

# National Core Studies Impact Report

January to March 2022

The COVID-19 National Core Studies (NCS) are a crucial part of the UK's ongoing pandemic response. They are enabling the UK to use health data and research to inform both our near and long-term responses to COVID-19, as well as accelerating progress to establish a world-leading health data and research infrastructure for the future

## The 6 National Core Studies are:

**Epidemiology and Surveillance** led by Ian Diamond (Office for National Statistics) collects and analyses data to inform restrictions and protection against imminent outbreaks.

**Clinical Trials Infrastructure** led by Patrick Chinnery (Medical Research Council) accelerates delivery of large scale COVID-19 trials for drugs and vaccines.

**Transmission and Environment (also known as PROTECT)** led by Andrew Curran (Health and Safety Executive) improves understanding of COVID-19 virus transmission in different settings and environments.

**Immunity** led by Paul Moss (University of Birmingham) supports research to improve understanding of immunity against COVID-19, to inform back-to-work policies.

**Longitudinal Health and Wellbeing** led by Nish Chaturvedi (University College London) and Jonathan Sterne (University of Bristol) uses data from longitudinal studies to address the impact of COVID-19 and inform mitigating strategies

**Data and Connectivity** led by Andrew Morris (Health Data Research UK) in partnership with Office for National Statistics makes UK-wide health and administrative data available to catalyse COVID-19 research.

## This quarterly report aims to:



Communicate the impact the National Core Studies are having on COVID-19 response



Promote NCS Open Science data, tools and resources to ensure they are taken up



Highlight where advances & learning gained during NCS translates into a legacy of stronger health threat preparedness and recovery

## Managed by:



## Funded by:



## Between January and March 2022, NCS worked with the public via advisory groups, workshops and surveys, to shape and communicate our programme

In April, 216 patients and members of the public from across the UK shared their views on the research priorities of the **Data & Connectivity NCS**-supported Outbreak Data Analysis Platform. While all areas of outbreak research proposed for the Platform's scope had strong public support, the results showed that different age groups, locations, genders and ethnicities showed clear differences in their research priorities. One participant said: **"It's so important this happens across the four nations and across different population ACROSS THE UK otherwise we're just going to widen the health inequality gap. Tell me how I can help to make this happen."**

**Epidemiology & Surveillance NCS** ran an extensive user experience evaluation for the COVID-19 Infection Survey transition from face-to-face to digital collection. This aims to ensure the survey answers critical research questions while remaining inclusive and meeting the needs of all individuals.



**PROTECT Transmission & Environment NCS'** six themes are currently synthesising the results from their public contributor research to inform public guidance they will produce on changes to government lateral flow testing provision.

Regular Participant Advisory Group workshops by **Longitudinal Health & Wellbeing NCS**, together with their **long COVID forum**, have helped the team develop long COVID survey questions and interpret new long COVID symptom cluster work from a patient's perspective.

## Between January and March 2022, there was regular media engagement with NCS results, informing public understanding on topics from boosters to new variants

In February, **studies from the BHF Data Science Centre-led CVD-COVID consortium and EAVE-II cohort** examining the elevated risk of blood clots following Astra Zeneca vaccine administration led to over 200 media mentions and over 5000 impressions on Twitter. The studies were supported by both **Data & Connectivity and Longitudinal Health and Wellbeing NCS**.

In the first quarter of 2022, when the Omicron variant was emerging, the **Epidemiology & Surveillance NCS** COVID-19 Infection Survey received **11,500** media mentions, including in the Independent, Mail Online, GB News and the BBC,

averaging **128** mentions per day. This was an **81%** increase from the previous quarter.

The **Longitudinal Health and Wellbeing and Data & Connectivity NCS**-supported **OpenSAFELY** platform **conducted a federated analysis of 57 million patients' primary care records to explore changes in English medication safety indicators**. In what the authors believe to be the most comprehensive assessment of medication prescribing safety during the SARS-CoV-2 pandemic in England to date, covering 95% of the population, they found prescribing safety was maintained during the pandemic across a diverse range of measures.

