

COVID-19 CADTH REFERENCE LIST

# Contact Tracing for Potential Exposure to SARS-CoV-2 Virus: Guidelines

# This report was published on May 1, 2020, 2:00 p.m.

To produce this report, CADTH used a modified approach to the selection, appraisal, and synthesis of the evidence to meet decision-making needs during the COVID-19 pandemic. Care has been taken to ensure the information is accurate and complete, but it should be noted that international scientific evidence about COVID-19 is changing and growing rapidly.

Version: 1.0

Publication Date: May 2020 Report Length: 8 Pages



Authors: Camille Dulong, Melissa Severn

Cite As: Contact Tracing for Potential Exposure to SARS-CoV-2 Virus: Guidelines; Ottawa: CADTH; 2020 Apr. (CADTH Reference List).

**Disclaimer:** The information in this document is intended to help Canadian health care decision-makers, health care professionals, health systems leaders, and policy-makers make well-informed decisions and thereby improve the quality of health care services. While patients and others may access this document, the document is made available for informational purposes only and no representations or warranties are made with respect to its fitness for any particular purpose. The information in this document should not be used as a substitute for professional medical advice or as a substitute for the application of clinical judgment in respect of the care of a particular patient or other professional judgment in any decision-making process. The Canadian Agency for Drugs and Technologies in Health (CADTH) does not endorse any information, drugs, therapies, treatments, products, processes, or services.

While care has been taken to ensure that the information prepared by CADTH in this document is accurate, complete, and up-to-date as at the applicable date the material was first published by CADTH, CADTH does not make any guarantees to that effect. CADTH does not guarantee and is not responsible for the quality, currency, propriety, accuracy, or reasonableness of any statements, information, or conclusions contained in any third-party materials used in preparing this document. The views and opinions of third parties published in this document do not necessarily state or reflect those of CADTH.

CADTH is not responsible for any errors, omissions, injury, loss, or damage arising from or relating to the use (or misuse) of any information, statements, or conclusions contained in or implied by the contents of this document or any of the source materials.

This document may contain links to third-party websites. CADTH does not have control over the content of such sites. Use of third-party sites is governed by the third-party website owners' own terms and conditions set out for such sites. CADTH does not make any guarantee with respect to any information contained on such third-party sites and CADTH is not responsible for any injury, loss, or damage suffered as a result of using such third-party sites. CADTH has no responsibility for the collection, use, and disclosure of personal information by third-party sites.

Subject to the aforementioned limitations, the views expressed herein do not necessarily reflect the views of Health Canada, Canada's provincial or territorial governments, other CADTH funders, or any third-party supplier of information.

This document is prepared and intended for use in the context of the Canadian health care system. The use of this document outside of Canada is done so at the user's own risk.

This disclaimer and any questions or matters of any nature arising from or relating to the content or use (or misuse) of this document will be governed by and interpreted in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein, and all proceedings shall be subject to the exclusive jurisdiction of the courts of the Province of Ontario, Canada.

The copyright and other intellectual property rights in this document are owned by CADTH and its licensors. These rights are protected by the Canadian *Copyright Act* and other national and international laws and agreements. Users are permitted to make copies of this document for non-commercial purposes only, provided it is not modified when reproduced and appropriate credit is given to CADTH and its licensors.

**About CADTH:** CADTH is an independent, not-for-profit organization responsible for providing Canada's health care decision-makers with objective evidence to help make informed decisions about the optimal use of drugs, medical devices, diagnostics, and procedures in our health care system.

 $\textbf{Funding:} \ \textbf{CADTH receives funding from Canada's federal, provincial, and territorial governments, with the exception of Quebec.}$ 

Questions or requests for information about this report can be directed to requests@cadth.ca



#### **Research Question**

What are the evidence-based guidelines regarding contact tracing for people who have been in contact with a person with a suspected or confirmed diagnosis of coronavirus disease (COVID-19)?

