COVID-19 and the State of Global Mobility in 2020

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Executive Summary

The year 2020 was a landmark for human mobility, with dramatically reduced cross-border movements of all kinds. The COVID-19 pandemic decimated tourism and business travel; severely curtailed labour migration; and dampened movement of all stripes, from that of international students to family reunification. The International Organization for Migration (IOM) has been tracking the surge in travel restrictions, border closures and health-related travel requirements imposed by governments since the onset of the pandemic. This report, produced through collaboration between the IOM and the Migration Policy Institute (MPI), marks the first comprehensive analysis of these data to understand how the pandemic has reshaped border management and human mobility – and what the lasting ramifications may be throughout 2021 and beyond.

While the overall picture of human mobility in 2020 is of movement dramatically curtailed, the picture varies over time and by region.

While the overall picture of human mobility in 2020 is of movement dramatically curtailed, the picture varies over time and by region. This reflects the diverse range of strategies employed to minimize cross-border mobility and step up the screening of travellers to reduce the spread of the virus. Cross-border mobility in 2020 can be divided into three phases:

1. **Mobility lockdowns: January to May 2020.** In this early phase, countries introduced a raft of travel restrictions and health requirements to respond to the fast-evolving public health situation. In the first three months of the year, many completely closed most points of entry and/or banned travel from affected regions. The scale of border closures was unprecedented – even countries in Europe's border-free Schengen Area reimposed makeshift borders with their neighbours – and many closures occurred with limited planning and coordination. By the end of March, governments and authorities in subnational regions had issued or extended 43,300 travel measures, and every country, territory and area worldwide was subject to at least 70 travel bans. Movements of all kinds were dramatically curtailed from March to May as populations sheltered under national lockdowns. For instance, the number of passengers on international flights in April and May were down by 92 per cent relative to the same months in 2019. At the same time, Frontex, the EU border patrol, recorded an all-time low in irregular border crossings. As it became clear that emergency measures were likely to continue for longer than originally planned, many governments sought to minimize the worst economic, and especially human, costs of such measures by introducing or expanding exceptions – including for nationals and residents (and their family members), diplomats and staff of international organizations, and health-care workers – and sometimes even chartering flights to facilitate the carefully managed movement of such individuals.

2. **Phased reopening: June to September 2020.** The next phase of the crisis response brought the staggered reopening of some points of entry, especially of airports but also, to a lesser extent, land and maritime ports. Bans on travellers from or crossing through particular areas were increasingly replaced during this period by health measures, including certificates of pre-departure COVID-19 tests, quarantine measures or health declaration forms. In many areas, air travel was the first to

open back up because of the greater capacity to implement new health measures and/or regional arrangements, such as "travel bubbles". During this phase, different strategies began to crystallize. This was obvious most clearly in the divergent approaches of island countries: as New Zealand and Australia pursued virus-elimination strategies and maintained border closures, others such as the Caribbean islands opened up to tourism. Another notable point of variation is when a country's health requirements began to exceed route restrictions. In the Caribbean, this happened in mid-July, while other regions reached this point in August or September. Much of Asia continued to employ route restrictions throughout most of this phase, even while adding on additional health requirements for travellers, and some Asian countries, including Japan, the Republic of Korea and Viet Nam, used their visa systems to limit travel to a larger degree than countries in other regions.

3 **Responses to new outbreaks and virus mutations: October to December 2020.** The remainder of the year was a mixed picture, as countries sought to both build their capacity to operationalize health measures in place of travel restrictions, while battling a second (and in some cases, third) wave of infections and grappling with the emergence of new variants of the virus. Some countries, including Chile, Mexico and the United Arab Emirates, opened even to tourists. Health certificates became the most common health-related travel measure, while quarantine requirements and screenings became less widespread over time (perhaps because quarantine had been shown to be costly and screenings to be ineffectual). In December, governments implemented route restrictions against the United Kingdom and, to a lesser extent, South Africa in response to the B.1.1.7 and B.1.351 variants of the virus identified in those countries.

These most recent trends have continued into 2021, which has already seen new measures put in place to respond to rising COVID-19 caseloads and the identification of new variants, such as the B.1.1.28 variant first identified in Brazil. For instance, the United States of America began mandating in late January 2021 that all air passengers, including US nationals and residents, present proof of a negative COVID-19 test taken within 72 hours of departure or of recovery from COVID-19 to enter from abroad. Meanwhile, the European Union is discussing ways to adjust its risk ranking system to allow for stricter measures for the highest-risk areas.

A. The Human Impact of Mobility Restrictions

These COVID-19-related travel measures and border closures have had far-reaching impacts on migrants and travellers worldwide. By mid-July 2020, IOM estimated that the pandemic had left nearly 3 million people stranded (likely an underestimate), sometimes without access to consular assistance, means to ensure they did not slip into irregular status or sufficient resources to meet basic needs. Thousands of migrants were stranded in Panama's jungle while attempting to travel north to the United States, for instance, and migrant workers in Lebanon were exposed to extremely difficult conditions after the August 2020 explosion in Beirut and subsequent surge of COVID-19 cases.

Border closures also curtailed the ability of displaced people to seek refuge. In the first half of 2020, new asylum applications fell by one third compared to the same period in 2019. Closures also reduced the options those living in overcrowded camps with high infection rates in Bangladesh and Greece had of moving on to safety. And many displaced Venezuelans in Colombia, Peru, Chile, Ecuador and Brazil lost

their means of livelihood, and some have sought to return home – including by enlisting the services of smugglers.

Three shifts in cross-border mobility were particularly visible, and could persist in the months and years to come:

- **Widening gulf between movers and non-movers.** The COVID-19 pandemic has deeply curtailed the mobility prospects of some groups, while making little difference to those whose nationality, resources and status enable them to continue crossing borders for work, family or tourism. Business travellers have continued to move fairly freely, including through agreed "green lanes", such as the one between Singapore and Malaysia. By contrast, those who move out of necessity (such as migrant workers and refugees) have had to absorb expensive quarantine and self-isolation costs. Looking ahead, the gap could widen between "movers" and "non-movers" – that is, between those with the resources and opportunities to move freely, and those whose movement is severely restricted by COVID-19-related or pre-existing travel and visa restrictions and limited resources. This is especially likely to be the case if travel begins to favour those who have been vaccinated or tested, or if reliance on digital health records makes a person's ability to travel dependent on their digital access and literacy.
- **Greater socioeconomic vulnerabilities.** The pandemic has also amplified the socioeconomic vulnerability of those who depend on mobility for survival. Job losses have hit migrant workers hard, especially since in many countries they often work in sectors negatively affected by national lockdowns and internal containment measures, and where social safety nets are minimal. Travel restrictions have also thwarted many people's ability to pursue migration as a tool to escape conflict, economic collapse, environmental disaster and other crises.
- **Amplified relationships of dependence and exploitation.** Restrictions on movement have also increased the dependence of many migrants on intermediaries and facilitators, from employment agencies to smugglers, in part because it has been difficult to access reliable information about fast-changing migration routes. For instance, travel restrictions have, on the one hand, increased the demand for smuggling services among people desperate to flee violence, natural disasters and economic deprivation, as well as people attempting to return home. On the other hand, border closures and restrictions have pushed smugglers to use more dangerous routes and raise their prices – exposing migrants and refugees to an increased risk of exploitation and trafficking.

B. The Future of Mobility: What Would It Take to Open Back Up?

More than a year on from the onset of the pandemic, it remains an open question what role border closures, travel restrictions and health-related travel requirements should play in a pandemic management response. While there are some exceptions, notably Australia and New Zealand, other countries have largely been unsuccessful in using border closures to prevent viral spread, and those that have had success with such closures have used them alongside a comprehensive raft of domestic measures, making it hard to attribute causality. While the new strains of the virus (and emerging evidence of their greater resistance to vaccines) have added to uncertainty about the future and fuelled public pressure for mobility-based

responses, attempts to prevent the spread of these new variants through travel bans have suffered from many of the same challenges experienced in early 2020: by the time countries introduced these restrictions, the new strains had already spread. In 2021, governments will thus face the challenge of developing risk mitigation strategies that move beyond the blunt tools of border closures and travel bans. They will also need to eschew unilateral responses and work with other governments and international organizations to develop border health policies that are well planned and promulgated.

One of the main tasks ahead will be building on the experimental health measures piloted during the past year. It has become clear that quarantine is too costly for most countries and travellers to absorb, given both the direct costs and opportunity costs (e.g. lost work) and because quarantine at designated locations often has a relatively fixed capacity, limiting the number of people who can be admitted at one time. It thus seems likely that either testing or vaccination certificates (or both) will form the basis for a new border infrastructure built around public health. But there are a number of problems to iron out. Testing requirements are increasingly widespread, but without access to rapid, affordable, mass testing, such measures may restrict the number of people able to travel or impose disproportionate burdens on certain groups of travellers, including people in low- and middle-income countries or from areas with limited access to testing. In addition, testing is not foolproof as a public health tool, given the risk of false negatives and the chance a traveller may contract the virus after being tested and before departing. Several countries are exploring the use of vaccination certificates, yet there are important logistical, ethical and technological questions to be addressed at the country and global level to verify proof of vaccination and minimize fraud. In addition to addressing accessibility issues for migrants in vulnerable situations and those with limited digital literacy, these solutions need robust safeguards and data privacy standards. Perhaps most importantly, these interventions need to be part of a well-structured, comprehensive system that emphasizes the complementarity of different travel measures while minimizing duplication. One particular element that merits further research is how to combine multistage testing and quarantine to minimize personal, societal and economic burdens.

These interventions need to be part of a well-structured, comprehensive system that emphasizes the complementarity of different travel measures while minimizing duplication.

The process of opening back up also depends on stronger international coordination. A host of initiatives have emerged at the global level, including the International Civil Aviation Organization promotion of Public Health Corridors (bilateral and regional agreements); World Tourism Organization efforts to restart tourism; and the World Health Organization review of its International Health Regulations and examination of how to standardize digital health records. At the same time, numerous private sector initiatives and public-private partnerships are developing solutions such as digital health records; this poses a risk of significant duplication, system incompatibility or multiple tools being used for different purposes. A core challenge for 2021 will be to join up these varied efforts and ensure the interests of all stakeholders are supported.

A mobility system that can guide the world through the next phases of the pandemic and better prepare it for the next public health crisis will depend on strong leadership from the United Nations and agreed international standards. Stronger regional coordination is likely to be an important stopgap in 2021, given

the time it will take to build consensus at the global level around common standards, including potentially over vaccine certificates and testing systems. Other regions could replicate the European Union's "traffic light" risk assessment system, although they will need to heed the lessons of 2020 and support greater transparency and predictability in the way the system is employed. Ultimately, the infrastructure that is being built now will be with us not only for this but also the next pandemic, and it is thus even more important that the system both minimizes public health risks and is deliberately inclusive of all people on the move.

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1 Introduction

The year 2020 will go down in history books as marking an unprecedented shift in human mobility. The COVID-19 pandemic decimated tourism and business travel; cut the lion's share of seasonal and temporary labour migration; and halted or held up visa processing across all streams, from international students to family reunification. It is uncertain how, on what timeline and even whether these different forms of human movement will rebound to their pre-pandemic state.

Following a flurry of region- and country-specific travel bans in February 2020, once the virus started spreading more widely, countries began closing their borders like dominos. Points of entry were shut; arrivals (and, in some cases, departures) were restricted; and flights were grounded. Often, these border closures and restrictions were put in place with limited warning, leaving countless travellers in need of repatriation assistance, many families separated, and thousands of migrants and seafarers stranded.[1] Visa processing, including extensions and renewals, ground to a halt as embassies and consular offices were closed or began operating on a skeletal staff, and refugee resettlement was temporarily suspended.[2]

Since then, a patchwork of fast-changing travel restrictions of various kinds has emerged – from bans on arrivals from specific countries or subnational regions, to visa and flight suspensions. Countries have introduced numerous exemptions to restrictions for certain travellers (such as for their own nationals and family members), and over time, many have shifted from blunt travel bans and border closures to measures that seek to tentatively restart cross-border movements, such as requiring travellers to stay in quarantine after arrival or show proof of a pre-departure COVID-19 test. But this process of opening up has been non-linear. "Travel bubbles" (quarantine-free agreements between countries or cities) have been introduced and then closed; borders have been opened and then snapped shut; exemptions have been expanded and narrowed; and health requirements and quarantine measures have been introduced and adapted. Towards the end of 2020, new waves of travel restrictions associated with the identification of new and highly

1 International Organization for Migration (IOM), "Cross-Border Human Mobility amid and after COVID-19" (policy paper, IOM, 17 June 2020).

2 Many countries also sought to plug gaps in their immigration frameworks, including through extensions of visas and residence permits to prevent people within their territory from falling into irregular status.

transmissible variants of the virus, and with rising caseloads in many countries, rekindled debates about the relationship between international mobility and COVID-19.

The International Organization for Migration (IOM) has been tracking travel restrictions and border closures since March 2020,[3] and it has made reports on these measures publicly available on its COVID-19 Mobility Impacts platform since May 2020.[4] This report marks a collaboration between IOM and the Migration Policy Institute (MPI) to collate and analyse these data, presenting a first-of-its-kind look at how the movement of people worldwide was affected by the COVID-19 pandemic over the course of 2020.

In early 2021, optimism has grown about a potential return to normality as several vaccines have been approved and are being administered. This report establishes a benchmark through which to evaluate the hoped-for revival of cross-border mobility that these vaccines and other pharmacological interventions could bring. It begins by reviewing what happened in 2020, aggregating and analysing data on travel restrictions and border closures at both the global and regional level. Next, it turns to the human impact of these curbs on mobility for different groups of travellers and migrants, and across different regions. In the final section, the report considers whether the evidence supports travel restrictions as effective tools for managing pandemics and analyses the main policy levers beginning to replace blanket travel bans and how these may be seeding a new cross-border infrastructure built around public health. The report concludes with a look ahead to major decisions that will need to be made in 2021.

2 The Story of Mobility in 2020

The story of cross-border mobility in 2020 has to be understood against the backdrop of broader government responses to the COVID-19 pandemic. Like other emergency measures introduced in 2020, travel restrictions were often implemented under conditions of extreme uncertainty, in response to limited information about the virus and within tight timeframes. Governments and authorities in subnational regions had to contend with difficult trade-offs related to the economic costs of travel measures and border closures, vis-à-vis often unknown public health costs of allowing travel to continue unabated. This section considers how cross-border movements and mobility restrictions evolved throughout the year.

The Phases of Cross-Border Mobility in 2020

While the overall approach taken by governments and authorities has evolved in response to fluctuating COVID-19 caseloads, emerging evidence on the virus and its spread, and new diagnostic and therapeutic tools, the overarching picture at end of 2020 was similar to the one in March 2020: a world where human mobility is dramatically curtailed. Yet a more nuanced story can be discerned by mapping a timeline of various travel measures across the different phases of the pandemic thus far. (See Box 1 for examples and definitions of these measures.)

3 IOM uses the International Air Transport Association (IATA) Timatic COVID-19 Travel Restrictions site and alerts as the primary source of information on international air travel restrictions reported per country, territory or area. The IOM COVID-19 Mobility Tracking Database is updated using qualitative data from the IATA site and alerts; daily situation reports from the World Health Organization (WHO), providing regular updates on context developments from national, regional and international perspectives; direct reporting from IOM staff in field missions; internal IOM databases; and relevant government and trusted media sources.

4 IOM, "Human Mobility Impacts Due to COVID-19", accessed 9 February 2021.

BOX 1
Definitions of Common Measures Affecting Travel

Entry restrictions. These are different types of measures issued by countries, territories and areas (C/T/As) that limit or stop cross-border mobility.

- *Route restrictions*: Travellers arriving from, transiting through or having been to specified C/T/As are not allowed to enter. This sometimes includes a time parameter (e.g. the traveller may not have been there in the last 14 days). It also includes the suspension of all flights from a certain C/T/A or the closure of all airports.
- *Nationality restrictions*: Travellers with a specific nationality are not allowed to enter.

Conditions for authorized entry. Some measures have required travellers to meet certain conditions to be allowed into the country. These may be applicable to all travellers or only travellers from certain C/T/As or certain groups.

- *Health requirements*: Entry is conditioned on complying with public health requirements. (Note: Health requirements were issued at first mostly to limit international mobility, however, over time, they have become conditions for entry and have been increasingly used to facilitate mobility.)
  - → Quarantine requirements: Upon entry, travellers are required to quarantine at a designated or self-nominated location for a specific period, usually between 7 and 21 days.
  - → Medical certificates: Travellers must provide proof of a negative result on an approved test for the virus taken within a certain time, usually 48 to 72 hours prior to arrival.
  - → Health screening on arrival: Upon arrival, travellers are subject to measures to screen for COVID-19, such as blood sampling, temperature checks, swabs and thermal screenings.
  - → Other health measures: Travellers may also be required to complete health declaration and/or travel history forms and participate in health surveillance programmes, such as downloading a mobile location/tracking application or providing location information to destination countries' authorities.
- *Visa changes*: Some countries have changed visa requirements and processes, including suspending the issuance of visas to some or all foreigners, invalidating previously issued visas and requiring visas for travellers from new C/T/As or for all passengers arriving from certain C/T/As.
- *Document changes*: The types of identification documents accepted for entry have in some cases changed (e.g. a national ID card is no longer accepted, passports become the sole acceptable form of documentation).
- *Location surveillance*: Travellers are required to fill out a passenger location form.
- *Other travel limitations:* At times, countries have introduced measures that do not fit into the above categories of conditions, but that also are not complete restrictions on entry.

Exceptions to mobility restrictions. Certain groups of travellers have been exempted from COVID-19-related travel restrictions, but they may still face conditions for authorized entry. Examples include countries' own nationals and residents and their family members, diplomats and staff of international organizations, health professionals, travellers who obtained a special entry permit and certain categories of essential workers.

Source: International Organization for Migration (IOM), "Methodology for Monitoring Global Mobility Restrictions and Exceptions to Mobility Restrictions: IOM COVID-19 Mobility Tracking Database, Version 3", updated October 2020.

Phase 1: January – May 2020

About two and a half months after the first case of an atypical viral pneumonia was reported in the Chinese city of Wuhan, the World Health Organization (WHO) declared the novel coronavirus a global pandemic on 11 March 2020.[5] But even prior to this announcement, governments and authorities had begun to issue measures to limit or significantly reduce international mobility in an effort to slow the spread of the virus. Beginning in late January, neighbours of China began closing their borders, airlines began suspending flights to China and countries around the globe began conducting health screenings at points of entry.[6] In late February, countries began placing restrictions on travellers arriving from a growing number of COVID-19 hotspots, including the Islamic Republic of Iran, Italy and the Republic of Korea.[7] Many also began conducting health screening at points of entry and/or requiring arriving passengers from certain countries to quarantine for a period of time.[8]

The frenetic pace with which air travel measures were issued during this period was unprecedented and largely uncoordinated. By 10 March 2020, the day before the WHO declaration, 90 countries, territories or areas (C/T/As) out of the 246 on the United Nations list had issued or extended more than 1,800 measures (as shown in Figure 1), including both health requirements and entry restrictions, with many C/T/As banning arrivals from China, the Islamic Republic of Iran, Italy and the Republic of Korea. Measures were issued with little warning in response to the rapidly evolving situation, sometimes catching travellers in mid-air.[9] Throughout March, the number of pandemic-related travel measures increased significantly and also broadened in scope, reaching 43,300 by month's end, at which point every C/T/A was subject to at least 70 travel bans. The pace slowed in the next two months, reaching a total of 54,300 measures issued by 218 C/T/As by the end of April and close to 63,400 by the end of May.

5 Opening Remarks by WHO Director-General at a media briefing on COVID-19, 11 March 2020.

6 The Democratic People's Republic of Korea was an outlier in this regard, closing its borders to all foreign visitors on 22 January 2020. Authorities in Hong Kong Special Administrative Region (SAR), China, and Mongolia implemented partial border closures on 28 January, the same day United Airlines suspended its flights from the United States to China (other airlines followed suit the next day). On 30 January, the Russian Federation closed its border with China, and, on 31 January, Mongolia fully closed its border and Singapore banned visitors from China as well as those who had been in China within the previous 14 days. On 4 February, authorities in Taiwan Province of the People's Republic of China banned the entry of foreigners who had been in China within the previous 14 days, and France and the United Kingdom of Great Britain and Northern Ireland issued advice against non-essential travel to China. On 5 February, Hong Kong SAR, China, mandated a two-week quarantine for new arrivals and suspended most of its border crossings. See Caroline Kantis, Samantha Kiernan and Jason Socrates Bardi, "Updated: Timeline of the Coronavirus", Think Global Health, updated 15 January 2021.

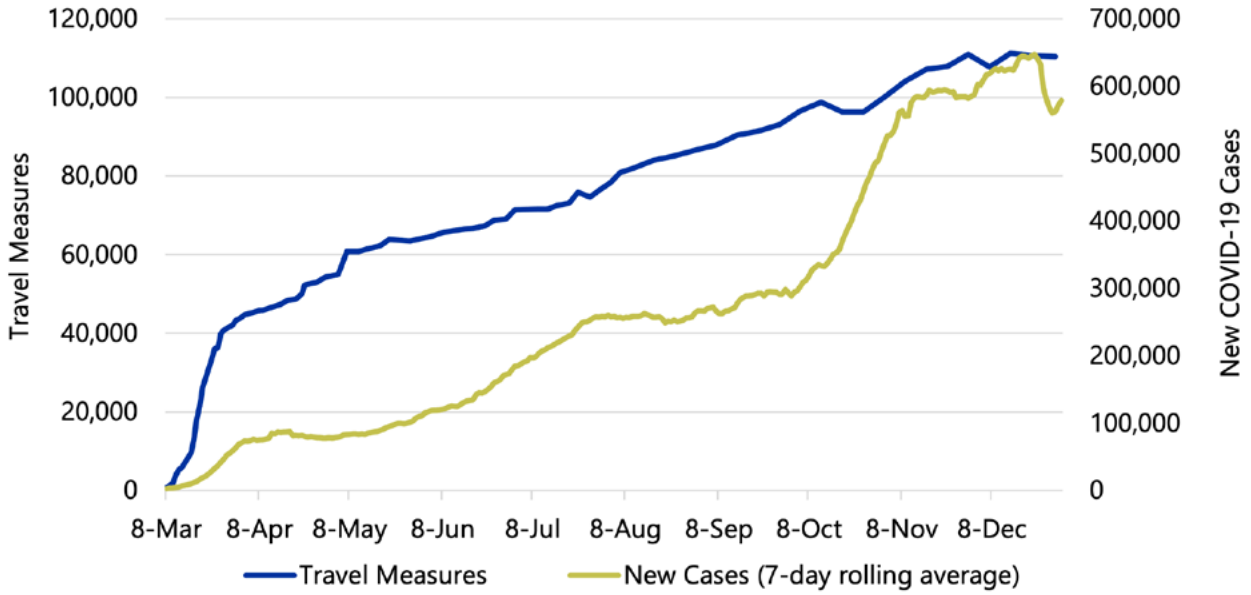
7 For example, on 20 February 2020, Kuwait suspended Kuwait Airways flights to the Islamic Republic of Iran, and Iraq closed its border. Afghanistan, Armenia, Pakistan and Turkey followed suit on 23 February, the same day Austria temporarily stopped trains from Italy. See Kantis, Kiernan and Bardi, "Updated: Timeline of the Coronavirus".

8 For example, on 17 January, the United States began screening passengers from Wuhan, China, at three different airports. See US Centers for Disease Control and Prevention, "Public Health Screening to Begin at 3 U.S. Airports for 2019 Novel Coronavirus ('2019-nCoV')" (press release, 17 January 2020). For more information on health screenings during January and February 2020, see Dennis Normile, "Why Airport Screening Won't Stop the Spread of Coronavirus", *Science*, 6 March 2020.

9 For example, in March 2020, Jet2 turned around planes heading to Spain from the United Kingdom in response to Spain's decision to implement domestic lockdowns. See BBC News, "Coronavirus: Jet2 Flights to Spain Turn Round in Mid-Air over Virus Fears", BBC News, 14 March 2020.