# How the NCS have informed the UK's COVID-19 response: Impact case studies from January to March 2022

## Tracking Omicron to inform government response



Over the course of the COVID-19 pandemic, tracking new viral variants and their effects on infections, hospitalisations and deaths was essential to inform the government's response.



**Epidemiology & Surveillance NCS** COVID-19 Infection Survey, first launched in April 2020, carries out variant analysis via gene pattern matching and genome sequencing. Between January and March 2022, the survey was able to track the Omicron BA.1 and BA.2 variants as they appeared and started to become dominant, giving timely input to the government's response, and identified as a crucial part of ongoing surveillance in the UK government [living with COVID-19 strategy](#).



In Scotland, the **Data & Connectivity NCS**-funded [Early Pandemic Evaluation and Enhanced Surveillance of COVID-19 EAVE-2 platform](#) have been feeding their data into [fortnightly Government Operational Research Service briefs](#). Throughout the pandemic these have been used by the Scottish Government, the health service and the wider public sector to plan their response.



[COVID-19 Infection Survey] is part of a very good surveillance system in this country which is going to be vital.

- Chief Scientific Adviser Sir Patrick Vallance



# How the NCS have informed the UK's COVID-19 response: Impact case studies from January to March 2022

## Learning from outbreak investigations



Identifying the causes and common risk factors of COVID-19 outbreaks helps to improve guidance for employers and protection for employees.

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The **PROTECT Transmission & Environment NCS** outbreak investigations theme have run 20 rapid on-the-ground workplace outbreak investigations to date, with comprehensive analysis of outbreak data from public health and regulatory bodies including UK Health Security Agency and the Health and Safety Executive.

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They return investigation results to companies within two weeks of all visits, and recommended changes to practice at the majority of these workplaces.



The feedback provided was very helpful and suggested additional measures that we could take which we have now implemented.

- A Recipient of NCS Outbreak Investigation Report



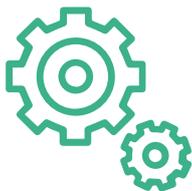
# How the NCS have informed the UK's COVID-19 response: Impact case studies from January to March 2022

## Understanding long Covid



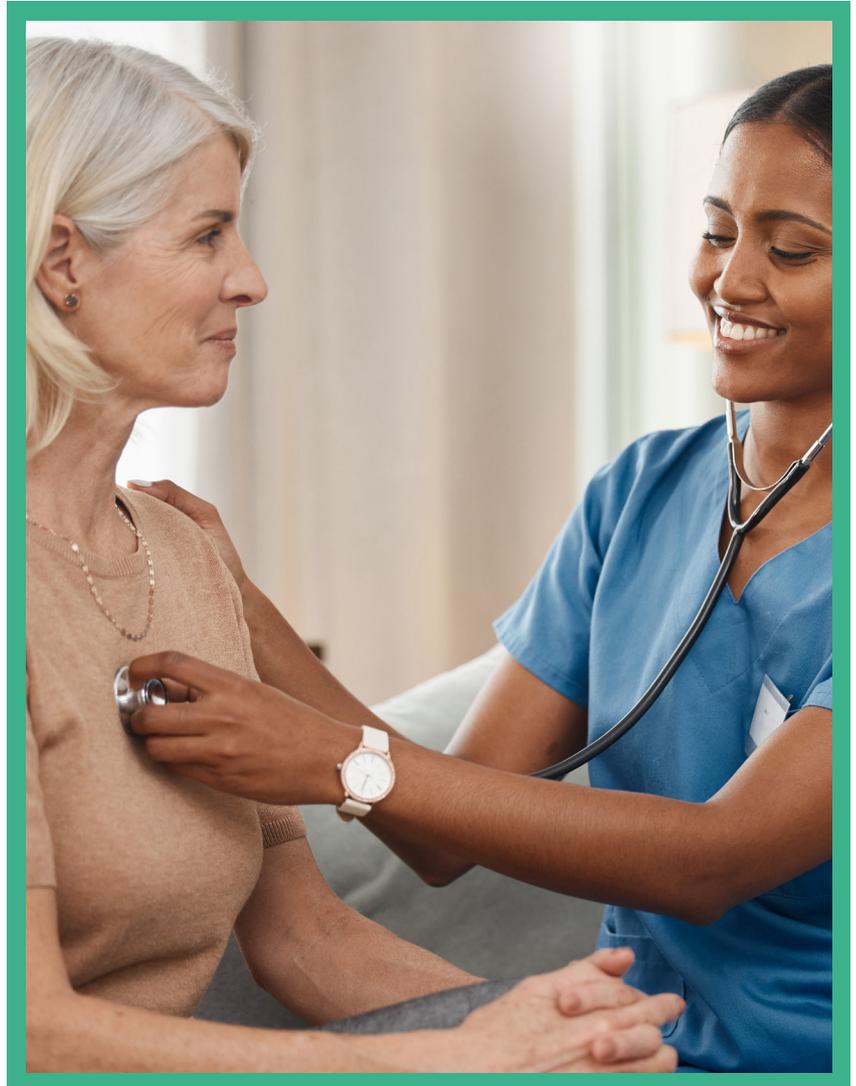
The long-term consequences of COVID-19 are increasingly recognised but are still not well characterised.

