfortable - Somewhat Comfortable - Very Comfortable

2. If you were patient B/C/D (see Scenarios below) how comfortable would you be with your data about the NEWLY APPROVED drug's efficacy, sensitivity patterns, etc., taken from your medical records and made into pseudo-anonymised data and incorporated into a larger dataset about that drug via this newly proposed (University of Liverpool) system?

- Very Uncomfortable - Somewhat Uncomfortable - Neither Uncomfortable nor Comfortable - Somewhat Comfortable

3. How supportive are you of:

1. Hospital staff (including Consultants) / GPs / Healthcare Providers (direct care)
2. Healthcare Systems (CCGs and other NHS bodies)
3. Pharmaceutical Companies
4. Researchers (academics and other NGOs)
5. Government

a. ...having access to a pool of pseudo-anonymised data about prescribing patterns and the drug's efficacy in order to guide individual treatment and inform hospital utilisation?

a. Somewhat Unsupportive - Neither Unsupportive nor Supportive - Somewhat Supportive - Very Supportive

b. ...having access to a pool of pseudo-anonymised data about prescribing patterns and the drug's efficacy in order to identify trends in antimicrobial resistance manifesting as serious infections?

a. Somewhat Unsupportive - Neither Unsupportive nor Supportive - Somewhat Supportive - Very Supportive

c. ...having access to a pool of pseudo-anonymised data about prescribing patterns and the drug's efficacy in order to identify areas of unmet clinical need and to shape the research and development of new medicines (eg assessing prescribing patterns, trend maps and/or other research with the ultimate goal of developing commercial products in the form of new treatments or drugs to address AMR)?

a. Somewhat Unsupportive - Neither Unsupportive nor Supportive - Somewhat Supportive - Very Supportive

QUESTION 1 - SCENARIOS A, B, C

Juror Responses for Question 1 in Percentages (%)

Answer choices	Scenario A	Scenario B	Scenario C	Total
Very Uncomfortable	0%	0%	0%	0%
Somewhat Uncomfortable	6%	6%	11%	7%
Neither Uncomfortable nor Comfortable	11%	17%	17%	15%
Somewhat Comfortable	78%	61%	50%	63%
Very Comfortable	6%	17%	22%	15%
TOTAL	100%	100%	100%	100%

(Response totals may not add up to 100% due to rounding)

Overall jurors were generally comfortable with their pseudo-anonymised data about Standard Drug efficacy, sensitivity, and other related health information being incorporated into a larger dataset about that drug regardless of the patient pathway Scenario (A/B/C) under consideration in Question 1.

In aggregate, 78% of jurors responded either “Somewhat Comfortable” (63%) or “Very Comfortable” (15%) across the three scenarios. A total of 7% of jurors were “Somewhat Uncomfortable,” while no jurors expressed being “Very Uncomfortable” across Scenarios A, B, and C. The remainder of responses were “Neither Uncomfortable nor Comfortable (15%).

QUESTION 2 - SCENARIOS B, C, D

Juror Responses for Question 2 in Percentages (%)

Answer choices	Scenario B	Scenario C	Scenario D	TOTAL
Very Uncomfortable	6%	6%	6%	6%
Somewhat Uncomfortable	11%	11%	22%	15%
Neither Uncomfortable nor Comfortable	11%	11%	17%	13%
Somewhat Comfortable	44%	39%	33%	39%
Very Comfortable	28%	33%	22%	28%
TOTAL	100%	100%	100%	100%

(Response totals may not add up to 100% due to rounding)

Overall jurors were fairly comfortable having pseudo-anonymised data about Newly Approved Drug usage incorporated into a larger dataset for the proposed collaborative across the patient pathway Scenarios for Question 2.

In aggregate, 67% of juror responses were either “Somewhat Comfortable” (39%) or “Very Comfortable” (28%). Conversely, 21% of juror responses were either “Very Uncomfortable” (6%) or “Somewhat Uncomfortable” (15%) with 13% of juror responses being “Neither Uncomfortable nor Comfortable”.

QUESTIONS 3.1 – 3.5

QUESTION 3a - TREATMENT

The following table represents juror levels of support for various actors/organisations having access to a pool of pseudo-anonymised data (Questions 3.1-3.5) in order to guide individual treatment and inform hospital utilisation (“Treatment”).

