

Herd Immunity For COVID-19: Is It Going to Work?

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Dear Editor,

Multiple attempts have been made by researchers in order to estimate the cumulative number of cases of Coronavirus Disease 2019 (COVID-19) in China.¹ The disease took the form of pandemic in no time though.² The think tanks of the world have come on board especially European countries, such as Italy, Spain, Germany, France and United Kingdom and spectrum of preventive measure taken to counteract COVID-19 range from closing the educational institutions to locking down the entire cities and countries. An alternative approach can be to allow the Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) to spread and let the herd immunity develop. The bigger challenge in this regard is to protect susceptible individuals especially the elderly and those with immunocompromised health states.³

While another school of thought, that sounds perfect is to halt this pandemic has following suggestions: there should be coordinated and consistent stay-at-home orders across multiple jurisdictions, including potential nationwide mandates, rapid scale-up of SARS-CoV-2 testing and improved health care capacity to respond.⁴ This strategy is not as simple to operationalize as it sounds yet it isn't impossible as Zhang et al.⁵ recently provided evidence that the timely supply of adequate medical resources significantly reduces COVID19 related mortalities.

Herd immunity is when most of a population is immune to an infectious disease this provides indirect protection or herd immunity (also called herd protection) to those who are not immune to the disease. Needless to mention that the level of vaccination needed to achieve herd immunity varies by disease.⁶ The herd immunity to Covid-19 vary from 60%–80% of the population counteracting the infection.^{3,6} According to Birmingham University's Prof. Willem van Schaik the United Kingdom is the only country in Europe that is following what he described as its "laissez-faire attitude to the virus". He said that this will mean that in the UK alone at least 36 million people will need to be infected and recover.³ Well COVID-19 is a more life risking disease in terms of herd immunity due not only to the severity of the disease but also case fatality rate (CFR) of COVID-19 which can be anything between 0.25–3.0% of a country's population particularly in elderly and immunocompromised individuals.^{3,7}

COVID-19 is not only a highly contagious but it also affects the quality of life if one gets infected by lowering the immunity. In a study the noticeable results in laboratory findings were lymphopenia in particular, a decrease in CD4+ T cells and neutrophilia in the severe group with COVID-19 as compared with the mild group. It also triggers the release of pro-inflammatory cytokines, including Tumor Necrosis Factor- α , Interleukin-1, Interleukin-6 and Interleukin-8 and weakens the immunity.⁸

So, the role of preventive medicine jumps in; the reduction of pathogen exposure and improving immunity play pivotal part. The importance of an active lifestyle, nutritious diet, good quality sleep

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and healthy mind cannot be underestimated. There is an essential need to improve the individual immunity either by diet or with supplements so that the quality of life is not much affected by severity of COVID-19.

CONFLICT OF INTEREST

None to declare.

FINANCIAL DISCLOSURE

None to disclose.

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