

How can transportation professionals mitigate the spread of coronavirus?

“

In the science fiction film *World War Z*, Earth succumbs to

a zombie apocalypse. Part of the power of the film derives from how quickly the pandemic spreads internationally. The world’s transportation network becomes a disease vector. Replace the zombies with a virus, and you’ve got a less dramatic but just as deadly—and real—threat to world health.

As I write this, COVID-19 (colloquially referred to as the coronavirus) has long since reached the United States from China. America’s Patient Zero returned from Wuhan to Washington State, and the virus hitched a ride. The numbers of those affected continue to rise, and with more than 400 million Chinese traveling this year, it remains to be seen exactly how widespread the outbreak will become.

In the past, when folks hardly ever traveled more than 20 miles from home, viral outbreaks remained largely local. Today, international travel is part of our global business model. National economies are so interconnected that when the Shanghai Stock Exchange shows signs of economic illness, the New York Stock Exchange wakes up with a headache.

Fundamental to the world’s shared economy is a seamless global transportation system facilitating the movement of goods and people, regardless of national borders. But does our transportation network promote public health globally? Think beyond traffic safety, which remains an international priority in transportation research (as it should be). Transportation technology, infrastructure and policy can also help prevent – rather than promote – the spread of disease.

In 2006, the US National Broadcasting Company’s *Today Show* ran an impactful series, *Hidden Germs*, that dramatically demonstrated just how many germs we encounter in public spaces every day (the program regularly updates its findings). The world has become significantly more interconnected since that first broadcast.

International travel has truly taken off thanks to more affordable airline flights. Imagine the level of cross-border viral contamination in 2020. Consider also



“Transportation tech infrastructure and policy can help prevent – rather than promote – the spread of disease”

that new mobility strategies emphasize shared transportation to maximize capacity and mitigate congestion. Dockless bikes and scooters, transportation network companies –we’re interacting more than ever with our fellow travelers. When was the last time you wiped down the steering wheel before driving a rental car?

As we improve and expand our global network, it’s incumbent upon us to determine how to harden transportation assets against the spread of disease. What can we do as scientists and researchers to improve how transportation contributes to public health? How can technology and human ingenuity stop –rather than facilitate –global viral threats?

Let’s not be mindless zombies about this – let’s use our brains and get it done. With enough of us in the conversation, maybe we can even take this topic viral.

Gregory D Winfree is director of the Texas A&M Transportation Institute (TTI)