Coronavirus Disease 2019 (COVID-19) Crisis Measures: Health Protective Properties?

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Abstract: The ongoing 2019 coronavirus disease (COVID-19) crisis has led governments to impose measures including mask wearing, physical distancing, and increased hygiene and disinfection, combined with home confinement and economic shutdown. Such measures have heavy negative consequences both on public health and the economy. However, these same measures have positive outcomes as “side effects” that are worth mentioning since they contribute to the improvement of some aspects of the population health. For instance, mask wearing helps to reduce allergies as well as the transmission of other airborne disease-causing pathogens. Physical distancing and social contact limitation help limit the spread of communicable diseases, and economic shutdown can reduce pollution and the health problems related to it. Decision makers could get inspired by these positive “side effects” to tackle and prevent diseases like allergies, infectious diseases and noncommunicable diseases, and improve health care and pathology management. Indeed, the effectiveness of such measures in tackling certain health problems encourages inspiration from COVID-19 measures towards managing selected health problems. However, with the massive damage COVID-19-related measures have caused to countries’ economies and people’s lives, the question of how to balance the advantages and disadvantages of these measures in order to further optimize them needs to be debated among health care professionals and decision makers.

Keywords: coronavirus disease 2019 (COVID-19); measures; positive; health
respiratory infections [5], diarrhea episodes [7], nosocomial pathogens [8] and healthcare-
associated infections [9]. In addition, the increased cleaning and disinfection frequency both
in houses and in public places eliminates many pathogens individuals usually encounter
by touching surfaces and physical supports.

Confinement and lockdown [10], combined with physical distancing [11], reduce
the interactions between individuals and limit the number of places (occasions) in which
individuals gather. Therefore, the pathogens exchanged via human contact decreases. This
is further strengthened by the limitation of travel both internationally as well as locally.
In addition, many public places have been closed which also limits gathering possibilities
at sites in which active transmission of pathogens can occur such as cinemas, theaters,
museums, stadiums, and gymnasiums.

Besides infectious agents, the lockdowns and economic shutdowns, among other
measures, may reduce the global pollution rate [12–14]. As is known, pollution is associated
with diverse diseases [15] such as kidney diseases [16] and congenital anomalies [17].
Therefore, pollution reduction may have significant impacts on population health in terms
of improving pollution-related health problems, especially in developing countries [18],
and may prevent numerous diseases including various noncommunicable diseases [19,20].

Importantly, wearing masks (as a measure to prevent COVID-19 spread [21]), may
also help to limit respiratory disease transmission such as flu, inhalation of some airborne
pollutants, as well as exposure to allergy-inducing agents. Herein, it is important to
highlight the increased awareness within the general population of how diseases can both
be transmitted and prevented, which would be very significant considering the importance
of population education in managing health problems [22].

As a conclusion, these observations represent properties worth exploring in an epi-
demiological context toward developing options to deal with health problems that may be
improved with the measures taken during the ongoing COVID-19 crisis. In this context,
we would also like to highlight the emergence of the wide-range use of computers and
internet awareness, which was previously not common in rural areas of developing and
underdeveloped nations and that has been pivotal throughout the pandemic. Now, with
remote working it has become much easier to spread health related information in order to
undertake the required preventions and precautions against the disease, increasing public
awareness and health education even for professionals. This article does not aim to support
the measures by ignoring the often-massive damage they have on countries’ economies
and people’s lives. Rather, we aim to describe the positive effects as a “side effect” of the
measures. Beyond these observations, the health benefits resulting from the measures
taken by government and health officials to limit the spread of COVID-19 represent good
models to focus on in promoting a healthy society (Figure 1).

Decision makers could mimic and get inspired by these positive “side effects” to tackle
and prevent diseases like allergies, infections and noncommunicable diseases, and improve
health care and pathology management. Indeed, the effectiveness of such measures in
tackling certain health problems encourages inspiration from COVID-19 measures toward
management of selected health problems. However, with the massive damages that COVID-
19-related measures have done to countries’ economies and people’s lives, the question of
how to balance the advantages and disadvantages of these measures needs to be debated
among health care professionals and decision makers. The purpose of this work is to
improve public health through implementing measures inspired by the handling of the
COVID-19 crisis, while limiting the negative impacts we have seen.
Figure 1. The positive outcomes of the measures taken to limit COVID-19 spread represent “side effects” of these measures. Yet, they are worth describing in order to use the related conclusions towards improving various aspects of health care.

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