

Briefing July 2020

Resuming health services during the Covid-19 pandemic

What can the NHS learn from other countries?

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Key points

- To prepare for a surge in Covid-19 cases, the NHS – like many health systems – cancelled all non-urgent elective surgeries to free up acute care capacity and help keep transmission as low as possible. This has come with significant opportunity costs and adds to the mounting backlog of health issues that the service will have to address in the pandemic's wake.
- Countries around the world have used a range of common strategies to rapidly enlist staff, partner with the private sector, create field hospitals and convert health care spaces to build surge capacity and safely resume services. Covid-19 has required all health systems to make choices about how to prioritise care, manage infection control and maintain reserve capacity for future outbreaks.
- While the NHS has implemented similar strategies to many other countries, it is likely to have a slower path to recovery: the UK went into the pandemic with higher occupancy rates and fewer doctors, nurses and capital assets than most other health systems, while also being more severely impacted by the virus than most. Other things being equal, health

systems with fewer resources and less slack will be more stretched in their efforts to recover care for those needing it.

- This has serious implications for waiting times in the UK. Resuming care during the pandemic introduces a number of logistical hurdles that will severely limit the ability of the NHS to deliver what it could previously. While the UK ranks among the average for waiting times of the health systems analysed, its position is likely to deteriorate given that many parts of the NHS will be working with an outdated estate and chronic staff shortages to deliver health care with stricter infection control measures.
- Covid-19 has also exposed further vulnerabilities that will have lasting consequences for system recovery. The UK entered the crisis with stark socioeconomic and racial inequalities relative to other countries, which may make the virus deadlier and multiply its spread. Covid-19 has disproportionately impacted deprived communities and Black, Asian and minority ethnic groups. These inequalities are at risk of becoming more entrenched given the economic measures that have gone into containing the virus.
- While the trajectory of the NHS's recovery will be determined heavily by its position at the start of the pandemic, it is not set in stone. There is now an opportunity to learn from and sustain positive changes the service has made in response to the pandemic and for government to work across sectors to redress the inequalities that threaten system recovery and sustainability.

Introduction

While we are a long way from knowing the full impact of the Covid-19 pandemic, it is clear that it has required massive trade-offs that will have lasting consequences for the health and care system. As in many countries, the NHS cancelled all non-urgent elective surgeries to free up capacity for patients with the virus, contributing to a mounting backlog of health issues that the service will have to address in the pandemic's wake. In the UK, the number of people waiting to start consultant-led elective care reached four million people in April 2020¹ – a number that is likely to multiply as service and access patterns change in response to Covid-19.

While the government has made clear that ‘the NHS is open’ and essential and urgent services must continue, we have seen signs that demand has been suppressed as more patients are now reluctant to go to hospital, or have had their care cancelled as resources are redirected towards Covid-19. By mid-April 2020, routine general practitioner (GP) referrals had dropped by 90% and two-week referrals for people with suspected cancer by 67%, raising concerns about unmet need and the pandemic’s toll on patients with ongoing health conditions.²

These worrying trends have prompted important discussions on how to restore and recover services as quickly as possible, while continuing to contain and mitigate the spread of the virus. As the UK begins to resume more elective care, this briefing looks at how other countries are handling this and what the implications might be for the NHS. Although data are still limited and approaches to recovery are continuously evolving, it is important to begin to understand key themes and variation in early strategies to draw out learning as more services are resumed over time.

The timing, pace and approach that health systems take to resume routine care depend on the constraints they had going into the pandemic, as well as how they have been impacted by the virus. Before looking at the different policies and tactics countries have pursued on their road to recovery, we first discuss the resources different health systems had going into Covid-19, and other factors that may influence system resilience. We then explore how different countries have increased capacity to deal with the pandemic, and conclude with a discussion of what the NHS can learn from international experience to inform our own approach to restarting services.

A note about scope and methods

This briefing draws on data and resources from the WHO Regional Office for Europe, the European Commission, the European Observatory on Health Systems and Policies [Covid-19 Health System Response Monitor](#) and the OECD. The absence of mention of a particular country does not necessarily mean that measures were not taken in that country, only that limited information was available at the time of writing. Some innovations that are playing a key role in how health systems are resuming care (like building digital capability to move care online) are not discussed in detail. And while this briefing focuses specifically on interventions in health services and not social care or public health, we acknowledge that these sectors are inextricably

linked and health system recovery should not be thought of in isolation, but will require a joined-up approach with other public services and branches of government.

Understanding the baseline: where did the NHS start from going into the crisis relative to other countries?

A number of factors are likely to influence how effectively and quickly countries are able to resume normal levels of activity after the first wave of the Covid-19 pandemic. This section looks at how the NHS compares in terms of the resources and capacity it had going into the pandemic and the relative severity of its outbreak, as well as how broader system characteristics and vulnerabilities may impact recovery.

Resources and capacity

Making sense of how different countries have responded to the pandemic first requires an understanding of where they started from in terms of the workforce, facilities and equipment needed to meet surges in demand – to both test and diagnose large numbers of people and provide treatment to those severely affected by the virus. Health systems with a higher incidence of Covid-19 and less infrastructure to test, track and trace cases will also have greater limitations on restarting services, which depend on health system capacity and the ability to control the infection. Some issues like the limited availability of personal protective equipment (PPE) have been a key challenge to restarting services everywhere, particularly for surgical procedures as more PPE is allocated to these to avoid spread in other settings, and conserved in the event of a future surge in cases.³

Comparisons with other countries must be treated with caution due to differences in, for example, patient demographics, geographies, service design and data. Yet of the countries analysed, the UK spends significantly less on health care capital as a share of Gross Domestic Product (GDP) compared with other countries, which has translated into relatively lower values of resources available for staff to deliver care to patients.⁴

The UK also performs towards the bottom in terms of the availability of key staff and bed capacity. Going into the Covid-19 crisis, the NHS had consistently failed to train and retain sufficient numbers of staff to keep pace with demand, leading to chronic workforce shortages and vacancies in key areas.⁵ It also had relatively high occupancy rates of acute care beds, meaning that it had less flexibility than other health systems to deal with an immediate surge of demand.⁶ All things held equal, countries that had higher numbers of staff and stronger infrastructure going into the pandemic are likely to be better placed to recover care for everyone who needs it.

