



Commentary

Vietnam's success story against COVID-19



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ABSTRACT

Vietnam's close proximity to China where the COVID-19 outbreak started made it one of the countries expected to have widespread transmission of the virus. However, the country opposed this expectation and attained low spread of COVID-19 infection due to its proactive approaches in containing the disease. As of March 11, 2021, Vietnam has a total of 2529 confirmed cases, equivalent to 26 cases per one million population-compared to the global rate of 15,223 cases. The low-cost model approach used by Vietnam in dealing with previous public health issues, tackle the importance of a strategic public health system, good governance, and citizen cooperation in the fight against COVID 19 pandemic. This paper aims to analyze Vietnam's achievement in its early and continued success in combating COVID-19 by taking into account various aspects of its health system and experience on outbreaks that have previously occurred and how these can be applied to current COVID-19 responses.

1. Introduction

On January 04, 2020, the World Health Organization (WHO) reported the first cases of COVID-19 (SARS-CoV-2) in Wuhan, China. In a short span of time, evidence for human-to-human transmission surfaced globally, prompting the WHO to declare it as a public health emergency of international concern [1,2]. Due to Vietnam's geographical proximity to China, it was expected to be one of the countries to have widespread transmission of SARS-CoV-2. Surprisingly, Vietnam has a low spread of COVID-19 infection with a total of 2529 confirmed cases and 35 deaths as of March 11, 2021, equivalent to only 26 cases per million population - compared to the global rate of 15,223 cases. This paper aims to analyze Vietnam's achievement in its early and continued success in combating COVID-19 by taking into account various aspects of its health system and experience on outbreaks that have previously occurred and how

these can be applied to current COVID-19 responses.

1.1. Four-level preventive health system for quick track and trace of new COVID-19 cases

The following administrative levels of healthcare delivery comprise Vietnam's healthcare system: central, provincial, district, and commune. Provincial governments were key in Vietnam's COVID-19 response as they are vital in delivering public health services and increasing capacity for testing. Local commune health centers provide health education to residents, participate in contact tracing, and guide patients through the procedures. Local authorities also regulated the closure of non-essential businesses and enforcement of physical distancing. Furthermore, the central government allowed them to modify barriers to local conditions.

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At the bottom of this framework are the village healthcare workers who live in the same hamlets as the residents. Due to their close relationships with the residents, the village healthcare workforce plays an important role in providing primary healthcare, supporting not only the implementation but also the development of effective prevention focus [3]. Public surveillance was strengthened by the mobilization of Vietnam's military as their bases were also converted to quarantine facilities. Through the development of a mobile application, contact tracing was made easier. Positive cases were taken care of in hospitals while their contacts follow strict self-isolation in their homes. This structure where surveillance, management, and follow-up treatment are encouraged to start from the lower healthcare delivery levels, proved Vietnam's capability in successful disease control [4].

1.2. Experiences in combating infectious diseases

Like some other Southeast Asian countries, the experience from previous epidemics such as Severe Acute Respiratory Syndrome (SARS) in 2003 [5], made Vietnam prepared enough for a prompt and effective response against the COVID-19 pandemic. Vietnam was among the first four countries identified to have had local transmissions of Severe Acute Respiratory Syndrome (SARS). The designated SARS facility initially encountered problems on the procurement of Personal Protective Equipment and equipment for the basics of infection control; however, these issues were addressed afterwards through the help of the WHO, CDC, and other NGOs. In less than two months, they were able to eradicate the disease make it one of the first countries to contain a novel and highly contagious disease.

Vietnam's management of SARS was a tale of decisiveness and cooperation. They capitalized on early detection of this disease by confining the outbreak to the hospital hence successfully isolating the virus at its most contagious state. Through this, Vietnam became the first country off the list of those with local transmission. This transpired through the conscientious implementation of the following crucial measures outlined by the WHO: (1) prompt identification of persons with SARS – their movements and contacts; (2) effective isolation of patients in hospitals; (3) appropriate protection of medical staff; (4) comprehensive identification and isolation of suspected cases; (5) screening of international travelers; and (6) timely and accurate information dissemination [6].

