

## RETRACTION

The report 'Vaccine Research Question Prioritisation Patient, Public and Practitioner Involvement and Engagement' has been formally retracted by Health Data Research UK (HDR UK).

The provenance of the public survey data could not be verified as part of a detailed independent review. HDR UK apologises to readers.



# Vaccine Research Question Prioritisation –January 2021

Patient, Public and Practitioner Involvement and Engagement

# Seeking patient, public and practitioner input to prioritise research questions on COVID-19 vaccine(s)

## Why was this project needed?

In December 2020, the UK was at a crucial point in our response to the pandemic, with COVID-19 vaccine(s) entering the final stages of development and approval and being rolled out across the four nations. As with any new clinical interventions, there were a large number of research questions yet to be answered that would have helped us better understand their potential and the approach to vaccine roll-out.

We know research will help:

- establish the effectiveness and safety of vaccines in the real world and with different population groups
- grow our understanding of how vaccination will impact the spread (transmission) of COVID-19 and number of people infected
- assess how people will behave both in terms of uptake and as more of the population are vaccinated
- establish the strength and duration of protection offered by different vaccines in different groups.

# Seeking patient, public and practitioner input to prioritise research questions for COVID-19 vaccine(s)

## How were patients, carers, the public and practitioners involved?

To help us better understand the research priorities of patients, members of the public and health or care practitioners (HCP), existing groups and networks became involved in a prioritisation exercise that asked them to prioritise research questions put forward by [National Core Studies](#) leads.

**828 responses were received between 21 December 2020 and 5 January 2021**

546 responses identified themselves as being a patient or carer (unrelated to COVID-19)

208 responses came from members of the public

74 responses were from health and/or care practitioners

66 people had stated they had either tested positive or believe they have had COVID-19

# Seeking patient, public and practitioner input to prioritise research questions for COVID-19 vaccine(s)

## What did patients, carers, the public and practitioners tell us?

- ‘Safety of the vaccine’ area of research was deemed to be the most important by patients, the public and practitioners whilst the ‘Population Behaviours’ area was least important.
- Whilst the breakdown of priorities was relatively even between patients, public and practitioners, the results did show that practitioners had a strong affinity towards research that explored the effectiveness of the vaccine, particularly, when looking at different population demographics, comorbidities, medications etc.
- “For how long does the vaccine provide immune protection (the way in which the body reacts to defend itself against the COVID-19 virus following vaccination)?” (which falls under the ‘Immune Response’ area of research) was the highest ranked question overall, with 72% of respondents ranking it most important.
- When it came to both the safety and effectiveness of the vaccine, the areas that came up most often were:
  - long term effects
  - how it affects those who are immunocompromised or have underlying conditions
  - how it affects any medication they may need to take
  - a desire for more information from research about the effects of the vaccine on fertility and pregnancy
  - concerns about the effectiveness of the vaccine and if and how long it will last against the new variants of COVID-19.
- Following the news of an additional vaccine being rolled out across the UK, there was a noticeable difference in comments from patients and members of the public only. As one respondent says “safety and effectiveness are not so relevant. Take-up is important, as is behaviour during the time until everyone is vaccinated.” | 4

## Seeking patient, public and practitioner input to prioritise research questions for COVID-19 vaccine(s)

### How were the views of patients, carers, the public and practitioners used to advance research?

The [full report](#) outlining the findings of the prioritisation exercise was shared with:

- The National Core Study Leads and Teams as well as our COVID-19 Research Delivery Partners
- Funders
- Other organisations aiming to gain similar insights of patient, carer, public and practitioner views so that we could combine our findings and further develop our understanding

*“Of course, this is timely, but what’s most important is that you’re actually working with us and other patient groups etc to ensure our needs are met, enabling us to shape research and creating a big community to fight this virus together” – Public Contributor*

This prioritisation exercise was completed at a very early stage in the work of COVID-19 vaccine research and was used by the National Core Studies to help define their work in this area. It was of the utmost importance to ensure that these studies were informed by input from patients and the public to ensure access and use of data have a defined public benefit.