FIGURE 1

Travel Measures Issued Worldwide and Newly Confirmed COVID-19 Cases (7-day rolling average), March – December 2020



Notes: The International Organization for Migration (IOM) dataset on travel measures used in this analysis tracks each individual measure that each country, territory or area (C/T/A) has imposed on travellers arriving from another C/T/A. When a measure is targeted at all travellers regardless of C/T/A of origin, it is counted as a restriction on each of the 246 C/T/As on the United Nations list. This figure displays the sum of the individual measures for each reporting date. The number of newly confirmed COVID-19 cases is shaped to some extent by the accuracy and availability of testing, which vary depending on the C/T/A and the phase of the pandemic.
Sources: Authors' analysis of the IOM dataset "IOM COVID-19 Mobility Tracking Database (Travel Restrictions)" (for additional information, see IOM, "Methodology for Monitoring Global Mobility Restrictions and Exceptions to Mobility Restrictions: IOM COVID-19 Mobility Tracking Database, Version 3", updated October 2020); Our World in Data, "Coronavirus Pandemic (COVID-19)", University of Oxford, accessed 12 January 2021.

All regions of the globe saw shutdowns of cross-border mobility during this period in early 2020, in step with domestic lockdowns.[10] This was in spite of huge variation in domestic COVID-19 caseloads, which points to a lack of knowledge at the time on how to respond; without the luxury of being able to plan a thoughtful risk management approach, governments and authorities instead moved quickly to close borders. (For a discussion about the effectiveness of these measures at mitigating COVID-19 spread, see Section 4.)

10 Between 16 and 25 March, every region except the United States-Mexico-Canada implemented more than 100 travel measures on average. This was also the period when the most stringent domestic measures were implemented everywhere except East Asia, where countries, territories and areas (C/T/As) had been implementing domestic measures since January or February. Domestic stringency is calculated from the Oxford Government Response Tracker Stringency Index. See Thomas Hale et al., "Oxford COVID-19 Government Response Tracker", University of Oxford, Blavatnik School of Government, accessed 22 January 2021.

BOX 2
Spotlight on the United States, Mexico and Canada

The frenetic, uncoordinated response in the earliest stage of the pandemic is illustrated by how neighbouring countries diverged in their approaches. Canada, Mexico and the United States of America, which form a trilateral trade bloc in North America, share not only trade but also deep political, military and social ties and history. Building on these relationships, the United States quickly reached agreements on 20 March 2020 with its neighbours to limit all non-essential travel (e.g. tourism and recreation) while still allowing travel for essential activities to continue (e.g. commerce and trade, travel for military or public health purposes).

However, the governments of the three countries took divergent approaches with regard to travel from other countries. The Canadian Government issued entry restrictions against all countries except the United States (and even there, Canada did close its land border) in mid-March; kept them in place throughout the year; and, as of early 2021, passengers travelling to Canada have to demonstrate that they have a 14-day quarantine plan, pass a health check before boarding the plane, and have a health screening upon arrival. The Government of the United States initially banned travel from China, then extended entry restrictions to about 30 countries by mid-March, including the Islamic Republic of Iran and all of Europe (and the closure of US consular offices made it virtually impossible to get a travel permit for nationals of most other countries as well). Both Canada and the United States barred the entry of asylum seekers in response to the public health crisis as early as mid-March. Unlike Canada, the US Federal Government did not require arriving passengers to provide COVID-19 test results or stay in quarantine, a policy that only shifted in late January 2021. In stark contrast to its northern neighbours, the Mexican Government issued no restrictions on travel from other countries. Instead, Mexico began subjecting all passengers to a health screening at the airport upon arrival in July 2020, and in October, the requirement changed to a health declaration form.

Sources: US Department of Homeland Security, "DHS Measures on the Border to Limit the Further Spread of Coronavirus" (fact sheet, updated 22 October 2020); Government of Canada, "Coronavirus Disease (COVID-19): Who Can Travel to Canada", updated 14 February 2021; Muzaffar Chishti and Sarah Pierce, "Crisis within a Crisis: Immigration in the United States in a Time of COVID-19", *Migration Information Source*, 26 March 2020; US Centers for Disease Control and Prevention, "Requirement for Proof of Negative COVID-19 Test or Recovery from COVID-19 for All Air Passengers Arriving in the United States", updated 4 February 2021; Sandra Weiss, "Coronavirus: Mexico 'Flying Blind' in Pandemic Response", Deutsche Welle, 18 August 2020.

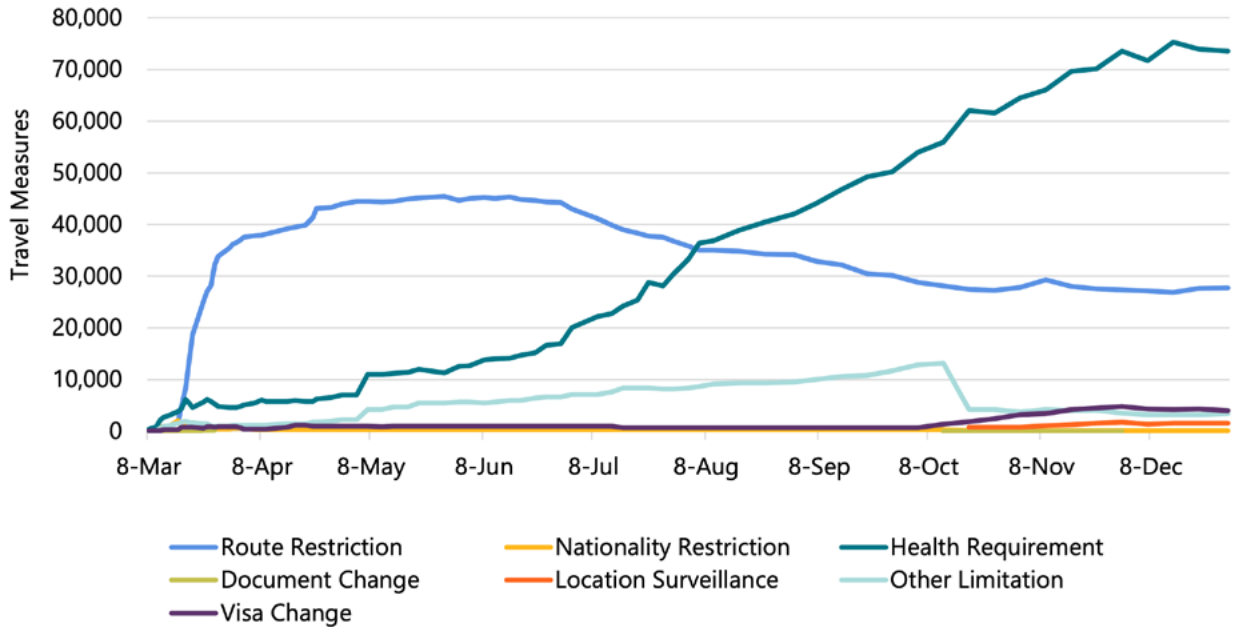
From March to May, broad route restrictions (that is, bans on passengers arriving from or transiting through specific C/T/As) were the most common type of travel measure, followed by health requirements, such as that travellers quarantine at home or in designated centres/hotels before departure or after arrival (see Figure 2). Although not as common as entry restrictions and health requirements, visa changes such as visa invalidation and new visa requirements were also employed, leaving some travellers and migrants stranded and in need of assistance and information on their options to avoid falling into irregular status. For instance, on 13 March 2020, India suspended all tourist visas,[11] and the United Arab Emirates suspended the issuance of new visas on 17 March.[12] (For further discussion of the impact on different types of measures on travellers and migrants, see Section 3.)

11 Al Jazeera, "India Suspends Visas in Attempt to Contain Coronavirus Spread", Al Jazeera, 12 March 2020; Business Traveller India, "Coronavirus: India Suspends All Tourist Visas and E-Visas for Travellers", Business Traveller, 11 March 2020.

12 Tawfiq Nasrallah, "UAE Suspends Issuance of All Entry Visas from March 17", Gulf News, 14 March 2020.

FIGURE 2

Travel Measures Issued Worldwide, by Category, March – December 2020



Notes: Some of the categories include multiple types of measures; see Box 1 for an explanation of each category. Each individual measure is counted separately.
Source: Authors' analysis of the IOM dataset "IOM COVID-19 Mobility Tracking Database (Travel Restrictions)".

As it became clear that emergency measures were likely to remain in place for longer than originally imagined, many governments introduced a raft of exceptions that sought to minimize the greatest economic and human costs. By the end of March,[13] C/T/As had issued a total of 450 exceptions allowing for the movement of particular categories of travellers, the most common being nationals and/or residents and their family members.[14] Diplomats and staff of international organizations were also commonly exempted, and in the first few months of the pandemic, governments increasingly facilitated the arrival of health-care workers and health-care researchers. By 28 May, 37 C/T/As, including many countries in the European Economic Area (EEA),[15] the United States and a number of Caribbean island nations, had exceptions for the latter group of travellers. As the pandemic progressed, new categories of exceptions were developed as C/T/As adjusted who they wanted to allow in.

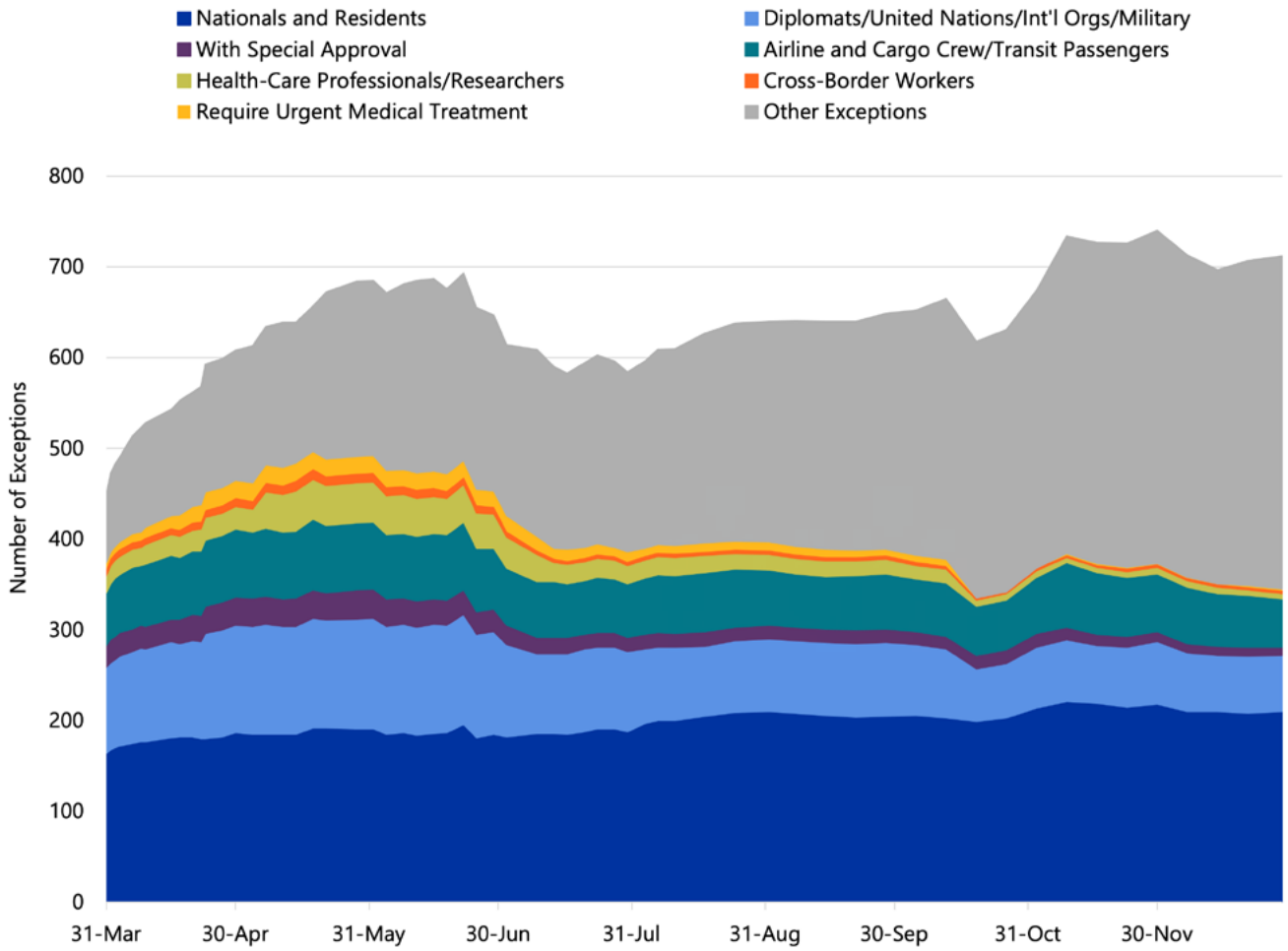
13 IOM began tracking exceptions to mobility restrictions on 31 March 2020.

14 As of 30 April, 111 out of 161 C/T/As permitted the return of their nationals or residents (and their families). Authors' analysis of the IOM dataset "IOM COVID-19 Mobility Tracking Database (Exceptions to Travel Restrictions)". For information on the methodology used to develop this database, see IOM, "Methodology for Monitoring Global Mobility Restrictions and Exceptions to Mobility Restrictions: IOM COVID-19 Mobility Tracking Database, Version 3.0", updated October 2020.

15 For the purposes of this report, the Holy See, San Marino and the United Kingdom, as well as subnational jurisdictions including the Faroe Islands, Gibraltar, Greenland, Guernsey, the Isle of Man, Jersey, and Svalbard and Jan Mayen Islands are analysed as part of the European Economic Area (EEA).

FIGURE 3

Exceptions to Entry Restrictions Issued Worldwide, March – December 2020



Notes: The "nationals and residents" group includes their family members. The "diplomats/United Nations/int'l orgs/military" group consists of passengers with a diplomatic passport/visa; diplomats on duty station in the country (including their family members); passengers with a United Nations passport; personnel of international and humanitarian organizations; and military personnel or military forces of the North Atlantic Treaty Organization (NATO). The "health professionals/researchers" group refers to health professionals, and health researchers and collaborators. The group "with a special approval" includes passengers with a special approval/valid letter of prior approval issued by the destination-country government or other entity. The "other" group includes international students; nationals/residents of another C/T/A; refugees and other persons arriving for reasons of international protection; passengers arriving on humanitarian flights, flights in emergency and repatriation flights; and business travellers. Information on the individual subgroups within "other exceptions" is not available for the entire period. For more information about these groups of travellers, see IOM, "Methodology for Monitoring Global Mobility Restrictions and Exceptions to Mobility Restrictions: IOM COVID-19 Mobility Tracking Database, Version 3", updated October 2020.
Source: Authors' analysis of the IOM dataset "IOM COVID-19 Mobility Tracking Database (Exceptions to Travel Restrictions)".

The rollout of travel measures was accompanied by complete or partial closure of many points of entry – that is, airports and entry points along land and maritime[16] borders. Globally, point of entry closures peaked throughout May and June,[17] coinciding with a relative plateauing of the number of entry restrictions issued and the steady growth in the number of health requirements implemented. This shift had two primary

16 This includes seaports and river crossings.

17 The share of points of entry that were fully closed to both arrivals and departures peaked in the first week of May 2020 at 34 per cent. This peak occurred as C/T/As in sub-Saharan Africa, the Middle East and North Africa (MENA), and the trans-Tasman region closed their entry points and C/T/As in the EEA, Eastern and South-Eastern Europe, and South Asia began to reopen theirs.

drivers. As governments and authorities began to understand the costs and benefits of different travel measures and to build the capacity to manage these policies, they began to shift from relying on swift border closures to a phased reopening of travel. At the same time, domestic lockdowns were being lifted throughout many regions.[18]

BOX 3
Point of Entry Status Definitions

IOM categorizes the status of points of entry using the following three designations:

- **Fully Operational:** Anyone may use the point of entry to enter or exit the C/T/A.
- **Fully Closed:** No one may use the point of entry to enter or exit the C/T/A.
- **Partially Operational:** Some people may use the point of entry to enter or exit the C/T/A. These locations may be only open for entry or for exit, open to commercial traffic but not travellers, or open to returning nationals and residents (and at times, other approved groups such as military and humanitarian personnel).

Source: IOM, "Methodology for IOM COVID-19 Impact on Points of Entry and Other Key Locations of Internal Mobility", updated 19 October 2020.

During the first phase of the pandemic response, land points of entry were generally more closed than maritime points of entry and airports – although, of course, this reflects official entry points rather than the entirety of land borders, which in some regions are porous and subject to many informal crossings.[19] Airports began to reopen in large numbers in June, much earlier than other entry point types (see Figure 4). The priority given to reopening airports can be explained by several factors. There are fewer international airports than land borders, making it easier to control the number of travellers attempting to enter a C/T/A and to funnel them through one system. In theory, this also makes it easier to apply new health measures, including on-arrival testing, mandatory quarantine and symptom screening (although many airports were opened before such processes were in place). This trend may also reflect the economic incentives to reopen C/T/As to international trade and tourism.[20]

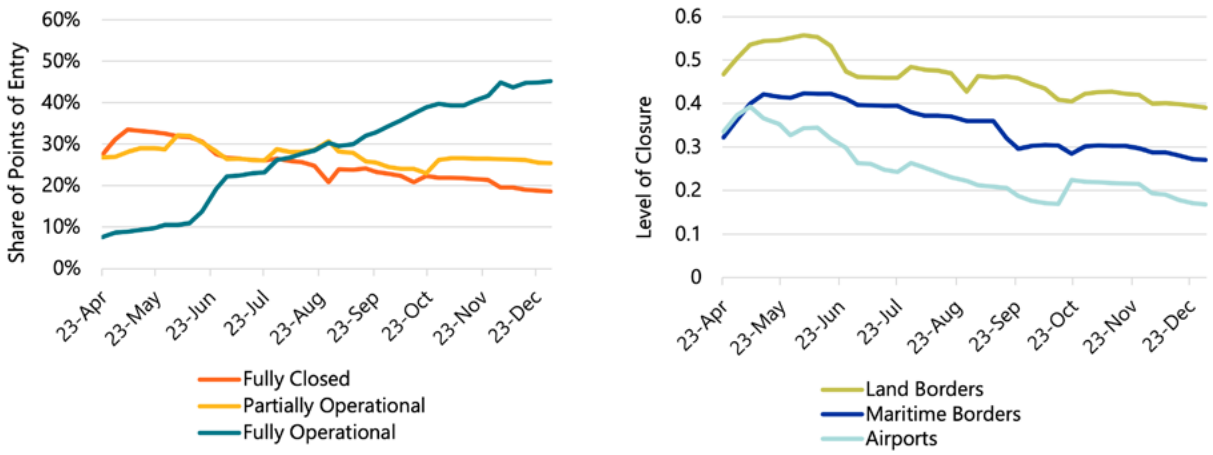
18 Average global domestic stringency peaked at 76 at the end of April, dropped to 67 by the end of May, and ended June at 57. See Hale et al., "Oxford COVID-19 Government Response Tracker".

19 In many C/T/As, especially in low- and lower-middle-income C/T/As, land borders are often porous, with many informal crossings. C/T/As are unable to close these crossings or to implement public health measures such as health screenings, testing and handwashing at such points. This means that while the level of land border closure in these C/T/As may be high, the efficacy of these restrictions is likely more limited. See, for example, Inga Vesper, "Porous Borders Place Africa at Risk from Coronavirus", SciDevNet, 30 January 2020; Saira Asher, "Coronavirus: The Porous Borders Where the Virus Cannot Be Controlled", BBC News, 9 April 2020; Murray Hunter, "Thailand's Porous Borders Spark Fear of a New Covid Wave", Asia Sentinel, 8 December 2020; Aggrey Mutambo and Tesfa-Alem Tekle, "Somalia, Djibouti Cases Soar as Porous Borders Become New Threat", The East African, 7 May 2020; John Perry, "Nicaragua's Response to COVID-19", *The Lancet Global Health* 8, no. 7 (July 2020): E898.

20 See, for example, Drew Jones, "These 6 Countries Are Cautiously Reopening for Summer Travel", *The Washington Post*, 20 May 2020; Drew Jones, "These Destinations Will Basically Pay You to Come Visit during the Pandemic", *The Washington Post,* 29 May 2020; Nina Burleigh, "The Caribbean Dilemma", *The New York Times*, 4 August 2020.

FIGURE 4

Operational Status of Points of Entry (left) and Overall Level of Closure by Entry Point Type (right) Worldwide, March – December 2020



Notes: The IOM dataset tracks whether points of entry are fully operational, partially operational, fully closed or unknown. The level of overall closure by entry point type is calculated by assigning each point of entry a value based on its operational status on each date (0 for fully operational, unknown or not included; 1 for partially operational; and 2 for fully closed). The sum of those values is then divided by the maximum closure value of those points of entry (total number of entry points multiplied by 2). This creates an index ranging from 0 to 1, with values closer to 1 representing a higher level of closure.
Source: Authors' analysis of the IOM dataset "IOM COVID-19 Country Points of Entry (PoE) Status Baseline Assessment" (for additional information, see IOM, "Methodology for IOM COVID-19 Impact on Points of Entry and Other Key Locations of Internal Mobility", updated 19 October 2020).

Altogether, travel measures and border closures contributed to a precipitous decline in international mobility of all stripes in the early part of 2020, as did decreased demand for travel. Consular office closures throughout the world also halted the movement of people whose travel was dependent on receiving a visa as well as the provision of needed admission- and stay-related support and return assistance.[21] For example, the number of immigrant visas issued by US consulates abroad between March and May 2020 was 77 per cent lower than in the same period a year earlier (26,600 versus 115,600), and the number of temporary (non-immigrant) visas issued was 80 per cent lower (488,000 versus 2.4 million).[22] The Organisation for Economic Co-operation and Development (OECD) estimates that the number of residency permits issued to migrants by OECD countries fell by almost half in the first six months of 2020.[23] The impact of these travel measures, border closures, low demand for travel and bureaucratic barriers to movement was considerable. According to the International Civil Aviation Organization (ICAO), the number of international passengers flying in April and May 2020 was 92 per cent lower than in the same months in 2019.[24]

Other types of movement also declined. For example, in April 2020, Frontex, the European Border and Coast Guard Agency, recorded an all-time low in detected irregular border crossings since the agency started collecting data in 2009.[25] April also saw markedly lower levels of migrant apprehensions at the US south-west border than in past years, with slightly less than 16,200, compared with more than 99,200 in April

21 For example, the United States suspended all routine visa services. See US Department of State, "Suspension of Routine Visa Services", updated 22 July 2020.
22 US Department of State, "Monthly Immigrant Visa Issuance Statistics", accessed 9 February 2021.
23 Organisation for Economic Co-operation and Development (OECD), *International Migration Outlook 2020* (Paris: OECD Publishing, 2020), 11.
24 Big Data United Nations Global Working Group, "ICAO: Operational Impact–Operational Impact on Air Transport", accessed 4 February 2021.
25 Frontex, "Situation at EU External Borders in April – Detections Lowest Since 2009" (news release, 12 May 2020).

