



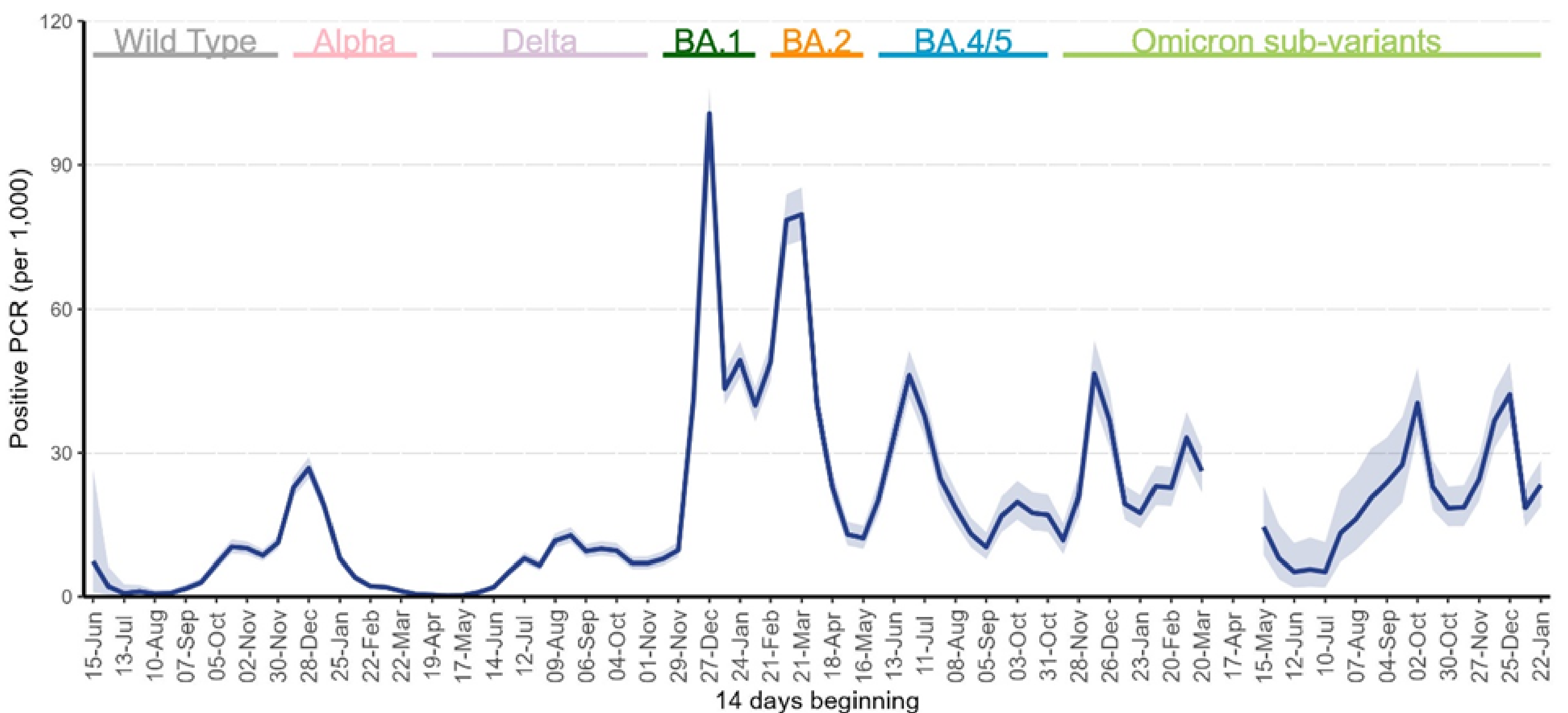
## Participant Newsletter

### *Tracking the Pandemic*

As we draw towards the end of SIREN 2.0, we wanted to take this opportunity to reflect on the great things we have achieved as a study as a direct result of the continued effort and amazing work of our participants and study sites.

