

The Low and Slow COVID-19 Pandemic of Timor-Leste

Bealddues Levy Perdon¹, Shingin Kovona Musa², Yakobus Lau De Yung Sinaga^{3,4}, Zerez Lei Mercado⁵, Yllen Law Cablinda¹, Mashkur Abdulhamid Isa⁶, Ryan Rachmad Nugraha⁷, Xu Lin⁸, Attaullah Ahmadi^{9*}, Don Eliseo Lucero-Prisno¹⁰

- 1- College of Medicine, Adventist University of the Philippines, Silang, Cavite, Philippines
- 2- Faculty of Pharmaceutical Sciences, Ahmadu Bello University, Zaria, Nigeria
- 3- College of Health, Adventist University of the Philippines, Silang, Cavite, Philippines
- 4- Bandung Adventist Hospital, Bandung, West Java, Indonesia
- 5- De La Salle University Medical Center, Dasmariñas, Cavite, Philippines
- 6- School of Health and Related Research, University of Sheffield, Sheffield, United Kingdom
- 7- ThinkWell LLC, Jakarta, Indonesia
- 8- Department of Thoracic Surgery, The First Affiliated Hospital, School of Medicine, Zhejiang University, Hangzhou, Zhejiang, PR China
- 9- Medical Research Center, Kateb University, Kabul, Afghanistan
- 10- Department of Global Health and Development, London School of Hygiene and Tropical Medicine, London, United Kingdom

Abstract

COVID-19 is a highly contagious disease that has penetrated many countries including Timor-Leste. Being relatively new with frail healthcare system, lack of access to water and sanitation facilities, and high poverty level in addition to its proximity to Indonesia—a country with increasing number of infections and fatalities, it was expected that this country would be conquered by this public health threat. Conversely, it has managed to prevent community transmission, maintain low infection rate, and record zero deaths since the first case was confirmed on 21 March 2020. The country's feat against this public health threat appears to be attributable to the immediate action of the government, support from international organizations, effective communication strategies, involvement of the church, and importance given to water, sanitation, and hygiene programs. The pandemic further emphasized the need of the country for more investments on the healthcare system. Nevertheless, despite the limitations on resources, the current tally of COVID-19 cases in TimorLeste manifests how a neophyte and small country with limited resources could respond to a global health dilemma. As the country slowly lifts restrictions, vigilance must be kept to sustain its initial success especially that new and more infective strains of the disease are being discovered.

Key words: *COVID-19, pandemic, responses, Timor-Leste*

Introduction

Following the spread of the outbreak of COVID-19 from Wuhan, China to different parts of the globe, the burden of containing the disease to prevent fatalities and immense damages has preoccupied every country. Despite this global dilemma, Timor-Leste, a 15007-square kilometer young Southeast Asian country, in the eastern half of the island of Timor, has been able to curb the pandemic [1]. In view of its fragile health system, high poverty rate [1,2], and its proximity to Indonesia from the north-- a spot with a continuous increase in the number of cases, this country was expected to be overwhelmed by the disease. Nevertheless, since the detection of the first case in the country, Timor-Leste boasts having recorded only 51 imported cases (mostly people entering through the Indonesian land borders) with no deaths [3], and no reported community transmission in a population of 1.3 million people, one of the smallest outbreaks in Southeast Asia [1], as of 19 January 2021. This paper aims to discuss the factors behind Timor-Leste's apparent success in controlling the pandemic.

State of Emergency and Border Control

On 28 March 2020, a week after the first imported case was confirmed on 21 March 2020, a state of emergency was declared by the government. To regulate an action plan for the COVID-19 response, an ad hoc committee called Integrated Crisis Management Centre, supervised by the Prime Minister and Ministry of Health (MoH) and assisted by the World Health Organization (WHO), was established during the declaration of state of emergency [2,4]. Restrictive measures were applied including suspension of school and religious activities, social gatherings of more than five people, interruption of public transportation and commercial establishments, and closure of borders.

Individuals with permission to enter the national territory had to submit themselves to fourteen days of isolation [4]. The communique also endorsed social interventions such as wearing masks and physical distancing of one meter apart [4].