#### **Key Findings**

No evidence-based guidelines were identified regarding contact tracing for people who have been in contact with a person with a suspected or confirmed diagnosis of COVID-19.

#### Methods

A limited literature search was conducted by an information specialist on key resources including PubMed, the Cochrane Library, the University of York Centre for Reviews and Dissemination (CRD) databases, the websites of Canadian and major international health technology agencies, as well as a focused internet search. The search strategy was comprised of both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. The main search concepts were contact tracing and COVID-19 and other respiratory illnesses. Search filters were applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses, or network meta-analyses, and guidelines. The search was also limited to English language documents published between Jan 1, 2015 and Apr 22, 2020. Internet links were provided, where available.

#### Selection Criteria

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

#### **Table 1: Selection Criteria**

Population	People who have potentially been exposed to a person with confirmed or suspected coronavirus disease (COVID-19)
Intervention	Contact tracing (also known as contact investigation or follow-up) for coronavirus disease (COVID-19)
Comparator	Not applicable
Outcomes	Recommendations regarding how to conduct contact tracing for COVID-19 (e.g., who should be followed up with, when the follow should occur, how the testing should be conducted, what information should be communicated)
Study Designs	Health technology assessments, systematic reviews and evidence-based guidelines

#### Results

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports with recommendations and systematic reviews of guidelines are presented first. These are followed by evidence-based guidelines.

No evidence-based guidelines were identified regarding contact tracing for people who have been in contact with a person suspected or confirmed diagnosis of COVID-19.



Additionally, no relevant health technology assessments or systematic reviews were identified.

References of potential interest are provided in the appendix.

## **Overall Summary of Findings**

No evidence-based guidelines were identified regarding contact tracing for people who have been in contact with a person suspected or confirmed diagnosis of COVID-19; therefore, no summary can be provided.

#### **References Summarized**

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses

No literature identified.

Guidelines and Recommendations

No literature identified.



# **Appendix** — Further Information

#### **Previous CADTH Reports**

 Budden A, Lee KM, Lam P. Costs of contact tracing activities aimed at reducing the transmission of measles in Canada. (Health technology assessment series). Ottawa (ON): CADTH; 2015. https://www.cadth.ca/sites/default/files/pdf/CP0010 Measles Contact Tracing Report

https://www.cadth.ca/sites/default/files/pdf/CP0010\_Measles\_Contact\_Tracing\_Report\_pdf\_Accessed 2020 Apr 28

### Clinical Practice Guideline — Methodology Not Specified

- Guidance on contact tracing for COVID-19 pandemic. Addis Ababa (ETH): Africa Centres for Disease Control and Prevention; 2020 Apr 20. <a href="https://reliefweb.int/sites/reliefweb.int/files/resources/Guidance%20on%20Contact%20">https://reliefweb.int/sites/reliefweb.int/files/resources/Guidance%20on%20Contact%20</a>
   Tracing%20for%20COVID-19%20Pandemic%20ENG.pdf Accessed 2020 Apr 28
- Diaz-Quijano FA, Rodriguez-Morales AJ, Waldman EA. Translating transmissibility measures into recommendations for coronavirus prevention. Rev Saude Publica. 2020;54:43.