The first SIREN participant was recruited in June 2020 and within the first year, we recruited 44,546 participants across the UK. This makes SIREN one of the largest global healthcare worker studies to be established during the pandemic. Over the past 4 years, SIREN participants have allowed us to track existing and emerging variants of concern.

### The SIREN Study - Tracking SARS-CoV-2 Infections in Healthcare Workers since June 2020





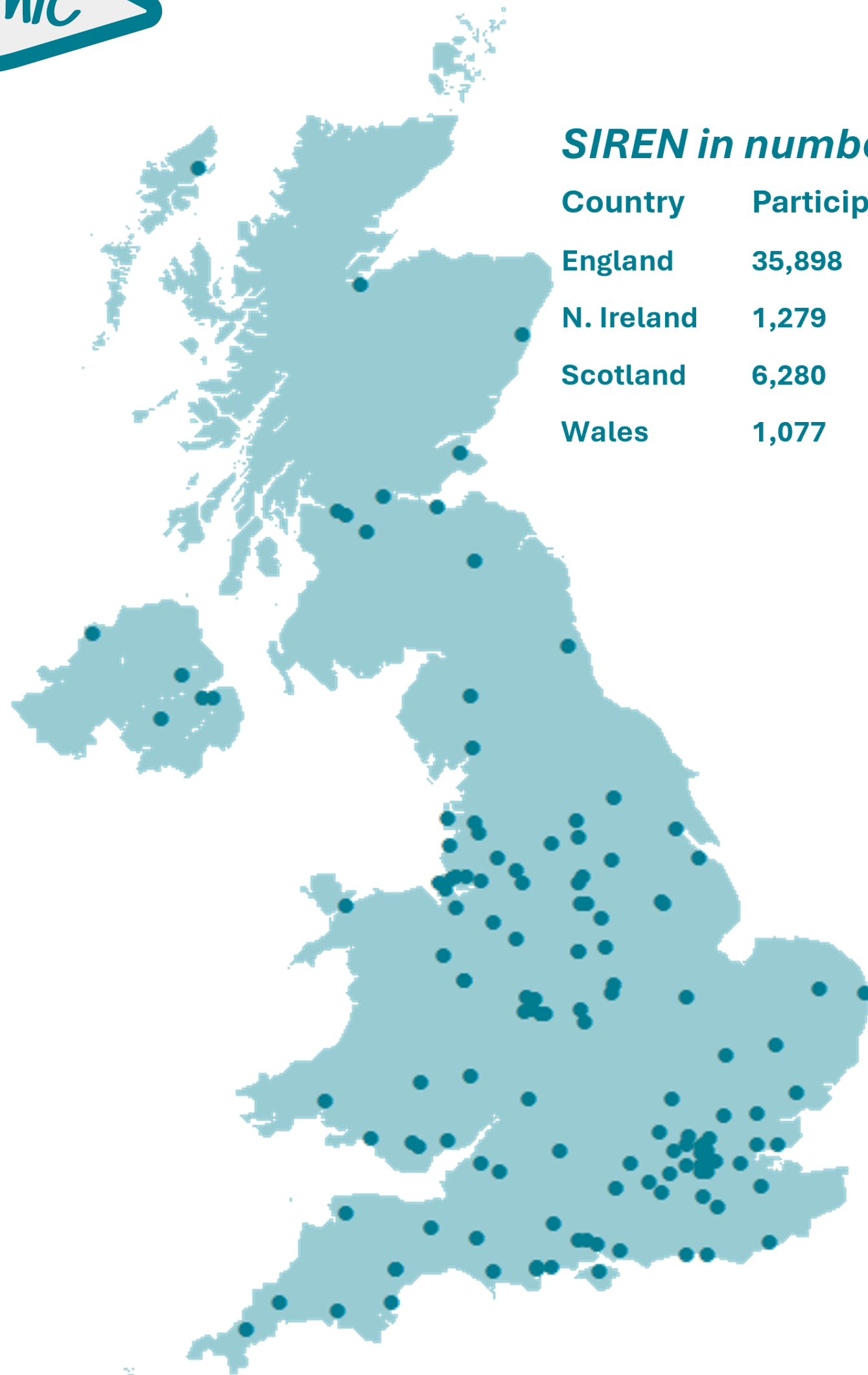
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# SIREN

