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Solidarity with China as it holds the global front line during COVID-19 outbreak

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On December 27, 2019 local health authorities in Wuhan received a report showing four cases of pneumonia patients carrying an unknown virus. On December 31, the World Health Organisation (WHO) China Country Office was informed of cases of pneumonia of unknown cause. Within less than two weeks, China uploaded gene sequencing on January 10. WHO declared a public health emergency of international concern (PHEIC) on January 30. As of

February 24, 77,054 cases of the novel coronavirus (COVID-19) had been reported in China with more than 2400 deaths. Eight weeks into the outbreak, the number of cases outside of China to date is 1,936 with 23 deaths.

The timeline of response in China was comparable if not faster to that of the 2009/2010 pandemic outbreak of the new influenza A (H1N1) virus in North America, which originated in Mexico in March 2009, and soon reached California and spread across the United States.[1] This was reported to WHO on April 18, and the gene sequencing was uploaded on April 24.[1] WHO declared a PHEIC on the next day (April 25) and raised the level of influenza pandemic alert from phase 3 to phase 5 in less than 5 days, signalling a pandemic was imminent. WHO also requested that all countries immediately activate their preparedness plans and be on high alert for an unusual outbreak of an influenza-like illness and severe pneumonia. Within a month, by May 18, 2009, 8,829 A(H1N1) cases had been reported in 40 countries. The level of influenza pandemic alert was eventually raised to phase 6, the highest level, on June 11. By the end of the pandemic, the United States Centers for Disease Control and Prevention (CDC) estimated global deaths reached 151,700 – 575,400, with 60.8 million estimated cases, 274,304 hospitalizations, and 12,469 deaths in the U.S.[1]

In response to COVID-19, China invested an unprecedented amount of resources in epidemic control in economic, socio-cultural, and personnel terms. Across the country, all economic activity and celebrations for the lunar new year were halted for more than four weeks starting in late January. The first city on complete lockdown was Wuhan in Hubei province, the epicentre, on January 23, followed by at least 48 cities and four provinces, affecting approximately 500 million people - 6.3% of the world's population, and more than the entire population of the United States or European Union. To contain the epidemic, China imposed travel restrictions on its own residents, denying travel visas to those wanting to leave, and

stopping all overseas tours – a self-imposed control measure intended to prevent the virus from spreading abroad.

Though the virus that causes COVID-19 seems to be highly contagious, as of February 24, the epidemic had been largely contained within Hubei province. In addition to Hubei, only 4 out of 32 provincial-level administrative divisions in mainland China had a cumulative confirmed case count over 1,000, ranging from 1,016 (Hunan) to 1,342 (Guangdong);[2] all had laboratory-confirmed deaths of fewer than 20.[2] Within Hubei province, cases and deaths have been mostly concentrated in Wuhan and a handful of neighbouring cities (Figure 1).[2] These epidemic control efforts bought life-saving time for the rest of the country and the international community, allowing for more research on COVID-19 for treatment strategies, development and production of diagnostic testing and vaccines, as well as local planning for epidemic preparedness and response. Table 1 presents the estimated case fatality rates (CFR) based on confirmed deaths over cases.[2] The numbers highlighted the tremendous stress on the physical and psychosocial health of the front line workers. Furthermore, the call of duty as care provider, guilt for not putting loved ones first, the risking of their own health and lives, and even mistreatment by their own community as potential disease carriers all added to the burden of their choice to fight this fight on the front lines.

Although it is impossible to ascertain the precise CFR for COVID-19 at this point in time, it has already become clear that the CFR is far lower than that of previous coronavirus outbreaks like SARS (10%)[3] or MERS (34.4%)[4], and public communication and media reporting should provide factual communication on epidemiological data available and be cautious in distinguishing 'real risks' vs 'perceived risks' in their messaging. The fatality rates reported outside of Hubei province are closer to the rates of exported cases reported by international community (0.8% and 1.2%, respectively). The difference in fatality rates

between Hubei vs non-Hubei provinces (3.7% and 0.8%, respectively) may be attributed to both clinical and non-clinical factors during a large-scale public health emergency such as a lack of information regarding the health threat during early days of response, failure of the early warning and mitigation systems, compromised standard of care, exceeded surge capacity, and limited access to care.

