



9 May 2020

# COVID around the world – snapshots of the COVID-19 response as at 9th May 2020

| representing **your** interests |

## **COVID around the world – snapshots of the COVID-19 response as at 9<sup>th</sup> May 2020**

The coronavirus pandemic has had a deep and wide-ranging impact on the way people live their lives in an ever-increasing number of countries across the globe.

PDA Policy Team members have been gathering information about some of the effects and this article provides an overview of our findings related to community pharmacy together with a table listing some statistics, general measures, testing approach and more detailed pharmacy measures by country. This is by no means a comprehensive list as more than 210 countries and territories were affected at the time of writing this article (09-05-2020).

### **Europe**

Despite comparative wealth and an element of forewarning from China, several larger European countries have suffered significant rates of infection and death with health services and funeral services being overwhelmed in some cases. Community pharmacies have played an important role in providing education and advice, maintaining medicine supply and filling the gap left by the closure of doctor surgeries to walk-in patients. Some smaller countries such as Norway, Slovakia and Czech Republic implemented early lock down measures (in some cases before any COVID-positive patients had died) and have suffered comparatively fewer cases and deaths on a per population basis.<sup>i</sup> The PDA is undertaking joint research with colleagues at Aston University which will look at the impact of the COVID-19 pandemic on community pharmacies across Europe.

**France** – Pharmacists have been authorised to provide repeat dispensing for patients stabilized on long-term medication thus reducing pressure on doctors.

**Germany** – pharmacists have been advised to follow guidance from FIP and Pharmaceutical Group of European Union (PGEU) on safety measures with Plexiglass screen installation in pharmacies. The government has worked with industry to increase production of hand-sanitising gel which is distributed to hospitals and pharmacies free of charge. The German Health Ministry is allowing community pharmacies to manufacture their own disinfectants during the pandemic.

**Greece** – pharmacies are expected to implement security measures similar to supermarket with customer entry restricted to 1 customer per 10 sq.m of store space, 2m social distancing between customers and staff, availability of liquid antiseptic, use of plastic money and gloves to be worn by employees. Some pharmacies have installed a window within the pharmacy door to minimise contact.

**Italy** - the Federation of the Order of Italian Pharmacists has provided guidelines to pharmacies during the outbreak including limiting patient/customer entry to pharmacies and maintaining social distancing, personal and pharmacy hygiene measures and provision of hand sanitizing disinfectants for customers entering and leaving the pharmacy. The Italian Federation of Community Pharmacy Owners (FEDERFARMA) established a partnership with

the Italian Red Cross for a free delivery service 24 hours a day for patients older than 65 or in quarantine or home confinement.

**Spain** – safety measures include reduced customer entry, social distancing and installation of barriers. Community pharmacists are recommended to wear masks and gloves, but serious shortages have reduced availability and the importance of personal protective equipment (PPE) in community pharmacy was raised by the General Council of Official Colleges of Pharmacists in Spain after the death of 8 community pharmacists.

## **Antipodes**

New Zealand implemented an early lockdown and testing, tracing and quarantine strategy which has resulted in much lower infection and death rates.

**New Zealand** - as with many other countries, social distancing and physical barriers form part of infection control measures within community pharmacies. Shortages of PPE for pharmacists working in the community have necessitated the exploration of alternative measures such as use of telehealth and fax to avoid physical contact and face-to-face consultations where possible. The Southern Hemisphere is entering its winter months and the influenza vaccination campaign has been brought forward in anticipation of a potential second wave of COVID-19 infections which could overwhelm health services. Community pharmacies participate in the immunisation campaign and are modifying how they provide the service in light of COVID-19 by only providing flu vaccine by appointment and in some cases changing locations of clinics to help maintain social distancing. The government is also working on coordinating the supply and demand for additional pharmacist workforce through compiling a list of pharmacists with additional capacity to assist, including pharmacists who have been previously practising.

## **Far East**

The use of strict lockdown and/or widespread and effective testing, tracing and quarantining policies have enabled countries in this region to control infection and death rates more effectively than in some other regions.

**China** - Community pharmacists were charged with key responsibilities including informing, advising, and educating the community about infection prevention and disease management; maintaining a stable supply of pharmaceuticals and personal hygiene products; and screening suspected cases and making appropriate referrals as necessary. In addition, community pharmacists played an integral role in the government's 'The Guaranteed Mask Supply Scheme' policy by facilitating the controlled distribution of over 20 million face masks via community pharmacies. Community pharmacists were also involved in monitoring and resolving prescription and OTC drug shortages and establishing remote pharmacy services to reduce human-to-human infection. Pharmacists in China used a variety of approaches, such as mobile APPs and collaborating with neighbourhood committees and drug companies, to provide consulting services online and ensure patients' drug supply at home.

