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May the Vietnam Response Have Reduced Daily New Cases of COVID-19 in the Country?

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Abstract

Vietnam, a Southeast Asian country, has documented 1,515 polymerase chain reaction-positive confirmed coronavirus disease 2019 (COVID-19) cases with 35 deaths a year after the first infection recorded in Ha Noi on January 23, 2020. Half of the infected patients are at the age of 21 to 40 y. While numbers of infections in many countries in the region continue to surge, Vietnam is seeing decreases in the number of daily new cases. As a result of COVID-19 trajectory different from the other countries, as of April 23, 2020, Vietnam is no longer under lockdown and is slowly restarting its socioeconomic activities. This report aims to provide a summary of the COVID-19 situation and response to the pandemic in Vietnam.

Coronavirus disease 2019 (COVID-19) is a highly contagious respiratory disease caused by the novel coronavirus (severe acute respiratory syndrome coronavirus 2 [SARS-CoV-2]). In March 2020, the World Health Organization (WHO) declared the COVID-19 outbreak a global pandemic. As of January 11, 2021, SARS-CoV-2 has infected 91.3 million people and claimed more than 1.95 million lives across the globe.[1]

Vietnam, a country in Southeast Asia (SEA), reported the first case of COVID-19 on January 23, 2020, and as of January 11, 2021, has documented 1,515 polymerase chain reaction (PCR) - positive confirmed cases with 35 deaths. Of these, 1361 have recovered and the rest are in hospital.[1] And though the country shares a long land border spanning more than 1,400 kilometers and has a large volume of trade with China, one of the coronavirus-stricken countries, it seems to have had a good hold on the COVID-19 crisis. While the disease continues to worry some SEA nations, Vietnam is currently an unlikely outlier given its very low number of daily new cases, a vast majority of which are imported. In this report, we aim to summarize the Vietnam response to this unprecedented situation and factors contributing to the reduced level of COVID-19 activity in the country. Data from the website of the Vietnam Ministry of Health, Worldometers and the most read Vietnamese newspapers, including Tuoi Tre News, VnExpress International News, and Vietnaminsider News, were collected and processed. Figures were prepared using Microsoft Excel.

Report

The First Wave of the COVID-19 Outbreak in Vietnam

The first coronavirus infection case in Vietnam was a male traveler from Wuhan arriving in Ha Noi and then visiting Nha Trang.[2] This patient reportedly passed the coronavirus onto his son, who was touring Nha Trang with him. From January 23 to February 13, 14 more cases were recorded: 6 Vietnamese citizens returning from Wuhan, 6 persons having close contact with the 6 returnees, 1 transiting through Wuhan, and 1 having close contact with the first case. Until March 5, no new infections were documented in the country. Since a returnee from Europe who was identified as the 17th COVID-19 patient in Vietnam on March 6, the daily new cases have emerged, with the highest number hitting 20 on March 29. Notably, 2 coronavirus hotspots (a public hospital in Hanoi and a nightclub in Ho Chi Minh city) have been identified, accounting for 25% of the confirmed cases reported in this period.[3,4] The number of confirmed cases linked to these hotspots totaled 63, with 44 identified in the hospital. Among the hospital-acquired infections, 27 are nonclinical hospital staff working at the cafeteria in the hospital. One of the major factors contributing to the widespread of COVID-19 has recently been identified is the nonclinical hospital staff's meal preparation and hot water and food delivery to units of the hospital. Multiple efforts to stop the spread of hospital-associated infections, including lockdown and disinfection of the hospital, quick COVID-19 testing of those closely contacting the patients, as well as suspension of new patient admission, have been taken. In regard to the bar infection cluster, the immediate response was to order closures

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of bars, restaurants, gyms, hair and nail salons as of March 24. In addition, public gatherings of over 10 people were banned.

The Second Wave of the COVID-19 Outbreak

While some SEA nations were struggling to contain the spread of SAR-CoV-2, Vietnam had seen no community transmission case since April 16.[5] After implementing 22 days of social distancing starting on April 1, the government of Vietnam lifted social distancing measures, allowing the country to resume its socio-economic activities.[5] For 99 days, Vietnam seemed to have won the battle against the COVID-19 as no new locally acquired cases were recorded. From July 24-27, 2020, an outbreak began in the coastal tourist city of Danang. As a precaution, the city authorities announced 15 d of social distancing starting on July 28, 2020. Furthermore, several streets in the city were placed under lockdown. As of September 12, 2020, the country confirmed 1063 positive cases of COVID-19 with 35 deaths.[6]

