Title: Test and Trace Paper – NPHET

Author: Niamh O’Beirne
Organisation: HSE
Date: 17th June 2021

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

Approved for future publication: YES/NO (remove as applicable)
Testing and Tracing Paper, 17th of June 2021

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

1) Testing and Tracing new initiatives
2) Activity levels across referrals, sampling, laboratory testing and contact tracing
3) Turnaround Times
4) Testing Programmes
5) Recruitment

Please Note: As a result of the current climate and the limited access to HSE data, several data points within the paper could not be updated. Included in this paper are the most recent available figures. Where data has been affected by the recent outages, this will be accounted for retrospectively in future reports.

1. Testing and Tracing new Initiatives

We are currently working on 5 key initiatives to the testing and tracing programme of work.

i. Source Investigation/Backwards Tracing
Also known as Enhanced/Retrospective Contact Tracing. The aim of Source Investigation is to quickly establish the source of an index patient’s infection and proactively identify other patients who may have been exposed to the virus but are yet to display symptoms. The CMP commenced Source Investigation on April 5th.

Between Tuesday 8th and Monday 14th June, CTC completed 366 Source Investigations. This equates to approx 15.4% of all Call 1s. The CMP continues to monitor these stats to validate whether all cases which meet the criteria have a Source Investigation initiated.

<table>
<thead>
<tr>
<th>Source Investigations</th>
<th>Jun-8</th>
<th>Jun-9</th>
<th>Jun-10</th>
<th>Jun-11</th>
<th>Jun-12</th>
<th>Jun-13</th>
<th>Jun-14</th>
<th>7-Day Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tuesday</td>
<td>Wednesday</td>
<td>Thursday</td>
<td>Friday</td>
<td>Saturday</td>
<td>Sunday</td>
<td>Monday</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>74</td>
<td>44</td>
<td>57</td>
<td>53</td>
<td>46</td>
<td>47</td>
<td></td>
<td>366</td>
</tr>
</tbody>
</table>

ii. Alternative referral pathways for testing
As of 15th June, pop up walk-in centres are operational in Blanchardstown and Limerick. A further site in Inchicore, Dublin is confirmed to start this week. With GP referrals recommencing, all enhanced community referral channels GP, online, walk in pop ups and walk-in to static sites are open.

The self-referral online booking system is now open for approximately 20 sites. The international on-line booking system is also live and operational.

iii. Approach to Antigen testing pilot in schools/third level
Operational planning is underway, and the project team has developed a Guidance Document, Training programme and other related templates and resources to support the Antigen testing pathway for educational facilities. Stakeholder engagement is ongoing with DOE, HEA and Department of Children, Equality, Disability, Integration and Youth in relation to selecting the pilot sites. A home testing kit has been identified (Healgen home testing...
The project team will reconvene to look at what is required to move this forward. Awaiting decisions regarding clinical governance and update on the antigen assay derogation to process.

iv. Testing at Quarantine sites
A working group is established with members of the Department of Health, the National Ambulance Service and various HSE teams to establish and monitor a serial testing programme at Quarantine sites. Quarantine requirements are in place since Friday, 26th March and testing commenced on Saturday, 27th March. A third party provider is now providing additional swabbing support for hotel staff testing to ensure the participation rate is high. Regular reporting is in place to help manage the testing programme and there is regular engagement underway to continually improve the testing process. There are currently 8 Hotel Quarantine testing sites in operation.

The below summary of Mandatory Quarantine data is as of 10am 15th June with eight Quarantine sites operational.

Overview of Mandatory Quarantine Facility Testing
As decided by the Department of Health, all passengers arriving into Ireland from designated states are now required to pre-book accommodation in a designated quarantine facility. Testing resources have been made available in Quarantine Facilities since 26th March 2021 and are available at daily to accommodate the testing of all new arrivals. The scope of testing includes the below:

- Testing of Passengers arriving into Ireland from Category 2 Countries on Day 0 and Day 10
- Testing of Passengers arriving into Ireland from Category 1 countries that have not been able to produce a negative test result
- Testing of Quarantine Hotel Staff on a weekly basis
- Unaccompanied Minors arriving into Ireland from a Category 2 country

