# **National Core Studies**

#### March 2022

This is the first of a new monthly update from the <u>National Core Studies</u> 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

### **Recent news from the National Core Studies**

### **Latest School Infection Survey results**

**Epidemiology & Surveillance NCS** School Infection Survey released the first results from Wave 1 of its autumn 2021 sampling (see key publications on <u>antibody</u> data, mental health and long COVID below)

### PROTECT stakeholder surveys and roundtables

**Transmission & Environment NCS** ran a stakeholder survey throughout February which gathered the views of government, businesses, workers, public and occupational health professionals and members of the general public about their remaining knowledge gaps in relation to transmission of the COVID-19 virus. Alongside a small series of online roundtables, the findings are being used to help inform the allocation of resources for the last phase of the PROTECT study, including on translational resources and guidance as well as additional research.

Read PROTECT study lead Professor Andrew Curran's blog about the importance of this work at this critical stage of the programme

First meeting of Outbreak Data Analysis Platform Steering

### **Group, chaired by Professor Sharon Peacock CBE**

Outbreak Data Analysis Platform (ODAP) is a new health data asset supported by Data & Connectivity NCS and hosted by the Edinburgh Parallel Computing Centre. It brings together the unique research data assets generated by the UK throughout the COVID-19 pandemic into a linked data resource with streamlined information governance. Its aim is to facilitate biomedical research to advance understanding of disease caused by emerging or re-merging pathogens. This will enable researchers to perform new scientific analyses that are currently not possible at population scale - for example, examining the effect of viral-host genomic interaction on clinical outcomes. In our next monthly updates we will share more details and announce when ODAP starts accepting research applications.

Policy engagement on long-term surveillance and long Covid Longitudinal Health and Wellbeing NCS provided information to policy makers this month via a government Scientific Pandemic Influenza Group on Modelling report focused on long term COVID-19 surveillance and via a Cabinet Office Long Covid Teach-in session.

# 94 NCS datasets are available to access via the Health Data Research Innovation Gateway

**Data & Connectivity NCS** are continuing to progress the required agreements to make REACT study and Intensive Care National Audit and Research Centre datasets accessible through the same route.

Browse the NCS datasets here

### Coming soon from NCS:

**Epidemiology & Surveillance NCS** - As COVID-19 becomes endemic in the population, understanding antibody waning will be central to ongoing planning for the national vaccination programme. COVID-19 Infection Survey will provide unique insights into gradual antibody waning using longitudinal data.

Planning and piloting for the COVID-19 Infection Survey transition from face-to-face design to a mixed model (digital first with telephone interviews and remote sample collection) is in progress. The new design will enable a more sustainable model for

longitudinal monitoring of COVID-19 infection and immunity, providing a costefficient and flexible survey which maintains high data quality and consistency.

**PROTECT Transmission & Environment NCS** is holding a free online evidence seminar on 3 March on transmission of the COVID-19 virus in the food manufacturing sector, examining whether perceptions of these environments as high risk are warranted and what this means for COVID-19 control strategies in the industry.

Register for the seminar here.

**Data & Connectivity NCS** are planning an event in June to showcase the research insights our study has enabled, and how the work of our delivery partners leaves a legacy of UK-wide interoperable Trusted Research Environment infrastructure to catalyse health data research with greater scale and impact both nationally and internationally.

**Longitudinal Health and Wellbeing NCS** – The <u>UK Longitudinal Linkage</u>

<u>Collaboration</u> – a new approach for linking well-established longitudinal studies to routine records for research – will officially launch on March 14<sup>th</sup>.

Find out more about UK LLC here

# NCS research findings highlights this month:

Longitudinal Health & Wellbeing NCS researchers quantified the impact of COVID-19 and lockdown measures on healthcare disruption across three UK nations. The largest study of its kind (over 74 million person-years), it used the Data & Connectivity NCS-supported OpenSAFELY (for England), EAVEII (Scotland), and SAIL Databank (Wales) resources to compare weekly hospital admission rates for cancer, cardiovascular and respiratory conditions (excluding COVID-19) in the prepandemic period with the first wave of COVID-19. The findings show that hospital care for non-COVID diseases fell substantially across England, Scotland, and Wales

during the first lockdown, with disruptions persisting for at least six months. The most deprived and minority ethnic groups were impacted more severely.