**South Korea** – community pharmacists have been integral in providing education and support to citizens and actively engaged with the government to facilitating the supply of PPE such as face masks and hand sanitiser by implementing measures to prevent stock-piling. Community pharmacies displayed posters advising against hoarding of facemasks and hand sanitisers and rationed the selling of facemasks to the public during dedicated timeslots. 70% of all masks acquired through the public distribution system were sold at pharmacies.

## **Middle East**

The differences in government resources in this region are starkly illustrated by the differences in COVID-19 testing capacity and PPE availability. These differences have manifested in the approach to handling the pandemic. A country with scant reserves and stretched healthcare facilities does not have the luxury of waiting to see what might happen with a pandemic or taking a relaxed attitude to warnings from China and the WHO. Their only recourse is to stop people mixing and transmitting the virus, making lockdown as early as possible the key intervention. The use of tracking apps, quarantine and online access to detailed information about the location of individuals with COVID-19 are a significant part of the pandemic response in Israel.

**Jordan** - The Jordanian Pharmacist Association (JPA) instructed all community pharmacies to use PPE including masks, gloves and eye goggles during working hours, place a hand sanitising station at the pharmacy entrance, and ensure regular handwashing. Emergency COVID-19 legislative powers were used on 17 March to allow pharmacists to deliver pharmaceuticals including medications to the public who can apply online for a delivery from their nearest pharmacy. The delivery of pharmaceuticals had previously been banned in Jordan.

**Lebanon** - The Order of Pharmacists in Lebanon (OPL) advised community pharmacists about wearing surgical masks during working hours, installing plexiglass barriers at pharmacy counters with a small window for serving patients, placing a hand sanitising station at the pharmacy entrance to be used by patients prior to entering the pharmacy and maintaining a distance of 1.5m between the pharmacist and the patient. Posters with information about COVID-19 symptoms, self-isolation and contact details for those with coronavirus symptoms seeking help and advice were placed in pharmacy windows. The advice for pharmacy owners also recommended the installation of a small window within the main pharmacy door to serve patients without them needing to enter the pharmacy (if feasible).

**Israel** - Precautionary measures in pharmacies include taking body temperatures upon entry, delineating a two-meter distance between customers at cash registers, erecting a physical barrier between buyer and seller and frequent disinfecting.

## **GCC Countries (Gulf)**

One of the key steps taken by Saudi Arabia has been to ban international flights, religious gatherings and pilgrimages (Umrah and Haj) which would undoubtedly have resulted in significant spread of infection.

**Saudi-Arabia** – Precautionary measures in community pharmacies include the sterilization of surfaces and trolleys after each use. Postal services and drive-through pharmacy services with delivery to patients' homes have also encouraged social distancing and reduced personal contacts.

## **Africa**

**South Africa** – community pharmacists were provided with The South African Pharmacy Council (SAPC) COVID-19 Infection Prevention guidelines for Pharmacy detailing the use of PPE in line with WHO guidance. This recommends respirators or medical face masks and non-sterile gloves, implementation of strict hygienic measures in terms of hand washing or use of hand sanitisers, in addition to regular disinfection of pharmacy surfaces that may be touched by patients and members of the public.

## **Americas**

**Canada** – community pharmacists could receive guidance from several different quarters including the Canadian Pharmacist Association, local, provincial and national public health authorities. The public health authority guidelines take precedence and include four levels of control ranging from elimination controls at level 1 (which would stop exposure in the first place) through to use of PPE for pharmacy staff at level 4. Plexiglass barriers which are classed as level 2 are being installed in some pharmacies in British Columbia. Pharmacies are helping to manage the supply of prescription medicines by limiting patients to a 30-day supply rather than the usual 3 months.

**United States of America** - Pharmacies are implementing standard measures to reduce potential spread of infection such as reduced customer entry, social distancing, physical barriers, strict hygiene measures among pharmacy staff, regular cleaning of surfaces in the pharmacy, drive through services, mail order and provision of educational flyers to customers. There is also implementation of distancing strategies for staffing activities to protect team integrity including alternative care sites, point-of-dispensing programs, telepharmacy, remote working, split shifts, cross-training, and reassignment. In some states the pharmacy workforce is being bolstered by student volunteers. US pharmacies are contributing to COVID-19 testing programmes as they are authorised to order and administer COVID-19 tests. Some community pharmacies have begun implementing policies designed to limit the overprescribing and over-dispensing of certain medications to preserve national supplies.

