Title: Test and Trace Paper – NPHET

Author: Niamh O’Beirne
Organisation: HSE
Date: 28th April 2021

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

Approved for future publication: YES/NO (remove as applicable)
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

1. Testing and Tracing new Initiatives

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

- **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. In the previous 7 days (19th – 25th April), CTCs have completed 570 Source Investigations which equates to 17% of all Call 1s (i.e. the cases requiring Source Investigation).

- **Alternative referral pathway for testing**
  As of 25th April, the following walk-in centres are operational in Leitrim, Kildare, Galway, Dublin 8, Dublin 15 and Dublin 5. Further sites are currently being assessed to follow suit.

  Walk in lanes in static centres remain open in Dunmanway and Mullingar. Lanes also have opened in Letterkenny, Castlerea, Nenagh, Wicklow, Waterford. In addition to this, further static sites are currently being assessed to follow suit.

  These walk-in sites support both the HSE’s enhanced COVID-19 testing for local communities and allow further identification and understanding of any variants of concern within our communities. Up to the 26th of April, there were a total of 44,488 walk in referrals with an overall positivity rate of 3.4% across all centres. The 25-44 age group continues to make up 45% of walk–ins.

  The development of an online self-referral portal has begun. In addition to this, upon request of the Department of Health, development is due to begin on a portal to allow travellers due to arrive in the country book a test on day 5 of arrival.

- **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. The antigen assay to use for the pilot has been confirmed and discussions are ongoing with the regulator with regards to giving a derogation for home-testing use, as this is outside of the current licensing agreement.
• **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. On 1st April, the Department of Health designated an additional 26 countries and territories as ‘Category 2’ which now totals 58 countries. 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 27th April with seven 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 the on a daily basis 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.

**Summary of Mandatory Quarantine Facility Testing Data**

*Data as of 10:00am – 27th April 2021*

- 7 Quarantine Facilities Tested (with an 8th facility ready to commence testing)
- 17 Unaccompanied Minors Tested
- 3,867 Referrals for Mandatory Quarantine Testing
- 2,806 Swabs completed
- 60 Covid-19 Detected Tests (2.14% Detection Rate)
- 56 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>1424</td>
<td>468</td>
<td>33%</td>
<td>2</td>
<td>0.43%</td>
<td>2</td>
</tr>
<tr>
<td>Quarantine Residents</td>
<td>2424</td>
<td>2321</td>
<td>96%</td>
<td>58</td>
<td>2.50%</td>
<td>54</td>
</tr>
<tr>
<td>Unaccompanied Minors Home Test</td>
<td>19</td>
<td>17</td>
<td>89%</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3867</strong></td>
<td><strong>2806</strong></td>
<td><strong>73%</strong></td>
<td><strong>60</strong></td>
<td><strong>2.14%</strong></td>
<td><strong>56</strong></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 Facility

<table>
<thead>
<tr>
<th></th>
<th>Staff</th>
<th></th>
<th></th>
<th>Residents</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Referrals</td>
<td>Swabs</td>
<td>Detected</td>
<td>Referrals</td>
<td>Swabs</td>
<td>Detected</td>
</tr>
<tr>
<td>Site 1</td>
<td>1070</td>
<td>354</td>
<td>1</td>
<td>955</td>
<td>903</td>
<td>29</td>
</tr>
<tr>
<td>Site 2</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>732</td>
<td>704</td>
<td>17</td>
</tr>
<tr>
<td>Site 3</td>
<td>86</td>
<td>34</td>
<td>0</td>
<td>136</td>
<td>133</td>
<td>1</td>
</tr>
<tr>
<td>Site 4</td>
<td>98</td>
<td>45</td>
<td>1</td>
<td>123</td>
<td>114</td>
<td>3</td>
</tr>
<tr>
<td>Site 5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>222</td>
<td>218</td>
<td>5</td>
</tr>
<tr>
<td>Site 6</td>
<td>55</td>
<td>13</td>
<td>0</td>
<td>138</td>
<td>132</td>
<td>3</td>
</tr>
<tr>
<td>Site 7</td>
<td>49</td>
<td>18</td>
<td>0</td>
<td>118</td>
<td>117</td>
<td>0</td>
</tr>
<tr>
<td>Site 8</td>
<td>62</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1424</strong></td>
<td><strong>468</strong></td>
<td><strong>2</strong></td>
<td><strong>2424</strong></td>
<td><strong>2321</strong></td>
<td><strong>58</strong></td>
</tr>
</tbody>
</table>

*Note: The table above does not include testing of unaccompanied minors*

---

**Testing of Residents in Mandatory Hotel Quarantine (by Reservation Date)**

**Mandatory Quarantine Hotel Testing of Residents by Day (Swab Date)**

Figure 1 Mandatory Quarantine Facility Testing of Residents by day
Table 3 Quarantine Facility Testing of Residents: Category 1 vs. Category 2 Country Referrals

