Covid-19 – Test, Trace, Isolate, Support

A Public Health approach to maintaining low levels of community transmission of COVID-19 in Scotland

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Riaghaltas na h-Alba
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Foreword

On 23 April 2020, I set out the framework we will use for decision making as we continue to supress COVID-19 and minimise its harms, while also seeking to ease the lockdown.

There are no simple solutions to the challenges that lie ahead, and no quick-fixes that will allow us to lift restrictions quickly or dramatically. However, we know how important it is to restore as much normality to life as soon as we can.

In the weeks and months ahead we will all need to continue to play our part in Scotland's response to the disease. To protect each other, our lives are not going to go back to exactly how they were. Instead, we will need to continue to adapt our behaviour to reduce the risk of the disease spreading. We will need to continue with physical distancing and good hand and respiratory hygiene, including the appropriate use of face coverings.

Our behaviour matters, and our choices and willingness to make sacrifices to help keep people in Scotland safe will be crucial.
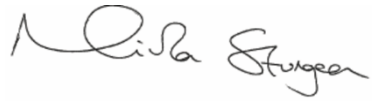
A key aspect of this next phase, is the "test, trace, isolate, support" approach. We will test people in the community who have symptoms consistent with COVID-19. We will use contact tracing, a well-established public health intervention, to identify the close contacts of those cases, who may have had the disease transmitted to them. We will ask and support those close contacts to self-isolate, so that if they do develop the disease, there is less risk that they will pass it on to others. And we will make sure that support is available to enable people to isolate effectively.

However, it is important to stress that "test, trace, isolate, support" will be most effective when levels of infection are low – lower than now – and stay low, and that its success relies on all of us knowing and agreeing what to do if we have symptoms, and being prepared to self-isolate when advised to do so.

This will not be easy. In this next phase, we will be asking people to self-isolate, not for their own benefit, and not because we know for certain that they have contracted the disease, but in order to protect others in case they have.

People may face self-isolation not just once, but on repeat occasions.

This document sets out the Scottish approach to "test, trace and isolate, support," and the extensive work that is now underway to prepare for its implementation.

Nicola Sturgeon
First Minister of Scotland

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<u>Introduction</u>

1. *COVID-19: A Framework for Decision Making* sets out the steps required for a managed transition out of lockdown. That framework recognises the need for a range of public health measures to be deployed to enable us to ensure low levels of community transmission of the disease.

2. One of these public health measures is the "test, trace, isolate, support" approach. This approach is designed to help us interrupt chains of transmission in the community by identifying cases of COVID-19, tracing the people who may have become infected by spending time in close contact with them, and then supporting those close contacts to self-isolate, so that if they have the disease they are less likely transmit to it to others.

If test result negative, the person no longer needs to self-isolate and contact tracing does not take place.

Person experiences symptoms they think are consistent with COVID-19 and self-isolates → Initial assessment undertaken online or by phone, and test arranged if appropriate. → Process to identify close contacts begins. → If test result positive, contact tracing used to identify close contacts and support them to isolate for 14 days.

3. An overview of the approach is provided at **Annex A.**

4. "Test, trace, isolate, support" will not be effective on its own. Instead it must be used alongside other public health measures to reduce transmission, such as physical distancing, good hand and respiratory hygiene, including appropriate use of face coverings, and disease surveillance. It will be important that everyone living in Scotland understands the symptoms to look out for in themselves and their household, and what to do if they do get those symptoms. More than that, "test, trace, isolate, support" will require us all to be ready to self-isolate on each occasion someone we have been in close contact with is diagnosed, in order to protect the people we would otherwise have come into contact with.

5. We will introduce "test, trace, isolate, support" starting with contacts of priority groups we are already testing, such as patients, and NHS and social care workers, and then quickly broaden coverage as we continue to increase our testing capacity, so that contact tracing is carried out for all cases identified in the community.

