Title: Test and Trace Paper – NPHET

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Organisation: HSE

Date: 8th April 2021

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

Approved for future publication: YES/NO (remove as applicable)
Testing and Tracing Paper, 8th 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**
  As of 31st March, Contact Tracing Centres undertake a more detailed history (going back seven days prior to the onset of symptoms) from cases identified as “community transmission” in an effort to identify the source of infection and other contacts who might have been exposed at the same time. This additional information has been passed to the regional Departments of Public Health who have been doing more detailed investigations in settings and events where appropriate.

  The effectiveness of Source Investigation is dependent on the incidence rate and burden of disease at any point in time. Low levels of infection in a country represents an opportunity to chase-down the few remaining cases. Backwards contact tracing / source investigation is considered most effective when there are low levels of community transmission, and less effective when there are high levels of community transmission.

  Source investigation is something that Departments of Public Health have been doing throughout the pandemic. This recent initiative is designed to facilitate the work of the regional Departments of Public Health.

- **Alternative referral pathway for testing**
  A working group was established to produce proposals and implement pilots of self-referral pathways for asymptomatic individuals. On the March 25th, 5 walk-in test centres opened for 7 days in areas of high disease prevalence to target people who don’t have any symptoms and may not have a GP. A total of 20% of cases are asymptomatic, so this initiative is aimed at finding these cases and making it easier to get tested. Each site can take up to 500 swabs per day.

  A further 7 centres opened over the last week and additional centres are due to open later this week which will target where there is the greatest risk of disease. The selection of walk-in sites is led by Public Health and is targeted to areas with high rates of transmission and is considered to be the best use of resources ensuring a targeted approach where intervention is needed most.

  Up to the 6th of April, there were a total of 24,373 walk in referrals with an overall positivity rate of 2.7% across all centres. The 25-44 age group make up 45% of walk-ins. The implementation group is now looking at a phone line and online self-referral for certain regions or cohorts.
• **Approach to Antigen testing pilot in schools/third level**
  An Antigen Testing Implementation Group has been established to implement a pilot study to investigate the effectiveness and safety of self-swabbing and self-testing antigen testing models in educational facilities in Ireland. It seeks to determine the benefits and/or limitations of using antigen testing for the early identification of potential cases amongst asymptomatic staff and students. Key stakeholder engagement is to be progressed before a series of implementation group meetings are scheduled to progress this initiative.

• **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 second Quarantine site is now operational as the first site has reached capacity.

**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 09:00am – 7th April 2021*

- 2 Quarantine Facilities Tested
- 898 Referrals for Quarantine Hotel Residents and Staff
- 562 Swabs completed
- 10 Covid-19 Detected Cases (1.78% Detection Rate)

**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>
</tr>
</thead>
<tbody>
<tr>
<td>Quarantine Staff</td>
<td>433</td>
<td>149</td>
<td>34%</td>
<td>1</td>
<td>0.67%</td>
</tr>
<tr>
<td>Quarantine Residents</td>
<td>465</td>
<td>413</td>
<td>89%</td>
<td>9</td>
<td>2.18%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>898</strong></td>
<td><strong>562</strong></td>
<td><strong>63%</strong></td>
<td><strong>10</strong></td>
<td><strong>1.78%</strong></td>
</tr>
</tbody>
</table>

**Note:**

- The above data includes any requested or required re-testing of individuals.
- Testing of Quarantine Staff has now been scheduled for Thursday, Friday and Saturday of each week, which is reflective of the low participation rate.
- 6 requests have been received for home-testing for unaccompanied minors.
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>433</td>
<td>149</td>
<td>1</td>
<td>382</td>
<td>332</td>
<td>9</td>
</tr>
<tr>
<td>Site 2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>83</td>
<td>81</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>433</td>
<td>149</td>
<td>1</td>
<td>465</td>
<td>413</td>
<td>9</td>
</tr>
</tbody>
</table>

Testing of Residents in Mandatory Hotel Quarantine (by Reservation 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>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>73</td>
<td>70</td>
<td>96%</td>
<td>3</td>
<td>4.29%</td>
</tr>
<tr>
<td>Category 2 Country</td>
<td>392</td>
<td>343</td>
<td>88%</td>
<td>6</td>
<td>1.75%</td>
</tr>
<tr>
<td>Total</td>
<td>465</td>
<td>413</td>
<td>89%</td>
<td>9</td>
<td>2.18%</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 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 CTC in Cork. Phase II of this process will include expanding the scale of operations to include all cases. This expansion will also include operationalising the calls from more than one CTC. Phase III of this process will broaden the scope to include calls to all close contacts. Phase I is complete and plans are in place for implementing Phase II.

Table 1 below summarises the outputs and findings of the calls made from the Cork CTC and highlights that contact tracing has been well received and translates into meaningful behaviour change.