## **Conclusion**

Whilst the ways in which countries have been affected by COVID-19 vary widely depending upon their economies, healthcare structures, what public health measures have been implemented and at what stage of the local pandemic they were put into place, there are several common themes within community pharmacy wherever it is located, including the need for protection through hygiene measures, physical barriers, social distancing and PPE. There is significant variation in the degree to which local administrations have utilised pharmacist skills, conferred autonomy to provide extended services and integrated pharmacists and community pharmacies into key aspects of national pandemic responses.

As the pandemic continues with the inevitable second and possibly third waves and countries start to experience the annual influenza season, pharmacies and their staff will continue to be at the forefront of primary care services and will need to continue to innovate as they play their essential part in healthcare services.

These extended and modified pharmacy services will hopefully serve to raise the profile of pharmacists and lead to their ongoing inclusion at the heart of healthcare provision far beyond the end of the pandemic.

Readers interested in pandemic statistics can find daily updates on the Worldometer website: <https://www.worldometers.info/coronavirus/>

Region/Country	COVID-19 response
<b>Europe</b>	
<b>UK</b>	<p><b>Statistics</b>  <b>As of 05-05-2020: confirmed cases 190,584; deaths 28,734</b>  <b>As of 05-05-2020 Testing ratio 21,330 per million people</b></p> <p><b>General approach:</b> First cases appeared in UK on 31 January. Testing limited to symptomatic patients (mainly in hospital) for several weeks until the end of April when testing was extended. Lockdown implemented 23 March.</p>
<b>France</b>	<p><b>Statistics: As of 5-5-2020: confirmed cases 130,242; deaths 25,165</b>  <b>General Measures:</b>            France implemented a full lockdown on March 16 which involved closing all nonessential businesses, banning public gatherings and walking outside. Exceptions included buying essential groceries and emergencies.</p> <p><b>Testing approach:</b>  <b>As of 05-05-2020 Testing ratio 16,865 per million people.</b></p> <p><b>Pharmacy measures:</b>            Community pharmacists have been authorised to provide repeat dispensing of prescribed medicines for patients with long-term conditions, to reduce the need for medical appointments and release resources.</p>
<b>Germany</b>	<p><b>Statistics: As of 5-5-2020: confirmed cases 163,860; deaths 6,831</b>  <b>General Measures:</b>            The lockdown started on March 20 including closing of shops, churches, sports facilities, bars and clubs.</p> <p><b>Testing approach:</b>            The country has implemented a robust and rapid widespread testing programme involving a distributed network of testing through individual hospitals, clinics and laboratories, instead of relying on tests from a single government resource. Germany is considering antibody testing and</p>

	<p>'immunity certificates' as part of preparations for the country to cease its lockdown. <b>As of 05-05-2020 Testing ratio 30,400 per million people.</b></p> <p><b>Pharmacy measures:</b> Pharmacies have been advised to follow the FIP information and interim guidelines for pharmacists and the pharmacy workforce available on the Pharmaceutical Group of European Union (PGEU) website. Installation of Plexiglass barriers has been implemented in pharmacies. The government has been coordinating with the industry to increase production of hand sanitising gel in order to distribute it to hospitals and Pharmacies free of charge. In addition, German pharmacies were allowed to make disinfectants themselves with the permission of the country's Health Ministry.</p>
<p><b>Greece</b></p>	<p><b>Statistics: As of 5-5-2020: confirmed cases 2632; deaths 146</b></p> <p><b>General Measures:</b> The government imposed a rolling lockdown which began on March 10 with schools and universities and expanded every few days with the addition of more business and leisure facilities until March 23 when any non-essential travel outside the home without a written form and ID attracted a 150 Euro fine. Exemptions include supermarkets, pharmacies, people going to see a doctor. Supermarkets have introduced crowd-control measures, where each person must take a numbered pass upon entering to ensure that there is only one person per every 15 square metres. The government has also increased its ICU capacity by two-fold through the creation of more ICU beds.</p> <p><b>Testing approach:</b> The government is currently considering sending out mobile units to carry out COVID-19 tests: 500 mobile units will be sent out to take samples and tests of people, especially where there are suspected cases of infection. <b>As of 05-05-2020 Testing ratio 8,352 per million people</b></p> <p><b>Pharmacy measures:</b> Some pharmacies have installed a window within the pharmacy door to avoid contact. Similar to supermarkets, pharmacies are expected to have similar security measures, this entails that customers have to adhere to the entry restriction based on 1 customer relationship per 10 sq.m. of the store, social distancing of 2 meters between consumers and employees, antiseptic fluids available, gloves used by employees and plastic money used.</p>
<p><b>Italy</b></p>	<p><b>Statistics: As of 5-5-2020: confirmed cases 211,938; deaths 29,079</b></p> <p><b>General Measures:</b> In Italy, a nationwide full lockdown was implemented on March 10 that restricted virtually all aspects of life for its 60 million citizens, including retail, leisure, worship, imprisonment, and travel. Almost all stores have been shut down, with an exception for grocery stores and pharmacies.</p>

