Title: Test and Trace Paper – NPHET

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Organisation: HSE
Date: 22nd April 2021

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

Approved for future publication: YES/NO (remove as applicable)
Testing and Tracing Paper, 22nd of April 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

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. As of April 20th, 774 individual Source Investigations have been completed, this makes up approximately 15.4% of all Call 1s (where the patient is notified of their detected COVID-19 test result).

<table>
<thead>
<tr>
<th>Source Investigations (qty) Since April 5th</th>
<th>774</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of Total Call 1s</td>
<td>15.4%</td>
</tr>
</tbody>
</table>

- **Alternative referral pathway for testing**
  Between 16th-18th April, a further 4 walk-in test centres opened across Dublin 5, 24, 8 and Tipperary and the Dublin 15 site has been extended until 21st April. Further sites are currently being assessed to follow suit.

  Due to the success of the pilot in Mullingar and Dunmanway, whereby testing lanes in existing static centres were opened to walk ins, these lanes will remain open. The next static centre opening walk in lanes is Tralee, Co. Kerry, which will be in operation from 21st-27th April. In addition to this, further static sites are currently being assessed to follow suit.

  The development of an online self-referral portal has begun.

  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 20th of April, there were a total of 37,580 walk in referrals with an overall positivity rate of 3.1% across all centres. The 25-44 age group continues to make up 45% of walk-ins.

- **Approach to Antigen testing pilot in schools/third level**
  Operational planning is underway, and a project team is progressing with the development of the Antigen testing pathway for educational facilities. Ongoing stakeholder engagement with DOE, HEA and Department of Children, Equality, Disability, Integration and Youth each sector to consider potential sites for the pilot.Awaiting confirmation on the Antigen Assay to use for the pilot.
- **Testing at Quarantine sites**
  A working group has been 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 have been 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. The first four Quarantine sites are now operational with more becoming operational soon.

The below summary of Mandatory Quarantine data is as of 10am 19th April with four 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 – 19th April 2021*

- 4 Quarantine Facilities Tested
- 15 Unaccompanied Minors Tested
- 2,344 Referrals for Mandatory Quarantine Testing
- 1,708 Swabs completed
- 33 Covid-19 Detected Tests (1.93% Detection Rate)
- 29 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</th>
<th>Detection %</th>
<th>Detected Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quarantine Staff</td>
<td>910</td>
<td>338</td>
<td>37%</td>
<td>2</td>
<td>0.59%</td>
<td>2</td>
</tr>
<tr>
<td>Quarantine Residents</td>
<td>1419</td>
<td>1355</td>
<td>96%</td>
<td>31</td>
<td>2.29%</td>
<td>27</td>
</tr>
<tr>
<td>Unaccompanied Minors Home Test</td>
<td>15</td>
<td>15</td>
<td>100%</td>
<td>0</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,344</strong></td>
<td><strong>1,708</strong></td>
<td><strong>73%</strong></td>
<td><strong>33</strong></td>
<td><strong>1.93%</strong></td>
<td><strong>29</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>
<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>
<td></td>
</tr>
<tr>
<td>Site 1</td>
<td>866</td>
<td>312</td>
<td>1</td>
<td>747</td>
<td>713</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Site 2</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>491</td>
<td>473</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Site 3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>112</td>
<td>109</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Site 4</td>
<td>40</td>
<td>22</td>
<td>1</td>
<td>69</td>
<td>60</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>910</td>
<td>338</td>
<td>2</td>
<td>1419</td>
<td>1355</td>
<td>31</td>
<td></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)](image)

*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>132</td>
<td>116</td>
<td>88%</td>
<td>3</td>
<td>2.6%</td>
</tr>
<tr>
<td>Category 2 Country</td>
<td>1287</td>
<td>1239</td>
<td>96%</td>
<td>28</td>
<td>2.25%</td>
</tr>
<tr>
<td>Total</td>
<td>1419</td>
<td>1355</td>
<td>95%</td>
<td>31</td>
<td>2.29%</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

  The process of initiating follow-up calls to cases on day 4 started with Phase I of the programme on 19th March 2021. These calls were made to a sample of cases from the Contact Tracing Centre (CTC) in Cork.

  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 April 7th, following a review of lessons learned from Phase 1 of this initiative, the Limerick CTC also commenced contacting index patients to perform these calls. The below table summarizes the results of these calls between March 19th and April 19th. In total, 4,290 calls were successfully completed with compliance with self-isolating guidance at 89%.

<table>
<thead>
<tr>
<th>Calls initiated</th>
<th>Successful Calls</th>
<th>FULL adherence to PH guidance</th>
<th>PARTIAL adherence to PH guidance</th>
<th>NO adherence to PH guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5541</td>
<td>4290</td>
<td>3817</td>
<td>442</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td></td>
<td>89.0%</td>
<td>10.3%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>
2. Activity levels across referrals, sampling, laboratory and contact tracing

Summary

Test and Trace service performance indicators from the 14th – 20th of April show that community referral volumes are consistent with those from the same time-frame last week (From the 7th – 13th of April there were a total of 34,025 referrals in the community. This week, from 14th – 20th of April, there were a total of 33,946 referrals in the community).

Walk-in test centre referral volumes have increased by 18% in comparison to the same time-frame last week (From the 7th – 13th April there were a total of 6,065 walk-in test centre referrals. This week, from 14th – 20th April, there were a total of 7,178 walk-in test centre referrals).

As of April 20th, the positivity rate for the past seven days is c. 2.7%, and as of April 20th, 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.

