EVIDENCE SYNTHESIS BRIEFING NOTE

TOPIC: INTERNATIONAL LESSONS LEARNED FROM RE-OPENING NON-COVID-19 ACTIVITIES IN HOSPITALS

Information finalized as of May 13, 2020.[a]

Purpose: This note provides a summary of Canadian and international experiences with re-opening non-COVID-19 activities in hospitals.

Key Findings:

- **Approaches Being Used**:
  - Canada: Most provinces and territories have resumed elective and non-urgent surgeries, as well as other specialized services in hospitals (e.g., oncology, medical imaging activities). A few provinces have made publicly available detailed strategies and frameworks to move forward (notably British Columbia, Ontario, and Quebec). These plans usually detail infection prevention and control measures, as well as other changes to delivery arrangements to ensure optimal and safe care for both patients and staff. These plans to resume non-COVID-19 activities in hospitals have often been flagged in provincial economic and social response plans as the first stage to re-emerge from COVID-19 shutdown.
  - International (Australia, China, New Zealand, South Korea, Sweden, and the United Kingdom): Australia and New Zealand have developed publicly available strategies to move forward with the re-opening of non-COVID-19 activities in their hospitals. The findings from other countries focus particularly on the prioritization of elective procedures once services resume.
- **Innovative Approaches**: Approaches include scaling up/down emergency room capacity and 'bypassing' hospitals and providing services in other locations, as well as implementing surge-management models, triage protocols for services and personal protective equipment, infection prevention and control measures, and virtual visits by dedicated 'internet hospitals'.
- **Potential Pitfalls to Avoid**:
  - Service planning for COVID-19 treatment: Avoid overlap in roles and responsibilities among those coordinating changes in the hospital, determine early on which staff members are 'deployment ready' for potential COVID-19 activities, and do not underestimate the importance of orientation and instructions related to infection prevention and control measures.
  - Service planning for the ongoing management of other conditions: Do not compromise the prognosis of cancer patients by deviating from department guideline-recommended radiotherapy practices, and reduce patient travel to receive health services.
  - Workforce planning: Avoid any form of discrimination against frontline health workers and their family members.

[a] This briefing note includes current available evidence as of the noted date. It is not intended to be an exhaustive analysis, and other relevant findings may have been reported since completion.

Supporting Evidence

Table 1 below summarizes the main take-home messages about approaches being used and potential pitfalls for re-opening non-COVID-19 activities in hospitals in international and Canadian jurisdictions. Additional details are provided in Table 2 (for experiences from Canadian provinces and territories) and Table 3 (for experiences from other countries) in the Appendix.[b]

Table 1: Key Take-Home Messages about Approaches being Used and Potential Pitfalls to Avoid in Re-opening Non-COVID-19 Activities in Hospitals across International and Canadian Jurisdictions[c]

Decisions	Approaches being Used	Potentail Pitfalls to Avoid
Delivery Arrangements		
Service planning for COVID-19 prevention	**Changing emergency medical service procedures** • Changing emergency medical-service procedures to bypass admission to emergency rooms, including allowing treatment in ambulances (6) **Limiting access to health facilities** • Symptom screening and stricter hospital admissions criteria to separate out potential COVID-19 patients (6) • Testing for COVID-19 in hospitals for inpatients prior to their discharge (6)	• None identified
Service planning for COVID-19 treatment	**Scaling up/down emergency-room capacity** • Establishing command structures and identifying tiered staffing systems when scaling up emergency-room capacity (5) • Using data to determine hospital staffing and resource needs and disseminating this information across response coordinators (5) **Scaling up/down ICU capacity** • Establishing dedicated, cohort-based intensive care units for COVID-19-positive patients • Putting in place clear point people should staff become ill and establishing a short-notice call system to replace team members (5)	• Avoid overlap in roles and responsibilities among those coordinating changes in the hospital (5) • Determine early on which staff members are 'deployment ready' should scaling-up of COVID-19 activities be required (5) • Do not underestimate the importance of orientation and instructions related to infection

[b] Six countries (Australia, China, New Zealand, South Korea, Sweden, and the United Kingdom) were focused on because they are all in the process of re-opening non-COVID-19 activities in hospitals, with the exception of Sweden where medical services (and the broader economy) were not shut down to the same extent.
[c] The numbering system indicates where information was retrieved: 1= guidelines developed using a robust process; 2= full systematic reviews; 3= rapid reviews; 4= guidelines developed using some type of evidence synthesis; 5= primary studies; 6= government websites and documents as part of the jurisdictional scan.