It is also worth taking note that Vietnam applied socialist values and strategies instead of relying heavily on an expensive high-tech approach. Scientific data, concrete analysis of the material conditions present, and materialist review of previous infectious disease responses to SARS and H1N1 proved useful in their decision making along with mobilization of their tax-funded health system. With the support of global specialists, Vietnam implemented efficient detection and control measures, which got them the upper hand.

1.3. Low-cost approaches to control COVID-19 spread

As COVID-19 continues to pose its deleterious effects across the globe [7,8], Vietnam's capability in combating an infectious disease is tested anew. Being the first country to be proclaimed SARS-free in 2003, it is noteworthy to assess how Vietnam applied its previous strategies to its current battle with COVID-19 [6]. Presently, since Vietnam did not rely heavily on expensive measures such as mass testing, its approach in containing COVID-19 infection is regarded as the "low-cost model".

This model is deemed to be the strengthened version of earlier programs in disease surveillance, training and outbreak response based on Vietnam's prior experience with SARS, avian and swine flu outbreaks. This low-cost model approach is comprised of the following: (1) rapid closure of borders; (2) strict implementation of quarantine protocols on foreign arrivals; (3) aggressive track-and-trace and isolation; (4) nationwide social distancing and mandatory face mask wearing; and (5) systematic application of technology in tracking virus carriers. In addition,

the nation's testing capacity has been strengthened quickly over time to implement mass testing targeted to higher risk groups and random testing at household level. As of March 3, 2021, there were 152 testing laboratories using RT-PCR technique, in which 98 laboratories were designated as confirmatory laboratories, with the capacity of 51,000 tests per day. Catching up with the development of COVID-19 vaccines, with the first batch of 117,600 doses of Oxford/AstraZeneca vaccines, Vietnam rolled out its distribution plan on February 24, 2021, which targeted 11 priority groups [9].

1.4. Engagement of social organizations and citizens in disease control

Studies from 12 different institutions including Harvard and Cambridge University have ranked Vietnam second in countries where participants trust their government to take care of its citizens [10]. Furthermore, another independent study has found that 94% of the Vietnamese mentioned that they trust the state on COVID-19 which is evident by less panic and social divisions. Through various social media platforms, citizens were well informed of the protective measures promoted. Staying at home, washing of hands, and regulations such as social distancing and mask wearing are strictly complied within both indoor and outdoor settings. This helped limit the public health impact of COVID-19 in Vietnam.

Other social organizations joined to reduce the impacts of the COVID-19 pandemic as well. Philanthropists launched campaigns including "rice ATMs" and "Ban COVID-19" to provide food and protective equipment for the vulnerable people amid the economic slowdown. Artists composed songs echoing war motifs to support the government in framing the coronavirus response as a patriotic act, appealing to the need to unify the whole country. Songs including 'Ghen Co' Vy', which reiterated the importance of handwashing during the COVID-19 outbreak, went viral on social media complete with a dance challenge, further promoting awareness [11].

2. Conclusion

Despite the global increasing number of COVID-19 cases, Vietnam has been one of the countries coping well with the pandemic with cost-effective measures. Thanks to its well-invested health system with community-based healthcare workforces and the lessons learned in controlling novel infectious diseases in the past, Vietnam has been successful in implementing track-and-trace strategies, enabling effective tracking-and-tracing from the beginning of the pandemic. In addition, quick responses from country leaders to keep citizens informed about community adherence to social distancing and mask wearing, as well as the involvement of various social organizations have played important roles in controlling the disease. Nevertheless, the lessons learnt from Vietnam could help countries in resource-constrained settings to fight back against the pandemic.

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Authors' contributions

Chi Nguyen Thi Yen, Catherine Hermoso, Elaine May Laguilles, Louise Elaine De Castro, Shera Marie Camposano, Noel Jalmasco, Kim Aira Cua, Mashkur Abdulhamid Isa, and Edikan Victoria Friday gathered the related literature and wrote the draft of the manuscript with valuable contributions by Tuan Phong Ly, Shyam Sundar Budhathoki, Attaullah Ahmadi and Don Eliseo Lucero-Prisno III. Don Eliseo Lucero-Prisno III and Attaullah Ahmadi guided the team and assisted with article interpretation and language edit. All the authors read and approved the final manuscript.

Declaration of competing interest

The authors declare no competing interests.

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