6. To allow for a "test, trace, isolate, support" approach to work, the levels of disease need to be sufficiently low to make the management of outbreaks the exception rather than the rule. We have identified five steps for "test, trace, isolate, support" to be delivered effectively;

    a. **Effective disease surveillance**. We need to understand COVID-19 in Scotland and identify patterns in disease activity, such as local outbreaks.

    b. **Early identification and isolation of possible cases**. We need everyone to be aware of the symptoms of COVID-19, and understand what they need to do themselves to support our "test, trace, isolate, support" approach.

    c. **Early and rapid testing of possible cases**. We are working towards ensuring that everyone who needs a test can get one, regardless of whether they can travel to a drive-through test centre, need to be seen by a healthcare professional, or can self-administer a test at home.

    d. **Early and effective tracing of close contacts of a confirmed case**. This will involve people providing information about who they have been in close contact with, supported by dedicated staff as required and technology where appropriate. This process may start before the person has their test result.

    e. **Early, effective and supported isolation of close contacts**. 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.

7. The delivery of "test, trace, isolate, support" will be led by the NHS in Scotland. People who develop symptoms consistent with COVID-19 will be supported to isolate immediately and will be able to access testing.

8. Those who do test positive for COVID-19 will be asked to isolate for 7 days and their close contacts will be asked to self-isolate for 14 days. It will be important that the people identified as close contacts remain in self-isolation for the full 14 days. If they later start to develop symptoms, the process will begin again to test, trace, isolate and support any close contacts they have had while in the isolation period.

9. For the purposes of contact tracing, a close contact is someone who has been physically close enough to the confirmed case for a long enough period of time, that they may have had the infection transmitted to them. For COVID-19, this includes everyone who has been less than 2 metres away from a confirmed case for 15 minutes or more. 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.

10. The "test, trace, isolate, support" approach will be challenging to deliver as part of the response to COVID-19, because of some of the specific features of the disease;

   a. The symptoms of COVID-19 are common, which means that at any time a relatively high proportion of the population may have symptoms, such as a cough or a fever – but they may not have COVID-19. Extensive testing will be required to confirm who has the infection.

   b. Emerging evidence suggests that transmission can occur before a person is symptomatic. This means that it will be important to confirm cases through testing quickly, and we will need to trace the people a person spent time with before they felt unwell, as well as after their symptoms started.

   c. Many 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. Other public health measures such as physical distancing and good hand and respiratory hygiene will remain crucial.

   d. Transmission can happen in the course of normal and essential activities (e.g. speaking to people, touching contaminated surfaces). Contact tracing will need to adopt a risk based approach, prioritising the close contacts who are at greatest risk from transmission. We will reflect on international evidence and best practice in decisions about the approach in Scotland.

   e. Isolation will be challenging. 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, to self-isolate for 14 days. The success of this approach will therefore depend on the continued willingness of the population to do this.

   f. We know that some people will find self-isolation for 14 days very challenging. 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.

Delivering "test, trace, isolate, support" in Scotland

11. "Test, trace, isolate, support" will be expanded rapidly, learning from our own experience and the experience of others around the world. We will build on the expertise and experience of our health protection teams, make use of new and existing digital infrastructure, and an expanding accessible testing programme. In order to keep each other safe we will need to ask and support individuals to self-isolate – a difficult thing to do - and so keeping human rights and equalities considerations at the heart of our approach will be very important.

<u>Testing</u>

12. It is crucial that we develop a testing capacity that enables us to offer testing to everyone who needs it, in a way that is accessible for them. We know that "test, trace, isolate, support" 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. This will require an unprecedented scale of testing capacity in Scotland and we will continue to develop the scale and pace of testing activity in the coming weeks.

13. 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 contacts isolate effectively. We have already rapidly expanded NHS testing capacity in Scotland, from 350 samples a day at the start of the outbreak to 4,350 samples now, and with plans to increase that further to 8,000 samples each day by mid-May. In addition to this, we will be able to access significant testing capacity of around 4000 per day through the Lighthouse Laboratory arrangements.

14. The testing capacity we need will grow as "Test, trace, isolate, support" 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. The number of tests required may not be directly linked to COVID-19 prevalence in the community, but rather to the prevalence of all diseases causing similar symptoms.