The **Epidemiology & Surveillance NCS** School Infection Survey estimated 82% of secondary school pupils and 40% of primary school pupils had COVID-19 antibodies during the academic year ending 2022. Since March 2020, 1.0% of primary school-aged pupils and 2.7% of secondary school-aged pupils met the Delphi criteria for having experienced long Covid lasting at least 12 weeks. Pupils with long Covid were around three times as likely to have a probable mental disorder than those without long Covid.

Researchers funded by **PROTECT Transmission & Environment NCS** Sector-Specific Studies theme <u>published a report</u> exploring perceptions of the risk of COVID-19 virus transmission and of the effectiveness of controls implemented on public transport in the UK. The researchers found that public perception of risk to individuals on public transport was generally low, and that the controls put in place were perceived to be effective.

Data & Connectivity NCS researchers led by Aziz Sheikh at Usher Institute in Edinburgh and the CVD-COVID-UK consortium led by British Heart Foundation's Data Science Centre published two large studies carried out independently using national-scale electronic health records to quantify how the AstraZeneca COVID-19 vaccine increases risk of intracranial thromboses in some populations. There was no elevation in risk for the Pfizer COVID-19 vaccine. The findings were enabled by Data & Connectivity NCS support of the DacVAP study, EAVE II dataset and CVD-COVID-UK consortium resource.

Longitudinal Health & Wellbeing NCS researchers investigated changes in mental health and sociodemographic inequalities from before and across the first year of the COVID-19 pandemic in 11 longitudinal studies. They found a substantial deterioration in mental health in the UK during the first lockdown that did not reverse when lockdown lifted, with sustained worsening across subsequent stages of the pandemic. Mental health declines were unequal across the population, with females, those with higher degrees, and those aged 25-44 years more affected

### **Key other NCS research publications for the month:**

- Investigating the uptake, effectiveness and safety of COVID-19 vaccines:
   protocol for an observational study using linked UK national data
- Wastewater catchment areas in Great Britain
- Association of COVID-19 vaccines ChAdOx1 and BNT162b2 with major venous, arterial, or thrombocytopenic events: A population-based cohort study of 46 million adults in England
- <u>Determinants of pre-vaccination antibody responses to SARS-CoV-2:</u>
   <u>a population-based longitudinal study (COVIDENCE UK)</u>
- First dose ChAdOx1 and BNT162b2 COVID-19 vaccinations and cerebral venous sinus thrombosis: A pooled self-controlled case series study of 11.6 million individuals in England, Scotland, and Wales
- Impact of First UK COVID-19 Lockdown on Hospital Admissions: Interrupted
   Time Series Study of 32 Million People
- <u>Psychological Distress Before and During the COVID-19 Pandemic Among</u>
   <u>Adults in the United Kingdom: Coordinated Analyses of 11 Longitudinal</u>
   Studies
- <u>Development and evaluation of rapid data-enabled access to routine clinical</u>
   <u>information to enhance early recruitment to the national clinical platform trial of</u>
   <u>COVID-19 community treatments</u>
- Overall and cause-specific hospitalisation and death after COVID-19
   hospitalisation in England: A cohort study using linked primary care,
   secondary care, and death registration data in the OpenSAFELY platform (plos.org)
- The hyper-transmissible SARS-CoV-2 Omicron variant exhibits significant antigenic change, vaccine escape and a switch in cell entry mechanism
- Uptake of infant and preschool immunisations in Scotland and England during the COVID-19 pandemic: An observational study of routinely collected data

#### Regular ONS reporting of:

- Deaths involving COVID-19 in the care sector, England and Wales
- COVID-19 Infection Survey, England results
- Deaths registered weekly in England and Wales
- Comparing the risk of death involving coronavirus (COVID-19) by variant including Omicron, England
- Coronavirus and behaviour of the vaccinated population after being in contact with a positive case in England

- Prevalence of ongoing symptoms following coronavirus (COVID-19) infection in the UK
- Deaths involving COVID-19 by vaccination status, England
- Estimates of the UK workforce in self-isolation by sector
- Coronavirus (COVID-19) case rates by socio-demographic characteristics

**Thanks for reading** - next month's update will share more news, key findings and things to look out for. We publish our next quarterly NCS Impact Report in May.

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