	• Maintaining high levels of infection prevention and control, including continuous use of personal protective equipment (PPE), self-monitoring of staff for symptoms, and frequent cleaning and disinfecting of surfaces (6) • Adding capacity by discharging patients to homes when possible, building temporary hospitals to expand available intensive care beds, and recruiting retired clinicians to address staffing shortfalls (6) • Establishing 'hot hubs'/ specialty clinics to diagnose and advise COVID-19 patients (and bypass emergency room admissions) (6) **Scaling up/down palliative-care capacity** • Scaling up/down palliative-care capacity by training non-specialist staff in the management of symptoms and psychological supports, including communication and bereavement counselling, and considering additional guidelines for specific populations including people in care homes and those with intellectual disabilities (2; AMSTAR rating 4/9; search conducted 18 March 2020)	prevention and control measures (5)
Service planning for the ongoing management of other conditions	**Changing acute-care surgery and trauma-care procedures** • Ensuring a stable number of COVID-19 cases, a stable supply of medication and PPE, adequate capacity of inpatient and ICU beds, and sufficient supply of health workers prior to re-opening any delayed surgical procedures (6) • Changing acute-care surgery and trauma-care procedures, modifying the clinical environment to allow for more space, ensuring the availability of equipment and supplies including PPE and oxygen therapy (while ensuring not to deplete stocks needed for the COVID-19 response), and establishing protocols to reduce the risk of virus aerosolization associated with general anaesthesia (2; AMSTAR rating 2/9; search conducted 9 April 2020) • Reducing the number of staff and time spent in operating theatres for necessary open surgeries where laparoscopy is not possible (2; AMSTAR rating 2/9; search conducted 29 March 2020) • Extending daily operating-room hours and weekend operating services to address the backlog of elective and non-emergent surgeries (6) **Changing cancer treatment procedures** • Delaying or postponing non-urgent cancer-related appointments, particularly at the screening level (e.g.,, annual surveillance among cancer survivors, low suspicion screen recalls, and low suspicion activities for elderly patients) (4; last updated 8 May 2020)	• Do not compromise the prognosis of cancer patients by deviating from department guideline-recommended radiotherapy practices (1; last updated 6 April 2020) • Reduce patient travel to receive health services (6)

	• Triaging cancer services by considering the potential for cure, relative benefit of radiation and chemotherapy, life expectancy, and performance status (1; last updated 6 April 2020) • Implementing telephone triage for new cancer referrals and consider establishing separate cancer hubs to provide non-urgent procedures for patients while maintaining their separation from COVID-19-related activities (6) • Using home/offsite review by radiologists for breast-cancer screening, however, 5-mega pixel screens are required for primary interpretation (these screens can be redeployed from organizations to radiologists in quarantine or isolation) (1; last updated 2 April 2020) **Changing other treatment procedures** • Implementing additional testing for patients prior to resuming invasive procedures, including transplant services and gastrointestinal procedures (1; last updated 7 April 2020 and 31 March 2020) • Performing gastrointestinal procedures for patients in negative pressure rooms following standard cleaning endoscopic disinfection and reprocessing protocols while wearing appropriate PPE (1; last updated 31 March 2020) • Providing a separate area for triage and assessment of maternal and neonatal services for women suspected or confirmed COVID-19 (1; last updated 26 March 2020) • Admitting directly to birthing suites or obstetric theatres where inpatient care is required for maternal and neonate services (1; last updated 26 March 2020) • Adapting waiting rooms and reading rooms to preserve social distancing (1; last updated 25 March 2020) **Delaying return visits, elective procedures, etc.** • Prioritizing patients for the resumption of elective surgeries by handling the most urgent cases first (1; last updated 5 May 2020) • Ensuring sufficient resources are available to support elective care including PPE, health workers, physical space, testing capacity, and post-acute care prior to beginning elective procedures (1; last updated 5 May 2020) • Designing appropriate procedures for pre-triage, diagnosis, and isolation of suspected and confirmed cases (1; last updated 5 May 2020) • Developing clear procedures around 'patient cohorting' and infection-control practices including facility cleaning and set up (1; last updated 5 May 2020) • Using ambulatory-care centres or alternate-care sites outside of acute care facilities as alternative-care settings to address the backlog of procedures (1; last updated 5 May 2020)	