Responses to Questions 3.1-3.5 for “Treatment” in Percentages (%)

Answer choices	Hospital Staff (%)	Healthcare Systems (%)	Pharmaceutical Companies (%)	Researchers (%)	Government (%)	Total (%)
Very Unsupportive	0%	0%	6%	0%	11%	3%
Somewhat Unsupportive	0%	0%	6%	6%	22%	7%
Neither Unsupportive nor Supportive	0%	6%	17%	28%	28%	16%
Somewhat Supportive	39%	44%	44%	56%	39%	44%
Very Supportive	61%	50%	28%	11%	0%	30%
TOTAL	100%	100%	100%	100%	100%	100%

(Response totals may not add up to 100% due to rounding)

QUESTION 3b - TRENDS

The following table represents juror levels of support for various actors/organisations having access to a pool of pseudo-anonymised data (Questions 3.1-3.5) in order to identify trends in antimicrobial resistance manifesting as serious infections (“Trends”).

Responses to Questions 3.1-3.5 for “Trends” in Percentages (%)

Answer choices	Hospital Staff (%)	Healthcare Systems (%)	Pharmaceutical Companies (%)	Researchers (%)	Government (%)	Total (%)
Very Unsupportive	0%	0%	0%	0%	17%	3%
Somewhat Unsupportive	0%	0%	0%	6%	17%	4%
Neither Unsupportive nor Supportive	0%	6%	11%	11%	11%	8%
Somewhat Supportive	39%	39%	56%	67%	56%	51%
Very Supportive	61%	56%	33%	17%	0%	33%
TOTAL	100%	100%	100%	100%	100%	100%

(Response totals may not add up to 100% due to rounding)

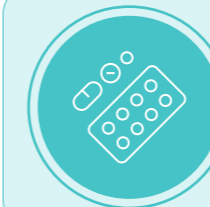
QUESTION 3c - CLINICAL NEED

The following table represents juror levels of support for various actors/organisations having access to a pool of pseudo-anonymised data (Questions 3.1-3.5) in order to identify areas of unmet clinical need and to shape the research and development of new medicines ("Clinical Need").

Responses to Questions 3.1-3.5 for "Clinical Need" in Percentages (%)

Answer choices	Hospital Staff (%)	Healthcare Systems (%)	Pharmaceutical Companies (%)	Researchers (%)	Government (%)	Total (%)
Very Unsupportive	0%	6%	0%	0%	22%	6%
Somewhat Unsupportive	0%	0%	6%	6%	28%	8%
Neither Unsupportive nor Supportive	0%	6%	22%	22%	0%	10%
Somewhat Supportive	39%	56%	56%	50%	39%	48%
Very Supportive	61%	33%	17%	22%	11%	29%
TOTAL	100%	100%	100%	100%	100%	100%

(Response totals may not add up to 100% due to rounding)



QUESTION 3.1 – HOSPITAL STAFF

Overall, jurors were generally supportive of healthcare staff having access to pseudo-anonymised data about prescribing patterns and the drug's efficacy regardless of the data usage under consideration. In aggregate, 98% of jurors' responses were "Very Supportive" (57%) or "Somewhat Supportive" (41%) of hospital staff having access to this data.



QUESTION 3.2 - HEALTHCARE SYSTEMS

Overall, jurors indicated a high degree of support for healthcare systems having access to pseudo-anonymised data about prescribing patterns and the drug's efficacy regardless of the data usage under consideration. In aggregate, 92% of jurors' responses were "Very Supportive" (46%) or "Somewhat Supportive" (46%) of healthcare systems having access to this data.



QUESTION 3.3 - PHARMACEUTICAL COMPANIES

Overall jurors indicated moderate levels of support for pharmaceutical companies having access to a pool of pseudo-anonymised data about prescribing patterns and the drug's efficacy across use cases. In aggregate, 78% of jurors' responses were "Very Supportive" (26%) or "Somewhat Supportive" (52%) for pharmaceutical companies having access to this data while 17% of jurors' responses were "Neither Unsupportive nor Supportive". A total of 6% of jurors' responses were either "Very Unsupportive" (2%) or "Somewhat Unsupportive" (4%) of these uses.