SARS-Cov-2 Immunity & Reinfection Evaluation

## Participant Newsletter

*Tracking the Pandemic*



By providing regular PCR tests, serum samples and questionnaires, we have been able to answer key questions about the immune response to SARS-CoV-2 and shape national policy, including vaccination strategies. The data you have provided has formed the basis of over **75 scientific outputs**.

With your help, we have continued to adapt and expand our scientific focus, monitoring COVID-19, influenza and RSV infections, and contributed to the evidence about healthcare worker health.



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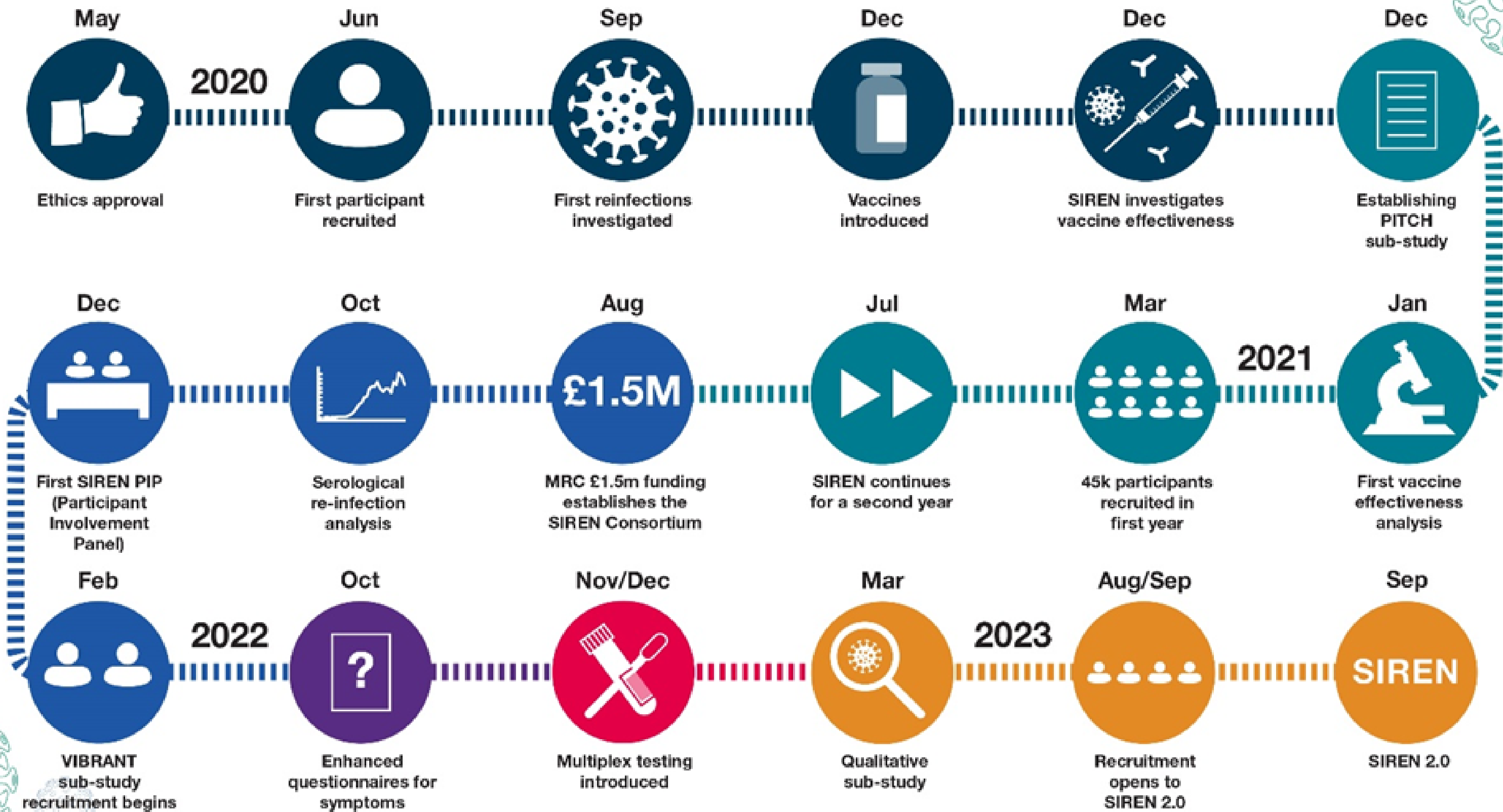
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**SIREN**  
SARS-CoV2 Immunity & Reinfection Evaluation

