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Missed Opportunities in the Early Response to COVID-19 in Aceh Province: January to May 2020

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Abstract

Coronavirus Disease (COVID-19) pandemic has had catastrophic health and economic impacts worldwide. As of 20 September 2020, Indonesia ranked the third-highest fatalities due to COVID-19 infection in Asia and the second-highest confirmed cases in Southeast Asia. Aceh, a province in the westernmost of the country, has also been impacted by the virus infections. This study aims to investigate the current Central and Aceh provincial government-led responses to the COVID-19 pandemic from January to May 2020. It utilizes existing regulations, official reports, and relevant websites to assess and analyze the responses. The results identify delayed early responses taken by Central and Aceh governments to stop and prevent the virus transmission; the absence of lockdown implementation (border restrictions at entry points such as borderland areas, seaports, and airports); premature introduction of the new normal era; the absence of checkpoints and village alert teams throughout 23 districts; and inadequate enforcement of the established regulations to halt the spread of the virus in the province. Various recommendations are provided to enhance the current responses to COVID-19 in the province in order to reduce the pandemic risk to the community going forward and strengthen the pandemic preparedness and response system.

Keywords: COVID-19; Aceh Governments; Regulations; Response; Prevention

Introduction

The coronavirus disease (COVID-19) was first identified as the cause of respiratory tract infectious disease outbreak in December 2019 in Hubei province, China (Cheng et al., 2020). The Chinese province recorded 24,953 confirmed COVID-19 cases and 699 deaths from December to February 2020 (WHO, 2020c). After the World Health Organisation (WHO) declared this situation as a Public Health Emergency of International Concern (PHEIC) on 30 January 2020 (Shaw et al., 2020), the virus rapidly spread to more than 200 countries. It impacted a great number of populations across different countries worldwide (WHO, 2020a). As of 17 August 2020, the WHO had recorded 21,516,760 confirmed cases, with 766,663 deaths due to the COVID-19 global pandemic (WHO, 2020c).

COVID-19 can directly transmit from human to human through inhalation of aerosols exhaled by an infected person, and the viral substance can be carried distances of meters to tens of meters in the air (Morawska et al., 2020). This local transmission potential, combined with the high mobility of people in a globally interconnected world, has meant that cases have spread quickly and widely overtime (Shaw et al., 2020).



As a member of the global community with significant business and tourism cross-country exchanges, and with a developing and a somewhat under-resourced health system (3% of GDP on healthcare in 2019), Indonesia has not been spared the COVID-19 infection or its devastating health impacts (Setiati & Azwar, 2020). On 2 March 2020, the first two confirmed cases of COVID-19 infection were reported in the country, with a dramatic increase to 1,790 confirmed cases, with 170 deaths and 112 recoveries one month later (Djalante et al., 2020). By 7 May 2020, the country had recorded 12,438 confirmed cases, with 895 deaths (WHO, 2020c). The confirmed cases had risen to 37,420, with 2,091 deaths until 13 June 2020 (Yurianto, 2020). Unfortunately, underreporting cases due to the lack of testing, limited access to healthcare services, and fear and stigma of seeking help contribute to the increase in COVID-19 cases every day (BNPB, 2020; Setiati et al., 2020; WHO, 2020e; Yurianto, 2020).

Aceh, a western province in Indonesia, recorded 17 confirmed cases of COVID-19 from January until 7 May 2020 (after one confirmed case died in Banda Aceh hospital) (BNPB, 2020). Of these 17 confirmed cases, 1 person died, 7 were hospitalized, and another 9 people recovered (Gani, 2020). In addition to that, 89 people were monitored for potential COVID-19 infection (Gani, 2020). As of 30 May 2020, the confirmed cases increased to 20, and 106 people were monitored for possible COVID-19 infection, two days after the local government introduced the new normal era on 28 May in the province (Dani, 2020).

The confirmed cases in Aceh (though only 1 COVID-19 death as of May 2020) increased due to bordering North Sumatera province (labelled as a red zone), which had 5,690 confirmed cases, with 249 deaths until 17 August 2020 (BNPB, 2020; Rachmawati, 2020). Further, North Sumatera borders another red zone province (West Sumatera) which had 1,375 confirmed cases, and 41 deaths until 16 August 2020 (Yurianto, 2020). In addition, as Aceh is located in Sumatera Island, many people from Aceh can freely travel to North Sumatera province especially Medan for holiday and business purposes, and people from other provinces can easily travel to Aceh for tourism purposes. Only those travelling by air are required to show a rapid test certificate (with a nonreactive result) before boarding to the airplane.

Understanding the role of provincial government and relevant agencies in response to this outbreak is crucial to curb the cases from spreading. In fact, as emphasised by Shaw et al. (2020), even though the pandemic is global, the response must have a strong local element such that decisions consider local governance, socio-economic and cultural context (UNDRR, 2020).

This study aims to investigate the Indonesian government and Aceh province response to COVID-19 pandemic in the period of January to May 2020 (since the early COVID-19 was identified until a new normal era was introduced in Aceh). Focusing on Aceh province, the objective of this study is to examine the Aceh government and its relevant agencies' responses to COVID-19 pandemic based on the established policies, regulations, official reports and the researchers' observation from January to May 2020.

This paper firstly describes key response actions based on the current established regulations at national and provincial levels in response to the global COVID-19 pandemic focussing on Aceh province. It further analyses the opportunities and gaps based on these responses using COVID-19 Infection Prevention and Control (IPC) general principles published by the World Health Organisation (Strategic Preparedness and Response Plan for COVID-19) focusing on imposing country and local lockdown strategy (WHO, 2020a). Finally, the paper provides recommendations to enhance the effectiveness of COVID-19 pandemic responses in Aceh province moving forward and consider ways of strengthening the pandemic preparedness and response system.

Lockdown approaches and goals

One important strategy utilised to prevent the spread of infectious diseases is lockdown (WHO, 2020b). It has been utilised to different degrees worldwide in response to COVID-19 (Sault, 2020). According to the Imperial College London COVID-19 Response Team, a lockdown strategy that restricts people's movement consists of two

important approaches: mitigation and suppression (Anderson et al., 2020; Sault, 2020). It aims to reduce reproduction numbers of the average COVID-19 confirmed cases below one person (Sault, 2020).

A mitigation approach aims to slow or reduce case numbers, often called “flattening the curve,” to reduce the healthcare burden (Bruina et al., 2020). This approach protects those most at risk of infections (most vulnerable groups) through isolating the suspected cases, their families, and social distancing the elderly and those with the highest risk of comorbidities. The mitigation approach does not necessarily halt COVID-19 transmission but controls the epidemic by allowing populations to acquire herd immunity to interrupt virus transmission over the longer term (James et al., 2020; Sault, 2020). However, acquiring herd immunity is likely to be very high risk, unproven, uncertain, and may take years (James et al., 2020; Vergne, 2020). According to Vergne (2020), mitigation strategies that protect the elderly (e.g., 60% reduction in social contacts) can save 20 million lives from 7.0 billion infections with 40 million deaths worldwide this year. The Netherlands, for example, has selected a mitigation strategy since 16 March 2020.

