

WHAT STRATEGIES ARE COUNTRIES USING TO EXPAND HEALTH WORKFORCE SURGE CAPACITY DURING THE COVID-19 PANDEMIC?

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Summary: Finding ways to increase the surge capacity and flexibility of the health workforce has been fundamental to delivering an effective COVID-19 response. This article explores the strategies that 44 countries in Europe plus Canada have taken to maintain and increase the availability of health workers using data from the COVID-19 Health System and Response Monitor. We show that all countries have used a variety of strategies to repurpose and mobilise the existing health workforce, while some have also augmented capacity by utilising foreign-trained or previously retired or inactive health professionals, medical and nursing students and volunteers.

Keywords: *Health Workforce, Surge Capacity, Planning, Implementation, COVID-19*

Introduction

Health systems globally have taken steps to maintain and enhance the capacity of the health workforce during the COVID-19 crisis. This surge planning was required not just to meet an anticipated rise in demand for health care in acute and emergency care settings, but to increase testing and monitoring and surveillance capacity and to ensure that essential services across all settings could be maintained. Ensuring the availability of health workers has been complicated by workforce depletion as health care workers themselves comprised a substantial share of those

infected by COVID-19. Monitoring and surveillance data show, for example, that out of all persons infected with COVID-19, health care workers made up 7% of the total in Germany, 10% in North Macedonia, 14% in the United Kingdom, and almost 20% in Cyprus and Lithuania.¹ Moreover, many countries entered the crisis with pre-existing workforce shortages and/or geographical imbalances in the distribution of health care professionals.^{2 3}

As noted in the World Health Organization's (WHO) technical guidance on 'Strengthening the Health System Response to COVID-19',

Table 1: Country strategies for maintaining or scaling up health workforce capacity

	Among existing health workforce ^o	Medical/nursing students	Retired HP	Inactive HP	Foreign-trained HP	Volunteers	Other measures ⁺
Albania	✓	✓	✓	–	–	–	–
Armenia	✓	✓	–	–	–	–	✓ (abroad)
Austria	✓	✓	–	–	✓	–	✓ (military)
Azerbaijan	–	✓	–	–	–	✓	–
Belgium	✓	✓	✓	–	–	✓	–
Bosnia and Herzegovina	✓	✓	✓	–	–	–	–
Bulgaria	✓	✓	✓	–	–	✓	–
Canada	✓	✓	✓	✓	–	–	✓ (military)
Croatia	✓	–	–	–	–	–	–
Cyprus	✓	✓	–	–	–	✓	✓ (private)
Czech Republic	✓	✓	–	–	✓	✓	–
Denmark	✓	✓	–	✓	–	–	✓ (military)
Estonia	✓	–	–	✓	–	✓	✓ (military)
Finland	✓	–	–	–	–	–	–
France	–	–	–	–	–	✓	–
Germany	✓	✓	✓	–	✓	✓	–
Greece	✓	–	–	–	–	✓	–
Hungary	✓	✓	–	–	–	–	✓ (private)
Iceland	✓	✓	✓	–	–	–	–
Ireland	✓	✓	✓	✓	–	✓	✓ (private)
Italy	✓	✓	✓	–	✓	✓	✓ (military)
Israel	✓	✓	–	–	–	–	–
Kyrgyzstan	–	✓	–	–	–	✓	–
Latvia	✓	✓	–	–	–	–	–
Lithuania	✓	✓	✓	–	–	✓	–
Luxembourg	✓	✓	✓	✓	–	–	–
Malta	✓	✓	–	✓	–	✓	–
Monaco	✓	–	–	–	–	–	–
Montenegro	✓	✓	–	–	–	–	–
Netherlands	✓	✓	✓	✓	–	–	✓
North Macedonia	✓	–	–	–	–	–	✓ (private)
Norway	✓	✓	–	–	–	–	–
Poland	✓	✓	–	–	–	–	✓ (military)
Portugal	✓	✓	–	–	–	–	–
Romania	✓	✓	–	–	–	–	–
Russian Federation	–	✓	–	–	–	–	✓ (military)
San Marino	✓	–	–	–	–	–	–
Serbia	–	✓	–	–	–	–	✓ (military abroad)
Slovenia	✓	✓	–	–	–	–	–
Spain	✓	✓	✓	✓	✓	–	–
Sweden	✓	✓	–	–	–	–	–
Switzerland	✓	✓	–	–	–	–	✓ (military)