Response to the Epidemic

On February 15, Vietnam with 16 active cases of COVID-19 was 1 of the 4 countries having the most coronavirus infections in the SEA region. In response to this unprecedented situation, the country swiftly took actions with a variety of precautionary preventive and control measures, including suspending school activities, tightening border controls, expanding entry restrictions, isolating infected and potentially infected people, and tracing and quarantining their close contacts to stem the disease spread.[7] The Vietnamese government's written communications issued as Directive 15 and 16 control measures. Those directives were made publicly available through all multimedia platforms. In addition, face masks and frequent handwashing with soap have been strongly encouraged. The government held several public awareness campaigns about personal preventive measures, including mask policies and 5K message (5K means using face masks in public settings, keeping 6-feet distance, disinfecting regularly, no public gathering, and making health declarations). As an innovative approach, in late February 2020, the National Institute of Occupational Safety and Health released a song named "Ghen Co Vy" (translated as jealous coronavirus) that conveys a message of an appropriate handwashing against COVID-19. This song was later remixed and inspired a viral popular dance challenge on TikTok.[8]

Vietnam also imposed border restriction with China and ordered cancellation of all Wuhan-related tours and flights. During the period from February 15 to March 5, no daily new cases were recorded as a result of these implementations. As of March 23, it was shown that overseas-acquired infections accounted for 74% of the confirmed cases.[9] Thereby, the Vietnam government has learned that the coronavirus outbreak starting March 6 in the country is mainly ascribable to the COVID-19 infected repatriates and foreign visitors arriving in the country. While the number of total positive cases represents an overview of the COVID-19 situation in a nation, the daily new cases reflect how the nation has responded to challenges from the outbreak. To combat the accelerating outbreak, Vietnam has rapidly implemented mandatory wearing of face masks in public places, suspension of all religious gatherings, ban on public gatherings of over 2 people, closures of restaurants, bars, gyms, hair and nail salons, nationwide stay-at-home order and social distancing starting April 1, as well as suspended entry to all foreign nationals.[10]

Statistical Description

Age distribution of the COVID-19 cases is shown in Figure 1A. Among the positive cases reported as of January 11, 2021, the majority of patients (28%) fall in 21-30 age group years while children aged < 10 y only make up 3%. The rate of infection for the elderly (aged 61 and older) is 13% of the Vietnam's cases. Figure 1B presents half of the infected patients are between the age of 21 and 40 y.

In general, the average age is 38.7 y (median, 36 y; range, 0.3-100 y; interquartile range [IQR], 26-51 y). Among the COVID-19 deaths, the average age was 63.2 y (median, 65 y; range, 28-93 y; IQR, 55-71.5). The results indicate that the COVID-19 mortality rate was higher in the elderly in Vietnam.

Comparison With Other Countries in the Region

As seen in Figure 2, Indonesia and Malaysia are the hardest hit nations by the pandemic, with the increase in total number of infection cases showing no signs of stopping. Vietnam is the country with the number of daily new cases plummeting these days. While the SEA region's highest number of deaths per 1 million population are reported by Indonesia (89) and the Philippines (85), the figure for Vietnam reaches 0.4. Moreover, while total cases per 1 million population for Singapore, Indonesia, Malaysia, and the Philippines range from 3,042 to 10,031, those for Thailand and Vietnam remain low, 151 and 15, respectively.

Discussion

Apparently, the COVID-19 outbreak has had different impacts upon the individual countries in the region. While Malaysia, the Philippines, Indonesia, and Thailand are hit hard by the pandemic, Vietnam is seeing a few new cases per day and all these are imported cases. Considerable disparities in coronavirus infections across the SEA region may be seen as a result of preventive and control measures implemented by the individual countries. For example, imposition of mandatory face mask wearing in public places, suspension of all religious congregations, shutdown of non-essential services and business, ban on public gatherings, nationwide stay-at-home and social distancing orders may have slowed local transmission of coronavirus. Also, surveillance and enforcement services play a pivotal role in contributing to the effort to stem the spread of COVID-19. Vietnam and Singapore have emerged as global models for swift implementations and aggressive containment efforts while other countries like the Philippines, Malaysia, and Indonesia have been known for their belated actions and chaotic responses.[8,11,12]

The government of Vietnam rapidly and explicitly implemented social distancing, mandatory quarantine of travelers upon arrival, isolation of those testing positive and those directly contacting the infected, environmental disinfection, frequent hand-sanitization, and face mask wearing in all public areas. Notably, compliance with government instructions among the Vietnamese citizens was high and significantly played a role in swiftly controlling the pandemic in Vietnam and minimizing its health and social impacts.[13] In a recent survey, 98% of the respondents have reported that they were often wearing face masks.[14] The figure for those wearing face masks in public areas was 83%.

