

Pooled testing among recommendations to fix test, trace and isolate system

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In a series of recommendations to fix the struggling COVID-19 test, trace and isolate system in England, health researchers from University College London and the London School of Hygiene & Tropical Medicine say that pooled testing for COVID-19 could significantly increase testing capacity in a relatively short space of time and help with the identification of asymptomatic cases in key workers.

Writing in the *Journal of the Royal Society of Medicine*, the researchers say that evaluating samples in batches rather than individually, and re-testing only the groups that come up positive means fewer tests overall would be needed. Several countries, including China, U.S., Germany, Portugal, New Zealand, Rwanda, Uruguay, Israel and Vietnam have used pooled testing to considerably increase [testing capacity](#) and decrease pressure on lab reagents and operators.

As positivity rates rise, however, pooling becomes less efficient because more samples have to be tested. Co-author Alex Crozier, from the Division of Biosciences at University College London, said,

"We are close to missing that window of opportunity in England unless we can control transmission quickly. For now, pooling may be best reserved for surveillance testing and asymptomatic screening of healthcare workers, care homes and hospital pre-admissions."

As well as increased investment in NHS and Public Health England labs to scale up additional testing locally and making use of unused lab capacity in universities and research institutes where possible, the recommendations include the initiation of environmental surveillance by testing wastewater as an early warning system for COVID-19 outbreaks.

The authors also recommend a major investment in people on the ground to support [contact tracing](#). Pointing to Massachusetts where a \$44 million contact tracing program hired and trained 1,000 people to support existing local public health volunteers, the researchers write that this approach is much less costly than the UK government's £100 billion 'Operation Moonshot', and has reached 91.8% of cases and 78.8% of contacts. Recognizing the important role played by superspreading events, another of the recommendations is to increase resources to enable a greater focus on identifying clusters using retrospective tracing, as seen in several countries that have been most successful such as Japan, South Korea, and Uruguay.

Another of the authors, Professor Martin Mckee, of the London School of Hygiene & Tropical Medicine, said, "England stands on the edge of a precipice: find, [test](#), trace, isolate and support strategies need to be re-thought to have any chance of avoiding a considerable rise in cases over the coming months requiring a return to stricter social distancing measures nationwide. Our recommendations are feasible, do not require further individual sacrifice and would likely have a significant impact on driving down the reproductive number and reducing the

socio-economic impact of the pandemic if they were implemented quickly."

More information: Alex Crozier et al, Fixing England's COVID-19 response: learning from international experience, *Journal of the Royal Society of Medicine* (2020). [DOI: 10.1177/0141076820965533](https://doi.org/10.1177/0141076820965533)

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