<table>
<thead>
<tr>
<th>Date</th>
<th>No. of calls initiated</th>
<th>Successful Calls</th>
<th>FULL adherence to PH guidance i.e. isolation</th>
<th>PARTIAL adherence to PH guidance i.e. isolation</th>
<th>NO adherence to PH guidance i.e. isolation</th>
</tr>
</thead>
<tbody>
<tr>
<td>30/03/2021–06/04/2021</td>
<td>1386</td>
<td>1115 (80.4%)</td>
<td>1000 (90%)</td>
<td>115 (10.3%)</td>
<td>0 (0%)</td>
</tr>
</tbody>
</table>
2. Activity levels across referrals, sampling, laboratory and contact tracing

Summary

Test and Trace service performance indicators from the 31st March – 6th April show a 15% decrease in community referral volumes in comparison to the same time-frame last week (From the 24th – 30th March there were a total of 54,459 referrals in the community. This week, from 31st March – 6th April, there were a total of 46,450 referrals in the community, which include referrals in community test centres and walk in referrals).

As of April 6th, the positivity rate for the past seven days is c. 3%, and as of April 6th, of those tested with close contacts, the average number of close contacts per case was 3.6.

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 (31st March – 6th April)

From the 31st March – 6th April, total community referrals (including walk-ins) were c.46,450. This weekly total has decreased by 15% in comparison to the same time-period last week.

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

Figure 2.1 Daily Community Referral Volumes 31st March – 6th April
Community Referral Data Volumes by Age Group (29th March – 4th April)

Figure 2.2 below highlights the breakdown of community referrals by age group, from 29th March – 4th 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 29th March – 4th April, the group with the largest number of referrals is the 31-40 age group, which makes up 18% of all referrals. The detected rate for the 31-40 age group is c.8.5%.

![Referral Data Volumes by Age Group](image)

**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, 31st March – 6th April, there has been approximately **121,580 swabs** taken for COVID-19 testing. From 31st March – 6th April a total of 48,696 swabs were completed in the community (including walk-ins).

During the same time-period c.16,629 tests were completed by the National Ambulance Service. Approximately 36,936 swabs were taken in acute and private acute settings. The remaining 19,319 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.
Laboratory Testing

Over the seven-day period 31st March – 6th April, there has been 110,716 lab tests completed. A total of 68,871 of these tests were processed in community laboratories, 27,145 tests were processed in acute laboratories and 14,700 were processed in private labs. Over the past seven days, there were no tests processed by our offshore laboratory partner.

Below is a breakdown of Covid-19 lab tests completed over the past four weeks, in community, acute, private and offshore lab settings.

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 31st March – 6th April, there was a total of 3,456 call 1s completed.

During the same time-period there was a total of 3,030 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 4,716 call 3s made to close contacts of a confirmed COVID 19 case.

On the 6th of April, of those tested with close contacts, the mean number of close contacts was 3.6
3. Turnaround Times (31st March – 6th 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 31st March – 6th April;

- The median end-to-end turnaround time, from referral to SMS, for not detected tests in the community setting was 1.3 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 2 days.

*Referral to appointment*

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

A total of 93.4% 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 44% 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 7.3 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 694,575 tests and identified 4,588 detected cases. This is a detected rate of 0.66%.

**Cycle 9** of serial testing in Nursing Homes concluded on the 28th of March. In total, the cycle completed 66,069 tests and identified 116 detected cases. This is a detected rate of 0.18%.

**Cycle 10** of serial testing in Nursing Homes commenced on 29th March. To date, the cycle has completed 17,989 tests and has identified 14 detected cases. This is a detected rate of 0.08%.

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

*Figure 4.1 Nursing Home Detected Rate per Cycle*
**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 4,318 tests and identified 18 detected cases. **This is a detected rate of 0.42%**.

**Cycle 3** of serial testing in Mental Health facilities commenced on the 29th of March. To date, there has been a total of 769 swabs carried out and 2 detected case has been identified. **This is a detected rate of 0.26%**.

![Figure 4.2 Mental Health Facility 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 160,043 tests and identified 1,265 detected cases. This is a detected rate of 0.79%.

**Cycle 7** of serial testing in food production facilities concluded on the 4th of April, and has completed 24,560 tests, with 130 detected cases identified. **This is a detected rate of 0.53%**.

**Cycle 8** of serial testing in food production facilities commenced on the 6th of April, and has completed 2,119 tests, with 3 detected cases identified. **This is a detected rate of 0.14%**.
COVID-19 testing has re-started in schools and is ongoing in special education and childcare facilities. In the last week (28th March – 3rd April 2021);

- 4,691 tests were completed in 198 primary schools resulting in a 2.0% positivity rate.
- 780 tests were completed in 50 post-primary schools resulting in a 0.6% positivity rate.
- 225 tests were completed in 9 Special Education settings resulting in a 1.3% positivity rate.
- 1,639 tests were completed in 105 childcare facilities resulting in a 5.1% 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:
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 13, 28th March – 3rd April 2021), there were over 5,600 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 13, 28th March – 3rd April 2021), there were c.1,639 tests completed.
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 5th of April, a total of 777 swabbers have been hired and placed to support swabbing activity.

- As of the 5th of April, there is a total of 846 staff supporting contact tracing. Of these 846 staff, 804 have been hired and retained as part of the dedicated workforce to support the contact tracing function. The remaining 42 staff are deployed staff from the HSE and other public service roles.