



Covid-19: experts question the evidence behind closing London Underground and city metros during the pandemic

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City metro systems, including the London Underground, are heeding government advice and reducing services to cope with all but essential travel to help slow the spread of covid-19 in major UK centres. But experts are questioning the need to shut down services completely.

Adam Kucharski, an associate professor at the London School of Hygiene and Tropical Medicine (LSHTM), said that there was no clear evidence that commuters travelling on the underground were at greater risk. Speaking at an event in London this week, he pointed to research from Public Health England and the LSHTM, published in 2014.¹ “This large scale survey of behaviour in the community found no evidence of an association of increased influenza-like illness risk to people who used public transport relative to other forms of transport,” he said.

“Although there is still a lot we don’t know about this infection, we do know that each person who is infectious is giving it to, on average, 2-3 others. So if you think of proximity of contact and how many people are taking the tube in London versus the intense contact you have at home, it can’t be the case that of the 20-30 people we’re passing a day, a high proportion of those is getting infected. Because then you would have a much higher reproduction number. It’s different from something like measles, where if someone sneezes, everyone susceptible in the vicinity will get it.”

He told the Global Health Laboratory event, run by the LSHTM and the *Lancet*, that closing the tube would not be as effective as a quarantine of households. “Because of the value of reproduction number, it suggests that more prolonged, close-knit,

interaction, maybe with physical contact, creates more opportunities to pick things up and will likely come with a higher transmission based on initial indirect evidence.”

David Heymann, however, a professor of infectious disease epidemiology at LSHTM, also speaking at the event, cautioned that the virus was acting in unpredictable ways. “There have been some major explosive events of transmission, which seem to be based on rather casual contact; for example, churches where there has been close contact and an instance in Wuhan where there was an explosive outbreak. I don’t think there is much understood about how they occurred, but it seems that people just in the vicinity became infected. We don’t really understand the characteristics of this virus, which sometimes allows it to transmit in explosive ways,” he said.

In the UK, the government and Transport for London are advising against all but “absolutely essential” travel in London. Metro systems in Newcastle and Liverpool are also running a reduced service following public health advice.

Watch the Global Health Laboratory event (What is the best way to stop a pandemic?) here: <https://panopto.lshtm.ac.uk/Panopto/Pages/Viewer.aspx?id=bd181e3b-2ae8-4804-beaa-ab7300bfa1e3>

1 Adler AJ, Eames KT, Funk S, Edmunds WJ. Incidence and risk factors for influenza-like-illness in the UK: online surveillance using Flusurvey. *BMC Infect Dis* 2014;14:232. doi:10.1186/1471-2334-14-232 24885043

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