Title: NPHET Test and Trace Paper

Author: Niamh O'Beirne

Organisation: HSE

Date: 28th January 2021

Action required:
☐ For noting
☑ For discussion
☐ For decision

Approved for future publication: YES/NO (remove as applicable)
NPHET Testing and Tracing Paper, 28th of January 2021

Updates are provided below regarding the following aspects of Testing and Contact Tracing:
   1) Activity levels across referrals, sampling, laboratory testing and contact tracing,
   2) Turnaround Times,
   3) Delayed Test Services
   4) Testing Programmes,
   5) Process improvements,
   6) Service Model: Testing and Tracing,
   7) Update on key challenges and issues.

1. Activity levels across referrals, sampling, laboratory and contact tracing

Referral Data and results
The total number of community referrals has fallen by 26% since this time last week. Referral data from 18th – 24th of January shows that the group with the largest amount of all referrals is the 31-40 age group, which makes up 19.4% of all referrals. The detected rate for the 31-40 age group is 16.9%.

Sampling in the community and in acute settings.
Over the seven-day period, 20th – 26th of January, there has been approximately 138,772 swabs taken for COVID-19 testing. A total of 57,102 swabs were taken in the community, the majority were performed at fixed testing sites and a portion as home visits. Approximately 47,913 swabs were taken in acute and private acute settings. The remainder 33,757 swabs were taken as part of the Serial Testing Programmes of staff in Residential Care Facilities and staff in Food Production Facilities.

Laboratory Testing
Over the seven-day period, 20th – 26th of January, there has been 141,692 lab tests completed. A total of 80,876 of these tests were processed in community laboratories, 34,726 tests were processed in acute laboratories, 17,322 were processed in private labs and 8,768 in offshore labs.

Contact Tracing
Contact tracing is carried out in contact tracing centres in Galway, Limerick, Cork and Dublin. On the 1st January we changed the way we organise our work to respond to the significant surge in cases by doing call 1 (inform positive patient) and call 2 (take contact details) together, therefore these calls are reported in this paper as 1.

From 20th – 26th of January, a total of 14,335 calls were made in the Contact Tracing Centers. A total of 12,969 of these calls were Call 2as. This call informs the patient that they have received a detected COVID-19 result and collects their contacts. A total of 1,366 of these calls were Call 3s.

As of 1st January, close contacts no longer receive a phone call, they receive a SMS which notifies them of their close contact status and to provides public health advice. From 20th – 26th of January, a total of 15,405 SMSs were sent to close contacts of a confirmed case.

As of 27th of January, of those tested with close contacts, the average number of close contacts per case was 2.8.

From Friday, 29th January we will recommence the automatic testing of close contacts and recommence the three call structure which enables the gathering of enhanced data. We will also deploy new technology for booking tests. We will begin with offering one test on Day 5.
2. Turnaround Times (20th – 26th of January)

End-to-end turnaround time
We continue to keep sharp focus on end-to-end turnaround times, highlighting any opportunity for improvement, while recognising that some cases are increasingly complex in nature.

Over the seven-day period 20th – 26th of January;
• The median end-to-end turnaround time, from referral to SMS, for not detected tests in the community setting was 1.4 days.
• The median turnaround time, from referral to communication of a detected result by SMS, in community settings was 1.7 days.
• The median end-to-end turnaround time, from referral to the end of contact tracing, for detected results in the community setting was 1.9 days.

Overall Swab to laboratory result communicated – Medians
• 26 hours in Acute.
• 24 hours in Serial Testing.
• 27 hours in Community.

Referral to appointment
In the community, the median time from referral to appointment was 0.1 days.

94.2% of GP referrals are provided with a COVID-19 test appointment within 24 hours.

Swab to lab result
For swabs processed in a community lab, the median time for swab to lab result was 24 hours.
For swabs processed in an acute lab, the median time for swab to lab result was 20 hours.
The combined median time from swab to lab result was 22 hours.

Contact Tracing
The average time to complete all calls is 5.1 hours and the median time to complete all calls is 2.7 hours.
3. Delayed Test Services

**HSELive**

If a member of the public has been waiting longer than two days for a test result, they can contact HSELive on 1850 24 1850. The HSELive team will take all the required details and will send this information to the Delayed Test Result Search Service. The Search Service will get back to the caller directly and aims to complete searches within 24 hours of the @HSELive call.