Another important factor that will influence how well health systems are able to cope with the impact of deferred services are the waiting times countries had before the crisis. Waiting times serve as an indicator for how well services were able to meet demand in normal times, as well as the volume of the backlog health systems will have to work through as Covid-19 cases decline. Countries with limited resources will be even more stretched in their attempts to address the additional demand built up during and arising from the pandemic. Here the UK faces similar challenges, with the standard that at least 92% of patients should wait no longer than 18 weeks to start elective treatment not being achieved for more than four years.¹ Table 1 shows how the UK compares in terms of the resources and capacity it had before the crisis hit.

Table 1. International comparisons of health system baseline capacity

Country	Capital expenditure on health as a share of GDP, 2017	Nurses per 1000 inhabitants, 2019	Doctors per 1000 inhabitants, 2019	Hospital beds per 1000 inhabitants, 2019	Occupancy rate of acute care beds, 2017	Median hip replacement wait time days, 2017
United Kingdom Rank	22nd/30	20th/31	26th/31	29th/31	21st/23	8th/15
United Kingdom	0.3	7.8	3.0	2.5	84.3	85
Australia	0.7	11.9	3.8	3.8		119
Austria	0.7	6.9	5.2	7.3	73.8	
Belgium	0.9	11.2	3.1	5.6	81.8	
Canada	0.6	9.9	2.8	2.5	91.6	105
Czech Republic	0.1	8.1	4.0	6.6	70.1	
Denmark	0.6	10.1	4.2	2.6		29
Estonia	0.2	6.3	3.5	4.6	70.4	286
Finland	0.5	14.7	3.8	3.6		81
France	0.6	10.8	3.4	5.9	75.6	
Germany	1.1	13.2	4.3	8.0	79.8	
Greece	0.2	3.4	5.5	4.2	61.6	
Hungary	0.2	6.6	3.4	7.0	65.5	55
Iceland	0.2	15.5	3.9	2.8		
Ireland	0.4	12.9	3.3	3.0	94.9	
Italy	0.4	6.7	4.0	3.1	78.9	49
Latvia	0.4	4.3	3.3	5.5	71.1	
Lithuania	0.2	7.8	4.6	6.4	73.2	
Luxembourg	0.6	11.7	3.0	4.3	70.7	
Netherlands	0.9	11.2	3.6	3.2	65.4	52
New Zealand	0.5	10.3	3.4	2.6		73
Norway	0.5	18.0	4.9	3.5	80.7	114
Poland	0.4	5.1	2.4	6.5		246
Portugal	0.7	6.9	5.1	3.5	66.8	111
Russia	0.1	8.5	4.1	7.1		
Slovenia	0.4	10.1	3.2	4.4	69.5	
Spain	0.8	5.9	4.0	3.0	75.3	130
Sweden	0.6	10.9	4.3	2.1		75
Switzerland		17.6	4.3	4.6	82.0	
Turkey	0.3	2.3	1.9	2.9	68.0	
United States	0.6	11.9	2.6	2.9	64.0	

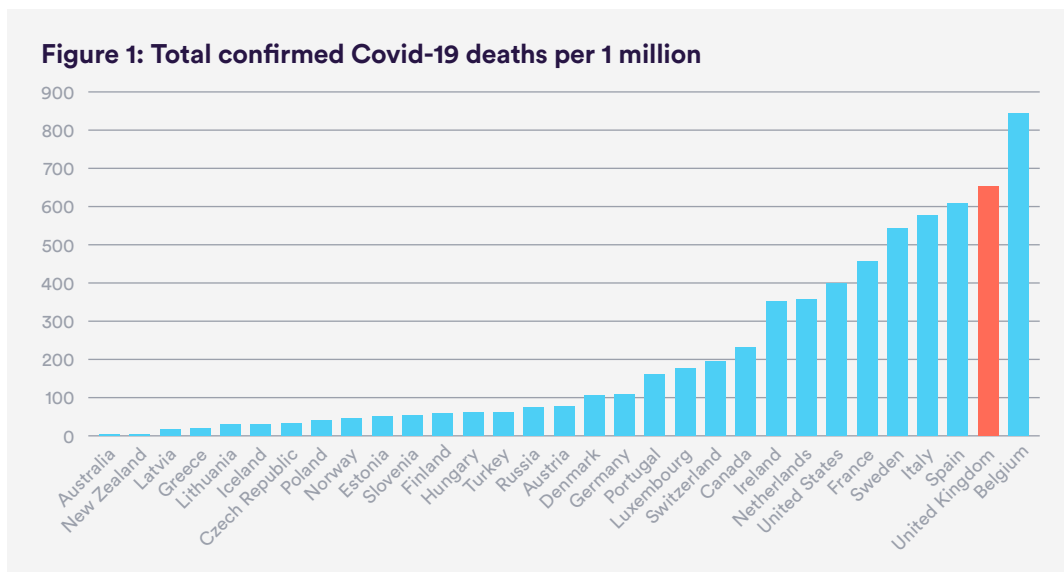
Notes: All dates for the year indicated or nearest year available. Red indicates health systems performing in the bottom third of included countries, yellow the middle third, and green the top third. Capital refers to infrastructure (for example, hospitals and clinics), machinery and equipment (including diagnostic and surgical machinery, ambulances and information and communications technology - ICT - equipment), as well as software and databases.

As figures on capital spending are from 2017, they do not include the additional capital and infrastructure funding announced for NHS hospitals in 2019⁷ or 2020.⁸

Sources and definitions of data comparability: Organisation for Economic Co-operation and Development (2019), *Health at a Glance 2019: OECD indicators*, Organisation for Economic Co-operation and Development (2020) health statistics: nurses, doctors, hospital beds and The World Bank's World Development Indicators

Impact of the Covid-19 outbreak

While the UK ranks among the average for waiting times of the health systems analysed, its position is likely to deteriorate given how poorly the UK has contained the virus compared with most other countries, and it will have to resume services while Covid-19 remains a very real and active problem. The UK has recorded the third highest number of confirmed deaths from Covid-19 in the world, and second highest when accounting for differences in population size (as of 10 July 2020). Figure 1 below shows total confirmed Covid-19 deaths per capita of the countries analysed for this report.