*“This is a really helpful public evaluation of research priorities and so useful to feed through as an information source for funders” – Research Funding Organisation*

# Summary of 'COVID-19 Vaccine Research Questions' Prioritisation Exercise

To view the full report, please visit  
<https://www.hdruk.ac.uk/wp-content/uploads/2021/01/Full-Report-Vaccine-Research-Question-Prioritisation-14-Jan-2021.pdf>

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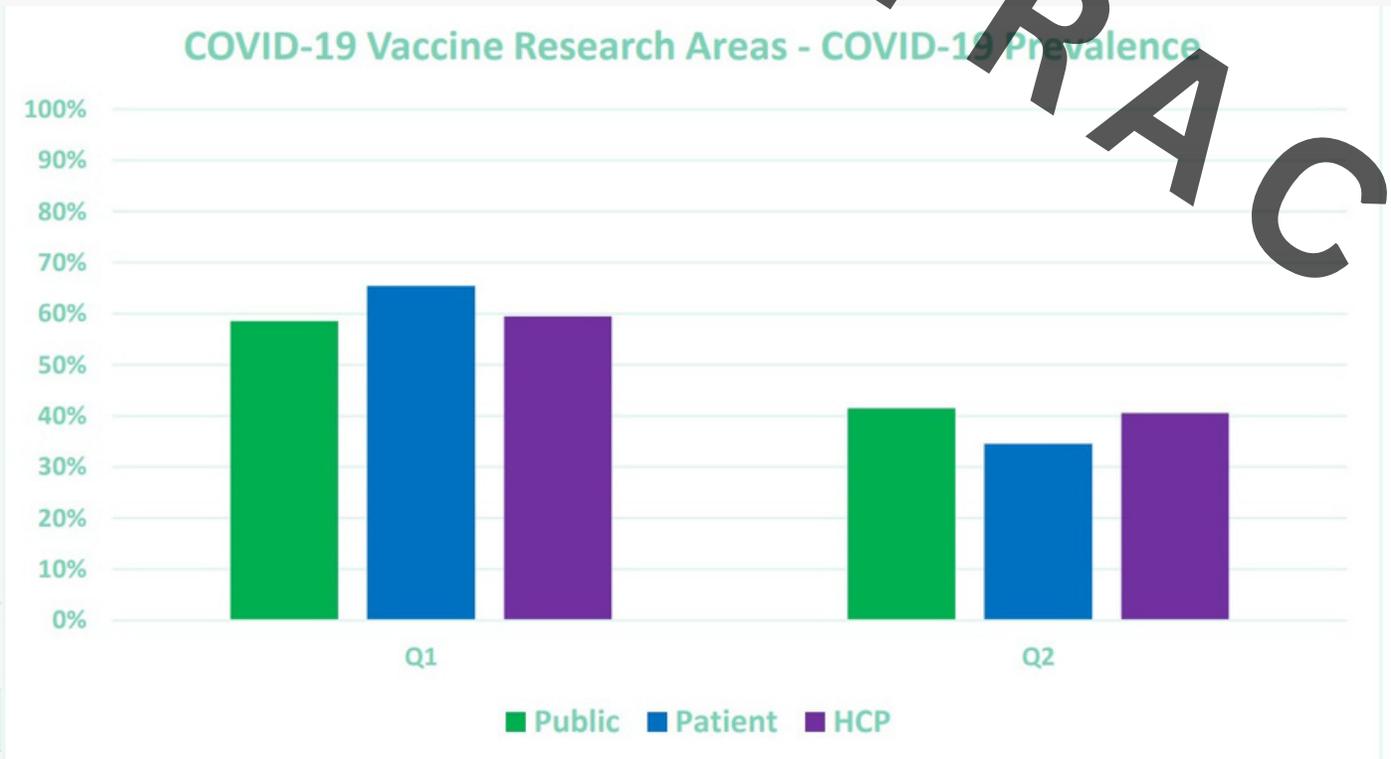


## There were seven research areas, with participants asked to rank the research questions within each to determine their priorities

- 1.COVID-19 prevalence (number of COVID-19 cases in the population at a given time)
- 2.Safety of the vaccine (e.g. adverse effects resulting from vaccination)
- 3.Effectiveness of the vaccine
- 4.Immune response (the way in which the body reacts and defends itself against COVID-19 and the strength and duration of protection offered by the vaccine)
- 5.How vaccination impacts population behaviours and our adherence to social restrictions
- 6.How the vaccine impacts spread (transmission) of COVID-19 (and how this might vary in different population groups, geographies, or workplaces)
- 7.Uptake of the vaccine by the UK population

# Research Area - COVID-19 Prevalence

1. How does COVID-19 prevalence i.e. the number of people infected, change as the vaccine is rolled out?
2. How is prevalence influenced by the level of vaccination uptake?