	<p>People were only allowed to go for emergencies or urgent health situations and needed to get police permission.</p> <p><b>Testing approach:</b> The government has purchased rapid tests (15 minutes blood tests) to expand the diagnostic capacity required during the pandemic. <b>As of 05-05-2020 tests per 1m population 38,221</b></p> <p><b>Pharmacy measures:</b> The Federation of the Order of Italian Pharmacists provided guidelines to pharmacies during the outbreak including : reduced customer entry and social distancing, avoiding close contact with people entering the pharmacy and in particular with those who have obvious symptoms of respiratory problems, pharmacy staff advised to avoid touching eyes, nose and mouth with hands unless previously washed and subsequently to disinfect with hydroalcoholic disinfectant solution, placing hand sanitising disinfectants for customers to use in the sales area when entering and leaving the pharmacy, cleaning the pharmacy surfaces touched by patients and members of the public with chlorine or alcohol based disinfectants. Special arrangements were made in relation to medicines home delivery amid the COVID-19 outbreak: the Italian Federation of Community Pharmacy Owners (FEDERFARMA) established a partnership with the Italian Red Cross for a free delivery service 24 hours a day for patients older than 65 or in quarantine or home confinement.</p>
<p><b>Spain</b></p>	<p><b>Statistics: As of 5-5-2020: confirmed cases 218,011; deaths 25,428</b></p> <p><b>General Measures:</b> Spain imposed a nationwide quarantine on March 14.</p> <p><b>Testing approach:</b> PCR testing was implemented in the country at a rate of 15,000 tests per day due to limited resources, targeted testing of those likely to be infected, showing serious symptoms or hospitalised. The government has also purchased 640,000 rapid tests (15 minutes blood tests ) to expand the diagnostic capacity required during the pandemic, targeting first health workers who are at high-risk followed by seniors living in residences and care homes again due to limited resources. <b>As of 05-05-2020 Testing ratio 41,332 per million population.</b></p> <p><b>Pharmacy measures:</b> Community pharmacists have implemented several measures such as: wearing PPE (masks and gloves), installing protective barriers at the counter, strict hygienic measures, social distancing and reduced customer entry. However, lack of PPE has been a significant problem for community pharmacies in Spain. The importance of PPE in pharmacy has been raised by the General Council of Official Colleges of Pharmacists in Spain after the death of 8 community pharmacists. Furthermore, 276 pharmacy staff</p>

	members have had to take time off work after contracting or coming into contact with coronavirus.
<b>Antipodes</b>	
<b>New Zealand</b>	<p><b>Statistics: As of 5-5-2020: confirmed cases 1137, deaths 20</b></p> <p><b>General Measures:</b> The government imposed a full border lockdown on 19 March. Despite having low number of cases, the government adopted an elimination approach rather than a containment approach, hence imposing a full lockdown (COVID-19 category 4) and introducing its non-essential movement ban within the country on 25 March. Exemptions include: essential jobs such as health care, going to the supermarket or exercising near home.</p> <p><b>Testing approach:</b> As per 18 March, the testing capacity was limited to 770 tests/day, with the aim of increasing to 1500 tests/day. Given the reported shortage in testing kits, the ministry of health (MH) approach is to test symptomatic people. The MH has also implemented a project called Flu Tracking which is an online health surveillance system for the public which allows the detection of flu like symptoms. Each week citizens will be sent an email asking if anyone in the house has had a fever or cough. This information is being used as an early warning system for COVID-19. <b>As of 05-05-2020 Testing ratio 33,325 per million people.</b></p> <p><b>Pharmacy measures:</b> New Zealand Pharmacy Council issued some key messages to support and assist pharmacies with the COVID-19 response, including self-protection in case of infection through self-isolation, offer pharmacy services whilst maintaining essential precautionary measures such as social distancing, placing physical barriers between pharmacists and patients. Also the use of telehealth mechanisms and fax when possible to avoid physical contacts and face-to-face consultation in light of the reported shortage in PPE for pharmacists practising in the community. The government is also working on coordinating the supply and demand for additional pharmacist workforce through compiling a list of pharmacists with additional capacity to assist, including pharmacists who have been previously practising.</p>
<b>Far East</b>	
<b>China</b>	<p><b>Statistics: As of 5-5-2020: confirmed cases 84,404, deaths 4643</b></p> <p><b>General measures:</b> The government imposed a full lockdown on 23 January in Wuhan, Hubei province, the epicentre of COVID-19, nearly 2 months after the first case of coronavirus was detected on November 17, 2019. The lockdown in Wuhan was lifted on 8 April after 76 days of lockdown, but schools, including primary school and colleges are still closed. The lockdown involved traffic restrictions, including suspending the city's public</p>