Notes: Confirmed deaths as of 10 July 2020. Covid-19 deaths are defined, recorded and reported differently across countries, so international comparisons of Covid-19 deaths can be difficult and should be interpreted with caution.

Source: WHO Coronavirus Disease (Covid-19) Dashboard, <https://covid19.who.int>

The problems comparing deaths across countries are well recognised, given differences and lags in reporting that may also underestimate the true scale of the impact if Covid-19 deaths are under-recorded. But studies that have looked at excess mortality – which avoids these issues by counting the number of deaths over and above the historical average – show that the UK also does worse than most other countries that have been similarly hard hit by the virus.⁹ An analysis of excess deaths among European countries during the 11-week peak of the Covid-19 outbreak found the rate to be higher only in Spain (56%, compared with the UK's 52%).¹⁰

The UK has also had a far wider geographical spread of Covid-19 cases compared with many other countries. Whereas every part of the UK has had excess deaths of 30%, this is only the case in 15% of the regions in France, 35% of the regions in Italy and 60% of the regions in Spain, for example.¹¹ While London has more Covid-19 cases than any other part of the UK, it accounts for less than 17% of total cases in the country.¹² By contrast, outbreaks in other countries have tended to be concentrated in certain areas or ‘hot spots’, with for example the Helsinki region accounting for 69% of cases in Finland, the Porto region accounting for 60% of cases in Portugal and the Oslo region accounting for 58% of cases in Norway.¹² The broad distribution of cases in the UK may make it harder to contain further transmission and limit the severity of the outbreak relative to other places.

Population health and inequalities

Beyond resources, looking at the populations most affected by the virus reveals further vulnerabilities that will have lasting consequences for system capacity. Covid-19 has disproportionately impacted socioeconomically deprived communities and Black, Asian and minority ethnic groups in the UK, who have experienced higher rates of death and infection from the virus.¹³ These inequalities in the Covid-19 mortality and prevalence rates Covid are similar to what we see emerging in other countries, and are consistent with evidence of how pandemics have impacted vulnerable populations in the past.¹⁴

The UK is one of the few countries with a universally accessible health system that is free at the point of use, removing a key barrier to health care access that can be an important determinant of system resilience after a shock.¹⁵ But universal health care access far from guarantees equality of outcomes, and the UK entered the pandemic with stark socioeconomic inequalities relative to other countries¹⁶ that make the virus deadlier and may multiply its spread.

The reasons for this are structural and interact in complex ways, but working in low-paid or unstable employment, living in crowded accommodation or having underlying health issues exacerbates rates of transmission and mortality. These inequalities are at risk of becoming more entrenched given the economic measures that have gone into mitigating the virus’s spread, which have disrupted people’s job security, income and social contacts. While driven by factors largely outside of the health system, these inequalities may well have significant implications for the recovery and sustainability of the

NHS as they place avoidable demand on services and limit people's chances of living a healthier life.

Other system and organisational factors

There are other factors that are harder to quantify that will also play a role in how well countries are able to manage and recover from Covid-19. As in other countries, the resilience of the NHS will be in part determined by how well its systems support effective decision-making, long-term planning and coordination across different stakeholders, sectors and levels of government.¹³ Systems with stronger collaborative relationships and robust systems for capturing and sharing information across decision-makers and localities will be better placed to identify problems and respond effectively throughout the recovery process.

A key factor in resilience will also be how quickly and effectively health systems are able to learn and adapt to new approaches to care delivery, planning and commissioning, both during the peak of the crisis and beyond. System recovery involves not only restoring and rebuilding disrupted services, but also locking in the positive transformations developed in response to the pandemic. Across the globe, Covid-19 has prompted changes in how health systems organise and deliver services, including broad shifts to digital care and reconfigured care pathways. Health systems with cultures that support a learning environment and timely use of evidence may be better able to retain innovations and absorb lessons from successes and failures to support recovery and prepare for future crises.¹⁷

Historic decisions that impact overall funding and system stability will also determine the policy options countries have to manage and move forward from the pandemic. Countries with greater system reserves and purchasing flexibility may be better able to stabilise shocks and reallocate resources to respond to the crisis and its aftermath.¹³

Lastly, given the way the health crisis of Covid-19 converges and interacts with the social and economic consequences of the virus, health system recovery will not occur in a vacuum and will be impacted by wider government responses to the pandemic that play out in people's health.

We can see that countries have very different starting points in terms of their resources and how they have been impacted by the coronavirus. These factors alongside broader system characteristics will inform how countries are able to respond to the crisis and rebuild services in its aftermath.

Before looking at how different health systems have restarted routine care, it is helpful to understand first how they built extra capacity to meet the surge in demand from patients critically affected by Covid-19. These measures are likely to remain critical as the NHS turns to address the build-up of health problems caused both directly and indirectly by the pandemic, while continuing to treat Covid-19 patients.

How have countries built surge capacity?

The surge in demand from Covid-19 patients has required health systems to boost and make best use of existing resources to provide effective care, while managing increased pressure on services. Even countries with relatively greater capacity going into the pandemic have had to find ways to quickly mobilise staff and release acute and critical care beds and equipment to treat patients severely affected by the virus. This section looks at how countries have built workforce supply, optimised the skills of existing staff and freed up acute care bed capacity.

