

**EPIDEMIOLOGY** 

## State intervention in China

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Credit: Liyao Xie / Moment / Getty

COVID-19 spread rapidly in China from its origin in Wuhan. In response, the state used multiple intervention measures including rapid diagnostic testing and isolation of cases and contacts. Among these, one major and unprecedented control measure involved nationwide restrictions on human mobility.

Moritz Kraemer of the University of Oxford and colleagues use real-time human mobility data and case data including travel history to examine how the volume of travel related to the spread of COVID-19 during the epidemic. They find that human mobility data out of Wuhan strongly predicts transmission patterns prior to restriction measures. In contrast, once travel restrictions were implemented, the spread of the virus is better explained by other factors such as local public

health response (case isolation, contact tracing). In contrast, the availability and implementation of large-scale testing does not explain transmission outcomes as well as human mobility. These results suggest that mobility restrictions were the most influential intervention measure in mitigating the geographic spread of COVID-19 in China.

This study reveals the key role that travel restrictions played in containing the COVID-19 outbreak in its early stages. Further work is needed to investigate the social and economic impacts of these intervention measures.

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