Title: NPHET Testing and Tracing Paper

Author: Niamh O’Beirne
Organisation: HSE
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Action required:
☐ For noting
☑ For discussion
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NPHET Testing and Tracing Paper, 7th of January 2021

Updates are provided below regarding the following aspects of Testing and Contact Tracing:

1) Activity levels across 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 sampling, laboratory and contact tracing

**Sampling in the community and in acute settings.**
Over the seven-day period, 29th – 4th of January, there has been **approximately 164,276 swabs** taken for COVID-19 testing. A total of 120,635 swabs were taken in the community, the majority were performed at fixed testing sites and a portion as home visits. Approximately 22,367 swabs were taken in acute settings. The remainder 21,274 swabs were taken as part of the Serial Testing Programmes of staff in Residential Care Facilities and staff in Food Production Facilities.

*Please note:* data from 27th of December – 2nd of January show that the 21-30 age group makes up 22.4% of all referrals, the age group with the largest percentage of referrals. The detected rate for the 21-30 age group is significantly high at 25%.

**Laboratory Testing**
Over the seven-day period, 29th – 4th of January, there has been **160,407 laboratory tests completed.** A total of 123,027 of these tests were processed in community laboratories, 25,810 tests were processed in acute laboratories, 3,988 were processed in private labs, and 7,582 in offshore labs.

**Contact Tracing**
*From 29th of December – 4th of January, a total of 95,430 calls were made in the Contact Tracing Centers.* A total of 31,294 of these were Call 1s which involves the communication of a detected result. The remaining 64,136 calls that were completed related to contact tracing.

Over the past seven days, the average number of close contacts per case was 4.8, compared to 5 in the previous week.

Contact tracing is carried out in Galway (HSE), Limerick (HSE and Revenue), Cork (HSE), Dublin (Sandyford), Dublin (UCD), Parkgate street and Dublin HSQ.
2. Turnaround Times (29th of December – 4th 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 29th of December – 4th of January;

- The median end-to-end turnaround time, from referral to SMS, for **not detected** tests in the community setting was **2 days**.
- The median turnaround time, from referral to communication of a **detected result** by SMS, in community settings was **2 days**.
- The median end-to-end turnaround time, from referral to the end of contact tracing, for **detected results** in the community setting was **2.9 days**.

**Overall Swab to laboratory result communicated – Medians**

- 25 hours in Acute.
- 28 hours in Serial Testing.
- 28 hours in Community.

**Referral to appointment**

In the community, the median time from referral to appointment was 0.8 days.

72.7% 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 25 hours.

For swabs processed in an **acute** lab, the median time for swab to lab result was 23 hours.

The combined median time from swab to lab result was 24 hours.

**Contact Tracing:**

The median time to complete all calls, from the 29th of December – 4th of January was 0.9 days.
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 (Dec 28th – Jan 3rd), 2264 queries have been received.
- This has increased from last week where 1225 queries were received. (84%↑ increase).
- This has also increased in comparison to the last thirty days, where 1099 weekly queries were received on average. (106%↑ increase).
- A total of 98% 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 (Dec 28th – Jan 3rd), 6 queries have been received.
- This has decreased from last week where 16 queries were received. (62.5%↓ decrease).
- This has also decreased in comparison, where 14 queries were received weekly on average. (57%↓ decrease).
- A total of 100% 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 (Dec 28th – Jan 3rd), 21 queries have been received.
- This has decreased from last week where 45 queries were received. (53%↓ decrease).
- This has also decreased in comparison to the last thirty days, where 44 weekly queries were received on average. (52%↓ decrease).
- A total of 86% 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 419,391 tests and identified 1,900 detected cases. This is a detected rate of 0.45%.

Cycle 6 of serial testing of RCF’s commenced on 9th of December 2020 for a four-week period and concluded on 3rd of January. Cycle 6 of serial testing completed 66,448 tests, with 811 detected cases (detection rate: 1.22%). This is the highest detection rate of any overall serial testing cycle to date. Cycle 7 of serial testing of RCF’s commenced on January 4th, as of January 5th a total of 1,764 tests have been completed, with 22 detected cases (detection rate: 1.25%).

At present, work is underway to include mental health facilities and disability RCFs that provide 24-hour care to their residents, as part of this testing programme. Direction on the inclusion rationale of these facilities is being guided by Public Health. Staff from one Disability RCF’s were tested on December 18th as a trial in order to gather lessons learned for upcoming testing requirements.

Serial Testing in Food Production Facilities
Serial testing in food production facilities commenced on the 21st of August. To date, the programme has completed 81,134 tests and identified 441 detected cases. This is a detected rate of 0.54%.