15. Our initial estimate is that we may need to provide sufficient tests for around 2% of the population and will therefore need to be able to deliver up to 15,500 tests per day when 'test, trace, isolate, support' is fully rolled out. However, we will closely monitor data on symptom prevalence through our surveillance work and our daily reporting on testing uptake so that we can plan to further increase capacity if required. Active community surveillance at local levels will also be key to identifying outbreaks and informing where "test, trace isolate, support" needs to focus as the pandemic progresses in Scotland.

16. As we phase in the contact tracing work alongside the other aspects of testing that are already underway there is likely to be some overlap with the current approach, for example for key workers. We will continue to model and monitor need and capacity and will develop more detailed plans on the testing capacity required in each NHS Board area to ensure that as "test, trace, isolate, support" is fully rolled out, testing capacity is available to meet demand.

17. In addition to increasing the volume of tests so that more people in the community can be tested, we will continue work to ensure that results can be provided as rapidly as possible. It will also be vital that as part of growing our testing capacity, we strengthen arrangements for ensuring that everyone in Scotland is able to receive the test if needed. In particular, we need to ensure that people living in remote areas, and those who are not able to travel to drive-through facilities are able to access testing.

18. Contact tracing is a well-established public health intervention, and our health protection teams have experience and expertise in delivering contact tracing for a range of infectious diseases. However, contract tracing is resource intensive, and we need to ensure that all areas of Scotland are able to enhance their contact tracing capacity to meet the demands of COVID-19.

19. We are enhancing the digital infrastructure that already exists and is used for this type of tracing work for other infections with Public Health Scotland and NHS Boards are leading collaborative work to put in place a locally delivered, but nationally supported, service for COVID-19 contact tracing. This involves both improving the digital infrastructure that supports contact tracing so that it can be delivered as efficiently as possible, but also supporting local teams to significantly increase their capacity to respond.

20. Digital tools will support our contact tracing work. The Digital Health and Care Institute are developing a secure web-based tool for the NHS in Scotland, accessible on smartphones or computers, which will allow those who are able to input details of people that they have been in close contact with, and for these to be sent directly and securely to contact tracing teams. A diagram setting out how this digital tool will support contact tracing is provided at **Annex B.** However, we also recognise that not everyone in Scotland will want, or be able, to use a web-based tool, and so we will ensure that telephone support will be available for everyone who needs it.

21. In addition to the digital platform being developed by DHI, NHSX is developing an app which intends to support contact tracing through proximity tracking. This app uses Bluetooth technology to identify close contacts among other app users, and may be particularly useful for identifying people who have been in close physical proximity but who are unknown, such as a stranger on public transport. This is a UK Government led project – which we understand will be trialled soon – and we are seeking to ensure greater involvement for the Scottish Government in its development. In particular, we need to understand how data from this app will interface with the Scottish approach to contact tracing. We do consider that an app of this type can be an important enhancement to contact tracing, but it is also important not to see it as a substitute for the approach to contact tracing we describe here. It is also important that the public have confidence in the use of such technology and in the use of data.

22. Contact tracers are more than simple data gatherers. Through their discussions with cases and contacts they must conduct careful risk assessment and provide active support. Local teams will provide this specialist support where it is required, and additional staff with relevant skills are already being brought into these teams, for example from other NHS services, and Local Authority environmental health teams. These local teams will be supported by a national contact tracing support service which will undertake the routine work. In total we anticipate that up to 2,000 additional contact tracing staff will be required to deliver a sustainable service across Scotland depending on factors such as the

number of cases and the typical number of close contacts. Our COVID-19 contact tracing services will be in place for as long as is required.

23. Contact tracing will be scaled up and enhanced in a flexible and iterative way, which meets the needs of local areas. NHS Boards are already planning their COVID-19 contact tracing services, with some Boards already undertaking some contact tracing. This work is already underway and we intend for all Boards to have arrangements in place to deliver enhanced COVID-19 contact tracing by the end of May 2020.

Isolation and Support

24. Testing and tracing will only have an impact on reducing transmission in the community if close contacts of confirmed cases self-isolate. Contact tracing on its own will not be sufficient to disrupt chains of transmission.