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Over the past quarter, **Longitudinal Health and Wellbeing NCS** has provided information to policy makers via a well-received Cabinet Office Long Covid Teach-in session ([summarised here](#)). The team have also presented this work to the NHS England long Covid task force.

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The findings are also directly fed into the NICE [living guideline for managing the long term effects of COVID-19](#).



# How did NCS resources make the UK better prepared for recovery and future health threats?

## Case studies from January to March 2022

### Unlocking the power of linked health data at population-scale



COVID-19 proved how timely and secure access to population-level linked health data produces valuable evidence to inform policy.

This has been **acknowledged as a major lesson learned from the pandemic to date**

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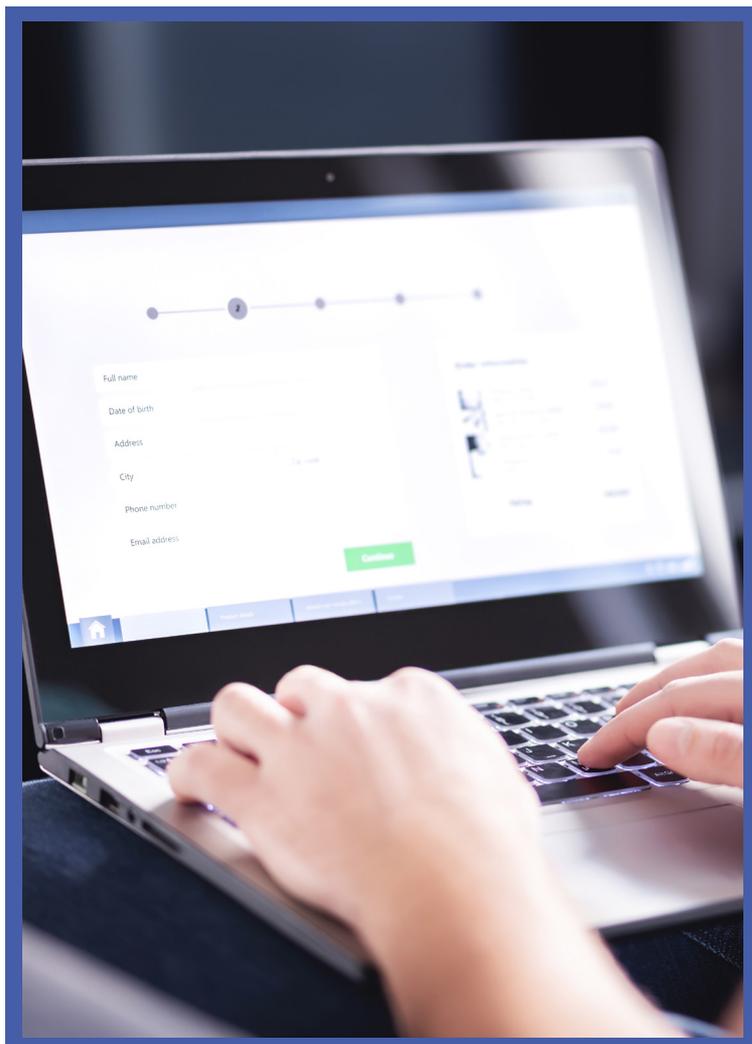
**Epidemiology & Surveillance NCS** COVID-19 Infection Survey linked data for consenting participants with Census, vaccination, health and mortality data.