QUESTION 3.4 - RESEARCHERS

Overall jurors indicated moderate levels of support for researchers having access to a pool of pseudo-anonymised data about prescribing patterns and the drug's efficacy across use cases. In aggregate, 74% of juror responses were "Very Supportive" (17%) or "Somewhat Supportive" (57%) for researchers having access to this data while 20% of jurors' responses were "Neither Unsupportive nor Supportive". A total of 6% of jurors' responses were "Somewhat Unsupportive" of these uses.



QUESTION 3.5 - GOVERNMENT

Overall jurors indicated lower levels of support for government having access to a pool of pseudo-anonymised data about prescribing patterns and the drug's efficacy across use cases. In aggregate, 48% of jurors' responses were "Very Supportive" (4%) or "Somewhat Supportive" (44%) for researchers having access to this data while 13% of jurors' responses were "Neither Unsupportive nor Supportive". A total of 39% of jurors' responses were either "Somewhat Unsupportive" (22%) or "Very Unsupportive" (17%) of these uses.

Areas for Future Consideration

A number of themes and recurring questions arose throughout the process, including during Jurors' deliberations, Q&A sessions with witnesses, and as captured through jurors' individual responses to Jury Questions. These themes and questions are important to consider and address as project partners continue the development of this proposed collaborative network.²

Access to Data

- Who might be future members in this collaborative and what process will be in place for their involvement?
- What mechanisms will be in place for partners applying for access to the data? Who will have access to the data within each user group and how is this managed, particularly for partners and collaborators who are based outside the UK?

Acquiring Consent for Data Use

- Jurors expressed a desire for more information about patient consent, particularly transparency about implied consent and a person's ability to opt-out of the initiative.
- If a patient or patient representative chooses to opt-out of the initiative, what occurs to their data?
- What pseudo-anonymised patient information would be shared with the initiative (eg., an individual's entire health record or a portion of the health record, how much?)?

Quality of Data

- Participants indicated concern over whether or not NHS staff will have the capacity to gather and enter data correctly (i.e. How will staff be trained to input this data correctly?).
- How might requirements for NHS staff having a new system or additional fields to build out this dataset increase the burden on staff who are already overextended?
- Jurors were interested to know how effectiveness of the data/network will be measured and what benchmarks will be utilised for assessing the data's efficacy for addressing AMR. For example: Could the data highlight trends in overprescribing antibiotics? How might we tell if the data is resulting in better patient outcomes?

² This section ("Areas for Future Consideration") was drafted by report authors.

Security of Data

- What initial and ongoing steps will be taken to ensure that the data is secure?
- Would there be different levels of data use auditing depending on the user / organisation accessing data and if so, how would these be determined?
- What occurs if there is a data breach? Who will be responsible for a data breach or improper use/ access, and how will the public and/or individuals be notified if this occurs?

Use of Data

- How long will data be held and used (or will it be held and used indefinitely)?
- Would it be possible for this data to be used for other purposes beyond the proposed Liverpool collaborative network (eg., Would the data eventually be used for AMR research on a national or even global scale?)?
- Could this data be used for commercial or treatment purposes other than those related to AMR?
- Would any of the collaborative partners be able to monetize this data?

