

Analytical Collaboration for COVID-19

Coordination of analytics on Covid-19 across the Health Foundation, King's Fund, Nuffield Trust, Imperial College Healthcare Partners and the Strategy Unit

Initial Description of Projects

This document provides an overview of a series of analytical projects that seek to support the NHS and partners nationally in their overall response to COVID-19.

The projects have been initiated through the '**Analytical Collaboration for COVID-19**', a collaboration across five organisations: The Health Foundation; King's Fund; Nuffield Trust; and two specialist NHS analytical teams, Imperial College Health Partners, and the Strategy Unit. Through the collaboration, the organisations are supporting ad hoc immediate questions raised by national bodies but are also using their expertise to focus on questions that the NHS may lack the immediate resources to look at, which may be more medium-term, cut across sectors, or benefit from independent analysis. It is these projects that are addressed in this document.

The selected projects have been developed and prioritised by the Collaboration partners informed by discussions with key stakeholders. The overviews provided in this document are initial high-level summaries that will evolve as the projects progress. Our purpose in sharing them is to raise awareness of the work being undertaken and to help minimise duplication of effort.

If you have any queries in relation to the projects or the Analytical Collaboration, please contact the named project leads or the Collaboration project office at mlcsu.covid.analytics@nhs.net.

The list of questions being addressed, and lead organisation, is provided below. Summaries provide more information: a) the sub-questions that will be addressed in responding to this; b) a brief summary of the approach and intended timelines; c) what will not be addressed in our response; d) contact for more information.

Question	Lead	Organisation
What are the inequalities in covid19 treatment, case, and mortality rates? Which social groups (rather than clinical groups) are most vulnerable?	Sarah Deeny	The Health Foundation
What is the impact of Covid-19 on healthcare in rural areas?	Sarah Scobie	The Nuffield Trust
What is the variation between hospitals in case fatality rate and what explains it (e.g. use of ventilators)?	Mohammed Mohammed	The Strategy Unit
What can we learn from the way the NHS and social care has deployed a wide range of different analytical approaches to modelling of Covid-19, the ways in which that has been organised and how decision makers have shaped and reacted to that?	TBC	A whole Collaboration project, co-ordinated by the Strategy Unit
What are the levels of stress /anxiety / burnout amongst the frontline NHS and care workforce?	TBC	TBC
What has been the impact of the shift to telehealth on number of appointments, length of appointments and patient satisfactions? Where do we need to prioritise face to face care during the recovery phase?	Sarah Scobie	The Nuffield Trust
In what circumstances / for what presentations are remote (telephone / video) GP consultations proved to be particularly useful or problematic?	Siva Anandaciva	The Kings Fund
How might we capture the learning from practice innovations that have been developed out of necessity in response to the covid19 outbreak? How would we design a strategy?	Paul Mason (Strategy Unit)	A whole Collaboration project, co-ordinated by the Strategy Unit
How did utilisation of other healthcare services (GPs and A&E) by non-Covid patients change, and why?	Charles Tallack	The Health Foundation
What are the likely nature and scale of the impacts of the covid-19 pandemic on population mental health and wellbeing?	Andy Hood	The Strategy Unit
What is the impact on community services, and how might it change over time?	Sarah Scobie	The Nuffield Trust
What has been the impact of Covid-19 on non-Covid morbidity and mortality (and are these directly the result of Health system pressure or social distancing measures)?	Sarah Deeny	The Health Foundation
What has been the impact of the suspension of non-urgent elective activity on: a) demand b) wider morbidity and mortality, inc. variation by demographic factors?	This question will be addressed in combination with the question above.	
What will be the impact of Covid-19, the lockdown, and NHSE guidance on waiting lists and waiting times for elective care and cancer treatment?	Mike Woodall	The Strategy Unit

How would the modelled estimates of Covid-19 related deaths impact on standard mortality-based population health outcome measures?	Paul Seamer	The Strategy Unit
How might Covid-19 related mortality alter the population structure and patterns of unplanned healthcare utilisation in the medium term?	Justine Wiltshire	The Strategy Unit
What is the impact on the need for and use of social care for older people? (for example, arising from faster discharge from hospital, reduction in unpaid care because of social distancing). What is/ will be the impact on care homes?	Sarah Deeny / Sarah Scobie	The Health Foundation / The Nuffield Trust
What is the impact of social distancing policies on: (a) rates of domestic abuse, child and adult abuse (b) health behaviours c) other communicable diseases (d) incidents of accidents and falls e) rates of vaccination?	Sarah Scobie	The Nuffield Trust
How can the health and care system recover after Covid-19?	Siva Anandaciva	The Kings Fund
What is the impact of COVID-19 on non-COVID related hospital service use in England by those aged under 25 years old?	Sarah Scobie	The Nuffield Trust
What can patient and carer feedback tell us about the impact of the Covid-19 pandemic on cardiovascular services?	Sarah Scobie	The Nuffield Trust

- 1) What are the inequalities in covid19 treatment, case, and mortality rates? Which social groups (rather than clinical groups) are most vulnerable?