25. We will be asking these people to self-isolate, not for their own benefit, but to protect those who could otherwise have come into contact with them. We know that this isolation is going to be challenging and that some people will require support. We recognise this will include those contacts who do not become unwell and who will need to isolate for a period of 14 days to make sure they are not going to get ill and pass the illness on to others. It is possible that people will have to self-isolate more than once – perhaps multiple times – if they are identified as a close contact of a case more than once.

26. We will be asking most people who have been in close contact with a confirmed case to remain at home completely during this time, isolating themselves as far as possible from other household members. For example, anyone in isolation should not be undertaking outdoor exercise or shopping trips. If they then develop symptoms, any close contacts, such as household members, would then be asked to self-isolate.

27. 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 also discuss with the UK Government steps to ensure that between individual employment rights and the social security system, people are able to secure any necessary financial support if self-isolating as a result of contact tracing.
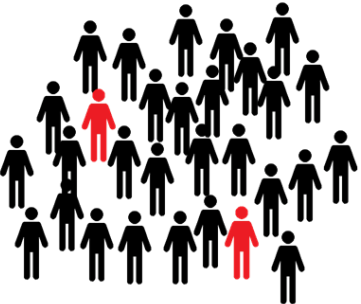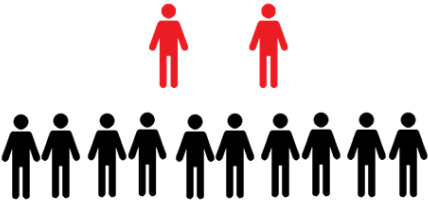
Ensuring that we learn from our experience

28. COVID-19 is a novel infection, and so we expect to learn both from our own experience of contact tracing, but also from the experiences of others internationally. We should expect our approach to "test, trace, isolate, support" to develop over time, both in response to learning about delivering contact tracing at scale for COVID-19, and also as our understanding of the infection improves, and consequently our understanding of how interventions can reduce transmission.
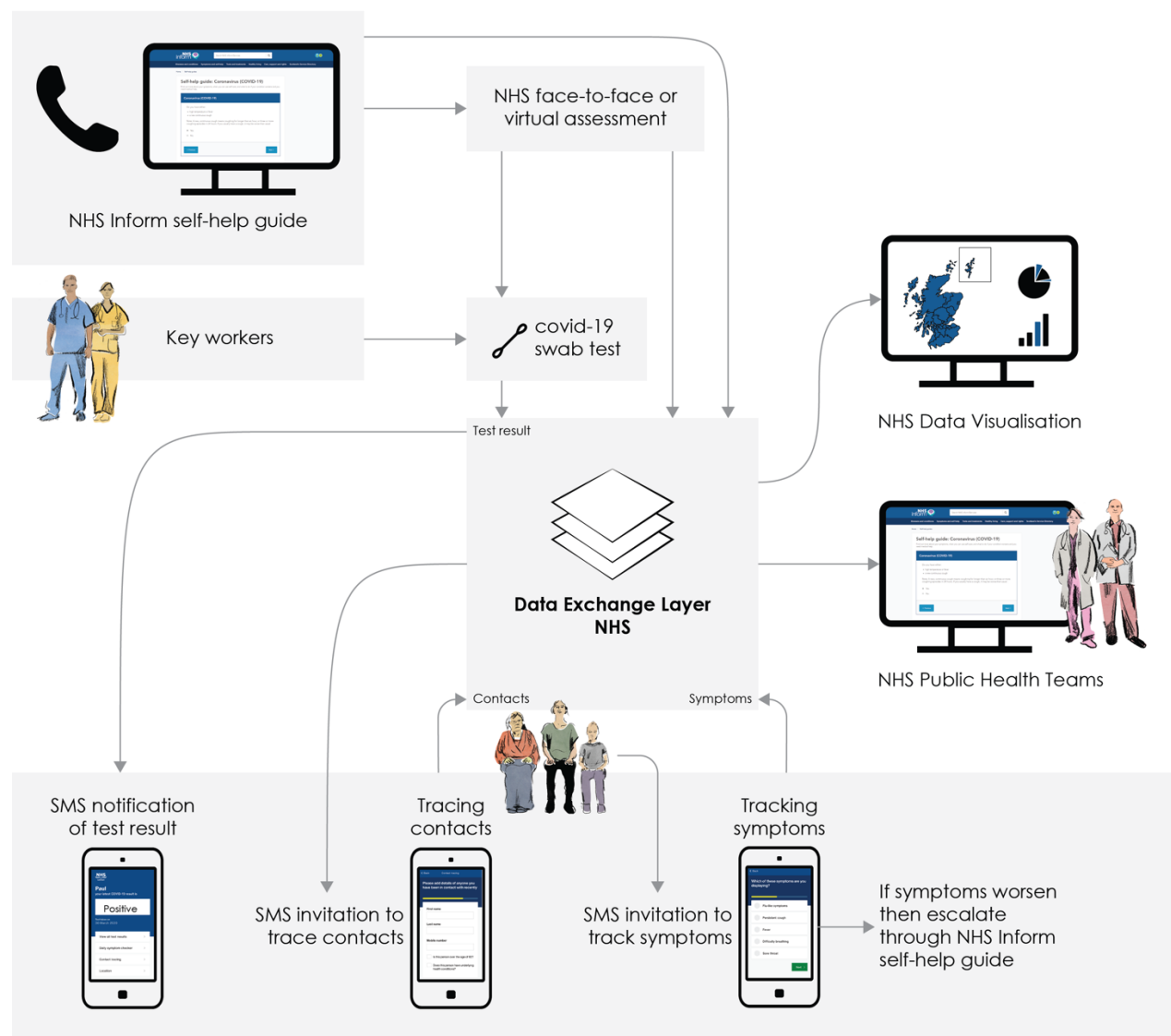
<u>Conclusion</u>