	<p>transport and all outbound flights and trains, all businesses except those selling food and medicine. Within hours of the Wuhan lockdown, travel restrictions were also imposed on the nearby cities of Huanggang and Ezhou and were eventually imposed on all 15 other cities in Hubei, affecting a total of about 57 million people forced to stay at home.</p> <p><b>Testing Approach:</b> The country has implemented a widespread testing strategy. On January 10, Research institutions including the Wuhan Institute of Virology (WIV) developed testing kits. Wuhan City organized tests of all relevant cases admitted at hospitals in the city. On January 19, the national health commission (NHC) distributed nucleic acid testing reagents to health departments across the country. The government has also purchased rapid tests (15 minutes blood tests) to expand the diagnostic capacity required during the pandemic. <b>Testing figures are not available covering the whole of China.</b></p> <p><b>Pharmacy measures:</b> Community pharmacists were charged with key responsibilities including informing, advising, and educating the community about infection prevention and disease management; maintaining a stable supply of pharmaceuticals and personal hygiene products; and screening suspected cases and making appropriate referrals as necessary. Community pharmacies played an active role in the smooth implementation of the government's policy 'The Guaranteed Mask Supply Scheme'. The government ordered 20 million masks and announced a controlled distribution through pharmacies. Community pharmacists were also involved in monitoring and resolving prescription and OTC drug shortages and establishing remote pharmacy services to reduce human-to-human infection. Pharmacists in China used a variety of approaches, such as mobile APPs and collaborating with neighbourhood committees and drug companies, to provide consulting services online and ensure patients' drug supply at home. Community pharmacies have implemented several measures to ensure safe and efficient operation during the pandemic, such as appropriate environment control, staff protection and emergency plan establishment.</p>
<p><b>South Korea</b></p>	<p><b>Statistics: As of 5-5-2020: confirmed cases 10804, deaths 254</b></p> <p><b>General measures:</b> South Korea introduced what was considered one of the largest and best-organised epidemic control programs in the world, along with Taiwan, Vietnam, and Singapore. Different measures have been taken to screen the mass population for the virus and isolate any infected people as well as trace and quarantine those who contacted them, without further lockdown. The rapid and extensive tests taken by South Korea have been judged successful in limiting the spread of the outbreak despite not using</p>

the drastic measure of quarantining entire cities. The government encouraged its citizens to wear masks at all times outside their home.

The government then encouraged the companies to ramp up their production of masks and supplied them to the pharmacies where a limited number of masks were sold to each citizen. Hence, the government's priority was to make masks available to citizens. In the early phase of the spread of COVID-19, masks were in short supply in Korea as people crowded the pharmacies to stock up. To prevent citizens from lining up at pharmacies, the government and private sector partners created apps to display the number of available masks at nearby locations. The number of masks bought by each citizen was then tracked through the National Health Insurance Service database. The country was not under a complete lockdown, residents were instructed to take precautions whilst business were kept open, businesses were instructed to use thermal image cameras or to check the temperature of their customers before accepting them. Numerous educational institutes have temporarily shut down. Furthermore, people who were ordered to self-quarantine are required to download an app that alerts officials if the patient moves outside of the quarantine. Violators are fined up to \$2,500.

**Testing Approach:**

Testing is at the heart of the country's coronavirus strategy hence the country has implemented a widespread testing and contact tracing strategy. 350,000 cases have been tested so far – some patients were tested many times before they were released to make sure they were fully cured. Through intensive testing and monitoring, South Korea has managed to slow the growth of new cases. Health officials there tracked down people with symptoms and even set up drive-through testing, which could get results the next day, allowing at least 10,000 people to be tested per day. South Korea also had a government-funded daily testing capacity of 15,000. Government websites and mobile apps disclosed how many people had been tested and where.

