

National Core Studies

April 2022

This is a monthly update from the [National Core Studies](#) programme with their latest news, key findings and things to look out for.

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.

Read the NCS Impact Report for Oct - Dec 2021 [here](#)

News from the National Core Studies

COVID-19 Infection Survey passes 2 million blood test milestone

Epidemiology & Surveillance NCS, led by Office for National Statistics, continue to deliver gold-standard evidence to inform government decision-making, most recently during rise in cases of the Omicron BA.2 variant. [Coronavirus \(COVID-19\) Infection Survey](#) passed a key milestone of 2 million blood tests now taken to track antibody levels in communities.

Public questions about COVID-19 answered by PROTECT

A recent **PROTECT Transmission & Environment NCS** stakeholder survey identified 700 questions from the public about how behaviour, demographics and biology influence COVID-19 airborne transmission, infection and symptoms. The study will synthesis their research to date and make answers to these questions public via a FAQ section on the [study website](#).

UK Longitudinal Linkage Collaboration now open to users

[UK Longitudinal linkage Collaboration](#) funded by **Longitudinal Health & Wellbeing** and supported by **Data & Connectivity NCS**, opened for user applications from the wider UK based research community on March 14th. This resource provides

streamlined access to research data from volunteers at 19 longitudinal studies, linked to their routine medical records, to help researchers work to improve health and wellbeing throughout and beyond the COVID-19 pandemic.

UK LLC Deputy Director Robin Flaig talks about where the idea for UK LLC came from and how the team made it a reality in this blog post

Viral sequencing data ready for streamlined access platform

[COVID-19 Genomic UK Consortium](#) viral sequencing data is now cleared for transfer from the UK Health Security Agency to the **Data & Connectivity NCS**-supported [Outbreaks Data Analysis Platform](#) (ODAP) in Edinburgh. Once it is operational, ODAP will offer streamlined access to this and many other linked genomic, clinical and research (e.g GenOMMIC, ISARIC-4C and PHOSP) datasets for researchers, advancing understanding of severe infectious disease and other exposures of public health interest.

Public contributors reflect on involvement in COVID-19 research

Immunity NCS held a conference 24 - 25th March attended by researchers, policymakers and public representatives. At [a session organised by the British Society for Immunology](#) researchers heard the personal perspectives of people whose immune systems are weakened by an illness or treatment. The panel of ten people, who have a range of backgrounds and experiences, provided advice, guidance and feedback on the study's work and the wider implications of this research. [A report on the impact of public involvement in this research was recently published.](#)

What stakeholders need now on COVID-19 transmission

PROTECT Transmission & Environment NCS portfolio team held roundtable discussions with stakeholders from occupational health, local and devolved government, and sector stakeholders (including from Department of Transport and Confederation of Passenger Transport) to understand their ongoing COVID-19 transmission evidence needs. The findings will inform resource prioritisation and translate our findings to meet end-user needs for the final phase of the PROTECT programme in 2022-23.

94 NCS datasets made available to access via the Health Data

Research Innovation Gateway by Data & Connectivity NCS

Browse the NCS datasets here

Coming soon from NCS:

On 6 April 2022 **Epidemiology & Surveillance NCS** release "[Coronavirus \(COVID-19\) Infection Survey technical article: cumulative incidence of the number of people who have tested positive for COVID-19](#)", an analysis of the number of people in the UK who have tested positive for COVID-19 using the Coronavirus (COVID-19) Infection Survey.

[QResearch](#) is a large, consolidated database derived from the anonymised health records of over 35 million patients. It contains longitudinal data tracking back over 30 years. Recognising that this resource is in high demand from researchers, **Data & Connectivity NCS** have funded QResearch to become [openly accessible](#) to more researchers using a standardised '[5 Safes](#)' [application form](#), and join the interoperable network of national Trusted Research Environments.



Researchers can now request access via the QResearch Collection on the Health Data Research Innovation Gateway

NCS research findings to highlight this month:

The RECOVERY+ trials found that baricitinib, an anti-inflammatory drug normally used to treat rheumatoid arthritis, [reduces the risk of death when given to hospitalised patients with severe COVID-19](#). This shows the power of the UK's integrated trials infrastructure. The **Clinical Trials NCS**-supported UK COVID Therapeutics Advisory Panel used phase 2 trial data and insight gathered from the Cambridge Clinical Trials Unit's TACTIC – R platform to inform their recommendation to include baricitinib in RECOVERY+ Phase 3 trials.

