ROYAL STATISTICAL SOCIETY

DATA | EVIDENCE | DECISIONS

RSS STATEMENT WELCOMING RANDOMISED EVALUATION OF INFECTION CONTROL INITIATIVE

04 May 2021

STOP is a major step forward in using formal experimentation to evaluate robustly infection control initiatives. The Royal Statistical Society, in our Covid Lessons Learned Memo, has called for designed studies using randomisation to evaluate the effectiveness of testing policies – and we had repeatedly made this call elsewhere.[1,2] We congratulate ministers for having championed this large randomised evaluation of infection control policies. Evaluation of complex interventions calls for randomization (to control bias) and adequate study size (to give precise answers), just as the RECOVERY trial has shown the power of randomised trials to guide treatment policies.

This major randomised controlled trial has been designed to compare the impact of alternative approaches to the testing and quarantine of close contacts on SARS-CoV-2 transmission to, and from, close contacts of those newly diagnosed.

Close contacts who consent to be randomised are assigned (effectively by the toss of coin) to two modes. Either **business as usual**, which means that a PCR-test is issued for immediate home-use as the close contact embarks upon their self-isolation. Or **temporary release** via serial lateral-flow-tests (LFTs): on the first day both an LFT and PCR are taken, and on each subsequent day a negative LFT allows the close contact to keep to their normal activities. Any LFT positive requires that the second PCR is used immediately for adjudication, but if the LFTs are negative for a week, the second PCR is taken on the same day as the seventh LFT.

As with randomised clinical trials of medical interventions, the infection control trial STOP has its own independent Data Safety Monitoring Board and will report detailed measures of attack rates, notably the proportion of contacts of contacts who develop SARS-CoV-2 infection.

RSS President and co-chair of the RSS Covid-19 Task Force, Sylvia Richardson, said:

“The Royal Statistical Society welcomes the launch of a major trial by Public Health England, STOP, to evaluate an alternative approach to self-isolation. It is right to put randomized evaluation of effectiveness at the heart of the government’s response to Covid-19 – it enables us to improve our response by having solid evidence on the relative merits of different approaches.”

[1] Royal Statistical Society Working Party on Performance Monitoring in the Public Services (chair: **Bird SM**). *Performance indicators: good, bad, and ugly. Journal of the Royal Statistical Society, Series A* 2005; 168: 1 – 27.

[2] Royal Statistical Society COVID-19 Taskforce. *Statement on how efficient statistical method can glean intelligence from Test, Trace and Isolate* with accompanying technical appendix, issued on 23 July 2020.