

identification of these subjects may slow the spread of SARS-CoV-2. The cases of Veneto and Lombardia, contemporaneously affected neighboring regions in Italy, provide 2 telling examples with strikingly different endings. As of April 15, 2020, a total of 44,107 tests per million people have been performed in Veneto, which is double the number of tests conducted in Lombardia (Fig. 1). Indeed, in contrast to the neighboring region, Veneto adopted a large-scale population screening model at the beginning of the outbreak, allowing home isolation for a larger number of mild (or asymptomatic) cases (85% vs 60% of active cases according to the last estimates).<sup>4</sup> This strategy may have avoided overwhelming the health system, with a consequent positive impact on the case fatality rate in Veneto, which is currently almost 3 times lower than that in Lombardia.

In fact, in line with previous modeling predictions,<sup>5</sup> Lombardia did run out of intensive care beds at the end of March, resulting in the need to transfer critical patients to other Italian regions or European countries. Furthermore, between one-half and one-third of the daily national deaths are still being recorded in this region at this time.

At a time when Italy is facing its biggest challenge since World War II, the 'Veneto model' indicates that early mass screening for SARS-CoV-2 can make a positive difference, and it should be

recommended to other countries responding to the COVID-19 pandemic.

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# Battle with COVID-19 in Iran: What lessons can be learned from the implementation of response strategies so far?

Mehrdad Amir-Behghadami MSc<sup>1,2,3</sup> , Ali Janati PhD<sup>1,2</sup> and Masoumeh Gholizadeh PhD<sup>1,2</sup>

<sup>1</sup>Tabriz Health Services Management Research Center, Health Management and Safety Promotion Research Institute, Tabriz University of Medical Sciences, Tabriz, Iran, <sup>2</sup>Iranian Center of Excellence in Health Management (IceHM), School of Management and Medical Informatics, Tabriz University of Medical Sciences, Tabriz, Iran and <sup>3</sup>Student Research Committee (SRC), Tabriz University of Medical Sciences, Tabriz, Iran

*To the Editor*—The novel coronavirus disease (COVID-19), with human-to-human transmission and severe human infection, has been escalating rapidly since late December 2019.<sup>1</sup> Disease symptoms can range from mild flu-like cases to severe cases with life-threatening pneumonia.<sup>2,3</sup> The global condition is evolving dynamically, and on January 30, 2020, the World Health Organization (WHO) announced that COVID-19 is a “public-health emergency of international concern.” During the coronavirus pandemic, the authorities of the Iranian Ministry of Health and Medical Education (MOHME) reported the first cases of coronavirus on February 19, 2020 in Qom.<sup>4</sup> As of March 6, 2020, according to MOHME, 27,017 cases of COVID-19 have been identified in the country, 2,077 of whom have died and 9,625 of whom have recovered so far. Following the widespread outbreak of SARS-CoV-2 in China, the MOHME launched a campaign in early February 2020 including

monitoring and examining all incoming travelers from China and quarantine of Iranian students residing in China.

Currently, no licensed vaccine for specific antiviral prevention and treatment is available for COVID-19.<sup>5</sup> Therefore, the most effective measures are to eliminate the source of infection, to cut off the transmission route and to protect the susceptible.<sup>6</sup> Prevention and control became the most urgent task in Iran during the early days of the sudden outbreak of the SARS-CoV-2 virus.<sup>7,8</sup> In this regard, the government has invested large amounts of human capital and material resources. Regarding the origin of the infection, people who are in close contact with patients may become new patients or new sources of infection. For this reason, the first action after the media provided public education on COVID-19 disease was to establish a Corona National Antivirus Headquarters chaired by the President of Iran and headed by the MOHME. With the establishment of the headquarters, many actions were taken, such as canceling public events and Friday prayers; closing schools, universities, shopping centers and bazaars, as well as holy shrines; and banning festival celebrations. Economic measures were also taken to assist families and businesses. With the intersectoral collaboration, the headquarters is trying to control the outbreak of SARS-CoV-2. The Ministry of Roads and Urban Development initiated the necessary steps for public transport, and the Ministry of Industry, Mine, and Trade

**Author for correspondence:** Mr. Mehrdad Amir-Behghadami, Iranian Center of Excellence in Health Management, School of Management and Medical Informatics, Tabriz University of Medical Sciences, University Rd, Golbad, EAZN 5165665811, Tabriz, East Azerbaijan, Iran. E-mail: [Behghadami.m@gmail.com](mailto:Behghadami.m@gmail.com).