An outbreak can happen anytime, anywhere, and can affect anyone. Unfortunately, the largest epidemic control effort ever put forth to contain one single epidemic in human history has been met with negativity from the international community, with the onset of strict travel restrictions, mass evacuations, and widespread flight cancellations in early February, despite WHO advising against them. This response was disproportionate to what was seen even at the highest level of global alert during the A(H1N1) pandemic. Before COVID-19 spread beyond mainland China, hostility had already emerged in lands far away from the epicentre with lamentable instances of fearmongering, racism in the media, misleading rumours and conspiracy theories, and discrimination and violence against Chinese/East Asian expat communities. Stigmatization and discrimination during epidemics have been well-documented and consistently correlated with racism and xenophobia, often spread through the media.[5,6] When diseases are thought to be deadly, some cope with their fears by blaming new outbreaks on individuals or groups outside of their own social circle. Often, people whose national, ethnic, or religious backgrounds are different from those of the "mainstream" group/media are accused of spreading the disease, exacerbating already existing racial and political tensions - for example, Chinese people in the current outbreak and Africans during the Ebola epidemic.[8] In Asia, several media outlets have opted to use 'Wuhan-pneumonia'[7] instead of COVID-19 in their reporting even though WHO has explicitly advised against naming new human infectious diseases with geographic locations or populations since 2015.

By employing framing strategy to "other" a subgroup in society, the media draws attention to certain aspects of the issue and alienates one sub-community from the rest of the population as the leading culpable factor for an outbreak. Such tactics often fuel public fear and discrimination, and are often conveyed not only through descriptive narratives but also through the images shown to the audience as part of the news story. A recent Wall Street Journal opinion piece[8] did just that with selected images and a racist headline - "*China is the Real Sick Man of Asia"* – referencing a phrase that ironically originated from the late 19th century of colonial exploitation when Western powers used political and military forces to pressure China to import opium (in exchange for Chinese tea), which made many Chinese people "sick". Further, social media tends to lead to "echo chambers" of people who share inaccurate and sometimes racist information among those with pre-existing views towards certain subgroups of society, reinforcing confirmed bias.

For years, scientists have been warning of the next global disease pandemic;[9] there is no doubt whether it will come – it is only a question of when and where. Whichever front line they are fighting on, medical professionals everywhere abide by the same oath to treat the sick. The extraordinary containment efforts on the Chinese front line have come at a high price – to date, over 3,000 Chinese medical professionals have been infected with COVID-19 according to China CDC and at least ten have lost their lives.[2] Many have worked without adequate personal protective equipment (PPE). The passing of Dr. Wenliang Li[10], a whistle-blower who attempted to warn peer clinicians about the novel virus in its early days, ignited an overwhelming social movement in China calling for system improvement and expressing solidarity with front line health care workers. Pleas for support from the front line triggered an outpouring of societal response where many non-profit organizations, Chinese residents in the country, and overseas expats self-organized supply chains to send medical supplies

directly to Wuhan. The fight between disease and human survival has always been a global fight. Ensuring sufficient medical supplies on the front line and minimizing economic losses to Chinese residents will help sustain the extraordinary containment efforts that have been well over-stretched.

Disease knows neither borders nor politics. In the midst of a health crisis, media and politicians should refrain from abusing their power as information disseminators. Individuals may avoid getting misled by fact-checking and debunking rumours as they encounter them. Scientists and trusted authorities within the country and from the international community should confront such abuse with immediate, resolute, and consistent action. Communication strategies should be developed to counter the conspiracy theories, fake news, and the racism and xenophobic content sometimes found in the public forum.