	Among existing health workforce ^o	Medical/nursing students	Retired HP	Inactive HP	Foreign-trained HP	Volunteers	Other measures ⁺
Turkey	✓	–	–	–	–	–	–
Ukraine	✓	✓	–	–	–	–	–
United Kingdom	✓	✓	✓	✓	✓	✓	✓ (military, private)

Notes: HP = Health professionals, MoH = Ministry of Health

^o examples include extra hours, part-time to full-time, cancelling leave

⁺ examples include redeploying armed forces personnel or private sector health professionals to the public sector

Source: Authors' analysis, based on [1](#)

surge capacity can be enhanced through a variety of measures, including repurposing and mobilising the existing workforce, changing working patterns, bringing inactive or retired health professionals back to the workforce, calling on volunteers, and mobilising nongovernmental and private sector workforce capacity.¹ In this article we explore which of these strategies 44 countries in the European region plus Canada have adopted to expand workforce surge capacity during the first wave of the COVID-19 pandemic using data extracted from the [COVID-19 Health System and Response Monitor \(HSPM\)](#).¹ We also consider whether any new strategies have been utilised and the tools that have been used to facilitate implementation in practice. We should note that while supporting health workers in practical terms and protecting their mental health and well-being are important measures to maintain health workforce capacity, strategies targeting these issues are discussed in the next article in this special issue and are therefore not addressed here.

Our findings show that of the measures outlined in the WHO technical guidance, most have been adopted to increase surge capacity in the European region and Canada, with most countries adopting at least two or more measures in combination (see [Table 1](#)).

Multiple strategies have been implemented to expand the capacity of the existing workforce, often underpinned by emergency legislation

Table 1 shows that the majority of countries have implemented a range of policy measures to maintain to the capacity of the existing professional health workforce. The most common strategies (reported by 21 countries) include: asking health professionals to work extra hours, including moving from part-time to full-time work or allowing extra overtime (e.g. [Croatia](#), [Finland](#), [Germany](#), [Norway](#), [Ireland](#), [Italy](#), [Latvia](#), [Poland](#), [Spain](#), [Sweden](#)); modifying work schedules (e.g. [Canada](#), [Croatia](#)); suspending ongoing or scheduled external rotations for residents in training (e.g. [Spain](#), [Romania](#)); suspending exemptions after night shifts or on-call activities (e.g. [Poland](#), [Spain](#), [Switzerland](#)); and cancelling leaves of absence or foreign-travel (e.g. [Canada](#), [Czech Republic](#), [Greece](#), [Israel](#), [Luxembourg](#), [Norway](#), [Spain](#)). Four countries ([Austria](#), [Hungary](#), [The Netherlands](#) and the [UK](#)) have also temporarily changed or postponed re-registration and revalidation obligations for physicians.

Many countries have also redeployed health workers to work in different settings (e.g. in hospitals instead of the community or rotating between different facilities), to regions or cities with greater care needs, or to different disciplines, most notably to assist in intensive care units (ICUs), emergency departments or provision of telehealth services in primary care. These health workers have generally received

additional training, such as in use of personal protective equipment (PPE) or in the management of patients with acute respiratory failure. In many countries, older health professionals at greater risk of severe illness from COVID-19 were moved away from face-to-face consultations to answer helplines or to provide teleconsultations (e.g. [Spain](#), [Poland](#) and the [UK](#)).

Additionally, some countries have redeployed private sector staff into the public sector (e.g. [Cyprus](#), [England](#), [Ireland](#), [Malta](#), [Montenegro](#), [North Macedonia](#)). For example, in [England](#), an agreement has been brokered for the government to take over private hospitals and their staff for the duration of the crisis, resulting in tens of thousands of clinical staff moving to the public sector.

Implementation of many of these reforms has necessitated adoption of emergency legislation or suspension of existing legislation. Examples include a decree enacted in [Finland](#) requiring all staff between the age of 18 and 68 working in both private and public health care to work to tackle the crisis as needed. [Greece](#) meanwhile has officially revoked leave of absences for public sector staff, while [Israel](#) has prohibited health care workers from leaving the country. In [Canada](#), the provinces of Ontario and Quebec announced regional legislation to redeploy health and social care professionals to different units/facilities based on needs and to cancel vacations and modify work schedules. In [Germany](#), directives on minimum nurse staffing

Box 1: Measures towards maintaining or increasing health workforce capacity in Italy

Italy has adopted several measures to increase the availability of health workers, facilitated by the implementation of two Decrees (n. 14 of 9/03/2020 and n. 18 of 17/03/2020), and underpinned by additional funding of €660 million. These measures have included the government approving the permanent hiring of 20,000 health care professionals, allocating €250 million for staff overtime, authorising health care facilities to retain staff eligible above the age of retirement, offering retired doctors and nurses the opportunity to volunteer to practice and requesting temporary enrolment of doctors and nurses from the armed forces. In addition, freelance and temporary contracts for nurses and doctors have been permitted, also for those who are not yet listed as specialist in the Medical Registers (i.e. resident doctors) and temporary practice in Italy has been allowed for those who have been practising abroad under European Union (EU) directives.