Workforce

Recruiting and mobilising staff

Health systems have introduced a range of strategies to ensure sufficient staffing throughout the crisis (see Table 2). Nearly every country included in this analysis has attempted to increase workforce supply by re-registering inactive health care personnel who have recently retired or are otherwise not practising. This also includes mobilising students near graduation from medical, nursing and public health programmes to staff patient hotlines, support contact tracing or provide direct patient care. Countries have also expanded capacity by stretching their existing workforce – by moving more staff from part-time to full-time roles, cancelling leaves of absence or modifying work schedules.¹⁸

Rapidly increasing the supply of workers has been supported in many countries by simplifying registration or hiring processes to expedite

recruitment. As in England,¹⁹ several countries have automatically re-registered health professionals who voluntarily left the service within the previous three to five years, fast-tracking employment offers, inductions and top-up training to deploy staff as quickly as possible. In Australia, rapid registration has been targeted for certain roles that will be in high demand to address conditions resulting from the pandemic (like psychologists and physiotherapists).²⁰ Similar processes have also been applied in some countries to existing staff, like in the Netherlands where personnel with licences due to expire automatically had their registrations extended.²¹ Some countries have also relaxed migration processes to allow international staff to remain working both during the crisis and immediately after. This has meant automatically extending visas for foreign-born staff (as in the UK) or relaxing mutual-recognition rules for foreign-trained clinicians (as in Germany and Spain).^{22,23}

A small number of countries have a permanent reserve force of health care workers from which they can source extra staffing capacity. This is the case in France, which has temporarily increased its workforce supply from a voluntary corps of medical professionals who are available in times of emergency.⁶ Several governments have also called on military health professionals to provide extra treatment capacity, or help relocate patients and manage suspected cases. Some health systems have also reached agreements with the private sector to provide additional personnel, typically to help maintain essential services for non-Covid patients and deal with emergencies.

To help retain and support existing staff, some countries have awarded bonus payments in recognition of their response to the pandemic. In France and Germany, staff working in departments most affected by Covid-19 received bonus payments of €1,500.^{22,24} The French government have since announced a new pay deal worth €8 billion that will see wages of health workers rise by €183 a month on average.^{24,25} Health care workers in Lithuania and Slovenia who are actively involved in managing patients with Covid-19 received up to 100% bonus payments for working in high-risk situations.^{26,27} In England, the pandemic has reignited debates about staff pay in both the health and care sectors, with union leaders and others arguing that health and care workers should see a guaranteed pay rise to boost morale and ensure a decent wage for all staff.^{28,29} Taken broadly, doctors in the UK tend to be remunerated at a higher level than those in many comparable countries, though nurse salaries are near the OECD average.^{30,31}

Optimising skills

There has been greater variation in how countries have worked to optimise the skills of existing staff in response to the pandemic. Some countries (like Spain and Italy) have redistributed staff from areas less affected by the virus to overwhelmed localities.^{21,32} A more common approach has been to train more staff to work in the critical care environment, particularly anaesthetists and intensive care nurses who are temporarily unable to perform elective procedures.

This has required upskilling staff to take over tasks from personnel redirected to care for Covid-19 patients, as well as regulatory changes to allow health care workers to carry out activities not traditionally associated with their role. In England, system leaders have supported this transition by developing tools and guidance to train and redeploy staff, including a 'Covid-19 digital passport' that stores staff credentials in one place to reduce the administrative burden typically involved in moving staff across organisations.³³

Beyond critical care, many countries have expanded the role of the primary and community care workforce in response to Covid-19. GPs have taken on increased roles for monitoring and counselling patients who are shielding, have suspected symptoms or have been discharged from hospital. In Spain, GPs, nurses and paediatricians have been trained and redeployed to work in emergency departments or designated Covid-19 units where they screen, identify and monitor patients with suspected Covid-19, conducting home visits as necessary.²¹ In Denmark and parts of Canada, GPs and specialised medical centres are providing extra care capacity to hospitals, including assisting with discharges, triaging acute illness and/or providing routine follow-up for patients with chronic conditions.^{34,35} Some of these arrangements are being maintained in Canada in the event of a future surge, including preparing GPs to respond to patients with acute illness and provide home-based palliative care.³⁰

In several countries, pharmacists have also taken on expanded roles to free up consultant time to focus on urgent cases and minimise the need for medical consultations. This includes Australia, Canada, Ireland and the United States, where pharmacists have had their licences expanded to be able to renew prescriptions and prescribe a broader range of medications.^{6,36} While primary care teams in the UK have similarly acted quickly to innovate services to respond to Covid-19, there are limits to how much GPs in particular can expand capacity given pre-existing workforce pressures and increasing workloads across the sector.³⁷

Table 2. Strategies for building workforce capacity

Country	Deployment of medical students/inactive personnel/volunteers	Redeployment/upskilling of staff into different units, facilities, or roles	Simplified or relaxed registration/hiring processes	National workforce reserve/deployment of military service personnel	Bonus payments for health care workers	Relaxed rules or visa extensions for international staff	Partnership with private health sector
England	×	×	×	×		×	×
Australia	×	×	×				×
Austria	×	×	×	×			
Belgium	×	×	×	×			
Canada	×	×	×	×	×	×	
Czech Republic	×					×	
Denmark	×	×		×			
Estonia	×			×	×		
Finland		×	×				
France	×	×		×	×		
Germany	×	×			×	×	
Greece	×	×	×		×		×
Hungary	×		×		×		
Iceland	×			×			
Ireland	×	×	×	×			×
Italy	×	×	×	×	×	×	×
Latvia	×				×		
Lithuania	×				×		
Luxembourg	×	×					
Netherlands	×	×	×	×			
New Zealand	×	×	×				
Norway	×	×					
Poland	×	×		×	×		
Portugal	×	×	×				
Russia	×			×	×		
Slovenia	×	×			×		
Spain	×	×	×			×	
Sweden		×					
Switzerland	×	×		×			×
Turkey	×	×	×		×		
United States	×	×	×	×	×		

Notes: In several countries, measures have been decided and implemented at the state or local level, so interventions will vary in how they are applied across systems. The strategies and interventions discussed in this table only apply to England, though there may be an overlap with approaches pursued in the other countries of the UK.

Sources: All sources are via the OECD's Covid-19 Health System Response Tracker, the European Observatory on Health Systems and Policies' Covid-19 Health System Response Monitor, the North American Covid-19 Policy Response Monitor, and the Health Foundation Covid-19 Policy Tracker, supplemented by country-level resources.