2019 and 38,200 in April 2018.[26] Refugee admissions also dropped in many countries. For example, the Government of the United States resettled 1,272 refugees between March and May 2020 (or 11 per cent of the fiscal year 2020 total of 11,814). During the same period in 2019, 8,671 refugees were resettled to the United States (29 per cent of the 30,000 resettled in fiscal year 2019).[27]

Phase 2: June – September 2020

Throughout the second phase of the pandemic response in 2020, governments and authorities in many countries began to restart travel, reflecting a broader shift in domestic policy to move from the most stringent phases of lockdown into phased reopening. While the total number of cross-border measures continued to grow at a relatively slow pace, their composition changed. Health requirements, such as mandatory quarantines and medical certificates, overtook route restrictions as the most commonly implemented type of measure in August,[28] indicating an attempt to allow reopening through risk mitigation rather than continue to prioritize broad mobility restriction. Capacity to implement alternative measures also increased.[29] For instance, numerous airports established their own testing facilities during this period, and expanded access to testing within many countries made it possible for more travellers to get a pre-departure COVID-19 test within required timeframes. (See Section 4 for a discussion of these approaches and their limitations.) Governments also expanded exemptions to travel measures (see Figure 3 above), allowing more travellers to enter.[30]

The shift towards health requirements was not uniform across regions, however. One notable indicator of interregional difference is when a region saw health requirements exceed route restrictions (see Figure 5). The Caribbean Community, CARICOM, reached this benchmark first, in mid-July 2020.[31] The Gulf Cooperation Council (GCC), sub-Saharan Africa, Eastern and South-Eastern Europe, and the Middle East and North Africa (MENA) met the same mark in early August, and the Association of Southeast Asian Nations (ASEAN), South Asia, South America and East Asia did so in September. While in many regions this represented a transition from employing route restrictions to health requirements, this was not the case in Asia. The East Asia and ASEAN regions continued to restrict travellers from most countries throughout the second half of 2020, while also relying on health requirements for those travellers who were allowed to enter. Additionally, the fact that many Asian C/T/As had experience with other recent epidemics, including SARS in 2003–04, meant they began the COVID-19 pandemic with greater capacity to implement screenings and other public health procedures.[32] C/T/As in East Asia, such as Japan and the Republic of Korea, and in ASEAN, such as Indonesia, the Lao People's Democratic Republic and Viet Nam, also leveraged their visa systems – to a much greater degree than other regions – to limit who could come and stay by invalidating previously issued visas or by requiring visas from some travellers who were previously able to travel visa free.

26 US Customs and Border Protection, "Southwest Border Migration FY2020", updated 19 November 2020; US Customs and Border Protection, "Southwest Border Migration FY2019", updated 14 November 2019; US Customs and Border Protection, "Southwest Border Migration FY2018", updated 9 November 2018.

27 US Department of State, "Summary of Refugee Admissions as of 30-November-2020", accessed 9 February 2021.

28 Health requirements grew from 12 per cent of total measures in April to 22 per cent in June, 34 per cent in July and 45 per cent in August. Authors' analysis of the IOM dataset "IOM COVID-19 Mobility Tracking Database (Travel Restrictions)".

29 See, for example, Hans von der Burchard, "Germany under Pressure to Lift Coronavirus Border Closures", Politico, 7 May 2020; Damien Cave, "What Will It Take to Reopen the World to Travel?" *The New York Times*, 3 June 2020.

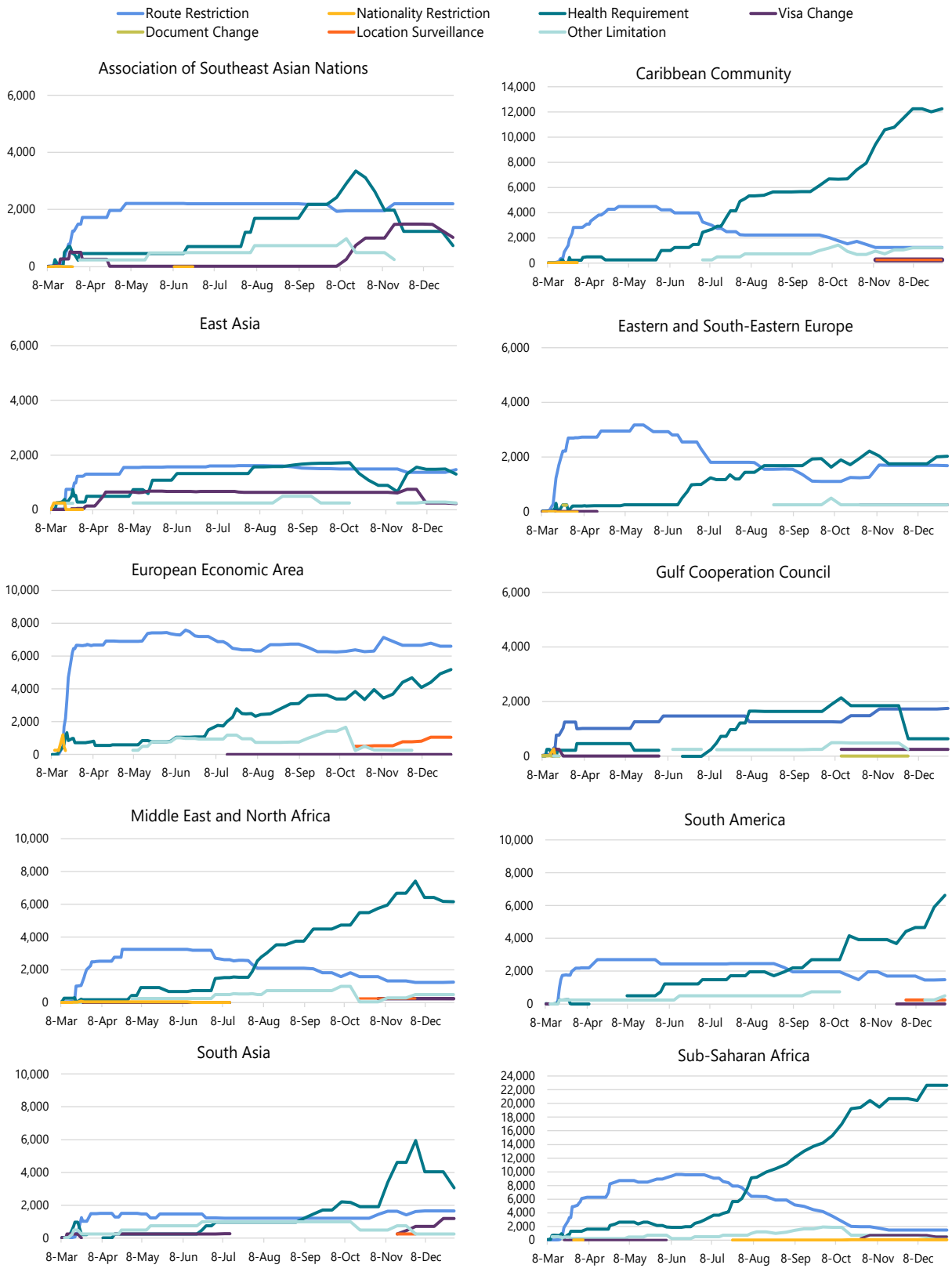
30 Note that the data do not permit the analysis of detailed newly added categories.

31 Between May and July, 9 out of the 20 Caribbean Community (CARICOM) C/T/As switched fully from route restrictions to health measures.

32 Swee Kheng Khor and David Heymann, "An Asian Pandemic Success Story", *Foreign Affairs*, 21 September 2020.

FIGURE 5

Travel Measures Implemented in Different World Regions, by Type, March – December 2020

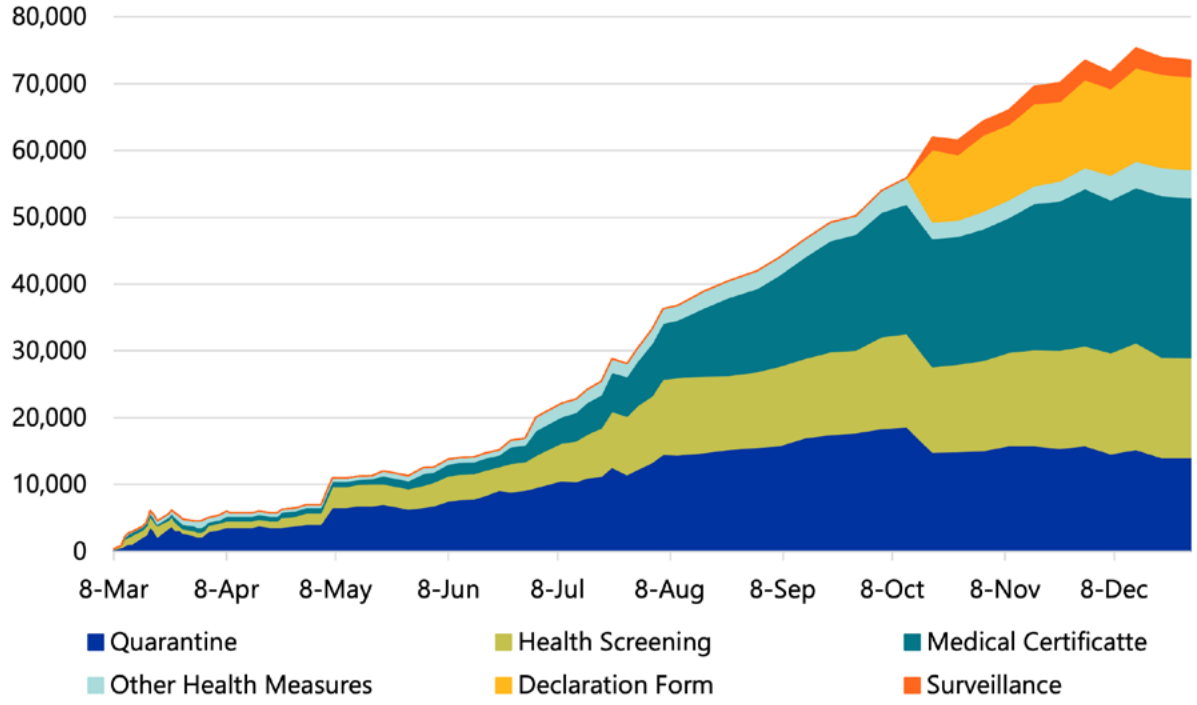


Source: Authors' analysis of the IOM dataset "IOM COVID-19 Mobility Tracking Database (Travel Restrictions)".

As scientific understanding of the virus and its transmission developed, the composition of health requirements shifted as well (see Box 1 above). During the first two phases of the pandemic response in 2020, mandatory quarantines were the most common intervention, followed by health screenings on arrival and then certificates of negative COVID-19 test results. As the infrastructure for testing developed, certificate requirements became increasingly common, surpassing screenings by the end of August and quarantine requirements at the beginning of October, as will be discussed in the section on Phase 3 below. These policies are not mutually exclusive. Throughout the second phase, the number of governments and authorities issuing two or three health requirements for travellers from at least one C/T/A grew swiftly, demonstrating a multilayered approach to the mitigation of public health risks. For example, the Republic of Korea simultaneously imposed three health measures (mandatory quarantine, proof of a negative COVID-19 polymerase chain reaction [PCR] test taken within 72 hours of departure, and airport screenings)[33] on travellers from nearly every other C/T/A starting in mid-May 2020 and extending into 2021. Other C/T/As only require travellers to meet one of these criteria, for example allowing those with negative PCR test results within the prior 48–72 hours to forgo the otherwise required quarantine. Countries are also increasingly accepting other types of test, such as antigen or loop-mediated isothermal amplification (LAMP) tests.

FIGURE 6

Health Requirements Implemented Worldwide, by Type, March – December 2020



Source: Authors' analysis of the IOM dataset "IOM COVID-19 Mobility Tracking Database (Travel Restrictions)".

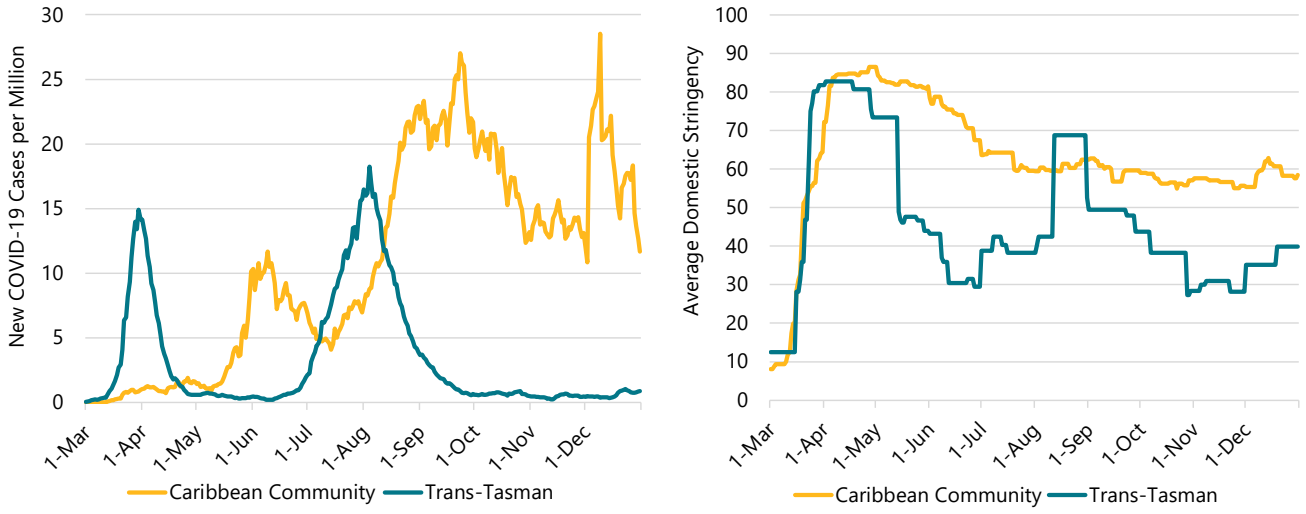
The increased reliance on health requirements in some regions illustrates the different incentives and capabilities behind pandemic-management strategies. As Figure 7 shows, two regions composed of island nations took opposing approaches. Australia and New Zealand, the two trans-Tasman countries, imposed travel bans in early April 2020 and almost exclusively used route restrictions through the end of September, with all points of entry either closed or open only to returning nationals and residents. In contrast,

33 US Embassy and Consulate in the Republic of Korea, "COVID-19 Information", updated 1 February 2021.

Caribbean nations switched to health requirements and other more flexible entry conditions earlier in the year: non-members switched in early May and CARICOM members followed in mid-July.[34] While New Zealand and Australia have the economic capacity to support extended isolation from the rest of the world, Caribbean C/T/As rely heavily on tourism and trade, and as a result faced a heightened economic imperative to find a way to facilitate travel.[35] The trans-Tasman strategy allowed residents to enjoy a return to relative normalcy once domestic lockdowns were lifted in response to the near-elimination of their COVID-19 caseloads. CARICOM residents, on the other hand, experienced relatively high domestic restrictions for longer periods of time, and the COVID-19 caseload increased considerably starting in August.[36]

FIGURE 7

Newly Confirmed COVID-19 Cases per Million Residents (7-day rolling average) (left) and Average Stringency of Domestic Measures (right) for CARICOM and Trans-Tasman C/T/As, March – December 2020



Notes: The number of newly confirmed COVID-19 cases is shaped to some extent by the accuracy and availability of testing, which vary depending on the C/T/A and the phase of the pandemic. The Oxford stringency index is the average of nine indexes, eight of which measure domestic policies and one that measures travel restrictions. Domestic stringency is calculated here as the average of the eight domestic policy indexes. This creates an index from 0 to 100, with values closer to 100 representing a higher level of domestic stringency.
Sources: Our World in Data, "Coronavirus Pandemic (COVID-19)"; Thomas Hale et al., "Oxford COVID-19 Government Response Tracker", University of Oxford, Blavatnik School of Government, accessed 22 January 2021.

Globally, airports continued to reopen throughout the second phase, as did – to a lesser extent – land and maritime borders. Most regions saw airports open, with the exceptions of ASEAN, East Asia and CARICOM, in which airports had remained consistently open.[37] Land points of entry, on the other hand, only saw increased reopening in the EEA, which shifted from being partially operational to nearly fully operational

34 CARICOM members have relied on screenings upon arrival for much of the pandemic, with medical certificates close behind. Airports in this region have remained relatively open, although a lack of data for much of the first and second phases of pandemic response limits the utility of comparing CARICOM and trans-Tasman point of entry statuses.
35 See, for example, Burleigh, "The Caribbean Dilemma".
36 Some of the COVID-19 cases in CARICOM can be linked to reopening travel; however, the increase in August cannot be directly attributed to imported cases. See Jacqueline Charles, "The Caribbean Has Reopened and COVID-19 Is Spreading—But One Island Is Finding Success", *Miami Herald*, 21 September 2020.
37 South America saw a spike in the airport closure level in late July due to a number of airports in the Bolivarian Republic of Venezuela being added to the dataset starting on 30 July.

(see Table 1). Other regions, such as ASEAN, the GCC and Eastern and South-Eastern Europe, saw smaller shifts towards reopening, but not to such an extent as to imply a major change in operational status.[38]

TABLE 1
Level of Closure of Land Points of Entry in Selected Regions, June – September 2020

Region	4 June	30 July	24 September
Association of Southeast Asian Nations	0.54	0.49	0.46
Eastern and South-Eastern Europe	0.54	0.36	0.41
European Economic Area	0.48	0.16	0.09
Gulf Cooperation Council	0.58	0.58	0.46
Middle East and North Africa	0.76	0.63	0.60
South America	0.54	0.55	0.55
South Asia	0.79	0.82	0.74
Sub-Saharan Africa	0.65	0.65	0.63

Note: Level of closure refers to an index ranging from 0 to 1, with values closer to 1 representing a higher level of closure.
Source: Authors' analysis of the IOM dataset "IOM COVID-19 Country Points of Entry (PoE) Status Baseline Assessment".

The relative openness of the EEA region reflects the swift reopening of the Schengen Area, which the European Union made a priority since border controls are only permissible under the Schengen Borders Code in cases of severe threats to public policy or internal security.[39] But while the region opened up internally, it remained closed to most travellers from abroad who were not EU nationals or residents, as the bloc's steady level of route restrictions in Figure 5 above shows. Throughout the pandemic, the European Union has attempted to facilitate cooperation among its Member States; this cooperation has been strained, however, and achieving a common risk assessment framework took significant diplomatic efforts. (See Section 4 for more information on the region's "traffic light" system.)

Ongoing closures in other regions may also reflect lower capacity to implement route restrictions and health measures at multiple points of entry as well as less robust health infrastructure to support sufficient COVID-19 testing to build trust among neighbouring C/T/As. For example, in June 2020, only 19 per cent of around 240 assessed land border crossing points in Eastern and South-Eastern Europe and in Central Asia had standard operating procedures for how to manage ill travellers and only 18 per cent had an isolation space available.[40] Additionally, other regions have less established regional coordination mechanisms compared to the EEA, and in many free movement is less common.[41]

38 The data show land entry point closure levels increase for the United States, Mexico and Canada during the second phase; however, this is due to a large increase in the number of land points of entry included in the dataset.

39 The Schengen Borders Code allows Member States to temporarily reintroduce border controls at internal borders "in the event that a serious threat to public policy or internal security has been established". Such closures must be "an exception" and respect the principle of proportionality. See European Commission, Directorate-General for Migration and Home Affairs, "Temporary Reintroduction of Border Control", accessed 5 February 2021. For a discussion, see Hanne Beirens, Susan Fratzke and Lena Kainz, "When Emergency Measures Become the Norm: Post-Coronavirus Prospects for the Schengen Zone" (commentary, Migration Policy Institute, Washington, D.C., August 2020).

40 IOM, *COVID-19 Points of Entry Analysis: South-Eastern Europe, Eastern Europe and Central Asia* (N.p.: IOM, 2020).

41 There have been steps taken to increase coordination and cooperation. For example, the Africa Centres for Disease Control and Prevention has facilitated a regional integrated surveillance and lab network in Central Africa since 2018, which has been used to share information, including about irregular border crossings, in the region. This model has since been introduced in Eastern and Southern Africa. Participant comments during a Migration Policy Institute (MPI) and Columbia University workshop on Mobility and Public Health in Sub-Saharan Africa, 12 November 2020.

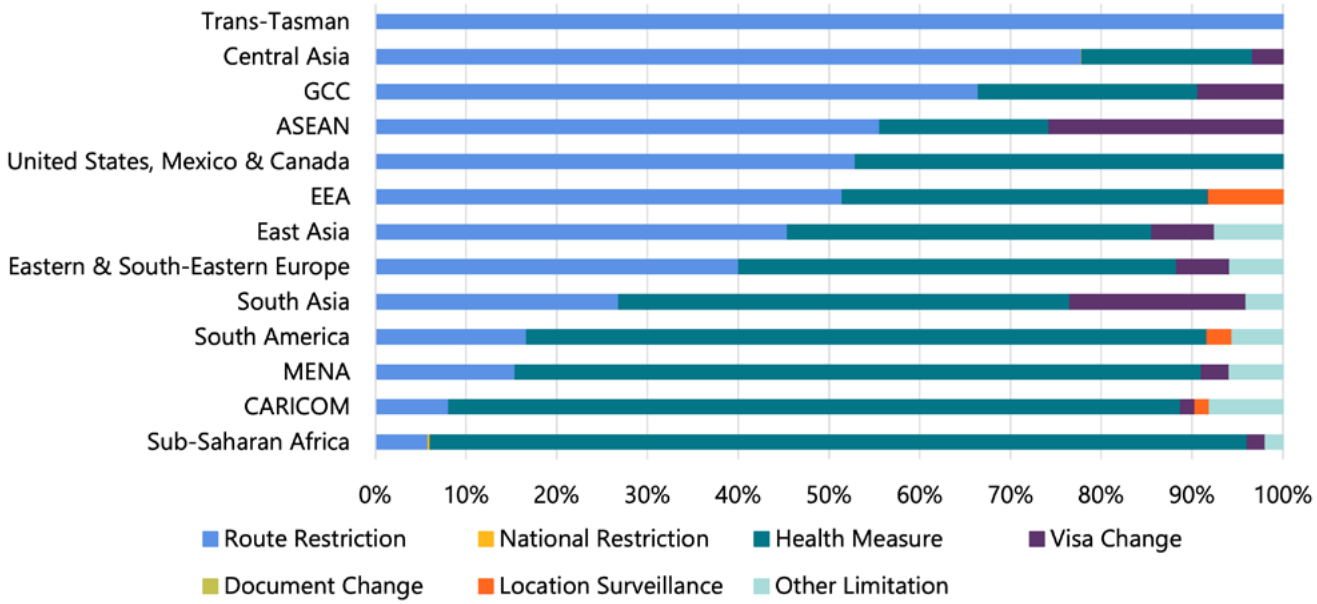
The phased reopening corresponded with a growth in international travel, according to ICAO data. July, August and September saw travel at levels 75 per cent, 68 per cent and 69 per cent, respectively, lower than in the same months in 2019 – narrower gaps than in Phase 1 of the pandemic.[42] As with global shifts in travel restrictions and entry point closures, the relative increase in travel in these ICAO data is driven by changes in European C/T/As. In addition to authorized travel, the number of recorded irregular arrivals in the European Union also rose substantially in July to nearly 11,000, up from almost 4,000 in June, and they remained at that heightened level through August.[43] Similarly, apprehensions at the US south-west border increased steadily in this period, with September 2020 seeing a higher number of apprehensions than September 2019.[44]

Phase 3: October – December 2020

As the pandemic continued into late 2020, amid warnings of a resurgence of the virus, governments largely stood the course. By the end of October, C/T/As were implementing more than 100,000 travel measures, increasing to a peak of 111,000 measures by mid-December (as shown in Figure 1 above). Of these, health requirements remained the most prevalent (with more than 75,300 by mid-December, compared with 26,800 route restrictions), as had become the case in Phase 2. Still, route restrictions remained prevalent in some regions, as can be seen in Figure 8.

FIGURE 8

Snapshot of Travel Measures Implemented Worldwide, by Region, 29 December 2020



ASEAN = Association of Southeast Asian Nations; EEA = European Economic Area; CARICOM = Caribbean Community; GCC = Gulf Cooperation Council; MENA = Middle East and North Africa.
Source: Authors' analysis of the IOM dataset "IOM COVID-19 Mobility Tracking Database (Travel Restrictions)".

42 Big Data United Nations Global Working Group, "ICAO: Operational Impact".
43 IOM Displacement Tracking Matrix, "Flow Monitoring – Europe", accessed 9 February 2021.
44 US Customs and Border Protection, "Southwest Border Migration FY2020"; US Customs and Border Protection, "Southwest Border Migration FY2019".