**As of 05-05-2020 Testing ratio 12,543 per million people.**

**Pharmacy measures:**

In South Korea, providing protective equipment to medical staff was considered as the first step in the fight against the virus. Community pharmacists were involved in providing instructions to the public about questions regarding COVID-19, social distancing and proper use of masks, in addition to referring sick people to field testing stations and hospitals. Community pharmacies have actively engaged with the government to solve the problem of shortage in face masks and hand sanitisers, hence they were involved in rationing the selling of facemasks to the public during dedicated timeslots and advising against hoarding of facemasks and hand sanitisers and placing posters about this. Notably, 70% of all masks acquired through the public distribution system were sold at pharmacies.

<b>Middle East</b>	
<b>Jordan</b>	<p><b>Statistics: As of 5-5-2020: confirmed cases 7,220, deaths 138</b></p> <p><b>General Measures:</b>          Strict emergency laws and a total lock-down have been in place since 14 March. Armed Forces and police were deployed to patrol the streets, enforcing a strict curfew from 6 pm till 10 am. During the day, people are only allowed to walk around their own neighbourhoods to shop at local stores —taking into consideration social distancing. The use of vehicles is strictly prohibited, except for those with permits to continue conducting essential business for the emergency services and supply chains. All public meetings, including prayers, church services, and funerals have been banned. Prison or heavy fines are implemented for those breaking the law. On April 6, the government launched a website for citizens to request permits to leave their homes for urgent matters including essential business banking, death related matters and case and going to the hospital.</p> <p><b>Testing approach:</b>          Early measures included dozens of medical teams providing random coronavirus testing on hospital visitors and people in their homes. In addition, all governorates in Jordan were expected to perform tests including on those who have been in contact with people infected with the coronavirus in the previous 14 days. On 25 March, The Ministry of Health received 21,000 additional testing kits sourced from Germany and China to expand its testing efforts. The medical teams used rapid testing devices and PCR (Polymerase Chain Reaction) at authorised laboratories. <b>As of 05-05-2020 Testing ratio 9,518 per million people.</b></p> <p><b>Pharmacy Measures:</b>          The Jordanian Pharmacist Association (JPA) issued a statement for all community pharmacists about coronavirus (dated 16-3-2020). The statement included the following instructions to all community pharmacies: use of PPE including masks, gloves and eye goggles during working hours, placing a hand sanitising station at the pharmacy entrance, regular handwashing. Pharmacies must also submit a register of working pharmacists to the JPA so that they can be issued with permits allowing them to open pharmacies for business. Emergency COVID-19 legislative powers were used on 17 March to allow pharmacists to deliver pharmaceuticals including medications to the public who can apply online for a delivery from their nearest pharmacy. The delivery of pharmaceuticals had previously been banned in Jordan.</p>
<b>Lebanon</b>	<p><b>Statistics: As of 5-5-2020: confirmed cases 740, deaths 25</b></p> <p><b>General Measures:</b>          A non-essential movement ban was imposed on 15 March and a border lock-down on 18 March. Movement ban exemptions include</p>

	<p>supermarkets, pharmacies, primary health care centres and hospitals. Supermarkets have introduced crowd-control and hygienic measures, including installation of disinfection tunnels, disinfection of trolleys and baskets for every customer and reduced customer entry. The government has tightened the measures by imposing an overnight shutdown (7pm -5 am) for supermarkets and food producers and allowing only the operation of pharmacies, producers of medical supplies, mills, and bakeries during this time.</p> <p><b>Testing approach:</b> Testing capacity is still restricted to symptomatic cases only due to limited resources. <b>As at 05-05-2020 Testing ratio 6,549 per million people.</b></p> <p><b>Pharmacy Measures:</b> Several measures have been employed by the government to support community pharmacies in their role during the COVID-19 pandemic. The Order of Pharmacists in Lebanon (OPL) issued an announcement to pharmacies about coronavirus (dated 14-3-2020) including: wearing surgical masks during working hours, placing a hand sanitising station at the pharmacy entrance to be used by patients prior to entering the pharmacy, maintaining a distance of 1.5m between the pharmacist and the patient, placing posters on the pharmacy windows with information about COVID-19 and symptoms, self-isolation and contact details in case of having coronavirus, installing plexiglass barriers at pharmacy counters with a small window for serving patients. The announcement also included, if feasible, the installation of a small window within the main pharmacy door to serve patients without them needing to enter the pharmacy.</p>
<p><b>Israel</b></p>	<p><b>Statistics: As of 5-5-2020: confirmed cases 16237, deaths 234</b></p> <p><b>General Measures:</b> Self-quarantine for two weeks required for all returning international travellers from 12 Mar. State of emergency declared on 19 March with lockdown and banning of all large gatherings. Only essential services remained open (food stores, pharmacies, bank). City of Bnei Brak declared a 'Restricted Zone' for 1 week due to a spike in cases. Separate polling stations set up for COVID-19 quarantining citizens. Restrictions of movement further tightened on 25 March and 1st April with all individuals ordered to cover their nose and mouth when outdoors and not to venture further than 100m from their homes unless for listed exceptional reasons. 17 March Knesset approved internal security service right to track prior movements of infected individuals via their mobile phones and then text anyone who had been in contact with them in the previous two weeks to instruct them to self-quarantine for 14 days.</p> <p><b>Testing approach:</b></p>