- In the last seven days (Jan 18th – Jan 24th) 2016 queries have been received.
- This has increased from last week where 1216 queries were received. (↑66%).
- This has also increased compared with last 30 days, when 1645 weekly queries were received on average. (↑22%).
- A total of 99% of queries received in the last seven days were fully resolved within the 24-hour target.

**GPs**

In collaboration with the ICGP, there is now an established email service for GPs whereby GPs can submit their query using a password protected form in respect of a delayed test result. Results are communicated to both the GP and patient.

- In the last seven days (Jan 18th – Jan 24th) 38 queries have been received.
- This has increased from last week where 45 queries were received. (↑19%).
- This has increased compared to last 30 days, when 28 queries were received weekly on average (↑36%).
- A total of 95% of queries received in the last seven days were fully resolved within the 24-hour target.

**Healthcare Workers & HSE Occupational Health**

Staff can enquire about their delayed test result via the Healthcare Worker Covid-19 Helpline on 1850 420 420. Queries are directed to the Delayed Test Result Search Service. Occupational Health can also direct queries to the Search Service via the GP email address using a password protected form. Results are communicated to both occupational health physician and healthcare worker.

- In the last seven days (Jan 18th – Jan 24th) 85 queries have been received.
- This has increased from last week where 63 queries were received. (↑25%).
- This has increased compared to last 30 days, when 52 weekly queries were received on average. (↑64%).
- A total of 95% of queries received in the last seven days were fully resolved within the 24-hour target.
4. Testing Programmes

**Serial Testing in Residential Care Facilities**
Serial testing in Residential Care Facilities (RCF) commenced on the 23rd of June. To date, the programme has completed 505,315 tests and identified 3,773 detected cases. This is a detected rate of 0.75%.

Cycle 7 of serial testing of RCFs commenced on January 4th, as of January 27th a total of 87,539 tests have been completed, with 1,897 detected cases (detection rate: 2.17%). This week, targeted testing in Mental Health RCFs and Disability RCFs that meet certain criteria has commenced. This criteria was based on Public Health guidance.

**Serial Testing in Food Production Facilities**
Serial testing in food production facilities commenced on the 21st of August. To date, the programme has completed 98,935 tests and identified 814 detected cases. This is a detected rate of 0.82%.

Cycle 5 of serial testing commenced on 12th of January and as of the 27th of January, a total of 12,400 swabs have been completed with 288 detected cases (detection rate: 2.32%).

**Acute Hospitals Testing Programme**
The National Public Health Emergency Team (NPHET) requested a cycle of PCR serial testing for Acute HCWs in a selection of hospitals (model 4/3/2) in December 2020. The first model 2 hospital, St. Colmcille’s Hospital, Dublin concluded testing on January 22nd after 3 days of testing.

There was a total of 544 staff referred for COVID-19 testing. Of these a total of 120 staff were not tested in this cycle due to an outbreak in the hospital, which meant these staff had COVID-19 tests on previous days. A further 100 staff were previously COVID-19 positive and therefore did not meet the criteria for this serial testing cycle. A total of 16 individuals chose not to partake in the testing programme. This resulted in a total of 308 tests completed. Of the 308 tested, there were 5 detected, 302 not detected and 1 not tested resulting in an overall detection rate of 1.6%.

**Schools Testing Programme**
COVID-19 testing is ongoing in childcare facilities. As of January 27th, 1,629 facilities (primary school, post primary school, special education and childcare facilities) have had/are having some testing completed based on a Public Health Risk Assessment. A total of 45,435 tests have been carried out as part of this mass testing. From the 1,629 facilities that had mass tests, an additional 1,531 detected cases have been identified over and above original cases. This equates to a detected rate of 3.4%.
5. Process Improvements
We continue to work to improve turnaround times, consistency and our end-to-end testing pathway in general. This section presents the latest set of enhancements.

Data Quality improvements
Several major improvement initiatives have been identified to improve the test and trace process. When complete, these will deliver faster results to the public, accelerate issue resolution and enhance overall operational management and effectiveness. Immediate priority improvement initiatives include investigation to ensure facilities that are part of serial testing are receiving an overview of their results as quickly as possible. Ensuring accurate data is submitted when the test is being scheduled will generate faster and more accurate reports.