A suppression or total lockdown approach attempts to stop epidemic growth directly to reduce case numbers to the lowest level through social distancing to whole populations (including asymptomatic populations) within an unlimited period and closing schools, universities, offices, and other public facilities (Hochberg, 2020; James et al., 2020; Vergne, 2020). The suppression measure is a more aggressive strategy than mitigation since it eradicates the virus to push rapid reproduction numbers below one and flatten the epidemic curve (Vergne, 2020). The Chinese government immediately imposed this strategy in the major cities of the Hubei province after 23 January 2020 (Anderson et al., 2020). They stopped transportation in and out of cities and prohibited millions of people from working, going to schools, and closed all shops except those essential retailers (i.e., food, fuel stations, and pharmacies). As a result, no new confirmed cases in Hubei were reported after 19 March 2020 (Vergne, 2020).

Similarly, Italy and Spain applied nationwide suppressions from 9 to 15 March 2020. Lodi city, Italy, for example, showed a flattening of the curve (levelling off cases) following the city lockdown on 23 February, in contrast to Bergamo city who did not lockdown until 8 March 2020 (Sault, 2020; Vergne, 2020). Following the detection of a large number of infections, at least 42 countries worldwide (e.g. Italy, France, Spain, and India) have placed their people under lock downs (James et al., 2020). In summary, a combination of suppression measures and strong border closure can lead to reduced confirmed cases. When the cases can be reduced to a very small number, the lockdown or suppression can be relaxed (Askitas et al., 2020; James et al., 2020).

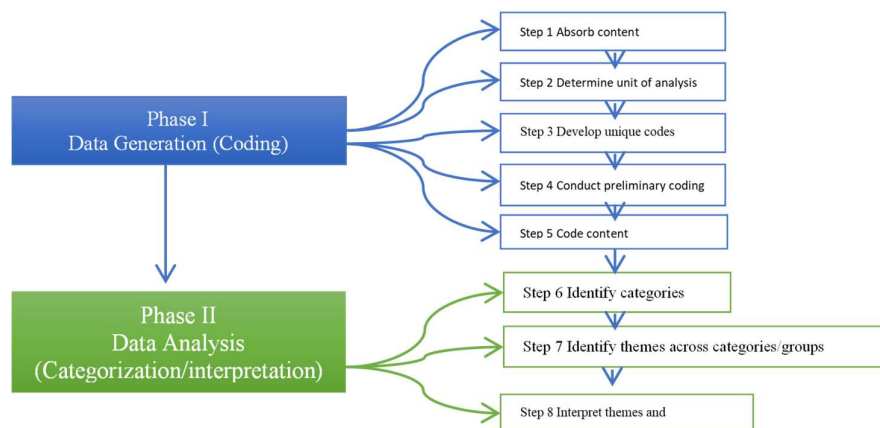


Figure 1. Qualitative content analysis stages. Source: Roller (2019)

Methods

This study utilized a qualitative content analysis to analyse text data (Roller, 2019) from various sources, including documents from central and provincial government regulations, official reports and speeches, online official COVID-19 websites, national and local newspapers were focusing on COVID-19 update information at national and Aceh province, and social media observation (e.g., Facebook from government postings) concerning early government responses to COVID-19 at central and Aceh province from January to May 2020. The stage of content analysis for this study is shown in Figure 1.

Keyword searches

The search process using various keywords included grey literature (government documents) published in Indonesian or English from January to May 2020. In addition, searches were performed on various databases and websites. Detail search terms using various keywords through databases and websites are presented in Table 1.

Table 1. Search terms included in the content analysis process

Keywords	Matched terms	Databases	Websites
COVID-19 keywords (OR) AND	Corona; Coronavirus; Coronavirus disease		
Update keywords (OR) AND	Latest news; recent information; latest information		covid19.go.id,
Responses keywords (OR) AND	Actions; activities; programs; movement; measures	Google Scholar, Google.com, Google.co.id, Google Advanced,	covid19.acehprov.go.id, bpba.acehprov.go.id, Serambinews.com, update- corona-in-Aceh, who.int/covid- 19/information, unicef.or.id, infeksiemerging.kemkes.go.id , sehatnegeriku.kemkes.go.id, bnpb.go.id, and kominfo.go.id.
Regulations keywords (OR) AND	Laws; policies; guidelines; guidance; rules; procedures; principles; protocols; directives		
Aceh keywords (OR) AND	Aceh province; local governments		
Indonesia keywords (OR)	Central governments; national governments		

The keywords were translated into English to investigate the current government responses to COVID-19 in Aceh based on its local regulations or policies. Then, these regulations were reviewed and analysed. The exclusion criteria were non-academic literature, including Wikipedia, personal opinions written by certain interest groups.

Results

Inadequate early responses by the central government to COVID-19

On 2 March 2020, the Indonesian President, Joko Widodo, announced the first two confirmed cases of COVID-19 in the country. The Ministry of Health (MOH) conducted surveillance training for Provincial Health and Port Health Officers across 34 provinces from 9 to 11 March 2020 (Djalante et al., 2020). The training aimed to reinforce containment measures, e.g., identifying and isolating cases, tracing contacts, and quarantining contacts (Ministry Of Health, 2020a). On 13 March, the government established an operational task force for COVID-19, led by the National Agency for Disaster Management (BNPB), and announced 227 referral hospitals across the nation. Additionally, two days later, the President encouraged people throughout the country to work, study and worship at home and suspended all activities that involve many participants (Ministry Of Health, 2020b). Further, by 20 March, the Governor of Jakarta proclaimed a state of emergency in the capital for two weeks to stop the COVID-

19 transmission in Jakarta by instructing all public and private offices and entertainment venues as well as religious activities to close (WHO, 2020c). However, within 24 days after the government reported the first two cases, a sharp increase of COVID-19 infections to 893 confirmed cases with 78 deaths throughout 34 provinces was reported (WHO, 2020d). These 893 confirmed cases were initially spread across 27 provinces, including Aceh province. At this stage, the remaining seven provinces of Bengkulu, Bangka Belitung, North Kalimantan, West Sulawesi, Gorontalo, East Nusa Tenggara, and West Papua provinces did not appear to have infections (WHO, 2020d).

The central government had been criticised for not being transparent in announcing the COVID-19 cases since many cases were undetected due to the lack of accurate diagnoses, leading to underreporting of actual infection numbers by the authority (Carina, 2020). An epidemiologist from Indonesian University, Pandu Riono, argued that the COVID-19 cases had been detected in Jakarta since January 2020 instead of March 2020. He also acknowledged that the COVID-19 death toll in Jakarta was higher than the national numbers released (from 2 to 26 March 2020) by the government (Carina, 2020). Delayed early detection measures of imported cases and imposing travel restrictions, especially on direct flights from Wuhan to Indonesia, were also criticised for increasing the case numbers in the country (De Salazar et al., 2020; Setiati et al., 2020). In contrast, the government (based on the MoH data) announced zero cases in Indonesia before travel bans were implemented (De Salazar et al., 2020). Consequently, it can be argued that this early lack of transparency, poor border closure, and disease surveillance affected the future response platform for COVID-19 at central and local government levels, including Aceh province.