### The story so far

- Wildtype
- Alpha
- Delta
- BA1/2
- BA4/5
- Omicron sub-variants





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### SIREN 2.0 Review

Since 2023, we have launched SIREN 2.0 - a new phase for the SIREN Study. Below is a summary of SIREN 2.0 in numbers:

5,970 participants included



57,548 PCR tests completed



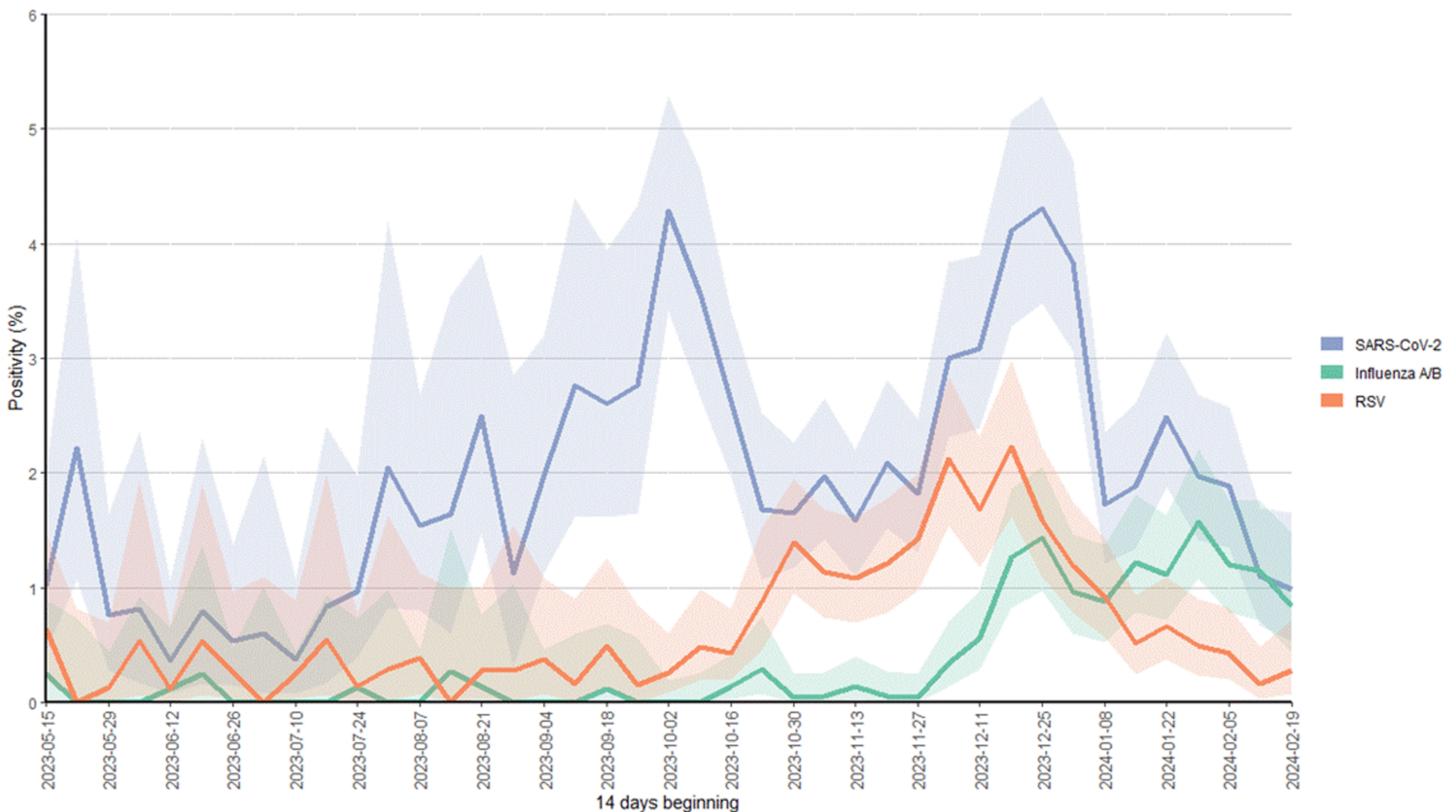
877 positive samples sequenced



9,481 serology samples received



Throughout this year, we have monitored infection trends on Influenza and RSV, in addition to SARS-CoV-2. This valuable data has supported national surveillance on respiratory viruses and have been included in the [National Influenza and COVID-19 surveillance report](#).