Capital and infrastructure

Ensuring acute care bed capacity

Health systems have taken a range of measures to create additional bed capacity to avoid overwhelming hospitals (see Table 3). A common approach has been to contract additional space from private providers, either to provide extra intensive care beds and equipment to treat Covid-19 patients, or to take over non-elective procedures. For instance, in England and Ireland, governments ‘block booked’ private hospital beds, equipment and transport vehicles to be flexibly available through the duration of the crisis (similar agreements were also reached in the most severely affected parts of Italy).^{38,39,40} Some countries, as in Austria, Canada and Greece, are also working with the private sector to take over some elective care and help reduce service backlogs after the worst of the pandemic.^{41,42,44}

Most countries have also added capacity by converting existing wards and theatres into intensive care units, made possible by adding beds from facilities like surgical centres and rehabilitation hospitals, discharging patients early and delaying all elective and non-urgent procedures.

To further reduce the burden on hospitals, many countries have also established new treatment centres to support patients affected by Covid-19. Similar to the NHS Nightingale hospitals, several countries have built makeshift field hospitals to provide extra intensive care capacity for Covid-19 patients, or have acquired military hospitals for this purpose. Spain has built 16 field hospitals, most of them in Madrid, set up to specifically admit and treat less severe cases.⁴³ Properties vacated due to lockdown measures, like hotels, have also been converted into rehabilitation clinics, step-down facilities or Covid-19 treatment centres. A number of countries (like Australia and Norway) have also developed new facilities in the community to increase testing and treatment capacity for patients with mild symptoms, and to reduce pressure on hospital emergency departments and local GP offices.^{44,45}

Beyond building or acquiring new facilities, a large number of countries have also created designated treatment or diagnostic centres from existing providers to help reduce further transmission. For example, Finland,⁴⁶ Poland,⁴⁷ the Czech Republic⁴⁸ and Italy⁴⁹ have specified certain hospitals or community providers as Covid-19 only, redirecting patients without the virus to other settings. In Greece, some facilities have been allocated exclusively to provide urgent care and support for non-Covid patients who

have chronic disease, as well as to provide ongoing communication with shielding patients.⁵⁰

Countries where it has not been feasible or essential to require separate facilities for Covid-19 patients have relied on reconfiguring existing health centres to make it possible to isolate cases and support a safe environment. In England this has involved designating specific wards or departments to support Covid-19 patients within hospitals, and establishing isolated 'hot hubs' across GP practices to deliver in-person services for patients experiencing symptoms.

A smaller number of countries have found capacity by redistributing resources regionally to areas less overwhelmed by Covid-19. For instance, in France and Spain, 'medical trains' have been set up to move patients from pressurised hospitals to less impacted regions of these countries.^{51,52} In Belgium, hospitals have organised proactive agreements to support transfers locally when a hospital's capacity reaches 75%.⁵³ Shifting capacity in this way in the UK may not have been possible given how wide the virus has spread between regions and localities, particularly compared with other countries.

To support the efficient distribution of resources, some countries have also developed centralised real-time information systems to help allocate patients and equipment according to need more efficiently. This is the case in Australia,⁵⁴ Switzerland,⁵⁵ Germany⁵⁶ and the Netherlands,⁵⁷ which have each established registers and national coordinating centres to monitor the availability of intensive care unit beds and the number of confirmed Covid-19 cases and to redistribute resources accordingly.

Building capacity to respond to Covid-19 has required health systems to shift priorities and redeploy resources that have come with significant opportunity costs, particularly for people with chronic health needs. These measures will contribute to the non-Covid health consequences that countries will have to address as services reopen. A key issue for all health services impacted by the virus has been managing pressures from Covid-19 while maintaining access to essential and urgent care. Recovery will be shaped not only by how well systems added capacity in response to the crisis, but also by the actions taken to address the backlog of health issues that have accumulated in its aftermath and to restore services to a new position.

Table 3. Strategies for maintaining bed capacity

Country	Converting existing hospital theatres and wards into critical care capacity	Repurposing public facilities or military hospitals/building new Covid-19 treatment centres	Creating designated Covid-19 hospitals or treatment centres from existing providers	Transfer care to private sector and/or repurpose medical equipment from private hospitals	Redistributing patients or equipment to regions to adjust for needs in local capacity
England	×	×	×	×	
Australia		×	×	×	
Austria	×	×	×		
Belgium	×	×	×		×
Canada	×	×	×		
Czech Republic	×		×		
Denmark		×		×	×
Estonia	×	×			
Finland	×	×	×		
France	×	×		×	×
Germany	×	×	×		
Greece	×	×	×	×	
Hungary	×	×		×	×
Iceland	×		×		
Ireland	×			×	×
Italy	×	×	×	×	×
Latvia	×		×	×	×
Lithuania			×		
Luxembourg		×	×		
Netherlands	×	×		×	×
New Zealand				×	
Norway	×		×		
Poland	×		×		
Portugal	×	×		×	
Russia	×	×	×		
Slovenia	×	×	×		
Spain		×		×	
Sweden	×	×		×	
Switzerland			×	×	×
Turkey		×	×	×	
United States	×	×			

Notes: In several countries, measures have been decided and implemented at the state or local level, so interventions will vary in how they are applied across systems. The strategies and interventions discussed in this table only apply to England, though there may be an overlap with approaches pursued in the other countries of the UK.

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Resuming routine and elective care

Every health system analysed has cancelled or delayed non-urgent or elective procedures to free up more capacity for Covid-19 patients. The types of services deferred and the duration of their postponement have varied, and again will be influenced by the resources countries had going into the crisis and how well infection rates have been managed in each place.

Data are limited and countries differ in how they define what is considered urgent or critical, but Table 4 summarises the main services that have been affected in each country, as well as the time spans for how long care has been cancelled or deferred. Most countries have cancelled all non-urgent elective appointments, with some postponing only elective surgeries. Urgent services like cancer treatment, cardiac surgery and dialysis have mostly been maintained, and other appointments have been moved online where appropriate to maintain access to essential care. Countries have varied in their approach to preventative care, with some countries delaying cancer screening programmes and/or immunisations, while others have protected these services as essential.