## Key findings

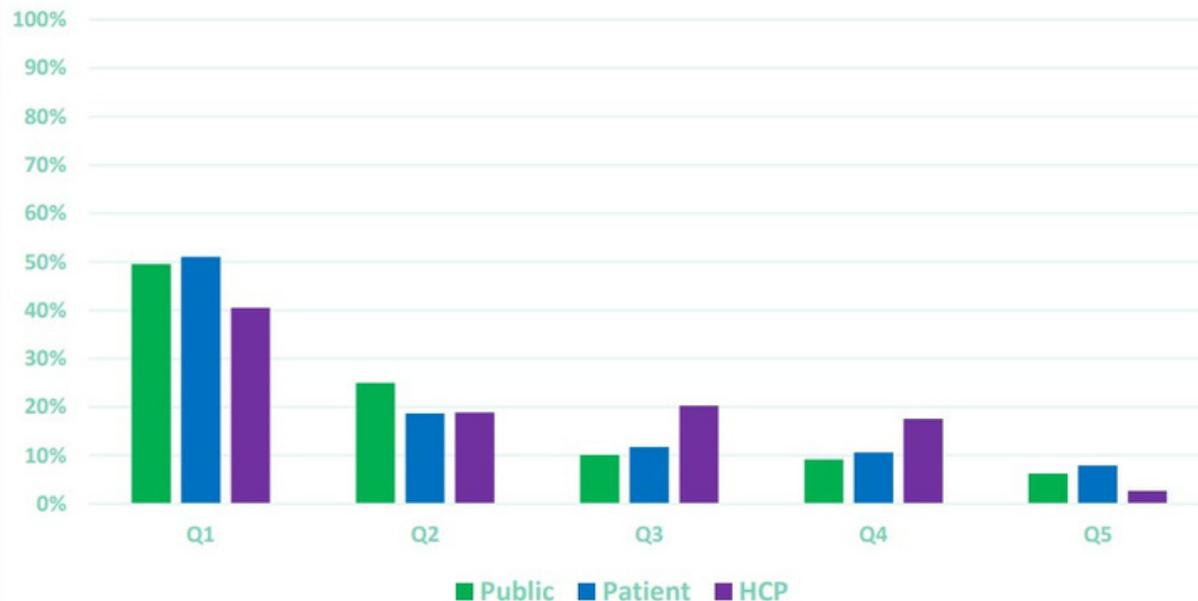
- Question One was the most prioritised question in this research area with an additional 216 people ranking this as most important to them.
- The 'COVID-19 Prevalence' research area was deemed to be the **fourth most important research area** for patients, the public and practitioners.

*"Equally important questions to be answered. However, I felt that knowing the level of vaccination uptake in different areas across the country action could be taken to show it works in those areas to inform groups as to the benefit of having the vaccination."*

# Research Area - Safety of the Vaccine

- 1 What types of complications can arise from COVID-19 vaccines?  
What is the risk of complications and what is an “acceptable” rate of serious adverse effects?
- 2 Does previous infection of COVID-19 influence the risk of adverse effects following the vaccination?
- 3 How does the safety profile (the chemistry, vaccine interactions, therapeutic effects, and adverse effects) of vaccines vary when looking at different population characteristics, comorbidities, medications, pregnancy (including in-utero exposure)?
- 4 Does recent vaccination against flu or a dual vaccine against the flu and COVID-19 lead to more serious adverse effects of the vaccine?