This project is still in scoping as the lead is awaiting confirmation of data availability.

- 2) What is the impact of Covid-19 on healthcare in rural areas?

Sub-questions we intend to address in responding to this:

- Are rural communities particularly at risk?
- How will the financial changes likely impact rural health economies?
- How have non-Covid activity levels changed in rural areas?
- Do rural areas have less capacity to deal with Covid-19 surges?
- How did the efforts to discharge patients rapidly given Covid-19 spread affect delayed discharge levels?

A brief summary of our approach and intended timelines:

Analysis of existing policy papers and readily available published data (e.g. ICNARC). This is a short piece of work, intended to provide an overview and to be completed by end of July.

What will not be addressed in our response:

- In-depth analysis of data on deaths (cause of death, place of death by area)
- Impact on specific workforce groups (e.g. ambulance services)
- Long-term trends in funding and hospital activity

Contact for more information:

Sarah Scobie, Deputy Director of Research, The Nuffield Trust

- 3) What is the variation between hospitals in case fatality rate and what explains it (e.g. use of ventilators)?

This project is being discussed further with national leads, as the currently proposed approach would require national support given its scale and breadth.

- 4) What can we learn from the way the NHS and social care has deployed a wide range of different analytical approaches to modelling of Covid-19, the ways in which that has been organised and how decision makers have shaped and reacted to that?

The sub-questions we intend to address in responding to this:

In responding to Covid-19 a range of data science tools/models/analyses have been developed to help decision makers address questions with:

- (1) a public health focus of how many cases and deaths can we expect and by when;
- (2) a health service delivery focus of how many hospital beds, ventilators, staff were needed;

- (3) a focus on the risks to and safety of patients, care home residents and health and care workers; and
- (4) a focus on the impact and duration of interventions such as testing, social distancing and lock-down.

These are complex questions being asked at various levels (e.g. global, country, region, organisation) and made more challenging under the pressure of a crisis. Health and social care decision makers, planners and analysts nationally, regionally, and locally have been making sense of the various data and models available and have developed many of their own.

There is a need to draw out the key data science related issues for the NHS and social care highlighted by Covid-19 so that we can learn lessons for the future. To do this, we propose to undertake a scoping exercise which will subsequently feed into a broader programme of work. The scoping exercise will address the initial questions described below:

- Describe and catalogue the various models in terms of purpose, methodology, key variable, parameters, assumptions, including quality assessment, peer-review, openness/transparency, communication process, authors, commissioners and the kinds of decision that the model was used to support
- How different modelling approaches were considered, and a preferred approach adopted
- How the hierarchy of models was understood and communicated to decision makers and stakeholders
- To what extent were decision makers part of determining key assumptions in models and analyses
- How transparent were value of information considerations in deciding which data items were a priority to measure?
- How successful have the modelling community been in communicating uncertainty and helping decision makers accommodate that?
- What types of analytical approaches were explored, and what was the balance between epidemiological and non-epidemiological models?
- How much structure was created/needed to allow localisation of national models?
- Was there engagement with local teams in deciding what national should address?
- What principles were adopted regarding transparency and replicability of any central models?
- How systematic has been the gathering of 'alternative views' and how open have we been in testing those out?
- Is there a typology of modelling approaches and mindsets that is worth capturing and systematising to get a multi method perspective view in these types of crisis?

A brief summary of our approach and intended timelines:

We will identify stakeholders including senior staff, analysts and managers at national, regional, and local level from the NHS; Public Health England; Local Authorities; and academics/experts.

We will undertake pilot interviews with people in our networks to develop the set of questions and then iterate questions based on each interview. The first version of our question set will be based on findings from a literature review and internet searches to

identify Covid-19 related analytics and models. We will adopt a snowball method for identifying stakeholders.

The work will culminate in a short report, a (virtual) dissemination event and a round table discussion to prioritise which issues should then be addressed as part of a broader programme of work which will develop best-practice based guidelines for the future.

Timescale: c4 months for the first phase

What will not be addressed in our response:

We are not comparing the accuracy or quality of different models or approaches.

Contact for more information:

Peter Spilsbury, Director, Strategy Unit

5) What are the levels of stress /anxiety / burnout amongst the frontline NHS and care workforce?