The **Longitudinal Health & Wellbeing NCS** UK Longitudinal Linkage Collaboration linked over 20 rich research cohorts with health records and other data.

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Made available to researchers securely in a way that preserves data privacy via **Trusted Research Environments**, these resources have enabled cross-cutting insights on the social, economic, and environmental determinants of COVID-19 impact. If sustained, they can do the same to support recovery and our response to other health challenges.



# Covid Recovery Strategy

For a fairer future



Direct health impacts of the pandemic have disproportionately affected older people. Actions in this Recovery Strategy are considered in relation to evidence to address those impacts.

- Scottish National Recovery Strategy's equality impact assessment

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Scottish Government  
Riaghaltas na h-Alba  
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## Informing Covid Recovery Strategies



Throughout the pandemic, policymakers faced the challenge of rapidly integrating evidence into their policies and decisions. Now, governments want to ensure their Covid Recovery strategies learn from national responses to the pandemic.



In March, **all NCS** responded to a request from the Scottish Government's [COVID-19 Learning and Evaluation Oversight Group](#), to summarise NCS evidence relevant to COVID-19 response evaluation.



Over the next two years the [COVID-19 Learning and Evaluation Oversight Group](#) will synthesise this with other evidence to inform Scotland's recovery from COVID-19. Recovery is already drawing on NCS insights - for example, the Scottish National Recovery Strategy's equality impact assessment cites work on differences in long Covid risk across protected groups from Longitudinal Health and Wellbeing NCS using the [OpenSAFELY platform](#)



# How did NCS resources make the UK better prepared for recovery and future health threats?

## Case studies from January to March 2022

### What works best for controlling transmission on public transport?



The pandemic saw a variety of different infection control measures used on public transport, with different territories choosing different strategies. But which ones worked best?



**PROTECT Transmission & Environment**  
NCS' sector-specific theme researchers published [a review of global research into COVID-19 virus transmission and control measures trialled on public transport to date](#). They found stronger evidence that reducing airborne transmission was effective (via facemasks, distancing and ventilation). Evidence for cleaning surfaces as a way of reducing transmission was weaker.



They summarise this together with [their work on Covid and the public transport sector in a special report](#), identifying the remaining evidence gaps. The researchers are now working with the [National Union of Rail, Maritime and Transport Workers policy teams](#) on lessons from the pandemic, including recommendations from the perspective of local & combined authorities.



#### Public advisory group case study highlight:

We've seen a lot of great impact across this quarter's NCS Impact Report, and this is our highlight. The review that explored all of the different COVID-19 virus transmission and control measures that have been trialled on public transport is important given the variety of measures that have been trialled and put into place. Most importantly, they're now working with the National Union of Rail, Maritime and Transport Workers policy teams.

Not only will this be beneficial for future outbreaks but also for everyday infections such as colds and coughs. This is so important because it means we can actually put our learnings into practice and see real change and protection for the public.