PubMed: PM32294667

- Interim guidance: Public health management of cases and contacts associated with novel coronavirus (COVID-19) in the community. Vancouver (BC): BC Centre for Disease Control; 2020. <a href="http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20Manuals/Epid/CD%20Manual/Chapter%201%20-%20CDC/2019-nCoV-Interim\_Guidelines.pdf">http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20Manuals/Epid/CD%20Manual/Chapter%201%20-%20CDC/2019-nCoV-Interim\_Guidelines.pdf</a>
   Accessed 2020 Apr 28.
- Contact tracing: Public health management of persons, including healthcare workers, having had contact with COVID-19 cases in the European Union – second update. Stockholm (SWE): European Centre for Disease Prevention and Control (ECDC); 2020. <a href="https://www.ecdc.europa.eu/sites/default/files/documents/Contact-tracing-Public-health-management-persons-including-healthcare-workers-having-had-contact-with-COVID-19-cases-in-the-European-Union%E2%80%93second-update\_0.pdf</a> Accessed 2020 Apr 28
- Public Health Agency of Canada. Updated: Public health management of cases and contacts associated with coronavirus disease 2019 (COVID-19). Ottawa (ON):
   Government of Canada; 2020. <a href="https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/interim-guidance-cases-contacts.html">https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/interim-guidance-cases-contacts.html</a>
- Novel Coronavirus 2019 (COVID-19): National interim guidelines for public health management of contacts of cases of COVID-19. Dublin (IRE): Health Protection Surveillance Centre, Ireland; 2020. <a href="https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/contacttracingguidance/National%20Interim%20Guidance%20for%20contact%20tracing.pdf">https://www.hpsc.ie/az/respiratory/coronavirus/novelcoronavirus/guidance/contacttracingguidance/National%20Interim%20Guidance%20for%20contact%20tracing.pdf</a> Accessed 2020 Apr 28
- 8. Operational considerations for case management of COVID-19 in health facility and community [interim guidance]. Geneva (CHE): World Health Organization; 2020 <a href="https://apps.who.int/iris/bitstream/handle/10665/331492/WHO-2019-nCoV-HCF\_operations-2020.1-eng.pdf">https://apps.who.int/iris/bitstream/handle/10665/331492/WHO-2019-nCoV-HCF\_operations-2020.1-eng.pdf</a> Accessed 2020 Apr 28



- Interim guidance public health measures: Managing novel coronavirus (COVID-19)
  cases and contacts in community. Winnipeg (MB): Province of Manitoba; 2020.
  <a href="https://manitoba.ca/asset\_library/en/coronavirus/interim\_guidance.pdf">https://manitoba.ca/asset\_library/en/coronavirus/interim\_guidance.pdf</a> Accessed 2020
  Apr 28
- Nova Scotia interim guidance: Public health measures of cases and contacts associated with Novel Coronavirus (COVID-19). Halifax (NS): Nova Scotia Department of Health; 2020. <a href="https://novascotia.ca/dhw/cdpc/documents/Coronavirus-Interim-Public-Health-Measures.pdf">https://novascotia.ca/dhw/cdpc/documents/Coronavirus-Interim-Public-Health-Measures.pdf</a> Accessed 2020 Apr 28
- Instructions for surveillance form MHSU-6684 CORONAVIRUS DISEASE 2019 (COVID-19): User guide. Winnipeg (MB): Province of Manitoba; 2020. <a href="https://www.gov.mb.ca/health/publichealth/surveillance/docs/mhsu\_6684\_ug.pdf">https://www.gov.mb.ca/health/publichealth/surveillance/docs/mhsu\_6684\_ug.pdf</a> Accessed 2020 Apr 28
- Updated advice for health professionals: Novel coronavirus (COVID-19). Wellington (NZ): New Zealand Ministry of Health; 2020. <a href="https://www.health.govt.nz/system/files/documents/pages/updated-advice-for-health-professionals-covid-19-16-aprilv3.pdf">https://www.health.govt.nz/system/files/documents/pages/updated-advice-for-health-professionals-covid-19-16-aprilv3.pdf</a> Accessed 2020 Apr 28
- Public health management of cases and contacts of COVID-19 in Ontario. Toronto (ON): Ministry of Health. 2020. <a href="https://ipac-canada.org/photos/custom/Members/pdf/PH\_Mgmt\_COVID-19\_Version\_6.0%20\_Shared.pdf">https://ipac-canada.org/photos/custom/Members/pdf/PH\_Mgmt\_COVID-19\_Version\_6.0%20\_Shared.pdf</a> Accessed 2020 Apr 28
- 14. Contact tracing. Atlanta (GA): Centers for Disease Control and Prevention; 2020. <a href="https://www.cdc.gov/coronavirus/2019-ncov/php/open-america/contact-tracing.html">https://www.cdc.gov/coronavirus/2019-ncov/php/open-america/contact-tracing.html</a> Accessed 2020 Apr 28
- Interim infection prevention and control guidelines for the management of COVID-19 in healthcare settings. Version 1.11. Brisbane (AUS): Queensland Health; 2020.
   <a href="https://www.health.qld.gov.au/\_data/assets/pdf\_file/0038/939656/qh-covid-19-lnfection-control-guidelines.pdf">https://www.health.qld.gov.au/\_data/assets/pdf\_file/0038/939656/qh-covid-19-lnfection-control-guidelines.pdf</a> Accessed 2020 Apr 28