Even in health systems where certain urgent and essential services have been protected, providers have had to defer or reschedule certain procedures if they lack the capability or capacity to maintain social distancing, and have had to weigh these considerations against a patient's circumstances. In England we have seen this with cancer services, with many screening programmes being effectively paused, and treatments delayed as some hospitals lack critical care capacity for surgeries or the staff to provide chemotherapy and palliative treatments.^{58,59} Countries have mostly worked to maintain and expand mental health services throughout the pandemic, by providing services virtually and establishing designated hotlines for patients and staff.

Table 4: Delayed procedures as a result of Covid-19

Country	Delayed procedures	Date of restrictions	Date of reintroduction	Duration (days)
England	All elective surgeries	17 March 2020	29 April 2020 (28 May 2020 for dental care)	43
Australia	Non-urgent elective surgeries	26 March 2020	27 April 2020	33
Austria	All elective surgeries and non-urgent interventions, including immunisations and rehabilitation	12 March 2020	15 April 2020	34
Belgium	All non-urgent elective care	14 March 2020	4 May 2020	54
Canada	All non-urgent elective care (determined regionally)	Mid-March 2020	7–18 May 2020	~53
Czech Republic	All elective care, including preventative services	17 March 2020	14 April 2020	28
Denmark	Non-urgent elective surgeries	17 March 2020	13 April 2020	29
Estonia	All elective care, including cancer screening	17 March 2020 (26 March 2020 for private clinics and dentists)	21 April 2020	35
Finland	Elective surgeries and non-acute outpatient appointments (determined locally, and not all hospital districts reduced elective capacity)	Determined locally	Determined locally	
France	All elective care	6 March 2020	11 May 2020	67
Germany	Elective surgeries (determined ultimately by physician)	29 March 2020	Early May 2020	~37
Greece	Elective surgeries	23 March 2020	4 May 2020	36
Hungary	All non-urgent elective care, including public health screening programmes	26 March 2020	4 May 2020	40
Iceland	Elective surgeries	23 March 2020	31 May 2020	70
Ireland	All elective care, including public health screening programmes	28 March 2020	19 May 2020 (6 July for screening programmes)	53
Italy	All elective care (determined regionally)	29 February 2020	4 May 2020	65
Latvia	All non-urgent elective care	14 March 2020	20 April 2020	38
Lithuania	All elective care, including some cancer screening and rehabilitation	16 March 2020	29 April 2020 (18 May 2020 for dentists)	44
Luxembourg	All non-urgent elective care	18 March 2020	4 May 2020	48
Netherlands	All elective care (determined regionally)	Determined by regional health authorities	Determined by regional health authorities	
New Zealand	Elective surgeries and some preventative care/screening programmes	23 March 2020	4 May 2020	42
Norway	All elective care, including some cancer screenings	12 March 2020	14 April 2020	33
Poland	All elective care, including vaccinations (excludes dental care)	23 March 2020	18 April 2020	27
Portugal	All elective care	17 March 2020	3 May 2020	47
Russia	All elective care, including immunisations, cancer screenings and other preventative services	16 April 2020	25 May 2020	40
Slovenia	Elective outpatient care and surgery, including preventative services	20 March 2020	9 May 2020	50
Spain	All elective surgery and non-urgent consultations	15 March 2020	17 May 2020	~63
Sweden	Decided at county level			
Switzerland	All elective care	20 March 2020	27 April 2020	38
Turkey	All non-urgent elective surgeries	Determined locally	Determined locally	
United States	Decided at state level			

Notes: In several countries, measures have been decided and implemented at the state or local level, so interventions will vary in how they are applied across systems. The details discussed in this table only apply to England – Scotland, Wales and Northern Ireland had separate policies for postponing and resuming elective care.

Sources: All sources are via the OECD’s Covid-19 Health System Response Tracker, the European Observatory on Health Systems and Policies’ Covid-19 Health System Response Monitor, and the North American Covid-19 Policy Response Monitor, and the Health Foundation Covid-19 Policy Tracker, supplemented by country-level resources.

As cases begin to drop, countries are now grappling with how to restart routine care, with many still in the planning stages of reorganising services. In every system, approaches and decisions have to be adapted locally to account for variations in a number of factors, including:

- the prevalence and incidence of Covid-19 in the community
- the availability of staff, medications and equipment
- testing capacity
- current occupancy levels.

The following subsections describe some of the key policy and practice challenges health systems are working through to restart services, including how to prioritise patients, how to reconfigure services to reduce transmission and how to maintain extra capacity in the event of future outbreaks (summarised in Table 5).

Prioritising services

Most countries are pursuing a phased approach to reintroducing procedures, prioritising services that are most time sensitive and urgent, and where the patient has the highest risk of deterioration. The definition of what is essential and urgent varies by country, with many governments emphasising the need for clinical judgement and local discretion. Some countries have produced frameworks to help providers make prioritisation decisions, with medical associations providing guidance within clinical specialties. Urgent surgeries, cancer care and screening have typically been among the first phase of services to come back, as well as day case surgeries or procedures that only require localised or no anaesthetic, and are less likely to have an impact on inpatient bed capacity. In most countries, providers are maintaining telehealth consultations for all appointments where it is safe and appropriate to do so.

Countries have emphasised different criteria in how to prioritise which services should be resumed first. Beyond urgency, a number of countries (like England) also prioritise patients who have been on a waiting list for longest, giving priority to conditions where delaying treatment would be most detrimental to outcomes.^{60,61} In France, health authorities have been called on to review active waiting lists, assess patients to see how their conditions have changed and escalate cases as necessary.⁶² To help prioritise resources across localities, some health systems are pooling and coordinating wait lists at the regional or local level, as in parts of Australia.⁶³

Spain, Sweden and Norway have developed prioritisation frameworks that balance a broader range of considerations, including factors such as treatment efficacy and strength of evidence, patient benefit and quality of life, or the resources and staff required.^{64,65,66} Sweden and Norway also give special consideration to solidarity between social groups and the needs of vulnerable populations.