Planning continues on the development of a medium-term operational plan for the Test & Trace service guided by the medium-term profile of demand and activity across various scenarios. Work is under way to define the service elements for each demand range over the coming weeks and months. Once outputs are developed stakeholder engagement will be undertaken to ensure alignment on the service priorities and limits over the period. This planning continues to make assumptions regarding restrictions, serial testing, the impact of vaccination, variants of concern among other operational items such as local Department of Public Health capacity to respond to complex cases. The medium-term operating model will also consider the impact of the introduction of self-referral pathway for asymptomatic individuals to facilitate more widespread testing.
Community Referral Data (14th – 20th April)

From the 14th – 20th April there were c.33,946 referrals in community settings. This weekly total has remained consistent since the same time-period last week (7th – 13th April; c.34,025 community referrals).

Walk-in Test Centre Referral Data (14th – 20th April)

From the 14th – 20th April there were c.7,178 referrals for walk-in test centres. This weekly total has increased by 18% since the same time-period last week (7th – 13th April; c. 6,065 walk-in referrals).

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

Community Referral Data Volumes by Age Group (12th – 18th April)

Figure 2.2 below highlights the breakdown of community referrals by age group, from 12th – 18th 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 12th – 18th April, the group with the largest number of referrals is the 31-40 age group, which makes up 16.9% of all referrals. The detected rate for the 31-40 age group is c.8.6%.

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

Over the seven-day period, 14th – 20th April, there has been approximately **115,256 swabs** taken for COVID-19 testing. From 14th – 20th April a total of 40,717 swabs were completed in the community (including walk-ins).

During the same time-period, c.11,473 tests were completed by the National Ambulance Service. Approximately 42,625 swabs were taken in acute and private acute settings. The remaining 20,441 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 14th – 20th April, there has been 106,366 lab tests completed. A total of 59,417 of these tests were processed in community laboratories, 30,682 tests were processed in acute laboratories and 16,267 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 14th – 20th April, there was a total of **2,723 call 1s** completed.

During the same time-period there was a total of **2,446 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 **4,039 call 3s** made to close contacts of a confirmed COVID 19 case.

On the 20th of April, of those tested with close contacts, the mean number of close contacts was **3.7**.
3. Turnaround Times (14th – 20th 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 14th – 20th 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 **1.6 days**.
- The median end-to-end turnaround time, from referral to contact tracing completed, for detected results in the community setting was **1.8 days**.

**Referral to appointment**

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

A total of **94.7%** 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 21 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, 88% in less than 36 hours and 96% 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 7.1 hours and the median time to complete all calls is 4.4 hours.

**Education and Childcare Facility turnaround times**

The median turnaround time from swab taken to result communicated in education and childcare facilities was 1 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 725,514 tests and identified 4,626 detected cases. This is a detected rate of 0.64%.

**Cycle 10** of serial testing in Nursing Homes commenced on 29th March. To date, the cycle has completed 48,932 tests and has identified 52 detected cases. This is a detected rate of 0.11%.

![Nursing Home Detected Rate per Cycle](image1)

**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 5,218 tests and identified 18 detected cases. **This is a detected rate of 0.34%**.

**Cycle 3** of serial testing in Mental Health facilities commenced on the 29th of March. To date, there has been a total of 1,669 swabs carried out and 2 detected cases have been identified. **This is a detected rate of 0.12%**.

![Mental Health Facilities Detected Rate per Cycle](image2)
Serial Testing in Food Production Facilities

Serial testing in food production facilities commenced on the 21st of August. To date, the programme has completed 170,507 tests and identified 1,307 detected cases. This is a detected rate of 0.77%.

Cycle 8 of serial testing in food production facilities commenced on the 6th of April, and has completed 12,579 tests, with 42 detected cases identified. This is a detected rate of 0.33%.

Serial Testing in Prisons

A once off round of Asymptomatic Testing of Staff in “Key Contact Areas” in Prisons was rolled out on 13th and 14th April 2021 arranged in local Test Centres. Results of this round of testing will be assessed on testing completion in order to determine the continuation to fortnightly serial testing.

As of the 19th of April, there have been 176 tests completed, with 0 detected cases identified. This is a detected rate of 0%.
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 (11th – 17th April 2021);

- 535 tests were completed in 31 primary schools resulting in a **2.2% positivity rate**.
- 206 tests were completed in 18 post-primary schools resulting in a **0.5% positivity rate**.
- 127 tests were completed in 1 Special Education setting resulting in a **1.6% positivity rate**
- 869 tests were completed in 42 childcare facilities resulting in a **4.0% 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)
**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 15, 11th – 17th April 2021), there were c.868 tests completed.

![Weekly Comparison of Tests Completed in Schools and Special Education](image)

**Figure 4.5 Weekly Analysis of Schools and Special Education Testing**

**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 15, 11th – 17th April 2021), there were c.869 tests completed.

![Weekly Comparison of Tests Completed in Childcare Facilities](image)

**Figure 4.6 Weekly Analysis of Childcare Facility Testing**
5. Recruitment
Recruitment of staff to support swabbing activity and contact tracing activity is ongoing.

- As of the 19th of April, a total of 782 swabbers have been hired and placed to support swabbing activity.

- As of the 19th of April, there is a total of 955 staff supporting contact tracing. Of these 955 staff, 903 have been hired and retained as part of the dedicated workforce to support the contact tracing function. The remaining 52 staff are deployed staff from the HSE and other public service roles.