The other response timeline worthy of noting for COVID-19 is that on 31 March, the President issued a Presidential Decree No. 21/2020 on “Large Scale Social Restrictions (PSBB, known as Pembatasan Sosial Berskala Besar) to accelerate COVID control” and on the same date, a Presidential Decree No. 11/2020 on “public health emergency status” was formulated. Further, on 7 April, the MoH established decree No. 239/2020 to implement PSBB in Jakarta. However, the PSBB was not effective, for instance, during its implementation, national or local agencies did not strictly impose the restrictions (Gorbiano et al., 2020).



Figure 2. Geographic distribution of confirmed COVID-19 cases as of 2 April 2020 in Indonesia. Source: WHO (2020c)

To overcome the impact of the social restriction policy and to encourage community compliance, the government provided financial aid to informal workers and disadvantaged people (WHO, 2020c), and by 1 April 2020, the government allocated IDR 405 trillion for healthcare expenditure, social security, tax incentives, and economic

recovery programs. In the healthcare sector, the funds were prioritised for purchasing medical equipment, establishing referral hospitals, and compensation for medical personnel (OCHA, 2020). For instance, on 2 April 2020, over 349,000 pieces of personal protective equipment (PPE) had been distributed for medical personnel to several provinces (Riau, Jambi, Bengkulu, South Sumatra, Gorontalo, and Central Sulawesi), though the confirmed COVID-19 cases in the country had by then reached 1,790 cases with 170 deaths and 112 recoveries across 32 provinces (OCHA, 2020). Java islands and South Sulawesi province recorded the highest number of cases while only two provinces were free from the COVID-19 infections namely Kupang and Gorontalo (WHO, 2020b) (as shown in Figure 2).

Despite this PPE distribution, many referral healthcare facilities at local levels faced a PPE shortage (e.g. medical masks, gloves and suits) forcing many medical personnel to wear raincoats (HRW, 2020). Consequently, 31 medical personnel, including 20 medical doctors and 4 nurses had died (among 280 total deaths from 3,293 total cases within 33 provinces) during the period January to 9 April 2020 (Adjie, 2020).

COVID-19 case numbers continued to rise across all 34 provinces (of 5,516 of total COVID-19 confirmed cases, 496 deaths as of 16 April) leading to widespread socio-economic impact, and by 13 April, the President declared COVID-19 as a national disaster, and local governments were instructed to follow the central government's guidelines for controlling the pandemic (WHO, 2020c). He also demanded an increase of rapid tests to 10,000 per day, and improvement in the capacity of polymerase chain reaction (PCR) testing, after being criticised for having the lowest testing rates in the Southeast Asia (WHO, 2020b).

As at 30 April 2020, the number of confirmed COVID-19 cases had reached 10,118 with 792 deaths (EKONID, 2020), even with increased efforts to contain the cases. For example, the Transportation Minister imposed domestic travel bans on 23 April to prevent people from travelling in the upcoming fasting month and *Idul Fitri* festival and the BNPB (*Badan Nasional Penanggulangan Bencana*) distributed medical supplies such as surgical masks, medical gloves, PPE, PCR reagents, and ventilators throughout the country on 26 April (Adjie, 2020).

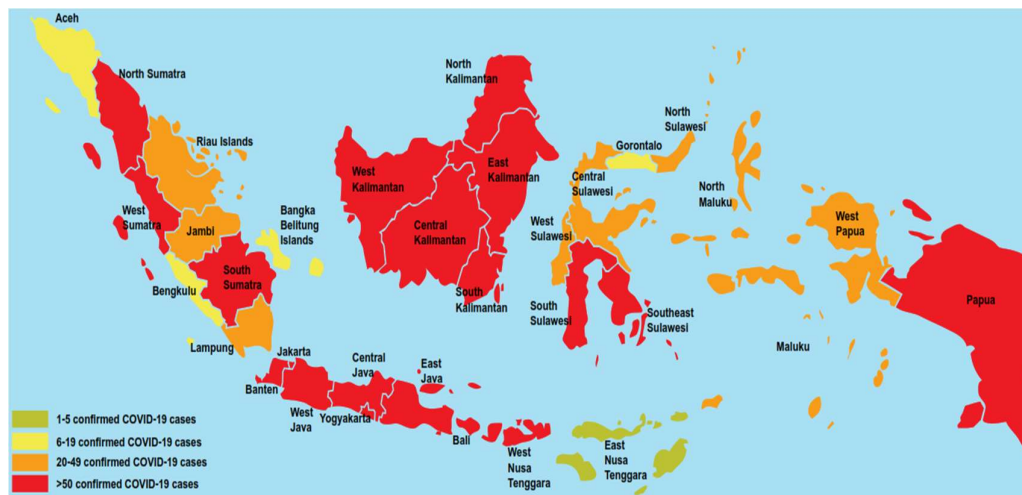


Figure 3. Distribution of confirmed COVID-19 cases across Indonesia from March to April 2020. Source: WHO (2020b)

By the end of April, WHO (2020b) indicated that only one province (East Nusa Tenggara) was categorised as a green zone (two confirmed cases were found), categorising other provinces as red, orange or yellow, depending on case numbers (as shown in Figure 3). Aceh province was classified yellow since 18 confirmed cases had been

detected as of 30 April (Nugraheny, 2020). Also, it is important to note that the other provinces with yellow categories were being identified as likely to change to red categories due to proximity to red zones and lack of border restrictions (WHO, 2020c).

According to Andriyanto (2020), Underreporting has also been an issue. the number of deaths from confirmed COVID-19 cases exceeded 1,000 (four times the formal number reported by the government) as of 12 May 2020. The COVID-19 taskforce only included fatalities from cases confirmed by PCR tests in their reports (WHO, 2020d). The casualties from patients under surveillance (PDP) and people under observation (ODP) were not included even though the corpses had been buried following COVID-19 procedures (Andriyanto, 2020).

The other response timeline was that on 28 May, the government introduced a “new normal” by relaxing the large scale social restrictions (PSBB) in the country based on Home Ministry Decree No. 440-830/2020 though the COVID-19 confirmed cases kept increasing rapidly (WHO, 2020d). For instance, 28,233 confirmed cases had been reported with 1,698 deaths and 8,406 recovered cases until 31 May 2020 across all 34 provinces in Indonesia despite the government issuing many regulations dealing with containment of the virus (WHO, 2020d). The number of confirmed cases has exceeded 100 in most provinces in major Islands in Indonesia (labelled with red colours as shown in Figure 4. No provinces were classified green and even East Nusa Tenggara province had become orange (more than 50 confirmed cases were detected) (WHO, 2020d).