Early implementation of stringent border control was already in effect preceding the declaration of state of emergency in the country. In February 2020, entry for non-nationals who had visited Hubei, China was banned while those from other parts of China had to present a medical certificate with negative COVID-19 test result. Prohibition from entering Timor-Leste was extended to travelers from Italy, Iran, and South Korea less than a month later. All land borders were completely closed even to citizens on 13 April 2020 but remained open for supplies of essential goods and healthcare commodities. Cruz Vermelha de Timor-Leste (CVTL), the local arm of The Red Cross, intensified its COVID-19 watch in remote areas bordering Indonesia where the illegal passage of people from neighboring areas usually occurs [1,5]. Caught trespassers would be fined US\$250 and should pay the quarantine costs. The nearby communities were involved in surveillance and were cooperative in reporting violators.

The measures undertaken, although effective, brought major contraction of Timor-Leste's already struggling economy. Nevertheless, the government was still able to extract funds to provide financial support for the citizens to encourage compliance with the restrictions. For example, employees who were displaced following business closures were given US\$500 monthly [4]. Furthermore, assistance was given to Timorese students abroad who fully rely on the financial support from families in Timor-Leste, and citizens who, due to border controls, could not enter the country.

After recording no new cases since April 2020, schools and commercial or service establishments reopened in June 2020 with safety measures being observed. Starting August 2020, a limited

number of people were permitted to enter the country through the land borders provided they follow quarantine protocols [4]. To ensure proper sanitation of quarantine facilities and to avoid overcrowding, land borders were only opened every 17 days. Timor-Leste capitalized on immediate action and early stringent border control despite their economic repercussions. The foresight that prioritizing economy over health of its citizens would put the country in a more perilous state must be applauded considering Timor-Leste is a low-income country.

International Support

Even prior to the pandemic, healthcare has been a challenge in the country triggered by high poverty level and poor health infrastructures evidenced by limited number of intensive care units and lack of expertise to manage patients on ventilators [1]. Timor-Leste is placed 171st among the 180 ranked countries worldwide in terms of economic freedom, it has therefore, had to take advantage of aid from international partners to reinforce its facilities in preparation for COVID-19. Even though the WHO declared COVID-19 as a Public Health Emergency of International Concern in January 2020, in country testing kits and quarantine facilities were not available until the first case was confirmed in March 2020. Within a month, the WHO were able to equip health facilities with testing kits, additional manpower, functional quarantine facilities, and a gradual increase in Personal Protective Equipment stocks [2].

The WHO provided 1000 test kits while the United States Agency for International Development (USAID) donated a level 2 biosafety cabinet to the National Health Laboratory (NHL) [2]. Through more funding for tests and training of laboratory staff and technical assistance from Australia's Menzies School of Tropical Health, the NHL has managed to process 40-50 samples per day independently—a significant difference compared to 10-20 specimens per day which

were still sent to Darwin, Australia for confirmation during the early phase of the outbreak [1]. Timorese citizens and foreign nationals seeking to test can set up an appointment at the National Hospital and be tested free of charge. With 13,594 processed tests per million population as of January 2021—far less than the neighboring countries, underreporting is difficult to rule out [1]. However, basing on health indicators, including patient numbers and deaths that have not ballooned, experts agree that there is not a significant amount of infection going undetected [1].

In addition, the World Bank has pledged US\$1 million to strengthen the country's health system through improved surveillance and equitable distribution of critical supplies to health facilities [6]. The MoH's strategic planning on the deployment of COVID-19 vaccine is also being supported by United Nations Children's Fund (UNICEF), the WHO, the World Bank, and the Australian Embassy.

Communication Strategies

To fight misinformation, the Timorese government was early to proactively conduct information drives. Even before the first imported case entered the country, the MoH with the United Nations Development Programme (UNDP), already distributed communication materials about COVID-19 to municipal and district health directors nationwide [7]. Moreover, national sensitization sessions and engagements with more than 1,000 community leaders of the cities of Bobonaro and Dili were organized to encourage observance of precautionary measures [7]. Aside from these drives, Timorese citizens obtain information mostly from television programs, social media, radio stations, and health workers, respectively. During the outbreak of COVID-19 in the country, CVTL strengthened the information drive in Dili as it shares borders with high-risk areas. To keep the citizens informed, the MoH provides daily updates on the number of people

tested and cumulative numbers of negative and positive cases. These communication schemes are considered essential basing on the broad principles of effective democratic public health communication, developed by Tworek, Beacock, and Ojo [8].

Participation of the Catholic Church

Timorese Catholics, approximately 95% of the population, are traditionally known to be inclined to listen to the instructions from the church leaders. Thus, the latter greatly influenced the way in which Timorese citizens complied with government ordinances and safety protocols to assist in the prevention of transmission. Besides physical distancing advice, the church instructed its members to refrain from using holy water and kissing of statues [4]. Hours after the first case was confirmed, the Archbishop of Dili ordered to suspend all churchrelated gatherings [4]. The government, with the WHO and UNICEF, also met with the Catholic Archdiocese of Dili to seek support of the church to educate the church members about the disease [7]. Having a dominant religious presence in the country, these initiatives were vital in supplementing the implementation of regulations set by the government.

