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## **Royal Statistical Society to review lack of statistical evidence around diagnostic tests**

The Royal Statistical Society (RSS) has launched a new working group to advise on the development of statistical evidence for *in vitro* diagnostic (IVDs) testing for infectious diseases.

The RSS Working Group on Diagnostic Tests has been created in response to concerns about a lack of basic statistical evidence on clinical and analytical performance of a number of new diagnostic tests that are available – including the polymerase chain reaction (PCR) test widely used in the UK to detect Covid-19. The experts are calling for stronger statistical standards going forward, which they seek to inform.

Unlike medicine, the accuracy and performance of diagnostic tests are not currently held to a common statistical standard in either the UK, US or EU. This has been a longstanding problem, but the Covid-19 pandemic has brought this issue to the fore, as numerous testing plans have been announced without proper reference to the scientific evidence that underpins them.

Co-chaired by RSS president Professor Deborah Ashby and Professor Jon Deeks, the group aims to review the statistical evidence needed to assure the performance of new IVDs and propose a set of recommendations for regulators and government, to assist in the development of new standards. It is hoped that these will not only inform testing for Covid-19 but for other infectious diseases as well.

### **Professor Deborah Ashby, RSS President and co-chair of the working group, said:**

“The Covid-19 pandemic has shone a light on gaps in knowledge regarding diagnostic testing and the lack of quality assurance, which is so crucial for controlling the disease.

“It is essential for public confidence that there is transparency around the evidence base which informs these important policy decisions. As statisticians, we want to help decision-makers by setting out clear statistical criteria that should be used to assure the effectiveness of diagnostic tests.”

### **Notes to editors**

- The Royal Statistical Society (RSS), founded in 1834, is one of the world’s most distinguished and renowned statistical societies. It is a learned society for statistics, a professional body for statisticians and a charity which promotes statistics, data and evidence for the public good. Today the RSS has around 10,000 members around the world. [www.rss.org.uk](http://www.rss.org.uk)
- The working group’s advice will be made publicly available in autumn 2020.
- The group’s terms of reference and membership can be found here: <https://rss.org.uk/policy-campaigns/policy/working-group-on-diagnostic-tests/>