

# Stopping the virus and closing borders

October 16 2020



Credit: CC0 Public Domain

Travel restrictions implemented early on in the pandemic have been crucial in slowing the spread of the coronavirus and keeping death rates low. A new study published by Ruud Koopmans, director at the WZB Berlin Social Science Center, shows that countries that had travel restrictions in place by February or early March suffered fewer

COVID-19 fatalities by mid-year than countries that acted later. The study examines for 181 countries worldwide how restrictions on international travel have affected COVID-19 mortality.

Until mid-March 2020, the WHO, the EU as well as German authorities were convinced that the spread of the virus could not be curbed by border closures. "This belief was fatally mistaken," argues Ruud Koopmans. "Travel restrictions should be given much greater weight," he urges. "This holds true for containing upcoming waves of the COVID-19 pandemic as well as similar pandemics in the future."

The study draws on sociological accounts of network diffusion and shows that countries that are heavily exposed to international [travel](#) and tourism—such as France, Italy, and the USA—recorded significantly higher numbers of deaths. At the same time, [death rates](#) in countries more at the margins of international travel networks as well as in island states remained comparatively low.

In view of this key role of international travel flows, the study examines the effects of entry bans and mandatory quarantines on COVID-19 mortality. The earlier such travel restriction measures were implemented, the greater was their limiting effect on mortality. Crucially, [travel restrictions](#) needed to be in place before the local spread of the virus had spiraled out of control. If one compares countries that imposed travel restrictions until early March to countries that implement them from mid-March onward or not at all, mortality within the first group is an estimated 62 percentage points lower than in the second group.

Among the early adopters of travel restrictions with significantly lower death rates are countries such as Australia, Israel and the Czech Republic. Germany, which introduced its first travel restrictions on 16 March, belongs to the late-adopter group, but countries such as Great

Britain, France or Brazil responded even later.

The study shows that the type of travel restriction also plays a role. Mandatory quarantines for incoming travelers were more effective than entry bans. A plausible explanation is that entry bans often include exceptions for both citizens and permanent residents. By contrast, quarantine measures tend to apply to all incoming travelers, regardless of their nationality or country of residence. The study further shows that targeted travel restrictions (represented in the study by entry bans and mandatory quarantines for travelers from China or Italy) were more effective than restrictions targeted against all foreign countries.

**More information:** The study has been published as a WZB Discussion Paper: [bibliothek.wzb.eu/pdf/2020/vi20-103.pdf](https://bibliothek.wzb.eu/pdf/2020/vi20-103.pdf)

Provided by WZB Berlin Social Science Center

Citation: Stopping the virus and closing borders (2020, October 16) retrieved 4 May 2024 from <https://medicalxpress.com/news/2020-10-virus-borders.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--