Department of
Health
An Roinn Sláinte
Männystrie O Poustie
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Covid-19 Test, Trace and Protect Strategy

Saving lives by minimising SARS-CoV2 transmission in the community in Northern Ireland

27 May 2020

Foreword

Covid-19 is unfortunately going to be with us for some time. The normality that until very recently we have taken for granted is on hold. Until an effective vaccine is developed and an immunisation programme is delivered, what we need to do to prevent cases and save lives is control the spread of this infection.

We are doing this by a combination of measures including the 'lockdown' legislation imposing restrictions on businesses, individuals and the many institutions that bind us together as a society; policy decisions, such as closing schools; voluntary efforts on the part of individual citizens, such as observing social distancing and maintaining hand hygiene and respiratory hygiene; and the work of many public health professionals.

These measures have without doubt saved lives but some have had serious detrimental impacts on health and well-being, on society and on our economic life. We must withdraw each of the restrictions as soon as it is safe to do so, and – crucially – while minimising the risk of a renewed exponential rise in case numbers, with further, and possibly more serious, waves of the epidemic.

In order to do that as safely as possible we must strengthen the measures that we are taking to push down the rate of infection. Of all the public health interventions that can make this happen, the single most important is our strategy to test, trace, and protect suspected and confirmed cases. This document sets out the strategy, which consists primarily of traditional, tried and tested public health practice, supported by new digital solutions.

Active citizenship and extraordinary altruism have been a crucial part of the response to Covid-19 so far, and will be essential to the success of the Test, Trace, and Protect Strategy. Public health science and practice need to be complemented by individuals' readiness to support the strategy and agree to self-isolate.

As we plot a path to recovery, this strategy is inherently a shared enterprise. We have good grounds to be confident that as a community we will continue to play our part and look after each other. The more effectively we can work together the sooner we can restore our individual freedoms, our life as a society, and our economy.

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Introduction

1. Northern Ireland has already employed extensive measures to effectively reduce transmission of Covid-19, including hand hygiene, respiratory etiquette, physical distancing, and the unprecedented measures known as 'lockdown'. The support for these measures by the public has been extra-ordinary, and we have successfully 'flattened the curve', and in doing so saved lives.

2. In line with the rest of the UK, the PHA were conducting rigorous contact tracing for all cases of COVID-19 until the 12th March 2020. On the 12th March, the UK moved from the containment phase to the delay phase. The focus of our efforts then shifted from individual contact tracing to wider measures, including advising all of the public to immediately self-isolate if they had even mild symptoms, prevention of spread, and social distancing.

3. The Executive agreed on 7 May 2020 a set of recommendations by the Minister of Health for a decision-making framework and a structured process, using a risk and benefit assessment model, for withdrawing and amending the restrictions and requirements contained in the Health Protection (Coronavirus, Restrictions) Regulations (Northern Ireland) 2020. As part of a set of guiding principles the Executive agreed that a restriction or requirement should only be relaxed when there is a reasonable prospect of maintaining R at or below 1.

4. We now need to intensively ramp up other public health measures which will help to maintain R at or below 1 to minimise the risk of a second wave of infection.

5. 'Test, Trace and Protect' is a strategy designed to break the chain of transmission of the virus by identifying people with Covid-19, tracing people who may have become infected by being in close contact with them and supporting those people to self-isolate so that if they have the disease they are less likely to transmit it to others.

6. This strategy will not replace the measures we have already used effectively to reduce transmission, but run alongside hand and respiratory hygiene and physical distancing.

7. It is important to realise that we all will need to be prepared to self-isolate on each occasion that someone we have been in close contact with is identified as a case, in order to protect the people we would otherwise have come into contact with. This may mean repeated periods of self-isolation for some

people. We will seek to keep these periods as infrequent and short as possible by increasing rapid access to testing and results.

'Test, Trace and Protect' – a Public Health intervention

8. The four key elements of 'Test, Trace and Protect' are:

- Early identification and isolation of possible cases, clusters and outbreaks;

- Rapid testing of possible cases;

- Tracing of close contacts of cases;

- Early, effective and supported isolation of close contacts to prevent onward transmission of infection.

