

Mass masking in the COVID-19 epidemic: people need guidance

As the spread of coronavirus disease 2019 (COVID-19) outside China is accelerating, we urge policy makers to reconsider the role of masking.

The non-specific symptoms at early stages of COVID-19 and absence of clear transmission links have defied conventional containment strategy by case isolation and contact quarantine.¹ So far, only compulsory social distancing, coupled with mass masking, appears to be successful, at least temporarily, in China. However, whether such an approach is sustainable in the Chinese economy or enforceable in other social systems is doubtful.

WHO recommends against wearing masks in community settings because of lack of evidence.² However, absence of evidence of effectiveness should not be equated to evidence of ineffectiveness, especially when facing a novel situation with limited alternative options. It has long been recommended that for respiratory infections like influenza, affected patients should wear masks to limit droplet spread. If everyone puts on a mask in public places, it would help to remove stigmatisation that has hitherto discouraged masking of symptomatic patients in many places.³ Furthermore, transmission from asymptomatic infected individuals has been documented for COVID-19, and viral load is particularly high at early disease stage.^{4,5} Masking, as a public health intervention, would probably intercept the transmission link and prevent these apparently healthy infectious sources.

Global shortage of disposable surgical masks is a real and expanding problem. So-called mass mask panic has occurred irrespective of advice from public health authorities. Panic buying of masks in Hong Kong has gone unresolved for more than 30 days, and a similar situation seems to be developing in

Italy. People wear masks to protect themselves in close person-to-person contacts, but unintentionally, they are protecting each other through source control. Disposable surgical masks and their technical specifications were designed specifically for the protection of health-care workers during occupational exposures. Cloth masks were used by surgeons successfully during operations before disposable masks were available. In real life, most people in all seriously affected areas are reusing their disposable masks. All governments must prepare to handle the probable mass panic and explore other sustainable alternatives to the disposable masks for effective source control in community settings.

With the imminent pandemic, health authorities need to decide rapidly whether they should adopt mass masking in their own localities and make advance preparations to avoid confusion and chaos in the anticipated challenges ahead.

We declare no competing interests.

**Chi Chiu Leung, Tai Hing Lam, Kar Keung Cheng*

ccleungpnc@netvigatator.com

Hong Kong Tuberculosis, Chest and Heart Diseases Association, Hong Kong, China (CCL); School of Public Health, The University of Hong Kong, Hong Kong, China (THL); and Institute of Applied Health Research, University of Birmingham, Birmingham, UK (KCC)

- 1 Guan WJ, Ni ZY, Hu Y, et al. Clinical characteristics of the 2019 novel coronavirus infection in China. *NEJM* 2020; published online Feb 28. DOI:10.1056/NEJMoa2002032.
- 2 WHO. Advice on the use of masks in the community, during home care and in health care settings in the context of the novel coronavirus (2019-nCoV) outbreak: interim guidance, 29 January 2020. <https://apps.who.int/iris/handle/10665/330987> (accessed March 2, 2020).
- 3 Teasdale E, Santer M, Geraghty AW, Little P, Yardley L. Public perceptions of non-pharmaceutical interventions for reducing transmission of respiratory infection: systematic review and synthesis of qualitative studies. *BMC Public Health* 2014; **14**: 589.
- 4 Bai Y, Yao L, Wei T, et al. Presumed asymptomatic carrier transmission of COVID-19. *JAMA* 2020; published online Feb 21. DOI:10.1001/jama.2020.2565.
- 5 Zou L, Ruan F, Huang M, et al. SARS-CoV-2 viral load in upper respiratory specimens of infected patients. *NEJM* 2020; published online Feb 19. DOI:10.1056/NEJMc2001737.

Mitigate the effects of home confinement on children during the COVID-19 outbreak

In response to the coronavirus disease 2019 (COVID-19) outbreak, the Chinese Government has ordered a nationwide school closure as an emergency measure to prevent spreading of the infection. Public activities are discouraged. The Ministry of Education estimates that more than 220 million children and adolescents are confined to their homes; this includes 180 million primary and secondary students and 47 million preschool children.¹ Thanks to the strong administrative system in China, the emergency home schooling plan has been rigorously implemented.² Massive efforts are being made by schools and teachers at all levels to create online courses and deliver them through TV broadcasts and the internet in record time. The new virtual semester has just started in many parts of the country, and various courses are offered online in a well organised manner. These actions are helping to alleviate many parents' concerns about their children's educational attainment by ensuring that school learning is largely undisrupted.

Although these measures and efforts are highly commendable and necessary, there are reasons to be concerned because prolonged school closure and home confinement during a disease outbreak might have negative



Published Online
March 2, 2020
[https://doi.org/10.1016/S0140-6736\(20\)30520-1](https://doi.org/10.1016/S0140-6736(20)30520-1)



Published Online
March 3, 2020
[https://doi.org/10.1016/S0140-6736\(20\)30547-X](https://doi.org/10.1016/S0140-6736(20)30547-X)
For the Chinese translation see Online for appendix

Submissions should be made via our electronic submission system at <http://ees.elsevier.com/thelancet/>



A Chinese child studies from home during the COVID-19 outbreak

Fan Jiang