COVID-19 Vaccine Research Areas - Safety of the Vaccine



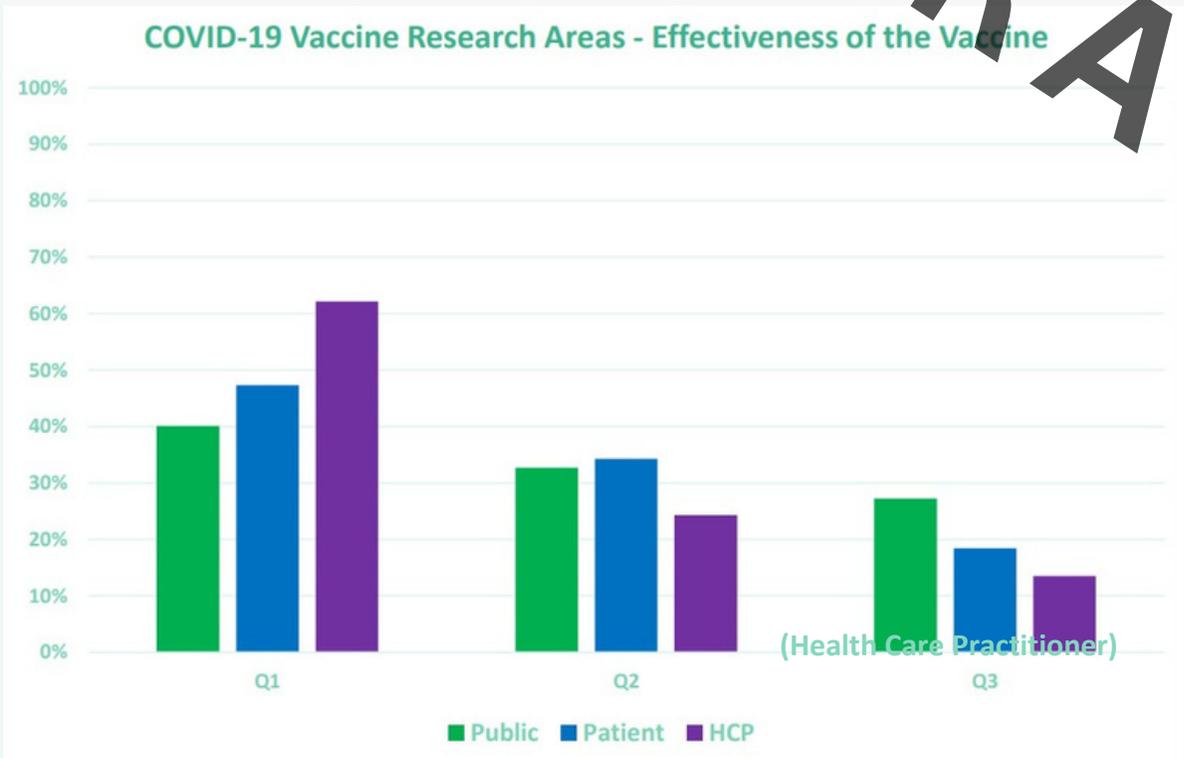
## Key findings

- Question One was the most prioritised question in this research area with an additional 243 people ranking this as most important to them compared to the next prioritised question.
- The ‘Safety of the Vaccine’ research area was deemed to be the most important research area or patients, the public and practitioners.

*“So many of us have underlying conditions or are immunocompromised. We were told to shield to keep us safe but we don’t know how safe the vaccine is for us.”*

# Research Area - Effectiveness of the Vaccine

1. How does the effectiveness of the vaccine vary when looking at different population demographics, co-morbidities, medications, pregnancy status (including in-utero exposure)?
2. Does previous COVID-19 infection influence the effectiveness of the vaccine?
3. Does recent vaccination against flu or a dual vaccine against the flu and COVID-19 improve the effectiveness of the vaccine?



## Key findings

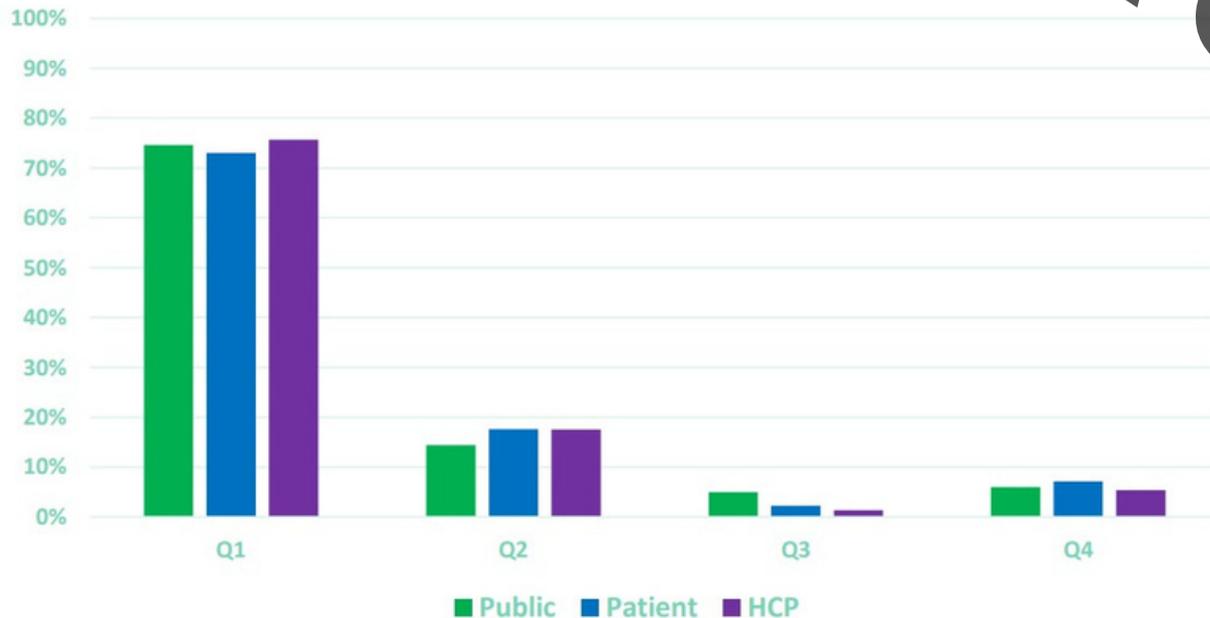
- Question One was deemed to be the most important research question and was of particular importance to practitioners.
- The 'Effectiveness of the Vaccine' research area was deemed to be the second most important research area for patients, the public and practitioners.