#### **Review Articles**

#### Rapid Reviews

- Burch J, Bunt C. What are the effects of quarantine for close contacts of people with confirmed COVID-19? London (GB): Cochrane Clinical Answers; 2020. <a href="https://www.cochranelibrary.com/cca/doi/10.1002/cca.3054/full">https://www.cochranelibrary.com/cca/doi/10.1002/cca.3054/full</a> Accessed 2020 Apr 28
- Bhaumik S, Moola S, Tyagi J, et al. Frontline health workers in COVID-19 prevention and control: Rapid evidence synthesis. Sydney (AUS): The George Institute of Global Health. 2020. <a href="https://cdn.georgeinstitute.org/sites/default/files/documents/frontline-health-workers-covid-19-res\_2.pdf">https://cdn.georgeinstitute.org/sites/default/files/documents/frontline-health-workers-covid-19-res\_2.pdf</a> Accessed 2020 Apr 28

#### Additional References

 Dan Z. China adopts non-contact free consultation to help the public cope with the psychological pressure caused by new coronavirus pneumonia. *Asian J Psychiatr*. 2020 Apr 10;52:102093.
 PubMed: PM32305032



- Ge R, Qi Y, Yan Y, et al. The role of close contacts tracking management in COVID-19 prevention: A cluster investigation in Jiaxing, China. J Infect. 2020 Apr 5.
   <u>PubMed: PM32268181</u>
- Evaluation of the effectiveness of surveillance and containment measures for the first 100 patients with COVID-19 in Singapore -- January 2–February 29, 2020. MMWR. 2020 Mar 13; 69. https://stacks.cdc.gov/view/cdc/85888 Accessed 2020 Apr 28
- Hellewell J, Abbott S, Gimma A, et al. Feasibility of controlling COVID-19 outbreaks by isolation of cases and contacts. *The Lancet Global Health*. 2020;8(4): e488-e396 <a href="https://www.sciencedirect.com/science/article/pii/S2214109X20300747">https://www.sciencedirect.com/science/article/pii/S2214109X20300747</a> Accessed 2020 Apr 28
- The First Few X cases and contacts (FFX) investigation protocol for coronavirus disease 2019 (COVID-19). Version 2. Geneva (CHE): World Health Organization;
   2020. <a href="https://www.who.int/publications-detail/the-first-few-x-(ffx)-cases-and-contact-investigation-protocol-for-2019-novel-coronavirus-(2019-ncov)-infection">https://www.who.int/publications-detail/the-first-few-x-(ffx)-cases-and-contact-investigation-protocol-for-2019-novel-coronavirus-(2019-ncov)-infection</a> Accessed 2020 Apr 28
- 23. Management of ill travellers at Points of Entry (international airports, seaports, and ground crossings) in the context of COVID-19. Geneva (CHE): World Health Organization; 2020. <a href="https://apps.who.int/iris/bitstream/handle/10665/331512/WHO-2019-nCoV-POEmgmt-2020.2-eng.pdf">https://apps.who.int/iris/bitstream/handle/10665/331512/WHO-2019-nCoV-POEmgmt-2020.2-eng.pdf</a> Accessed 2020 Apr 28
- Digital contact tracing tools. Atlanta (GA): Centers for Disease Control and Prevention;
   2020. <a href="https://www.cdc.gov/coronavirus/2019-ncov/downloads/digital-contact-tracing.pdf">https://www.cdc.gov/coronavirus/2019-ncov/downloads/digital-contact-tracing.pdf</a> Accessed 2020 Apr 28
- COVID-19 contact tracing [slide deck]. PreventEpidemics.org; 2020. https://preventepidemics.org/wp-content/uploads/2020/04/Contact-Tracing-overview-slides-April-21-1.pdf
   Accessed 2020 Apr 28
- eHealth Network. Mobile applications to support contact tracing in the EU's fight against COVID-19. Brussels (BEL): European Union; 2020. <a href="https://ec.europa.eu/health/sites/health/files/ehealth/docs/covid-19\_apps\_en.pdf">https://ec.europa.eu/health/sites/health/files/ehealth/docs/covid-19\_apps\_en.pdf</a> Accessed 2020 Apr 28
- Tracking and tracing COVID: Protecting privacy and data while using apps and biometrics. Paris (FR): Organisation for Economic Co-operation and Development;
   https://read.oecd-ilibrary.org/view/?ref=129\_129655-7db0lu7dto&title=Trackingand-Tracing-COVID-Protecting-privacy-and-data-while-using