Action on WASH Programs

As handwashing is a preventive measure against COVID-19, efforts were increased promote this in the country. CVTL installed handwashing stations in high-risk municipalities such as those near the borders, especially for schools and public areas. As COVID-19 still poses a threat, CVTL [5] and UNICEF continue to distribute hygiene kits and provide hygiene awareness programs [9]. The latter also commenced building additional accessible WASH facilities including toilet blocks with handwashing stations in the land borders [9]. As

access to water is generally limited, such initiatives are crucial to urge the people to practice handwashing [10].

Conclusion

The pandemic exposed the need for vast increase in healthcare investments in Timor-Leste. Considering its status as a neophyte country with a health system still being developed, lax handling of this public health risk is likely to stretch many of its limited resources. However, the country apparently handled COVID-19 initially with its multipronged approach bolstered by the government's immediate action, effective communication, and community participation. While working continually on bettering health infrastructure and waiting for COVID-19 vaccine availability, Timor-Leste must remain vigilant as it slowly lifts restrictions to especially as more infective strains of COVID-19 have been identified.

Authorship contributions: Joint equal contributions

Competing interests: The authors have completed the ICJME Unified Competing Interest form (available upon request from the corresponding author) and declare no conflicts of interest.

References

1. Mulyanto R. How tiny Timor-Leste kept the coronavirus at bay .Al Jazeera [Internet]. [cited 2021 Jan 20]. Available from: <https://www.aljazeera.com/news/2020/12/29/how-tiny-timor-leste-keptthe-coronavirus-at-bay>.
2. Stories from the field: Special series on the COVID-19 response – Timor-Leste [Internet]. Stories from the field: Special series on the COVID-19 response - Timor-Leste | Universal Health Coverage Partnership. Universal Health Coverage Partnership; [cited 2020Dec22]. Available from: <https://www.uhcpartnership.net/story-timor-leste/>
3. Timor-Leste: WHO Coronavirus Disease (COVID-19) Dashboard [Internet]. World Health Organization. [cited 2021Jan20]. Available from: <https://covid19.who.int/region/searo/country/tl>
4. Rozario RR. Tiny yet strong: Timor-Leste’s exemplary Covid-19 success [Internet]. Union of Catholic Asian News. [cited 2021 Jan. 19] Available from: <https://www.ucanews.com/news/tiny-yet-strong-timorlestes-exemplary-covid-19-success/90877#>
5. International Federation of Red Cross and Red Crescent Societies. Timor-Leste COVID-19 threats: Red Cross prioritizes border areas [Internet]. International Federation of Red Cross and Red Crescent Societies. [cited 2020Dec22]. Available from: <https://media.ifrc.org/ifrc/press-release/timor-leste-covid-19-threats-redcross-prioritizes-border-areas/>.
6. Wilkinson M. Timor-Leste: New Support for National Health System to Boost COVID-19 Response [Internet]. World Bank. [cited 2020 Dec. 22]. Available from: <https://www.worldbank.org/en/news/press-release/2020/12/04/timor-leste-new-support-for-national-health-systemto-boost-covid-19-response>.
7. Timor-Leste: World Health Organization. Coronavirus Disease 2019 (COVID19) Situation Report-21 [Internet]. World Health Organization. [cited 2021Jan1] Available from: https://www.who.int/docs/defaultsource/searo/timor-leste/24-03-2020-tls-sitrep-21-ncoveng.pdf?sfvrsn=76c0b63c_2 Accessed January 1, 2021

8. Tworek H, Beacock I, Ojo E. Democratic Health Communications during Covid-19: A RAPID Response | Centre for the Study of Democratic Institutions [Internet]. The University of British Columbia. [cited 2021 Jan 1]. Available from: <https://democracy.arts.ubc.ca/2020/09/14/covid19/>.
9. UNICEF Timor-Leste. COVID-19 respects no boundaries [Internet]. [cited 2020 Dec 22]. Available from: <https://www.unicef.org/timorleste/stories/covid-19-respects-noboundaries>.
10. Mushi V & Shao M. Tailoring of the ongoing water, sanitation and hygiene interventions for prevention and control of COVID-19. *Tropical Medicine and Health* <https://doi.org/10.1186/s41182-020-00236-5>