Chains of transmission can only be broken if those who could transmit the disease to others are isolated, and get the support they need to maintain that isolation.

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Figure 1.
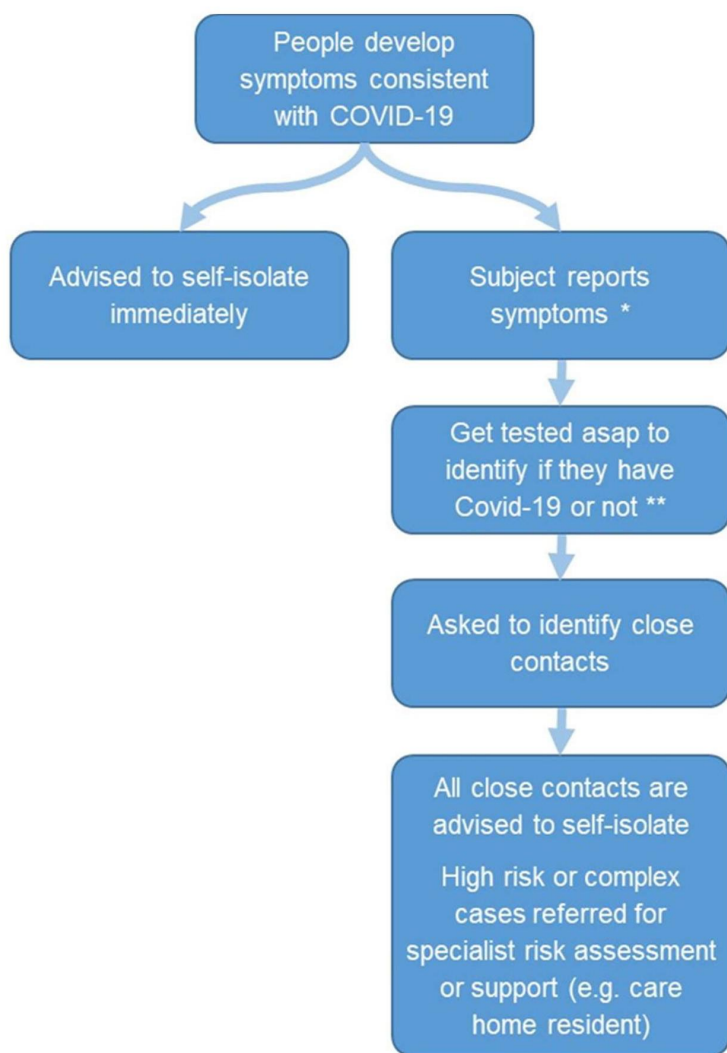
* Person can choose their own route in to the system – options include a telephone based service, or via a web-portal. Confirmed cases (those with a positive laboratory test result) will also be identified via laboratory reporting systems.

** If test is negative, the contacts will be advised they can come out of isolation.

9. Transparency, information governance, data protection and security will be of paramount importance as this work is taken forward. The Caldicott Principles will underpin all handling of personal data and information, and appropriate safeguards will be put in place. Human rights and equalities considerations will remain at the heart of our approach.

10. Access to all parts of 'Test, Trace and Protect' should be readily available to all people in Northern Ireland and transcend barriers that may exist due to native language, hearing/visual impairment or disabilities.

