Potential roles of social distancing in mitigating the spread of coronavirus disease 2019 (COVID-19) in South Korea

Sang Woo Park1,\* Kaiyuan Sun2 Cécile Viboud2 Bryan T. Grenfell1,2,3 Jonathan Dushoff4,5,6

1. Department of Ecology and Evolutionary Biology, Princeton University, Princeton, NJ,

USA

1. Fogarty International Center, National Institutes of Health, Bethesda, MD, USA
2. Woodrow Wilson School of Public and International Affairs, Princeton University,

Princeton, NJ, USA

1. Department of Mathematics and Statistics, McMaster University, Hamilton, ON, Canada
2. M.G.DeGroote Institute for Infectious Disease Research, McMaster University,

Hamilton, ON, Canada

1. Department of Biology, McMaster University, Hamilton, ON, Canada

\*Corresponding author: swp2@princeton.edu

This article does not necessarily represent the views of the NIH or the US government.

# Abstract

On January 20, 2020, the first COVID-19 case was confirmed in South Korea. After a rapid outbreak, the number of incident cases has been consistently decreasing since early March; this decrease has been widely attributed to its intensive testing. We report here on the likely role of social distancing in reducing transmission in South Korea. Our analysis suggests that transmission may still be persisting in some regions.

**Keywords**

coronavirus disease, COVID-19, SARS-CoV-2, South Korea, social distancing

# Contribution

Data collection: SWP; conceptualization: SWP, CV; analysis: SWP; first draft: SWP, JD. All authors contributed to the writing and approval of the final report.

# Data availability

All transcribed data and original reports used in this analysis are stored in a publicly available GitHub repository: [https://github.com/parksw3/COVID19-Korea.](https://github.com/parksw3/COVID19-Korea) All code and traffic data are stored in a separate GitHub repository: [https://github.com/parksw3/Korea-analysis.](https://github.com/parksw3/Korea-analysis)

1

# Funding statement

JD was supported from the Canadian Institutes of Health Research. The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

# Conflict of interest

None declared.

2