A comprehensive review of Pending Patient Queue processes has been conducted and was finalised. This ensures that patients with a detected case of COVID-19 that have been identified as having a data quality issue, will be resolved and added to the call queue more expediently. The review contributed to placing a significant process change resulting in faster resolution for cases where data quality issues were delaying notification. The process for dealing with 'unknown' test results continues to work well, with active follow-up and solutions being iterated to deal with these scenarios.

Additional initiatives are being considered with acute labs to identify more significant efficiency opportunities following the initial data capture point. Specific pathways are being explored that relate to identifying hospital inpatients with a 'not-detected' result that have undergone a COVID-19 PCR test and the prevention of further communication being provided. An overview has been developed to indicate expected timings and to consider critical aspects of an automated solution. A solution has been identified & approved to prevent automated communication with patients who have swabs collected postmortem. Once developed, this will enable the sensitive handling of contact tracing in such instances. The trial in an acute hospital to test improvements for more targeted communication is ongoing. Upon successful completion of the development, improvements can be rolled out to a broader number of acute hospitals.

Ongoing investigation and results monitoring analysis are underway to identify the source of insufficient data entering the CRM system, Covid Care Tracker. Where required, appropriate guidelines and next steps are communicated to ensure processes are improved and continuous data quality improvements. Work is also underway on system integration to ensure referral to contact tracing is seamless and developed with the patient at the core.
6. Service model: Test and Trace

The implementation of the service model for Test and Trace is well progressed. This includes recruitment to enable the staffing of the service model for community swabbing, labs and contact tracing and estate development in terms of a permanent and sustainable testing centre and contact centre footprint.

Engagement between the Minister, the Department of Health and the HSE has continued in respect of testing volumes and associated costs. With respect to testing volumes, the HSE is working towards daily capacity in the region of 25,000 tests. Several programmes of work are in place to implement this and to ensure a stable, quality assured service is developed at this scale. The next step is to finalise and agree the associated costs for the service with the Department of Health, which have been shared for review and input.

The service has been experiencing a significant and unprecedented surge since December 22nd. Recent trends continue to show an abatement in terms of average weekly referral activity (down 59% from the peak week of 28.12 – 03.01), positivity rates (currently c.8.8% over the last 7 days, down from a peak of 24.5% (31.12 - 06.01) and the number of close contacts (currently an average of 2.8 over the last 7 days). In response to this surge short-term escalation of activity, plans were put in place to prioritise the available capacity, which enabled the service to meet demand far beyond the standing capacity and levels predicted. Demand planning scenarios are being refreshed on an ongoing basis to support operational planning and a resumption of normal service across the end-to-end pathway.

Recruitment of staff to support swabbing activity and contact tracing activity is ongoing. As of 25th of January, a total of 717 swabbers have been hired and placed to support swabbing activity. As of 25th of January, there is a total of 890 staff supporting contact tracing. Of these 890 staff, 819 of these staff have been hired and retained as part of the dedicated workforce to support the contact tracing function. The remaining 71 staff are deployed staff from the HSE and other public service roles.
7. Update on any key challenges/issues

1. Over the past week, we have seen a decrease in demand for community testing as well as a decrease in positivity rate (c.8.8% this week, vs. 13% last week). A total of 19.4% of all referrals in the last week were associated with the 31-40 age group.

In order to ensure that our services can continue to meet demand now the full team of over 600 community swabbers are being deployed. In addition, the network of testing centres is also set up to address this surge in demand. There are 36 permanent community testing centres currently operating. In addition, we are deploying additional pop-up test centres in areas of most acute need. These have included the following: Tallaght Stadium, St Joseph’s Hospital Limerick, Donegal Town, Slane, New Ross, Ennis and Waterford City. In addition, there are 6 NAS teams available to support establishment pop-up centres at short notice, as needed to support surge capacity.

In addition, our network of labs has a daily capacity available of 21,400 tests in our community labs, 2,000 tests in our offshore labs, over 1,700 in our private labs and an additional 4,500 lab capacity in our acute labs. Our lab network has engaged surge capacity in order to respond to the significant increases in demand felt across the test and trace system. This influx in volumes has also had an impact in our contact tracing centres. This increase has required a combined Call 1 and Call 2, an individual will be informed of their detected result and their contacts will be collected in one single call. Furthermore, as of 1st of January, close contacts are not receiving a phone call to inform them of their close contact status but instead receive a text message.