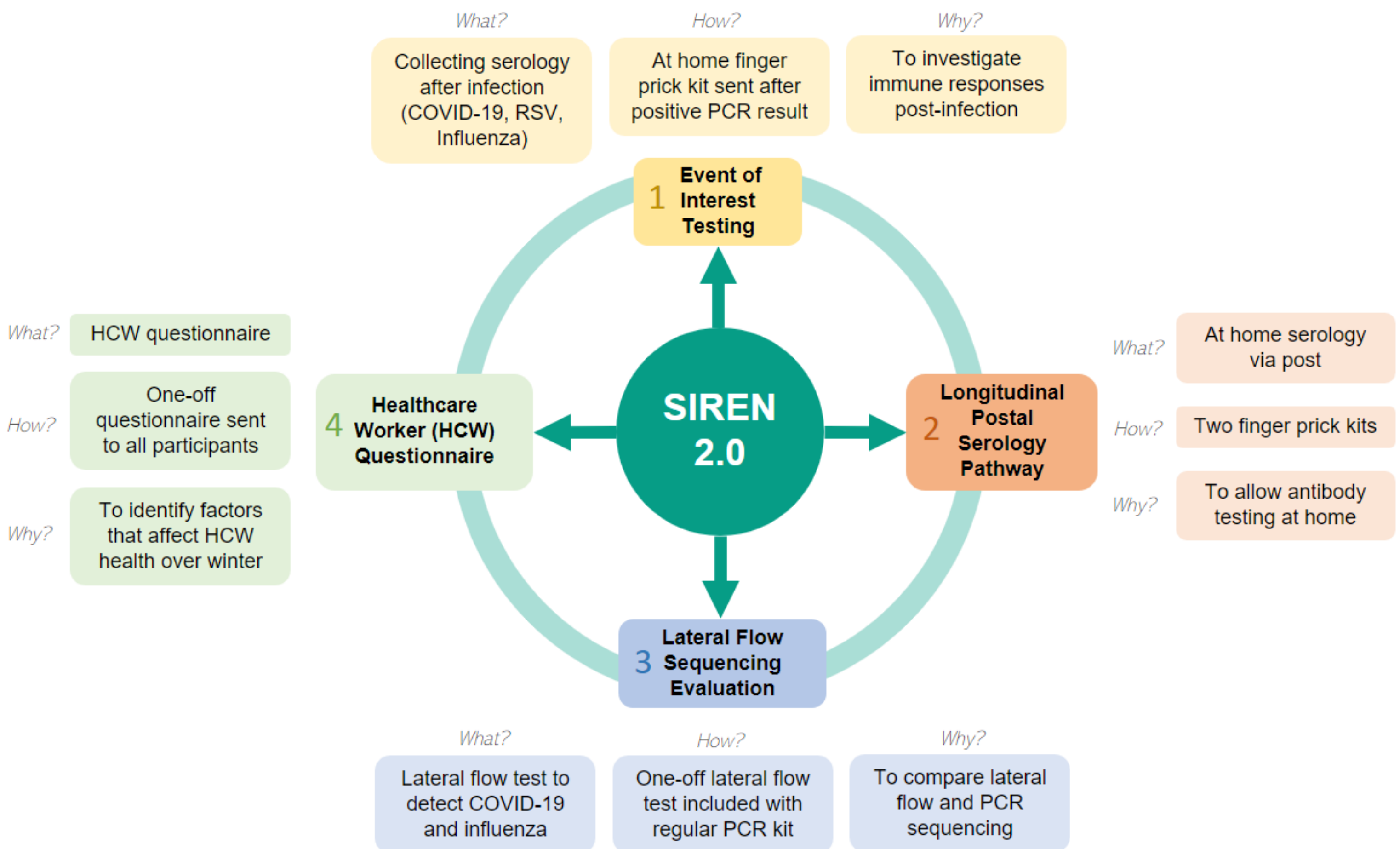


## Participant Newsletter

### SIREN 2.0 Review

The graph above shows the SIREN study fortnightly PCR positivity (%) by infection from May 2023 to March 2024.

Alongside this, we have rolled out four sub-studies, described below:





## Participant Newsletter

### *SIREN 2.0 Review*

#### 1. Event of Interest Testing

A staggering 82% of samples were returned. These will be used to improve our understanding of the host immune response after an infection.

#### 2. Longitudinal Postal Serology Pathway

We had an amazing response from participants on the SIREN 2.0 postal pathway, who were offered the opportunity to provide blood samples via post.

#### 3. Lateral Flow Sequencing Evaluation

SIREN 2.0 participants performed a one-off lateral flow test alongside their regular PCR test. This sub-study has two main aims:

- To investigate how effective multiplex LFDs are at detecting both COVID-19 and Influenza compared to PCR tests.
- To investigate whether the LFD cassettes can be used as a reliable source of viral material for whole genome sequencing.

#### 4. Healthcare Worker (HCW) Questionnaire

This one-off questionnaire was sent to **all SIREN participants**, whether they were actively testing or not in February 2024. It aims to investigate key factors that affect the health of HCW.



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### NEXT STEPS

Throughout the study, we have collected over 400,000 serum samples, 61,000 viral respiratory samples and associated fortnightly questionnaire data!

### SIREN serology samples stored at the SIREN Biobank



Although current active testing will be ending on 31st March 2024, we still have a busy summer ahead of us, focused on analysing your data and working with our academic collaborators to answer key outstanding scientific questions.



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### NEXT STEPS

All active sites will become dormant from the 01st April 2024. We are looking into establishing a SIREN Research Network, which will allow us to continue to work with our existing research sites, to address new research questions in the future.

We have started to establish new research partnerships and collaborations, including working with:

- The Francis Crick Institute and World Influenza Centre
- The Wellcome Sanger Institute
- The University of Edinburgh
- The World Health Organization (WHO) & Centre for Communicable Diseases (CDC)
- Kings College London Health Protection Research Unit (HPRU)

So, this is not goodbye... Watch this space for future updates about publications and new research studies.





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*NEXT STEPS*

Finally, we wanted to say a big thank you from the SIREN study team at UKHSA. Without your continued collaboration we would not have been able to build this amazing study, network and scientific resource established under extraordinary circumstances.



If you have any questions, please email  
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