China, a developing country making its initial entrance to the global health arena, has taken extensive measures in fighting an epidemic outbreak on the global front line. Many lessons learnt from current response should be examined with great scrutiny for future improvement for the protection of the public and the responders, especially the early warning and public health preparedness systems. To the scientists, medical and public health professionals, and citizens who have been under quarantine or on lockdown with no clear timetable for resumption of normal life, work or school, we should show the greatest solidarity.

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**CONFIRMED COVID-19 CASES IN HUBEI PROVINCE**

| HUBEI PROVINCE (湖北) | CONFIRMED CASES (CURRENT) | CUMULATIVE CONFIRMED CASES | DEATHS | RECOVERED |
|---|---|---|---|---|
| Wuhan (武汉) | 36156 | 46201 | 1856 | 8189 |
| Xiaogan (孝感) | 2263 | 3443 | 102 | 1078 |
| Huanggang (黄冈) | 1266 | 2904 | 98 | 1540 |
| Ezhou (鄂州) | 922 | 1379 | 40 | 417 |
| Jingzhou (荆州) | 852 | 1574 | 41 | 681 |
| Suizhou (随州) | 772 | 1300 | 30 | 498 |
| Xiangyang (襄阳) | 682 | 1173 | 28 | 463 |
| Yichang (宜昌) | 599 | 917 | 29 | 289 |
| Jingmen (荆门) | 520 | 918 | 37 | 361 |
| Huangshi (黄石) | 504 | 1001 | 29 | 468 |
| Xianning (咸宁) | 427 | 836 | 11 | 398 |
| Shiyan (十堰) | 398 | 667 | 2 | 267 |
| Xiantao (仙桃) | 304 | 571 | 19 | 248 |
| Tianmen (天门) | 249 | 494 | 13 | 232 |
| Enshizhou (恩施州) | 125 | 251 | 3 | 123 |
| Qianjiang (潜江) | 105 | 191 | 8 | 78 |
| Shennongjia (神农架) | 1 | 11 | 0 | 10 |
| Prisons (监狱系统) | 250 | 253 | 0 | 3 |

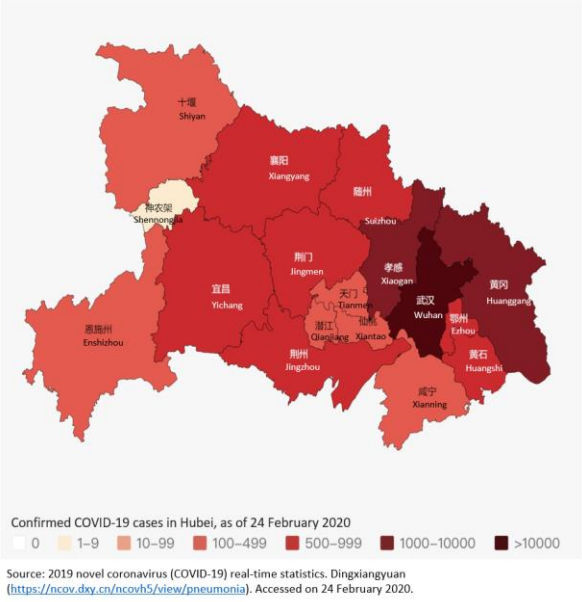


**Figure 1. Confirmed COVID-19 cases in Hubei Province[2]**

**Table 1. Estimated case fatality rates based on confirmed deaths over cases[2]**

| **Data extracted on February 24, 2020** | **Cities in Hubei Province** | | **Chinese provinces** | | **China** | **International** |
|---|---|---|---|---|---|---|
| **Location** | Wuhan | Non-Wuhan | Hubei | Non-Hubei | 3.2% | 1.2% |
| **Case fatality** | 4.0% | 2.7% | 3.7% | 0.8% | | |
| | (1856/46201) | (490/17883) | (2346/64084) | (100/12970) | (2446/77054) | (23/1936) |