Summary of Mandatory Quarantine Facility Testing Data

*Data as of 10:00am – 15th June 2021*

- 8 x Quarantine Facilities Tested
- 30 x Unaccompanied Minors Tested
- 16,289 x Referrals for Mandatory Quarantine Testing
- 12,099 x Swabs
- 296 x Covid-19 Detected Tests (2.45% Detection Rate)
- 276 x Covid-19 Detected Cases

Table 1 Quarantine Facility Testing: Staff vs. Resident Summary

<table>
<thead>
<tr>
<th></th>
<th>Referrals</th>
<th>Swabs</th>
<th>Participation %</th>
<th>Detected Tests</th>
<th>Detection %</th>
<th>Detected Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quarantine Staff</td>
<td>6,901</td>
<td>3,034</td>
<td>44%</td>
<td>11</td>
<td>0.36%</td>
<td>10</td>
</tr>
<tr>
<td>Quarantine Residents</td>
<td>9,351</td>
<td>9,035</td>
<td>97%</td>
<td>284</td>
<td>3.1%</td>
<td>265</td>
</tr>
</tbody>
</table>
Unaccompanied Minors Home Test

<table>
<thead>
<tr>
<th></th>
<th>37</th>
<th>30</th>
<th>81%</th>
<th>1</th>
<th>3.3%</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>16,289</td>
<td>12,099</td>
<td>74%</td>
<td>296</td>
<td>2.45%</td>
<td>276</td>
</tr>
</tbody>
</table>

Note: “Detected Tests” includes data from any requested or required re-testing of individuals. “Detected Cases” signifies the number of Covid-19 Cases detected i.e. 1 result per individual tested.

Note: Testing of Quarantine Staff is scheduled for Thursday, Friday and Saturday of each week.

Table 2 Quarantine Facility Testing by Site, not including Unaccompanied Minors

<table>
<thead>
<tr>
<th>Site</th>
<th>Staff</th>
<th>Referrals</th>
<th>Swabs</th>
<th>Detected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site 1</td>
<td></td>
<td>2,589</td>
<td>880</td>
<td>2</td>
</tr>
<tr>
<td>Site 2</td>
<td></td>
<td></td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Site 3</td>
<td></td>
<td>734</td>
<td>388</td>
<td>1</td>
</tr>
<tr>
<td>Site 4</td>
<td></td>
<td>505</td>
<td>136</td>
<td>2</td>
</tr>
<tr>
<td>Site 5</td>
<td></td>
<td>1,097</td>
<td>597</td>
<td>5</td>
</tr>
<tr>
<td>Site 6</td>
<td></td>
<td>585</td>
<td>279</td>
<td>0</td>
</tr>
<tr>
<td>Site 7</td>
<td></td>
<td>729</td>
<td>390</td>
<td>0</td>
</tr>
<tr>
<td>Site 8</td>
<td></td>
<td>658</td>
<td>360</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>6,901</td>
<td>3,034</td>
<td>11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Residents</th>
<th>Referrals</th>
<th>Swabs</th>
<th>Detected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site 1</td>
<td>1,414</td>
<td>1,351</td>
<td>53</td>
</tr>
<tr>
<td>Site 2</td>
<td>2,136</td>
<td>2,093</td>
<td>57</td>
</tr>
<tr>
<td>Site 3</td>
<td>726</td>
<td>710</td>
<td>17</td>
</tr>
<tr>
<td>Site 4</td>
<td>123</td>
<td>113</td>
<td>3</td>
</tr>
<tr>
<td>Site 5</td>
<td>1,596</td>
<td>1,566</td>
<td>45</td>
</tr>
<tr>
<td>Site 6</td>
<td>1,218</td>
<td>1,104</td>
<td>29</td>
</tr>
<tr>
<td>Site 7</td>
<td>1,131</td>
<td>1,100</td>
<td>43</td>
</tr>
<tr>
<td>Site 8</td>
<td>1,007</td>
<td>997</td>
<td>37</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>9,351</td>
<td>9,035</td>
<td>284</td>
</tr>
</tbody>
</table>

Testing of Residents in Mandatory Hotel Quarantine (by Swab Date)

Figure 1 Mandatory Quarantine Facility Testing of Residents by Week
Testing of Staff in Mandatory Hotel Quarantine (by Swab Date)

Figure 2 Mandatory Quarantine Facility Testing of Staff by Week (data up to 15th June 2021)

Table 3 Quarantine Facility Testing of Residents: Category 1 vs. Category 2 Country Referrals