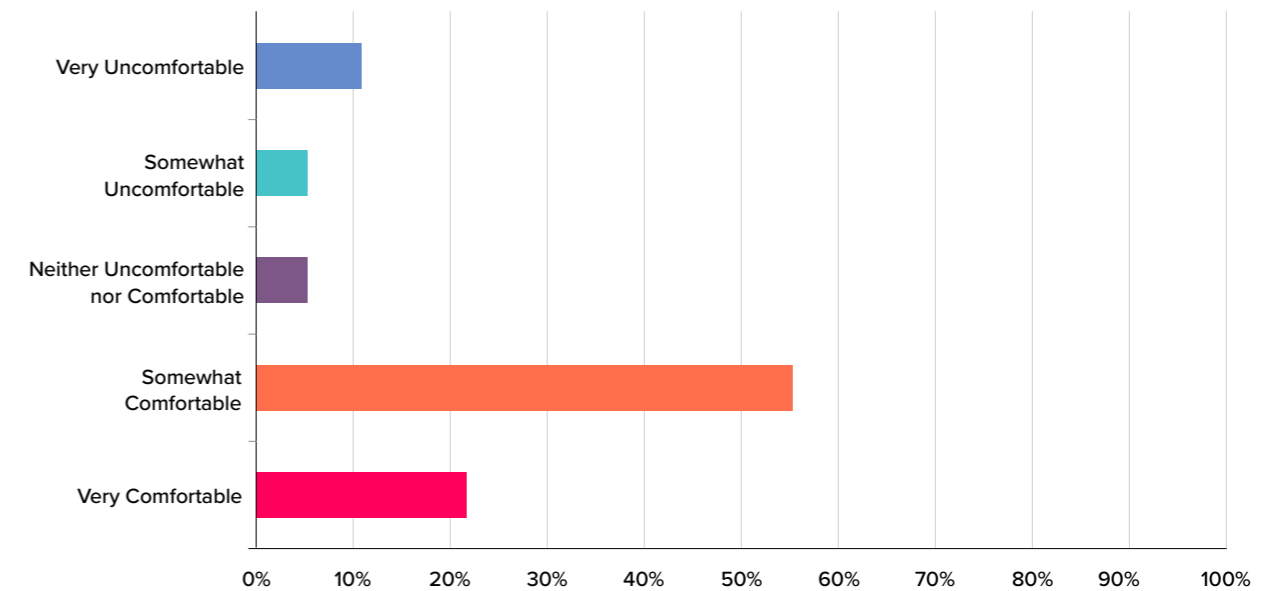


Post-Jury Questionnaire Results

Upon conclusion of the AMR Citizens' Jury, participants completed a post-event questionnaire to provide feedback about their experience. Results from this survey are below.

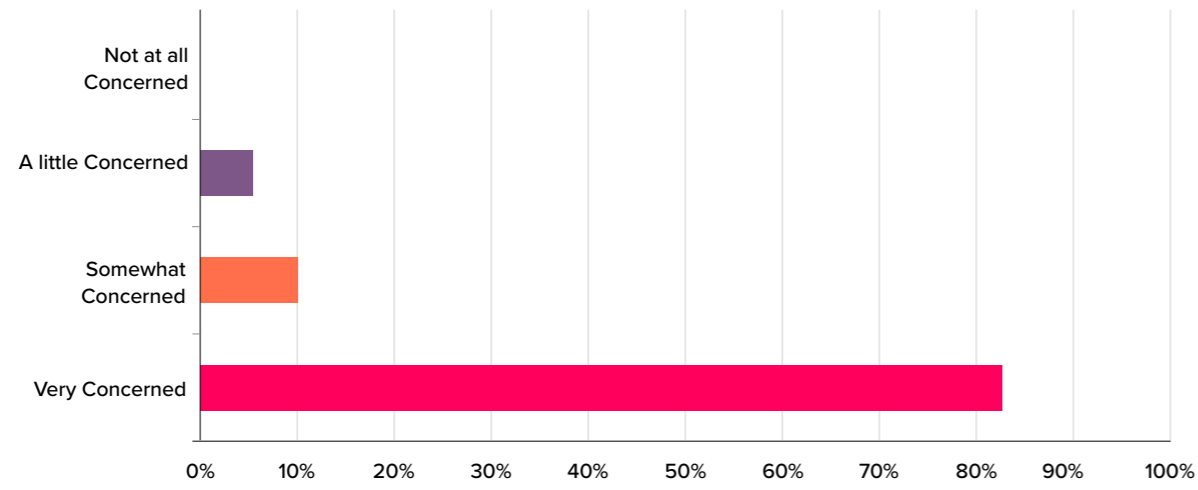
Thinking about your patient health records, in general how comfortable are you with sharing pseudo-anonymised data to monitor and respond to antimicrobial resistance (AMR) in Liverpool?