This project is still under consideration as there are already a number of different pieces of work underway nationally which may overlap with this question, and the Collaboration may not have capacity to address it in the first instance.

6) What has been the impact of the shift to telehealth on number of appointments, length of appointments and patient satisfactions? Where do we need to prioritise face to face care during the recovery phase?

The sub-questions we intend to address in responding to this:

What impact did social distancing and lockdown measures have on number and mode of appointments in English General Practice? What happens when lockdown measures are reversed?

- Has there been an impact on coverage of GP appointments data? This could be used as a proxy for number of practices open.
- Has the total number of appointments been impacted by the measures? (*day by day analysis of appointment numbers, at national and regional level – either CCG, STP or regional commissioning level*)
- Has there been a change in mode of appointment? (*day by day analysis at national and regional level of appointment modes for the month of March and ongoing*)
- Has there been a change in the time between booking and appointment? (*day by day analysis at national and regional level of appointment times for month of March and comparison with previous year – NB this can be an indicator of waiting times and pre-planned appointments*)
- Has there been a change in reported attendances to planned appointments? (*day by day analysis at national and regional of appointment attendances and comparison with previous year and month as these have been fairly consistent*). Does this vary by staff group (eg drop in routine health check activity)

These will be mapped against key developments such as the announcement of lockdown and other measures to support delivery of General Practice.

A brief summary of our approach and intended timelines:

Approach:

Descriptive analysis of Appointments in General Practice data from NHS Digital¹ Data available from December 2017, with some issues around data quality for certain indicators (e.g. attendance, healthcare reporting type). Comparable data available from January 2018.

Timelines:

Preliminary analysis has been undertaken with data for March and April 2020. This will be updated when May data is released at the end of June.

What will not be addressed in our response:

This analysis will only address the first part of the question, and quantify the shift to telephone triage.

We will investigate whether there is any impact on the healthcare professional type delivering the appointment but do not expect these results to be robust. As the publicly available data are aggregated to either 'GP' and 'Other'.

Contact for further information:

Sarah Scobie, Deputy Director of Research, The Nuffield Trust

7) In what circumstances / for what presentations are remote (telephone / video) GP consultations proven to be particularly useful or problematic?

There is already evidence that the Covid-19 crisis triggered a rapid set of service changes supported by technology. This project focuses on the use of technology in primary care to support general practice and other members of staff delivering patient care.

The sub-questions we intend to address in responding to this:

- What service change has happened and what digital products and services were used?
- What factors enabled these service changes?
- Can they be sustained outside of the pandemic response?
- What should be considered in moving to the next phase of pandemic response and post-recovery future?
- i.e. judging what changes that should be kept or extended/stopped/amended and which might need/be amenable to policy interventions to achieve that.

¹ <https://digital.nhs.uk/data-and-information/publications/statistical/appointments-in-general-practice>

A brief summary of our approach and intended timelines:

Project plan being scoped inc. how/when to do fieldwork

What will not be addressed in our response:

We will not cover technological changes in other settings e.g. outpatients. We will focus on 'traditional' GP services, rather than digital-first providers such as GP at Hand.

Contact for more information:

Siva Anandaciva, Chief Analyst, The Kings Fund

8) How might we capture the learning from practice innovations that have been developed out of necessity in response to the covid19 outbreak? How would we design a strategy?

The sub-questions we intend to address in responding to this:

- What are the principles for an effective learning strategy?
- How can a learning strategy identify the: focus (the innovations and what we want to learn about them); audiences for the findings; stakeholders to engage; appropriate methods for capturing learning; resources required; most effective way to present findings?
- What are the practical considerations for learning in the current context (respecting the pressures across the system; working remotely)?
- What approaches are available?
 - Evaluation (likely to require resources and take time to report findings)
 - Rapid cycle evaluation (resource intensive)
 - Frameworks, toolkits and other approaches (e.g. [RSA](#), [ELFT](#), [Collaborate](#), [AQuA](#), [Q](#), [Rolfe](#))

A brief summary of our approach and intended timelines:

This project will develop a guide to designing a strategy for learning from innovation(s) implemented in response to the COVID-19 pandemic. It will be based on established literature, written as a practical, pragmatic guide with links to further, practical resources.

- Develop and agree content plan across contributors and sign-off with sponsor (weeks 1 & 2)
- Assign sections for authorship (week 2)
- Develop and agree model section to guide authors on style and content (weeks 3 & 4)
- Write draft sections (weeks 5 & 6)
- Review complete draft across partners (week 7)
- Agree final draft (week 8)

What will not be addressed in our response:

Detailed guidance on specific methods – links will be provided following outline summary.

