



Rapid Diagnostic Testing for COVID-19: social and economic impacts

Summary

- Published papers suggest that RDT leads to reduced COVID transmission and enables continued opening of schools, workplaces and other settings, though they do not separate the effects of screening from other public health measures
- For the most part, mass screening programs in schools, workplaces or other community settings appear to be acceptable to the relevant publics
- Economic modeling of large-scale testing programs suggests that these are cost-effective from the societal perspective although the realism of assumptions upon which such models have been based may be questionable

Implications

It is likely that RDT for COVID-19 should continue to be made available for all segments of the population. Included studies were mostly conducted in non-vaccinated populations, but in both contexts of rising and declining community prevalence. While the evidence overall is still limited, there are reported benefits and no indication that there are negative social and economic consequences with RDT programs.

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What is the current situation?

Rapid diagnostic testing (RDT) for COVID-19 clearly has a place in the public health toolkit. Previous work has shown that it is effective but what do we know about the use of rapid or point of care testing in terms of social and economic impacts? It is increasingly important to consider emerging evidence on how RDT policies for COVID-19 might be applied to different segments of the population and to what end.

What is the objective?

Other recent reviews for COVID-END have examined the effectiveness of various point-of-care and rapid diagnostic tests (RDT). This review sought to update and extend previous work that the authors conducted in June 2021 on RDT in vaccinated populations. In the current review we asked the question: what evidence exists on the social and economic considerations for RDT in any population (vaccinated or not)?

How was the review conducted?

A systematic rapid review was conducted Nov 1-3, 2021 to retrieve studies published in 2020 and 2021. The search was designed by a library scientist and executed in Medline, EMBASE and Web of Science. A targeted grey literature search was also conducted with Google, McMaster Plus and the CADTH COVID-19 Evidence platform. Websites of health agencies in multiple countries were also reviewed. Based on tight turnaround timelines, literature sources were screened independently by two reviewers for inclusion. Full text data was then extracted independently by one reviewer. Two public members who were part of the original study were re-engaged and asked to provide feedback on the draft report.

What did the review find?

After screening almost 2800 published papers, 13 sources describing potential social and economic consequences of RDT were included for data extraction. Some international perspectives were also identified through our website review but remains sparse.

Literature and guidance

Seven themes were inductively identified in order to answer the research question – five social and two economic. On balance there are positive impacts with RDT in terms of reduced numbers of cases, reduced case prevalence and limiting transmission in schools. There is also a high level of acceptability reported. Economic studies suggest positive impacts although reported gains are sector specific rather than more broadly across sectors and are limited by assumptions underlying the given models.

Content experts and public members

Public members hold that RDT is an important tool to have access to in time sensitive scenarios. They reported caution in interpretation of the economic modelling studies and suggested the Federal government should think carefully about who bears the cost of RDT when the benefit would be shared by the public