11. There are a number of challenges inherent in the 'Test, Trace and Protect' approach:

   a. Some people have very mild or atypical symptoms, or no symptoms at all. This means that it will not be possible to identify every possible case by symptom-based assessments, and it will not be possible to interrupt every possible chain of transmission. This is one of the reasons why other public health measures such as physical distancing and good hand and respiratory hygiene will remain crucial.

   b. Symptoms of Covid-19 are common in other diseases, meaning that a lot of people may have these symptoms, but may not have Covid-19. This means that extensive testing will be required to confirm who has the infection;

   c. Contact tracing will need to identify as many of those who are at risk as possible, as quickly as possible. Public support for this will be crucial. We will have to rapidly upscale traditional telephone call based contact tracing methods, as well as explore other digital options to make this possible;

   d. In order to interrupt chains of transmission effectively, we will have to ask close contacts, who may not even know the person with Covid-19 symptoms, to self-isolate for 14 days. The success of this approach will therefore depend on the continued willingness of people of Northern Ireland to do this. We know that people will find self-isolation for 14 days very challenging, and some more so than others. We will work to ensure that support is in place to enable people to do this safely and to minimise the financial, social and wellbeing impacts that isolating has on their lives;

   e. The virus does not respect geographical boundaries. We are working closely with the rest of the UK and the Republic of Ireland to coordinate our strategies where appropriate, whilst pursuing a course that is best and most appropriate for the population of Northern Ireland.

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Delivering "Test, Trace, Protect" in Northern Ireland

12. The delivery of 'Test, Trace and Protect' will be led by the Public Health Agency and other partners in Northern Ireland under the policy direction set by the Minister.

13. The Health Protection team at the Public Health Agency have specialist skills and experience of communicable disease control. In April 2020, contact tracing began for cases of Covid-19 associated with care homes. Contact tracing will be expanded rapidly to cover all suspected and confirmed cases of Covid-19.

14. Given the unprecedented numbers of cases and contacts to be traced, the team is being scaled up. We are also exploring using digital options which may be attractive to some parts of the population. This would involve a secure web-platform to alert users when they have been in close contact with someone identified as a case, enable people to report and track their symptoms, order a test, and input the details of their contacts themselves.

15. Key to the success of contact tracing will be the level of awareness and support for the programme amongst the wider public and other stakeholders. Therefore from the earliest development stages we will have to ensure that we consult widely and communicate clearly and regularly in order to optimise support amongst the public for the service and to adhere to the advice being provided. As the service expands we will build awareness using a variety of communication channels tailored towards meeting individual needs.

16. We recognise that there will need to be a cross border element in our contact tracing, and are working closely with the Republic of Ireland. The Health Protection team in the PHA have excellent working relationships with their counterparts in ROI, and over many years have worked together to manage infectious diseases which have cross-border impacts. Whilst there are well established systems in place to work with ROI on contact tracing and management of infectious diseases, contact tracing for Covid-19 is of an unprecedented scale, and we are working at pace to develop new, more efficient ways of working collaboratively to reduce spread of Covid-19, and protect cross border areas and travellers.

Testing

17. We know that 'Test, Trace and Protect' will have the greatest impact when people are confident in what to do if they have symptoms, are able to receive the test quickly, and get results delivered rapidly. Testing people who have Covid-19 symptoms will enable them to know whether they can resume

normal activities because they are negative, or to receive the care and advice they need to help them and their close contacts isolate effectively.

18. Our aim is to offer testing to everyone who needs it, in a way that is accessible for them, and provide results as quickly as possible.

19. The testing capacity will need to grow as "Test, Trace and Protect" expands to cover the whole population. As the symptoms for Covid-19 are the same as the symptoms for many other diseases, we expect that a large number of people will need to be tested each day. This will require an unprecedented scale of testing capacity in Northern Ireland and we will continue to develop the scale and pace of testing activity in the coming weeks.

20. Modelling data based on the number of patients being advised to self-isolate by primary care due to symptoms anticipates a requirement of 1000 tests per day at present. Further research is required to establish whether testing of asymptomatic contacts is of any benefit after they have been advised to self-isolate.

21. We will continue to model and monitor the need for tests and will develop more detailed plans on the testing capacity required in Northern Ireland. This will help to ensure that 'Test, Trace and Protect" is fully rolled out and that testing capacity is able to meet demand.

Contact Tracing

22. Contact tracing means identifying people who have been in close contact with cases of Covid-19, informing them of this, and providing them with information on the symptoms to be aware of, what to do if symptoms develop and if they need to self-isolate or get tested.