In Finland, system standards have been maintained that require specialists to assess patients for non-urgent treatment within three weeks of referral.⁶⁷

Reducing transmission

With a widespread effective vaccine against Covid-19 still very far away, countries have had to introduce new infection control measures to minimise the risk of transmission. This has involved changing the set-up of health facilities to maintain physical distancing, as well as new hygiene protocols for patients and staff.

These requirements come with daunting logistical hurdles that limit the volume of services that providers can deliver, as procedures require extra time for cleaning and the numbers of appointments are reduced to avoid overcrowding in facilities.³ Some countries have implemented extended hours to accommodate spaced appointments, or have designated appointment slots for suspected cases or patients shielding to limit the risk of potential exposure to Covid-19. This is the case for ambulatory care in Belgium where patients with the greatest vulnerabilities are scheduled at the start of the day, and patients with the greatest risk of exposure are scheduled at the end of the day, to minimise contact.⁶⁸ In several countries, medical practices have designated consultation hours for symptomatic or confirmed patients to avoid transmission.^{69,70,71,72}

Some countries have also established Covid-free hospitals or zones within facilities to help isolate cases and avoid further transmission. For example, Spain is only resuming elective procedures in facilities where Covid-19 patients are taking up less than 5% of the total bed capacity, and separate Covid-free zones have been established.⁷³ Appointments are also being restructured so that perioperative assessment, waiting list inclusion and discharge assessments are conducted on the same day to avoid multiple visits. Providers in England, like in a number of other countries, have established separate entrances for suspected patients for on-site screening triage, and

segregated routes to manage the flow of patients and staff. Local areas in England have also been instructed, where possible, to consolidate cancer surgeries on Covid-free sites in an effort to expand capacity to pre-pandemic levels.⁷⁴ Several countries are also maintaining partnerships with the private sector to provide extra Covid-free capacity.

Maintaining separate pathways for Covid and non-Covid patients requires a number of supportive procedures, with implications for staff time. Clinical and administrative capacity is needed to pre-screen patients to confirm they are infection free before accepting appointments, as well as workflows that avoid rotating staff across pathways. Like England, many countries have introduced protocols to test patients upon emergency admission or in advance of elective procedures.^{55,75}

Some countries have also set up new work flows that avoid staff moving between Covid-19 zones or facilities and other parts of the health service. Accommodating these strict physical distancing and infection control measures means that capacity in many health systems is still vastly reduced, which means it will take a while before normal levels of activity are reached.

Capacity planning

While services resume, most countries have also established contingency plans to be able to quickly redistribute resources in the event of a future surge of Covid-19 cases. This means building slack capacity into plans so that beds can be freed up and staff redeployed as demand and activity levels change, as system leaders have been instructed to do in England.⁵⁴ To support this, a number of countries are maintaining reserve bed capacity to be available on demand, as in parts of Canada and Ireland where hospitals are maintaining 15% and 25% bed capacity, respectively.^{30,76}

In Germany, hospitals are expected to maintain a 25% to 30% reserve intensive care capacity even after resuming services, with the aim of increasing elective surgeries by 10% every two weeks. Only when elective surgery capacity reaches 90% will steps be taken to reduce reserve intensive care unit bed capacity.⁷⁷

To maintain flexible capacity, countries are also considering how to sustain efforts that have gone into mobilising the workforce. This means maintaining

personnel who have been reinstated, as well as skill mix changes that allow teams to make use of a broader set of roles and responsibilities.

Some provinces in Canada have made workforce optimisation a core part of their recovery plan, which includes ambitions to recruit and train new staff to be able to extend daily hours of operation, provide weekend procedures and open new operating rooms to reduce service backlogs.³⁶ It also includes efforts to shift more staff from part-time to full-time work, expedite surgical nursing training programmes and recruit more administrative staff to provide support for new processes for scheduling and pre-screening.

In England, the Royal College of Surgeons has recommended a number of interventions to maintain enhanced workforce capacity throughout the recovery phase, including:

- temporarily retaining additional staff to manage service backlogs (this includes for non-patient-facing roles, like quality assurance and training)
- redesigning job plans so that more non-direct surgical care is allocated to other staff
- reassigning surgical care team staff to other departments where needed.⁷⁸

Some countries have recently agreed stimulus packages to strengthen health system recovery and future preparedness. For example, in Germany the government announced a €3 billion funding package in June that includes designated resources to improve digital infrastructure and emergency care capacity, and modernise space and equipment.⁷⁹ The UK government has also recently unveiled £1.5 billion funding for hospital maintenance and building (including expanding emergency care capacity) and an additional £3 billion to restore as much capacity as possible over winter and help the system prepare for a potential 'second wave' surge in cases.^{8,81}

Table 5. International approaches to resuming routine care

Country	Reconfiguring facilities to maintain physical distancing	Prioritisation/stepped process for reintroducing elective procedures	Covid-19-free zones within facilities, or designated facilities as Covid-19 centres	New clinical assessment protocols to confirm Covid-19 status before procedures	Extending hours or spacing appointments to avoid crowding	Maintaining reserve bed capacity
England	×	×	×	×		×
Australia		×	×		×	×
Austria	×	×	×	×	×	
Belgium		×	×	×	×	
Canada	×	×	×	×	×	×
Czech Republic					×	×
Denmark	×		×	×	×	×
Estonia		×	×			
Finland	×	×				
France	×	×	×		×	
Germany	×	×	×	×		×
Greece	×		×			
Hungary	×		×	×	×	×
Iceland	×				×	
Ireland	×	×	×	×		×
Italy		×	×			
Latvia		×	×	×		
Lithuania	×			×	×	
Luxembourg	×	×	×	×		
Netherlands	×	×			×	
New Zealand	×	×				
Norway	×	×				
Poland	×	×	×	×		
Portugal			×	×	×	
Russia	×			×	×	
Slovenia		×	×		×	
Spain	×	×	×	×	×	×
Sweden	×	×				
Switzerland	×					×
Turkey						
United States	×	×	×	×	×	

Notes: In several countries, measures have been decided and implemented at the state or local level, so interventions will vary in how they are applied across systems. The strategies and interventions discussed in this table only apply to England, though there may be an overlap with approaches pursued in the other countries of the UK.