Figure 4. Distribution of confirmed COVID-19 cases across Indonesia from March to June 2020. Source: WHO (2020b)

Inconsistent lockdown implementation as central government policy dominates decision-making processes

The Indonesian government's response to COVID-19 infection control is different from that of imposing a lockdown approach across the whole country. For instance, the President utterly rejected an official letter from the Jakarta governor to impose a partial lockdown in the provincial city (Gorbiano et al., 2020). Eventually, the city administration only kept the PSBB in place after assessing the outbreak conditions in the city in partnership with the COVID-19 local task force. Further, the governor indicated that Jakarta would need to avoid and prepare for a sharp increase in infections when the government relaxed the restrictions (Adjie, 2020). The West Java Governor had also arranged lockdown plans for the most populated province in the country (which has the second-highest number of COVID-19 infections after Jakarta). However, the lockdown planning was not imposed as it was not permitted by the President (Dipa, 2020).

Other provinces opposed the President's instructions and made their arrangements. For example, the Central Java province, along with its mayor, imposed a lockdown in the city by closing its borders from 30 March to 31

July 2021 (Suherdjoko, 2020). Similarly, Papua province applied a tougher measure through restricting entry points to the province such as seaports and airports for two weeks from 26 March 2020. The Maluku administration also limited access to seaports and airports of the province and urged people to stay at home and practice physical distancing (Gorbiano et al., 2020). Meanwhile, in Aceh, although the Banda Aceh House Representative Chief and Banda Aceh Mayor planned to impose a partial lockdown in the provincial capital on 27 March 2020, their planning was not implemented as the central government did not allow it (Nurdin, 2020). Eventually, on 29 March 2020, by their own initiative, some village chiefs along with their villagers around Banda Aceh locked down their villages' borders and blocked entry to streets to the village (as shown in Figure 5) (Nasir, 2020a).



Figure 5. Village lockdowns in some areas around Banda Aceh. Source: Nasir (2020)

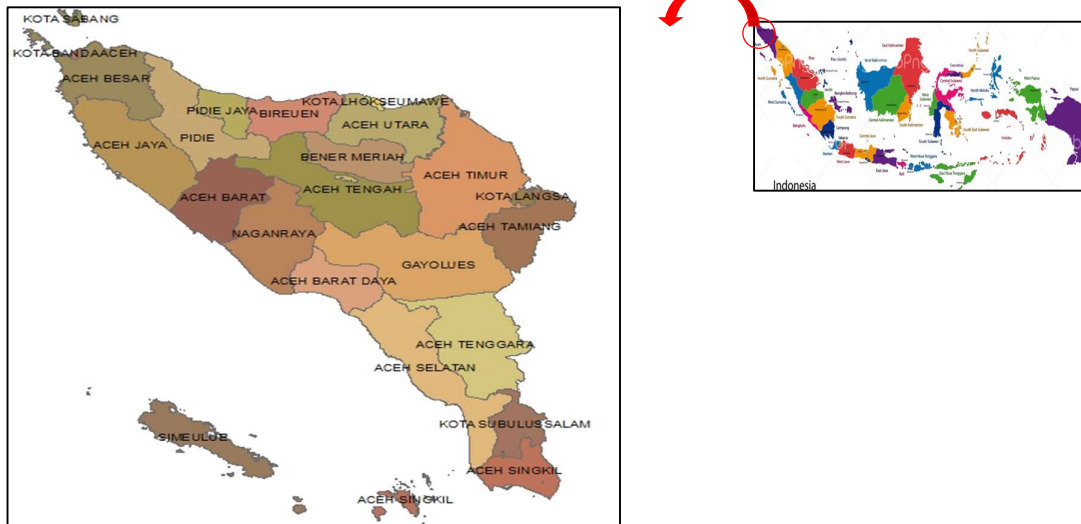


Figure 6. Aceh map. Source: Aceh Bureau of Statistics (2017)

Timeline and early responses for COVID-19 by the Aceh government

Aceh province (Banda Aceh as the provincial capital) is located in the westernmost part of Indonesia, and bordered by the North Sumatera in the South; Malacca Straits to the North and East; and Indian Ocean in the West (Aceh Bureau of Statistics, 2017). The province is divided into 23 districts, 289 subdistricts, and 6,497 villages (as shown in Figure 6) (Aceh Bureau of Statistics, 2017).

In relation to early responses for COVID-19 in Aceh, on 20 March, the Aceh government directed the Banda Aceh RSUDZA hospital and Cut Meutia hospital in Lhokseumawe district as the referral centres for COVID-19 cases (Ramadhan, 2020). The province reported that 45 people were monitored (ODP/*Orang Dalam Pemantauan*) and 28 patients were supervised (PDP/*Pasien Dalam Pengawasan*) though the confirmed cases were zero as of 20 March (Ramadhan, 2020). Details of early responses for COVID-19 taken by the Aceh government in relation to confirmed case numbers is presented in Figure 7.

