National Public Health Emergency Team

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Overseas travel – options for testing passengers
[CONFIDENTIAL]

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Action required

☐ For noting

☒ For discussion

☐ For decision

International Context
There continues to be concerning news of spikes in case numbers internationally. Catalonia and Kosovo have followed Australia and China in imposing localised lockdowns in response to outbreaks. In Serbia, protesters stormed parliament to protest against a planned lockdown of Belgrade. Increased case numbers in Tokyo have been linked to nightlife venues, while Israel has re-imposed the closure of bars, nightclubs and gyms. This week has seen Bulgaria record it highest daily number of confirmed cases and Argentina has recorded its highest daily death toll since the outbreak began.

Travel and tourism could lead to an increased risk of SARS-CoV-2 transmission amplification in at least two ways. The first is related to mobility of people and the risk of transmission following arrival at the point of destination, and the second to the gathering of people at various venues such as airports, resorts and similar settings. Public health measures applied specifically to or within the travel sector are intended to minimise the likelihood of COVID19 transmission on board various conveyances, at sites of embarkation/disembarkation and at destinations.

In a situation where some countries have decreased transmission to very low levels, while in others the virus is still circulating, the role of tourism and travel-related transmission may become significant due to the possibility of the virus being re-introduced at multiple sites, causing further spread. Furthermore, a high level of tourism related activities may increase the risk of over-crowding in certain areas or during tourist events, which in turn may increase spread.

Standard non-pharmaceutical countermeasures are the most important approach for controlling the spread of COVID-19 in all settings, including during travel. Such measures include physical distancing, hand hygiene and respiratory etiquette, as well as other infection prevention and control (IPC) measures (e.g. cleaning and disinfection of frequently touched surfaces and toilets, use of face masks, etc.) Information to travellers about the risks and symptoms of COVID-19 and advice to avoid travel if they are experiencing any of the COVID-19 related symptoms is essential. Overall, the purpose of these measures is to mitigate the risk, however it cannot be fully eliminated.

Current position for incoming passengers
Currently, Government advice is against all non-essential travel overseas. Since 28 May 2020, it has also been a legal requirement for passengers arriving to Ireland from overseas to complete a Covid-19 Passenger Locator Form. There are several groups of people who are exempt from completing the form, these include but are not limited to; passengers arriving from Northern Ireland, holders of a Certificate for International Transport Workers, drivers of heavy good vehicles and other personnel who are in the State in the course of their duties. Incoming passengers are advised but not required to self-isolate for 14 days. The advisory will shortly be revised to "restrict movements" for 14 days.

Proposed policy approach

The Government announced on 25 June that a Roadmap for Safe Overseas Access would be prepared. On 6 July, the Government decided on the elements comprising the Roadmap, which include:

- **Establishing a "green list" of countries** based on the methodology used by the EU for making assessments of third countries, and adapted to the Irish context. The EU methodology included the epidemiological criteria Number of new cases per 100k population in the previous 14 days, the trend of new cases in the previous 14 days and an assessment of the overall COVID-19 response and health system capacity. The draft approach also provides that "Other relevant economic and social factors including reciprocity may also be taken into account." It is proposed that the "green list" be reviewed every 2 weeks including with public health input.

- **Publication by the Department of Transport of travel protocols** having regard to guidance of European Union Aviation Safety Agency (EASA) and the European Centre for Disease Prevention and Control (ECDC).

- **Changing the public health advice for incoming passengers** from a recommendation to complete 14 days self-isolation to a recommendation to complete 14 days restricted movement. Passengers arriving from countries on the "green" list would not be asked to restrict movements on arrival. The current list of exemptions from 14-day requirements, for passengers arriving from Northern Ireland and for transport and supply chain workers, will be reviewed with a view to adding additional exempt categories.

- **Developing an electronic passenger locator system** to replace the existing paper-based form and to capture passenger contact data directly from the airlines and ferry operators. As a bridging arrangement, the Regulations underpinning the paper-based locator form will be extended until 20 July.

- **Involvement of employers to disincentivise non-essential travel** - if employees have to restrict movement on return from international travel, they will not be in a position to return to the workplace for a further two weeks. A clear signal from employers, including obviously public sector employers, would likely have a significant disincentive effect on travel plans.

Decisions by the Government on 6 July included that, notwithstanding concerns raised by the Department of Health about the efficacy of testing at points of entry, the Department would "bring forward proposals in relation to some regime of testing". The Department is also to bring forward proposals for a significantly heightened visibility of public health, border control and Garda at points of entry and exit and engagement with passengers as part of the State's response.

