

# 1 **Epidemiological Characteristics of Early COVID-19 Case Outbreaks in Indonesia**

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## 18 **Abstract**

19 The initial outbreak of COVID-19 was first reported in Wuhan (China) during the latter part of December  
20 2019. Indonesia has the fourth-largest population globally and reported the country's first case of the virus  
21 on 2<sup>nd</sup> March 2020. The World Health Organisation (WHO) in addition to several neighbouring provinces  
22 and educational institutions within the region began questioning the Indonesian government upon the  
23 initial case reported. The objective of this study was to describe the epidemiological characteristics of the  
24 COVID-19 outbreak in Indonesia during March 2020. The data were collected from Indonesian  
25 government databases and non-government organisations (NGOs). The data were analysed using  
26 Microsoft Office 2019 (Excel) and Adobe Illustrator 2017 software, was used in drawing the map

1 depicting the distribution of COVID-19 in Indonesia. As at 31<sup>st</sup> March 2020, a total of 1,528 people in  
2 Indonesia have been infected by COVID-19, in addition to 136 mortalities (CFR of 8.9%). Jakarta, as the  
3 principal capital of Indonesia, quickly has become the epicentre of the virus since this period. Most patient  
4 cases were attributed to those aged between 31 and 70 years (72.64%), with male patients (64.93%)  
5 representing the highest incidence of cases compared to female patients (35.07%). The number of  
6 ventilating machines was 3,326, with hospital numbers at 859. The distribution of cases depicting COVID-  
7 19 was mainly seen in urban areas compared to rural areas. Males compared to females, are at a higher  
8 risk of contracting COVID-19, including those aged below 30, between 30 and 60 or above. Indonesia  
9 also has the highest case fatality rate (CFR) with respect to mortalities in Southeast Asia and has the  
10 second-highest CFR globally. Similarly, while the number of ventilator machines as at 31<sup>st</sup> March 2020  
11 were sufficient in meeting the growing number of COVID-19 cases in the country, it is possible that the  
12 government may need to increase the number of ventilators if the cases continue to escalate.

13 **Keywords:** Confirmed cases, case fatality rate, province, age, gender.

## 14 1. Introduction

15 The Coronavirus virus commonly referred to as “COVID-19”, was first sighted in Wuhan (China) in  
16 December 2019 based upon several patients diagnosed having pneumonia from the Huanan Animal Wet  
17 Market area [1]. The virus over the next few months rapidly spread infecting other countries globally. The  
18 World Health Organisation (WHO) initially reported the situation and the spread of the virus at 10:00  
19 CET on the 27<sup>th</sup> March 2020, in which a total number of COVID-19 cases reported was 509,164. Sixteen  
20 days before this date, WHO announced the nature of the situation of the disease as a global pandemic [2].  
21 As at 31<sup>st</sup> March 2020, 200 countries from all regions of the globe (Asia, Africa, America, Europe, and  
22 Oceania) confirmed the population of these countries being infected by the virus. It was also reported that  
23 37,820 people (4.81%) had died from contracting the virus with 165,659 people (21.1%) having recovered.

24 The Chinese Centre for Disease Control and Prevention published the characteristics associated with the  
25 epidemiology. On 11<sup>th</sup> February 2020, 44,672 (62%) of 72,314 cases had been confirmed and tested  
26 positive for COVID-19. Of the confirmed cases, 38,680 (87%) of those people infected were aged between  
27 30 and 79. The spectrum of the disease ranged from mild (81%) to severe (14%) and critical (5%). The  
28 case fatality rate (CFR) was 2.3% (1,023 of 44,672 confirmed cases) with 14.8% of patients above the age  
29 of 80 years, and 8.0% of patients aged between 70 and 79 years [3]. Italy, at that time, reported the highest  
30 incidence of deaths mainly detected among older, male patients also having multiple comorbidities [4].

1 Numerous studies have reported that the most common cases were those aged between 30 and 79 years  
2 [3] with the median age ranging between 49 and 59 years [1] [5-6].

3 Regarding the disease, the clinical features consist of fever, cough, myalgia, headache, and diarrhoea with  
4 less common symptoms including sputum production, dyspnoea, leucopenia and lymphopenia during the  
5 onset of the disease [1] [5] [7-9]. The clinical types of the illness are separated into three types, namely,  
6 mild, severe and critical as mentioned earlier. Symptoms of the mild type include non-pneumonia or mild  
7 pneumonia, while patients diagnosed with the severe type include dyspnoea, respiratory frequency  $\geq$   
8 30/min, blood oxygen saturation  $\leq$  93%, the partial pressure of arterial oxygen to the fraction of inspired  
9 oxygen ratio  $<$  300, and/or lung infiltration  $>$  50% within the first 24 to 48 hours. The critical type of  
10 COVID-19 consists of symptoms such as respiratory failure, septic shock, and/or multiple organ  
11 dysfunction or failure [10]. Some patients have companion diseases, such as diabetes, hypertension, and  
12 cardiovascular disease [1] [5-6] [8]. Presently, the transmission of the virus is continuing at an alarming  
13 rate of infection and relies on the effectiveness of current control measures in detecting the disease. In  
14 preventing the disease from spreading, risk-mitigating and control measures and behaviours have been  
15 adopted, however, given the absence of antiviral drugs or vaccines, control of the disease depends on the  
16 rapid testing, detection and controlling the sources of infection thereby protecting the exposure and  
17 susceptibility of people to the virus and eliminating the transmission and isolation of symptomatic cases  
18 [10-11].