	• Communicating with the public using mass and social media about new ways of received medical care (6)	
Infrastructure planning and resource allocation	**Personal protective equipment (under shortage conditions)** • Establishing strategies to address expected or known PPE shortages, including tiered approaches for conventional, contingency and crisis circumstances (1; last updated 2 April 2020) • Allocating PPE based on risk of exposure, risk of harm from infection, and risk of being a vector for transmission (1; last updated 25 March 2020) • Training both medical and non-medical medical professional working in healthcare settings to use standard PPE and donning and doffing of masks to avoid contamination (2; AMSTAR rating 9/10; search conducted 26 March 2020) **Medication and other technologies** • Implementing coordination mechanisms between organizations and intra-provincially to ensure sufficient supplies of medication (6) • Establishing safe protocols for the mobilization of voluntary blood donation to ensure sufficient stock is available when resuming activities (6) **Virtual care** • Using virtual-care services wherever possible to reduce the pressure placed on hospital infrastructure while resuming services (6)	• None identified
Workforce planning (including workforce shortages and management and development)	**Recruitment** • Extending staff re-instatements for qualified health providers who volunteered to return to work during the COVID-19 pandemic for the next 12 months to increase available health workers (6) **Role extension** • Considering the assessment of local needs and existing skills sets when extending roles for surgeons and establish collaboration with more specialized colleagues who are able to oversee and support staff (1; last updated 3 April 2020) • Redeploying non-frontline clinician roles (e.g., educators, patient safety officers, project officers) to support clinical work where possible (1; updated 26 March 2020) **Training in new procedures** • Establishing specialty training for surgical program nurses to support additional staff in operating rooms to contend with surgery backlogs (6) **Support for healthcare workers**	• Avoid any form of discrimination against frontline health workers and their family members (6)

	• Considering non-performance-based incentives, additional travel allowance, child-care support, and awards and recognition as additional supports for staff (3; AMSTAR rating 3/9; last updated 3 May 2020) • Establishing wellness plans, psychological supports including mental health hotlines and free counselling services for frontline workers (6) • Implementing supports for the dependents of frontline workers (6)	
Service planning for 'return to normal'	**Waitlist management** • Managing waitlists by prioritizing urgent visits and providing written documentation from the referring physician regarding updated time and date for re-booking (1; last updated 7 April 2020)	• None identified
Financial Arrangements		
Funding organizations	**Funding subsidies** • Providing subsidies for public health tasks undertaken by hospitals throughout the pandemic (6)	• None identified
Broader Economic and Social Responses		
Employment	**Worker supports** • Opening of childcare programs to serve essential workers, however emphasizing continued preventative measures include hand hygiene practices, cleaning of surfaces, and social distancing (1; last updated date not provided) **Workplace changes** • Reducing the risk for vulnerable workers (e.g., including older adults; those with pre-existing conditions; women who are past 28 week gestation) by encouraging telework options, minimizing the duties of vulnerable workers that place them in contact with others, practicing safe hygiene practices, providing PPE where necessary, and increasing the space between workers (1; last updated date not provided)	• None identified

Methods

The COVID-19 Evidence Synthesis Network is comprised of groups specializing in evidence synthesis and knowledge translation. The group has committed to provide their expertise to provide high-quality, relevant, and timely synthesized research evidence about COVID-19 to inform decision makers as the pandemic continues. The following members of the Network provided evidence synthesis products that were used to develop this Evidence Synthesis Briefing Note:

- McMaster Health Forum/Rapid-Improvement Support and Exchange. May 13, 2020. COVID-19 Rapid Evidence Profile #7: What are the international lessons learned from re-opening non-COVID-19 activities in hospitals?
- Ontario Health (Quality). May 8, 2020. Ambulatory and Primary Care Services Ramp-Up Planning to Inform the COVID-19 Response Effort: A Jurisdictional Scan.
- The Ontario Medical Association. May 11, 2020. Reopening Ontario to a 'New Normal': Five Public Health Pillars for a Safe Return.