A requirement that travellers provide health certificates became the most common health measure, reaching a peak of more than 24,000 such measures in December 2020, while quarantine requirements and screenings became less popular over time. This reflects the fact that as governments and authorities in many C/T/As built up their testing capacity, it became a viable alternative to quarantine (which, it had become clear, was both costly and time-consuming) and health screening (which evidence had shown is insufficiently able to detect COVID-19 in passengers who are asymptomatic). This trend was particularly evident in sub-Saharan Africa, where the number of certificate-based requirements surpassed other health requirements in August and grew to account for half of all health requirements issued in the region by the end of the year. But most regions saw a deepening of health measures, with multiple strategies being employed as part of risk mitigation measures. The operational status of points of entry during this phase largely remained the same as in Phase 2, with only slight fluctuation and moves towards reopening, for example in South America.

Throughout November and December, C/T/As had to contend with an increase in COVID-19 cases. Several EEA Member States imposed strict domestic lockdowns,[45] and some reimposed internal EU border controls.[46] Australia, Canada and Israel remained closed to non-essential travel.[47] In contrast, countries including Chile, Mexico and the United Arab Emirates opened even to tourists.[48] International travel remained roughly steady, at around 70 per cent less than the levels seen in the same months in 2019.[49] Overall, the relative stability of entry point closure levels and travel policy trends suggests that C/T/As had largely settled on their border management and travel strategies and on their preferred policy measures.

The stability of this regime was thrown out of balance in the final weeks of the year as recognition grew of the risks posed by new variants of the virus.

The stability of this regime was thrown out of balance in the final weeks of the year as recognition grew of the risks posed by new variants of the virus. On 14 December, the United Kingdom informed WHO that it had identified a new, more transmissible variant, later named B.1.1.7.[50] Following the 19 December public announcement of the variant, many governments rapidly implemented new entry restrictions, with the decision to bar travellers entering from the United Kingdom sometimes being made overnight and implemented a few hours later.[51] By 22 December, 57 C/T/As had implemented new entry restrictions, rising to 80 by the end of the year. As of 14 December, 213 C/T/As had at least one travel measure in place for travellers from the United Kingdom, with many only imposing health measures; in response to the emergence of the B.1.1.7 variant, this shifted so that by 29 December more C/T/As had

45 Dara Doyle and Peter Flanagan, "Ireland Moves back to Lockdown as Europe Seeks to Defeat Virus", *Bloomberg*, 19 October 2020; Reuters, "France May Have to Delay Unwinding COVID-19 Lockdown as Cases Plateau", Reuters, 7 December 2020; Alex Ledsom, "Travel Restrictions by Country: Christmas Quarantine and COVID-19 Test Requirements", *Forbes*, 13 December 2020.

46 European Commission, Directorate-General for Migration and Home Affairs, "Temporary Reintroduction of Border Control". Some internal border closures were also due to the knife attacks and beheading in France in October 2020. See Norimitsu Onishi, Constant Méheut and Layli Foroudi, "Attacks in France Point to a Threat beyond Extremist Networks", *The New York Times*, 6 November 2020.

47 Government of Canada, "Coronavirus Disease (COVID-19): Who Can Travel to Canada", updated 14 February 2021; Australian Government, "COVID-19 and the Border: Travel Restrictions and Exemptions", updated 1 February 2021.

48 Emirates, "Tourists Travelling to, from, and through Dubai", updated 4 February 2021; Forrest Brown and Brekke Fletcher, "Unlocking the World: Find Out Which Countries Are Welcoming US Tourists Back", CNN, updated 11 February 2021.

49 Big Data United Nations Global Working Group, "ICAO: Operational Impact".

50 WHO, "SARS-CoV-2 Variant – United Kingdom of Great Britain and Northern Ireland" (news release, 21 December 2020).

51 Gerhard Mey and Ben Makori, "Britain Faces Isolation as World Tightens Borders to Keep Out New Coronavirus Strain", Reuters, 21 December 2020; comments by a Dutch airport official during an MPI-IOM Borders Working Group meeting, 21 December 2020.

route restrictions on travel from the United Kingdom than had health measures. To a lesser extent, C/T/As took a similar approach towards travel from South Africa, where the highly transmissible B.1.351 variant was first identified.[52]

The relative speed of governments' and authorities' reactions to these new strains of the virus, as compared to the time it took for C/T/As to initially implement travel measures in March 2020, reflects the greater awareness of and sensitivity to the risks at hand. It also reflects the heightened capacity of C/T/As to quickly implement these measures. But much like the initial spread of the pandemic, the B.1.1.7 variant had already been found in several other C/T/As by the time travel restrictions were reimposed,[53] and the B1.351 variant has infected people with no recent travel history, raising concerns about the variant's undetected spread.[54] These developments highlight questions about the effectiveness of route restrictions in stopping the spread of the disease.

The first few months of 2021 have seen new measures put in place to respond to rising COVID-19 caseloads and the identification of other new variants, such as the B.1.1.28 variant first found in Brazil. In a major shift, the United States began mandating on 26 January 2021 that all air passengers, including US nationals and residents, present proof of a negative COVID-19 test taken within 72 hours of departure or of recovery from COVID-19 in order to enter the country.[55] Meanwhile, the European Union is discussing ways to adjust its risk assessment system to allow for stricter measures for travel from the highest-risk areas. As further variants are identified, it is likely that other restrictions will be swiftly implemented in response.

3 The Impact of COVID-19 on Travellers and Migrants

COVID-19-related travel measures and border closures have had far-reaching impacts on travellers and migrants worldwide. Behind the sharp decline in global mobility in 2020 lies a complex story of travellers stranded abroad and awaiting repatriation, migrant workers getting locked out of destination countries where they might have performed seasonal or temporary work, displaced people facing severe difficulty in fleeing conflict and disaster zones across borders, and asylum seekers struggling to access the procedures to apply for international protection. Pre-existing mobility regimes have affected these groups differently, producing what may sometimes seem like incongruent effects, such as Greece opening up to summer tourists while pushing back irregular migrants and asylum seekers,[56] or the paradox of some countries such as Germany flying in agricultural workers and putting them in close accommodations while restricting the entry of other migrants in the name of public health.[57] Moreover, the different ways in which governments

52 WHO, "SARS-CoV-2 Variants" (news release, 31 December 2020). In addition to the B1.351 variant being highly transmissible, there are concerns that the vaccines approved or under development as of January 2021 will be less effective in preventing mild or moderate illness from it. See Sony Salzman, "South African COVID Variant Can Chip Away at Vaccine Efficacy—But the Vaccine Can Still Save Your Life", ABC News, 4 February 2021.

53 Matt Stieb, "New COVID Strain Spreading across U.S.: What We Know", *New York Magazine*, updated 24 January 2021.

54 Michelle Liu and Mike Stobbe, "Virus Variant from South Africa Detected in US for 1st Time", AP News, 28 January 2021.

55 US Centers for Disease Control and Prevention, "Requirement for Proof of Negative COVID-19 Test or Recovery from COVID-19 for All Air Passengers Arriving in the United States", updated 4 February 2021.

56 Joel Hernàndez, "Greece Struggles to Balance Competing Migration Demands", *Migration Information Source*, 25 September 2020.

57 Moreover, as an IOM policy paper points out, the definition of "essential" has not been consistent or based on evidence, meaning that countries have ranked types of movement instead based on national interests. See IOM, "Cross-Border Human Mobility amid and after COVID-19"; Meghan Benton, "The Future of Mobility during and after the COVID-19 Pandemic" (paper tabled at a meeting of the Transatlantic Council on Migration, MPI, November 2020).

have dealt with emerging migration challenges – for example, whether, when and how to reopen borders to non-citizens and to repatriate their own nationals – have meant that travel along some migration corridors has quickly picked up, even as thousands of migrants are stranded elsewhere.

A. Stranded Travellers and Repatriations

One of the starkest impacts of the COVID-19 pandemic has been the millions of travellers and migrants who have been stranded as a result of travel restrictions, often in highly vulnerable situations. By mid-July 2020, IOM estimated that the pandemic had left nearly 3 million people stranded abroad, most of them regular travellers such as migrant workers, students and tourists.[58] Many of these travellers were left without consular assistance, including support related to their legal status in the country, and sometimes without sufficient resources to meet their basic needs, such as food and shelter.[59]

Stranded migrants faced different challenges depending on what point in the migration process they were in. For example, many of those stranded in destination areas had to cover the costs of repatriation flights and compliance with quarantine measures themselves – a prohibitive expense for many. At the same time, some people became stranded in areas of transit, especially along corridors typically used by migrant workers. When Yemen began to introduce stricter border controls starting in March 2020, this contributed to nearly 1,200 Ethiopians becoming stranded by the end of June[60] as they travelled through Djibouti towards the Arabian Peninsula (a number that subsequently fell to less than 500 migrants by mid-January 2021).[61] In mid-March 2020, after Panama closed its borders, some 2,000 migrants (many from Haiti, but also some from African and Asian countries) were stranded in the jungle while travelling north.[62]

Travel restrictions have also prevented some people with plans to migrate from doing so. In Bangladesh, an estimated 200,000 prospective migrant workers were unable to leave in the four months following the initial introduction of travel restrictions.[63] Exit bans made it extremely difficult for migrant workers to leave their places of origin and pursue work abroad, even if they had visas. And even when countries began to open up, a lack of travel options and exit bans disrupted traditional migration corridors, such as the movement of Thai berry pickers to Sweden or of Moroccan seasonal agricultural workers to Spain and France.[64]

58 This is a large underestimation as the figure represents known cases of migrants stranded abroad and in need of different types of assistance, including for food, water, shelter and/or return assistance. It includes migrants who have been either identified by IOM missions; referred to IOM for assistance by governments (including by diplomatic and consular offices), civil society partners, and other United Nations agencies; or who have themselves approached IOM for assistance. See IOM, "COVID-19 Impact on Stranded Migrants" (policy paper, IOM, Geneva, 30 September 2020); IOM, "COVID-19 Impact on Key Locations of Internal Mobility" (monthly analysis, IOM, Geneva, 2 December 2020).

59 Gabriella Sanchez and Luigi Achilli, "Stranded: The Impacts of COVID-19 on Irregular Migration and Migrant Smuggling" (policy brief issue 2020/20, Robert Schuman Centre for Advanced Studies and Migration Policy Centre, Florence, May 2020).

60 IOM, "Impact of COVID-19 Movement Restrictions on Migrants along the Eastern Corridor: Report 4 – as of 30 June 2020" (situation report, IOM Regional Office for East and Horn of Africa, Nairobi, 15 July 2020).

61 IOM, "Stranded Migrants – Djibouti" (fact sheet, IOM Displacement Tracking Matrix, 14 January 2021).

62 Juan Zamorano, "Stalled by Pandemic, Migrants Press in Quest for Better Life", Associated Press, 7 September 2020.

63 Golam Mujtaba Dhruba, "Stranded by Pandemic, Bangladeshi Migrant Workers Grapple with Uncertainty", BDNews24, 10 July 2020.

64 Benton, "The Future of Mobility"; OECD, *International Migration Outlook 2020*.

While governments, non-governmental organizations and diaspora communities have organized repatriation efforts and air bridges,[65] such efforts have struggled to meet the scale of demand. For example, while the Indian Government received 200,000 applications for repatriation from the United Arab Emirates, the repatriation process was staggered, starting with about 2,000 people per week flown back to India from mid-May (though this figure has since rapidly increased).[66] The success of repatriation efforts depends on a host of factors, including policies on who can be repatriated, the ability to absorb costs and the scale of the need for assistance. Back in April 2020, for example, 15 EU Member States requested EU co-funding under the Civil Protection Mechanism to organize flights for EU citizens.[67] Nationals of other countries have faced severe logistical challenges in returning, such as Venezuelans stranded in Spain, Chile and other countries, some of whom received confusing information from Venezuelan embassies about the repatriation options available to them.[68] Growing domestic pressures (e.g. the limited capacity of hospitals and quarantine centres and the pandemic-related economic downturn) and public fears that returning migrants may bring the virus with them have also led some governments to pay more attention to matters closer to home, further delaying repatriations.

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B. Impact on Displacement

COVID-19 has also left its mark on forcibly displaced populations. At the peak of the first wave of the pandemic in April 2020, 90 C/T/As refused entry to travellers with no exceptions for asylum seekers.[69] Largely due to these restrictions on movement, the number of new asylum applications lodged globally in the first half of 2020 was 33 per cent lower than in the same period in 2019.[70] Similarly, the number of displaced people returning in their areas or countries of origin was lower: returns of internally displaced persons (IDPs) fell by 72 per cent and returns of refugees fell by 22 per cent.[71]

These figures should not be misinterpreted as merely a decrease in displacement; they also reflect a shift in displacement dynamics, with fewer opportunities for cross-border travel perhaps giving rise to increasing internal displacement. Indeed, conflict- and violence-driven internal displacement increased during this

65 As of December 2020, returnees accounted for one fifth of the population in areas surveyed by IOM (up from 33 per cent in June). This figure reflects the "affected population" surveyed by IOM at internal transit points (e.g. affected by requirements for additional documentation, temporary relocation, quarantine policies). See IOM, "COVID-19 Impact on Key Locations of Internal Mobility".

66 As of mid-November 2020, India's Vande Bharat Mission repatriated around 2.3 million Indians from abroad. See Government of India, Ministry of External Affairs, "Transcript of Virtual Weekly Media Briefing by the Official Spokesperson (November 12, 2020)" (press release, 14 November 2020); Ahmet İçduygu, "Stranded Irregular Migrant Workers during the COVID-19 Crisis: The Question of Repatriation" (think piece, IOM, Geneva, August 2020); Sameer Hashmi, "Coronavirus Leaves Gulf Migrant Workers Stranded", BBC News, 15 May 2020.

67 Martina Prpic, "Repatriation of EU Citizens during the COVID-19 Crisis: The Role of the EU Civil Protection Mechanism" (briefing note, EU Parliament, Brussels, April 2020).

68 Silvina Acosta, "The Struggles of Stranded Returning and Newly Departing Venezuelans during the Global Pandemic", Center for Migration Studies, 5 August 2020.

69 United Nations High Commissioner for Refugees (UNHCR), *Mid-Year Trends 2020* (Copenhagen: UNHCR, 2020).

70 UNHCR, *Mid-Year Trends 2020*.

71 UNHCR, *Mid-Year Trends 2020*.

period in some countries. For example, the number of new IDPs within Cameroon, Mozambique, the Niger and Somalia during the first half of 2020 had already surpassed the figure for the entirety of 2019.[72] There are myriad factors that likely fed into these trends, such as terrorist groups taking advantage of the pandemic to challenge State actors and armed coalitions refusing to accept calls by the United Nations for a global ceasefire to focus on efforts to tackle the pandemic.[73]

Of particular concern are the increasingly precarious situations in which displaced populations find themselves, often with limited options to move out of harm's way. The temporary suspension of refugee resettlement services by the United Nations High Commissioner for Refugees and IOM in March 2020 meant that only half as many refugees departed for resettlement countries in the first six months of 2020 as in the same period in 2019 (17,400 refugees, or about one fourth of the target of 70,000 set for 2020).[74] Moreover, the pandemic has complicated measures to manage sudden displacement, such as evacuations during disasters, as such efforts often run counter to what is needed to contain the spread of COVID-19 (e.g. physical distancing, quarantine).[75] And even where mobility restrictions have been less disruptive, forcibly displaced people often live in overcrowded conditions – for example, on the Greek island of Lesbos and in the Rohingya camps in Bangladesh – that put them at higher risk of contracting the virus.[76]

There is also evidence that the pandemic has contributed to new displacement. In Yemen, for example, 10,000 people fled COVID-19 hotspots for fear of infection and in the face of the pandemic's impact on services and the economy.[77] However, as data on these displacement dynamics are rarely comprehensive and the pandemic's health and economic impacts continue to unfold, the exact nature of the relationship between the pandemic and changes in displacement is still poorly understood.

C. Broader Impacts on Human Mobility

COVID-19 has not only changed the volume and composition of migration across regions, it has also dramatically changed the broader context in which people travel. Amid the reshuffling of global mobility that has occurred since March 2020, the pandemic has magnified the importance of cross-border travel for migrant workers; the role of formal and informal intermediaries (such as employment agencies and smuggling networks) in facilitating travel, including return migration; and the access and opportunity gaps between resource-rich and resource-poor people on the move.

72 Internal Displacement Monitoring Centre (IDMC), *Internal Displacement 2020: Mid-Year Update* (Geneva: IDMC, 2020).
73 IDMC, *Internal Displacement 2020*.
74 UNHCR, *Mid-Year Trends 2020*.
75 For example, this has led to populations at risk of disaster, such as communities in the Hames Bay coastal region in Canada, staying put and risking the floods rather than risk catching COVID-19. See Alex Randall, "What Does Covid-19 Mean for People Displaced by Climate Change?", *Le Monde Diplomatique*, 8 April 2020; IOM and World Food Programme (WFP), *Populations at Risk: Implications of COVID-19 for Hunger, Migration and Displacement* (Geneva and Rome: IOM and WFP, 2020).
76 United Nations Office for Disaster Risk Reduction (UNDRR), *Reducing Vulnerability of Migrants and Displaced Populations* (Geneva: UNDRR, 2020); UNHCR, "UNHCR Scales Up Immediate Shelter Support for Moria Asylum Seekers; Urges for Long-Term Solutions to Address Overcrowding on Greek Islands" (briefing note, 15 September 2020); UNHCR, *Mid-Year Trends 2020*.
77 IOM, "Internal Displacement in Yemen Exceeds 100,000 in 2020 with COVID-19 an Emerging New Cause" (press release, 21 July 2020).

Widening Gulf between Movers and Non-Movers

Although the COVID-19 pandemic has curtailed much of the world's mobility, it has not affected everyone in the same way and to the same extent. Some people have been able to use their resources, nationality or status to continue to travel across borders for work, return or even leisure.

IOM data on exceptions to entry restrictions, shown in Figure 3 in Section 2 above, indicate that apart from their own nationals and residents, C/T/As have allowed diplomats and staff of international organizations to remain more mobile during the pandemic than other groups. Business travellers have also continued to move relatively freely across borders, including through agreed travel bubbles, such as the one between Singapore and Malaysia (see Section 4). Meanwhile, travellers with access to resources can more readily absorb the direct costs associated with repatriation or quarantine,[78] as well as the indirect opportunity costs of time out of work. These status- and resource-based privileges may amplify existing inequalities related to nationality, including differences in visa processing times and access to visa-free travel. Among the least mobile are people who cannot move or who face higher costs to do so, due to stringent visa requirements, high smuggling fees or the need to redirect their travel to avoid COVID-19 hotspots.

Looking ahead, the gap may widen between "movers" and "non-movers" – that is, those with the resources and opportunities to move freely, and those locked in place by pandemic-related or pre-existing travel and visa restrictions or more limited resources. The profile of travellers may become more affluent, especially as the strategies and emergency funds that initially cushioned the blow of the global economic downturn expire.[79] Conflicts and disasters could also leave affected populations more vulnerable, with limited options and resources to move out of harm's way. But perhaps the greatest disparities will be felt if vaccines become widely available in some countries well before others, and travel health requirements begin to favour those who have been vaccinated.[80] Nationals of countries such as India and Kazakhstan, whose governments as of 12 March 2021 had only secured enough vaccine doses to cover about 5 per cent of their populations, may remain far less mobile compared to nationals of countries such as Canada, where the government has ensured five times the required number of vaccines to cover its population.[81] Some middle-income countries like India and Brazil that have the capacity to

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78 For instance, even heavily subsidized tickets for repatriation flights from the United Arab Emirates to India were estimated to be 700 to 750 dirham (about USD 191 to 204). See Deepthi Nair, "COVID-19: India Offers Discounted Repatriation Rates, but Ignores Social Distancing", *Gulf News,* 5 May 2020. Returnees may also be subject to quarantine fees, such as paying for hotels on arrival. This has been the case for some Indian returnees who reportedly had to pay flight and hotel feels as high as 100,000 rupees (about USD 1,325). See Shalini Ojha, "Vande Bharat Mission: Returnees Paid for Quarantine at Expensive Hotels", *NewsBytes,* 15 May 2020.

79 Benton, "The Future of Mobility".

80 Though it is currently unclear whether and how governments might use vaccines as a determinant of travel in the future, several companies have already started to develop digital apps or systems for individuals to upload their COVID-19 test and vaccination records. See Rishi Iyengar, "If You Want to Travel Next Year, You May Need a Vaccine Passport", CNN Business, 28 December 2020.

81 See Duke Global Health Innovation Center, "COVID-19—Vaccination Coverage by Population and COVID-19 Burden" (chart, updated 12 March 2021). However, a number of low- and middle-income countries have signed up to COVAX Facility, meaning that through this initiative they will receive vaccines to cover 20 per cent of their population in a phased approach. More details can be found here at: Gavi, "COVAX AMC", accessed 12 January 2020.

manufacture vaccines or like Peru that has the infrastructure to conduct clinical trials could be in a better bargaining position to negotiate advance purchase deals.[82] Nonetheless, "vaccine nationalism"[83] – that is, countries pushing to get access to vaccines first – could affect mobility around the world if some countries begin using vaccination as the gold standard for travel, with nationals of high-income countries likely to be vaccinated sooner and, by extension, able to move sooner than others.[84] Moreover, the increased use of digital health records and remote visa processing could further amplify the gap between the hypermobile and the immobile by making digital literacy and access to digital devices a precondition for travel.[85]

Rising Socioeconomic Vulnerability

The COVID-19 pandemic has exacerbated the socioeconomic vulnerability of people whose mobility constraints have been amplified. Many have been unable to travel in pursuit of work or faced workplace closures in their countries of residence, leading to a loss of income.[86] While some countries have turned to visa extensions and waivers to mitigate the impact of border closures on seasonal migrant labour, others have sought to fill labour gaps with their own nationals or workers from neighbouring countries,[87] with significant implications for thousands of workers from typical sending countries, such as Bangladesh, India and Pakistan, who have been unable to take up jobs abroad. The socioeconomic impact on migrants and their families is, in turn, having wider consequences for societies and economies in low- and middle-income countries, in particular those that depend heavily on tourism as a main source of income (e.g. small island developing States) and those that depend on remittances for a large part of their GDP.

Additional vulnerabilities have arisen as travel restrictions have curtailed opportunities for people to migrate to escape conflict, economic collapse and other crises. For example, the combination of pandemic-related travel restrictions, the global economic downturn and the destruction caused by the August 2020 explosion in Beirut left many migrants in Lebanon stranded and increasingly vulnerable, with some reportedly sleeping rough in front of their embassies and struggling to secure repatriation flights or access

82 Duke Global Health Innovation Center, "COVID-19—Manufacturing Capacity and Clinical Testing Infrastructure Help Middle-Income Countries Secure Doses" (blog entry and chart, 12 March 2021).

83 United Nations News, "WHO Chief Warns against COVID-19 'Vaccine Nationalism', Urges Support for Fair Access", updated 18 August 2020; Harry Kretchmer, "Vaccine Nationalism – and How It Could Affect Us All", World Economic Forum, 6 January 2021.

84 It should be noted that the most recent International Health Regulations Expert Review Committee is cautioning against requiring proof of vaccination for travel. "Given that the impact of vaccines in reducing transmission is yet unknown, and the current availability of vaccines is too limited, the committee recommended that countries do not require proof of vaccination from incoming travellers." See WHO, "Statement on the Sixth Meeting of the International Health Regulations (2005) Emergency Committee Regarding the Coronavirus (COVID-19) Pandemic" (statement, 15 January 2021).

85 IOM, "Cross-Border Human Mobility amid and after COVID-19".

86 IOM and WEP, *Populations at Risk*. Overall, the International Labour Organization (ILO) estimated that working hours would decline by 10.5 per cent in the second quarter of 2020 (equivalent to 305 million full-time jobs). See ILO, "Seasonal Migrant Workers' Schemes: Rethinking Fundamental Principles and Mechanisms in Light of COVID-19" (brief, ILO, Geneva, May 2020); IDMC, *Internal Displacement 2020*.