*"It's good to see research showing how effective a vaccine is but we really need to know is how effective is it for certain age groups or people with particular underlying conditions and co-morbidities."*

# Research Area - Immune Response

1. For how long does the vaccine provide immune protection (the way in which the body reacts to defend itself against the COVID-19 virus following vaccination)?
2. What is the rate of re-infection after vaccination?
3. How can we adapt the way in which COVID-19 testing works so that it can distinguish between antibodies that are formed in the body because of COVID-19 infection and antibodies that are formed in the body because of vaccination (both of which work to fight off COVID-19)?
4. What are the factors that determine the immune response to the vaccine (the way in which the body reacts to defend itself against the COVID-19 virus following vaccination)?

COVID-19 Vaccine Research Areas - Immune Response



## Key findings

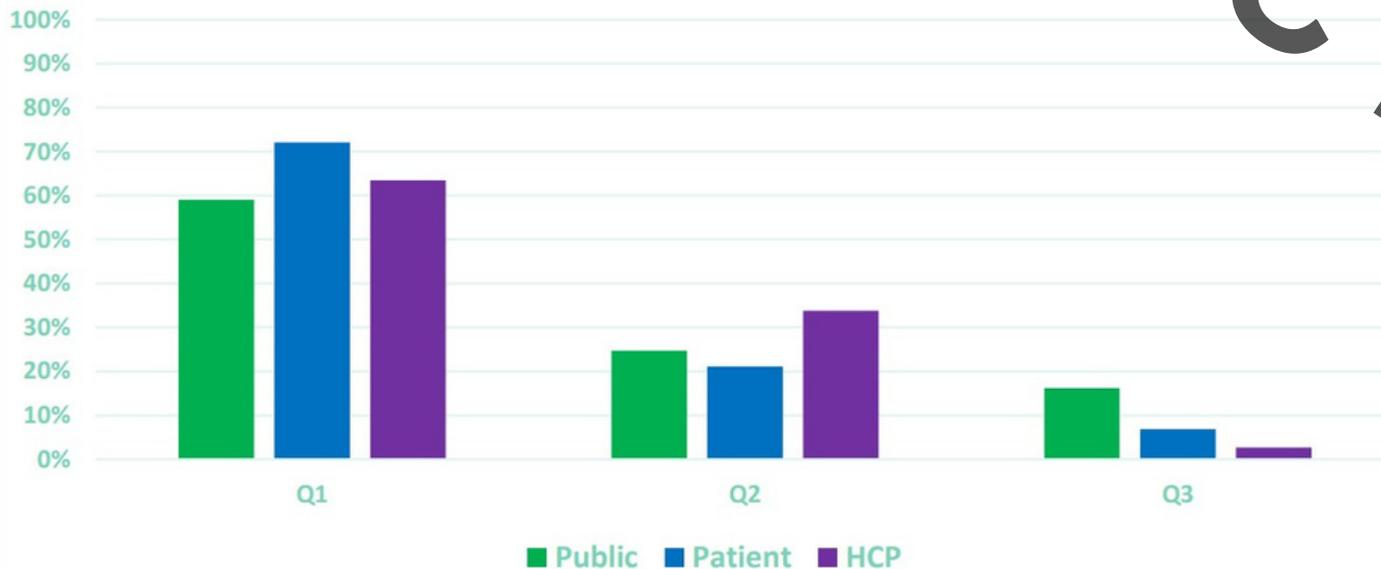
- Question One was deemed to be the most important research question with 596 respondents giving this question a rank of '1'.
- The 'Immune Response' research area was deemed to be the third most important research area patients, the public and practitioners.

