

**NPHET Discussion Paper**

**Note re 'retrospective contact tracing' or 'source finding'**

13 August 2020

**Action required**

- For noting
- For discussion
- For decision

## Introduction and Context

Having a robust process of testing, isolation and contact tracing is central to our public health strategy for containing and slowing the spread of COVID-19. The aim of contact tracing is to promptly identify and manage contacts of COVID-19 cases in order to reduce the risk of onward transmission. The ECDC in its Rapid Risk Assessment (11<sup>th</sup> Update) published August 10<sup>th</sup> 2020<sup>1</sup> reiterates the importance of rigorous contact tracing, when accompanied by extensive testing, as an effective strategy for the control of COVID-19.

The focus of existing contact tracing protocols is on limiting onward transmission of disease – ‘forward facing’. The ECDC suggests that *“public health authorities can also consider ‘retrospective contact tracing’ or ‘source finding’ where cases are interviewed about their **activities and contacts during the period from two to 14 days before symptom onset** to identify where they became infected and from whom. This would allow authorities to trace the ‘source’ and contacts arising from any subsequent cases originating from the same source.”*

The ECDC Report states that this approach has been used in New Zealand and Japan and is being trialled in the UK. (See Appendix 1). Modelling studies referenced by ECDC suggest that adding an element of retrospective contact tracing to regular contact tracing helps reduce the effective reproduction number. Data from contact tracing can provide a better understanding of the epidemiology of COVID-19, providing valuable information on transmission and attack rates, supporting the identification of key settings where transmission is occurring and facilitating a greater understanding of the effectiveness of different mitigation measures, such as physical distancing.”

Contact tracing has been discussed with Northern Ireland counterparts as part of an ongoing information exchange and we understand that NI is considering the development of “enhanced contact tracing” (also referred to as “reverse” or “backward” contact tracing).

Examples of potential contact categories that could be used in the development of a retrospective contact tracing model are included at Appendix 2 for illustrative purposes.

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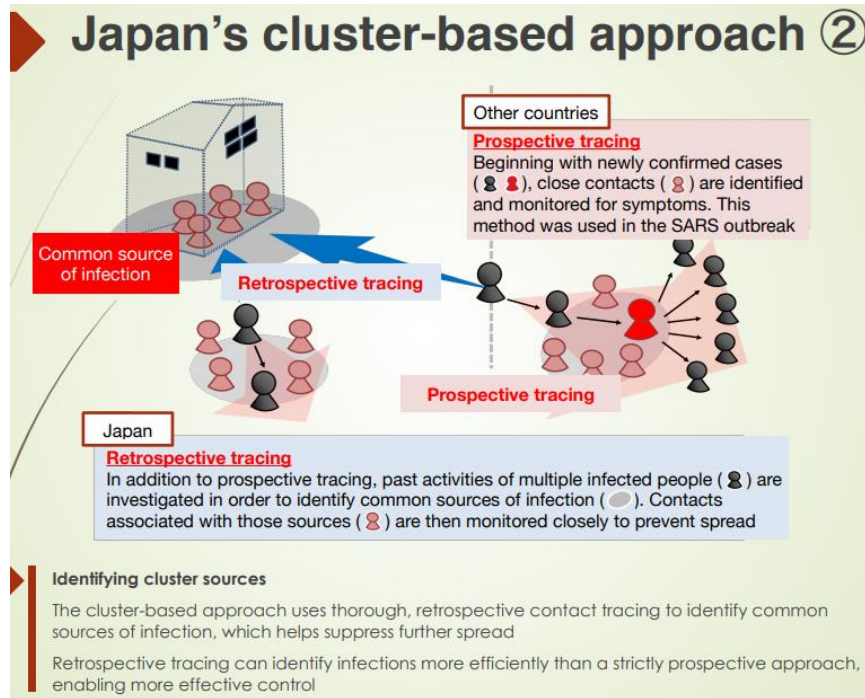
<sup>1</sup> <https://www.ecdc.europa.eu/sites/default/files/documents/covid-19-rapid-risk-assessment-20200810.pdf>

**Proposed Next Steps**

The addition of retrospective contact tracing for the 14-day period prior to symptom onset has the potential to add to our understanding of transmission chains, especially for sporadic cases and community transmission.

It is proposed that HSE consider its inclusion into the current contact tracing process and report back to NPHET with implementation proposals, including estimated timeframe and proposed contact tracing categories to be included.

## Appendix 1



Japan refers to bi-directional contact tracing as “prospective” and “retrospective”. In terms of exposures of interest, evidence from Japan<sup>2</sup> suggests that the “three Cs” increase risk of transmission: Closed settings, Crowded places, Close contact encounters.

<sup>2</sup> <https://www.mofa.go.jp/files/100061341.pdf>

## **Appendix 2**

### **Potential contact categories**

The following are examples of category headings and some examples that could be used in developing a retrospective contact tracing model (shown for illustrative purposes, not exhaustive):

In the 14 day prior to onset of symptoms :

1. Use of Social, Hospitality, personal services
  - a. Restaurant
  - b. Pub
  - c. Club
  - d. Nail bars /beauticians/ hairdressers
  - e. Gyms / exercise classes
  - f. Other
2. Retail
  - a. Grocery shopping / Supermarket
  - b. Shopping centre
3. Use of Public transport
4. Social gatherings, events
  - a. House parties
  - b. Family gatherings
  - c. Sports event
  - d. Other public event
5. Work setting
6. Health and social care setting