87 In Australia, for example, some pilots who lost jobs were reportedly taking up agricultural work, and in New Zealand, some estimates suggest that New Zealanders made up 90 per cent of some farm businesses by mid-2020 (compared to an industry average of 50 per cent in 2019). See ILO, "Seasonal Migrant Workers' Schemes", 3.

social services.[88] There is also a risk that the more limited capacity of pandemic-strained services could create or increase competition between migrants and members of receiving communities, leading to tensions and exacerbating the already complex challenges of serving both groups.[89]

Among migrant workers abroad, who disproportionately work in sectors negatively affected by the pandemic and where protections are minimal, the pandemic has cost some their jobs but increased existing vulnerabilities for others.[90] Those in sectors characterized by temporary, unprotected work (e.g. domestic and agricultural workers in the informal economy) often lack access to social safety nets and health care.[91] Migrant women who are domestic workers (an estimated 8.5 million worldwide as of 2013[92]) are also reportedly at higher risk of violence and abuse while trapped in destination countries where they have no legal recourse against exploitation.[93]

The combination of movement restrictions and income losses has also had a considerable impact on the families and networkers of migrant workers, namely through reduced remittance flows.[94] Although initial estimates that global remittances would drop by 20 per cent in 2020 were not realized, the revised World Bank figures showing a decline of 7 per cent nonetheless represent a significant blow, particularly to heavily remittance-dependent families and societies, and remittance flows may drop further in 2021.[95]

Amplified Relationships of Dependence and Exploitation

Movement restrictions combined with an increase in socioeconomic vulnerability have amplified existing relationships of dependence in mobility systems, such as migrants' reliance on employment agencies for travel, accommodation and job placements. Among the many forms of exploitation migrants have faced since the pandemic began are reports of employment agencies confiscating and being unwilling to hand

88 The migrants stranded include mainly domestic, oftentimes irregular, migrant workers, including Bangladeshi, Ethiopian and Nigerian workers who lost their jobs. Similar to the situation in Jordan, these migrants did not receive specific assistance from the Lebanese Government and instead needed to rely on consular services from their own governments, non-governmental organizations and diaspora organizations to be assisted and/or repatriated. See Oumeima Nechi, "After Beirut Blast, Foreign Workers Beg to Go Home", *Times of Israel*, 24 August 2020; Sune Engel Rasmussen, "They Called Me 'Slave': Beirut Blast Exposes Migrant Workers' Plight in Mideast", *The Wall Street Journal*, 2 September 2020; Peter Kenny, "Lebanon Migrant Workers Need International Funding: UN", Anadolu Agency, 14 August 2020; Nwachukwu Egbunike, "Abused and Infected with COVID-19, Nigerian Domestic Workers Are Stranded in Beirut", Global Voices, 13 August 2020.

89 IOM and WEP, *Populations at Risk*; IOM, "COVID-19 Mobility Impacts: Impact on IDPs" (weekly update, IOM, Geneva, 16 July 2020).

90 For example, ILO has produced several briefs on migrant workers in the context of COVID-19, including at the regional level. See ILO, "COVID-19: Protecting Migrant Workers in the Workplace" (resource list, 23 June 2020).

91 ILO, "Protecting Migrant Workers during the COVID-19 Pandemic: Recommendations for Policymakers and Constituents" (policy brief, ILO, Geneva, April 2020).

92 ILO, *ILO Global Estimates of Migrant Workers and Migrant Domestic Workers: Results and Methodology* (Geneva: ILO, 2015).

93 Laura Foley and Nicola Piper, *COVID-19 and Women Migrant Workers: Impacts and Implications* (Geneva: IOM, 2020). For more on the impact of the COVID-19 pandemic on women workers, see UN Women, "Addressing the Impacts of the COVID-19 Pandemic on Women Migrant Workers" (guidance note, 2020).

94 Reductions in remittances are particularly harmful to the children of migrant workers who stay with caregivers in origin countries, as remittances are associated with improved nutrition, higher education spending and reductions in child labour. For more on the impacts of the pandemic on migrant children and the children of migrants, see Danzhen You et al., "Migrant and Displaced Children in the Age of COVID-19: How the Pandemic Is Impacting Them and What Can We Do to Help", *Migration Policy Practice* X, no. 2 (April–June 2020): 32–39.

95 In top remittance-receiving countries, such as Somalia, where around 40 per cent of the population receives remittances from family and friends abroad, they may fall by as much as 50 per cent. See IDMC, *Internal Displacement 2020*, 44. In addition, a further drop in remittance flows to low- and middle-income countries of 7.5 percentage points is expected in 2021, according to the World Bank. See World Bank, "COVID-19: Remittance Flows to Shrink 14% by 2021" (press release, 29 October 2020).

over migrants' passports (e.g. in Malaysia, the Maldives and the United Arab Emirates);[96] to provide them with accommodations (Lebanon and Singapore);[97] to allow them to change employers (Saudi Arabia);[98] and to pay wages (Qatar and Thailand).[99] While such abusive practices existed before the pandemic as well, the COVID-19 crisis has made some migrant workers' employment even more precarious.[100] Some reasons for this include workers' limited access to information about their rights and options for seeking assistance, more lax enforcement of social and work protection standards, and migrants being afraid to complain for fear of losing their jobs or visas, or of being deported. And although many governments have set out new guidelines to protect essential workers, employment agencies still have the final say in how rigorously these guidelines are implemented in practice, if at all.[101] Should countries required a growing list of documents to travel – such as test and vaccination certificates – and employment agencies take hold of these, this could leave migrant workers even more reliant on them.

Access to information about fast-changing migration routes and travel options has also become a more powerful tool for exploitation. While demand for smuggling dropped at the onset of the pandemic, a July 2020 survey on mixed migration routes in Africa, Asia and Latin America found that 37 per cent of migrants and refugees expressed a greater demand for smugglers' services given the increasing difficulties of crossing borders as a result of COVID-19-related restrictions.[102] Smuggling networks have had to adapt to border closures and have passed additional costs on to migrants, meaning that the people who continue to use their services – either to leave or to return home – are likely those with greater resources or a greater need to move.[103] In addition, the non-material costs of smuggling activities have increased for migrants, as a greater number and often inexperienced[104] smugglers take risker routes (e.g. sealed lorry containers or smaller boats) to avoid detection.[105] News agencies and

Access to information about fast-changing migration routes and travel options has also become a more powerful tool for exploitation.

96 Gopal Sharma and Naimul Karim, "Hungry, Stranded, and Broke: Coronavirus Travel Bans Hit Migrant Workers", Reuters, 20 March 2020; Human Rights Watch, "Maldives: Covid-19 Exposes Abuse of Migrants", Human Rights Watch, 25 August 2020.

97 Abbie Cheeseman, "Migrant Crisis in Lebanon Worsens as More Workers Dumped on the Streets", *The Telegraph,* 25 June 2020; Amandla Thomas-Johnson, "Nigerian Domestic Workers Sleeping Rough on Streets of Beirut", Middle East Eye, 23 June 2020; Humanitarian Organization for Migration Economics (HOME), "Covid-19: Study Shows Workers Worried about Accommodation, Access to Sanitation, and Wages", HOME, 24 April 2020.

98 Business and Human Rights Resource Centre, "Saudi Arabia: Reforms to Allow Migrant Workers to Change Jobs & Leave Country without Employer Permission Receive Mixed Civil Society Response", Business and Human Rights Centre, 5 November 2020.

99 Guna Subramaniam, "The Compounding Impacts of COVID-19 on Migrant Workers across Asia" (commentary, Institute for Human Rights and Business, East Sussex, United Kingdom, 22 July 2020); Soledad Salvador and Patricia Cossani, *Domestic Workers in Latin America and the Caribbean during the COVID-19 Crisis* (New York: UN Women, ILO, and Economic Commission for Latin America and the Caribbean, 2020).

100 Isobel Archer and Danielle McMullan, "COVID-19: Spike in Allegations of Labour Abuse against Migrant Workers in the Gulf", Business and Human Rights Resource Centre, 23 September 2020.

101 See, for example, the discussion in the MENA segment of the next section on employers' violations of new rules on worker accommodation in Saudi Arabia.

102 Mixed Migration Centre, "COVID-19 Global Thematic Update #1: Impact of COVID-19 on Migrant Smuggling" (thematic update, Mixed Migration Centre, 1 September 2020).

103 Smuggling experts report seeing higher prices and smugglers taking more dangerous routes. Author interview with Matt Herbert, "Human Smuggling in an Age of Pandemic" (Moving Beyond Pandemic podcast, MPI, 21 October 2020); Benton, "The Future of Mobility".

104 For example, "the closure of Uganda's borders led entrepreneurial taxi and motorbike drivers to offer smuggling services across the country's north-eastern border with South Sudan." See Lucia Bird, *Learning from COVID-19: Implications for the EU Response to Human Smuggling* (Rome: Instituto Affari Internazionali, 2020).

105 Bird, *Learning from COVID-19*.

Interpol have also warned that smugglers are using deception and misinformation to convince desperate people to use their services.[106]

D. Selected Regional Case Studies

The trends highlighted in previous sections have played out in different ways across different regions, as will be discussed in the regional case studies that follow.

Sub-Saharan Africa

The COVID-19 pandemic has significantly affected regional mobility across Africa, and particularly in West and Central Africa, where IOM observed a 48 per cent decrease in migration between January and April 2020.[107] Although the scale of migration subsequently increased between April and May (by 65 per cent) and between May and June (by 29 per cent), regional cross-border movement in June 2020 was still 6 per cent lower than in the same period in 2019.[108] The transport of essential goods and medical supplies was also affected as tens of thousands of truck drivers in 10 countries across the East and Horn of Africa were unable to make deliveries.[109] In view of the travel restrictions across sub-Saharan Africa, by July 2020, about 108,000 people found themselves stranded (and this figure has likely sharply increased since then[110]). As of July, IOM estimates suggest that 4 per cent of stranded migrants globally were in the region, which hosts 14 per cent of the world's population.[111] Although migrant access to services has been a focus of work by IOM and others along the Eastern Corridor (that is, Djibouti, Ethiopia, Somalia and Yemen),[112] the restrictions on movement coupled with detention and quarantine measures have left thousands of stranded migrants in precarious situations.[113] In Djibouti, for example, authorities fear that Ethiopian migrants stranded en route to the Arabian Peninsula may contribute to the spread of COVID-19 and consider them a security risk, host communities have reportedly become less welcoming, and some migrants have returned to Ethiopia.[114]

Seasonal workers in Africa were hit particularly hard by pandemic-related travel restrictions and border closures,[115] especially in West and Central Africa, where they make up 66 per cent of intraregional migrants.[116] For example, border

Seasonal workers in Africa were hit particularly hard by pandemic-related travel restrictions and border closures.

106 Interpol, "COVID-19 Impact on Migrant Smuggling and Human Trafficking" (news release, 11 June 2020); Emma Wallis, "Turkey: Smugglers Trick Migrants Hoping to Reach Italy", InfoMigrants, 11 January 2021.
107 IOM, *COVID-19 Impact on Mobility: West & Central Africa – April 2020 (Report #1)* (Geneva: IOM, 2020).
108 IOM, *COVID-19 Impact on Mobility: West & Central Africa – June 2020 (Report #3)* (Geneva: IOM, 2020).
109 IOM, "COVID-19 Testing for Truck Drivers Helps Open Trade in IOM-TMEA Partnership" (press release, 24 July 2020).
110 For example, in West and Central Africa, newer estimates suggest an increase from July, when there were 5,503 people stranded, to September, when that number was 30,000. See IOM, "COVID-19 Impact on Stranded Migrants"; IOM and WEP, *Populations at Risk*.
111 IOM, "COVID-19 Impact on Stranded Migrants"; World Bank, "Population, Total - Sub-Saharan Africa, World", accessed 9 February 2021.
112 IOM, "USD 84 Million Dollar Appeal to Assist African Migrants Affected by COVID-19 Launched by IOM and 27 Partners and Governments across Horn of Africa and Yemen" (press release, 6 August 2020).
113 IOM, "Impact of COVID-19 Movement Restrictions on Migrants along the Eastern Corridor: Report 2 – as of 30 April 2020" (situation report, IOM Regional Office for East and Horn of Africa, Nairobi, 11 May 2020).
114 IOM, "Impact of COVID-19 Movement Restrictions (Report 2)".
115 Melisa Aytekin, "Migrant Workers and Remittances in the Context of COVID-19 in Sub-Saharan Africa" (issue brief, Food and Agriculture Organization of the United Nations, Rome, July 2020).
116 IOM and WFP, *Populations at Risk*.

restrictions stranded thousands of farm and gold mine workers in the area between Burkina Faso, Côte d'Ivoire and Mali.[117] Governments and authorities have responded to these challenges in different ways: South Africa has offered a COVID-19 social assistance package for special permit holders, while Kenya and Uganda have introduced legal mechanisms to protect workers from COVID-19-related discrimination and unsafe working conditions; other social protection measures have included free-of-charge or partially funded COVID-19 testing and health care for migrant workers (e.g. in Djibouti, Ethiopia, Kenya, South Sudan, the Sudan and Uganda), and the renewal of permits without holders having to leave the country (e.g. Seychelles).[118]

The difficulties of travelling during the pandemic have led an increasing number of people on the move, including many migrant workers, to turn to smugglers.[119] For example, 44 per cent of respondents in West Africa in a survey by the Mixed Migration Centre described a greater need for smugglers.[120] These brokers often charge high fees and, as reported in countries such as Burkina Faso and Ghana, put migrants at risk of exploitation and/or abuse.[121] And overall, amid the decline in mobility and pandemic-related job losses, sub-Saharan African countries are expected to see remittances drop by 9 per cent in 2020 and 6 per cent in 2021.[122]

Despite the restrictions on movement, however, Africa recorded the largest increase in the number of people displaced across borders globally in the first half of 2020 (3 per cent), fuelled by the crisis in the Sahel, which has generated nearly one fifth of all newly displaced IDPs and one tenth of all refugees globally.[123] The deteriorating situation in the Democratic Republic of the Congo also triggered almost as many new displacements by mid-2020 as the 1.7 million reported for the whole of 2019.[124] Apart from conflict, flooding across the sub-Saharan region created additional displacement, for example producing about half a million new displacements in Somalia in April and May 2020, with about one quarter of the affected people already living in camps after having previously been displaced.[125] While some countries (such as Somalia) have tried to curb displacement, for example by introducing a moratorium on forced evictions, which are a major cause of secondary displacement, the pressure on displaced populations in the region is increasing due to overburdened health and social services, and to restricted movement in and out of IDP camps.[126]

Middle East and North Africa

Pre-existing pressures in the MENA region have interacted with the COVID-19 pandemic to produce increasingly volatile situations for migrants and forcibly displaced people. In July 2020, the drop in oil prices

117 IOM, "Migration Flows across West and Central Africa Nearly Halved by COVID-19; Mobile Populations Economically Impacted" (press release, 16 June 2020).
118 ILO, "ILO Webinar Examines Impact of COVID-19 on African Migrant Workers in the SADC and IGAD Regions", updated 7 December 2020.
119 Aimée-Noël Mbiyozo, "Migrant Smugglers Are Profiting from Travel Restrictions", Institute for Security Studies, 20 July 2020.
120 Mixed Migration Centre, "COVID-19 Global Thematic Update #1: Impact of COVID-19 on Migrant Smuggling".
121 IOM, "COVID-19: Socio-Economic Impact in Ghana" (briefing note no. 6, June 2020); Independent Monitoring, Rapid Research and Evidence Facility (IMREF), *Exploring the Impact of COVID-19 on the Vulnerabilities of Migrants on the Central Mediterranean Route* (N.p.: IMREF, 2020).
122 IOM and WFP, *Populations at Risk*.
123 UNHCR, *Mid-Year Trends 2020*.
124 IDMC, *Internal Displacement 2020*.
125 IDMC, *Internal Displacement 2020*.
126 IOM, "COVID-19 Mobility Impacts: Impact on IDPs".

led the International Monetary Fund to lower its 2020 economic forecast for the region to its lowest level in 50 years.[127] The August 2020 explosion in Beirut was followed by a surge in COVID-19 cases that led to a partial lockdown, hitting vulnerable migrant workers from countries such as Bangladesh, Ethiopia and the Philippines particularly hard.[128] Migration has also reportedly dropped, especially in North Africa, where new arrivals from sub-Saharan Africa between January and August on some routes (e.g. from the Niger to Libya) were down by 44 per cent compared to the same period in 2019.[129]

The MENA region, which hosts 6 per cent of the global population, accounts for almost half of the world's stranded migrants, most of whom are migrant workers from Asian countries such as Bangladesh, Malaysia and Nepal.[130] While stranded, workers' existing vulnerabilities[131] may be exacerbated as they have varying levels of access to social support depending on the country they are in. For example, whereas in Lebanon some domestic workers have reportedly been abandoned and left to sleep in rough conditions in front of their embassies, the Government of Turkey has organized temporary accommodation, including in emptied student dormitories.[132] Gulf countries have often relied on or actively pushed the governments of migrant-sending countries to repatriate their own nationals.[133] However, coordination between governments has been slow since the onset of the pandemic, and some migrants have had to rely on non-governmental organizations, diaspora groups and other actors to fund their flights home.[134] The situation is particularly difficult for migrants who depend on employer agencies to organize their travel and shelter, as some have reportedly sent migrants away without assistance (e.g. in Lebanon).[135] The United Arab Emirates has sought to address this problem by requiring employers to provide accommodation to foreign workers while they remain in the country, even if they were made redundant, though reports in late 2020 suggest that some employers are not implementing this policy, driving migrants into destitution.[136] As a result of job losses during the pandemic, remittance flows from some Gulf countries have dropped precipitously. For example, remittances to Yemen, mainly from Saudi Arabia, are estimated to have fallen by as much as 80 per cent between January and April 2020.[137]

Data suggest that displacement across the MENA region decreased by 0.6 per cent during the first six months of 2020, but this was primarily due to statistical adjustments.[138] On the contrary, military offensives

127 International Monetary Fund (IMF), *Regional Economic Outlook Update: Middle East and Central Asia* (Washington, D.C.: IMF, 2020); United Nations, "The Impact of COVID-19 on the Arab Region: An Opportunity to Build Back Better" (policy brief, United Nations, July 2020).

128 It is estimated that migrant workers make up 8 per cent of the most affected people from the explosion. See IOM and WFP, *Populations at Risk*.

129 IOM Displacement Tracking Matrix, "Tracking Mobility Impact – Points of Entry Analysis: Quarterly Report on Points of Entry in MENA Region (July 2020 – September 2020)" (quarterly report, IOM, Cairo, 2020).

130 IOM Displacement Tracking Matrix, "Tracking Mobility Impact"; IOM, "COVID-19 Impact on Stranded Migrants"; World Bank, "Population, Total - Middle East & North Africa, World", accessed 9 February 2020.

131 Omer Karasapan, "Pandemic Highlights the Vulnerability of Migrant Workers in the Middle East", Brookings Institution, 17 September 2020.

132 Cheeseman, "Migrant Crisis in Lebanon Worsens"; Safa Alharathy, "Stranded Libyans in Istanbul Wait for News for Reparation Flights", The Libya Observer, 2 April 2020; authors' analysis of additional information from the IOM dataset "IOM Impact on Migrants Database" (for more information, see IOM, "Methodological Framework Used in Displacement Tracking Matrix Operations for Reporting Stranded Vulnerable Population Caseloads in Response to COVID-19", updated 2 April 2020).

133 Tarika Jain, "Is India Neglecting Its Migrant Workers Abroad?", The Wire, 21 April 2020.

134 Ethiopian News Agency, "Ethiopia: Some 165 Ethiopians Repatriated from Lebanon", allAfrica, 31 August 2020.

135 Cheeseman, "Migrant Crisis in Lebanon Worsens"; Thomas-Johnson, "Nigerian Domestic Workers Sleeping Rough".

136 Katie McQue, "'I Am Starving': The Migrant Workers Abandoned by Dubai Employers", *The Guardian*, 3 September 2020.

137 IOM and WFP, *Populations at Risk*.

138 UNHCR, *Mid-Year Trends 2020*.

in the Syrian Arab Republic – particularly in the Idlib governate, which by the end of 2020 hosted more than 1.7 million of the total 6.5 million IDPs in the country – triggered the most intense period of displacement since the civil conflict began.[139] Although many people in the region return home following displacement, they may continue to face difficulties in accessing assistance, including health services. For example, a 2019 survey in Iraq reported the cost of medical assistance as a major access barrier for returnees and IDPs – an issue that worsened in 2020, given widespread financial hardship amid COVID-19-related lockdowns.[140] Economic barriers to migrants' well-being have also been reported in Yemen, where the price of water, sanitation and hygiene items increased by 35 per cent between July and September 2020.[141] Efforts to alleviate pressure in conflict-affected parts of the region, for example through the brokering of ceasefires, largely failed in 2020, and ongoing conflicts continue to exacerbate the vulnerability of displaced people.[142]

South and Central America

The number of recorded COVID-19 cases has gradually increased in South and Central America, and as of February 2021, they accounted for 16 per cent of all cases worldwide.[143] Although one of the most affected regions in terms of new cases per million residents during mid-2020, South and Central America did not see the same spike in new recorded cases as Europe or North America during the final months of the year.[144] However, the characteristics of some parts the region have increased the impacts of COVID-19, among them: overstretched health systems, acute food insecurity, high urbanization rates (leading to crowded living and working situations) and a high dependence on hard-hit sectors such as tourism.[145] This has increased the vulnerability of people on the move in a regional migration system defined in recent years by the displacement of more than 5.4 million Venezuelans since 2015.[146] Pandemic-related travel restrictions and economic hardship have to some extent changed regional migration patterns. For example, Colombian authorities estimate that, despite the ongoing political power struggle and economic crisis in the Bolivarian Republic of Venezuela, as well as the border closures in place, 122,000 Venezuelans had left Colombia and returned home as of late November 2020.[147]

During the first phase of the pandemic, abrupt travel restrictions and border closures also left many tourists stranded in the region. The closure of most airports combined with strict quarantine measures,

139 United Nations Office for the Coordination of Humanitarian Affairs (OCHA) Humanitarian Response, "Syria", accessed 13 January 2021; IDMC, *Internal Displacement 2020*.

140 REACH, "COVID-19 Response: Access to Health Services for Returnees" (fact sheet, accessed 9 February 2021); REACH, "COVID-19 Response: Access to Health Services for In-Camp IDPs" (fact sheet, accessed 9 February 2021); REACH, "COVID-19 Response: Access to Health Services for Out-of-Camp IDPs" (fact sheet, accessed 9 February 2021).

141 Yemen Joint Market Monitoring Initiative, "July Situation Overview 2020" (fact sheet, 7 September 2020); Yemen Joint Market Monitoring Initiative, "September 2020 Situation Overview" (fact sheet, 21 October 2020).

142 Office of the Special Envoy of the Secretary-General for Yemen, "Update on the UN Special Envoy's Initiative to End the War in Yemen" (news release, 9 April 2020); Marina Ottaway, "The Null Effect of COVID-19 on Conflict: Why Iraq and Yemen Keep Fighting", Wilson Center, 23 April 2020.

143 Our World in Data, "Coronavirus Pandemic (COVID-19)", University of Oxford, accessed 12 January 2021.

144 Our World in Data, "Coronavirus Pandemic (COVID-19)."

145 IOM and WFP, *Populations at Risk*; Tony Kibry, "South America Prepares for the Impact of COVID-19", *The Lancet Respiratory Medicine* 8, no. 6 (2020): P551–552; Henry Mooney and Maria Alejandra Zegarra, *Extreme Outlier: The Pandemic's Unprecedented Shock to Tourism in Latin America and the Caribbean* (New York: Inter-American Development Bank, 2020).

146 UNHCR, *Mid-Year Trends 2020*; IOM and WFP, *Populations at Risk*; Coordination Platform for Refugees and Migrants from Venezuela – Response for Venezuelans (R4V), "RMRP 2020 Dashboard", updated 5 January 2021.