Contact for more information:

Paul Mason, Principal Consultant, The Strategy Unit

9) How did utilisation of other healthcare services (GPs and A&E) by non-COVID patients change, and why?

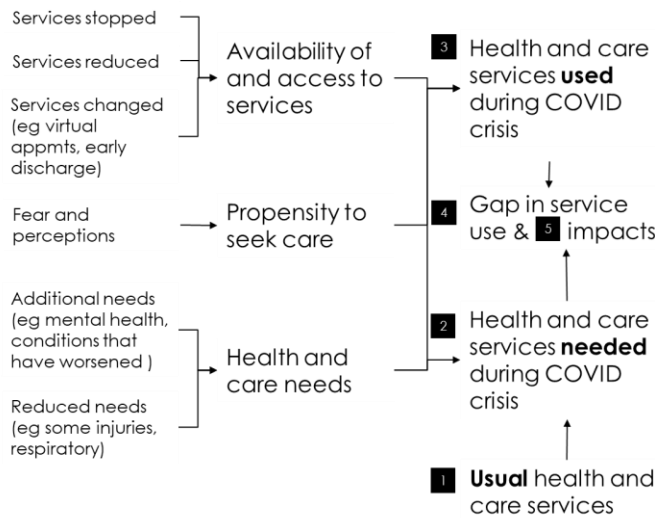
(Work on elective care is being done as part of questions 13 & 14, so this will not form a detailed part of work here.)

The sub-questions we intend to address in responding to this:

- How does use of NHS and social care services during the COVID-affected period compare to use usually?
- What are the changes in health and care needs over the COVID-affected period? For example, there may be increased needs for some people (e.g. mental health) and reduced needs in other areas (e.g. road traffic accidents)
- How much of the difference between observed and usual service use cannot be explained by changes in needs?
- What are the factors causing this e.g. service availability, propensity to seek care?
- What are the implications of this for health needs and “pent up” demand?
- How do the above differ by geography, age, population cohort (including Children and Young People), deprivation, condition (e.g. cancer, mental health)

A brief summary of our approach and intended timelines:

Conceptual framework



Analytical stages

- 1** Describe "usual" service eg usage by age, sex, condition for this time in the year (incl by region)
- 2** Estimate service needed given possible changes in need (eg mental health, road traffic accidents)
- 3** Describe service use currently
- 4** Compare 2 and 3, and seek to explain gap in terms of service access and propensity to seek care.
- 5** Consider impact on health and wellbeing

Description of usual primary care service use using CPRD e.g. number of consultations by age, sex, and condition (w/e 8 May).

Analysis of primary care service using CPRD during initial phase of COVID affected period (e.g. mid-March until April and comparison with usual (data for March becomes available in June, so asap after that).

Analysis of GP consultation data published by NHS Digital.

Analysis of PHE syndromic surveillance reports looking at how volumes of presentations for particular conditions have changed by point of access (e.g. A&E vs out of hours GP)

Comparison of secondary care service use in COVID-affected period and in same period a year previously (level of disaggregation and timing dependent on data availability). We will look at A&E, inpatient and outpatients.

National on-line YouGov survey jointly commissioned with the Resolution Foundation (results in early May) about changes in service use.

Thinking back to before the outbreak of the coronavirus pandemic. In the year to the end of February 2020, did you at any point access any health services to manage your condition? (e.g. NHS 111 telephone or online service, pharmacist, GP practice or out-of-hours service, local hospital)

Since the coronavirus pandemic began, have you continued to access any health services? (e.g. NHS 111 telephone or online service, pharmacist, GP practice or out-of-hours service, local hospital)

Since the coronavirus pandemic began, have you accessed any health services? (e.g. NHS 111 telephone or online service, pharmacist, GP practice or out-of-hours service, local hospital)

Other surveys (e.g. Understanding Society, GP Patient Survey); other sources such as health charities

Analysis of NHS guidance on services to understand to what extent services have been suspended or restricted.

Gathering of evidence on how services have changed e.g. GP consultations

Identification and analysis of social care data and intelligence e.g. discussions with provider bodies, user representative groups and charities, ADASS, LGA.

Results from Strategy Unit Herefordshire and Worcestershire STP survey of primary and community care (findings late May)



HC Interview Topic
Guide FINALv1.0.docx

The analysis will focus on England but where it is possible and useful, we will produce sub-national analyses

What will not be addressed in our response:

- Quantitative analysis of changes to people's health over the COVID period e.g. from mental health / accidents
- Detailed analysis of community care because of data limitations

Contact for more information:

Charles Tallack, Assistant Director for the Health and Social Care Sustainability Research Centre, The Health Foundation

10) What are the likely nature and scale of the impacts of the Covid-19 pandemic on population mental health and wellbeing?