APPENDIX

Table 2: Canadian Provinces' and Territories' Experiences with Re-opening Non-COVID-19 Activities in Hospitals

Province/ Territory	Key Features of Implemented Strategies
Pan-Canadian	• The Canadian Medical Protective Association is providing advice on medical-legal protection for physicians that may apply to the re-opening of non-COVID-19 activities in hospitals • The Canadian Nurses Protective Society is providing advice on legal considerations when nursing in a pandemic (including accountabilities, mandatory reporting, and reassignments, professional liability protection) that may apply to the re-opening of non-COVID-19 activities in hospitals
British Columbia	• On 6 May 2020, the provincial government released BC's Restart Plan that lays out a stepped approach move through the COVID-19 pandemic. The plan indicates that elective and non-urgent surgeries will resume on 18 May 2020. • On 7 May 2020, the BC Ministry of Health published its five-stepped approach for delivering surgical renewal : 1) increasing surgeries; 2) increasing essential personnel; 3) focusing on patients; 4) adding more resources; and 5) reporting on progress.
Alberta	• On 30 April 2020, the provincial government released its Relaunch Strategy ○ The strategy indicated that Alberta Health Services will resume some scheduled, non-urgent surgeries by 4 May 2020, with the most urgent patients and those waiting the longest receiving care first ○ Dental and other regulated health-care workers (e.g., physiotherapists, speech language pathologists, respiratory therapists, audiologists, social workers, occupational therapists, and dieticians) can also resume services as long as they follow approved guidelines set by their professional colleges • In May 2020, the College of Physicians and Surgeons of Alberta published advice for the resumption of services.
Saskatchewan	• On 8 May 2020, the provincial government released its Re-Open Saskatchewan Plan, with phase one highlighting the need to re-open previously restricted medical services. ○ The plan emphasized that key infection prevention and control measures should remain in place throughout each phase of re-opening.
Manitoba	• On 30 April 2020, the provincial government release its plan for Restoring Safe Services Together, with phase one indicating that elective surgeries and other non-emergent health services were re-started on 24 April 2020. The plan emphasized that all necessary precautions will be taken to protect staff and patients from the risk of COVID-19 including: ○ Point of care screening; ○ The use of appropriate PPE; and ○ Limiting the number of staff in the room. • The College of Physicians and Surgeons of Manitoba published advice on the resumption of services, including : ○ What they need to know about COVID-19; ○ Infection prevention and control measures in place (e.g., PPE); or ○ What physicians living in another province but practicing in Manitoba should know (and vice et versa). • The College of Registered Nurses of Manitoba released advice on the resumption of services, with an emphasis on infection prevention and control measures that are required.
Ontario	• On 7 May 2020, the provincial government released its comprehensive framework to help hospitals assess their readiness and begin planning for the gradual resumption of scheduled surgeries and procedures, while maintaining capacity to respond to COVID-19. This framework is part of stage 1 of the provincial strategy to reopen the province. The framework provides: ○ the COVID-19 Surgical and Procedural Feasibility Assessment for Hospitals, which highlights key clear criteria that must be met before hospitals can resume scheduled surgeries (e.g., a stable number of COVID-19 cases; a stable supply of personal protective equipment; a stable supply of medications; an adequate capacity of inpatient and intensive care unit beds; an adequate capacity of health human resources; and the availability of post-acute care outside the hospital that would be required to support patients after discharge).