Cycle 4 of the food production serial testing programme commenced on the 7th of December. To date as of 5th of January, Cycle 4 has completed 14,318 tests with 85 Detected Cases (0.59% detection rate).

Schools Testing Programme
COVID-19 testing is ongoing in school settings and childcare facilities. As of January 5th, 1,527 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 43,439 tests have been carried out as part of this mass testing. From the 1,527 schools that had mass tests, an additional 1,348 detected cases have been identified over and above original cases. This equates to a detected rate of 3.1%.
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. By ensuring accurate data is submitted when the test is being scheduled, this will generate faster and more accurate reports. The most recent of these improvements is a comprehensive review of Pending Patient Queue processes.

Further investigation is also underway into ‘unknown’ test results which are being received from acute labs. Active follow up and solutions are being put in place to deal with these scenarios. A process improvement has been implemented in order to facilitate a swifter resolution of unknown results. A further process adjustment has been identified to ensure timely resolution across unknowns that have previously been raised.

Additional initiatives are being considered in relation to acute labs in order to identify opportunities for greater efficiency following the initial point of data capture. Specific pathways are being explored that relate to inpatients and the prevention of additional communication being provided, following provision of test results by a physician. A trial has commenced in an acute hospital in order to test improvements that have been identified. Upon completion of the trial, implemented improvements may be rolled out to a wider number of acute hospitals. An overview has been developed to indicate expected timings and to consider key aspects of an automated solution.

Continuous investigation and results monitoring analysis are underway to identify the source of poor data entering the CRM system, Covid Care Tracker. Where required, appropriate guidelines and next steps are communicated in order to ensure continuous data quality improvements.
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.

As it stands, the service has been operating on a surge basis since the 22nd December. During this period there has been an unprecedented escalation in terms of referral volumes (+100%), positivity rates (from 5% to 27%), average close contacts over the period (average of 6), as well as the potential prevalence of the new COVID (H69/V70) variant. In response, measures have been activated to prioritise the available capacity and bring on new capacity. This has enabled the service to meet demand far beyond the standing capacity and levels predicted. Demand planning scenarios are currently being refreshed but it is anticipated that service demand for Test and Trace has not yet peaked in this third wave and as such the outlook for the service remains very challenging through January. There will be continual monitoring of the service to support operational decision-making, to maximise available capacity and to maintain efficient turnaround times.

There is a total of 631 community swabbers have been hired and on-boarded, this plus the deployed staff gives access to c.1,000 swabbers. This is a brand-new role and these staff are now working in our centres nationwide. Recruitment will continue until there are at least 1,000 new people on-board and all those redeployed staff are back in their original community roles.

Overall, c. 741* staff have been hired and retained for contact tracing. These are our new dedicated contact tracing workforce. In addition, we have a further 37 staff, 23 from Revenue Commissioners and 14 from the HSE. This brings total contact tracing staff to 778. This number will continue to grow until it gets to 1,000 or 800 WTE. Attrition from new staff means that there is a need to continue to hire well into the New Year. *Note, this total number is seven less than previously reported due to 7 leavers.
7. Update on any key challenges/issues

1. Over the past week, we have seen a significant in demand for community testing as well as a 13.5% increase in positivity rate (20.1% this week, vs. 6.6% last week). A total of 22.4% of all referrals in the last week were associated with the 21-30 age group. Reduced restrictions over the Christmas period are now having an impact on the demand for the test and trace system.

In order to ensure that our services can continue to meet demand now, the Community Testing team are working above the stated capacity at present with over 21,000 appointments offered in Community Testing centres on an individual day. To deliver this level of testing, the full team of over 600 dedicated community swabbers are being deployed while resources have been augmented with staff from Defence Forces (over 50 trained swabbers being deployed daily) as well as support from teams from NAS. The network of testing centres is also set up to address this surge in demand. There are 35 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 (operating most days), St Joseph’s Hospital, Limerick (operating most days), Cork City (operating most days), Donegal Town (operating most days) Slane (operating most days), New Ross, Ennis, Waterford City. NAS Pop Teams are also supporting large outbreak testing as required.

In addition, our network of labs has a daily capacity of 24,750 tests in our community labs, 2,000 tests in our offshore labs and an additional 4,000 lab capacity in our acute labs. As of January 5th, the highest number of daily lab tests, 28,545 tests, were completed on the 2nd of January. 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 scaled back response in both the number of questions asked on contact tracing calls and a discontinuance of the testing of asymptomatic close contacts. However, close contacts associated with a school setting or outbreak testing continue to be referred for a COVID-19 test.