The sub-questions we intend to address in responding to this:

- What are the likely impacts on adults & children with pre-existing mental ill-health?
- What are the likely impacts on adults & children without pre-existing mental ill-health?

This covers, but is not limited to; Children & young people, the elderly (lonely), recently unemployed, frontline workforce, relatives of ICU survivors and those who've died, those with pre-existing SMI needs, those exposed to domestic abuse and the broader general population not belonging to these sub-groups. The effects (e.g. anxiety, depression, insomnia, PTSD, self-harm, substance misuse etc.) will impact differentially across these groups in our model.

A brief summary of our approach and intended timelines:

Update as of 12th June 2020: The evidence we have reviewed to date is, as expected, mainly observational and anecdotal. As such, it will be a challenge to draw out sufficiently robust estimates of impact above and beyond non-Covid circumstances that could be applied to the above populations. We'll be working with operational teams at Mersey Care over the next few weeks to refine our estimates of effects, complete the design of our system model – where people experiencing these challenges will present – to set the parameters for demand profiles, decays (time in treatment), assigning pools of individuals to services and subsequent meaningful counts of 'activity' and also profile the likely catchup requirements of suppressed activity.

Output	Anticipated completion timelines
Covid-impacts and service model (MerseyCare)	26 th June
Report on key outputs of above	3 rd July
Developing wider/generic national impact model	31 st July
Report on key outputs of above	7 th August
Publish interactive model / materials	28 th August

What will not be addressed in our response:

- What is/should be the healthcare system response to the above impacts.
- Potential costs (health and care as well as wider economic) associated with the impacts identified and quantified above

Contact for more information:

Andrew Hood, Analytics Manager, The Strategy Unit

11) What is the impact on community services, and how might it change over time?

The sub-questions we intend to address in responding to this:

- a) What community services were used by adult patients discharged from hospital at the start of the pandemic to free up acute capacity?
- b) What community services are used by adult Covid-19 patients who have been discharged from hospital?
- c) What are the implications for demand for community services in the future?

A brief summary of our approach and intended timelines:

Parts a) and b) will be descriptive analysis using linked HES and CSDS data nationally.

Approximate timescales:

- Obtaining HES/CSDS bridge file

- Analysis of data quality and identifying approach to mitigate gaps in CSDS data [3 weeks]
- Analysis of discharged patients (CSDS data for March available July, April data available October) [2 weeks]
- Analysis of Covid patients (CSDS data for April-June available October) [2 weeks]
- Synthesise findings [2 weeks]

Given time lag in getting data, some of this work could be started in July/August but could not be completed until October/November.

NB:

1. We have been expecting to receive HES/CSDS bridge file imminently for several months – timescales above assume we receive this
2. there are significant known data quality issues with CSDS, so analysis will need to take this into account, e.g. focus on areas with more complete data.

Scope and focus of part c) will be developed at a later stage, once future scenarios for managing Covid-19 are clearer (e.g. will we experience further waves, how will hospital capacity be managed for Covid v non-Covid patients).

What will not be addressed in our response:

CYP Covid patients or use of community services.

The project will be limited to analysis of linked HES/community data. This will provide limited information of patient outcomes or quality of services.

Contact for more information:

Sarah Scobie, Deputy Director of Research, The Nuffield Trust

- 12) What has been the impact of Covid-19 on non-Covid morbidity and mortality (and are these directly the result of Health system pressure or social distancing measures)?

This question is still being scoped

- 13) What has been the impact of the suspension of non-urgent elective activity on: a) demand b) wider morbidity and mortality, inc. variation by demographic factors?

This question will be addressed as part of the question above

- 14) What will be the impact of covid19, the lockdown, and NHSE guidance on waiting lists and waiting times for elective care and cancer treatment?

The sub-questions we intend to address in responding to this:

- What outpatient, day case, inpatient elective and cancer pathway activity has been postponed or cancelled?
- Have GP Practice presentation rates changed?
- How have referral rates changed and should we expect a rebound of referral rates once the lockdown ends?
- What additional capacity (beds, staff, theatres) might be needed to clear the backlog of activity?

A brief summary of our approach and intended timelines:

Initially we will use expert opinion to estimate the scale of postponed or cancelled activity. These estimates will be updated once routine data provides direct evidence of changes in referral and activity rates.

We will use systems dynamics modelling to estimate the changes in stocks and flows, with the historical flows calibrated using RTT, DM01 and cancer waiting times data.

Initial modelling of waiting lists and times will be completed by early June 2020.

Modelling of capacity requirements to clear back log will be completed by early July 2020.