Public health analysis of efficacy of testing at points of entry

(i) Mass PCR testing on arrival

While it is possible that testing at the country of destination could help identify asymptomatic, pre-symptomatic or symptomatic COVID-19 cases being introduced, a negative test does not exclude the possibility that the person tested may become infectious in the days after arrival since the virus incubation period is known to be 2 – 14 days.

In the event of such a false negative test, the traveller could falsely believe that they are not infected and be less cautious in applying the most effective non-pharmaceutical distance measures (self-isolation, physical distancing, hygiene measures, face masks/coverings) while transmitting the virus without knowing. The false negative test may also delay testing, diagnosis, isolation and contact tracing if the person develops symptoms shortly after obtaining the test result.

Even with high performance tests, there is also a significant issue whereby a large number of false positive results would be expected in the context of testing at airports when disease prevalence is at low levels. While an individual false positive result would not increase the risk of onward transmission, the negative impact of false positives on public health resources would be very significant in terms of unnecessary contact tracing and the testing on 'day 0' and 'day 7' of all close contacts.

(ii) Mass temperature screening

Past experience with entry screening using temperature control shows that it is a high-cost, low-efficiency measure. Current evidence, including evidence acquired in the early phases of the COVID-19 pandemic in Europe, indicates that entry screening is ineffective in preventing SARS-CoV-2 virus introductions.

Based on existing knowledge of the disease evolution, a relatively large number of cases will be in the incubation phase while travelling. COVID-19 has an incubation period of 2–14 days, with 75% of cases developing symptoms in a period of between four and seven days. These travellers will not be detected by exit or entry screening, even in a scenario assuming high sensitivity detection of symptomatic travellers. This scenario was modelled at the beginning of the outbreak in January 2020, with an estimated 75% of infected passengers exiting or entering the country without being detected. More recently evidence has been accumulating to indicate that asymptomatic (or pre-symptomatic and mild) cases play a significant role in the transmission of COVID-19.

In a review of the public health response by the US CDC, data from incoming passengers in selected US airports revealed that as of 21 April 2020, the screening of 268 000 returning travellers had detected only 14 cases of COVID-19 (approximately 5/100 000 screened passengers).

Although fever (body temperature >37.5 or 38°C) is one of the frequent symptoms of COVID-19, it is not consistently reported. In addition, fever is a symptom that can be temporarily masked by using antipyretic drugs.

Implementing entry screening programmes at Points of Entry (PoE) requires public health resources that could be invested in other more efficient public health measures.

In conclusion:
- Mass entry screening of the types explored above are not recommended by the World Health Organisation
- There is no evidence to support mass RT-PCR testing at ports of entry in terms of conferring any advantage over or obviating the need for a 14-day period of isolation; it is a point in time test which can give no assurance as to the future development of Covid-19 in an individual
- There are significant impacts on public health and contact tracing resources if RT-PCR testing is introduced at ports of entry.
- It is impossible to rely on exit or entry temperature screening to identify all those infected, as only a portion of them will probably be detected by the available screening tools.

Department of Health proposal – voluntary testing of symptomatic incoming passengers
Despite widespread advice against travelling if symptomatic, it should be anticipated that a certain number of incoming passengers will have symptoms of COVID19.

Measures should be put in place at points of entry to ensure that these symptomatic incoming passengers are advised of current public health guidance, offered PCR testing as soon as possible and appropriately contact traced where necessary.

Elements of response could include:

- An expanded and high visibility presence at ports and airports with awareness raising conducted through direct engagement, posters and leaflets.

- Development of protocols for personnel at airports and other points of entry to fast-track passengers who are identified with or self-identify with symptoms to appropriate testing facilities, either on-site or locally. This would be particularly important for passengers from outside the jurisdiction without a GP.

- It will be important to note that anyone referred for testing in line with above and that tests negative will still be advised to restrict movements in line with general advice for incoming passengers unless they are exempt.

There remain a number of practical and logistic issues for further consideration including:
- Clinical governance considerations.
- Should testing be offered to symptomatic only or include passengers with a history of contact with confirmed or probable case, asymptomatic passengers etc –
- If symptomatic only, non-specific and subjective nature of some symptoms
- Availability of suitable personnel and testing locations
- Resources, opportunity costs considerations
- Important messaging issues re the value of a negative test– risk that testing could be availed of by asymptomatic passengers as a means to bypass restriction of movement requirements etc
- Provision of suitable isolation / quarantine facilities and transit to those facilities for those that do not have a residence in the state.