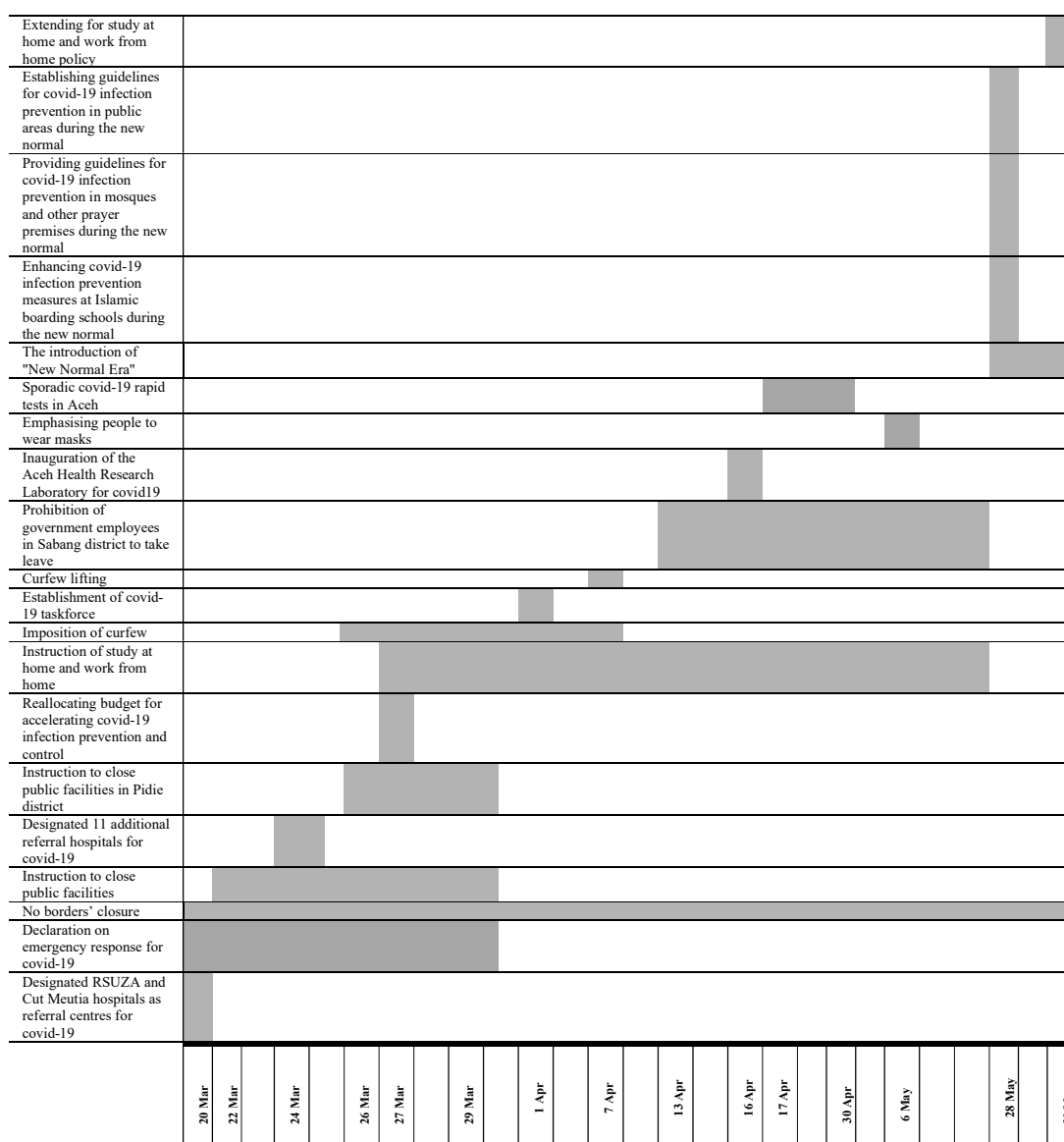


Figure 7. Early responses for COVID-19 by Aceh government, and changes in case numbers from January to May 2020. Source: Authors, collected from different sources (2020)

On the first day that the governor's instruction took effect (23 March), Banda Aceh city was quiet, many coffee shops were closed and government employees worked from home (WFH) (Azman, 2020). However, the government was criticised for not closing airports and seaports, potentially allowing COVID-19 positive cases to enter the province through travellers (Nasir, 2020b).

In addition, based on the authors' observation, another 11 designated referral hospitals appeared to lack trained personnel or appropriate protective equipment (e.g. medical or surgical masks, face shields, gloves and gowns). This is consistent with survey results from 23 districts across Aceh province involving 1,132 selected respondents across 12 health professions categories, which suggested that although health care staff understand the risk to COVID-19 exposure in their workplaces (primary health care facilities and referral hospitals), inadequate personal protective equipment (PPE) and trained staff were identified (Ichsan et al., 2020).

Furthermore, the government did not take the important and firm actions sufficiently early to contain the virus from spreading throughout the province (Zairi, 2020). For instance, the Aceh easternmost entry point bordering with North Sumatra was not closed; and visitors or residents returning from outside Aceh crossed the border freely without health examination (Zairi, 2020). Further, the government did not trace the prior history of health conditions of visitors to Aceh.

Although some early efforts were taken by the government in the early period (Figure 7), the number of confirmed cases increased from one on 26 March to five as of 1 April, with another four (PDPs) hospitalised (Info COVID-19, 2020). Also, the Aceh Provincial Health Office (PHO) reported that, 620 ODPs and 44 PDPs were recorded across 23 districts. Of 44 PDPs, eight were hospitalised, and one of them died before the lab result was released (Hasyim, 2020).

Inadequate implementation and reinforcement of established regulations (as shown in Figure 7) is identified in the province. For instance, although the Governor Instruction on the closure of public facilities especially coffee shops and markets was issued on 22 March, it was implemented only for seven days (as shown in Figure 7), before the coffee shops, for example, reopened with patron wearing no masks, or maintaining physical distancing. This is similar to what has been surveyed by the Syiah Kuala University Research Centre; in which more than 75% of total respondents admitted that they still conducted their activities outside of their home, and the most frequent visited locations were markets (35%) and coffee shops (40%) (Rizal, 2020). Further, on 6 May, the Banda Aceh Mayor instructed people in the city to wear masks in public areas, with the penalty for non-compliance being removal of their identity card (Nashrullah, 2020). However, this regulation only applied for people living in Banda Aceh not for newcomers or visitors and based on the authors' observation, there was little evidence of identity cards being removed on the spot, despite many people not wearing masks.

In response to the increase in COVID-19 positive cases, ODPs and PDPs in the province, the governor established a COVID-19 taskforce on 1 April 2020 (as shown in Figure 7) (Ridwan et al., 2020). The taskforce, led by two authorities namely the Aceh Disaster Management Agency/BPBA chief and a provincial secretariat was a timely and significant action since it played an important role in improving COVID-19 prevention and control (Aceh Governor, 2020). Based on a Governor Decree No. 440/1028/2020, in coordination with relevant agencies, the taskforce is responsible for formulating and implementing action plans for COVID-19 prevention and control; establishing COVID-19 checkpoints; and instructing relevant agencies to speed up the implementation of COVID-19 prevention and control measures (BNPB, 2020).

However, based on the authors' observations, only some districts had COVID-19 checkpoints with inadequate personnel (e.g., medical teams) and equipment such as masks and thermometers. In relation to COVID-19 action plans, only one district (*Benermeriah*) had developed action plans for COVID-19 eradication (Oktabina, 2020). Further, although the government stated that 4,181 villages (6,497 of total villages) had established COVID-19

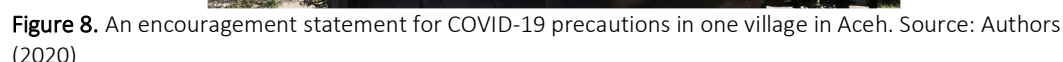
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Figure 9. Distribution of COVID-19 cases ODP and PDP across 23 districts in Aceh as of 30 April 2020.
Source: Info COVID-19 (2020)

According to Muhajir (2020), the payment for rapid and RT-PCR tests should be waived because referring to the circulation letter No. 903/5467/2020, on 27 March, the government has allocated a large amount of money (IDR 1.7 trillions) for COVID-19 infection prevention and control measures focusing on three main sectors namely health, economy and social safety nets.

The number of confirmed COVID-19 cases in Aceh from March to April remained low at 10 as of 30 April 2020. In addition, 85 PDPs were recorded until 30 April 2020; and a detailed distribution of the positive cases, PDPs and ODPs across different districts is shown in Figure 9. The figure indicates that Banda Aceh city represented the highest positive cases (3) followed by Aceh Besar district (2); this is because both areas have large populations and the increase of new inhabitants.

Other districts, bordering with Medan city, North Sumatra province (labelled as a red zone), namely Tamiang and Langsa districts had 1 positive case and 1 PDP respectively as of 30 April 2020. Since then, because of less attention by the government to both these districts and inadequate imposition of a firm regulation on people to stop COVID-19 transmission (e.g., practice physical and social distancing, wearing masks, stay at home, and regular hand washing), the number of confirmed cases significantly increased. For example, as of 6 May, the total confirmed cases in the province reached 17, in which, Tamiang and Langsa districts accounted for the highest number (4 cases), taking over from Banda Aceh. This spatial case trend continued (5 cases were reported from both districts) when 20 total confirmed cases were recorded as of 28 May in the province.

