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Covid-19: Government faces criticism over £500m plan to pilot mass testing

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Experts have questioned the UK government's decision to expand its testing programme for covid-19 to the mass population, including people without symptoms.

Current government advice is that only people with symptoms should have a covid-19 test. But on 3 September the government announced a substantial investment of £500m (€558m; \$661m) to support trials of wider mass population testing, as well as a quicker "20 minute" saliva test for covid-19.¹

Jon Deeks, professor of biostatistics at the University of Birmingham and lead author of a recent Cochrane review of covid-19 antibody tests, questioned the wisdom of mass testing, given the potential for false positives.

"If you start testing everybody it turns into a screening programme, and you need to be very clear that you're going to do more good than harm by this," he said. "With these tests, there's been a lot of concern about false positives. Experts on screening should be advising on this."

The money will fund a new pilot programme to trial saliva based mass population testing in the community in Salford, Greater Manchester. Local people—including those with no or minor symptoms—will be invited for a weekly test on a repeat basis. The pilot will initially process as many as 250 tests a day and will focus on high footfall locations such as shops, public services, transport, and places of worship before eventually expanding to the whole area.

The funding will also cover an expansion of existing trials of saliva testing in Southampton and a rapid 20 minute test in Hampshire, as well as funding new equipment at the government's Lighthouse laboratories to process more polymerase chain reaction (PCR) test samples simultaneously.

False positives

The government is also opening a new Lighthouse laboratory near Loughborough, Leicestershire,² which it hopes will process around 50 000 swab tests a day by the end of the year. It aims to increase the UK's overall testing capacity from 350 000 currently to 500 000 tests a day by the end of October.

Tom Jefferson, an epidemiologist for the Nordic Cochrane Centre and coauthor of a preprint paper examining viral cultures for assessing covid-19 infectivity,³ said that, while evidence showed that PCR tests were effective, the number of false positives they yielded must be taken into account when deploying them.

He said, "PCR has got a real role—it's an excellent test, but it's being misused. Essentially, what we are talking about is false positives. The test cannot distinguish between a live virus and the remnants of the virus [which can remain in the body after a person has recovered] which are of no significance whatsoever. If it's used in a simplistic yes/no fashion, then you'll pick up gazillions of cases."

Jefferson added, "I don't understand the logic behind mass testing. The logic I was taught at medical school is that you need to isolate the infectious. If you can't distinguish between infectious and non-infectious then you'll end up locking up the whole country."

Deeks also questioned the amount of money being committed to the trial, particularly given its lack of scientific protocol. "Half a billion pounds is an awful lot of money compared to other funding that the government puts into health research," he said. "Is it good value for money?"

Ethical aspects

Allyson Pollock, co-director of the Newcastle University Centre for Excellence in Regulatory Science and an Independent SAGE committee member, who recently co-wrote an editorial in *The BMJ* on mass testing programmes,⁴ tweeted, "We haven't got [the] basics right on testing and government [is] about to squander half a billion. There are so many unknowns with tests. The opportunity costs are huge meanwhile patients can't get access to essential healthcare including physio rehab. Who is profiting from this?"

Angela Raffle, consultant in public health from University of Bristol and coauthor of the *BMJ* editorial,⁴ said, "I hope that the pilots will be overseen by people who have relevant experience in communicable disease control and in delivering mass testing in low risk groups."

"I hope that the ethical aspects of the research have been fully considered and that participants will receive sound information about what is involved. I hope also that any commercial conflicts of interest will be declared."

Deeks said that the government's "number one" priority should be ensuring that everyone who needs to can get a test and results within 24 hours. "We haven't met that yet," he said. "It seems like people are still having to travel 100 miles to get a standard swab PCR test."

The Department of Health said that all work to understand how mass testing could be used was based on the latest clinical and scientific expertise and that issues such as false positive rates would be considered before any rollout.

England's health secretary, Matt Hancock, said, "We need to use every new innovation at our disposal to expand the use of testing and build the mass testing capability that can help suppress the virus and enable more of the things that make life worth living."

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- 2 Department of Health and Social Care. New Lighthouse Lab to boost NHS Test and Trace capacity. 3 Sep 2020. <https://www.gov.uk/government/news/new-lighthouse-lab-to-boost-nhs-test-and-trace-capacity>.
- 3 Jefferson T, Spencer E, Brassey J, Heneghan C. Viral cultures for COVID-19 infectivity assessment. Systematic review. doi: 10.1101/2020.08.04.20167932. <https://www.medrxiv.org/content/10.1101/2020.08.04.20167932v3>.
- 4 Raffle AE, Pollock AM, Harding-Edgar L. Covid-19 mass testing programmes. *BMJ* 2020;370:m3262. doi: 10.1136/bmj.m3262 pmid: 32819920

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