Exploratory economic modelling of SARS-CoV-2 viral detection point of care tests and serology tests

There are 2 broad categories of COVID-19 testing:

- a viral detection test can be used to confirm the presence of SARS-CoV-2, the causative agent of COVID-19
- a serology test can be used to determine if someone has previously been exposed to SARS-CoV-2 and now has antibodies against the virus.

The viral detection test typically involves an analysis of throat or nose swabs or saliva samples, for the presence of genetic material from SARS-CoV-2 in people who are suspected of having a COVID-19 infection. People who test positive can then be can be given appropriate advice on isolation and allow contacts to be traced. The serology test involves analysing small samples of blood for the presence of antibodies specific to SARS-CoV-2. The serology test may be useful to identify people who may have recovered from suspected or confirmed SARS-CoV-2 infection or who may have been asymptomatic. It is currently unclear if the presence of SARS-CoV-2 antibodies mean a person cannot be re-infected. The tests in this assessment will potentially be done in a variety of settings including the community, primary care, and secondary care.

The NICE diagnostics assessment programme will undertake exploratory modelling of viral detection point of care tests and serology tests (point of care and laboratory based) to highlight the parameters that are most influential on cost-effectiveness modelling results. The assessment will include modelling of the MHRA's target product profiles only and should help to inform NHS England's COVID19 diagnostic strategy, commissioning policies and the need for further research or audit commissioning on key data that are missing or found to be highly uncertain.