<table>
<thead>
<tr>
<th></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>193</td>
<td>173</td>
<td>90%</td>
<td>5</td>
<td>2.89%</td>
</tr>
<tr>
<td>Category 2 Country</td>
<td>2231</td>
<td>2148</td>
<td>96%</td>
<td>53</td>
<td>2.47%</td>
</tr>
<tr>
<td>Total</td>
<td>2424</td>
<td>2321</td>
<td>96%</td>
<td>58</td>
<td>2.50%</td>
</tr>
</tbody>
</table>
- **Self-isolation and Restricted Movement Support**

  A test and trace initiative has been implemented to provide a call on day 4 of isolation to service users, to:
  
  1. Ensure that service users are following Public Health guidance in relation to self-isolation ‘Case Only’
  2. Signpost service users to other services that may be required i.e. mental health services or other supports
  3. Reinforce advice previously given by Public Health

  The objective of the day 4 call is:
  
  1. To ascertain whether service users are following PH guidance in relation to self-isolation ‘Case Only’
  2. To signpost service users to other services i.e. mental health services or other supports
  3. To reinforce previously given PH advice

On March 19th, the CMP responded to a request from the Department of Health to provide follow-up calls to service users who are restricting their movements or self-isolating. Phase 1 of implementing this initiative saw the Cork CTC contacting self-isolating index patients, monitoring their compliance with Public Health advice and offering additional support as needed. On March 19th, the CMP responded to a request from the Department of Health to provide follow-up calls to service users who are restricting their movements or self-isolating. Phase 1 & 2 have been implemented whereby Cork CTC and Limerick CTC are contacting self-isolating index patients, monitoring their compliance with Public Health advice and offering additional support as needed.

**Healthcare workers**

Following the request from NPHET, the CMP has adjusted the advice given to close contacts who are:

- Fully vaccinated healthcare workers;
- Asymptomatic;
- Not taking any medication which they believe impacts the efficacy of the vaccine
- Not suffering from any medical conditions that impacts the efficacy of the vaccine

As of Monday, April 26th 2021, this cohort will no longer be advised to self-isolate, Daily Active Follow-up will be suspended, and COVID-19 tests will no longer be recommended.
2. **Activity levels across referrals, sampling, laboratory and contact tracing**

**Summary**

Test and Trace service performance indicators from the 20\textsuperscript{th} – 26\textsuperscript{th} of April show that community referral volumes have increased by 21\% in comparison with those from the same time-frame last week (last week, from the 13\textsuperscript{th} – 19\textsuperscript{th} of April there were a total of 32,471 referrals in the community. This week, from 20\textsuperscript{th} – 26\textsuperscript{th} of April, there were a total of 39,319 referrals in the community).

Walk-in test centre referral volumes have increased by 11\% in comparison to the same time-frame last week (last week, from the 13\textsuperscript{th} – 19\textsuperscript{th} April there were a total of 6,941 walk-in test centre referrals. This week, from 20\textsuperscript{th} – 26\textsuperscript{th} April, there were a total of 7,718 walk-in test centre referrals).

As of April 26\textsuperscript{th}, the positivity rate for the past seven days is c. 2.8\%, and as of April 26\textsuperscript{th}, of those tested with close contacts, the average number of close contacts per case was 3.7.

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 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. Once finalised an accompanying briefing paper will be circulated to the appropriate stakeholder group. The plan will continue to be monitored and revised as necessary.
Community Referral Data (20th – 26th April)

From the 20th – 26th April there were c.39,319 referrals in community settings. This weekly total has increased by 21% since the same time-period last week (13th – 19th April; c.32,471 community referrals).

Walk-in Test Centre Referral Data (20th – 26th April)

From the 20th – 26th April there were c.7,718 referrals for walk-in test centres. This weekly total has increased by 11% since the same time-period last week (13th – 19th April; c. 6,941 walk-in referrals).

The below graph shows a breakdown of daily community referrals and walk-in referrals over the past 7 days.

![Figure 2.1 Daily Community and Walk-In Referral Volumes 20th – 26th April](image)

Community Referral Data Volumes by Age Group (18th – 24th April)

Figure 2.2 below highlights the breakdown of community referrals by age group, from 18th – 24th April. 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 18th – 24th April, the group with the largest number of referrals is the 5-13 age group, which makes up 20.8% of all referrals. The detected rate for the 5-13 age group is c.4.6%.

![Figure 2.2 Three-week view of community testing referrals by age group](image)
**Sampling in the community, serial testing and acute and private settings.**

Over the seven-day period, 20th – 26th April, there has been approximately **128,261 swabs** taken for COVID-19 testing. From 20th – 26th April a total of 51,779 swabs were completed in the community (including walk-ins).