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## To relax restrictions: Are communities ready to deal with repeated epidemic waves of COVID-19?

Jiancong Wang MD, MPhil<sup>1</sup> , Yew Fong Lee MBBS, MHM<sup>1,2</sup> , Fangfei Liu MD, MS<sup>1</sup> and Mouqing Zhou MD<sup>3</sup>

<sup>1</sup>Institute of Global Health, Faculty of Medicine, University of Geneva, Geneva, Switzerland, <sup>2</sup>Ministry of Health, Kuala Lumpur, Malaysia and <sup>3</sup>Dongguan Nosocomial Infection Control and Quality Improvement Center, Dongguan City, Guangdong Province, China

*To the Editor*—With strict lockdown and movement restriction measures, in Europe the incidence of newly confirmed COVID-19 cases has slowed down and the epidemiological curve has flattened.<sup>1</sup> However, the World Health Organization (WHO) has warned that the peak of the pandemic has not yet passed.<sup>2</sup> However, some countries are considering relaxing restrictions because they have to weigh ethical issues and social and economic crises against another potential COVID-19 wave.<sup>3,4</sup> When and how to relax the restrictions have become items of strong debate between health politicians and other stakeholders. According to the WHO's COVID-19 daily situation report and a recent study,<sup>5,6</sup> community spread and clusters have predominantly contributed to most SARS-CoV-2 transmission. Therefore, the question facing policy makers remains: if restrictions are relaxed, will we be ready to deal with a repeated epidemic wave(s) in our community?

In China, resumption of works and production, reopening shops and restaurants, and even relaxation of travel restrictions have restored hope for virus-ravaged economies around the world.<sup>7</sup> The National Health Commission of the People's Republic of China strengthened and implemented various measures and/or policies in the face of another potential epidemic wave. Here, we summarize the key elements of infection prevention and control (IPC) measures implemented in China.

First, border control included screening and testing for COVID-19. Imported cases from abroad, especially international travelers, pose a potential threat to the community if they are not properly screened at the borders.<sup>8</sup> According to data retrieved on the April 18, 9 of every 16 newly confirmed cases (56%) were identified as imported cases.<sup>9</sup> Various measures (eg, travel history declaration, health epidemiological survey, temperature measurement, and rapid screening at airports) were conducted to efficiently

detect suspected cases. All travelers were required to undergo a 14-day quarantine period at dedicated hotels, including SARS-CoV-2 testing by swab.<sup>10</sup> Detected cases were directly referred to dedicated COVID-19 hospitals, which minimized the risk to close contacts and the spread of disease in the community.

Second, informative technology and the Health Declaration mobile telephone software application (ie, app)<sup>11</sup> played a significant role in assessing the health status of residents. Information gathered was categorized and visualized using colored barcodes, which included each individual's national identification number and address, temperature results (if available), 14-day travel history declaration, and contact history with suspected or confirmed COVID-19 patients. A green barcode indicated that a person was at low risk of having COVID-19 and/or transmitting SARS-CoV-2 and had been given approval for a “health permit” that allowed to access workplaces, shops, and restaurants (Supplementary Material Fig. 1 online). A red barcode indicated that a person was at high risk of having COVID-19 and/or transmitting SARS-CoV-2 and that he or she would be contacted by the local health authorities for mandatory quarantine measures (by law) and medical observation.

Third, China implemented ‘closed-off’ management of residential communities.<sup>12</sup> Only community residents were permitted enter or exit their residential areas, and no visitors were allowed. Temperature measurement was mandatory upon entry, and mask wearing was compulsory upon exiting a residential area. Even though mask use is still being debated in some countries, Asia, Austria, Germany, and the Czech Republic have demonstrated positive effects of using masks in reducing further spread of SARS-CoV-2 in the community.<sup>13</sup>

Fourth, community and public healthcare services were reinforced and supported. In Guangzhou, Sun Yat-Sen Memorial Hospital launched online consultation services by a dedicated professional COVID-19 team via the “internet community hospital” platform.<sup>14</sup> This online service provided timely and accessible healthcare services and information to residents in the community, thus avoiding hospital

**Author for correspondence:** Jiancong Wang, E-mail: [Jiancong.Wang@outlook.com](mailto:Jiancong.Wang@outlook.com)

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