

Editorial

Food Safety in the Era of COVID-19 Pandemic

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Food safety is an important determinant for public health and nutrition. So, access to safe and nutritious food is key to promote and protect good health including boosting body immunity, which is more important during disease conditions including COVID-19. Coronavirus disease (COVID-19) is an infectious disease caused by the recently discovered coronavirus SARS-CoV-2 that usually cause respiratory illness. It was unknown before the outbreak began in Wuhan, China, in December 2019. On the 11th March 2020, the World Health Organization (WHO) has declared it a pandemic. Primarily, it spreads from person to person through small droplets of saliva or discharge from the nose, when an infected person coughs sneezes or exhales. Till date, there is no evidence that suggests that COVID-19 is transmitted through food. That is COVID-19 is not a foodborne disease. Currently, there is no evidence that suggests that COVID-19 is transmitted through food. That is COVID-19 is not a foodborne disease. However, concerns were expressed about the potential for these viruses to persist on raw foods of animal origin.

Food packaging is not known to present any specific risk to consumers. Experience with other coronaviruses suggests these viruses survive poorly on surfaces, and thus there is a very low risk of spread from food products or packaging that are shipped over a period of days or weeks at ambient, refrigerated, or frozen temperatures. Studies have shown the COVID-19 virus can survive on surfaces for a few hours to several days - depending on the type of surface, temperature and humidity of the environment. However, the numbers of virus will reduce considerably over that time as it dies off. A new analysis found that the virus can remain viable in the air for up to 3 hours, on copper for up to 4 hours, on cardboard up to 24 hours and on plastic and stainless steel up to 72 hours.

In general, coronaviruses are very stable in a frozen state according to studies of other coronaviruses,

which have shown survival for up to two years at -20°C. At refrigeration temperature (4°C), MERS-CoV can remain viable for up to 72 hours. Current evidence on other coronavirus strains shows that while coronaviruses appear to be stable at low and freezing temperatures for a certain period, food hygiene and good food safety practices can prevent their transmission through food.

A global health crisis is now triggering a global economic crisis. As COVID-19 has swept across the world, governments have reacted piecemeal and in starkly different ways. Rampant spread of COVID-19 across these continents is now illuminating how serious this threat is to life and livelihoods. The scientific community has been quick to collaborate across borders to try to understand the virus and develop ways to combat it. Now governments must come together and coordinate broader global action to address the pandemic, to reinforce the impact of economic and financial measures being taken at a national level, and to plot the way forward out of this crisis and beyond to forestall the next one.²

It needs to work together to tackle the crisis by exchanging information, scientific knowledge, and the best practices and by applying the guidelines recommended by the WHO. and how we are attempting to live as we navigate through these uncertain times, paying utmost attention to restrictions and distancing guidelines intended for the health and safety of ourselves, our loved ones, friends, neighbours, etc.[9]

Human-to-human transmission of SARS-CoV-2 has been widely shown in health care, community and family settings.³ Primarily, it spreads from person to person by close contact through small droplets of saliva or discharge from the nose, when an infected person coughs sneezes or exhales. The respiratory droplets from the infected person fall on the ground or objects or surfaces around the person. Other people then infected by touching these objects or surfaces, that the virus on it, then touching their eyes, nose or mouth.⁴ Based on the epidemiological investigations, the incubation period of the SARS-CoV-2 is between

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1-14 days and the virus has been found to be contagious in the asymptomatic patients.⁵

Based on the study findings, it may be concluded that adequate knowledge and positive attitudes among the study population towards COVID-19, could be used to enhance appropriate practices for prevention and control of the epidemic.

As deficit of knowledge prevails particularly regarding the nature of the disease which leads to stigma needs to be eliminated from the society where the COVID-19 patients and the frontline fighters live. Furthermore, inadequate knowledge regarding the symptoms of the disease may mislead them for COVID-19 test or to avail services at the health facilities, causing wastage resources in a developing country like Bangladesh.

Public awareness campaign should be enhanced critically focusing the target audience to cover the knowledge gaps, motivation for appropriate practices and further improvement of attitudes towards prevention and control of the COVID-19 in the country are thus suggested. Moreover, further studies are suggested to assess the KAP towards the COVID-19 among the rural population, as limitations in representativeness of the rural sample.

References

1. WHO. Q&A on coronaviruses (COVID-19). 9 March 2020. World Health Organization. https://www.who.int/docs/default-source/searo/bangladesh/2019-ncov/q-a-en.pdf?sfvrsn=275ce4d2_6
2. Mackenzie JS, Smith DW. COVID-19: a novel zoonotic disease caused by a coronavirus from China: what we know and what we don't. *Microbiology Australia* 2020.
3. WHO. WHO Director-General's opening remarks at the media briefing on COVID-19 - 11 March 2020. World Health Organization. Geneva. <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020>
4. CDC. Coronavirus disease 2019 (COVID-19). 2020. [Online]. Centers for Disease Control. Atlanta, USA. <https://www.cdc.gov/coronavirus/2019-ncov/about/transmission>.
5. Jin YH, Cai L, Cheng ZS, Cheng H, Deng T, Fan YP, et al. A rapid advice guideline for the diagnosis and treatment of 2019 novel coronavirus (2019-nCoV) infected pneumonia (standard version). *Mil Med Res*, 2020;7:4. DOI: <https://doi.org/10.1186/s40779-0200233-6>
6. WHO. WHO Director-General's opening remarks at the mission briefing on COVID-19. 2020. [Online]. Available from: <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-mission>
7. CDC. Centers for Disease Control. Atlanta, USA. People Who Are at Increased Risk for Severe Illness. <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-at-increased-risk.html>.
8. Ioannidis JPA. Coronavirus disease 2019: the harms of exaggerated information and non-evidence-based measures. *Eur J Clin Invest*. 2020:e13223. [PMID: 32202659] DOI:10.1111/eci.13223
9. Giao H, Han NTN, Khanh TV, Ngan VK, Tam VV, An PL. Knowledge and attitude toward COVID-19 among healthcare workers at District 2 Hospital, Ho Chi Minh City. *Asian Pacific Journal of Tropical Medicine*. DOI: 10.4103/1995-7645.280396.