	<p>Significant resource has been dedicated to obtaining and using swab testing to identify COVID-positive individuals and then alert their recent contacts for two-week quarantine. Individual level patient data made available via Ministry of Health website including age and location of patients together with information on whether contacts have been located, recent travel with flight numbers to enable other citizens to identify themselves as potential contacts and self-isolate in accordance with regulations. <b>As of 05-05-2020 Testing ratio 48,885 per million people.</b></p> <p><b>Pharmacy Measures:</b> Precautionary measures in pharmacies include taking body temperatures upon entry, delineating a two-meter distance between customers at cash registers, erecting a physical barrier between buyer and seller and frequent disinfecting.</p>
<b>GCC Countries (Gulf)</b>	
<b>Saudi Arabia</b>	<p><b>Statistics: As of 5-5-2020: confirmed cases 28656, deaths 191</b></p> <p><b>General measures:</b> Lockdown was gradual across the kingdom starting from March 25 in three cities and extending it to the whole kingdom on April 6. KSA has taken “unprecedented precautionary measures” to contain the spread of COVID-19. Before any cases broke out, Saudi banned all places of worship and suspended the pilgrimages (Umrah &amp; Haj) indefinitely along with international flights. Saudi has also suspended work in government agencies, closed down all restaurants, malls, coffee shops and all places of public gatherings and instituted curfews. Exceptions include pharmacies and food supply stores such as supermarkets and hypermarkets.</p> <p><b>Testing Approach:</b> Testing is currently done at the National Health Lab (NHL)- RT-PCR testing. <b>As of 05-05-2020 Testing ratio 11,193 per million people.</b></p> <p><b>Pharmacy measures:</b> Several precautionary measures have been implemented in community pharmacies including sterilisation of surfaces and carts after each use. The country has also launched postal services and drive-through pharmacy services to deliver medications to patients' homes to encourage social distancing and avoid crowding. The Health Ministry is coordinating with pharmacies to limit the quantity of nutritional supplements which boost the immune system to only one pack per customer to prevent the emergence of a black market for such items.</p>
<b>Africa</b>	
<b>South Africa</b>	<p><b>Statistics: As of 5-5-2020: confirmed cases 7,220, deaths 138</b></p> <p><b>General Measures:</b></p>

	<p>The government implemented a nationwide lockdown on 27 March 2020. The lockdown involved strict measures including no jogging outside, no sales of alcohol or cigarettes, no dog-walking, no leaving home except for essential trips, school closures and bans on mass gatherings with prison or heavy fines for law-breaking.</p> <p><b>Testing approach:</b> As of beginning of April, 50,000 people have been tested across the country, and authorities are mobilising 67 mobile testing units to ramp the figure up to 30,000 people daily. South Africa is scrambling to set in motion an ambitious track-and-trace programme to identify people who may have contracted the new coronavirus: this involved sending out 10,000 health workers to do door-to-door screening to trace primary contacts and ensure testing for secondary contacts. More testing is deemed necessary to be sure that the virus is not spreading undetected. <b>As of 05-05-2020 Testing ratio 4,520 per million people.</b></p> <p><b>Pharmacy measures:</b> The South African Pharmacy Council (SAPC) has issued several guidelines for pharmacists across the different sectors in the country. For community pharmacists, the council issued the SAPC COVID-19 Infection Prevention guidelines for Pharmacy, which is a concise guideline detailing the use of PPE in line with the WHO mainly respirators or medical face masks and non-sterile gloves, implementation of strict hygienic measures in terms of hand washing or use of hand sanitisers, in addition to regular disinfection of pharmacy surfaces that may be touched by patients and members of the public. Furthermore, community pharmacists have been advised to familiarise themselves with COVID-19 guidelines issued by the International Pharmaceutical Federation (FIP).</p>
<b>Americas</b>	
<b>Canada</b>	<p><b>Statistics: As of 5-5-2020: confirmed cases 59,844, deaths 3,766</b></p> <p><b>General Measures:</b> In mid-March, as cases of community transmission were confirmed, all of Canada's provinces and territories declared states of emergency. Provinces and territories have, to varying degrees, implemented school and daycare closures, prohibitions on gatherings, closures of non-essential businesses, restrictions on entry, and mandatory self-isolation for travelers. Border access has been severely restricted. The Minister of Health invoked the Quarantine Act legally requiring all travelers (excluding essential workers) returning to the country to self-isolate for 14 days.</p> <p><b>Testing approach:</b> Canada's National Microbiology Laboratory is performing diagnostic testing for COVID-19. The laboratory is working in close collaboration with provincial and territorial public health laboratories, which are now able to</p>