*"Maybe if everyone who has the vaccine is given a diary form to fill in every few days then some useful data will become available for others. More qualitative than just the current quantitative numbers all the time."*

# Research Area -Population Behaviours

1. What impact does vaccine roll out have on the behaviours of the population and on our compliance to social restrictions e.g. lockdown measures? Does our compliance with rules reduce as vulnerable groups start to be vaccinated and people feel it is safer to return to normal living?
2. What is the impact on behaviours within a household once one person is vaccinated? Does this vary according to the characteristics of the household and the person who has been vaccinated?
3. How does the use of public transport (personal and for work) change following vaccination?

COVID-19 Vaccine Research Areas - Population Behaviours



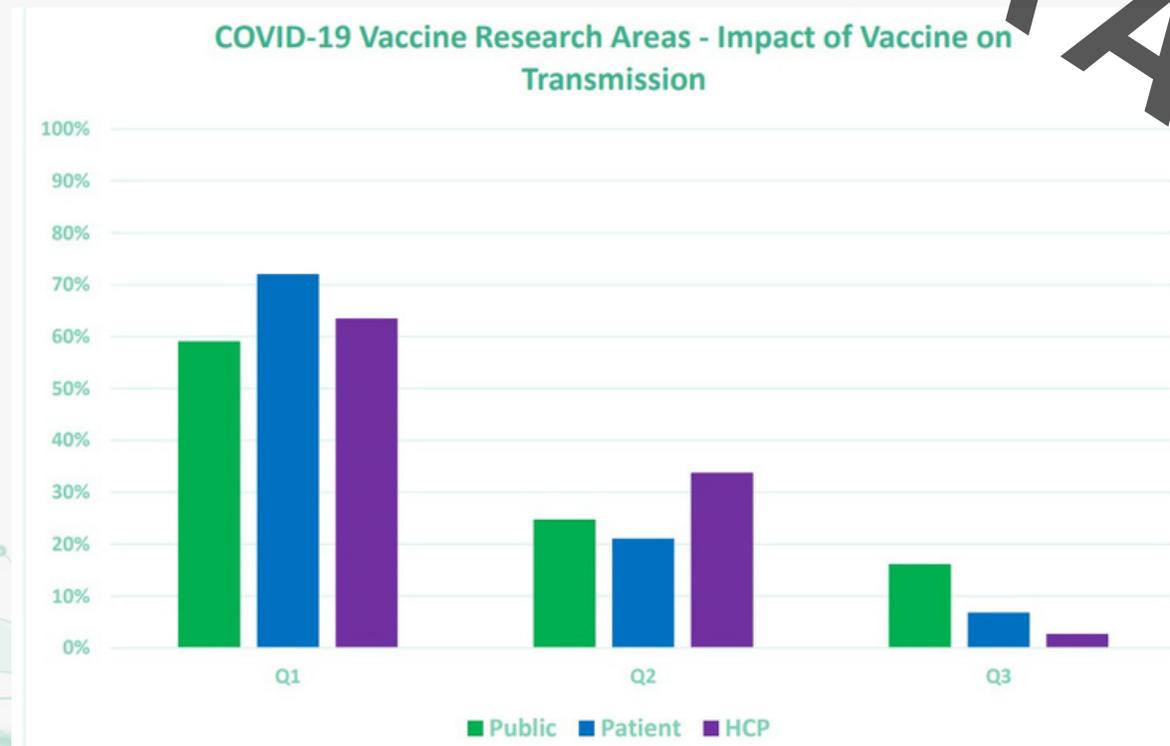
## Key findings

- Question One was deemed to be the most important research question with 68% of respondents giving this question a rank of '1'.
- The 'Population Behaviours' research area was deemed to be the least important research area for patients, the public and practitioners.

*Do you still have to shield after the vaccination? At what levels of vaccination within the population that restrictions can be removed? Is there benefit of vaccinating the household of those who are immunocompromised (as with flu vaccination) and should this be prioritised?*

# Research Area - Impact of Vaccine on Transmission

1. What is the impact of vaccination on the spread (transmission) of the virus? Does it prevent someone from catching COVID-19 and then being infectious or do individuals still catch COVID-19 but have an asymptomatic (no symptoms) or less severe response to the virus.
2. Once COVID-19 vaccination roll-out starts, do hotspots of low take-up of the vaccine lead to further outbreaks of COVID-19?
3. There are key risk factors that put people at a higher risk of catching COVID-19 as well as having more severe effects. How does vaccination impact these key risk factors for COVID-19 infection? E.g. are different population groups at greater risk of infection during and after vaccine roll out?



