
Will Contact Tracing Work?



Contact tracing has been one of the tools a few governments around the world adopted in their responses to the COVID-19 pandemic, with an impressive amount of resources thrown into the development and implementation of this technology. But will it actually work? Not necessarily, say some experts.

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While often reported as an efficient mean to curb the spread of the disease, the applications of the contact tracing technologies have been the source of conflicting attitudes across the world. As Prof. Andy Tatem, Professor of Spatial Demography and Epidemiology at the University of Southampton said in his interview with HealthManagement.org The Journal, the contact tracing and surveillance of individuals “can be, on the one hand, a very valuable tool if we are to get out of the lockdowns, but on the other hand, it is bringing up questions about governments tracking our movements.”

This is not the only concern, however. In his [blog post](#) on Healthcare IT News, Dr Saif Abed of AbedGraham notes that technical discussions on contact-tracing platforms and apps seem to be focussed on centralised (such as in the UK) vs. decentralised (such as the Google-Apple’s Exposure Notification) models for contact tracing while ignoring other issues.

One is the minimum number of users who should opt-in – for both uptake and symptomatic/diagnostic reporting – for a system to become effective. “Poor adoption could happen for a number of reasons such as mistrust of how data will be used but also simply because people don’t have smartphones or are not comfortable downloading apps,” Dr Abed writes. IDG Insider Pro’s Mike Elgan echoes this concern in his [piece](#) on Exposure Notification, pointing out that the majority of people would not care to even download the app. Moreover, other countries, such as Singapore, France, Australia to name a few, have rolled out and are set to use their own national apps.

Elgan also highlights that contact tracing is incapable of tracing all the ways people get the virus, such as touching contaminated surfaces, using public transport or even interacting with their children who got infected by their friends.

For these systems to deliver results, they must share their data and be interoperable with central and local health IT systems to allow for statistical analysis, outbreak mapping, capacity management and early clinical intervention for higher risk groups, notes Dr Abed. This, however, opens up enormous vulnerabilities in the face of cyber attacks, which have been on the rise since the start of the pandemic, especially in healthcare. Adding to this is the tremendous growth in telehealth services due to COVID-19, which likely need to have an interface with contact tracing platforms and thus are also attractive attack targets.

Contact tracing will also be useless unless there is frequent and universal testing in place, continues Elgan, but “in the foreseeable future [testing] will be inaccurate, slow, unevenly applied and rare” in the U.S. He notes that even on the number of tests needed there is still no consensus. Same seems to be true for the EU. According to HealthManagement.org EXEC Editor-in-Chief Alexandre Lourenço, testing policies in Europe depend heavily on the availability of tests – and only countries with production capabilities, such as Germany, can afford to implement broader testing policies, simply because they are capable of producing enough tests.

Among other concerns aired by the experts are, for example, contact-tracing apps’ dependency on Bluetooth-based proximity or, as is the case with the Google-Apple’s app, one-level contact notification, meaning that only those who had been in contact with an infected person would be notified, but not the ones they themselves had been in contact with.

Europe TCP on Contact Tracing

Meanwhile, the Association for Computing Machinery's (ACM) Europe Technology Policy Committee (Europe TPC) has outlined principles and practices for the development and deployment of contact tracing technology for COVID-19.

In a [statement](#), Europe TCP stresses that such systems should, by technical and legal design, "respect and protect the rights of all individuals; safeguard personal data and privacy to the highest degree technically possible; and [be] subject to scrutiny by the scientific community and civil society before, during and after deployment."

The outline concerns five critical areas of policy: technical architecture, development transparency, expert oversight, legal safeguards and public engagement. It suggests that all contact tracing platforms should be used voluntary (individual opt-in); interoperable on an international scale; developed as open source; legally limited in their use and data collection; and available for formal comment with respect to citizens' rights and the 'digital divide.'

Overall, concludes Dr Abed, contact tracing technologies development and implementation should involve interdisciplinary teams "of clinicians, epidemiologists, technical security experts and privacy advocates." Simultaneously, extensive media coverage would help to educate and engage the public and, as a result, to enhance adoption.

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