Unfortunately, even though confirmed COVID-19 case numbers continued to increase in Aceh, on 28 May, the governor declared “a new normal era”. At the same time (as shown in Figure 7), the local government issued many regulations in relation to guidelines for COVID-19 infection prevention measures for the public during the new normal situation which then allowed the district governments to resume public activities such as offices, schools, markets and other businesses as usual by following the established guidelines (Ifdhal, 2020). In this context, the local government followed the central government policy, despite the fact that case numbers were still growing.

Discussion

It is clear that no full lockdown was implemented either at central government or Aceh provincial levels and the new normal era, which eased restriction, was introduced at a time when COVID-19 cases were still increasing. This could be considered a failure of policy as lock down (suppression) has been identified as a critical measure to stop COVID-19 transmission (WHO, 2020b). For example, as shown in New Zealand, a tough nationwide lockdown (indicated by alert level 4) for five weeks reduced COVID-19 cases rapidly, then the country relaxed the lock down and restriction measures by moving to the alert level 1 when new cases were zero (Baker et al., 2020).

Further to a countywide lockdown, other important strategies to reduce infection transmission at the community level include case detection, contact tracing, and isolation of those at risk (Askitas et al., 2020). Closure of mass gathering such as schools, places of worship, markets, social events (sports, festivals, and meetings) is also critical to slow down the virus transmission (Atalan, 2020; Khanna et al., 2020). It is only when numbers are low via stringent lockdowns at a national level that other strategies like testing and tracing and introduction of more targeted local lockdowns will be effective as demonstrated in Australia (Australian Government, 2020).

However, despite the central and Aceh governments in Indonesia following some of the COVID-19 control measures successfully used in other countries, it has never employed the same level of restrictions, adequately enforced them or kept them long enough (Kurniawan, 2020; Sutrisno, 2020). For example, Asfinawati, the YLHBI chief explained that the government only applied PSBB (some restriction efforts e.g. school and workplace closure, restrictions on religious activities and other activities in public facilities/areas) and had never implemented a full lockdown (suppression) or even partial lockdowns in any local government areas and relaxing

the restrictions had not been applied optimally (Setiati et al., 2020).

Hence, any countries that takes steps to ease restrictions and move toward a new normal should first ensure the **COVID-19 spread is under control**. According to WHO (2020c), six key criteria are required before a new normal phase: COVID-19 transmission is controlled; there is a sufficient health system and public health capacities; outbreak risk in high vulnerability areas is reduced; workplace preventive measures are established; risk of imported cases is managed; and communities are fully engaged in infection prevention and control measures of the virus.

Results for Aceh also indicated the absence of checkpoints and village alert teams across all 23 districts in Aceh. Although some districts and villages have checkpoints and village alert teams in their locations, inadequate skilled persons and supported facilities were identified. In fact, as instructed by the Ministry of Villages: “every village needs to establish COVID-19 volunteers, aiming at preventing and eradicating the virus at community level and reporting the cases to the government; setting up an isolation place for COVID-19 suspects; socializing and educating villagers about COVID-19 prevention and control” (Prasetya, 2020). In this respect, Bali province provides a good example. The provincial secretariat issued an instruction to establish COVID-19 checkpoints and alert teams/volunteers at village levels and the instruction clearly defines the roles and responsibilities of involved teams (Provincial Secretariat, 2020).

Hence, as the pandemic continuous, the Aceh government through the taskforce (BPBA) should reinforce the establishment of COVID-19 checkpoints and village COVID-19 Alert Teams throughout 23 districts with sufficient skilled personnel and supported facilities for COVID-19 infection prevention measures. Such a program would require specifically allocated funds to support their establishment and operation.

Further, inadequate employment of the established regulations remains a key challenge. In relation to this, the decisiveness of Aceh government especially BPBA as the COVID-19 coordinator and taskforce chief is essential to reinforce and implement the regulations so as to improve pandemic preparedness and response system. For instance, BPBA in coordination with the Military/Police needs to enforce mask wearing and keeping physical distancing to prevent the virus transmission. Enforcement of rules assist with compliance and hence is successful in virus transmission reduction (WHO, 2020a).

Recommendations

Other issues that require consideration to reduce cases in Aceh as the pandemic continues include:

- The government-led action to lockdown border areas between Aceh and North Sumatra province to avoid importing cases. Provincial governments' decisiveness and political will to make this challenging decision to close the border areas are necessary. It is important to consider that lockdowns restrict people movement only, allowing for transport of goods to the province;
- **Local government must use allocated funds for the purpose of handling the COVID-19 effectively and accountably** based on the existing central government regulations because many issues related to the three key sectors of health, economy, and social safety nets have not been addressed appropriately. The government should not only focus on treating the confirmed COVID-19 cases at hospitals, but that the impact of COVID-19 on vulnerable groups, education, and people's livelihoods need to be taken into account. Importantly, maintaining the accountability of using the funds is crucial to avoid misuse and enhance transparency;
- **Strengthening of the role of BPBA** as the COVID-19 taskforce chief to enhance the coordination efforts with other relevant institutions in order to accelerate preventive and control measures for the virus transmission;

- **Strengthening coordination with Islamic leaders** in efforts to contain the COVID-19 spread in the province is important to speed up the process of infection prevention and control measures. Further, the role of the Islamic Sharia Agency to engage the Islamic leaders who may be resistant to such efforts is essential to strengthen the teamwork;
- **Reassess vulnerability** across all districts of Aceh to ensure COVID-19 assistance can be delivered to those most in need and to prevent duplication in assistance for some;
- **Waive the charge for rapid testing and PCR tests for all citizens** so as to encourage individuals to voluntarily test in order to improve early detection efforts;
- **Continued dissemination of preventive information** to the community by the government and relevant stakeholders (e.g. military, police and health officers);
- **Establish a local regulation** to reinforce the Ministry of Village circulation letter on village response volunteers (alert teams) on COVID-19, which is currently not available in Aceh province to address workforce capacity issues;
- **Improve the capacity of health personnel** to safely handle COVID-19 cases at Public Health Centres (PHCs) at sub-district and village levels. This is important because the PHC is the frontline in providing health care to communities;
- **Improve pandemic control infrastructure and supported facilities** (e.g., isolation rooms for COVID suspects), personal protective equipment for assigned staff (e.g. masks, gloves and face shields) at land, air and water transportation terminals;
- **Establish a Pandemic Health Intelligence Plan.** Such a plan is essential to continue to assess and analyse COVID-19 related information including epidemiological condition, the capacity of public health and health care systems, as well as community response to the plan (Australian Government, 2020).

Conclusions

This study has examined the current central and local governments and other relevant institutions' responses to COVID-9 pandemic. Focusing on Aceh province as a setting, this research used media content analysis of central and local government regulations, official reports/websites, newspapers and Facebook's postings from January to May 2020.

This study described the timeline and early response actions on COVID-19 taken by the Aceh government and its key relevant agencies based on the current regulations formulated during the COVID-19 pandemic in Aceh province.

