

TYNWALD

September 2020

FOR WRITTEN ANSWER

The Hon. Member for Onchan (Ms Edge) to ask the Chief Minister –

If he will publish the research and advice received from Public Health referred to when announcing recent changes to 7 day quarantine periods?

The research and advice received from Public Health referred to when announcing recent changes to 7 day quarantine periods was contained within a paper considered by the Council of Ministers at the meeting on 30 July 2020. The relevant extracts of which are provided below:

- 1.6 DHSC stated that it was however keen to explore alternative pathways such as that trialled by Guernsey which proposed a 7 day self-isolation upon arrival, a PCR test on day 7 with results on day 8, potentially adjusting the self-isolation period (still with some restrictions), and agreed to report back, supported by the Department for Enterprise on potential options, including funding options with the private sector.
- 1.7 This paper now updates Council on further analysis, the potential costs and feedback from the private sector and a desire to see, and pay for costs on border testing. It discusses how further scaling could occur, should that be the desired direction.
- 1.8 Whilst there has been general support for the move to Level 4 from the business community, there is likely to further increased economic pressure (from businesses) and social pressure (from the general public) as well as practical risks (increasing complacency and breaches) in holding the to the 14 day self-isolation for any prolonged period.
- 1.9 The principal aim of any additional testing is therefore to inform decisions within what is ultimately already a risk-based approach to either improve the self-isolation regime or to make an informed decision to reduce the level of mandatory self-isolation from 14 days to 8, for economic and social reasons.
- 1.10 Scaling of testing to support a test at Day 7 clearly would be necessary to support this and if any additional testing was to be considered, Day 7 tests appear to likely to be the most value added.
- 1.14 The 'gold standard' approach to reducing risk of imported cases leading to resumption of local community transmission remains to ensure strict quarantine of all arrivals for 14 days.

- 1.15 As has been seen over recent weeks in Victoria, Australia, even supervised quarantine in government run accommodation can lead to a resurgence of community spread if facility staff interact with residents in breach of protocols.
- 1.16 Any approach other than 14 day quarantine will therefore inevitably lead to increased risk that an imported case will lead to further transmission on Island at some point while COVID-19 continues to circulate in other jurisdictions.
- 1.17 This risk is amplified due to the Island no longer having any local restrictions in place, nor social distancing in operation.
- 1.18 The decision on policy needs to balance the objective of relaxing border controls and allowing freer movement of people with the ability of the test, track and trace system to contain sporadic cases with no or little spread.

2 **The Island's approach that has allowed the internal economy to open once again does mean that the risks of importation are more pronounced if able to get into the community unchecked. Comparison Jurisdictions**

- 2.1 Whilst the position changes on a regular basis, the undernoted position summarises a number of approaches across a range of jurisdictions as at 23rd July 2020 around border entry, testing and self-isolation.
- 2.2 It can be seen that there is no uniform position, with some countries adopting strong quarantine processes (eg New Zealand), some very open borders (eg UK) and others trialling testing as an alternative to any form of isolation (Jersey on arrival, Madeira and Cyprus seeking tests 72 hours before travel) and some as part of reducing isolation time (Guernsey).
 - 2.2.1 **Jersey** – allows all passengers to choose a test on arrival or commit to a 14 day isolation. If tested they are free to undertake many normal activities with notification of results agreed within 24 hours. Only positive cases are then required to isolate. This clearly carries a substantial risk of only identifying a small proportion of positive cases at time of movement across the border (estimated to be as low as 5% of asymptomatic cases but could be higher depending on their infection point).
 - 2.2.2 **Guernsey** – piloted a process to test on Day 1, followed by Day 7, estimated to identify up to 80% of asymptomatic cases. During this period self-isolation is required and this is principally the pathway discussed in this paper as a potential option. The initial pilot ran for one week from 5th July 2020. No positive tests were identified at Day 7.

2.2.3 A number of logistical issues were identified which have now been addressed. Guernsey now plans to reintroduce the border testing programme on 17th August.¹ Arriving passengers will be given the option of completing 14 days self isolation with no testing or seven days self isolation followed by a PCR test on day 7.

2.2.4 Those with a negative test result will be informed that they can complete the 14 days of self-isolation by moving to a period of 'passive surveillance'. During this time they will enter what is, in effect, a modified form of self-isolation which still includes considerable restriction but does allow them to go out and in many cases back into a workplace.