Conclusions

While many parts of the world are still under lockdown, Vietnam is resuming its socio-economic activities and life is returning to a

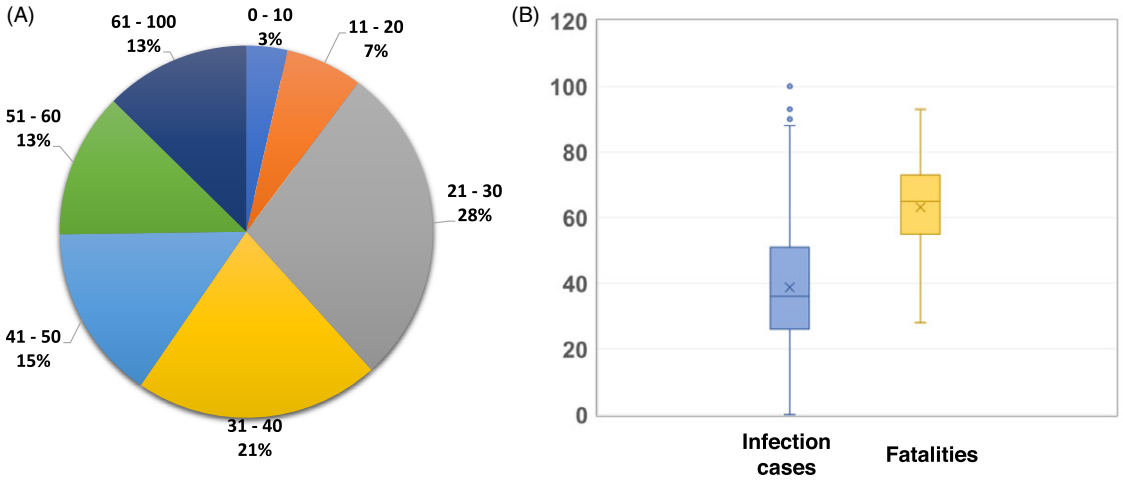

Figure 1. (A) Percentage of COVID-19 cases by age groups in Vietnam (from January 23, 2020, to January 11, 2021) and (B) age distributions of infection cases and deaths.

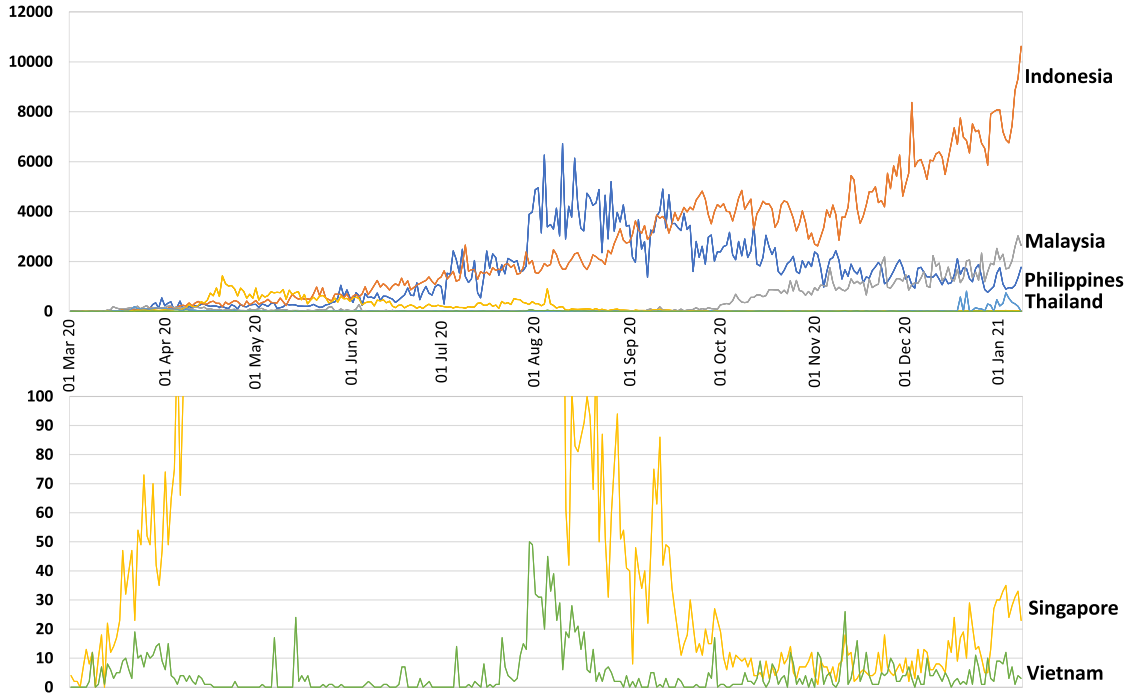

Figure 2. The daily new cases of COVID-19 in the select SEA countries (from March 1, 2020, to January 11, 2021).

semblance of normalcy. The factors contributing to the country's extraordinary performance in the fight against the pandemic, which can be learning lessons for the other countries, include: the swift response and strategic approach, clear communication between the government and its citizens, and citizens' adherence to the guidelines in this unprecedented crisis.

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