What will not be addressed in our response:

This project will not assess the morbidity or mortality consequences of delayed elective or cancer treatment.

Analysis will be built up from provider (rather than commissioner) data.

Contact for more information:

Mike Woodall, Integration Analytics Lead, The Strategy Unit

15) How would the modelled estimates of covid19 related deaths impact on standard mortality-based population health outcome measures?

The sub-questions we intend to address in responding to this:

- What are the various sources of covid19 related mortality estimates and forecasts; how do these compare numerically and methodologically?
- What is the relationship between deaths caused by covid19, deaths of patients with (or suspected to have) the covid19 virus and excess mortality during the outbreak period?
- To what extent might the covid19 outbreak have shortened people's lives?
- How might covid19-related mortality impact on a range of mortality related metrics (age standardised mortality rates, life expectancy, potential years of life lost)?
- How do these figures compare to historical rates?

A brief summary of our approach and intended timelines:

We will use established epidemiological approaches to convert published forecasts or estimates of covid19 related mortality into standard mortality-based population health outcome measures. We will use data visualisation techniques to present this information in an accessible format.

This work will be completed by late June / early July 2020. Our approach will be mindful of the need to update this work at a future date to track the changing impact of the pandemic.

What will not be addressed in our response:

This project will not explore the impact of covid19 on morbidity, capability or quality-of-life based measures of population health.

Contact for more information:

Paul Seamer, Analytics Manager, The Strategy Unit

16) How might Covid-19 related mortality alter the population structure and patterns of unplanned healthcare utilisation in the medium term?

How might the Covid-19 outbreak influence rates of unplanned hospital use in 2021, 2022 and 2023, given that:

- unplanned hospital use tends to rise sharply as patients approach the end of life (c. 40% of emergency beds are occupied by patients in the last 2 years of life)
- in England, tens of thousands of people are expected to die as a direct or indirect result of the covid19 outbreak and many of these would otherwise have died in the next few years
- a substantial number of covid19 patients will survive a period in intensive care but may require aftercare, rehabilitation, or long-term health management

The sub-questions we intend to address in responding to this:

- What would have been the total level of unplanned hospital use in 2021, 2022 and 2023 in the absence of the Covid-19 outbreak?
- What might the patterns of unplanned healthcare use have been for those patients who died as a result of Covid-19?
- What might the unplanned healthcare needs be for covid19 patients who survive a period in intensive care?

A brief summary of our approach and intended timelines:

This work will build upon:

- Covid-19 mortality estimates
- historical relationships between proximity to death and healthcare use
- expert opinion about the health needs of covid19 patients surviving a period of intensive care

An output will be produced for early August 2020. Analysis may warrant updating as more information (e.g. on mortality or the medium-term health impact of the Covid-19 infection) becomes available.

What will not be addressed in our response:

This project will not consider:

- the impacts on planned hospital care or on care outside of hospital settings
- the possible long-term health effects of asymptomatic or mild-case Covid-19

- how admission or attendance thresholds might respond to changes in bed availability or A&E waiting times.

Contact for more information:

Justine Wiltshire, Senior Analyst, The Strategy Unit

- 17) What is the impact on the need for and use of social care for older people? (for example, arising from faster discharge from hospital, reduction in unpaid care because of social distancing). What is/ will be the impact on care homes?

This question will be answered in two parts

Part 1) What is/ will be the impact on social care providers, particularly those who are already struggling financially?

The sub-questions we intend to address in responding to this:

- a) What were the underlying issues within the social care provider market that made it fragile heading into the crisis?
- b) What has been the impact of specific policies to ease the pressure on the NHS on the care sector (e.g. rapid discharge from hospital)?
- c) What are the implications for the future of the social care provider market of the intense pressure during covid?

A brief summary of our approach and intended timelines:

This will be a qualitative study, part of which already forms part of a Nuffield Trust study.

Part a) will draw on existing evidence and analysis of the underlying problems in the social care provider market. This is already underway as part of a Nuffield Trust research study.

Part b) will involve policy mapping and analysis to identify key announcements and guidance along with analysis of the impact of its implementation. Analysis of media reports of the impact along with interviews with key informants (e.g. representative of the provider market, local government, CQC).

Part c) will bring together the two preceding elements, alongside parallel work being undertaken by the Nuffield Trust (into international social care provider markets) in order to consider the implications for the future of the market and possible principles for reform. During this phase, we will consult widely with stakeholders and draw in expertise from the partners in this collaboration.