Sources: All sources are via the OECD's Covid-19 Health System Response Tracker, the European Observatory on Health Systems and Policies' Covid-19 Health System Response Monitor, and the North American Covid-19 Policy Response, and the Health Foundation Covid-19 Policy Tracker supplemented by country-level resources.

Covid-19 has clearly changed the landscape considerably for countries impacted by the coronavirus, and it will be a while before we know which factors are the most important in determining and supporting system recovery. While many of the strategies that England is pursuing to build capacity and resume care are similar to those in other countries, the policy options the NHS has to sustain them come down to its own context. There are questions now about what the NHS wants recovery to look like, and how to chart the health and care system on a new course while the realities of Covid-19 still exist – and are likely to remain for some time.

Implications for the NHS

The path to recovery in the NHS is likely to be slower and more constrained relative to other countries, given its starting point. The Nuffield Trust recently spelled out many of the challenges the NHS will face when resuming care,³ many of which apply here when thinking about the options that are being pursued elsewhere and considered within the UK.

For one, reconfiguring facilities to support social distancing and Covid-free zones is easier with modern hospital architecture and generous space, neither of which apply to most NHS properties. The fact that the UK trails most other countries in capital investment means that many parts of the NHS are working with an outdated estate and will be challenged to scale activity while maintaining infection control measures. Many facilities lack single occupancy rooms and common areas like corridors, lifts and waiting rooms that are large enough to separate patients and maintain segregated flows.³

Establishing Covid-free hospitals might be more feasible in some parts of the country, but will not be practical everywhere, especially in rural areas. Retaining support from the Nightingale field hospitals may help separate Covid and non-Covid patients in parts of the country with a surge in cases, though doing so should be carefully balanced against efforts to restart more care as it requires redeploying staff from other areas. The backlog of maintenance issues that existed before the pandemic, combined with the infrastructural changes required to support infection control, means that significant investment will be needed to update facilities, and should be considered as part of any recovery plan.

The NHS's ability to resume services while continuing to support the large number of patients with Covid-19 will also be hindered by the chronic workforce shortages and high number of vacancies it faced going into the crisis. While the NHS was able to call in thousands of staff and volunteers, questions remain about how well it can retain this added capacity and translate these positions into sustained roles. The solutions system leaders found to simplify processes for registration, recruitment and training should be preserved wherever possible to retain and bring on additional staff. Maintaining a reserve force of staff, as in France, may help bolster the NHS in future times of need, but should not distract from the long-term planning and investment needed to overcome deep-rooted workforce challenges that have led to persistently high rates of vacancies and staff turnover in health and care.

An added challenge will be that many staff, particularly those who handled high Covid-19 caseloads, will need adequate time to regain strength before resuming routine care. Health care workers will be at a heightened risk of sickness and developing mental health issues,⁸⁰ making it essential that targeted psychological support offers for staff are maintained. Given how reliant the NHS is on international recruitment, it is also prudent that the government rethinks visa routes for health and care staff to enable the key workers on which the system relies to remain in the country.

The combined workforce and infrastructural challenges involved in resuming routine care mean that capacity within the NHS is likely to be reduced for some time. The need to maintain strict hygiene measures alongside physical distancing will further limit the volume of services that the NHS can provide, setting treatment waiting lists up to grow even further. Some trust chief executives have warned that it may take years before the NHS can provide the full range of services it once delivered given disruptions caused by Covid-19.⁸²

The government recently announced a deal to retain support from the private sector and Nightingale hospitals to expand elective capacity.⁸¹ But this added capacity on its own is unlikely to be sufficient to address service backlogs and manage the growing number of people on waiting lists. This means that, for the foreseeable future, clinicians will need to make difficult decisions about how to prioritise services that balance a number of complicated factors. Introducing more robust prioritisation frameworks (as in Spain and Sweden) may help decision-makers consistently assess a patient's needs against others both within and across specialties, while also factoring in broader considerations like patient preferences, the resources required for the procedure and the needs of vulnerable populations.

While it is true that Covid-19 has laid bare many of the NHS's vulnerabilities, it has also highlighted some of its core strengths. At every level, the NHS has acted quickly and flexibly to implement new service models that optimised the skills of different staff and reorganised pathways to manage resources effectively while maintaining access to essential care. There have been marked changes to patient triage, referrals and care delivery that helped prevent the service from being overwhelmed.

Though we need to fully interrogate and understand the consequences of the disruptions to care that have occurred, the Covid-19 pandemic has also created an opportunity to accelerate positive changes and flexible ways of working that have long thwarted system progress. The NHS's recovery will be determined not only by the capacity and resources it had going into the crisis, but also by how well it can make effective decisions and sustain the system learning and transformations it developed in its response.

This also raises questions about what we mean by recovery, and how the system should rebuild moving forward. Covid-19 has more fully exposed the consequences of systemic racism and structural inequality that make Black, Asian and minority ethnic staff and patients more vulnerable to the virus. Rather than return to the status quo, there is an opportunity now for the health service to work alongside partners and act more systematically and intentionally to understand its role in the problem, and take every action necessary to be part of the solution. Given the social and economic reach of the NHS, and the principles on which it was founded, the health service is well placed to lead recovery through an inequalities lens and develop a service that works better for those who have traditionally been left behind.

Covid-19 has tested the resilience of even the most well-prepared health systems, and a lot can be learnt by the NHS in how other countries are approaching their recovery. Looking across health systems internationally makes clear that the NHS has not been alone in accelerating major system transformations to adapt to and move forward from the coronavirus. The UK's starting position in terms of its resources and relative shortcomings in how it controlled transmission may make the path to recovery long and fraught. However, there is also an opportunity now to redefine what the health and care system should look like in the future, and sustain the positive changes that will be core to its recovery and sustainability over the long term.

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