

Disasters Avoided

PANDEMIC PREVENTION

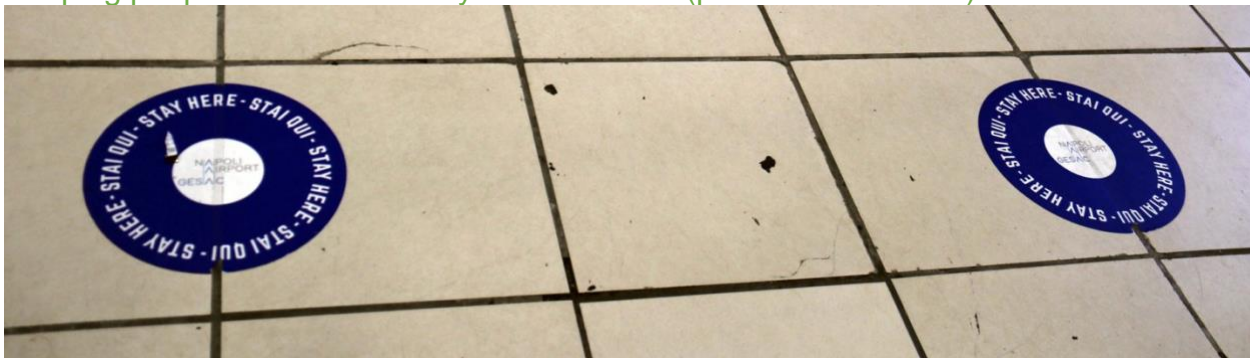
Stopping one pandemic each millennium pays back investment

- The COVID-19 pandemic's immediate cost from mortality, morbidity, and economic losses, is, at minimum, tens of trillions of dollars.
- As well, lost labour, morbidity, and poorer quality of life occur from long COVID.
- International cooperation for pandemic prevention, through pathogen surveillance and response to threats, is at maximum tens of billions of dollars per year.
- Without even considering vaccines, investing modestly in pandemic prevention would pay back with a single pandemic per millennium.

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Keeping people distanced in Italy for COVID-19 (photo: Ilan Kelman).



Poor pandemic prevention via pathogen surveillance and swift response to a threat, offered a stark choice for COVID-19: death through disease and health system collapse or death through lockdowns. Lower estimates of COVID-19's health and economic costs reach tens of trillions of dollars without long COVID's impacts. The World Health Organization's (WHO) budget is under \$4 billion per year for all activities. The cost of international cooperation on pandemic prevention, with or without WHO, appears to be under tens of billions of dollars per year, such as for all countries to fully implement the International Health Regulations. Examples of supporting Earth observations are tracking wildlife trade, new zoonotic microbes, and human pathogens in sewage. Prevention costs orders of magnitude less than pandemics and lockdowns, even for one pathogen per millennium. Since 2000, three new pandemics have appeared (SARS, H1N1 flu, and COVID-19) layered on two ongoing pandemics (HIV/AIDS and cholera).

Sources:

- Cutler, D.M. and L.H. Summers. 2020. The COVID-19 Pandemic and the \$16 Trillion Virus. JAMA, 324, 15, 1495-1496.
- Katz, R. et al. 2012. Costing Framework for International Health Regulations (2005) Emerging Infectious Diseases, 18, 7, 1121-1127.