The results highlight several issues including late early responses taken by central and Aceh governments and other issues relating to no lockdown implementation (suppression), and no border restrictions at borderland areas, seaports and airports; early introduction of the new normal era; the absence of checkpoints and village alert teams across the entire province and lack of enforcement on the established regulations to prevent and control the spread of the virus in the province. It provides key recommendations for policy and practice in enhancing the effectiveness of responses to COVID-19 infection prevention and control procedures in Aceh province as the pandemic continues, and in doing so contributes to system strengthening for future health emergency events.

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References

- Aceh Bureau Statistics. (2015). *Aceh in figure 2015* (Vol. 2, Issue 1). Banda Aceh: Badan Pusat Statistik, Provinsi Aceh.
- Aceh Bureau Statistics. (2017). *Aceh in figure 2017* (Issue 2). Banda Aceh: Badan Pusat Statistik, Provinsi Aceh.
- Aceh Governor. (2020). *Keputusan gubernur Aceh No. 440/1021/2020 tentang pembentukan gugus tugas*. Banda Aceh, Indonesia.
- Adjie, M. F. P. (2020a, April). Test kits arrive as part of Seoul's US\$500k aid for Indonesia's COVID-19 fight. *The Jakarta Post*.
- Adjie, M. F. P. (2020b, April). Two hospital directors die of COVID-19 as Indonesian doctors call for transparency. *The Jakarta Post*.
- Adjie, M. F. P. (2020c, July). Jakarta extends transition phase, postponing further relaxation by 14 days. *The Jakarta Time*.
- Anderson, R. M., Heesterbeek, H., Klinkenberg, D., & Hollingsworth, T. D. (2020). How will country-based mitigation measures influence the course of the COVID-19 epidemic? *Emerging Infectious Diseases*, 26(5), 931–934.
- Andriyanto, H. (2020, May). Indonesia's Covid-19 Deaths Surpass 1,000. *Jakarta Globe*.
- Askita, N., Tatsiramos, K., & Bertrand Verheyden. (2020, June). Flattening the COVID-19 curve: What works. *VOX CEPR Policy Portal*.
- Atalan, A. (2020). Is the lockdown important to prevent the COVID-19 pandemic? Effects on psychology, environment and economy-perspective. *Annals of Medicine and Surgery*, 56(June), 38–42. doi: 10.1016/j.amsu.2020.06.010
- Australian Government. (2020). *Coronavirus (COVID-19) health alert*. Canberra, Australia.
- Azman, S. (2020, March). Hari Pertama PNS Kerja di Rumah, Jalanan di Kota Banda Aceh Sepi, Warung Kopi Terkenal Pun Tutup. *Serambi. Com*.
- Baker, M. G., Wilson, N., & Anglemyer, A. (2020). Successful Elimination of Covid-19 Transmission in New Zealand. *The New England Journal of Medicine*, 382(4), 1–3.
- BNPB. (2020). *Pedoman penanganan cepat medis dan kesehatan masyarakat COVID-19 di Indonesia*. Jakarta.
- Bruina, Y. B. de, Lequarrea, A.-S., McCourta, J., Clevestigb, P., Pigazzanic, F., Jeddidi, M. Z., Colosioe, C., & Goularta, M. (2020). Initial impacts of global risk mitigation measures taken during the combatting of the COVID-19 pandemic. *Safety Science*, 21(6), 1–24.
- Carina, J. (2020). Anies Ungkap Kebingungan soal Data Covid-19: Ingin Transparan, tapi Kemenkes Tak Mau. *Kompas*.
- Cheng, Z. J., & Shan, J. (2020). 2019 novel coronavirus: where we are and what we know. *BMJ Open*, 1(2).
- Dadek, A., Ridwan, F., Irza, R., Syafrizal, A., Rachman Risman Ahmad Dadek, SH. MH. Fadmi Ridwan, SP., M., T. Robby Irza, A.Md. LLASD., S.SiT., MT Syafrizal, ST., M., Rachman, R. A., Hasan, T. M., & Hasan, T. M. (2020). *Gugus tugas percepatan penanganan COVID-19 pemerintah Aceh: Pedoman tatanan normal baru produktif dan aman COVID-19*. Pemerintah Aceh, BPBA.
- Dani, S. (2020). Update Covid-19 di Aceh, Jumlah ODP 2.041 Orang, PDP 106 Kasus, Dua Pasien Positif Masih Dirawat. *Serambi News*.
- De Salazar, P. M., Niehus, R., Taylor, A., Buckee, C., & Lipsitch, M. (2020). Using predicted imports of 2019-nCoV cases to determine locations that may not be identifying all imported cases. *MedRxiv*, 3(4).
- Dipa, A. (2020, March). West Java's Sukabumi becomes new COVID-19 cluster following rapid tests. *The Jakarta Time*.
- Djalante, R., Lassa, J., Setiamarga, D., Sudjatma, A., Indrawan, M., Haryanto, B., Mahfud, C., Sinapoy, M. S., Rafliana, I., Gunawan, I., Surtiari, G. A. K., & Warsilah, H. (2020). Review and analysis of current responses to COVID-19 in Indonesia: period of January to March 2020. *Progress in Disaster Science*, 6(3), 1–

12.