On the 20th and 28th March 2020, the Department of Civil Protection issued two Ordinances (N° 654 and 656, respectively) to establish a Specialist Medical Unit and a Technical-Nursing Unit, with doctors and nurses recruited through online calls. Almost 7,000 doctors and 10,000 nurses applied as candidates, with 300 physicians and 500 nurses (from the National Health Service, private clinics and freelancers) later recruited by the Head of the Department of Civil Protection on the basis of specific requirements. Participation was voluntary and volunteers were sent to areas most affected by the COVID-19 emergency. In addition to their normal salary, each professional received a flat-rate solidarity

premium of €200 for each day of work, paid by the Department of Civil Protection. Hosting regions were responsible for reimbursing transfer and accommodation.

These measures have enabled several regions to rapidly increase their workforce capacity. In absolute numbers, by 8th May, Lombardy had hired 589 additional doctors (+3.8%) and 1,016 nurses (+2.6%) whereas Emilia Romagna hired 421 doctors (+4.7%) and 1032 nurses (+4.0%). The biggest effort was made by Marche, which increased its capacity of clinicians by 15.8% and of nurses by 7.3%.

A number of other countries have also sent volunteer teams to Italy as acts of solidarity. For example, Ukraine sent over 16 doctors and 4 nurses in support of the Marche region, while Albania sent a team of specialised physicians and nurses to Lombardy. Moreover, teams of doctors and nurses from, Tunisia, China, Cuba, Poland and Russia have come to serve in the most affected areas of Lombardy such as Bergamo, Brescia and Cremona. A team of 19 physicians from Norway and another team of 11 doctors and four nurses from Romania were also deployed to Lombardy through the European Civil Protection Mechanism. This mechanism has been set up by the EU to enable a prompt sharing of resources among all Member States to respond effectively to emergencies that occur inside or outside the EU. It facilitates cooperation and coordination to foster prevention, preparedness and response to disasters. When, as in the case of COVID-19, an emergency requires a stronger effort than a country by itself can handle, the European Commission coordinates the Mechanism and contributes to at least 75% of the transport and/or operational costs of deployments.

levels in hospitals and the professional nurse/nursing assistant ratios in nursing homes and ambulatory nursing practices were suspended. [Italy](#) enacted a number of Decrees to increase the availability of health workers (**see Box 1**).

Most countries have called upon medical and nursing students to work in clinical practice

In 36 countries, provisions were made to recruit medical and nursing students to support health professionals, for instance by allowing final year students to graduate early and join the workforce or by offering a gap semester to support health professionals (**see Table 1**). Students that were not necessarily in their final year have also assisted in operating COVID-19 hotlines in a number of countries or by

assisting with contact tracing (e.g. [Bosnia and Herzegovina](#), [Malta](#), [Montenegro](#), [Serbia](#), [Slovenia](#)).

Campaigns were launched to bring retired or inactive health professionals back to the workforce

In [Belgium](#), [Bosnia and Herzegovina](#), [Denmark](#), [Germany](#), [Iceland](#), [Ireland](#), [Italy](#), [Malta](#), [The Netherlands](#), [Norway](#), [Poland](#), [the UK](#), and the provinces of Ontario and Quebec in [Canada](#), national or regional campaigns have been launched asking retired and/or other previously registered health professionals to join the COVID-19 response. These measures have been supported by the creation of temporary registers, underpinned by emergency legislation to simplify re-registration procedures (e.g. [Poland](#), [Spain](#), [the UK](#))

and online portals (e.g. Ontario, [Canada](#) and Bavaria, [Germany](#)) that match demand from health facilities in need, with supply.

Efforts to encourage non-registered health professionals to return to work have also been taken at the local level. Hospitals in some countries (e.g. [the Netherlands](#), [Bosnia and Herzegovina](#) and [Germany](#)) have, for example, asked inactive or retired health professionals to return to work, often through social media campaigns and with the offer of additional, short-term trainings for returnees.