147 UNHCR, *Mid-Year Trends 2020*; Ángela Méndez-Triviño, "Forced Back Home by the Pandemic, Venezuelan Grandmother Sees No Choice but to Flee Once Again", UNHCR, 10 December 2020; Luis Jaime Acosta, "Despite Closed Border and Pandemic, Desperate Venezuelans Return to Colombia", Reuters, 1 November 2020.

including requirements that tourists stay in their hotel rooms for 23 hours a day, severely shook the tourism industry.[148] In turn, tourist arrivals in March were considerably lower than the previous year in Chile (by 63 per cent), Peru (by 70 per cent) and Uruguay (57 per cent); 90 per cent of Guatemalan travel agencies saw all bookings cancelled as of May; and tourism revenues in 2020 were expected to plummet in Costa Rica (48 per cent) and El Salvador (20 per cent).[149]

Migrants from the region also became stranded: this group included large numbers of Venezuelans who, at times for several months, were unable to return home from countries such as Argentina and Chile, and many found themselves in increasingly precarious situations in the meantime.[150] Those stranded also include Bolivian and Peruvian migrant workers who in early 2020 became trapped at the Chilean border, some of whom slept outside their consulates or found temporary shelter in disused schools.[151] Overall, the situation for migrant workers in the region has worsened, including for domestic workers, who have faced a high risk of loss of income and, in some cases, been dismissed without pay.[152] To make matters worse, the implementation of labour reforms aimed at better protecting the rights of migrant workers, including those linked to the Quito Declaration and the International Labour Organization (ILO) Convention on Domestic Workers, was put on hold during the pandemic.[153]

For Venezuelan migrants and refugees in the region, the pandemic has exacerbated challenges in accessing social protections and health services.

For Venezuelan migrants and refugees in the region, the pandemic has exacerbated challenges in accessing social protections and health services.[154] Mainly living in neighbouring countries such as Colombia (1.7 million Venezuelans as of 2020), Peru (1.0 million), Chile (457,300), Ecuador (415,400) and Brazil (261,400), they have suffered significant income losses due to COVID-19.[155] According to an assessment by the World Food Programme, for example, almost one third were reported to be unemployed in August 2020.[156] The overstretched capacity of health services in the communities where Venezuelans live has also led to

148 Lisa O'Carroll, Josh Halliday and Isabel Choat, "Britons in Peru Miss Rescue Flights and Face Months Stuck in Hostel", *The Guardian*, 26 March 2020.

149 Nanno Mulder, coordinator, *The Impact of the COVID-19 Pandemic on the Tourism Sector in Latin America and the Caribbean and Options for a Sustainable and Resilient Recovery* (Santiago, Chile: United Nations, Economic Commission for Latin America and the Caribbean, 2020).

150 Arturo Lev, "Situación de varados y migrantes Venezolanos en Argentina", Kaosenlared, 23 October 2020; Fabian Cambero, "In Twist of Fate, Venezuelans in Chile Seek to Return Home", Reuters, 14 May 2020. But there had also been reports, starting in April, of nationals being unable to re-enter their own countries. See Boris Miranda, "Coronavirus: el drama de los 150 bolivianos atrapados en Chile por el cierre de fronteras (y la controversia internacional generada por su situación)", BBC News, 2 April 2020.

151 Aislinn Liang, "COVID Impasse – Bolivian and Peruvian Migrants Trapped at Chilean Border", Reuters, 16 April 2020.

152 With the prospect of limited mobility, increasing vulnerability and stalled progress on labour reforms, female domestic workers across the region launched the campaign #CuidaAQuienteCuida (#CareForWhoTakesCareOfYou) to raise awareness of their plight. See Salvador and Cossani, *Domestic Workers in Latin America and the Caribbean*.

153 See Jennifer Bitterly, "Venezuelan Migrants Left in the Lurch as COVID-19 Stalls Regional Reforms", The New Humanitarian, 15 October 2020; Salvador and Cossani, *Domestic Workers in Latin America and the Caribbean*.

154 ILO, *Venezuelan Refugees and Migrants in Latin America and the Caribbean: ILO Response COVID-19 Update* (Geneva: ILO, 2020); Daphne Panayotatos and Rachel Schmidtke, *Searching for Home: How COVID-19 Threatens Progress for Venezuelan Integration in Colombia* (Washington, D.C.: Refugees International, 2020).

155 R4V, "RMRP 2020 Dashboard".

156 IOM and WFP, *Populations at Risk*; WFP, "Remote Assessment COVID-19: Venezuelan Migrants in Colombia, Ecuador and Peru" (fact sheet, WFP, Rome, 18 August 2020).

increased social tensions[157] due to fears of competition between newcomers and existing residents. And, as noted above, some Venezuelans have opted to return home in the face of precarious situations abroad.[158]

Europe

Throughout the pandemic, Europe has had some of the largest numbers of confirmed COVID-19 cases. During the first phase, the continent accounted for almost half of all recorded cases and more than 60 per cent of all deaths worldwide.[159] Spain and Italy were particularly heavily affected, registering the highest number of cases and of deaths, respectively. To contain the spread of the virus, EU Member States quickly put stricter border controls in place. Although the initial tightening of borders did not involve a general suspension of travel, subsequent border closures significantly undermined free movement within the bloc. In September 2020, the European Commission proposed a colour-coding scheme for European countries based on their infection rates and other health indicators, which – together with the introduction of subregional "travel bubbles" – has led to better coordination of travel restrictions between Member States, albeit with varying degrees of success (see Section 4). Arrivals from outside the European Union were largely banned, following the bloc's closure of its external borders on 17 March 2020, which restricted movement to essential travel (e.g. medical staff and returning nationals).[160] Compared to the same period in 2019, asylum applications filed in European countries were down 40 per cent in the first six months of 2020,[161] irregular arrivals by nearly 20 per cent,[162] and refugee resettlement numbers almost fourfold.[163]

The pandemic has highlighted the important role that migrant workers play in fulfilling basic functions in EU societies, as on average 13 per cent of the essential labour force (e.g. in health care and agriculture) across the bloc are migrants.[164] At the same time, migrant workers tend to have fewer social protection rights than EU nationals, with irregular migrants often falling through the cracks of contributory income support schemes.[165] Overall, the pandemic has exacerbated these vulnerabilities. Although some countries, including Germany, Italy and Portugal, have introduced exemptions and regularization measures for migrant workers, these were mainly to address economic – rather than protection – challenges (see Section 4).[166] Other countries, such as France, have sought to tap into their national workforce to fill labour shortages.[167] The closure of typical migration corridors used by workers, for example along the Western Balkans, has also changed mobility dynamics in Europe, and countries in Central and South-East Europe

157 ILO, *Venezuelan Refugees and Migrants in Latin America and the Caribbean*; Panayotatos and Schmidtke, *Searching for Home*.

158 However, estimates suggest that return migrants to the Bolivarian Republic of Venezuela still make up less than 2 per cent of the Venezuelan population living in South America. See Jacqueline Mazza, "Venezuelan Migrants under COVID-19: Managing South America's Pandemic amid a Migration Crisis" (working paper, Wilson Center, Washington, D.C., December 2020).

159 Our World in Data, "Coronavirus Pandemic (COVID-19)"; Working Group for the Surveillance and Control of COVID-19 in Spain, "The First Wave of the COVID-19 Pandemic in Spain: Charaterisation of Cases and Risk Factors for Severe Outcomes, as at 27 April 2020", *Eurosurveillance* 25, no. 50 (17 December 2020).

160 European Council, "Video Conference of the Members of the European Council, 17 March 2020", updated 19 March 2020.

161 European Asylum Support Office (EASO), "Latest Asylum Trends – November", accessed 8 February 2021. For the full year, asylum applications filed in European countries were down 31 per cent compared with 2019. See EASO, "Latest Asylum Trends – 2020 Overview", updated 18 February 2021.

162 Frontex, "Situation at EU External Borders – Arrivals Down in First Half of 2020" (news release, 13 July 2020).

163 UNHCR, *Mid-Year Trends 2019* (Geneva: UNHCR, 2020); UNCHR, *Mid-Year Trends 2020*.

164 This includes both EU mobile workers and workers from non-EU countries. See European Commission, "Potential Migration Implications of the COVID-19 Crisis", accessed 8 February 2021.

165 OECD, *OECD Employment Outlook 2020: Worker Security and the COVID-19 Crisis* (Paris: OECD Publishing, 2020).

166 See also IOM, "COVID-19 Snapshot #65: Irregularity, Protection & Smuggling Update" (fact sheet, 18 January 2021).

167 Kate Hooper and Camille Le Coz, "A Race Against the Clock: Meeting Seasonal Labor Needs in the Age of COVID-19" (commentary, MPI, Washington, D.C., March 2020).

have seen hundreds of thousands of their citizens return from Western Europe.[168] Moreover, the region has become host to thousands of stranded travellers and migrants.[169] Limited coordination between governments and high repatriation costs have severely hampered the return of foreign nationals, including migrants from the Bolivarian Republic of Venezuela, Honduras and Mexico stranded in Spain.[170]

The sharp drop in asylum applications, particularly in early 2020, reflects decisions by many Member States to close their borders to non-EU travellers and to effectively halt asylum activities.[171] Emergency measures aimed at containing the spread of COVID-19, such as mandatory confinement in (sometimes overburdened) asylum reception centres, meant that asylum seekers have at times borne the cost of pandemic-related restrictions. In turn, the EU Agency for Fundamental Rights raised the alarm about the precarious conditions in reception centres, for example in Cyprus, Greece, Italy and Malta, and in informal camps in France.[172] From April onwards, asylum registrations began to gradually resume in several countries with adapted safety measures, such as remote personal interviews and social distancing in reception centres.[173] Although the number of monthly asylum applications has increased sharply since June 2020, it is still significantly lower than pre-pandemic levels.[174]

Most EU Member States also resumed return operations later in the year for migrants deemed not to have a right to stay within their territory. For example, Belgium facilitated the return of 77 nationals of El Salvador in November.[175] Given the heightened risk of infection in congregate settings, such as immigration detention, some countries took steps to avoid holding large numbers of migrants with backlogged return cases. Belgium, the Netherlands, Norway and Spain, for example, released third-country nationals from detention, and others introduced a moratorium on migrant detention.[176]

4 Policy Developments and Implications

Any policy discussion on the future of mobility in the context of pandemics will ultimately have to contend with the question of whether travel restrictions work to stem viral spread – and what the best way is to

168 More than 200,000 Bulgarian citizens, many of them seasonal workers, returned from Western Europe in the weeks following widespread travel restrictions across the continent. See Anja Vladisavljevic et al., "Pandemic Disrupts Southeast Europe Labour Flows", Balkan Insight, 25 November 2020.

169 IOM data show that, as of December, the EEA had the highest proportion of assessed sites with stranded foreign nationals globally. See IOM, "COVID-19 Impact on Key Locations of Internal Mobility".

170 Fernando Peinado, "The Nightmare Facing Venezuelan Tourists Still Stranded in Spain", *El País*, 23 October 2020; *El Mundo,* "Hondureños deambulan en calles de España y claman repatriación", *El Mundo*, 11 May 2020.

171 Eurostat, "Asylum Quarterly Report", updated 14 December 2020.

172 EU Fundamental Rights Agency, "COVID-19 Puts Asylum Seekers at a Higher Risk as Conditions in Camps Deteriorate and Asylum Procedures Are Suspended", updated 27 May 2020.

173 EASO, *COVID-19 Emergency Measures in Asylum and Reception Systems* (Valletta: EASO, 2020); EASO, "Practical Recommendations on Conducting Remote/Online Registration (Lodging)" (EASO Practical Guide Series, EASO, Valletta, June 2020); Belgian Agency for the Reception of Asylum Seekers (Fedasil), "Resumption of Applications for International Protection", updated 3 April 2020.

174 EASO, "Latest Asylum Trends – November"; European Council for Refugees and Exiles, "The Impact of the Second Wave of Lockdowns on the Position of People on the Move", updated 11 December 2020.

175 European Council for Refugees and Exiles, "The Impact of the Second Wave of Lockdowns".

176 These practices are not restricted to the European Union and have been applied elsewhere, for example in the Russian Federation and Georgia. See United Nations Network on Migration, "COVID-19 & Immigration Detention: What Can Governments and Other Stakeholders Do?" (working paper, United Nations, New York, 29 April 2020); Global Detention Project, "COVID-19 Global Immigration Detention Platform", accessed 9 February 2021; EASO, *COVID-19 Emergency Measures in Asylum and Reception Systems – Issue No. 2* (Valetta: EASO, 2020).

Any policy discussion on the future of mobility in the context of pandemics will ultimately have to contend with the question of whether travel restrictions work to stem viral spread.

lift these restrictions after they are instituted. At the onset of the pandemic, the WHO, based on the International Health Regulations (2005), cautioned against travel restrictions for fear that they would interrupt the circulation of essential personnel, food and medical supplies, and have considerable and disproportionate economic costs for affected countries.[177] Its initial statement on the situation was that a more appropriate response at points of entry would be to implement health screening and public information measures, rather than travel bans, closures or regional restrictions.[178] However, one of the main critiques of this approach is that, while it was appropriate for past epidemics involving diseases whose symptoms could effectively be screened for, it is unequal to the specific challenges of COVID-19 and pre- and asymptomatic spread.[179] The WHO has since softened but not substantially deviated from this stance, allowing that short-term closures may be necessary to enable countries to prepare their public health response, while remaining in opposition to longer-term restrictions on travel and trade.[180] There is thus a wide gulf between the policies and practices put in place at the national level and the official advice of the WHO.

The problems of effectively targeting restrictions to prevent the virus from even entering a country have become clear. Chief among them is that by the time the virulence of an epidemic has come to light, it may be too late to prevent the first passengers from arriving from high-risk regions; meanwhile, travel restrictions will always have to include some exceptions (e.g. for nationals and residents) and thus cannot act as a "hermetic seal", and some travellers may enter via unofficial border crossings.[181] When considering the efficacy of travel restrictions as a public health measure, studies have found that they often delay rather

177 This guidance is in accordance with the International Health Regulations (2005), which require consideration of the impact of health measures on international traffic and trade. See WHO, *International Health Regulations (2005) Third Edition* (Geneva: WHO, 2016).

178 Initial guidance from the WHO COVID-19 IHR Emergency Committee did not recommend travel and trade restrictions. See WHO, "Statement on the Second Meeting of the International Health Regulations (2005) Emergency Committee Regarding the Outbreak of Novel Coronavirus (2019-nCoV)" (statement, 30 January 2020). Later guidance, issued after C/T/As had already implemented travel measures, urged them to work with WHO to limit their interference with international travel. See WHO, "Statement on the Third Meeting of the International Health Regulations (2005) Emergency Committee Regarding the Outbreak of Coronavirus Disease (COVID-19)" (statement, 1 May 2020); WHO, "Statement on the Fourth Meeting of the International Health Regulations (2005) Emergency Committee Regarding the Outbreak of Coronavirus Disease (COVID-19)" (statement, 1 August 2020).

179 For instance, a *New York Times* article quotes several public health experts and epidemiologists who attribute the WHO line to the plague outbreak in India and the 1990s, claiming that "[t]he ease and expansion of global travel is why 'super spreader' events helped accelerate the pandemic" and that "[e]xperts who had defended open borders at the start of the pandemic now say countries should use judicious travel measures." See Selam Gebrekidan, Katrin Bennhold, Matt Apuzzo and David D. Kirkpatrick, "Ski, Party, Seed A Pandemic: The Travel Rules That Let COVID-19 Take Flight", *The New York Times*, 30 September 2020.

180 For instance, the WHO Risk Assessment Tool in December 2020 concluded that "for countries experiencing community transmission, there is little rationale for more stringent measures imposed on travellers arriving from countries with lower or equal projected case incidence than on the general population in the country of destination." However, the guidance allowed that "if the health system capacity in a country is critically low, and inbound travel is a major contributor to the population volume, it may be necessary to implement more stringent measures limit travel or impose quarantine measures for travellers from other countries with higher COVID-19 circulation to prevent any further burden on the health system". See WHO, "Risk Assessment Tool to Inform Mitigation Measures for International Travel in the Context of COVID-19" (annex to Consideration for Implementing a Risk-Based Approach to International Travel in the Context of COVID-19, WHO, Geneva, 16 December 2020).

181 Natalia Banulescu-Bogdan, Meghan Benton and Susan Fratzke, "Coronavirus is Spreading across Borders, but It Is Not a Migration Problem" (commentary, MPI, Washington, D.C., March 2020).

than altogether prevent infection.[182] Nonetheless, there are at least three scenarios in which it is plausible that travel restrictions could be helpful for this or future pandemics:

1. where a delay in infections is valuable to the preparation of domestic measures, especially where the evidence is strong on what measures could help (this was not the case for COVID-19, which was an unknown pathogen, but could be in future outbreaks);
2. where travel restrictions are part of intensive lockdown strategies that restrict large-scale movements and gatherings of all kinds (as was the case in March through May 2020 in many countries); and
3. where countries have combated the virus successfully and case numbers are sufficiently low to conduct the required contact tracing and follow up.

There is some limited evidence for these three hypotheses. A study by the London School of Hygiene and Tropical Medicine concluded that without travel restrictions, travellers would have accounted for more than 10 per cent of infections in 102 of 136 countries in May 2020, and that such restrictions can be helpful when countries are at the level of few or no cases, or where countries are at a tipping point in their R rate (the point at which the number of people that one infected person will pass a virus onto, on average, can either lead to exponential growth or decline). The implications of both are that targeted, time-limited restrictions can work but that there is no argument for semi-permanently reducing cross-border movements.[183] Moreover, a study of the effectiveness of different non-pharmacological interventions found that most countries with a lower case burden had employed a comprehensive approach early on (including public health campaigns) rather than solely relying on measures to prevent transmission from abroad.[184] The emergence of new strains of the virus, initially concentrated in particular geographies, may pose a fourth scenario, since incoming travellers from these regions could be assessed to be more likely to carry a particular variant than the destination-country population. However, there is currently limited evidence on the epidemiological impacts of border closures and other measures (including health requirements for travellers) against a virus that is endemic yet seeing new strains emerge in particular areas. What is clear is that many of the travel restrictions related to these strains were, again, timed too late (and/or accompanied by too many exceptions) to contain the strains entirely. Such uncertainty is, perhaps understandably, prompting many governments to take a risk averse approach until more is known.

182 For instance, a study of travel restrictions from Wuhan to and from other parts of China found that even under an optimistic scenario where travel was reduced by 90 per cent, it would only delay the arrival of the epidemic by two weeks. See Matteo Chinazzi et al., "The Effect of Travel Restrictions on the Spread of the 2019 Novel Coronavirus (COVID-19) Outbreak", *Science* 368, no. 6489 (2020). Another synthetic cohort study of the early phases of the pandemic found that the number of cases in six countries that shut down their borders reduced cases by 92 per cent on average by the end of February, relative to a synthetic country that did not shut down its borders; this does not, however, consider the fact that cases increased exponentially in most of these countries later on. See Nahae Kang and Beomsoo Kim, "The Effects of Border Shutdowns on the Spread of COVID-19", *Journal of Preventative Medicine and Public Health* 53, no. 5 (30 August 2020): 293–301. A Center for Global Development study, which looked at past pandemics and their implications for COVID-19, concluded that general restrictions on travel can only delay the spread of pandemics – and it refutes the argument that globalization is to blame for COVID-19, since it spread less quickly than historical pandemics. See Michael Clemens and Thomas Ginn, "Global Mobility and the Threat of Pandemics: Evidence from Three Centuries" (working paper 560, Center for Global Development, Washington, D.C., December 2020).

183 Timothy W. Russell et al., "Effect of Internationally Imported Cases on Internal Spread of COVID-19: A Mathematical Modelling Study", *The Lancet Public Health* 6, no. 1 (2021): E12–E20.

184 Rama S. Rath, Ayush Lohiya and Farhad Ahamed, "Public Health Responses to COVID-19 in Selected Countries – Hits and Misses", *Journal of Family Medicine and Primary Care* 9, no. 11 (2020): 5580–5587.

Thus far, only Australia and New Zealand have successfully pursued travel restrictions under the third scenario described above – an elimination strategy – as their geography as less-connected island States enabled them to combine extremely stringent entry restrictions and domestic policies. (See Section 2 for a discussion of different island States' trajectories in 2020.) Yet this approach has, in some ways, narrowed the future options for these countries since they are now committed to getting cases down to zero. As described by an Australian Government official, the level of public tolerance for the introduction of new infections by travellers is negligible.[185] Other countries, by contrast, face the challenge of risk mitigation, which is a much more complex task but one that brings a more diverse set of options. They must balance the epidemiological benefits of travel restrictions and health requirements (and of meeting what can be immensely high public demand for border closures) against the economic and human costs of restricted movement, including potential human rights implications, such as the loss of freedom of movement, the right to family life and the right to seek asylum. Unfortunately, there are no easy answers to these trade-offs. Governments need to balance public perspectives alongside making the best decision in the face of available evidence, which is by definition a fluid and iterative task.

As a result of this complexity, most international, regional and national interventions are focused on ways to keep the epidemiological risks of cross-border travel below a certain threshold, while minimizing the economic and social costs of restricting movement. Yet the new strains of the virus, and questions about whether vaccines will have the same levels of efficacy against them, pose new uncertainties that governments may struggle to adapt to – and that could lead back to another phase of restrictions before things start to truly open up.

A. The State of International Coordination

One of the resounding lessons from the data analysis conducted for this project and presented in Section 2 is that C/T/As pursued their own strategies, by and large, in 2020. While there were regional patterns (such as the EEA's reliance on entry restrictions and sub-Saharan Africa's shift towards almost exclusively relying on health requirements), most of the decisions made were unilateral. Decisions made with very little lead time or international consultation resulted in border and airport staff having to implement decisions with limited time for planning, guidance or training, which in turn left travellers, migrants and seafarers stranded. This type of decision-making also made it difficult to predict what would happen next and disrupted supply chains. While many governments expressed their desire to avoid kneejerk reactions and protect future travellers, the wave of travel bans issued in late 2020 and early 2021 following the emergence of the B.1.1.7 variant of this virus demonstrates how easily countries can return to the situation in March 2020. Nonetheless, there are promising signs of progress at both the global and regional level, as well as a wealth of innovative partnerships (including between the private sector or trade bodies and international organizations) that, all told, could prove fertile ground for a new infrastructure of cross-border public health management.

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185 Participant comments during an MPI-IOM Borders Working Group meeting, 21 December 2020.

International Coordination

Within the United Nations system, there are numerous efforts to restart travel and mobility and to improve international coordination. For instance, ICAO, through the Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation (CAPSCA) group, has developed a risk management manual designed to help countries use testing and other cross-border risk management measures.[186] ICAO has also been trying to coordinate the air industry, including through the ICAO Council's Aviation Recovery Task Force (CART), which is reviewing guidelines and regional coordination.[187] Another example of the CAPSCA-coordinated risk mitigation approach is the CAPSCA Public Health Corridors, which they describe as: "when two or more States agree to mutually recognize the implemented public health mitigation measures on one or more routes between their States."[188] ICAO is also working with the International Air Transport Association (IATA), which is promoting a system of "rapid, accurate, affordable, easy-to-operate, scalable and systematic" testing for all passengers before departure as an alternative to quarantine measures.[189]

At the request of the World Health Assembly, via resolution WHA73.1, the WHO director-general initiated a comprehensive evaluation of the WHO-coordinated international health response to COVID-19, including by using existing mechanisms such as the Review Committee under the International Health Regulations (2005).[190] As part of this process, the committee is assessing how WHO supported information-sharing in the early phases of the pandemic and the WHO mandate to respond, as well as exploring mechanisms for collaboration and coordination for future pandemic outbreaks.[191] The interim report concluded that there was overwhelming support for the International Health Regulations, but agreement that several areas need improvement to ensure future pandemic preparedness.[192] The Independent Panel for Pandemic Preparedness and Response, established as part of the same review process, echoed the need for improvement in its second report, highlighting issues with the notification and alert system, constraints on the tools available to the WHO and a lack of financial coordination at the global level.[193]

The United Nations Crisis Management Team, under the leadership of WHO, has also been active since February 2020, and meetings have drawn on expertise from ICAO, IOM, the International Maritime Organization and others.[194] The Trade and Transport workstream in particular is working to reduce duplication within the United Nations system, including through engagement with industry representatives, such as IATA and the International Transport Workers' Federation. Meanwhile, the Global

186 International Civil Aviation Organization (ICAO), *Manual on Testing and Cross-Border Risk Management Measures* (Montreal: ICAO, 2020).
187 ICAO, "ICAO Encourages Increased Alignment of National Aviation Recovery Efforts" (news release, 22 September 2020).
188 ICAO, "Public Health Corridor (PHC) Implementation", accessed 9 February 2021.
189 International Air Transport Association, "IATA Calls for Systematic COVID-19 Testing Before Departure" (press release, 22 September 2020).
190 WHO, "Review Committee on the Functioning of the International Health Regulations (2005) during the COVID-19 Response", accessed 16 February 2021.
191 The Review Committee met 12 times in 2020 (3 times publicly), and subgroups on preparedness, alert and response have met weekly. See WHO, "Statement to the Resumed 73rd World Health Assembly by the Chair of the Review Committee on the Functioning of the International Health Regulations (2005) during the COVID-19 Response" (statement, 9 November 2020).
192 WHO, *Strengthening Preparedness for Health Emergencies: Implementation of the International Health Regulations (2005)* (Geneva: WHO, 2021).
193 The Independent Panel for Pandemic Preparedness and Response, "Second Report on Progress" (progress report prepared for the WHO Executive Board, January 2021).
194 See, for instance, WHO, "Weekly Operational Update on COVID-19" (situation update, WHO, Geneva, 7 December 2020).