[If any partners are undertaking quantitative analysis of the impact on care homes, we would seek to draw the two strands together]

Approximate timescales:

- Part (a) will be completed as part of the existing Nuffield Trust work (June-July 2020)
- Part (b) document & policy review has been partially undertaken as part of existing Nuffield Trust work for the WHO. Updating it and undertaking supplementary interviews with stakeholders will take place in later Summer/early Autumn (allowing for some more time to pass for the impact of new testing and PPE policies to be felt)
- Part (c) will take place over the Summer and form the basis for validation and discussion with stakeholders during the Autumn as part of the Nuffield Trust's existing work
- Publication of a short commentary on the state of the provider market after x months of dealing with Covid could be jointly produced in Autumn, depending on developments over the Summer

What will not be addressed in our response:

What is the impact on the need for and use of social care for older people? (for example arising from faster discharge from hospital, reduction in unpaid care because of social distancing)

As a qualitative study focused on the health of the provider market, we would not be seeking to analyse data about impact on need and use of social care. However, if a partner wanted to lead on that element, the studies would be highly complementary.

Contact for more information:

Sarah Scobie, The Nuffield Trust

Part 2) Quantifying the risks and health needs of care home residents, to better inform decision making during the Covid-19 outbreak and medium term

The sub-questions we intend to address in responding to this:

- Identify geographical areas where care homes are at particularly high risk to Covid-19. This would mean that additional protection can be targeted at these care homes.
- Assess the potential transmission routes for Covid-19, for example by examining how often care home patients attend hospital and why. Through this analysis we may find ways to reduce risk to care home residents.
- Examining the impact of the Covid-19 pandemic
- Examine overall secondary health care use by care home residents, develop early understanding of signs of deterioration in care. By putting this data together, NHS England and Improvement would be able to move more quickly to protect these residents.

A brief summary of our approach and intended timelines:

We will use CQC information and SUS data, linked to a care home flag to create a cohort of care home residents. We will work through initial descriptive statistics of historical trends (early May), updating as more timely data becomes available and applying more sophisticated models to evaluate impact.

Contact for more information:

Sarah Deeny, Assistant Director of Data Analytics, The Health Foundation

18) What is the impact of social distancing policies on: (a) rates of domestic abuse, child and adult abuse (b) health behaviours (c) other communicable diseases (d) incidents of accidents and falls (e) rates of vaccination?

The sub-questions we intend to address in responding to this:

a) What is the impact of the lockdown and social distancing policies on maternal and early years measures?

- Vaccinations in pregnancy and for children
- Breastfeeding prevalence
- Domestic/child abuse
- Health behaviours in children, young people and pregnant women: smoking in delivery, exercise, drug/alcohol consumption etc.

b) What is the impact of the lockdown and social distancing policies on wider public health measures?

- Accidents and falls
- Communicable diseases such as influenza, STIs, health-care associated infections
- Health behaviours: NHS Health check, exercise, drugs/alcohol/smoking etc.

How do these measures compare to the pre-lockdown period and trends over the years?

What are the implications of these impacts for continued periods of social distancing measures, shielded individuals and policy/practice moving forward in light of the potential for a second wave/future pandemic?

A brief summary of our approach and intended timelines:

This intends to be a relatively small piece of work. Based on the two key questions (around maternal/early years and public health outcomes more generally) the output may be phased, likely a blog piece and/or a chart of the week depending on interesting trends and data availability/publication time.

Initially scope for both a) and b) is to identify what indicators will be appropriate for the question. Then map out a timescale for when the data will become available.

Collate and prepare previous data where available, to understand trends over previous years. Review policy sphere for relevant targets and policy ambitions.

Aim to have completed the output for a) ~ July (depending on data availability).

What will not be addressed in our response:

We are planning to use published data sources only.

Contact for more information:

Sarah Scobie, The Nuffield Trust

19) How can the health and care system recover after Covid-19?

Recovery from emergency measures. When the coronavirus outbreak becomes more manageable, there will be a need to 'ramp down' emergency measures that have been put in place across the health and care system, and to manage a process of returning to a situation more like 'business as usual'.

The sub-questions we intend to address in responding to this:

- To draw together learning – both from formal reviews, and from lived experience – of previous cases of 'stepping down' from crisis mode in health and care services,
- To identify priority service areas for consideration, such as those where backlogs of unmet need are likely to have built up, or issues (such as, for example, staff burnout or market failure in social care or the VCS) which could create particular risks to service resilience or public health and wellbeing.

A brief summary of our approach and intended timelines:

Project plan being scoped inc. how/when to do fieldwork. End date expected around end of June.

What will not be addressed in our response:

Will not get into operational issues at a detailed level e.g. will not cover sequence in which different backlogs should be tackled.

Contact for more information:

Siva Anandaciva, Chief Analyst, The Kings Fund

20) What is the impact of COVID-19 on non-COVID related hospital service use in England by those aged under 25 years old?