2.2.5 They will be able to leave their accommodation for exercise but cannot go to any indoor places (eg gyms, restaurants, cinemas, etc), and they can only attend a gathering with fewer than 10 people. In particular, they can go to work (for example in offices), but they cannot go to work if they have a public facing role (eg teacher, retail assistant). Full details of the self-isolation requirements here: <https://covid19.gov.gg/sites/default/files/2020-07/7%20day%20pilot%20-%20Guidance.pdf>.

2.2.6 **Iceland** – Borders are fully open to other EU and Schengen states. From 15 June, all passengers arriving from 'defined areas with high risk of infection' can choose between being tested for COVID-19 (there is a charge for the test) or quarantine for 2 weeks.

2.2.7 Icelandic citizens and residents of Iceland who choose to be tested on arrival must take special precautions for their first five days after arrival or until they can be tested for a second time (no time window for second test is given).

2.2.8 The rationale for additional requirements for these arrivals is that people with strong local ties, returning from high-risk areas, are much more likely than tourists to spread infections. The additional precautions are meant to minimize the risk of 'missed infections' at border screening leading to clusters of infection in Iceland.² The assumption is that sporadic cases occurring in tourists can be managed without leading to local spread.

2.2.9 **New Zealand** – Compulsory managed quarantine for all arrivals. A health assessment and negative PCR test must be completed at day 14 before discharge into the community.

2.2.10 **UK** – unrestricted travel from an increasing number of countries. Testing only commences for symptomatic cases. Following concerns on the increase in transmission in Spain, this became a mandatory 14 day self-isolation country with effect from 26th July 2020.

¹ Personal communication from Dr Brink (DPH, Guernsey) to Dr Ewart (DPH, IoM)

² <https://www.covid.is/categories/tourists-travelling-to-iceland>

2.2.11 **Malta** – Passengers from a list of specified countries (deemed to be low risk) have unrestricted entry to Malta with no requirement for PCR testing or quarantine.³ A health declaration and locator card must be completed at the airport (this is standard across jurisdictions). The airport uses temperature screening and those with a temperature of 37.2 or higher ‘can expect to be interviewed by Public Health officials’.⁴

2.2.12 **Madeira & Cyprus** – maintain a table of low risk countries and travellers from these destinations are required to demonstrate a negative test within the 72 hours prior to travel.

2.3 A more detailed view of these and other countries is included in Appendix 2.

2.4 Consequently it is clear that there is a wide range of approaches across jurisdictions, many of whom still have the virus in the community (therefore the risk of importation is less pronounced).

2.5 In addition many countries still have domestic restrictions in place (such as social distancing in the UK) which go some way to offset the risk of the virus spreading through the community

2.6 Therefore any reduction in the number of days in self-isolation clearly carries a degree of risk.

3 Border Testing – Appraisal

3.1 It is important to recognise that no level of border testing will mitigate the risk completely, and it was estimated in the previous paper that any testing on arrival (Day 1) would in all likelihood miss the majority of asymptomatic cases.

3.2 It is assumed that symptomatic cases are restricted from travelling and/or identified on arrival through the e-landing/health declaration system. However, this is not fool-proof and individuals who either do not realise their symptoms may be COVID-19 or who deliberately do not declare symptoms could be missed.

3.3 The incubation period for COVID-19 is 1 – 14 days (median 5 – 6). Infected individuals start shedding virus (which means they are infectious) 1 – 2 days before symptoms develop.

3.4 It is also recognised that a significant proportion will remain asymptomatic (but still infectious to others) throughout their infection. In respect of travellers, there will be the group who were already infected at their point of origin but have not yet developed symptoms (or a partway through an infection which will remain asymptomatic).

³ <https://www.visitmalta.com/en/reopening-airport>

⁴ <https://www.maltairport.com/covid19/>

- 3.5 These people could be detected through a PCR test on arrival. The other group are people who are infected during transit (travel is a high risk for infection due to risk of mixing between individuals from different areas in enclosed spaces). **None of these people would be detected with a test on day 1.**
- 3.6 Testing on Day 1 could marginally reduce the risk of unknowingly importing the virus into a shared household, allowing a stronger self-isolation / quarantine direction to be issued.
- 3.7 Importantly if applied to everyone, it could also identify a small number of asymptomatic travellers who are key workers planning on entering a work place with mitigations in place other than self-isolation, and this work could be halted upon a positive test result.
- 3.8 The risk in doing tests on Day 1 however is that negative results which are likely for the majority, could unintentionally provide a level of unjustified confidence in the traveller who may be less inclined to adhere to the strict self-isolation requirements imposed having had a negative test on Day 1, not realising they may simply be incubating.
- 3.9 Recognising the incubation period, testing on specific days following entry increasingly carries the potential to pick up positive asymptomatic cases with estimates as follows:

	Day 0	Day 3	Day 7	Day 14
Estimated Minimum Percentage of asymptomatic cases likely to be detected on PCR by day of test (day 1 is day of arrival)	5%	60%	80%	99%

- 3.10 The pathway for planned care requiring two tests, 72 hours apart before surgery is a risk based approach, aiming to capture around 60% of asymptomatic cases, although on the Island the risk is clearly negligible when there appears to be no virus circulating in the community.
- 3.11 The Guernsey pilot of testing on day 7 aimed to capture around 80% of asymptomatic cases. In doing so seeking to find a balance including self-isolation that in the longer term would be more sustainable for repeat arrivals and social and economic purposes.
- 3.12 If such a pathway was applied to a borders scenario, testing within these boundaries – as with self-isolation, is never able to completely eliminate the risk, simply reduce it to an acceptable level at which sporadic cases can be contained by the test and trace system.

- 3.13 The Borders Framework envisaged a progressive move towards Level 2 (no self-isolation required) based on risk – with the principal risk being that of the English estimated infection rate.
- 3.14 The framework suggested a prevalence in England of no less than 1:5000 before any consideration would be given to reducing the self-isolation requirements as self-isolation remains the single biggest defence against unexpected importation and community transmission.
- 3.15 The framework was originally conceived however when the Island still had social distancing requirements and foresaw a move from 2m to 1m. With no social distancing in place on the Island, the UK prevalence rates may benefit from being reassessed upward before consideration to removing the self-isolation period upon return.
- 3.16 Currently the infection rate in England is estimated (ONS Data as at 22nd July) as at 1:2000 and this rate has broadly been consistent for the last 6 weeks suggesting it has plateaued – possibly any natural reduction in transmission being offset by the reduction in restrictions over the same period.
- 3.17 Applying a test at Day 7 therefore on this volume therefore estimates that for every 10,000 passengers who arrive, there may still be around 5 asymptomatic cases.
- 3.18 Under the current scenario there is an inherent risk that a proportion of these arrivals do not strictly adhere to the self-isolation regime, or that the shared household isolation is insufficient, and consequently the virus emerges into a family home or workplace before being identified by a symptomatic case.
- 3.19 Although contact tracing can immediately kick in, there may be a level of community transmission that has already commenced at this point.
- 3.20 A testing regime that tested on Day 7 would theoretically ensure that around 80% of the 5 imported cases were identified as opposed to waiting 14 days to allow for 99% of the cases to be identified (through becoming symptomatic) or have passed their infectious period (without symptoms).
- 3.21 The difference between 7 and 14 days is therefore one between 80% and 99% confidence in any infection passing assuming the traveller became infected at Day 1 of travel or during travel.
- 3.22 Whilst testing on day 7 still carries the risk that 20% of imported cases that may become infectious are not identified, it clearly significantly reduces the overall risk of volume importation when compared to testing only Day 1 (Jersey) or no testing (UK).
- 3.23 In theory using the current England estimated infection rate of 1:2000, with a 20% miss rate on Day 7, this would either isolate, or identify all positive cases in up to 8,000 passenger arrivals, who are able to self-isolate for 7 days ($2000/0.2*80\%$).

3.24 Any decision to consider testing at any point after arrival, coupled with a reduced level of self-isolation needs to be therefore considered on a risk based approach, balanced against the benefits of any level of reduced isolation (in social and economic terms) as well as the increased chances of compliance (due to a lower level of manageable isolation).