These measures have resulted in a large number of health professionals volunteering to return to work, although less have been recruited in clinical practice. In [Ireland](#), 72,000 people signed up to 'Be on call for Ireland', with 260 nurses and 63 doctors hired by mid-

Box 2: Various initiatives have been taken in Germany to enable foreign-trained professionals to support the response

Germany has taken steps to enable physicians trained outside the EU and not yet licenced to practice in Germany to assist the response. Before the pandemic, there were an estimated 14,000 foreign-trained physicians in Germany waiting for their medical qualifications to be recognised, many of whom arrived as refugees in 2015. To enable these professionals to support the response, a number of initiatives were launched at the State and local level. In Saxony, for example, the state medical association launched a [Facebook appeal](#) asking for German-speaking, foreign-trained doctors living in the state but without a license to practice, to volunteer by working as medical assistants. By the end of March, almost 300 doctors had signed-up to help. In Bavaria, foreign-trained doctors in the process of having qualifications recognised but without a medical license were granted permission to work as medical assistants for a year. In North Rhine-Westphalia, foreign-trained doctors in particular those working in anaesthetics, ENT and general internal medicine, were able to obtain an expedited professional permit to practice (under supervision) provided they passed a simplified language exam and already had a contract with a health facility. In addition, professional permits of health professionals already working in the State were automatically extended beyond the usual two-year limit.

April. In [the UK](#), over 10,000 health professionals registered to return to work, with close to 5,000 hired and redeployed by mid-April.

Countries have also implemented emergency recruitment procedures to hire new health workers

Emergency procedures to hire new health workers have been launched in a number of countries. In [Portugal](#), hiring of health care workers was facilitated through an exceptional procedure, with 137 doctors and 1,100 nurses hired by the end of July. In [Serbia](#), 4,500 health workers were employed during the state of emergency period, while [Romania](#) has created 2,000 temporary jobs (6 months).

Other recruitment strategies have targeted migrant health workers, health professionals from the private sector or armed forces

Belgium, [Czech Republic](#), [Ireland](#), [Italy](#), [Luxembourg](#), [Spain](#), [the UK](#) and several regions in [Germany](#) (see [Box 2](#)) have developed strategies to bring foreign-trained health professionals – in the process of registration – into the workforce temporarily or to speed up recognition procedures. In Ireland, refugees and

asylum seekers with medical qualifications were able to work in support roles such as health care assistants, while registration fees for foreign-trained doctors have been waived. Foreign-trained doctors, nurses and paramedics already working in the UK, but with visas due to expire by October 2020 have had them automatically renewed for a year. In [Austria](#), 24-hour carers from Eastern European countries were allowed to continue to enter the country to ensure that people with live-in carers continue to receive care.

In eleven countries medical and support personnel from the army were also recruited to help with the pandemic in health or long-term care settings (see [Table 1](#)).

In an act of solidarity, some European countries have also sent health workers to countries in need. For example, teams of physicians from [France](#), [Lithuania](#) and [Italy](#) were sent to [Armenia](#) to provide care to COVID-19 patients, while teams from various countries have assisted in Italy (see [Box 1](#)). In [Serbia](#), an NGO invited Serbian physicians abroad to temporarily return. In addition, patients from some European countries including France, Italy and the Netherlands that were in danger of running out of ICU capacity at the start of

the pandemic were transferred to Austria, Germany, Luxembourg and Switzerland for treatment. High-level diplomacy between governments and coordination across sectors such as transport, the military and health care played a key role in facilitating these arrangements.⁵

Volunteers have also been enlisted to support the COVID-19 response in selected countries

In [France](#), the “medical care reserve” was mobilised to allow for volunteers, mostly with health education such as retired nurses and physicians or students, to be deployed by the government. Similarly, in [Belgium](#), a list of reserves with medical experience was organised at the level of federated entities to provide assistance with health services under their competencies where required. In addition, Red Cross volunteers have set up medical orientation posts at 20 hospital sites. In [Greece](#), more than 8,000 volunteers applied to support the COVID-19 response through the digital platform (<https://ethelontes.gov.gr>), created by the Ministry of Health.

Other countries (including [Cyprus](#), [Estonia](#), [Germany](#), [Greece](#), [Italy](#), [Malta](#), [Poland](#) and [the UK](#)) have also asked for volunteers with little or no prior experience to help, often in basic support roles such as manning helplines or delivering medication and food to the most vulnerable, such as those self-isolating or shielding.

To date, there is limited information on how volunteers will be or have been deployed in practice and how safety standards have been adapted and ensured.