- EKONID. (2020). *COVID-19 developments in Indonesia*. The German-Indonesian Chamber of Industry and Commerce (EKONID).
- Gani, S. A. (2020a). Aceh update: dua warga Simeulu positif Covid-19, satu pasien bebas corona. *Koran Independen*.
- Gani, S. A. (2020b). Jumlah kasus positif Covid-19 di Aceh Sebanyak 17 orang, ODP 1.920 orang. *Serambi Indonesia*.
- Gorbiano, M. I., & Ghaliya, G. (2020, April). Turf war undermines COVID-19 fight in Indonesia. *The Jakarta Post*.
- Hasyim, A. (2020, March). Update Corona di Aceh: 620 Orang Dalam Pemantauan, 44 Orang Dalam Pengawasan, 5 Positif COVID-19. *Serambi Indonesia*.
- Hochberg, M. E. (2020). Importance of suppression and mitigation measures in managing COVID-19 outbreaks. *MedRxiv*, 22(3).
- Howarda, J., Huang, A., Lik, Z., Tufekcim, Z., Zdimale, V., Westhuizenf, H.-M. van der, Delfto, A. von, Pricen, A., Fridmand, L., Tangi, L.-H., Tangl, V., Watsonh, G. L., Baxs, C. E., Shaikh, R., Questier, F., Hernandez, D., Chun, L. F., Ramirez, C. M., Anne W. Rimoi, & 2020], (2) (PDF) Face Masks Against COVID-19: An Evidence Review. Available from: https://www.researchgate.net/publication/340603522_Face_Masks_Against_COVID_19_An_Evidence_Review [accessed Oct 27. (2020). *Face Masks Against COVID-19: An EvidenceReview*. 30(20).
- HRW. (2020). *Indonesia: Little Transparency in COVID-19 Outbreak*. Jakarta: Human Right Watch .
- Ichsan, & Yufika, A. (2020). *Perilaku perlindungan diri tenaga kesehtan terhadap pandemi COVID-19 di Aceh*.
- Ifdhal, M. (2020). Jelang new normal, Pemerintah Aceh keluaran edaran terkait protokol kesehatan di sekolah. *Antara Aceh*.
- Info COVID-19. (2020). *Aceh tanggap COVID-19*. Dinas Komunikasi, Informatika Dan Persandian Aceh 2020; BPBA.
- James, A., Hendy, S. C., Plank, M. J., & Steyn, N. (2020). Suppression and Mitigation Strategies for Control of COVID-19 in New Zealand. *Matatini*, 2(3).
- Khanna, R. C., Cicinelli, M. V., Gilbert, S. S., Honavar, S. G., & Murthy, G. (2020). COVID-19 pandemic: Lessons learned and future directions. *Indian Journal of Ophthalmology* , 68(5).
- Kurniawan, W. (2020, May). Indonesia says only regions with zero, declining cases can brace for “new normal.” *The Jakarta Post*.
- Maryarini, P. (2019). *Healthcare resource guide: Indonesia*. Jakarta, Indonesia.
- Ministry Of Health. (2020a). *Keputusan MENKES RI NO. HK.01.07/MENKES/239/2020 tentang penetapan pembatasan sosial berskala besar diwilayah propinsi DKI Jakarta dalam rangka percepatan penanganan COVID-19*.
- Ministry Of Health. (2020b). *Keputusan MENKES RI No. HK.01.07/MENKES/104/2020 tentang penetapan infeksi COVID-19 sebagaipenyakit yang dapat menimbulkan wabah dan upaya penaggulangannya*.
- Morawska, L., & Cao, J. (2020). Airborne transmission of SARS-CoV-2: The world should face the reality . *Environment International*, 4(21).
- Muhajir. (2020, May). Meubalot-balot Soal Anggaran Covid-19, Pemerintah Aceh Dinilai Payah. *Acehtrend*.
- Nashrullah, N. (2020, May). Banda Aceh Cabut Sementara KTP Warga yang tak Pakai Masker. *Republika.Co.Id*.
- Nasir, M. (2020a, March). Dua Positif Corona, Sejumlah Kampung di Banda Aceh Mulai “Lockdown” Diri. *Serambi. Com*.
- Nasir, M. (2020b, March). Instruksi Wali Kota Banda Aceh: Tutup Warung Kopi, Cafe, Wahana Permainan dan Tetap di Rumah. *Serambi. Com*.
- Nugraheny, D. E. (2020, April). UPDATE 30 April: Kasus Baru Covid-19 Tersebar di 22 Provinsi, Terbanyak di Jatim. *Kompas.Com*.
- Nurdin, N. (2020, March). Covid-19 Mencemaskan, Banda Aceh akan Berlakukan Partial Lockdown, Ini 15 Langkah

- yang akan Diambil. *Serambi. Com*.
- OCHA. (2020). *Indonesia: Situation Update on COVID-19 (18 April 2020)*. UN Office for the Coordination of Humanitarian Affairs.
- Oktabina, R. W. (2020). *Rencana Aksi kabupaten penanganan COVID-19 kabupaten Benermeriah*.
- Prasetya, A. W. (2020, March). Ini Dua Prioritas Penggunaan Dana Desa di Tengah Pandemi Virus Corona. *Kompas.Com*.
- Provincial Secretariat. (2020). *Aktivasi posko COVID-19 tingkat desa/kelurahan (26/SatgasCovid19/III/2020)*. Indonesia.
- Rachmawati. (2020, August). Update Covid-19 di Aceh, Sumut, Sumbar, Riau, Kepri, Jambi, dan Bengkulu 17 Agustus 2020. *Kompas.Com*.
- Ramadhan, A. (2020, March). Update Corona di Aceh: 45 Dalam Pemantauan, 28 Pasien Dalam Pengawasan dan 22 Dipulangkan. *Serambi. Com*.
- Ridwan, F., Syafrizal, Risman, Orcheva, A. R., Hasan, & Mulia, T. (2020). *Buku panduan gugus tugas percepatan penanganan COVID-19 Aceh (1st ed.)*. Banda Aceh: Badan Penanggulangan Bencana Aceh.
- Rizal, S. (2020). *Riset TDMRC Unsyiah; Masih banyak warga Aceh beraktifitas diluar rumah selama corona*. Banda Aceh.
- Roller, M. R. (2019). A quality approach to qualitative content analysis: Similarities and differences compared to other qualitative methods. *FQS*, 20(3). Retrieved from <https://www.qualitative-research.net/index.php/fqs/article/view/3385/4485>
- Sault, S. (2020). *Why lockdowns can halt the spread of COVID-19*. Washington, D.C.
- Setiati, S., & Azwar, M. K. (2020). COVID-19 and Indonesia. *Acta Medica Indonesiana*, 52(1).
- Setyadi, A. (2020, June). Rapid Test di Aceh Gratis, Warga Urus Surat Bebas Corona di RSUZA. *Detiknews*.
- Shaw, R., Kim, Y., & Hua, J. (2020). Governance, technology and citizen behavior in pandemic: Lessons from COVID-19 in East Asia. *Progress in Disaster Science*, 6(1).
- Suherdjoko. (2020, March). Tegal blocks roads into city in first attempt to impose lockdown in Indonesia. *The Jakarta Post*.
- Sutrisno, B. (2020a, May). 50 days of Indonesia's partial lockdown. Is it enough for the 'new normal'? *The Jakarta Post*.
- Sutrisno, B. (2020b, June). Indonesia's premature easing of restrictions risks prolonged first wave. *The Jakarta Post*.
- UNDRR. (2020). *Scenario planning vital in pandemic response*. United Nations of Disaster Risk reduction.
- Vergne, T. (2020, April). Strategies for confronting the COVID-19 epidemic. *INRAe*.
- Walker, P. G. T., Whittaker, C., Watson, O. J., Baguelin, M., Winskill, P., Hamlet, A., Djafaara, B. A., Cucunubá, Z., & Mesa, D. O. (2020). *Report 12: The Global Impact of COVID-19 and Strategies for Mitigation and Suppression*.
- WHO. (2020a). *2019 novel coronavirus (2019-nCoV): Strategic preparedness and response plan*. Geneva, Switzerland: World Health Organization.
- WHO. (2020b). *Coronavirus disease (COVID-19): Herd immunity, lockdowns and COVID-19*.
- WHO. (2020c). *Coronavirus disease (COVID-19) pandemic*.
- WHO. (2020d). *Coronavirus disease (Covid-19) Situation Report - 10 Situation Report - 10. Data as of: 03 June 2020*.
- WHO. (2020e). *Coronavirus disease 2019 (COVID-19) situation report-1. 2019, 1–8*.
- Yurianto, A. (2020). Indonesia's latest official COVID-19 figures. *The Jakarta Post*.
- Zairi, M. Bin. (2020, March). Antisipasi Penularan Virus Corona, DPRA Minta Perbatasan dan Pintu Masuk Aceh Dikawal Ketat. *Serambi News*.

