



**Editorial**

# Glocalization and One Health

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The coronavirus disease 2019 (COVID-19) pandemic strikes the world hard and substantially changes the world;<sup>1</sup> older persons are vulnerable to infections, severe and critical illnesses, and incomplete functional recovery from acute conditions.<sup>2-5</sup> During the lockdown or activity restrictions related to the pandemic, older people are at high risk for social isolation, depression, loneliness, and cognitive declines.<sup>6,7</sup> Even in the COVID-19 vaccinations, the safety and efficacy for frail older adults remained inconclusive.<sup>8</sup> The international travel, globalization and contagiousness of SARS-CoV-2 lead to global transmission, older persons with limited mobility are also at risk for disease due to their caregivers. Undoubtedly, COVID-19 has become a global crisis and changed lives of everyone now and the future. Not only the industry, but also the disease transmission has become a vivid example of globalization. Nowadays, one can arrive any country in the world within 36 hours of international flight, which accelerates the transmission of communicable diseases. In most cases, pathogens have been transmitted to many people when the disease was still in its incubation period. The impacts of communicable disease are also globalized like any commercial products or applications from the industry.

On the other hand, disease transmission, prevention and management involve various local issues as well. From the experiences of COVID-19 pandemic, the reluctance of wearing facemask and social distancing of Western countries in the early stages of the pandemic greatly precipitates the disease transmission.<sup>9,10</sup> The reluctance was originated from socio-cultural context of Western societies, which was less significant in Asian countries. However, the lack of clean water and the eating behavior of people in certain cultural backgrounds accelerated disease transmission.<sup>11,12</sup> Moreover, the lack of effective COVID-19 treatment triggered the use of herbs, alternative therapy or off-label use of medications in some countries. For example, ivermectin, an antiparasitic drug for some tropical diseases, was used in some countries for COVID-19 because ivermectin was a commonly prescribed drug for infectious diseases. Despite the lack of positive human trial results, administrative authorities in most developed countries declined the recommendation to use ivermectin for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) prevention or treatment.<sup>13,14</sup> Nevertheless, the local experiences from certain areas still cause extensive global debates, which may be the example of local experiences to the world.

A previous study indicated that the exposure to air pollutants significantly

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predispose exposed people to develop COVID-19-associated immunopathology, and to enhance virus-induced tissue inflammation and damages.<sup>15</sup> Climate changes and air pollution are well-recognized global challenges that influence all people and border controls do not really work. A study from England showed that a small increase in air pollution largely increased the infectivity of SARS-CoV-2, which linked disease control and environment protection.<sup>16</sup> The One Health approach strongly addressed global health security by improving coordination, collaboration and communication at the human-animal-environment interface to respond to shared health threats such as zoonotic diseases, antimicrobial resistance, food safety and others.<sup>17</sup> The One Health approach is completely in line with the challenges related to COVID-19 pandemic, and the promotion of the One Health also needs special consideration of local socio-cultural backgrounds and the economic development of individual country, such as the habit of ingesting wild animals in some countries. Medical education requires special consideration in the curriculum design to respond these complex care needs,<sup>18</sup> so are education in other fields.

As the vulnerable populations, older people are at higher risk of communicable and non-communicable diseases, as well as their interactions. "Older people" is a very heterogeneous classification that composes of individuals with different age-related functional declines, different status of reduced physiological reserve and impaired homeostasis, different psychosocial and family support status, and many others. Frail older adults are susceptible to diseases and their recovery process also differ, so specially designed care services and treatment protocols are needed. All these designs need to consider the socio-cultural context of individual older adult to achieve the most optimal results. COVID-19 pandemic is surely a challenge and crisis to the world, and it will renew the conceptual framework of modern disease control strategies. The One Health approach adopts a broader view to examine the relationships of humans, environment, and other living beings; the issues of glocalization in the experiences of industrial development highlights the universal needs of different sectors in the world. Older adults, as the vulnerable population, need comprehensive consideration in healthy aging, disease diagnosis, prevention, treatment, and recovery that also need individualized approach with local spirits in their socio-cultural context.

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