	○ recommended roles and responsibilities of Ontario Health, regions, and hospitals in surgical and procedural planning during the COVID-19 pandemic (e.g.,involvement of regional or sub-regional COVID-19 Steering Committees, and the need to establish hospital Surgical and Procedural Oversight Committees, monitor hospital- and regional-level data, and collaborate in the design and implementation of plans to resume surgical and procedural activity); and ○ key implementation considerations (e.g., ensuring transparent communication and ongoing follow-up with patients, establishing a fair process for surgical and procedural case prioritization, and leveraging opportunities to improve care delivery). • The College of Physicians and Surgeons of Ontario is providing advice about standards of care during a pandemic and how it will address complaints that arise during this time, which may be relevant to re-opening non-COVID-19 activities in hospitals • The Ontario Medical Association created *Reopening Ontario to a 'new normal': Five public health pillars for a safe return* which highlights both select experiences learned from other countries as well as five public health pillars (and specific recommendations) that need to be in place for Ontario to be ready to re-open, these include: ○ continuance of personal protective measures, including wearing masks, physical distancing and hygiene practices; ○ continuance of necessary testing with investments in and uptake of innovative testing solutions, as well as serology testing and immunity research; ○ capacity to trace all case contacts, and enforce and support contact isolation; ○ protection of all populations and targeted approaches to protecting children and vulnerable populations; and ○ balancing public trust and public compliance in the other public health pillars to safely re-open Ontario
Quebec	• On 8 May 2020, the provincial government released its plan for the Gradual resumption of activities under the COVID-19-related pause, but specific plans had already been released specifically about re-opening non-COVID-19 activities in hospitals ○ As of May 6, 2020, the Ministry of Health and Social Services updated its recommendations concerning the impact of COVID-19 and breast cancer screening and investigation activities (including criteria to resume activities based on a prioritization process, along with recommendations about psychosocial support for patients during that period) ○ As of May 4, 2020, the Ministry offers a guide for resuming specialized activities, which summarizes the procedures to be put in place to ensure a resumption of activities in a safe manner in healthcare settings (including key infection prevention and control measures, closely monitoring when patients are entering the facilities, extending hours of outpatient clinics, using telehealth services for 30% of consultations, and monitoring occupancy) ○ As of April 24, 2020, the Ministry is implementing a provincial plan for the gradual resumption of relieved specialized activities, to meet the demand related to the COVID-19 pandemic ○ As of April 24, 2020, the Ministry is implementing a prioritization system for access to surgery in a pandemic situation, along with psychosocial and moral support needing to be provided to patients during a pandemic ○ As of April 24, 2020, the Ministry is implementing an adaptation plan for the levels of oncology activities during the COVID-19 pandemic. ○ As of April 24, 2020, the Ministry is implementing recommendations for the resumption of activities in the medical imaging sector
New Brunswick	• As of 11 May 2020, priority elective surgeries resumed in the province. Both regional health authorities are providing detailed information to prepare patients for surgeries
Nova Scotia	• No details found during the scan about re-opening non-COVID-19 activities in hospitals
Prince Edward Island	• On 28 April 2020, the provincial government its plan Renew PEI Together, with phase 1 indicating that priority non-urgent healthcare services to resume on 1 May 2020. The plan recommends that: ○ healthcare delivery should continue virtually whenever possible and feasible; ○ workers should use PPE as recommended by point-of-care risk assessment and/or as depending on their practice/location; and ○ certain elective surgeries and other priority services (e.g. cardiac supports, cancer screening, immunizations) should resume gradually to mitigate long-term impacts while maintaining capacity to treat COVID-19 patients

Newfoundland and Labrador	• No details found during the scan about re-opening non-COVID-19 activities in hospitals.
Yukon	• No details found during the scan about re-opening non-COVID-19 activities in hospitals.
Northwest Territories	• No details found during the scan about re-opening non-COVID-19 activities in hospitals.
Nunavut	• No details found during the scan about re-opening non-COVID-19 activities in hospitals.