During the same time-period, c.12,248 tests were completed by the National Ambulance Service. Approximately 43,671 swabs were taken in acute and private acute settings. The remaining 20,563 swabs were taken as part of the Serial Testing Programmes of staff in Residential Care Facilities including Nursing Homes and Mental Health Facilities that meet the agreed criteria, and staff in Food Production Facilities.

![Swabs Completed in Community Test Centres](image)

**Figure 2.3 Six-week View of Swabs Completed in Community Testing Centres**

**Laboratory Testing**

Over the seven-day period 20th – 26th April, there has been 107,898 lab tests completed. A total of 59,128 of these tests were processed in community laboratories, 32,087 tests were processed in acute laboratories and 16,683 were processed in private labs. Over the past seven days, there were no tests processed by our offshore laboratory partner.

**Contact Tracing**

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

The gathering of enhanced Positive Patient Assessment data recommenced on Wednesday 10th February. On this date, Day 0 and Day 10 swabbing for close contacts was also recommended.

From 20th – 26th April, there was a total of **3,098 call 1s** completed.

During the same time-period there was a total of **2,820 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 **5,222 call 3s** made to close contacts of a confirmed COVID 19 case.

On the 26th of April, of those tested with close contacts, the mean number of close contacts was **3.7**.
3. Turnaround Times (20th – 26th April)

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 April;

- The median end-to-end turnaround time, from referral to SMS, for not detected tests in the community setting was 1.2 days.
- The median turnaround time, from referral to communication of a detected result by call, in community setting was 1.8 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

In the community, the median time from referral to appointment was 0.2 days.

A total of 94.8% 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, 46% of people get their result in less than 24 hours, 89% in less than 36 hours and 97% in less than 48 hours.

Overall Swab to laboratory result communicated – Medians

- 24 hours in Acute.
- 25 hours in Serial Testing.
- 26 hours in Community.

Contact Tracing

The average time to complete all calls is 7.2 hours and the median time to complete all calls is 5.1 hours.

Education and Childcare Facility turnaround times

The median turnaround time from swab taken to result communicated in education and childcare facilities was 1 day.
4. Testing Programmes

**Serial Testing in Nursing Homes**

Serial testing in Nursing Homes commenced on the 23rd of June. To date, the programme has completed 739,356 tests and identified 4,632 detected cases. This is a detected rate of 0.63%.

**Cycle 10** of serial testing in Nursing Homes concluded on 25th April. In total, the cycle has completed 61,444 tests and has identified 58 detected cases. This is a detected rate of 0.09%.

**Cycle 11** of serial testing in Nursing Homes commenced on 26th April. To date, the cycle has completed 953 tests and has identified 0 detected cases. This is a detected rate of 0.00%.

![Nursing Home Detected Rate per Cycle](image)

**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 5,319 tests and identified 19 detected cases. **This is a detected rate of 0.36%**.

**Cycle 3** of serial testing in Mental Health facilities concluded on the 25th of April. In total, there was 1,770 swabs carried out and 3 detected cases have been identified. **This is a detected rate of 0.17%**.

**Cycle 4** of serial testing in Mental Health facilities commenced on the 27th of April.

![Mental Health Facilities Detected Rate per Cycle](image)
Serial Testing in Food Production Facilities

Serial testing in food production facilities commenced on the 21st of August. To date, the programme has completed 176,377 tests and identified 1,321 detected cases. This is a detected rate of 0.75%.

Cycle 8 of serial testing in food production facilities commenced on the 6th of April, and has completed 18,449 tests, with 56 detected cases identified. This is a detected rate of 0.30%.

Figure 4.3 Food Production Detected Rate per Cycle
**Education and Childcare Testing Programme**

COVID-19 testing has re-started in schools and is ongoing in special education and childcare facilities. In the last week (18th – 24th April 2021);

- 2,795 tests were completed in 109 primary schools resulting in a **2.4% positivity rate**.
- 1,810 tests were completed in 70 post-primary schools resulting in a **2.5% positivity rate**.
- 34 tests were completed in 4 Special Education setting resulting in a **8.8% positivity rate**.
- 1,179 tests were completed in 61 childcare facilities resulting in a **4.4% positivity rate**.

The graph below provides an overview of the positivity trends in Primary, Post-Primary, Special Education and Childcare Settings over the past 4 weeks:

![Figure 4.4 Four-Week View of Positivity Trends in Primary, Post-Primary, Special Education and Childcare Settings](image-url)

**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 16, 18th – 24th April 2021), there were c.4,639 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 16, 18th – 24th April 2021), there were c.1,179 tests completed.
5. Recruitment
Recruitment of staff to support swabbing activity and contact tracing activity is ongoing.

- As of the 26th of April, a total of 788 swabbers have been hired and placed to support swabbing activity.

- As of the 26th of April, there is a total of 980 staff supporting contact tracing. Of these 980 staff, 925 have been hired and retained as part of the dedicated workforce to support the contact tracing function. The remaining 55 staff are deployed staff from the HSE and other public service roles.