## Key findings

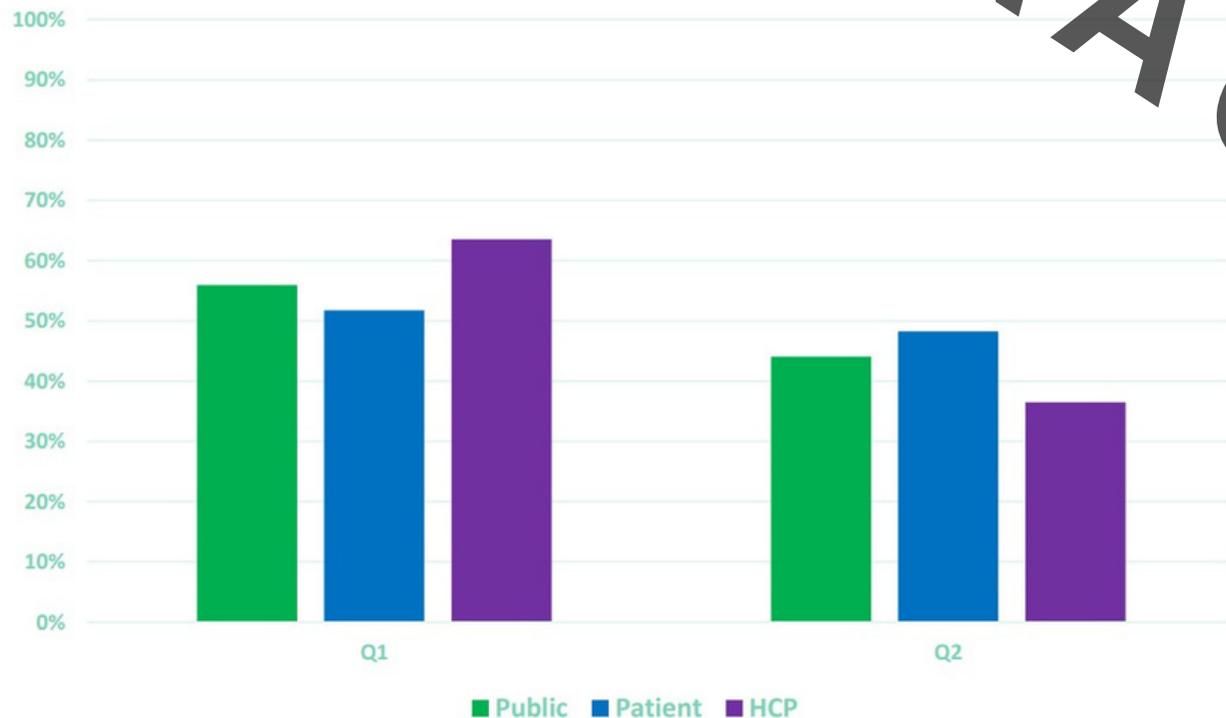
- Question One was deemed to be the most important research question with 68% of respondents giving this question a rank of '1'.
- The 'Impact of Vaccines on Transmission' research area was deemed to be the fifth important research area for patients, the public and practitioners.

*"I think research into the impact of vaccination should also include how it affects different communities etc..."*  
*"Need to have solid data on the effect of the vaccine that is in line with the way the public information has taught us the differential impact of the virus itself."*

# Research Area -Vaccine Uptake

1. What characteristics within a population result in either a low or high vaccine take-up rate?
2. What other factors influence vaccine take up rate? (e.g., distance from location to receive vaccine, mode of delivery, number of injections required, exposure to social media)?

COVID-19 Vaccine Research Areas - Vaccine Uptake



## Key findings

- Question One was deemed to be the most important research question but there were only an 8% difference between the two questions.
- The 'Vaccine Uptake' research area was deemed to be the **sixth important research area** for patients, the public and practitioners.