Tourism Crisis Committee established by the World Tourism Organization is focusing on coordinating efforts to restart tourism.[195] Additionally, the World Customs Organization and the International Road Transport Union in May 2020 called on customs administrations to coordinate cross-border interventions and designate priority/green lanes for commercial vehicles to facilitate cross-border trade.[196] And in February 2021, the World Customs Organization and ICAO signed a joint statement supporting vaccine circulation.[197] International organizations and trade bodies have also been partnering with the private sector. For instance, a partnership between the network security company Guardtime, the WHO and the Government of Estonia is piloting VaccineGuard, aiming to build a trusted COVID-19 Vaccination Certification Infrastructure and accelerate recovery from the pandemic.[198] WHO has also convened a Smart Vaccination Certificate consortium working group that focuses on establishing key specifications, standards and a trust framework for a digital vaccination certificate (see the Vaccination Requirements discussion in Section 4.B. below).

Thus, activity at the global level is frenetic but fragmented, with an urgent need to develop international guidance, set minimum standards, and ensure interoperability of existing and newly developed strategies and tools. One particular blindspot may be testing, which could benefit from a more coordinated approach (as is happening for vaccination) to reduce duplication and inconsistencies. For instance, ICAO is working with IATA and other agencies within the CAPSCA and CART frameworks on testing as a basis for restarting mobility, and in particular air travel, yet such a system could be misaligned with current WHO advice, which recommends testing for at-risk domestic groups rather than allocating resources for universal testing of travellers, who tend to be low risk.[199] As these different working groups and initiatives mature, a challenge will be to join up their efforts and ensure that experts and decision makers from different disciplines are sharing findings.

Regional Coordination and Risk Assessment

Regional agreements in 2020 have sought to fulfil multiple goals: to encourage countries to adopt similar epidemiological standards and progress metrics; to facilitate cross-border trade and help cross-border workers continue to live their lives; and to encourage the return of tourism. One of the main contributions of regional coordination has been to help facilitate planning and, ideally, avoid a patchwork of measures being announced with a very short lead time.

One of the main contributions of regional coordination has been to help facilitate planning and, ideally, avoid a patchwork of measures being announced with a very short lead time.

195 World Tourism Organization, "Portugal Hosts UNWTO Crisis Committee on Harmonization of Cross-Border Travel Procedures", updated 10 December 2020.

196 World Customs Organization and International Road Transport Union, "Joint WCO-IRU Statement on Responding to the Impacts of COVID-19 on Cross-Border Transport" (statement, 12 May 2020).

197 Fang Liu and Kunio Mikuriya, "ICAO/WCO Joint Statement on the Global Transportation and Distribution of COVID-19 Vaccines and Associated Medical Supplies" (statement, 2 February 2021).

198 Ain Aaviksoo and Garrett Day, "Guardtime: VaccineGuard" (white paper, December 2020).

199 WHO, *Considerations for Implementing a Risk-Based Approach to International Travel in the Context of COVID-19: Interim Guidance* (Geneva: WHO, 2020).

The European Union's regional coordination system is perhaps the most advanced, but even it had several false starts, as countries initially opened up to EU and non-EU travellers on their own terms.[200] In September 2020, the European Commission announced its "traffic light" scheme, a system for colour-coding regions of each country based on consistent criteria adopted by the European Council on 13 October 2020 (see Box 4). During the negotiations, sensitivities arose over issues including joint risk assessments and other shared tools, with some Member States reluctant to cede control to a common system.[201] Additionally, some criticized the scheme for setting arbitrary definitions for each risk category and not providing enough nuance to allow for meaningful distinction between the various regions.[202] While the system remains in place, countries have implemented risk levels in different ways, with some requiring negative PCR tests of all international arrivals, and others only requiring them for arrivals from high-risk Schengen Area countries or arrivals from outside the European Union.[203] France also decided to adopt its own national system of risk classification.

BOX 4
The EU Traffic Light System Metrics

Member States provide the European Centre for Disease Prevention and Control with the number of new cases per 100,000 residents over 14 days (14-day notification rate); tests per 100,000 people over 7 days; and test positivity rates. Based on these data, the centre publishes a weekly map using a traffic light system, colour coding regions of each country as follows:

- **Green:** 14-day notification rates lower than 25/100,000 people and a test positivity rate of less than 4 per cent
- **Orange:** 14-day notification rates lower than 50/100,000 people and a test positivity rate of greater than or equal to 4 per cent, or 14-day notification rates between 25 and 150/100,000 people and a test positivity rate of less than 3 per cent
- **Red:** 14-day notification rates higher than 50/100,000 people and a test positivity rate greater than 4 per cent, or 14-day notification rates higher than 150/100,000 people regardless of test positivity rate (amended in February 2021 to apply to 14-day notification rates between 150 and 500/100,000 people)
- **Dark Red:** 14-day notification rates higher than 500/100,000 people (added February 2021)
- **Grey:** insufficient information provided or testing rates lower than 300 tests per 100,000 people

Sources: Elena Sanchez Nicolas, "EU Unveils Covid-19 'Colour-Code' Travel Zones", EU Observer, 7 September 2020; European Council, "COVID-19 Council Adopts a Recommendation to Coordinate Measures Affecting Free Movement" (press release, 13 October 2020); European Centre for Disease Prevention and Control, "Maps in Support of the Council Recommendation on a Coordinated Approach to Travel Measures in the EU", updated 18 February 2021.

200 On 13 May, the European Commission issued guidance on resuming travel and tourism. It did not, however, coordinate adherence to the guidance or, in general, border reopening plans. See European Commission, "Tourism and Transport: Commission's Guidance on How to Safely Resume Travel and Reboot Europe's Tourism in 2020 and Beyond" (press release, 13 May 2020). Initially, implementation was spotty. France, Germany and Italy reopened widely to travellers from other European nations, while others, such as Denmark, the Netherlands and Switzerland, initially chose to limit the number of countries from which it would permit travel. See Paige McClanahan, "Europe's Patchwork Reopening", *The New York Times*, 5 June 2020. The Hungary-Slovenia Corridor opened on 28 May. See Marton Dunai and Anita Komuves, "Hungary, Slovenia Allow Travel by Citizens between Two Countries", Reuters, 28 May 2020. The Baltic and Nordic States engaged in their own bubble arrangements, as will be discussed below in the Subregional Coordination subsection.

201 Matina Stevis-Gridneff, "EU Members to Adopt Travel Guidelines as Coronavirus Spreads", *The New York Times*, 9 October 2020.

202 Bernd Riegert, "Coronavirus: What the EU's New Traffic Light System Means", Deutsche Welle, 14 October 2020.

203 European Commission, "Re-Open EU", updated 9 February 2021.

These different approaches to implementation could detract from the overall simplicity of the traffic light model since it is still difficult for travellers to work out whether and where they can travel. Moreover, the system arguably broke down in December 2020, when several countries reimposed unilateral travel restrictions in response to the emergence of the B.1.1.7 strain of the virus. In January 2021, the Commission proposed an update to the Council recommendation with an additional, dark red risk category and stricter measures recommended for travellers from higher-risk areas, following a Council meeting to discuss the new variants of the virus.[204]

Africa's various regional bodies have also taken steps to coordinate pandemic-related travel and public health measures, with varying levels of difficulty. The Southern African Development Community and the Common Market for Eastern and Southern Africa adopted guidelines at the ministerial level to facilitate cross-border trade and transport in April and May 2020, respectively.[205] The East African Community, on the other hand, initially struggled to agree to common efforts to deal with issues of cross-border trade,[206] with a lack of trust in testing leading to border closures and backlogs of truckers.[207] This experience led to the establishment of a more harmonized system to share test results and efforts to improve testing capacity at the border.[208] The three bodies agreed in July 2020 to harmonize their guidelines, meaning a majority of African nations would be following the same guidance.[209] Meanwhile, the Economic Community of West African States (ECOWAS), which prior to the pandemic had a decades-long history of free movement, issued its own guidelines in June 2020 harmonizing and facilitating cross border trade and transport.[210] The coordination throughout and between the different regional bodies has contributed to the shift from travel bans to public health requirements discussed in Section 2.

Regional efforts to coordinate responses to the pandemic are also evident in Latin America and the Caribbean. In South America, IOM is supporting the Southern Common Market (Mercosur) Special Migration Forum and the South American Conference on Migration to develop a platform and mobile application to improve data sharing on mobility restrictions and health and safety measures. The platform

204 European Commission, "Coronavirus: Commission Proposes Update to Coordinated Approach on Free Movement Restrictions" (press release, 25 January 2021). The Council adopted the proposal in February 2021. See Council of the European Union, "COVID-19: Council Updates Recommendation on Measures Affecting Free Movement" (press release, 1 February 2021).

205 United Nations Economic Commission for Africa, *Facilitating Cross-Border Trade through a Coordinated African Response to COVID-19* (Addis Ababa: Economic Commission for Africa, 2020).

206 The East African Community (EAC) attempted several times to convene a virtual summit of heads of State to address cross-border trade issues, but it was ultimately only able to bring together four of its six member countries to agree on resolutions including on surveillance and tracking for truck drivers and on testing and monitoring. See EAC, "Heads of State Consultative Meeting of the East African Community" (communiqué, 12 May 2020). In April 2020, the EAC Ad Hoc Regional Coordination Committee on COVID-19 Response did agree to guidelines aimed at facilitating the movement of goods and services during the pandemic. See EAC Ad-Hoc Regional Coordination Committee on COVID-19 Response, "East African Community (EAC) Administrative Guidelines to Facilitate Movement of Goods and Services during the COVID-19 Pandemic" (guidance document, EAC Secretariat, Arusha, United Republic of Tanzania, April 2020).

207 Catherine Nambi and Amina Chombo, "Fear of COVID-19 Slows Trucking in East Africa", Voice of America, 21 May 2020.

208 Leslie Jones and Megan Schmidt-Sane, "Key Considerations: COVID-19 RCCE Strategies for Cross-Border Movement in Eastern and Southern Africa" (policy brief, Social Science in Humanitarian Action Platform, Brighton, 2020).

209 Southern African Development Community, "COMESA, EAC and SADC Adopt Harmonised Guidelines on Trade and Transport Facilitation" (news release, 30 July 2020).

210 ECOWAS, *Harmonization and Facilitation of Cross Border Trade and Transport in the ECOWAS Region on the COVID-19 Pandemic and Related Post-Recovery Actions* (Abuja: ECOWAS, 2020). This resulted in a protocol that was approved in January 2021 alongside an agreement to cap the cost of PCR tests for travel within the region at a maximum of USD 50. See ECOWAS, "Fifty-Eighth Ordinary Session of the Authority of Heads of State and Government of the Economic Community of West African States (ECOWAS)" (final communiqué, 23 January 2021).

will be available both to governments and to migrants and vulnerable groups.[211] And in the Caribbean, CARICOM has attempted to implement a system similar to Europe's, branded as a travel bubble. Effective 18 September 2020, CARICOM member and associate members are eligible to join the bubble if they have met Caribbean Public Health Agency criteria. Like the European Union, CARICOM introduced a system for categorizing regions into no cases and low, medium, high and very high risk; only no case and low risk C/T/As would be eligible to participate. Lack of uniformity in regulation and a rise in cases has led some to abandon this approach, reimposing their own testing and quarantine requirements. It is unclear whether the CARICOM travel bubble will continue to operate for the C/T/As still participating, and whether sufficient investments will be made to regain the confidence of those that have left.[212]

While similar colour-coding systems could work for different regions, the chequered history of the EU effort suggests that exporting the model could be difficult and, at the very least, time-consuming and resource intensive. Regions wishing to implement a similar approach may wish to reflect on whether their top goal is to provide transparency for travellers or consistent guidance for member countries.

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Subregional Coordination: Travel Bubbles and Green Lanes

Smaller groupings of C/T/As have also been coordinating with one another. A prime example of such efforts is the emergence of travel bubbles (quarantine-free travel areas) and green lanes (areas where business travellers can move while other forms of travel are restricted).

The Baltic bubble, opened in May 2020, was one of the first to get off the ground. It allowed anyone who has remained within Estonia, Latvia and Lithuania for two weeks; has no symptoms of a respiratory infection; and has not been in contact with anyone who has tested positive for the coronavirus to travel freely within the region. However, attempts to expand the bubble to include Poland and Finland were unsuccessful, with some potential political fallout.[213] In September, the bubble ended as COVID-19 cases rose in Estonia, and Latvia (with, at the time, one of the lowest rates of infection) said it was mandating a 14-day quarantine for arrivals from the country.[214]

211 Mercosur, "Comunicado Conjunto de Presidentes de los Estados Partes y Estados Asociados del MERCOSUR" (joint communiqué, 16 December 2020).

212 *The Gleaner*, "Blowout of CARICOM COVID-19 Travel Bubble – Regional Heads Squabble over Country Classification", *The Gleaner*, 25 November 2020.

213 Despite a meeting between the governments in mid-June 2020 with the aim of further easing restrictions, Poland insisted on bilateral solutions instead. A subsequent survey of Lithuanian experts who ranked Estonia and Latvia as their most helpful partners during the pandemic, and Poland as the most disappointing, suggests the political fallout of these fraught negotiations. See Justinas Mickus, "Lithuania's Pandemic: The Power of Regional Cooperation" (commentary, European Council on Foreign Relations, 21 October 2020). Meanwhile, despite conversations with Finland, the country decided to open up to Sweden before Estonia, sparking accusations that political allegiances were placed above public health considerations. See Kristi Raik, "The Coronavirus Crisis Has Brought New Realism to Estonian-Finnish Relations" (commentary, RKK International Centre for Defence and Security, 25 June 2020).

214 This followed Latvia's rejection of the European Commission recommendation to raise the threshold for quarantine to 25 new cases per 100,000 people over two weeks. See Reuters, "First European 'Travel Bubble' Ends as Coronavirus Cases Rise in Estonia", Reuters, 11 September 2020.

Meanwhile, Scandinavian countries opened up to their neighbours before the Schengen Area at large. However, many prolonged their border closures with Sweden, which had taken a different approach to managing COVID-19 (less stringent social-distancing measures and higher deaths per million residents during the first phase of 2020, from March to May).[215] The reaction from Sweden was that this was not justified on public health grounds and would damage relations between Sweden and Norway.[216]

Other attempts at restarting mobility have taken the form of bilateral and unilateral agreements, creating a hub-and-spoke network of movement. Singapore is perhaps the most prominent example. In July, it signed and subsequently implemented a joint statement with Malaysia to establish a green lane enabling business and work-permit travel between the two countries, dependent on both abiding by mutually agreed disease prevention measures.[217] As of December 2020, Singapore had established reciprocal green lane arrangements for passengers from Brunei Darussalam, China, Germany, Indonesia, Japan and the Republic of Korea, and it had begun to allow general travel through the Air Travel Pass system for passengers from Australia, New Zealand, Taiwan Province of the People's Republic of China, and Viet Nam (plus China and Brunei Darussalam, which have agreements to allow travel through both channels).[218] Its most ambitious agreement, with the Hong Kong Special Administrative Region (SAR), China, aims to establish an "air bubble" to facilitate air travel between the two cities. Plans involved "double protection" – testing both prior to departure and on arrival – and a requirement that travellers had not been outside the bubble for 14 days before flying.[219] Unlike the Air Travel Pass, travellers would not have to apply to participate. Initially meant to become operational on 22 November, it was announced the day before that the bubble would be delayed by two weeks due to an increase in COVID-19 cases in Hong Kong SAR, China. As of January 2021, the initiative was suspended indefinitely.[220]

The trans-Tasman travel bubble between Australia and New Zealand, announced in May 2020,[221] was also much anticipated due to the seriousness with which both countries were responding to outbreaks

215 For instance, in June 2020, Norway lifted travel restrictions to most other Nordic countries, but it continued to impose travel restrictions on Sweden.

216 Thomas Erdbrink, "Sweden Tries out a New Status: Pariah State", *The New York Times*, updated 15 December 2020.

217 These include taking a swab test and presenting one's itinerary. See China Daily/Asia News Network, "ASEAN Looks to Border Bubbles", Inquirer.Net, 27 July 2020. In the latter half of 2020, there were two cross-border commuting schemes: the Green Lane, which is for shorter-term business and official travel (up to 14 days), and the Periodic Commuting Arrangement for regular business commuters. See Channel News Asia, "Malaysia's Health Ministry Looking into Fully Reopening Border with Singapore", Channel News Asia, 11 September 2020. However, greater opening between the two countries seems unlikely at the moment due to the increase in COVID-19 cases in Malaysia, which led Singapore to extend quarantine requirements starting on 22 November. See Kentaro Iwamoto and Prem Kumar, "Singapore Speeds Up Travel Restart as COVID Keeps Malaysia Gripped", Nikkei Asia, 12 October 2020; Hazlin Hassan, "Experts Urge Caution as Malaysia Eyes Travel Bubbles", *The Straits Times*, 17 December 2020.

218 Singapore Immigration and Checkpoints Authority, "Traveling to Singapore", accessed 9 February 2021. Air Travel Pass applicants must have spent the last 14 days in the country they are applying from; travel on direct flights to Singapore; and be subject to PCR testing at the airport and self-isolate while awaiting results. They are also required to download the TraceTogether app on their mobile devices and not delete it until 14 days after leaving Singapore. See Civil Aviation Authority of Singapore, "Singapore Takes First Step to Open Up Entry to Visitors from Brunei Darussalam and New Zealand with Air Travel Pass", accessed 9 February 2021. As of February 2021, the reciprocal green lanes with Germany, Indonesia, Japan, Malaysia and the Republic of Korea and the air travel pass with Viet Nam have been suspended. See Singapore Immigration and Checkpoints Authority, "Reciprocal Green Lane", accessed 18 February 2021; Singapore Immigration and Checkpoints Authority, "Air Travel Pass", accessed 18 February 2021.

219 *The Economist*, "Hong Kong and Singapore Test the World's Most Comprehensive Travel Bubble", *The Economist*, 18 November 2020.

220 Yen Nee Lee, "Singapore and Hong Kong Push Back Their Travel Bubble Again, This Time beyond 2020", CNBC, 1 December 2020; Singapore Immigration and Checkpoints Authority, "Important Notice: Deferment of Singapore-Hong Kong Air Travel Bubble (ATB) Flights Launch", accessed 9 February 2021.

221 Julie Weed, "Remember the 'Travel Bubble'? Here's How It Burst", *The New York Times*, 28 August 2020.

domestically and to their close political and economic ties. Initially intended to be in place by September,[222] it became operational in October in a much-reduced form (New Zealanders were allowed to travel to New South Wales and the Northern Territory within Australia).[223] Additional Australian states and territories have subsequently joined,[224] but as of December 2020, it remained a one-way bubble – travel is allowed into Australia without quarantine but not vice versa. In November, the Australian prime minister announced the country was considering expanding travel bubbles to the Pacific Islands and Taiwan Province of the People's Republic of China. The bubble was suspended on 25 January 2021 because of a single case of COVID-19 in New Zealand (now confirmed to be three), and as of early February it was reinstated with additional conditions.[225] Other bubbles in very limited forms have been tried between India and Bangladesh[226] and between India and Nigeria.[227]

Long-standing political ties and/or economic considerations have tended to drive the creation of travel bubbles, but asymmetrical public health situations have been what has "burst" them.

The history of these various travel bubbles presents several takeways. First, long-standing political ties and/or economic considerations have tended to drive the creation of travel bubbles, but asymmetrical public health situations have been what has "burst" them (as in the Baltic case, for instance). Second, travel bubbles have proved much harder than anticipated to get off the ground. Even C/T/As with close ties and relatively low numbers of cases (Australia and New Zealand; Singapore and Hong Kong SAR, China) have found their plans disrupted by an outbreak in one or the other. And those with aspirations of forming travel bubbles and green lanes have at times found it difficult to find willing partners or had to delay their attempted initiatives.[228] Third, travel bubbles have required mutual trust in relation to what data metrics and methodology are used to count caseloads, as well as trust in the broader public health approach.[229] The Baltic and CARICOM bubbles both struggled to maintain the needed levels of trust and faltered as a result. In short, the travel bubble model remains deeply fragile and as-yet untested at scale.

222 Ben Doherty, "Australia-New Zealand Travel Bubble Could Be in Place by September, Expert Group Says", *The Guardian*, 27 May 2020.

223 Sheldon Chanel and Ben Doherty, "Trans-Tasman Bubble 'on Pause' amid New Covid Outbreaks across Pacific", *The Guardian*, 13 August 2020; Georgia Hitch, "What Are the Rules around the New Zealand Travel Bubble?", ABC News, 18 October 2020.

224 Carly Waters, "New Zealand Flights Land in Melbourne as Victoria Joins Travel Bubble", 9 News, 16 November 2020.

225 The additional conditions in place are that any passenger considered a close contact of the three confirmed cases must have evidence of two negative tests; any passenger who has been in a contact tracing location of interest must have evidence of one negative test; and any passenger who has been in official quarantine in New Zealand must have been in the country for 14 days after completion of quarantine. See Australian Government Department of Health, "Coronavirus (COVID-19) Advice for International Travellers", accessed 9 February 2021.

226 Bulbul Dhawan, "Air Bubble between India and Bangladesh Inaugurated: Check Destinations and Arrival Guidelines Here", *Financial Express*, 29 October 2020.

227 Abiola Odutola, "Indian High Commission Facilitates Another Air Bubble Flight in Nigeria", Nairametrics, 30 November 2020.

228 Author interview with Alan Gamlen, "What's Next for Global Migration? Gazing Into the COVID-19 Crystal Ball" (Moving Beyond Pandemic podcast, MPI, 9 December 2020).

229 As described by the Latvian foreign minister, "We see the Baltic bubble as not only a bubble for numbers, but also for methodology and more or less, a harmonical solution to solve epidemiological problems. We must consult our health ministry on this topic. Similar numbers, as we once agreed to, are just one part of it. The other part is an agreement on a similar epidemiological approach – isolation requirements, testing and etc." See Kristjan Kallaste, "Latvian Foreign Minister: The 'Baltic Bubble' Is Not Just for Numbers", ERR News, 13 October 2020.

B. Border Measures and Public Health Requirements

Numerous border and point of entry measures were developed in 2020 – from airport symptoms screening, testing and temperature checks to health declaration forms, digital travel passes and other measures, such as attempts to use sniffer dogs to detect COVID-19 among travellers.[230] However, many interventions were experimental and lacked an evidence base, or were based on evidence from previous epidemics that lacked a key feature of COVID-19: asymptomatic transmission. Symptom screening and temperature checks, in particular, have been found not to be effective.[231] And it has become clear that none of these measures alone will provide a definitive solution to the ongoing public health crisis.