Answered: 18 Skipped: 0



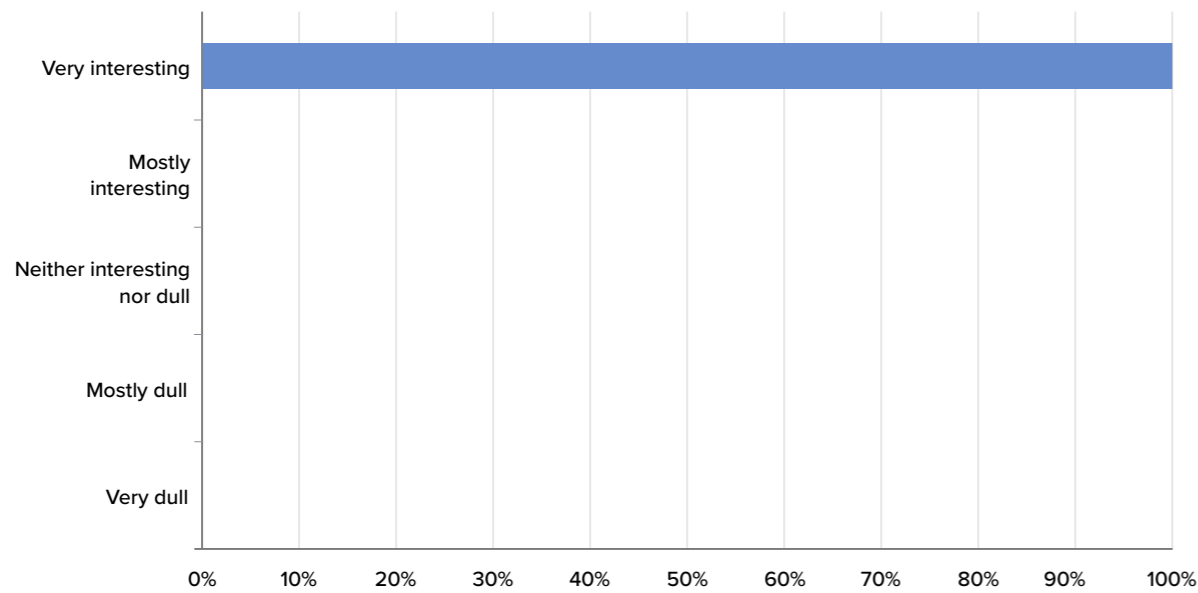
How concerned are you about the threats and challenges posed by antimicrobial resistance (AMR)?

Answered: 18 Skipped: 0



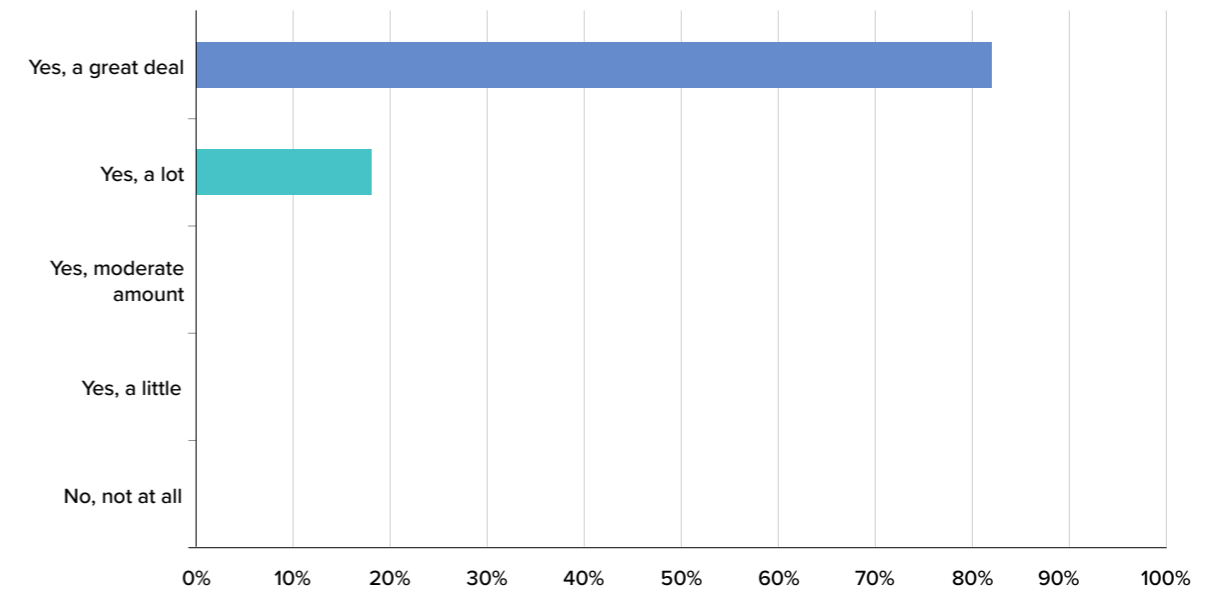
How interesting did you find the jury process?