1 Public Health Comments

- 1.1 Travelling facilitates spread of COVID-19. The risk of importing sporadic cases depends on both the level of transmission at origin and destination locations and the containment measures and capacities (particularly testing and contact tracing) in the destination country.
- 1.2 Travel itself also amplifies the risk of COVID-19 transmission through the gathering and mixing of people at ports, on ferries and planes and at tourist resorts. The spread of COVID-19 into different countries in the early phase of the pandemic was driven by travel and tourism.
- 1.3 Closing international borders to reduce the risk of importation of cases from countries with high transmission can delay introduction (or in the present case re-introduction) of the virus but only if the closures can be maintained almost complete (the New Zealand model). Clearly such closures have significant secondary effects and cause societal and economic disruption. However, if maintaining the Island's current COVID-free status is the overriding priority, then border closures would need to be maintained.
- 1.4 Any approach other than full border closure will come with a risk of importing cases. Supervised quarantine in government designated facilities for 14 days (with requirement for a negative PCR test at exit) is the gold-standard for reducing risk of 're-seeding' imported infections into the community. However, as noted above in relation to the current situation in Australia, even this policy is not fail-safe.
- 1.5 Any other approach based on modifications of quarantine (self-isolation at home, reduction in self-isolation with a testing policy, etc) comes with increased risk that an imported case will trigger a return to sustained community transmission. Before agreeing any change to border policy, it is important to assess the risk (and likely rate) of sporadic imported cases and ensure that a robust testing and contact tracing system is in place to identify and contain spread. Alongside this, sufficient healthcare system capacity and resilience and a strong public facing risk communication strategy should be in place.
- 1.6 Any relaxation of border restrictions should start with processes to discourage symptomatic individuals from travelling. However, this is difficult to enforce. Screening at borders through health declarations and temperature checks are of very limited use. Health questionnaires require appropriate data protection frameworks. COVID-19 symptoms are common to many respiratory diseases and individuals can, wittingly or unwittingly, fail to disclose symptoms. Temperature screening has

repeatedly been shown to be a high cost, low-efficiency measure.⁵ The limitations of PCR testing on arrival have been discussed above and apply equally to testing in a defined period prior to travel.

- 1.7 Self-isolation (quarantine) for individuals arriving from an area with a higher level of infection than that at their destination needs to be distinguished from self-isolation of known close contacts of a confirmed case of COVID-19 (who have a very much higher risk of infection). In countries/regions with no community transmission, implementing self-isolation/quarantine for people arriving from areas with community spread can be an appropriate measure for reducing the risk that an imported case leads to a return to local spread.
- 1.8 The objective of self-isolation in this context is to prevent contact between the person arriving on Island (who can be assumed to have a risk of COVID-19 infection in line with the country(ies) from which they have travelled) and people on Island who can currently be assumed to have zero risk of infection (provided they have been on Island for 14 days or more).
- 1.9 There are a number of options for self-isolation of those arriving on Island. These include:
 - i. Supervised self-isolation at a government designated facility;
 - ii. Self-isolation in accommodation that does not include others (eg family members) who are not also 'arrivals'. This could include the individual(s) own home (if they are the sole occupants), rented self-catering accommodation (of which they will be the sole occupant(s)) or bed and breakfast/hotel accommodation (with en-suite facilities) which is able to comply with self-isolation guidance;
 - iii. Self-isolation in a household which contains others who have been on Island for 14 days or more. In this case, there could be a requirement that the whole household agrees to self-isolate with the returnee. Alternatively, self-isolation of the individual (stay in own room, do not use shared facilities whilst others are in them, etc.), without any self-isolation for other household members could be required. The former option carries less risk of spread (should the returnee be incubating COVID-19) to the wider community beyond the household than does the latter.

The choice between these options depends on the current risk assessment and the level of 'trust' that the majority would comply with the relevant self-isolation guidance, particularly in respect of the 'household' options where monitoring and enforcement would be challenging.

2 Conclusions & Options

2.1 Testing value

⁵ ECDC Technical Report: Considerations for travel-related spread of COVID-19 in the EU/EEA, 26 May 2020

- 2.1.1 Testing is not a perfect science and not guaranteed to pick up all asymptomatic cases – it can only supplement what is already a risk based assessment.
- 2.1.2 The current level of 14 days self-isolation is however the gold standard and provides the best assurance against the virus getting back into the community, but is likely to carry increasing social and economic costs if it is kept in place for a prolonged period.
- 2.1.3 The move to shared household isolation, with the non-travellers unrestricted does carry some degree of risk from the whole household isolation model.
- 2.1.4 Testing at Day 7, or Day 1 – could pick up a percentage of asymptomatic cases to inform further decisions (eg whole household isolation on positive, or partial / whole release from self-isolation upon negative).
- 2.1.5 Any changes made should be considered holistically however with any other changes that change the risk factor (eg move to Level 3).