	<p>test for COVID-19. In British Columbia, testing capacity will focus on severe cases and on sentinel surveillance.</p> <p><b>As of 05-05-2020 Testing ratio 24,921 per million people.</b></p> <p><b>Pharmacy measures:</b>          The Canada Pharmacist Association has issued some guidelines suggesting best practices for community pharmacies during the outbreak. However, community pharmacists need to follow local, provincial and national public health authorities guidelines when available. The guidelines provided 4 levels of control (Hierarchy of control) including in order of effectiveness: (1) elimination controls through passive screening of patients to eliminate exposure in the first place, (2) engineering controls such as the installation of plexiglass shields in the dispensary, or the establishment of a quarantine room, (3) administrative controls such as policies and procedures that lower the risk of exposure to staff, such as encouraging sick workers to stay at home and encouraging appropriate hand hygiene, (4) use of PPE for pharmacy staff as determined by their level of risk. In British Columbia, some pharmacies have started installing plexiglass as a method to protect pharmacists and staff members. Support funding has been made available from Health Canada for pharmacist OAT training to help offset the cost of the purchasing and installation of physical barriers (e.g. Plexiglass) at pharmacies during the COVID-19 pandemic. Patients have been also issued 30-day medical supplies instead of 3 months to ensure that there is a reliable supply of medications over the next few months for as many patients as possible.</p>
<p><b>USA</b></p>	<p><b>Statistics:</b> As of 5-5-2020: confirmed cases 1,154,985; deaths 61,906</p> <p><b>General Measures:</b>          Lockdown has been implemented in several states. As of March 16, the White House recommended social distancing including closing schools and avoiding gatherings of more than ten people. At the beginning of April, various state and local officials encouraged residents to wear non-medical cloth face coverings while in public, as an additional measure; the CDC issued a similar recommendation on April 3. As of April 2, about 297 million people, or about 90% of the population, were under some form of lockdown in the US. Lockdown measures included closure of non-essential businesses with the exception of financial institutions, retailers, pharmacies, hospitals, news media, manufacturing plants and transportation companies, banning non-essential gatherings, and social distancing at least six feet. People were instructed to stay at home except to get food, care for a relative or friend, obtain health care, or go to an essential job. Elderly people and those with compromised immune systems or underlying illnesses must remain indoors (unless exercising outside).</p> <p><b>Testing approach:</b></p>

The country has experienced lack of widespread testing, with major reliance on PCR tests (nasal swab tests). Fewer than 4,000 tests were conducted in the U.S. by February 27, with U.S. state laboratories conducting only around 200. By March 22, drive-through testing was available in more than thirty states. Meanwhile, from the start of the outbreak to early March, the CDC gave restrictive guidelines for eligibility for COVID-19 testing. The initial criteria were (a) people who had recently traveled to certain countries affected by the outbreak, or (b) people with respiratory illness serious enough to require hospitalization, or (c) people who have been in contact with a person confirmed to have COVID-19. Only on March 5 did the CDC relax the criteria to allow doctors discretion to decide who would be eligible for tests. **As of 05-05-2020 Testing ratio 23,566 per million people.**

**Pharmacy measures:**

Community pharmacies in the hardest-hit states have prioritised the availability of COVID-19 information, as well as taking precautions to limit the spread of the virus. Pharmacies are implementing measures such as reduced customer entry, social distancing, physical barriers, strict hygienic measures among pharmacy staff, regular cleaning of surfaces in the pharmacy, drive through service, mail order, and distribution of education flyers to customers. Implementation of distancing strategies for staffing activities, including alternative care sites, point-of-dispensing programs, telepharmacy, remote work, split shifts, cross-training, and reassignment. Some states have created a student-pharmacy connection portal to ensure that front-line pharmacists can contact students able to volunteer under their supervision, thereby increasing the support of pharmacists during the outbreak. Furthermore, US pharmacies are authorised to order and administer COVID-19 tests (testing sites). Some community pharmacies have begun implementing policies designed to limit the overprescribing and over-dispensing of certain medications in order to preserve the supply nationally.

---

<sup>i</sup> [worldometers.info/coronavirus/](https://worldometers.info/coronavirus/)