UK Health Security Agency

SIREN

SARS-CoV-2 Immunity and Reinfection EvaluatioN

September 2026

Participant Newsletter

Welcome to the September issue of the SIREN Participant Newsletter.

This month, we are excited to launch the SIREN+ Winter Pressures 2026/27 Study , where we will collect crucial information on respiratory illness this winter.

In this newsletter, we are also sharing some of our recent publications through Science Corner. Take a five-minute read through to learn more about the Global SEARCH Network and the SIREN cohort profile.

SIREN+ Winter Pressures 2026/27 Study

Following the success of our Winter Pressures studies in previous years, we are excited to be launching it again this year to collect more important data on seasonal infections affecting healthcare staff.

Pirbright Institute: How SIREN Samples Are Shaping Pandemic Preparedness

Our partners explain how SIREN samples are advancing our understanding of the immunity and future pandemic preparedness.

Science Corner: Cohort Profile: SARS-CoV-2 Immunity and Reinfection EvaluatioN (SIREN)

Read about a recent SIREN publication that outlines the study to date, including talking about our cohort and data collection.

Science Corner: The Global SEARCH Network

An international collaboration designed to help prepare for the next pandemic.

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SIREN+ Winter Pressures 2026/27 Study

NEW!

What?

This study will continue to monitor the impact of respiratory illness among healthcare workers during the winter period, helping us better understand how seasonal infections affect staff health, attendance at work and the wider healthcare system.

Information will be collected through online surveys from October 2026 to March 2027.

Why?

Over the past six winters, SIREN participants have provided valuable insights into the burden of respiratory illness among healthcare workers.
This year, we are expanding the study to better understand the factors that may influence the risk of infection, including household, workplace and community exposures.
The information you provide will help improve our understanding of where infections may be acquired and support efforts to protect the healthcare workforce during periods of increased demand.

What's New?

This season, we have introduced a few changes to provide a more detailed picture of respiratory illnesses among healthcare workers:
Additional enrolment questions about household composition, workplace contacts and public transport use
Weekly surveys instead of fortnightly surveys to capture changes in symptoms more accurately over time.
Expanded follow-up surveys that include questions about illness within your household, activities at work and in the community, and the impact of illness on your daily life and work.

Who?

All SIREN participants who are currently employed within a hospital setting are eligible to take part.
In addition, we will be opening the cohort to new participants from selected sites.

When?

Recruitment will open in September/October 2026, and eligible participants will receive an invitation to complete the enrolment survey.



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Pirbright Institute: How SIREN Samples Are Shaping Pandemic Preparedness

Our partners at the Pirbright Institute explain how SIREN samples are advancing our understanding of immunity generated by vaccination against SARS-CoV-2.

The blood samples provided by participants are helping us understand how well COVID-19 vaccines protect people against different SARS-CoV-2 variants and related coronavirus. Our findings showed that vaccination boosted levels of protective antibodies against the original COVID-19 virus and newer variants, including Omicron.

Importantly, we also found that COVID-19 vaccination generated antibodies that can recognise and bind to other closely related coronaviruses. This suggests that COVID-19 vaccines may help providing some protection against similar viruses that currently circulate in animals and could potentially jump to humans in the future.

In addition, these samples have also allowed us to compare immune responses in the UK with those seen in other countries, such as Kenya. This helps us understand whether people may already have some existing immunity to newly discovered coronaviruses and provides valuable information about the potential risk posed by emerging viruses.

THE Pirbright INSTITUTE

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The global SEARCH network: Providing a framework for critical COVID- 19 healthcare worker cohort studies transitioning from the pandemic to the interpandemic period

Katz MA, Islam J, Duca L, et al. The global SEARCH network: providing a framework for critical COVID-19 healthcare worker cohort studies transitioning from the pandemic to the interpandemic period. BMJ Global Health2026;11(7):e017704. doi:10.1136/bmjgh-2024-017704

Goals of the Collaboration

This new commentary in BMJ Global Health is about the formation of the Global SEARCH network (Surveillance of Emerging infectious diseases and Agile Research Cohorts in Healthcare workers), an international collaboration of healthcare worker studies.

The network was formed after SIREN held a two-day workshop bringing together researchers and experts from around the world to talk about existing studies with healthcare workers. It was established to help foster international collaboration, and discuss research about new infections, including:

- How to overcome research challenges
- Share lessons learned from the COVID-19 pandemic
- Review key research priorities on respiratory viruses
- Scope potential collaborations for future research studies

World Health Organization

CDC U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION

ecdc EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

Who took part?

