

PRACTICE | FIVE THINGS TO KNOW ABOUT ...

Quarantine

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1 Quarantine is a strategy for containment of infectious diseases that differs from isolation

Quarantine sequesters healthy, asymptomatic people exposed to an infectious disease for the duration of the incubation period, to contain the spread of the disease.^{1,2} In contrast, isolation refers to separating patients with active infection from healthy, unexposed people, to prevent transmission. Canadian Prime Minister Justin Trudeau, who was exposed and is asymptomatic, is under voluntary quarantine, while his wife, Sophie Grégoire Trudeau, who has coronavirus disease 2019 (COVID-19) infection, is under isolation.

2 Quarantine separates people exposed to a contagious disease and restricts their movement

Quarantines may be enacted upon an individual, group or geographic region linked with an outbreak. Quarantine may be an effective control measure when the disease generates large numbers of secondary cases despite isolation of symptomatic individuals.²

3 Quarantine originated in ancient times and has been employed in modern-day SARS and COVID-19 outbreaks

Quarantine dates back to the 14th-century Italian “quarantino” — 40 days of isolation at port to control the plague (Black Death).³ During the severe acute respiratory syndrome (SARS) outbreak in Toronto in 2003, more than 15 000 people exposed to the virus were voluntarily quarantined at home.^{4,5} Currently, intensive quarantine efforts are underway globally for the COVID-19 pandemic.¹

4 Quarantines are enforceable under the Canadian Quarantine Act

This law dates to the 1870s and was updated in 2005 after the SARS outbreak.⁵ It allows the federal health minister to enact measures ranging from screenings to mandatory quarantines at Canadian borders. The act was employed in 2020 to quarantine hundreds of Canadians, who were repatriated from Wuhan and were at risk of developing COVID-19, in dedicated facilities. Failure to comply can result in financial penalty and being kept in detention.⁶

5 Quarantines may be necessary but can create hardship for individuals

Quarantine may cause adverse psychological effects. Some people quarantined in Toronto during the SARS outbreak had symptoms of post-traumatic stress disorder and depression.^{1,2} Individuals may experience financial hardship and stigmatization.¹ To promote compliance, quarantined people need ongoing access to resource materials, open lines of communication and psychosocial support.^{1,4}

References

1. Brooks SK, Webster RK, Smith LE, et al. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet* 2020;395:912-20.
2. Day T, Park A, Madras N, et al. When is quarantine a useful control strategy for emerging infectious diseases? *Am J Epidemiol* 2006;163:479-85.
3. Tognotti E. Lessons from the history of quarantine, from plague to influenza A. *Emerg Infect Dis* 2013;19:254-9.
4. Hawryluck L, Gold WL, Robinson S, et al. SARS control and psychological effects of quarantine, Toronto, Canada. *Emerg Infect Dis* 2004;10:1206-12.
5. Duffin J, Sweetman A, editors. *SARS in context: memory, history, and policy*. Montréal: McGill-Queens University Press; 2013.
6. *Quarantine Act* (S.C. 2005, c. 20). Available: <https://laws-lois.justice.gc.ca/eng/acts/q-1.1/index.html> (accessed 2020 Mar. 7).

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