In the week ending 20 March 2022, the **Epidemiology & Surveillance NCS** [Coronavirus \(COVID-19\) Infection Survey](#) found that the percentage of people with infections compatible with the Omicron BA.2 variant increased in England, Wales and Scotland and decreased in Northern Ireland. Infection rates in the over 50s were at the highest levels since our survey began.

The **Data & Connectivity NCS**-supported CVD-COVID consortium, led by BHF Data Science Centre, used linked electronic health record data for 56 million people in England to show that [people taking anticoagulants for a heart condition were around 10% less likely to die from COVID-19](#). This study shows the value of population-scale, observational analysis to rapidly and efficiently assess novel beneficial drug effects, alongside gold standard randomised control trials.

The **PROTECT Transmission & Environment NCS** quantitative microbial risk assessment (QMRA) tool is now being applied to real scenarios. The first results show variation in risks depending on the specific circumstances. In addition, computational models developed by the study are allowing a better understanding of the size of particles that can travel longer distances and how they are affected by temperature and humidity.

Researchers used the OpenSAFELY resource, funded by **Longitudinal Health & Wellbeing NCS** and supported by **Data & Connectivity NCS**, to look at the waning effectiveness of second dose Pfizer and Oxford-Astra Zeneca COVID-19 vaccines in different age and clinical vulnerability groups. They found that the risk of infection, hospitalisation and death consistently [remained reduced across groups up to 26 weeks following the second dose](#).

Why do some people with COVID-19 suffer severe disease, and others only mild symptoms? The GENOMICC study, including investigators from **Data & Connectivity NCS**-supported Outbreaks Data Analysis Platform, [compared whole genome sequencing of 7491 people critically ill with COVID-19 with 48,400 control cases](#). The most strongly implicated genes, which are all new druggable targets, suggest failure to control viral replication, and an enhanced tendency towards lung inflammation or clots in blood vessels, are the main susceptibility factors. This

shows the power of critical-care based genomics to detect greater heritability and stronger effect sizes than other study designs.

Key other NCS research publications for the month:

[Implementation of corticosteroids in treatment of COVID-19 in the ISARIC WHO Clinical Characterisation Protocol UK: prospective, cohort study.](#)

[COVID-19 vaccine uptake, effectiveness, and waning in 82,959 health care workers: A national prospective cohort study in Wales](#)

[The adverse impact of COVID-19 pandemic on cardiovascular disease prevention and management in England, Scotland and Wales: A population-scale descriptive analysis of trends in medication data](#)

[Intensity of COVID-19 in care homes following Hospital Discharge in the early stages of the UK epidemic](#)

[COVID-19 vaccine uptake and effectiveness in adults aged 50 years and older in Wales UK: a 1.2m population data-linkage cohort approach](#)

[BNT162b2 and ChAdOx1 nCoV-19 Vaccinations, Incidence of SARS-CoV-2 Infections and COVID-19 Hospitalisations in Scotland in the Delta era](#)

[Psychological Distress Before and During the COVID-19 Pandemic: Sociodemographic Inequalities in 11 UK Longitudinal Studies](#)

[The UK Coronavirus Job Retention Scheme and changes in diet, physical activity, and sleep during the COVID-19 pandemic: Evidence from eight longitudinal studies](#)

[Risk of myocarditis and pericarditis following BNT162b2 and ChAdOx1 COVID-19 vaccinations](#)

[Waning effectiveness of BNT162b2 and ChAdOx1 COVID-19 vaccines over six months since second dose: a cohort study using linked electronic health records](#)

[Evaluating transmission risk in unique workplaces: pilot study of a Victorian prison](#)

[Transmission and control of SARS-CoV-2 on ground public transport: a rapid review of the literature to date](#)

[Public transport and the pandemic: perceptions of risk and mitigation](#)

[Using national electronic health records for pandemic preparedness: validation of a parsimonious model for predicting excess deaths among those with COVID-19](#)

Regular ONS reporting of:

[COVID-19 Infection Survey, UK](#)

[COVID-19 cases in school pupils, England](#)

[Antibody and vaccination data](#)

[Characteristics of people testing positive for COVID-19, 16 March 2022 - Office for National Statistics](#)

[Prevalence of ongoing symptoms following COVID-19 infection in the UK](#)

Thanks for reading - next month we will publish our next quarterly NCS Impact Report including case studies of how NCS are informing the UK's COVID-19 response and recovery.

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PROTECT

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