Moreover, these measures are still a patchwork of interventions and there has been little effort to bring them together in a strategic framework. With the number of travellers low and considerable community spread within many C/T/As, most governments have not faced significant incentives to develop effective frameworks for preventing viral spread through travel. Such frameworks, based on risk reduction strategies, would combine multiple public health approaches, and they should be created and finetuned as new technologies and scientific evidence become available. The past year of implementing these measures, and the first months of vaccine rollout, highlight the challenges and opportunities each measure presents and the questions policymakers must answer moving forward.

Quarantine

As discussed in Section 2, quarantines have been one of the primary health measures implemented since the onset of the pandemic. At their peak in mid-October 2020, 90 C/T/As were implementing more than 18,500 quarantine requirements. By the end of December, this had fallen to 75 C/T/As implementing slightly more than 14,000 such requirements. Quarantines can help mitigate the risk of asymptomatic and presymptomatic carriers passing on the virus as well as risks related to false negative test results, but they raise three main challenges: compliance, cost and volume.

For quarantines to be effective, travellers must comply with them fully, and they must be airtight. The ability and willingness of C/T/As to enforce compliance varies: some make travellers quarantine in designated hotels, others use location surveillance and still others rely solely on voluntary compliance. Enforced quarantines are expensive, whether they are funded by the government or by the traveller; they require staff, personal protective equipment (PPE), regular cleaning and disinfection, and lodging for up to 14 days. And even if the government absorbs the direct costs, many travellers will be unable to absorb the indirect costs of self-isolation, such as lost income. If proper procedures are not followed, travellers infected with the coronavirus can in turn infect staff, who can then transmit it to the broader community.[232] C/T/As are also limited in the number of quarantines they can enforce simultaneously, limiting the number of travellers they can allow in at any given time.[233] Yet as of January 2021, more countries were moving in

230 Reuters, "German Sniffer Dogs Detect COVID-19 with 94% Accuracy", Reuters, 3 February 2021.

231 Research published by the US Centers for Disease Control and Prevention points to the inefficiency and ineffectiveness of airport temperature and symptom screenings, as very few cases are identified despite the considerable resources needed to implement these approaches. See Philip Dollard et al., "Risk Assessment and Management of COVID-19 Among Travelers Arriving at Designated U.S. Airports, January 17-September 13, 2020", *Morbidity Mortality Weekly Report* 69, no. 45 (2020): 1681–1685.

232 This was the case with outbreaks in Melbourne that have been traced back to staff of hotels where people were quarantining. See Frances Mao, "Coronavirus: Why Has Melbourne's Outbreak Worsened?", BBC News, 3 July 2020.

233 Comments by an Australian Government official during an MPI-IOM Borders Working Group meeting, 21 December 2020.

this direction in light of the emergence of new strains of the virus, with the United Kingdom announcing hotel quarantine requirements starting on 15 February 2021.[234]

While a 14-day quarantine can play an effective role in preventing disease transmission from asymptomatic passengers to the community, this measure is incompatible with large volumes of cross-border movements, especially if required at both ends of the journey. As knowledge about COVID-19 has developed, public health guidance has shifted to recommend shorter quarantine periods.[235] Negative PCR tests taken while in quarantine can further reduce the length of time travellers need to isolate, while keeping the risk of disease transmission low – thus making quarantines more manageable for both travellers and the government, and maintaining public confidence in the possibility of safe travel. One challenge for 2021 may be better blending quarantine and multistage testing to minimize the personal, societal and economic costs of quarantine. However, the new quarantine measures put in place in early 2021 in response to concerns about new strains of the virus have taken countries in the opposite direction, with some imposing additional testing requirements over and above quarantine.

Governments that wish to make quarantine a central pillar of their border health strategy may also need to clarify its role in risk reduction at different points in their national pandemic trajectory. Countries pursuing an elimination strategy, such as New Zealand, will continue to have a dramatically different risk tolerance threshold than those where community transmission is widespread, and that is likely to be reflected in approaches to quarantine. For instance, New Zealand requires hotel quarantine at the stricter end of the spectrum (either for 24 days or for 14 days if at the end of that period a traveller has two negative tests and is approved for early release). The mandatory quarantine system announced by the United Kingdom in January 2021, by contrast, primarily aims to reduce the risk of new variants spreading (rather than prevent them entering the country at all, which is no longer realistic), and thus its length is set at 10 days. It is unclear whether the calculus will change once countries have a majority of their population vaccinated, as this could both neutralize most of the risk and intensify the public reaction to outbreaks, putting political leaders in a difficult position. Transparent risk management strategies that make clear how quarantine is being used to reduce risk under different conditions could help build public trust and depoliticize such decisions.

Testing

Many countries now require a negative SARS-CoV-2 test result (primarily Nucleic Acid Amplification Tests, like PCR, or less frequently SARS-CoV-2 rapid antigen tests) of travellers and migrants (as of the end of December, 120 C/T/As were implementing 24,000 medical certificate requirements). This creates challenges for people coming from countries where it is difficult to access a test that will return results within the mandated timeframe, usually 72 hours. This may be especially true for people travelling from countries in the global South or for travellers who lack the ability to pay a premium fee for a fast turnaround, limiting equal access to regular mobility pathways for many people.

234 BBC News, "Covid: UK Hotel Quarantine to Start on 15 February", BBC News, 4 February 2021.
235 Roni Caryn Rabin, "C.D.C. Officials Shorten Recommended Quarantine Periods", *The New York Times*, updated 22 December 2020.

Increasingly, States are mandating testing for arriving passengers, leaving the implementation and enforcement of this requirement to airlines and airports. In the absence of international regulation, certification, validation and standardization of COVID-19 testing, this situation creates numerous gaps, to be filled in different ways by non-State actors. For instance, in the final months of 2020, the airline Lufthansa piloted COVID-19-free flights, which required passengers to furnish negative tests within 48 hours of departure.[236] Numerous airports offer on-arrival or pre-departure testing,[237] and some are piloting rapid testing that in some cases gives results in 15 to 30 minutes.[238] In Paraguay, the Asuncion Airport is deploying a new Fast Infection Control System, which allows for a faster turnaround of test results (one hour). There are also plans to expand this system to expand to Argentina, Brazil and the Plurinational State of Bolivia.[239] It remains to be seen whether these approaches will stay highly localized or if international standards will be established.

Testing requirements pose three main challenges. First, without access to rapid, mass testing, they set a ceiling on the number of people who can travel, and thus have an economic cost. Second, they may have differential impacts on different groups of travellers, and they can be especially difficult for people in low- and middle-income countries or from areas with limited access to testing to fulfil. And third, they are not foolproof as a public health tool. Testing requirements face the challenge that people incubating the virus are more likely to produce a false negative result, and there is a window between testing and travel during which a traveller may contract the virus. A slightly higher level of security can be provided by testing travellers twice – once pre-departure and once on arrival. Yet such a system is resource intensive and may further amplify the burden on travellers, exacerbating mobility inequalities, while not addressing the risks associated with travellers becoming infected shortly before or during travel, as compared to testing during post-arrival quarantine. As described above, some governments have begun to integrate testing with quarantine systems to determine the optimal testing schedule (typically five to seven days into quarantine), although others have become more restrictive in response to new variants. New approaches continue to emerge, for instance in the rules Canada introduced in February 2021 that allow home quarantine after a three-day, government-authorized hotel stay and negative test result.[240]

236 Sumit Singh, "Lufthansa Flies Its First COVID-Free Flight", Simple Flying, 14 November 2020. Other airline groups, including Delta, KLM and Alitalia as well as American Airlines, British Airways and oneworld have implemented similar pilot initiatives with negative tests required within 72 hours of departure. See American Airlines, "American Airlines, British Airways and oneworld Launch Transatlantic COVID-19 Testing Trial" (news release, 17 November 2020); Delta, "Delta and KLM Royal Dutch Airlines to Offer COVID-Tested Flights from Atlanta to Amsterdam" (news release, 4 December 2020); Justine Calma, "Rome Airport to Allow Passengers from the US to Skip Quarantine", The Verge, 26 November 2020; Jay Singh, "Alitalia to Start Quarantine-Free New York to Rome Flights", Simple Flying, 6 December 2020.

237 For instance, as of November 2020, in Germany, the Dusseldorf, Frankfurt and Munich airports offered rapid testing. At Frankfurt and Munich, it was free for anyone arriving from a high-risk country, while it cost 59 euros for those from less risky areas. In Dusseldorf, it cost 59 euros for all arrivals. Meanwhile, in Austria, the Vienna and Salzburg airports had testing facilities, where travellers were responsible for the cost of testing (about 120 euros). See Kara Godfrey, "Tried and Tested: The Airports Offering on Arrival Coronavirus Testing – Including Germany, Italy and Turkey", *The Sun*, 10 November 2020. Since then, the costs of these tests have increased, with only the Munich airport having an option for free testing. See Munich Airport, "Corona Tests at the Airport", accessed 18 February 2021.

238 For instance, as part of the bubble between Singapore and Hong Kong SAR, China, the latter is piloting Prenetics' rapid test (Oxsed), which gives results in 15 to 30 minutes. Oxsed is also being used at Heathrow Airport in London. See Michael O'Neill, "Prenetics' Pivot from DNA Home Test Kits to Rapid COVID-19 Testing at Hong Kong Airport Is Expected to Play a Key Role in Establishing Travel Bubbles with Nearby Countries", Business Insider, 11 November 2020.

239 iONEBIO, "iONEBIO Inc. Deployment of FICS (Fast Infection Control System) at the International Airport of Paraguay", CISION PR Newswire, 13 November 2020.

240 Adina Bresge, "Canada's Travel Restrictions: How Hotels, Isolations Sites Help Stop COVID-19", GlobalNews, 8 February 2021.

The WHO has warned against blanket testing of all travellers, especially where testing resources are limited, since it diverts resources from other settings, including domestic testing efforts that could have a higher public health impact.[241] Yet as the testing infrastructure continues to develop – with new, lower-cost testing innovations that could help mitigate test-related risks and offset the negative aspects of other required measures, such as quarantine – the calculus may be different in future.

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Vaccination Requirements

At the time of writing, several countries, including Australia, Denmark and the United States,[242] had expressed interest in vaccine certificates as a precondition for travel, suggesting that vaccination may eventually become an integral part of worldwide travel health measures, gradually replacing widespread testing requirements.[243] But with vaccines only just being rolled out to health-care workers and particularly vulnerable groups, this is a long way off. Most advanced economies have far fewer doses than would be needed to cover their populations, and the situation is much worse for middle- and lower-income countries.[244] Much of the initial supply (about 80 per cent as of November 2020) of the first WHO-endorsed vaccine, made by Pfizer/Biotech, has already been claimed by the European Union, Canada, Japan, the United Kingdom and the United States, which does not leave much for lower-income countries.[245] Vaccine access and procurement is therefore an important consideration in deciding whether to use vaccination requirements as a tool to open up travel, as it could undermine mobility from lower-income countries, including labour migration. However, since scientific evidence regarding the efficacy of vaccines to prevent transmission is still limited and issues of equitable access persist, the WHO does not currently recommend the use of vaccination certificates as a travel requirement.[246]

Additionally, as new vaccines emerge, their levels of efficacy may vary more widely, raising important questions about whether they will be treated equally by travel authorities.[247] Countries will also have to contend with the question of whether vaccine requirements should acknowledge biological immunity as

241 WHO, "Risk Assessment Tool to Inform Mitigation Measures".

242 Tariro Mzezewa, "Coming Soon: The 'Vaccine Passport'", *The New York Times*, updated 7 February 2021.

243 Already, some countries have incorporated vaccines into their travel protocols, allowing vaccinated travellers to avoid testing and quarantine requirements. See Shannon McMahon, "7 Destinations That Are Allowing Travelers Vaccinated for Covid-19", *The Washington Post,* 10 February 2021.

244 For an analysis of vaccine distribution, see Duke Global Health Innovation Center's Launch and Scale Speedometer, "COVID-19", updated 15 February 2021.

245 Michaeleen Doucleff, "Why Poorer Countries Aren't Likely to Get the Pfizer Vaccine Any Time Soon", NPR, 11 November 2020.

246 WHO, "Considerations for Implementing a Risk-Based Approach to International Travel in the Context of COVID-19" (interim guidance, WHO, Geneva, 16 December 2020). Based on recommendations from the International Health Regulations Committee, the WHO issued a paper explaining this position by highlighting "critical unknowns regarding the efficacy of vaccination in reducing transmission" as well as limited availability of vaccines. The paper also notes that vaccines must be approved by the WHO, be universally available, and be of suitable quality to be required under the IHR. See WHO, "Considerations Regarding Proof of COVID-19 Vaccination for International Travellers" (interim position paper, WHO, Geneva, 5 February 2021).

247 Already, there are important differences in the trust being attached to different vaccines, as well as evidence on their efficacy. For example, South Africa suspended its use of the AstraZeneca-Oxford vaccine after evidence showed it did not protect against mild or moderate illness caused by the B.1.351 variant. See Benjamin Mueller, Rebecca Robbins and Lynsey Chutel, "AstraZeneca's Vaccine Does Not Work Well Against Virus Variant in South Africa", *The New York Times*, 7 February 2021.

an alternative route to entry – a policy not supported by the WHO and not confirmed by scientific evidence – and what role the detection of antibodies to SARS-CoV-2 will play in this process, especially while vaccines are still being rolled out and given varying levels of people having recovered from COVID-19. In early September 2020, Hungary introduced a policy allowing in visitors who could show proof of recovery from COVID-19 within the past six months as a type of immunity passport. Iceland began implementing a similar policy in December.[248] Yet the risk of incentivizing people to contract COVID-19 in order to access mobility is deeply concerning.[249] Studies on how long immunity lasts are still rather preliminary, and fraudulent certificates may also be of concern.

Another major consideration is how to validate proof of vaccination. Thus far, the main internationally recognized system for using vaccination records for travel is the International Certificate of Vaccination or Prophylaxis, also known as the "Yellow Card", but yellow fever is the only disease specified in the International Health Regulations (2005) for which countries may require proof of vaccination.[250] There are already concerns about the ease with which these certificates can be generated fraudulently, to the extent that there are accounts of travellers being asked to be tested or vaccinated multiple times at borders.[251] Recognizing the shortcomings of the existing system, WHO has formed a Smart Vaccination Certificate consortium to define specifications and standards related to interoperability, governance and design for a personal digital vaccination certificate.[252] In addition to accessibility issues for migrants in vulnerable situations and those with limited digital literacy, these solutions will need comprehensive safeguards and data privacy standards to protect the rights and dignity of people on the move. Operationalizing them will require coordination and interoperability at the international level.[253]

Numerous other organizations are also working on COVID-19 digital health records, including testing and vaccination certificates. For instance, Gavi – the Vaccine Alliance – is working on a digital vaccine record to track and support people and to improve access to vaccines, not as a "passport" that would be required to access different aspects of society.[254] Meanwhile, Common Pass is an initiative in Eastern Africa that started as a way to help truck drivers deliver supplies across borders by showing they had a negative COVID-19 test, and it is now supported by the World Economic Forum and working on building relationships with airlines.[255] In December 2020, IATA unveiled its IATA Travel Pass, a mobile app that can help passengers manage health information, whether related to COVID-19 testing or vaccine status.[256] And Microsoft, the Mayo Clinic and Oracle are heading up a coalition to improve digital access to vaccination records and

248 Scott McLean and Florence Dave-Attlee, "'Immunity Passports' Are Already Here. But They Come with Warnings", CNN, 7 December 2020.
249 For a discussion, see Dakota Gruener, "Immunity Certificates: If We Must Have Them, We Must Do It Right" (white paper 12, Harvard University, Edmond J. Safra Center for Ethics, Cambridge, MA, 20 April 2020).
250 WHO, "Amendment to International Health Regulations (2005), Annex 7 (Yellow Fever)", 16 May 2016.
251 Comments by a United Nations official during an MPI-IOM Borders Working Group meeting, 21 December 2021.
252 The WHO is exploring new global standards connected to efforts to make the "Yellow Card" more secure. Options could include a printable digital record with scannable QR codes that are linked to a centralized registry. The WHO is working on a smart certificates pilot, in conjunction with Estonia.
253 IOM, "COVID-19 Immigration, Consular and Visa Needs and Recommendations" (issue brief IV, January 2021).
254 Gavi, "Mastercard", accessed 18 February 2021.
255 CommonPass, "CommonPass", accessed 18 February 2021.
256 IATA, "IATA Unveils Key Design Elements of IATA Travel Pass" (press release, 16 December 2020). It stores encrypted data and does not require a central repository or database. However, it requires access to an ePassport, which is set to be used to verify the identity of the user, and it will be connected to emerging contactless travel processes, including the One ID transformation programme. There is therefore a risk that it will be better equipped for countries with established border infrastructure.

coordinate between the products of various coalition members.[257] But without addressing issues such as non-digital certification and offline validation, these initiatives may deepen the digital divide.

With fast-moving innovation, there is a risk of duplication and fragmentation of the field, especially since vaccination records can fulfil multiple goals; for example, there is as much interest in using them to open up sporting and music events as travel.[258] The WHO could help coordinate this landscape, especially in light of the establishment of its Smart Vaccination Certificate consortium in January 2021. These technological solutions also need to be inclusive and allow access to mobility for all migrants and travellers, including those in vulnerable situations or unable to access the relevant technology.

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5 Key Decisions for 2021

Numerous unpredictable forces hold the future of mobility in their grasp. As of early 2021, it is unclear how efficacious the different vaccines under production will be in preventing transmission (not just preventing individuals from infection, as the limited evidence thus far tell us) or in protecting people against new variants. It is equally unclear how quickly vaccines can be produced and rolled out globally, and whether vaccine nationalism will affect how quickly they reach low- and middle-income countries. Alongside vaccines, mortality and the number of severe cases in some countries may fall following the rollout of viable treatments, or even because some degree of herd immunity emerges in countries that have been especially afflicted. An additional question mark hangs over how bad (and how uneven) the ultimate economic fallout will be, and what push and pull impulses this may exert on cross-border mobility and on migration in its many forms. Yet, mobility and migration will remain integral parts of an interconnected world, making it imperative that migration and migrants are included in the process of recovery.[259]

257 N. F. Mondoza, "Microsoft, Mayo Clinic, Oracle among Coalition to Develop Digital COVID-19 Vaccination Passport", Tech Republic, 15 January 2021.

258 For instance, the Government of the United Kingdom has floated the idea of issuing QR codes for those who have been vaccinated to allow them to enter cultural and sporting events. See Michael Haynes, "UK Plans QR Code Vaccine Passport for Access to Public Events", LifeSite, 20 November 2020. Critics point to the uncertainty surrounding vaccine immunity, the possibility of forgeries and discrimination. See Holden Frith, "Experts Split over Plans for Post-Vaccine 'Covid Passports'", *The Week*, 23 November 2020. There are also concerns about data protection and privacy issues, exemplified by a security lapse in Jamaica's data management exposing COVID-19 test records for travellers. See Zack Whittaker, "Jamaica's Immigration Website Exposed Thousands of Travelers' Data", TechCrunch, 17 February 2021. The lessons from other moments of digital innovation, especially those led by the private and civic sectors, are that outpourings of energy and enthusiasm can lead to a front-loaded "idea generation" phase and limited follow-through and connection with mainstream agencies or processes. For instance, the 2015–16 spike in refugee and migrant arrivals in Europe led to a wave of digital innovation, with some extremely bright solutions being developed. But few of these got off the ground and were brought to scale, in part due to considerable duplication and insufficient links to mainstream systems – with the tech community in some cases attempting to reinvent the wheel instead of working with existing structures. See Meghan Benton and Alex Glennie, *Digital Humanitarianism: How Tech Entrepreneurs Are Supporting Refugee Integration* (Washington, D.C.: MPI, 2016); Meghan Benton, "Digital Litter: The Downside of Using Technology to Help Refugees", *Migration Information Source*, 20 June 2019.

259 United Nations, "COVID-19 and People on the Move" (policy brief, June 2020); IOM, "Why Migration Matters for 'Recovering Better' from COVID-19" (issue brief, 25 June 2020).

The year 2020 saw a huge number of innovations designed to restart mobility safely, including rapid airport testing, border health measures such as temperature checks and symptom screening and – most recently – digital health records. Many of these continue to exist within a policy grey area: evidence on their effectiveness is often lacking and implementation is often patchy (for instance, in the case of COVID-19 testing or quarantine regimes that still entail risks), or they have been employed largely as symbolic measures to reassure anxious publics (for instance, thermal scanners and symptom screening that are largely ineffectual yet highly visible).

As governments and authorities begin to more effectively manage the virus and new evidence on the effectiveness of different measures emerges, it will be important to apply these interventions more systematically, to delineate more clearly how travel and health measures contribute to risk mitigation – and should thus be scaled up or down depending on evolving public health situations – and to move beyond the experimentation phase to build greater transparency and common international standards. At this point, governments will face the challenge of designing coherent immigration and border management frameworks in which the different component pieces complement one another and that involve a range of stakeholders in forming multisectoral strategies. More research on what works in different contexts will be needed, as will better sharing of lessons across borders. One particular element that merits further research is how to combine multistage testing and quarantine to minimize personal, societal and economic burdens, and how to use such multipronged strategies to streamline access to regular migration pathways (and avoid burdensome requirements pushing migrants to move irregularly). Countries will also have to coordinate with one another so that their exit requirements complement partner countries' entry requirements, and vice versa.

Whatever is to come in the year ahead, a pressing concern will be to improve international coordination to bring greater predictability into mobility systems and to address the vulnerabilities of migrants who, as this report shows, have in many cases borne the brunt of the pandemic. Regions may need to work together to plan for different scenarios, both optimistic ones in which more countries see the virus wane in 2021 and pessimistic ones, including the continued emergence of multiple strains with different degrees of contagiousness. It became evident in December 2020 that the default reaction to escalating risk remains to reimpose border closures, especially in the context of considerable uncertainty. Agreements on a time-limited lockdown on cross-border movements – while governments and international organizations convene emergency meetings, gather evidence and plan their response to new developments – could provide necessary breathing space without triggering the domino effect of border closures seen in March 2020. The United Nations could guide these efforts, but an important stopgap is likely to be greater regional coordination, and in that regard, other regions could employ a traffic light risk assessment system along the lines of the one being developed in the European Union.

Whatever is to come in the year ahead, a pressing concern will be to improve international coordination to bring greater predictability into mobility systems.

Agencies such as the WHO (with leadership on health policy) and IOM (with an overview of border management technologies and cross-border as well as cross-regional capacities and needs) could also help reduce some of the fragmentation between policies and practices, particularly as pertains to private

sector innovation. To that end, it is a positive development to see a commitment to explore the digital verification of vaccination records, and proposals to engage in a dialogue with States to encourage greater coordination. Ultimately, only an institution with the weight of the United Nations can set standards, bring about greater international coordination and support the development of national health systems so that all countries are able to respond to outbreaks swiftly. As this report shows, there has been a shift over time from blunt entry restrictions to health measures. Making this switch may be a necessary cost of restarting mobility. However, it is important that all relevant actors are in the room for such a discussion, especially given the massively unequal effects of the new health mobility infrastructure on certain vulnerable groups, and that it is not led by health experts alone.

Finally, governments and international organizations may need to look to the future, keeping one eye on the risk of pandemics and other public health crises further down the line. The systems that are developed in the wake of the COVID-19 pandemic will likely last a generation, and they will certainly provide the framework for the response to the next pandemic. Some countries are investing in these developments with a view to pandemic-proofing travel and mobility as well as their health systems; others are concerned that restrictions and requirements developed now in a situation of emergency will "stick" and keep mobility low for the foreseeable future, with all the unintended consequences that brings. Ultimately, a balance will need to be struck.

The systems that are developed in the wake of the COVID-19 pandemic will likely last a generation, and they will certainly provide the framework for the response to the next pandemic.

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