  Accessed 2020 Apr 28

#### Preliminary Reports — Not Peer-Reviewed

Preprints are reports that have not been formally published or peer-reviewed. They should not be relied on to guide clinical practice or health-related behavior.

Braithwaite I, Callender T, Bullock M, Aldrige R. Automated and semi-automated contact tracing: Protocol for a rapid review of available evidence and current challenges to inform the control of COVID-19 [non peer-reviewed preprint]. medRxiv; 2020: doi: 10.1101/2020.04.14.20063636
 <a href="https://www.medrxiv.org/content/10.1101/2020.04.14.20063636v1">https://www.medrxiv.org/content/10.1101/2020.04.14.20063636v1</a> Accessed 2020 Apr 28



- Keeling MJ, Hollingsworth TG, Read JM. The efficacy of contact tracing for the containment of the 2019 Novel Coronavirus (COVID-19) [non peer-reviewed preprint]. medRxiv; 2020: doi: 10.1101/2020.02.14.20023036
   <a href="https://www.medrxiv.org/content/10.1101/2020.02.14.20023036v1">https://www.medrxiv.org/content/10.1101/2020.02.14.20023036v1</a> Accessed 2020 Apr 28
- Kretzschmar M, Rozhnova G. Effectiveness of isolation and contact tracing for containment and slowing down a COVID-19 epidemic: a modelling study. [non peerreviewed preprint]. The Lancet; 2020: doi: 10.2139/ssrn.3551343 <a href="https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=3551343">https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=3551343</a>
- Cho H, Ippolito D, Yu YW. Contact Tracing mobile apps for COVID-19: privacy considerations and related trade-offs [non peer-reviewed preprint]. Computer Science, Cryptography and Security; 2020.
   https://arxiv.org/abs/2003.11511
   Accessed 2020 Apr 28
- Kretzschmar M, Rozhnova G, van Boven ME. Isolation and contact tracing can tip the scale to containment of COVID-19 in populations with social distancing [non peer-reviewed preprint]. medRxiv; 2020: doi: 10.1101/2020.03.10.20033738 https://www.medrxiv.org/content/10.1101/2020.03.10.20033738v3
   Accessed 2020 Apr 28
- Luo L, Liao X, Wu X, et al. Modes of contact and risk of transmission in COVID-19 among close contacts [non peer-reviewed preprint]. medRxiv; 2020: doi: 10.1101/2020.03.24.20042606
   <a href="https://www.medrxiv.org/content/10.1101/2020.03.24.20042606v1">https://www.medrxiv.org/content/10.1101/2020.03.24.20042606v1</a> Accessed 2020 Apr 28