Table 3: International Experiences with Re-opening Non-COVID-19 Activities in Hospitals

Country	Key Features of Implemented Strategies
Australia	• In March, Australia banned all non-emergency surgeries to free-up hospital beds, and the Minister of Health recently released a statement noting that these restrictions are now starting to be relaxed with elective surgery resuming once medical equipment shortages (particularly for ventilators) have been restored to their full capacity. • A set of ethical principles has been established to guide the re-opening which are complemented by a set of patient selection principles for use in the first tranche of elective activities. • Clinical decisions related to re-opening will focus on: o procedures representing low-risk, high-value care as determined by specialist societies; o selecting patients who are at low risk of post-operative deterioration based on physical status scale; o children whose procedures have exceeded clinical wait times; o assisted reproduction; o endoscopy; o cancer screening programs (noting that the cessation of these programs as part of COVID-19 precautions was not supported by the National Cabinet); and o expansion of dental services to allow a broader range of interventions including all dental treatments that are unlikely to generate aerosols or where aerosols have the presence of minimal saliva/blood due to the use of a rubber dam. • It is also suggested that a number of precautions are used during the first two weeks of resuming services, which include: o resuming up to 25% of theatre and endoscopy lists, subject to local circumstances; o focusing procedures on those normally categorized as category two (i.e., a patient with mild systemic disease and no functional limitations) and can include assisted reproduction and non-surgical intervention procedures o not resuming cosmetic or other procedures; o using physical distancing in the lead up to and management of surgery, including the use of telehealth for perioperative assessments wherever possible; o not using the National Medical Stockpile of PPE for elective activity, with private hospitals continuing to source through their own procurement processes; o focusing state-level on specialties with the longest wait times, but with flexibility to manage their work consistent with the national principles that have been set out (above); and o reporting on activity volumes fortnightly.
China	• A risk-based approach is being used (based on geographic risks in specific areas) to re-opening services o In high-risk areas hospitals remain open for patients with acute and serious illnesses and specific populations, while low-risk areas are re-opening outpatient care, emergency care, surgery, and diagnostic testing o Prioritization for services, which includes in some instances determining appropriate telemedicine options, is being given to: patients with chronic diseases requiring long-term medication (including special drugs such as narcotic drugs and psychotropic drugs), patients requiring hemodialysis and other special treatments; patients with cancer and other conditions requiring radiotherapy and chemotherapy; and particular populations including pregnant women, children, older adults, and those with mental health conditions. • The Chinese government has encouraged all managers of medical institutions to develop work plans towards restoring normal medical services to guide decisions, managers should consider both the characteristics of specialty services provided and the number of people the hospital serves to develop department-specific plans for re-opening • Further develop and strengthen the medical union (which sets up medical groups in cities and provinces to build a network that serves developed and remote areas and encourages the sharing of healthcare resources) to ensure that patients seek care close to their homes to reduce medical-related travel • In addition to re-opening hospitals, organizations are looking to expand the use of telemedicine including: o appointment registration; o pre-testing and triage models for COVID-19 patients; o conducting remote consultations and remote assisted diagnosis for patients that are at a significant distance; and o chronic disease follow-up consultations through approved internet hospitals • Hospitals are continuing to carry out active monitoring of infections and of prevention and control procedures especially for emergency patients, those receiving hemodialysis, tumor radiotherapy and chemotherapy patients, as well as those receiving invasive operations including surgery and endoscopy • To enable hospitals to re-open external supports are being provided including:

