Modern mobility systems

The exponential spread of the novel Coronavirus, called COVID-19, is facilitated by the globalized interconnectivity of current mobility systems, the same transit routes and modes of transportation utilized in international migration.

“It is almost inevitable that as we connect more, as more and more people live in big cities close to airports, which are not only the super-spreaders of the ‘goods’ of globalization, but also the ‘bads’, that contagion would cascade around the world.”

Professor Ian Goldin, Founding Director, Oxford Martin School

Read more about Prof Goldin’s work on pandemics and globalization here.

Mobility tracking globally

IOM’s response to the abrupt changes in international mobility can be found on the dedicated webpage to COVID-19 response. This page also details ongoing IOM work with vulnerable migrants. Notably, IOM is tracking the travel restriction policies of states.

The International Civil Aviation Organization (ICAO) is the specialized agency of the UN for issues related to civil air transport. It’s COVID-19 portal has specified Q&A sheets for States, Air Transport Operators, and the General Public. A statistical page also shows the impact of COVID-19 on air travel. The status of airports is also available on ICAO’s Global COVID-19 Airport Status webpage.

Air travel

In 2018, airlines collectively carried over 4.2 billion passengers from origin to destination. In a data story published in The New York Times, researchers analysed the travel movements of hundreds of millions of people. Air travel facilitated the pandemic spread of COVID-19 internationally; restricting travel has been central to the global response to “flatten the curve”, and is unprecedented historically.

86%
The estimate of infected travelers who went undetected before 23 January 2020.

30 cities in 26 countries
had experienced outbreaks before 31 January 2020.
**Scheduled flights**

To respond to the spread of COVID-19, governments around the world began restricting air travel. Estimates of air travel have found that the number of scheduled flights for the week of 23 March 2020 dropped by 29% compared to the same week in 2019.  

*Global scheduled flight change, year over year*  
Data: OAG Schedules Analyser

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**Train systems**

Preliminary tracing by scientists seems to indicate that a large train station in Wuhan, China seems to have been the initial hotspot transmission point for many cases that would eventually cross provincial lines. The timing of the Lunar New Year motivated some five million passengers to travel out of Wuhan before the lockdown.  
To mitigate the spread of COVID-19, countries with extensive rail systems such as China, India, and many countries in Europe suspended or cut back transport service.

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**Very fast ambulances**

In a modification of an existing mode of mobility, authorities in France have converted several TGV trains into “very fast ambulances” that transport patients in heavily affected regions of France into other regions with available capacity.

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**Mobility going forward**

Some scholars believe that the pandemic’s effects will have lasting effects on work and transport systems. As cities and States have put up transportation barriers, both physical and legal, many potential vulnerabilities could borne by labour migrants and migrants caught in crisis situations.

Transport barriers can lead to situations of forced immobility and steepened inequality. Barriers to humanitarian assistance is expected to put those already vulnerable at further risk. Part of the challenge for states and humanitarian actors (including UN agencies) is managing the uncertainty created by this unprecedented pandemic. Evidence on the impacts of significantly reduced (both positive and negative) will be crucial in evolving policy deliberations. A recent publication by The Lancet suggests that there may be a recurring round of COVID-19 infections in the Northern Hemisphere in Fall 2020. States will be needing to re-assess their mobility and transit systems regularly as evidence comes to light.

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This COVID-19 Analytical Snapshot has been produced by IOM Research (research@iom.int).  
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