19 Since the outbreak of the disease, Indonesia has come under increasing attention and pressure, given the  
20 rapid outbreak of COVID-19 in the country [12-13]. Other Southeast Asian countries like Malaysia,  
21 Singapore and Thailand have also announced the first cases of COVID-19 in January 2020. Between  
22 January and February, Indonesian authorities had not announced nor mentioned any cases of the virus,  
23 which many countries, including WHO, were quite sceptical until the first case was announced on 2<sup>nd</sup>  
24 March 2020.

25 Indonesia is located in Southeast Asia, having a population of around 270 million and is currently the  
26 most populated country within the region with the fourth-largest population globally. The characteristics  
27 of the Indonesian population, predominantly Muslim, adhere to the teachings of Islam, which has also  
28 contributed towards the spread of the disease and the number of cases in the country. The Muslim  
29 population in Indonesia have a tradition of shaking hands, worshipping in congregations and groups,  
30 visiting each other, and conducting recitation or prayers by gathering in one place. To the best of our

1 knowledge, this is the first study that describes the characteristics of confirmed COVID-19 cases in  
2 Indonesia in addition to the nation's CFR. The availability and accessibility of hospitals and ventilators in  
3 each province are also examined and compared to current reported confirmed cases.

## 4 **2. Method**

### 5 *Data collection*

6 The data were obtained from the official COVID-19 website of Indonesia's Central Government authority  
7 [14]. Databases compiled by government provinces, namely, Jakarta, Banten, West Java, Central Java and  
8 East Java confirmed more than 50 cases of COVID-19 [15-17]. Data were also obtained from non-  
9 government organisations (NGOs) and via <https://kawalcovid19.id/> [18]. The data from kawalcovid19.id  
10 were collected by volunteers reporting quite detailed information compared to the information announced  
11 and reported by the Indonesian authorities. The positive cases reported depicted patients who had tested  
12 positive via polymerase chain reaction methods.

13 The CFR of COVID-19 cases in Indonesia was also compared to other countries in the Southeast Asian  
14 region and with countries globally. Also described was the situation regarding hospitals, the availability  
15 of ventilators and mortalities due to COVID-19.

### 16 *Data analysis*

17 The data were analysed using Microsoft Office 2019 (Excel) in recording the daily number of reported  
18 cases during March 2020, and the characteristics of people (age and gender) who tested positive for  
19 COVID-19. The COVID-19 distribution of cases in Indonesia, namely across five provinces in Java is  
20 illustrated using Adobe Illustrator 2017 software.

## 21 **3. Results**

22 The first reported COVID-19 case in Indonesia was announced on 2<sup>nd</sup> March 2020, a female patient who  
23 had come into contact with people of Japanese origin in Jakarta; the second case was the woman's mother.  
24 The Indonesian authority, however, did not announce any new cases until three days following the  
25 reporting of these two cases. From 10<sup>th</sup> March, 13 new cases were reported; on 15<sup>th</sup> March the number of  
26 new cases quickly rose to 117, and from 23<sup>rd</sup> March the daily number of new cases exceeded 100 (see  
27 Figure 1). As at 31<sup>st</sup> March, the total number of cases reported was 1,528, with 81 (5.3%) patients having  
28 recovered and 136 deaths (CFR: 8.9%).

1 Figure 2 shows that the number of cases has spread to 30 provinces in Indonesia. Jakarta, as the capital of  
2 Indonesia, had become the epicentre of COVID-19, having the highest number of confirmed cases (747  
3 cases, 48.8%), followed by its neighbouring provinces: West Java (198 cases, 15.7%), Banten (143 cases,  
4 11.3%) Central Java and East Java, both reporting 93 cases (7.3%). The total number of cases reported in  
5 Java Island included Yogyakarta with 1,297 reported cases (84.8%). Outside of the island, several  
6 provinces reported over ten confirmed cases, namely South Sulawesi (50 cases, 3.2%), East Kalimantan  
7 (20 cases, 1.3%) and North Sumatra with 19 cases (1.2%) (see Figure 2). The distribution map shows the  
8 large cities in the Java Island such as Surabaya, Semarang, Bandung and Jabodetabek (Jakarta, Bogor,  
9 Depok, Tangerang, and Bekasi) being at a higher risk compared to rural areas (see Figure 3).