Answered: 18 Skipped: 0



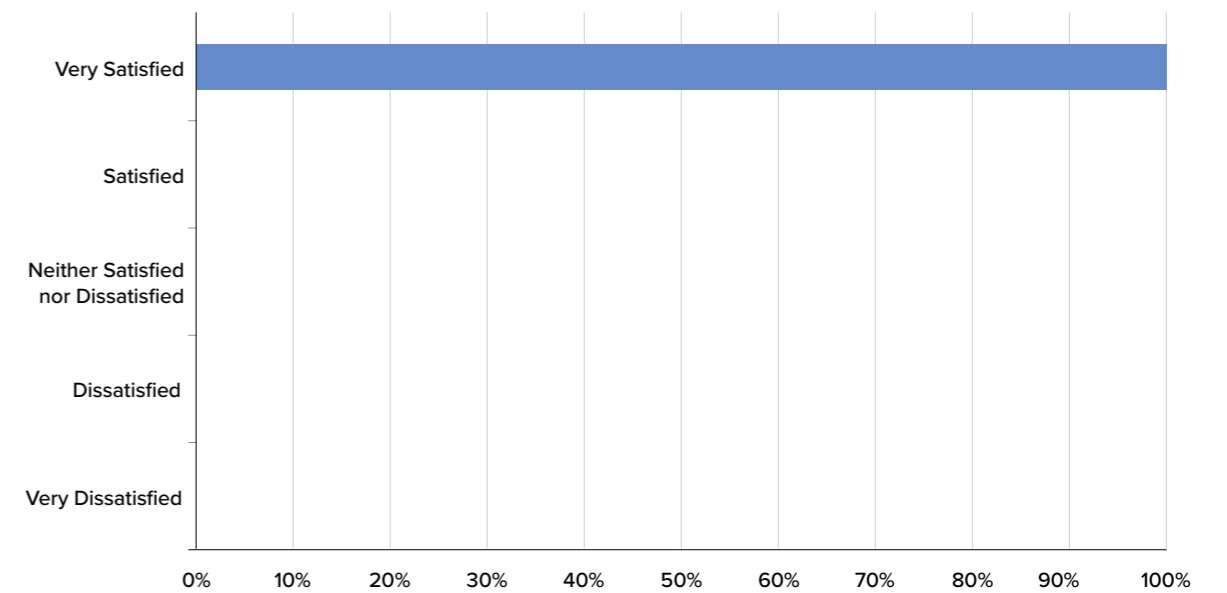
Did you feel you were encouraged to participate in the process?

Answered: 18 Skipped: 0



One of our aims is to have the facilitators manage the process in a neutral way. How satisfied are you in this regard?

Answered: 18 Skipped: 0



“

The experience has been rewarding in helping shape the research and assistance surrounding AMR, and the jury has the general public's best interests at heart in regards to their health care, support and the use of their data.

”

Quote from Jury member



Oversight Panel Results

The Oversight Panel members were asked to complete a questionnaire as part of their role of monitoring and minimising potential bias in the Liverpool AMR Citizens' Jury. The results of this questionnaire, and Oversight Panel member comments, are included below.

1. Having reviewed the jury design documentation, how satisfied are you that the citizens' jury run in January of 2022 has been designed with the aim of minimising bias?

2. How satisfied are you that this citizens' jury was successfully designed to minimise bias?

Answer choices	Responses	Percentage
Not Satisfied	0	0%
Partially Satisfied	0	0%
Mostly Satisfied	0	0%
Fully Satisfied	2	100%

Answer choices	Responses	Percentage
Not Satisfied	0	0%
Partially Satisfied	0	0%
Mostly Satisfied	1	33%
Fully Satisfied	1	67%