The SEARCH network brings together researchers and healthcare worker cohort studies from around the world, including the UK Health Security Agency (UKHSA) and other organisations such as the World Health Organization (WHO), US CDC, European CDC and partners across Europe, Asia and South America.

The network builds on studies established during the COVID-19 pandemic, in which tens of thousands of healthcare workers regularly provided samples and information to help researchers understand COVID-19 and vaccine effectiveness.

Since then, several cohorts have expanded their research questions to understand other respiratory viruses, such as flu, and address key questions related to healthcare worker's health.

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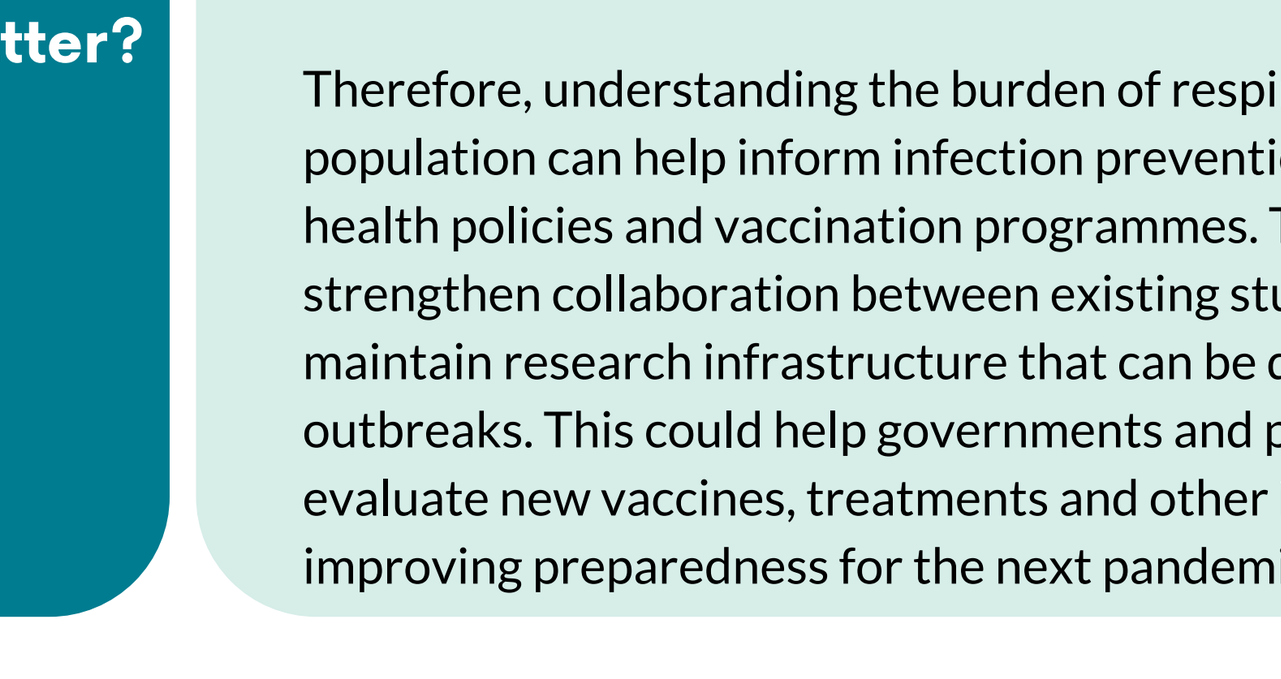
The global SEARCH network: Providing a framework for critical COVID- 19 healthcare worker cohort studies transitioning from the pandemic to the interpandemic period

Why does this matter?

Healthcare worker cohorts are valuable both during pandemics, and between them. Because healthcare workers may face higher exposure to infectious diseases through their work, these studies can provide rapid evidence when new health threats emerge.

In addition, healthcare workers are critical to maintain healthcare systems capacity, particularly during periods of increased demands caused by seasonal pressures and infectious diseases outbreaks.

Therefore, understanding the burden of respiratory infections in this population can help inform infection prevention strategies, occupational health policies and vaccination programmes. The SEARCH network aims to strengthen collaboration between existing studies, share expertise, and maintain research infrastructure that can be quickly mobilised during future outbreaks. This could help governments and public health organisations evaluate new vaccines, treatments and other interventions more rapidly, improving preparedness for the next pandemic.