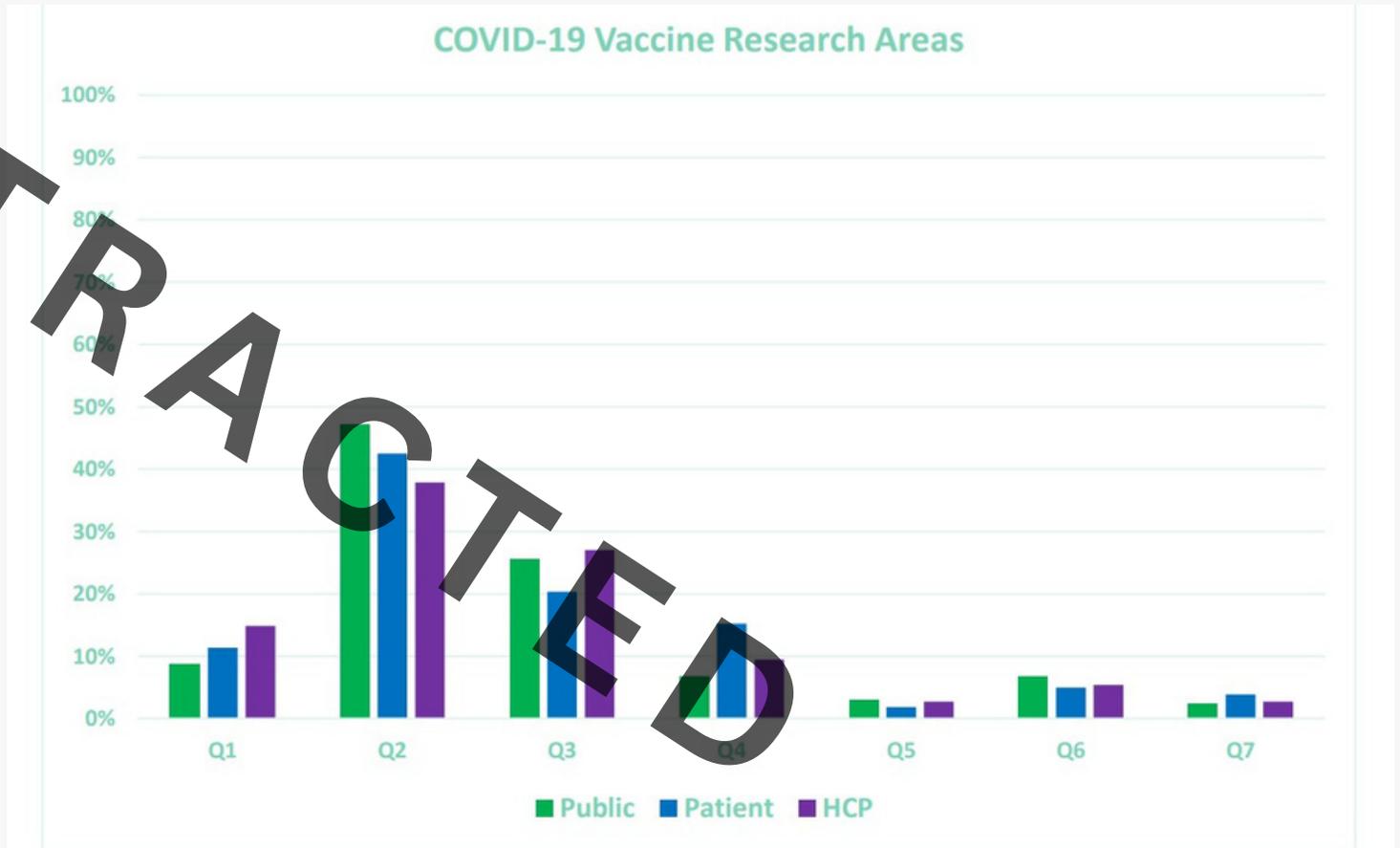
However, it is worth noting, there was an increase in the number of people who ranked this research area as '1' or '2' following the news of an additional vaccine being rolled out across the UK.

*"The factors influencing uptake of the vaccine should include deprivation, if you can't afford to travel some will miss out despite wanting to be vaccinated and should be considered as an additional question".*

# Overall key findings across all seven research areas

‘The Safety of the vaccine’ (Q2) area of research was deemed to be the most important by patients, the public and practitioners whilst the ‘Population Behaviours’ (Q5) area was least important.

“For how long does the vaccine provide immune protection (the way in which the body reacts to defend itself against the COVID-19 virus following vaccination)?” (which falls under the ‘Immune Response’ area of research) was the highest ranked question overall, with 72% of respondents ranking it most important.



**View the Full Report:**

<https://www.hdruk.ac.uk/wp-content/uploads/2021/01/Full-Report-Vaccine-Research-Question-Prioritisation-14-Jan-2021.pdf>

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