



## Commentary

## A commentary on “Economic evaluation of programs against COVID-19: A systematic review”

## ARTICLE INFO

## Keywords

Economic evaluation

SARS-CoV-2

COVID-19

Isolation

Screening

The novel coronavirus SARS-CoV-2 was identified as the causative agent for a series of atypical respiratory diseases in the Hubei Province of Wuhan, China in December of 2019. The disease SARS-CoV-2, termed COVID-19, was officially declared a pandemic by the World Health Organization on March 11, 2020. COVID-19 infection results in diverse symptoms and morbidity depending on individual genetics, ethnicity, age, and geographic location [1]. In severe cases, COVID-19 pathophysiology includes destruction of lung epithelial cells, thrombosis, hypercoagulation, and vascular leak leading to sepsis. These events lead to acute respiratory distress syndrome (ARDS) and subsequent pulmonary fibrosis in patients [2].

Since the initial outbreak, asymptomatic carriers of the virus and related infections have been reported in several studies. In the wake of these findings, it was suspected that asymptomatic and presymptomatic infectivity might have accounted for significant portions of the spread of the disease. If so, prevention and containment of the ongoing epidemic can be challenging, not only in China but also in other countries. Rezapour et al. [3] reviewed twenty-six studies to summarize economic evaluation evidence of preventing strategies, programs, and treatments of COVID-19. The results suggested screening tests and social distancing to be cost-effective alternatives in preventing and controlling COVID-19 on a long-time horizon.

Preventive measures are the current strategy to limit the spread of cases. Early screening, diagnosis, isolation, and treatment are necessary to prevent further spread. Preventive strategies are focused on the isolation of patients and careful infection control, including appropriate measures to be adopted during the diagnosis and the provision of clinical care to an infected patient. Social distancing is designed to reduce interactions between people in a broader community, in which individuals may be infectious but have not yet been identified hence not yet isolated [4]. As diseases transmitted by respiratory droplets require a certain proximity of people, social distancing of persons will reduce transmission. Social distancing is particularly useful in settings where community transmission is believed to have occurred, but where the linkages between cases is unclear, and where restrictions placed only on

persons known to have been exposed is considered insufficient to prevent further transmission.

The included economic evaluation studies were different vastly based on type of interventions, used methods, setting, perspectives, and populations. For this reason, direct comparing the results of studies was difficult (e.g., preventive and diagnostic procedures, also drug therapies). Further basic and clinical studies are required to determine the best strategies against COVID-19 pandemic.

## Provenance and peer review

Commentary, internally reviewed.

## Sources of funding for your research

This is a commentary, no funding is required.

## Ethical approval

This is a commentary, no ethical approval is required.

## Research registration unique identifying number (UIN)

This is a commentary, no UIN is required.

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## Author contribution

Qianqian Ding performs the commentary, Xiaofei Li edits the language.

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## Guarantor

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## Declaration of competing interest

There is no conflicts of interest among authors.

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