Further reading
The full commentary is available to read in BMJ Global Health here.

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Cohort Profile: SARS-CoV-2 Immunity and Reinfection EvaluatioN (SIREN)

Foulkes S, Munro K, Khawam J, et al. Cohort Profile: SARS-CoV-2 Immunity and Reinfection EvaluatioN (SIREN), International Journal of Epidemiology, Volume 55, Issue 2, April 2026, dyag032, https://doi.org/10.1093/ije/dyag032

Goal of the paper

In this paper, we describe the aims and methods of the SIREN study, as well as broad information about the make-up of our cohort. We also talk about what information the study has collected, and our key findings to date.

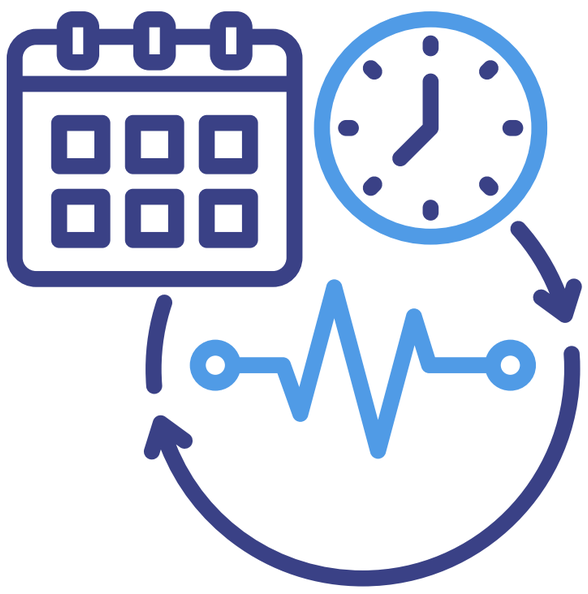
What did we describe?

The SIREN study was set up in early COVID-19 pandemic, to better understand SARS-CoV-2 infection and immunity, by collecting longitudinal samples and questionnaire responses from healthcare workers. It quickly adapted to address questions on COVID-19 vaccination, as well as the impact of other respiratory viruses on the cohort.

Insights from the cohort

By explaining how the SIREN study was set up and run, this paper highlights:

- the main strengths and limitations of the study
- how the dataset and samples collected have helped addressing key research questions, in collaborations with research partners
- how the systems and processes developed throughout the study have supported future research collaborations



Further reading

You can find the full study published in the International Journal of Epidemiology here.

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What Different Surveillance Systems Tell Us About Winter Respiratory Illness in England: A Time-Series Analysis Combining Participatory, Syndromic and Laboratory Datasets, 2022–2025

K. Munro, J. Mellor, A. Charlett, et al., “What Different Surveillance Systems Tell Us About Winter Respiratory Illness in England: A Time-Series Analysis Combining Participatory, Syndromic and Laboratory Datasets, 2022–2025” Influenza and Other Respiratory Viruses 20, no. 9 (2026): e70323, https://doi.org/10.1111/irv.70323.

Goal of the paper

In this paper, we compared trends in respiratory illness reported by SIREN participants with other surveillance systems in England, including community cohorts, healthcare attendance data and laboratory testing for respiratory viruses.

What did we describe?

We found that trends in respiratory illness were similar across surveillance systems, indicating that they were capturing a consistent picture of winter respiratory illness. However, healthcare workers in SIREN reported higher levels of respiratory illness than participants in community cohorts, highlighting the important role healthcare workers play in helping us understand winter respiratory illnesses.. We also found that different respiratory viruses contributed differently to illness across surveillance systems, reflecting variation in the population covered and severity of illness captured.

Insights from the cohort

No single surveillance system provides a complete picture of respiratory illness. By combining information from multiple sources, we can better understand the impact of respiratory illness across the population and have greater confidence in interpreting winter respiratory trends.



Further reading

You can find the full study published in Influenza and Other Respiratory Viruses here.

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As always, a huge thank you for continuing to support SIREN.

The information you provide continues to generate valuable evidence on respiratory illness in healthcare workers.

We look forward to your involvement in the SIREN+ Winter Pressures Study 2026/27.



If you have any questions or would like to get in touch with the research team directly, please reach out to us at phe.siren.participants@ukhsa.gov.uk