	○ providing subsidies for public health tasks that are undertaken by public hospitals; ○ increased mobilization of voluntary blood donation organizations and coordinate the intra- and inter-provincial coordination to ensure sufficient blood supply; ○ strengthen the supply of medicines and consumables to ensure timely procurement and distribution channels; and ○ model the demand for PPE to ensure sufficient supply is available when normal hospital services resume in full.
New Zealand	• New Zealand has established a series of alert levels which have been collectively determined by the government and specify the public health and social measures to be taken in the context of COVID-19 as well as the COVID-19 health and disability system response plan. • As of 27 April 2020, the Health Act Order came into effect which outlines functions in relation to isolation or quarantine requirements and essential personnel movements, and it further details the use of Alert Level 3 – Restrict (which means that community transmission might be happening and new clusters may emerge but can be controlled through testing and contract tracing) and what it means for hospital operations • Hospitals will remain open for COVID-19 and non-COVID-19 emergency care, and have been told to adhere to the National Hospital Response Framework (we were unable to find a URL for the framework, but a brief summary is available here). ○ The Response Framework notes that it is appropriate for district health boards to deliver as much clinical care and surgery as possible, prioritizing patients where there is an equity or clinical risk associated with further delay or changes to treatment ○ Elective surgery and radiology will be provided to patients in order of clinical priority. ○ National Hospital and Clinic Visitors Policy changes include: only allowing one nominated person supporting a terminally-ill patient through their end-of-life care; a single parent or guardian who is supporting a child; and the chosen support person of a women giving birth, though no visitors will be allowed during the postnatal stay. • Cancer screening services will resume with exceptions of bowel screening which will not resume until Alert Level 2-Reduced (which means that the disease is contained though household transmission could be occurring but in single or isolated cluster outbreaks) is resumed ○ Cancer screening will not be provided for those over the age of 70 years old or those with existing medical conditions ○ Priority will be given to those who missed screening appointments during Alert Level 4 • Organizations providing inpatient and residential mental health and addictions services will operate as usual, though fewer beds are available to reduce infection
South Korea	• No details found during the scan about re-opening non-COVID-19 activities in hospitals
Sweden	• The Swedish health system doubled its capacity for intensive care during the COVID-19 epidemic, including drawing on the private sector and on military resources, organizational adjustments and re-allocation of resources. This included: ○ the government assigning the National Board of Health and Welfare to set up a coordination function for ICUs to support regions in the expansion of intensive-care centres in the country; ○ development of national principles for prioritization in case of intensive-care shortages; and ○ triaging of patients conducted outside of a tent built outside the emergency room whereby patients with symptoms are further examined in the tent while those without are allowed to enter the emergency room; • The National Board of Health and Welfare established principles for prioritizing resources (document only available in Swedish) for routine healthcare during the COVID-19 pandemic. These include: ○ provide less or completely stop treatments where possible; ○ change the threshold for medical indications such that patients will only be treated if they have more severe health conditions; and ○ postpone treatment.
U.K.	• In initiating efforts to scale-up urgent non COVID-19 services, the NHS has retained considerable additional capacity created at the initial stages of the pandemic, in which capacity was freed up and reallocated through negotiating block contracts with private hospitals to treat non-urgent patients, discharging patients to care homes when possible, building temporary hospitals to expand number of available intensive care beds and recruiting retired clinicians to address staffing shortfalls • Additional measures adopted during the transition to re-open the health system for other types of care include: ○ enabling rapid emergency treatment via ambulances, and 'hot' specialty clinics that bypass the emergency department;

	○ utilizing telephone triage for new cancer referrals to reduce hospital admissions, and using cancer hubs to provide non-urgent procedures for patients (e.g., breast reconstruction surgery); ○ piloting models for restarting major surgery (e.g., cardiothoracic surgical networks have created a 'cold' centre for bypass surgery, after patients have had two negative swab tests, are symptom free and have a clear CT chest scan), and other types of specialty care (e.g., stroke clinics using telemedicine, and 'cold' stroke services in day hospitals); ○ changing governance arrangements to enhance hospitals' ability to share patient data across settings; ○ developing stricter hospital admission criteria, implementing pre-admission testing of patients (when possible), testing at the point of hospital admission, and testing prior to discharge to care homes; ○ creating protocols to guide hospital admission and discharge for patients with COVID-19; and ○ rapid testing for staff, and a pilot program for testing asymptomatic staff • Attempts to increase supply of PPE and ventilators, and increase access to testing have been met with challenges, and NHS has announced plan to introduce automated, data-driven PPE distribution service to calculate amount of PPE required in different care settings (including hospitals) and have it automatically delivered • New measures to support the wellbeing of healthcare workers include: tools that prompt reflection and support a culture of openness about emotional health of healthcare workers, such as Wellness Action Plans for teams, and guidance from the Royal College of Psychiatrists about how organizations can maintain wellbeing of staff, a mental health hotline, and free counselling services