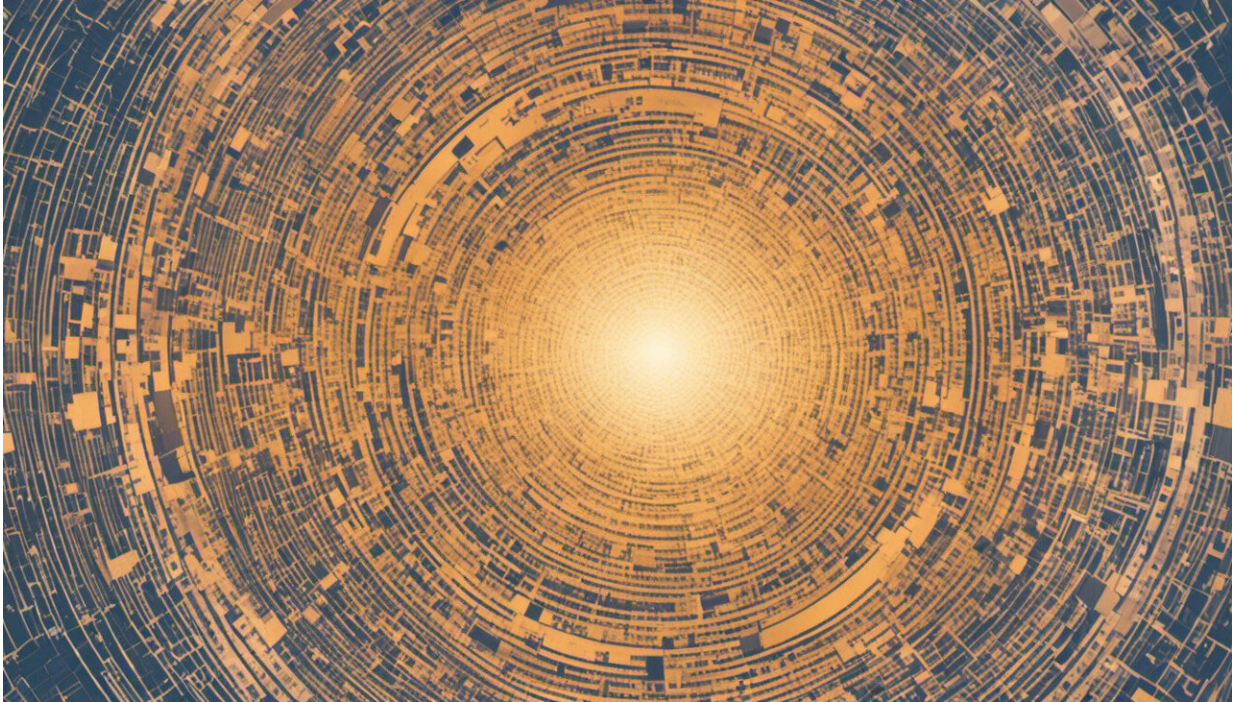


Do contact-tracing apps have a future?

March 16 2022, by Itzelle A. Medina-Perea



Credit: AI-generated image ([disclaimer](#))

It may feel like a long time ago, but it's only nine months since the UK was in the grips of the "[pingdemic](#)". Back in the summer of 2021, lifting COVID restrictions saw the country's contact-tracing apps—the NHS COVID-19 app in England and Wales, the StopCOVID NI app in Northern Ireland, and the Protect Scotland app—notify hundreds of thousands of people of their need to isolate, causing widespread disruption.

Fast-forward to the spring of 2022, and these apps today get little attention. In England in particular, now that [living with COVID](#) is the aim and isolation rules have been removed, the NHS COVID-19 app faces an uncertain future. How it fares could indicate what's to come for the Scottish and Northern Irish apps too, as well as others around the world.

A central component of the [test-and-trace strategy](#) in England and Wales, the NHS COVID-19 app was launched in September 2020 to monitor and manage the spread of COVID. Like many contact-tracing apps, it works using Bluetooth wireless signal—if a person using the app logs a positive COVID test result, other app users who have been in proximity long enough to risk being infected are asked to isolate as a precaution. This hopefully then breaks potential chains of transmission, limiting the virus's spread.

Did it work?

To some extent, yes. [Analysis](#) of the NHS COVID-19 app's performance from its launch up to December 2020 revealed that it helped control the spread of the virus in these early days. During this period, the app was used on a regular basis by roughly 28% of the population, preventing approximately 600,000 cases of COVID at a time when vaccines were unavailable and treatments limited.

However, the app wasn't enough to stop transmission altogether. Cases rose during the autumn of 2020, pushing Britain into lockdown in November and again at the beginning of 2021. Limited uptake in turn limited the app's impact.

Researchers estimated before its launch that it would be effective in [containing the virus](#) only if 60% of the total population (80% of smartphone users) used the app and adhered to the self-isolation advice

delivered by it. At best, uptake was only about half what it needed to be.

And since this analysis was conducted, the nature of the pandemic has evolved. The app was launched prior to the emergence of the more transmissible alpha variant in the winter of 2020, and since then, delta and omicron have made COVID more transmissible still. People's patterns of face-to-face interactions have changed, as restrictions have been lifted and vaccines have lessened the threat of COVID.

As we saw in the summer of 2021, changes to the virus and people's behavior saw so many people being exposed and told to isolate by the app that many [began to question](#) the practicality of using it. The app's [sensitivity was turned down](#) to try to lower the number of people being asked to isolate, but this will inevitably have lessened its ability to stop the virus from spreading.

As 2021 progressed, notifications sent by the app [declined steadily](#). Cases, though, plateaued at a relatively high level—therefore [possibly indicating](#) that fewer people had the app switched on and that many had given up on using it. That said, notifications did rise sharply again before last Christmas, indicating that plenty still had it switched on.

What next?

Existing research doesn't give a firm indication of what impact a contact-tracing app might have in a future outbreak. But what we do know from the early stages of this pandemic is that this technology can help limit the virus's spread. It's therefore plausible that these apps could be used again if lowering cases of COVID (or perhaps even another disease) were necessary.

But what's also clear is that a tool like this cannot be a substitute for other efforts. It needs to be used alongside [other key measures](#)—such as

face coverings, social distancing and widespread and effective testing—to work well. If these apps return to widespread use, they would need to be part of a package of controls.

And if apps were to be relied on again, several issues would need careful attention. Firstly, there's the question of personal data. Public concern about how personal data is used is high. [People want to know](#) who has access to data about them, to have more control over how organizations use their data, and to know where data about them is stored.

[Surveying](#) shows that concerns about personal data uses were lower in the context of controlling COVID. And previous research conducted in the UK found that people generally supported their [personal data](#) being used by others if it was for the [public's benefit](#). But if it's not clear that resuming using these apps is beneficial, then maintaining support for them and driving uptake could be difficult.

Another issue to resolve is the unevenness of these apps' use. With the NHS COVID-19 app, uptake was [significantly lower](#) among the elderly, people from ethnic minorities and those from disadvantaged areas, even though people in these groups are most at risk from the coronavirus.

If there were a pressing need to use these apps once again, it would be important to adopt strategies to increase use among these groups. [Coming up with alternatives](#) to involve those without smartphones—or who through age, disability or lack of digital literacy are otherwise excluded—would also be important.

But of course, whether the UK will reach a point where it needs to try to contain cases through high use of these apps is hard to predict. Certainly in England, for now the government's plan seems to be to step away from trying to control viral transmission. It hasn't, though, completely abandoned the NHS COVID-19 app. NHS Test and Trace has [signed a](#)

[deal](#) for the ongoing development and support of the app until at least the end of 2022.

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