<table>
<thead>
<tr>
<th>Category</th>
<th>Referrals</th>
<th>Swabs</th>
<th>Participation %</th>
<th>Detected</th>
<th>Detection %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1 Country</td>
<td>529</td>
<td>489</td>
<td>92%</td>
<td>11</td>
<td>2.5%</td>
</tr>
<tr>
<td>Category 2 Country</td>
<td>8,822</td>
<td>8,546</td>
<td>97%</td>
<td>273</td>
<td>3.2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9,351</strong></td>
<td><strong>9,035</strong></td>
<td><strong>97%</strong></td>
<td><strong>284</strong></td>
<td><strong>3.14%</strong></td>
</tr>
</tbody>
</table>
v. **Self-isolation and Restricted Movement Support**
Since March 19th, the CMP has been conducting follow-up calls to index patients who are self-isolating. From May 5th, this service was expanded to include Close Contacts who are currently restricting their movements. Of those surveyed last week, the percentage of those following Public Health advice is approximately 96.2%. For all service users contacted, Public Health advice is reiterated.

<table>
<thead>
<tr>
<th></th>
<th>Jun-8</th>
<th>Jun-9</th>
<th>Jun-10</th>
<th>Jun-11</th>
<th>Jun-12</th>
<th>Jun-13</th>
<th>Jun-14</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check-in Calls</td>
<td>1147</td>
<td>979</td>
<td>891</td>
<td>1037</td>
<td>790</td>
<td>1029</td>
<td>856</td>
<td>6729</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>7-Day Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-Compliance</td>
<td>98.2%</td>
</tr>
<tr>
<td>Partial Compliance</td>
<td>3.2%</td>
</tr>
<tr>
<td>Non-Compliant</td>
<td>0.6%</td>
</tr>
</tbody>
</table>
2. Activity levels across referrals, sampling, laboratory and contact tracing

Summary

Test and Trace service performance indicators from the 9th – 15th June show that total referral volumes decreased by c.8.2% in comparison with those from the same time-frame last week. Last week, from the 2nd – 8th June, there were a total of 65,803 referrals. This week, from 9th – 15th June, there were a total of 60,405 referrals.

From the 9th – 15th June, the positivity rate for tests completed in community and private settings was c. 2.7%. During the same time-period, of those tested with close contacts, the average number of close contacts per case was 3.9.

Demand planning scenarios are refreshed on an ongoing basis and proactive demand and capacity planning activities are being used to support operational planning across the end-to-end pathway.

The medium-term operating model plan and an accompanying briefing paper has been drafted with input from the required stakeholders and the demand ranges have been set out. This has been circulated to the SMT group for review and sign off. The plan will continue to be monitored and revised as necessary.
Community Referral Data (9th – 15th June)

From the 9th – 15th June there were c.60,405 community referrals. This weekly total has decreased by c.8.2% since the same time-period last week (2nd – 8th June; c. 65,803 total referrals).

Figure 2.1 Daily Community Referral Volumes 9th – 15th June

Community Referral Data Volumes by Age Group (7th – 13th June)

Figure 2.2 below highlights the breakdown of community referrals by age group, from 7th – 13th June. This dataset reflects an earlier 7-day date range, as it refers to referrals that have been resulted (i.e., detected, not detected, inconclusive, indeterminate, invalid and not tested).

From the 7th – 13th June, the group with the largest number of referrals is the 21-30 age group, which makes up 20.2% of all referrals. The detected rate for the 21-30 age group is c.6.7%.

Figure 2.2 Three-week view of community testing referrals by age group
Sampling in the community, serial testing and acute and private settings.

From 9th – 15th June a total of 68,769 swabs were completed in the community and in serial testing sites; this includes swabs completed as part of the Serial Testing Programme being conducted in Nursing Home, Mental Health and Food Production Facilities.

This overall figure is not reflective of all testing completed from 9th – 15th of June. Due to the current climate, we do not have sight of the total swabs completed in acute and private settings. This information will be retrospectively reported once available.

![Figure 2.3 7-Day View of Swabs Completed in the Community & Serial Testing Facilities]

Laboratory Testing

Over the seven-day period 9th – 15th June, there has been approximately 87,061 lab tests completed in community and private labs.

Due to the current climate, we do not have sight of the number of lab tests completed in acute laboratories. This data will be retrospectively reported once available.

Contact Tracing

Contact tracing is carried out in contact tracing centres in Galway, Limerick, Cork and Dublin.