23. Contact tracing is a well-established public health control measure used in the management of a number of communicable diseases, such as TB and meningococcal disease. The Health Protection team in the Public Health Agency have specialist experience and expertise in delivering contact tracing and previously carried out contact tracing for Covid-19 during the containment phase of the current pandemic.

24. For the purposes of contact tracing, a close contact is someone who has been physically close enough to the case for a long enough period of time, that they may have had the infection transmitted to them. The risk of the disease being transmitted is higher the closer the contact, the greater the exposure to respiratory droplets (for example from coughing), or the longer the duration of the contact.

25. The PHA re-introduced contact tracing for Covid-19 in April 2020, and from 18th May PHA have been contact tracing all confirmed cases. This approach is

likely to become a part of everyday life in Northern Ireland until an effective vaccine is developed and a vaccination programme for Covid-19 has been delivered.

26. There is considerable uncertainty regarding the number of cases and contacts who will need to be contact traced. It is estimated that there are 200-250 new cases of Covid-19 per day in Northern Ireland, and the numbers of those who have Covid-19 like symptoms will be greater. The number of contacts per case will depend on the extent of social distancing and the definition of a contact. However, from published data this is likely to be between 3 (under current lockdown) to 30 (under normal activity).

27. We are developing a digital offer which will have multiple components: a proximity tracking app will alert users when they have been in close contact with someone identified as a case; people who are symptomatic will be able to order a test to be delivered to their home or arrange a drive-through appointment using an online portal; individuals and households will be able to track their symptoms and isolation timings; and those who are infected will be able to input the details of their contacts themselves. However, we also recognise that not everyone in Northern Ireland will want, be able to use or have access to web-based tools, and so we will ensure that telephone support will be available for everyone who needs it.

28. In relation to the digital proximity tracking, a number of different smartphone apps that use the Bluetooth system to detect other devices are in development, with two different models for how data is collected and transmitted to other users. Both models use only anonymised data and both are particularly effective for identifying people who have been in close physical proximity but who are unknown, such as a stranger on public transport. These proximity apps have the potential to be a useful adjunct to contact tracing, but it is also important not to see it as a substitute for the approach to contact tracing described above. It is also important that the public have confidence in the use of such technology and in the use of data. We are actively considering what the best option is for Northern Ireland. A separate and more detailed paper has been developed that explores these options, and makes a recommendation.

Isolation and Support

29. Testing and contact tracing will only have an impact on reducing transmission in the community if self-isolation is carried out when required. Contact tracing on its own will not be sufficient to disrupt chains of transmission.

30. We will be asking people to self-isolate, not for their own benefit, but to prevent possible onward spread of the virus to those who they otherwise would come into contact with. We know that this isolation is going to be challenging and that some people will require support. It is possible that people will have to self-isolate more than once.

31. For some people, this may mean that they need to be provided with somewhere to isolate away from the rest of their household. Others will need practical support with food and medicine, whilst ensuring their physical and mental health needs are met. Work is underway to develop plans for providing the support that is needed to enable people to isolate effectively. We will be taking steps to ensure that people are able to access any necessary financial support if self-isolating as a result of contact tracing. We are aware that there may well be significant financial disincentives to self-isolation, and are seeking to remove these barriers.

Conclusion

32. 'Test, Trace and Protect' has a vital role to play in helping us move forward into recovery. Alongside other key public health measures such as physical distancing and good hand and respiratory hygiene, it will help us to minimise community transmission of Covid-19 as we seek to ease lockdown restrictions.

33. For 'Test, Trace and Protect' to work, each citizen of Northern Ireland will have a very important role to play. We must all prepare for the possibility of having to self-isolate and prepare to be tested in order to protect others if required.

34. This approach is likely to become a part of everyday life in Northern Ireland until an effective vaccine is hopefully developed and a vaccination programme for Covid-19 has been delivered. We will continually seek to develop and refine our approach with experience, feedback from the public, and learning from around the world.

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