29. "Test, trace, isolate, support" is not a quick fix or an easy answer. However, it has a vital role to play, alongside other public health measures such as physical distancing and good hand and respiratory hygiene, to enable us together to maintain low levels of community transmission of COVID-19 as we seek to ease lock-down restrictions.

30. Everyone in Scotland will have a part to play. We must be willing to continue physical distancing outside our homes. We must continue to observe good hand and respiratory hygiene. We must prepare for the possibility of having to self-isolate for 14 days in order to protect others because a close contact – whether someone we know well, or someone we have only spent time with once – has been diagnosed with COVID-19. We must all be ready to come forward for testing, if we need it.

31. "Test, trace, isolate, support," along with other public health interventions to reduce the risk of transmission, is likely to be part of life in Scotland until a vaccination programme for COVID-19 has been delivered. Our approach will develop over time to reflect new insights into the disease, and learning about the delivery of "test, trace, isolate, support" in Scotland and around the world.

Annex A – Contact Tracing for COVID-19

Identify people with symptoms consistent with COVID-19 and ask them to self-isolate	Rapid testing to identify cases	Identify and trace close contacts of cases	Support self-isolation of cases (for at least 7 days) and close contacts (14 days)
People reporting symptoms consistent with COVID-19 are asked to self-isolate and a test is arranged.	Testing enables those who do not have COVID-19 to be released from self-isolation, and contact tracing to continue for positive cases.	All cases are asked to self-identify close contacts, and are able to access telephone support. For low risk cases, all close contacts are provided with advice to self-isolate. For high risk and complex cases specialist risk assessment and support to identify close contacts is available.	Some cases and close contacts will be able to self-isolate easily Others will need support to isolate.

Annex B – Diagram of the DHI Digital Tool

NHS Inform self-help guide

NHS face-to-face or virtual assessment

Key workers

covid-19 swab test

Test result

NHS Data Visualisation

Data Exchange Layer NHS

NHS Public Health Teams

Contacts

Symptoms

SMS notification of test result

Tracing contacts

Tracking symptoms

SMS invitation to trace contacts

SMS invitation to track symptoms

If symptoms worsen then escalate through NHS Inform self-help guide