# How daily testing saved a city's emergency services from a COVID catastrophe

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University of Liverpool researchers have played their part in an evaluation showing that key workers in Liverpool carrying out daily testing prevented COVID-19 from crippling emergency services.

New findings published by a major health journal have revealed the world's first testing pilot saved almost 8,000 work days from being lost to self-isolation.

At the height of the pandemic, there was a risk of so many staff being in quarantine that essential services would be unavailable—so Liverpool pioneered "test-to-release" with daily testing as an alternative to quarantine.

Liverpool residents who worked in a range of key organizations, including Merseyside Police, Merseyside Fire and Rescue Service, and Alder Hey Children's Hospital took part in the pilot, which has recently been evaluated by Liverpool City Council and the University of Liverpool.

Over 30 staff from both Liverpool City Council and Liverpool Streetscene Services Limited (LSSL) also took part in the pilot—reducing the impact on frontline services—such as waste collection and domiciliary care in the city.

The SMART (Systematic Meaningful Asymptomatic Repeated Testing) Release pilot evaluated the use of daily testing as an alternative to the 10-day quarantine at home rule that was in force at the time for people in close contact with COVID-19 cases.

Iain Buchan, Professor of Public Health and Clinical Informatics and Associate Pro Vice Chancellor for Innovation at the University of Liverpool, said, "The people of Liverpool, including the great public services taking part in this research, showed how rapid antigen test kits could be used by key workers to keep their teams going with daily testing instead of quarantine—balancing the risks of spreading the virus with the risks of essential services going down—they struck an effective balance and this became national policy. This was a great example of

urgent public health research partnership between local public health teams, academics and the communities we serve."

Marta García-Fiñana, Professor of Health Data Sciences from the Institute of Population Health at the University of Liverpool, praised "the fantastic engagement and contribution of key workers from each of the public services across Merseyside. Particularly at a time of immense service pressure, they made possible this study which has provided further evidence on the key role of serial testing in COVID-19 test-to-release interventions."

Cabinet Member for Social Care and Health, Cllr. Frazer Lake, said, "I'm immensely proud of the part Liverpool has played in piloting rapid testing for COVID-19. The key worker pilot ensured essential services such as home care, children's hospital services, emergency call centers and policing were able to continue—keeping Liverpool communities and our vulnerable residents safe."

Director of Public Health for Liverpool, Professor Matthew Ashton, said, "Making the pilot a success required flexibility, dedication and hard work from all of the front-line services involved, and the strength of our local partnerships is highlighted as a key element in the pilot's success. The SMART testing pilot was a pioneering public health intervention—and is one that helped to keep front line services working, thereby protecting both lives and livelihoods in our city."

Daily testing between December 2020 and August 2021 enabled key workers to carry out vital services in the city and was part of the wider SMART testing pilot—which saw Liverpool deliver the world's largest symptom-free testing program for COVID-19.

It's estimated that the pilot, which involved more than 1,600 frontline staff from across Liverpool, helped save numerous lives by avoiding

staffing levels from dropping below crisis levels. The wider findings have now been published in *eClinicalMedicine*.

**More information:** Lucy Marsden et al, Daily testing of contacts of SARS-CoV-2 infected cases as an alternative to quarantine for key workers in Liverpool: A prospective cohort study, *eClinicalMedicine* (2022). DOI: 10.1016/j.eclinm.2022.101519

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