The sub-questions we intend to address in responding to this:

- a) What are the differences between the use of A&E, inpatient admissions and outpatient appointments post-outbreak and the same hospital activity at the same time of year in the previous two years?
- b) Looking at changes by patient characteristics such as age, ethnicity, neighbourhood socioeconomic status, previous hospital use and current hospital use (e.g. admissions with different lengths of stay), who has been impacted by COVID-19 the most?
- c) Are COVID-19 impacts on non-Covid-19 related hospital service use in England by those aged under 25 years old different for different parts of the country?

A brief summary of our approach and intended timelines:

Descriptive analysis of the following in England by those aged under 25 years old post COVID-19 and at the same time of year in previous years using national HES data:

- a) A&E attendance by primary diagnosis group
- b) Rate of A&E attendances that convert to inpatient admissions
- c) Subsequent attendance for the same condition
- d) Admission for ambulatory care sensitive conditions (ACSC)
- e) Changes in outpatient appointments

We may possibly link in the Royal College of Paediatric and Child Health survey of members of what service changes are happening locally.

The areas we are trying to inform are:

- a) Immediate operational changes
- b) If a second lockdown occurs what worked well?
- c) Longer term learning (e.g. demand management)

There are three lenses it can take:

- a) What is the impact on need for (ability to benefit from) healthcare?
- b) What is the impact on healthcare seeking behaviour by patient/family?
- c) What is the impact on timely assessment and onward referral within the NHS?

Start date: 18/5/20

End date: TBD

What will not be addressed in our response:

The research will focus on a specific set of conditions and activity and will not be an analysis of all potential changes in hospital use by children aged under 25 years old in England.

In the first instance, it covers just hospital use by children aged under 25 years old in England. However, the intention is that the research will move on to linking to the wider healthcare system such as primary care.

Analysis of outcomes, apart from inpatient admissions and subsequent attendance for the same condition.

Contact for more information:

Sarah Scobie, The Nuffield Trust

21) What can patient and carer feedback tell us about the impact of the Covid-19 pandemic on cardiovascular services?

The sub-questions we intend to address in responding to this:

NB: the initial phase of work is qualitative, so will not comprehensively address all of these questions.

- How have/has cardiovascular disease services and service utilisation changed as a result of Covid-19?
E.g. move to online or remote appointments for outpatient clinics and primary care, reduced pharmacy opening hours and longer time-lag to get prescriptions, monitoring of long-term conditions (medication reviews etc.), cardiac rehab services (possibly increase in non-face-to-face services), patients encouraged to call 111 before going to A&E, cancelling elective surgery
- What have been the reasons for these changes?
E.g. staff redeployment or staff shortages due to sickness or self-isolation, needing to free up capacity within acute hospitals, shielding, social distancing, behaviour change
- Have patients changed their behaviour as a result of lockdown and other measures?
E.g. reduced attendance at A&E, reduced GP attendance.
- If yes, what have been the reasons for these changes?
E.g. impact of shielding, social distancing, concern about accessing traditional services in case they get Covid-19, incorrect or unclear messaging around accessing 111 and primary care
- What has been the combined impact of these changes on:
 - Access to cardiovascular services (e.g. unable to get hold of GP/ on hold for 111)
 - Quality of cardiovascular services (could include cardiac rehab, ongoing monitoring)
 - Equality within and in delivery of cardiovascular services (especially digital inequalities, differences by age, region etc.)

A brief summary of our approach and intended timelines:

This piece of work is taking a phased approach with the first phase acting as a proof of concept to identify whether it is possible to use the following data sources to address the research questions outlined above. We intend to focus initially on information gathered via the British Heart Foundation's information services – Heart Helpline, Health Unlocked and Patient and Public Involvement events (such as Facebook live events).

Following initial natural language processing analysis, we would conduct a content analysis using NVivo coding software to draw out the key themes from the data. Data will be analysed according to a coding framework developed from our research questions. Once we have identified the key themes arising from the patient and carer feedback, we will triangulate these findings with other sources of data (including where possible feedback from healthcare professionals and the Health Service Engagement Team).

We plan for the first phase to be complete by the end of July 2020. The aim of this piece of work is to act as a proof of concept for a potential larger piece of work – as such, we intend to highlight any issues that require future research and monitoring, as well as implications for further work. Depending on the results we may also produce a short briefing or blog based on our findings.

What will not be addressed in our response:

Clinical impact of Covid-19 on cardiovascular patients (e.g. enhanced risk, effect on mortality, long-term health implications)

Contact for more information:

Sarah Scobie, The Nuffield Trust