Study Shows Increased Hand Hygiene at Top 10 Airports Can Reduce Spread of Coronavirus by 37 Percent

Herndon, Va. (February 12, 2020) - As coronavirus spreads across the globe via infected air travelers, authorities are attempting to contain the outbreak and avoid a pandemic. A study published in *Risk Analysis* analyzes the impact of implementing disease mitigation strategies at airports across the globe. The study finds that increasing traveler engagement with proper hand-hygiene at all airports has the potential to reduce the risk of a potential pandemic by 24-69 percent. The researchers also identified ten critical airports, central to the global air-transportation network, and if hand-washing mitigation strategies are implemented in just these ten locations, the pandemic risk can drop by up to 37 percent.

The study, “Hand-hygiene mitigation strategies against global disease spreading through the air transportation network,” suggests that if increased hand-washing practices were instituted in ten key there would be a significant impact on decreasing the spread of viruses. These ten airports are not just locations that see large volumes of passengers, they also connect travelers with destinations in all parts of the world.

The airports include:

- London Heathrow
- Los Angeles International
- John F. Kennedy
- Charles de Gaulle
- Dubai International
- Frankfurt
- Hong Kong International
- Beijing Capital
- San Francisco
- Amsterdam Schiphol

“Airports, and airplanes, are highly infectious because they are close, confined areas with large, mobile populations,” states Christos Nicolaides, Ph.D., lead author, University of Cyprus and Massachusetts Institute of Technology (MIT). “Viruses are spread through bodily fluids, so keeping hands clean at major transport hubs is central to control spread.”

Airports also contain numerous highly contaminated surfaces that are frequently touched by travelers, including self-service check-in screens, gate bench armrests, water fountain buttons, door handles, seats and tray tables. In addition to increasing the frequency at which public
areas are cleaned and sanitized, using proper coughing etiquette, wearing face masks and proper hand hygiene practices are the most common actions that can be adopted by air travelers.

Currently, analyses show that, at most, one in five people have clean hands at any given moment. If hand cleanliness at all airports increased from 20 percent to 30 percent, by increasing the capacity and/or awareness of handwashing, the impact of a potential infectious disease would have a global impact that is 24 percent smaller. A cost-effective measure would be to adopt these practices at the top 10 influential airports, reducing the impact of the disease spreading to just 37 percent.

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