From 9th – 15th of June, there was a total of 2,177 call 1s completed.

During the same time-period there was a total of 1,969 call 2s completed, completing contact tracing for this number of individuals. A number of individuals did not require contact tracing.

There was a total of 5,190 call 3s made to close contacts of a confirmed COVID 19 case.

From 9th – 15th June, of those tested with close contacts, the mean number of close contacts was 3.9.
3. Turnaround Times (9th – 15th June)

**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 9th – 15th of June;

- The median end-to-end turnaround time, from referral to SMS, for **not detected** tests in the **community** setting was **1.1 days**.
- The median turnaround time, from referral to communication of a **detected result** by call, in **community** setting was **1.3 days**.
- The median end-to-end turnaround time, from referral to contact tracing completed, for **detected results** in the **community** setting was **1.9 days**.

**Referral to appointment**

A total of **83.7%** of community 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 **22 hours**.
- The combined median time from swab to lab result was **22 hours**.
- **Overall**, **54%** of people get their result in less than **24 hours**, **90%** in less than **36 hours**.

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

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

**Contact Tracing**

The average time to complete all calls is **9.2 hours** and the median time to complete all calls is **6.4 hours**.

**Education and Childcare Facility turnaround times**

The median turnaround time from swab taken to result communicated in education and childcare facilities was **1.1 day**.
4. Testing Programmes

Serial Testing in Nursing Homes

Serial testing in Nursing Homes commenced on the 23rd of June 2020. To date, the programme has completed 826,135 tests and identified 4,740 detected cases. This is a detected rate of 0.57%.

Cycle 12 of serial testing in Nursing Homes commenced on 24th May. To date, the cycle has completed 30,208 tests and has identified 44 detected cases. This is a detected rate of 0.15%.

Serial Testing in Mental Health Facilities

Testing in mental health facilities commenced on the 25th of January. Facilities taking part in this testing programme will feature as a mixture of once off and serial testing. To date, the programme has completed 7,282 tests and identified 25 detected cases. This is a detected rate of 0.34%.

Cycle 5 of serial testing in Mental Health facilities commenced on the 24th of May. To date, the cycle has completed 615 tests and has identified 1 detected cases. This is a detected rate of 0.16%.
Serial Testing in Food Production Facilities

Serial testing in food production facilities commenced on the 21st of August. To date, the programme has completed 208,399 tests and identified 1,405 detected cases. This is a detected rate of 0.67%.

**Cycle 10** of serial testing in food production facilities commenced on the 31st of May, and has completed 10,087 tests, with 24 detected cases identified. **This is a detected rate of 0.26%**.

![Figure 4.3 Food Production Detected Rate per Cycle](image-url)
Education and Childcare Testing Programme

In the last week (Week 23: 6th – 12th June 2021);

- 2,851 tests were completed in 140 primary schools resulting in a 0.9% positivity rate.
- 115 tests were completed in 20 post-primary schools resulting in a 0.0% positivity rate.
- 110 tests were completed in 5 Special Education settings resulting in a 1.8% positivity rate.
- 1,055 tests were completed in 72 childcare facilities resulting in a 1.4% positivity rate.

Figure 4.4 Four-Week View of Positivity Trends in Primary, Post-Primary, Special Education and Childcare Settings
Weekly Comparison of Tests Completed in Schools and Special Education Settings

The graph below provides a week to week view of the levels of testing and % increase/decrease of testing completed in Schools and Special Education settings.

- In the last week (week 23, 6th – 12th June 2021), there were c.3,076 tests completed.

Weekly Comparison of Tests Completed in Childcare Facilities

The graph provides a week to week view of the levels of testing and % increase/decrease of testing completed in Childcare Facilities.

- In the last week, (week 23, 6th – 12th June 2021), there were c.1,055 tests completed.
5. Recruitment

Due to the current climate, we do not have sight of the recruitment figures for the period up to 14th June. This information will be retrospectively reported once available.

Recruitment of staff to support swabbing activity and contact tracing activity is ongoing.
- As of the 10th of May, a total of 798 swabbers have been hired and placed to support swabbing activity.
- As of the 10th of May, there is a total of 938 staff supporting contact tracing. Of these 938 staff, 885 have been hired and retained as part of the dedicated workforce to support the contact tracing function. The remaining 53 staff are deployed staff from the HSE and other public service roles.