Policy lessons and implications

Evidence from the COVID-19 Health Systems and Response Monitor shows that a range of policy options at different levels (national, regional and local) were used by countries to enhance the surge capacity of the health workforce to meet unprecedented demand and/or to support re-organisation of health services during the COVID-19 pandemic. The strategies and tools used to support implementation are outlined in [Table 2](#). The most common

Table 2: Strategies adopted to maintain and enhance surge capacity and tools used to facilitate implementation

Strategy	Implementation tools
Repurpose and redeploy the existing health workforce	
Modify existing work practices	<ul style="list-style-type: none"> • Suspend existing regulations or contractual arrangements to modify work schedules, increase working hours, change night shift working or relax minimum staffing requirements • Emergency legislation to cancel leaves of absences or change registration requirements • Coordination between professional associations and national or regional health authorities • Contractual arrangements to modify work schedules, increase working hours, change night shift working or relax minimum staffing requirements
Redeploy health workers to disciplines, facilities, regions or cities with greater need	<ul style="list-style-type: none"> • Centralised or regional online portals to match supply with demand • Extra funding and temporary contract changes • Additional training in person or online for health professionals to facilitate expanded scope of practice or greater task sharing • Mandate health workers at risk of severe consequences from COVID-19 to work in non-patient facing roles
Redeploy private sector workers to work in the public sector	<ul style="list-style-type: none"> • Emergency legislation for public sector actors to take over private sector hospitals and staff • Coordination between private and public sector representatives • Government funding to pay wages or compensation to private sector workers
Mobilising and recruiting additional health workers, students and volunteers	
Recruit (final year) medical and nursing students	<ul style="list-style-type: none"> • Medical and nursing schools approve early graduation • Allow early graduates to apply for provisional registration • Relevant bodies to develop and offer temporary recruitment contracts • Allow students that do not want to take early provisional registration to work in support roles
Bring inactive or retired health professionals back to the workforce	<ul style="list-style-type: none"> • National or regional recruitment campaigns using traditional and social media • Creation of temporary registers • Relevant professional associations or health authorities to develop and offer temporary recruitment contracts • Professional bodies directly contacting potential returnees • Individual health facilities appealing to past employees to return • Refresher training and training on COVID-19 treatment, management and safety measures, either online or in person • Online portals to match supply with demand
Recruit new health professionals	<ul style="list-style-type: none"> • Coordination between health facilities and regional or national government to report and assess demand and supply • Additional funding • Emergency legislation to launch exceptional recruitment procedures
Bringing foreign-trained health professionals into the workforce	<ul style="list-style-type: none"> • Reduce language requirements and waive fees for conversion exams • Emergency legislation to allow foreign-trained doctors to work in support roles • Automatically extend work visas for foreign-trained professionals • Allow health and care workers to continue to cross borders to work, even if borders are otherwise closed • Remove working hour restrictions for medical and nursing students on visas
Utilising military medical capacity	<ul style="list-style-type: none"> • Cross-sectoral coordination • Emergency legislation allowing military health workers to work in civilian settings
Requesting assistance from other countries or international organisations	<ul style="list-style-type: none"> • High-level diplomacy at Ministerial level • Cross-sectoral working to transport health workers across borders • Mutual recognition of qualifications across the EU
Recruit volunteers for non-medical or basic medical tasks	<ul style="list-style-type: none"> • National or regional recruitment campaigns using traditional and social media • Appropriate training • Digital tools to match supply with demand

Source: Authors' own

measures utilised include strategies to enhance the capacity of the existing workforce, combined with recruiting (final year) medical and nursing students. Some countries also took measures to bring retired or inactive or foreign-trained but unregistered health professionals into the workforce, redeployed private sector workers into the public sector or asked volunteers to support the response. Most countries adopted at least two measures to increase surge capacity, with countries most affected by the pandemic implementing a broader range of measures.

The implementation of many of these changes has necessitated rapid adoption of emergency legislation to give planners, providers and commissioners of health services temporary new powers related to changing recruitment, planning and integration of these new workers in clinical practice. Additionally, online portals have been critical to enable current or inactive health care workers to register interest in joining the response, to facilitate temporary registration where required and to match workforce shortages with supply. Additional training to enable health professionals to work in different health care settings and roles or to allow volunteers to join the response was also needed. In many cases, new funding was required to facilitate the hiring of new workers on a temporary or permanent basis, to support training and the re-deployment of workers to different health care facilities or regions.

There is little information on how these strategies have played out in practice and the impact they have had on workforce expansion, workflows, skill-mix and quality of care. Evaluations of the different workforce strategies that have been employed ad-hoc in the various countries would be beneficial to learn from the crisis and inform contingency plans in the event of future waves and to re-consider health workforce options for the future.

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