10 The distribution of COVID-19 according to age and gender in Indonesia had not been announced until  
11 14<sup>th</sup> March 2020. The most recent data reported that 38 males (55%) and 29 females (42%) had been  
12 infected by COVID-19, with two positive cases unannounced. According to the distribution of age, people  
13 who had been infected were mostly aged between 40 and 59 years (31 cases, 44.9%). Figure 3 displays  
14 further data. Due to the lack of transparency surrounding the data collected from Indonesian authorities,  
15 several volunteers helped to collect the data from academics, medical personnel, and other NGOs by  
16 developing a web-enabled database to depict the characteristics of COVID-19. Figure 3 presents the  
17 distribution of COVID-19 according to age and gender. The total number of cases of male patients (298  
18 cases, 64.93%) was higher compared to female patients (161 cases, 35.07%). Table 1 displays the  
19 distribution of cases according to age.

20 Table 2 shows that Jakarta had the highest number of mortalities at 83 (CFR: 11.1%) followed by West  
21 Java with 21 deaths (CFR: 10.6%), East Java with eight deaths (CFR: 8.6%) and Central Java with seven  
22 deaths (CFR: 7.5%). Outside Java, the first reported case was in Bengkulu, which was the only confirmed  
23 case in the province; thus, the CFR was 100%. Similarly, in West Papua, there had been one reported  
24 mortality from two confirmed cases (CFR: 50%). The data regarding hospitals and the number of  
25 ventilators in each province were obtained from a current report depicting the situation concerning the  
26 COVID-19 outbreak from the Indonesian authority. The hypothesis surrounding the number of ventilators  
27 was based on the number of confirmed cases as at 31<sup>st</sup> March 2020, indicating that the number of  
28 ventilators was sufficient across all provinces. Nevertheless, the possibility remains that if more cases are  
29 reported, the number of ventilators may not be adequate.

1 During this period, the CFR in Indonesia was the second-highest globally, followed by Italy (CFR: 11.7%)  
2 where the number of mortalities was 12,428 from 105,792 cases. In Southeast Asia, the CFR in Indonesia  
3 was the highest, followed by the Philippines with 2,084 confirmed cases and 88 deaths (CFR: 4.2%), and  
4 Malaysia, having the most cases (2,766) but with fewer mortalities (43) compared to Indonesia. In the  
5 Southeast Asia region, the total number of cases announced by national authorities reached 9,550  
6 confirmed cases and 282 mortalities (CFR: 2.9%), indicating that Indonesia contributed 48% in the total  
7 number of mortalities resulting from COVID-19 in the region.

#### 8 **4. Discussion**

9 The number of confirmed cases of COVID-19 globally has exceeded that compared to the severe acute  
10 respiratory syndrome (SARS) outbreak of cases in 2003. The country has predicted that COVID-19 would  
11 become a more significant pandemic and health risk compared to SARS [19]. As with Indonesia, COVID-  
12 19 reached 1,528 cases, which also exceeded the number of SARS cases. The number of daily cases in  
13 Indonesia was also compared to that of Italy. For instance, as at 20<sup>th</sup> February 2020, the first confirmed  
14 case in Italy was announced as pneumonia, and on 15<sup>th</sup> March, the number of cases exploded reaching  
15 22,512 [20].

16 The increase in confirmed cases in Indonesia has been mainly due to the attitude of the government of the  
17 Republic of Indonesia, which downplayed the severity of COVID-19. On the first day that a case of  
18 COVID-19 was announced, the Health Minister of the Republic of Indonesia mentioned that COVID-19  
19 was just like the flu [21]. Interestingly, WHO had pre-warned Indonesia about the spreading of the disease  
20 and called upon Indonesia to declare a national emergency related to COVID-19. In preventing the  
21 spreading of COVID-19, Indonesia has introduced several interventions. As at 13<sup>th</sup> March 2020, the  
22 Indonesia President issued decree number 7, regarding the establishment of a task force to accelerate the  
23 handling and spread of COVID-19. The Task Force aims to: (1) increase national resilience in the health  
24 sector; (2) accelerate the handling of COVID-19 through synergy between ministries/institutions and  
25 regional governments; (3) increase anticipation of escalation developments and the spread of COVID-19;  
26 (4) increase the synergy of policymaking operationally; and (5) increase the readiness and proficiency in  
27 preventing, detecting and responding to COVID-19 [22].

28 However, at present, the task force has been unable to synergise ministries and government agencies.  
29 Likewise, inadequate interventions from the government such as the implementation of physical  
30 distancing rules have not been appropriately implemented nor enforced, still allowing mass gatherings

1 and mass transport leading to the predictions made by various scientists and public health experts that  
2 there will be a further explosion or second wave of COVID-19. Djalante et al. provide several  
3 recommendations such tracing the close proximity of people and patient contact, establishing and  
4 coordinating *polymerase chain reaction* laboratories, rapid test detection, increasing the number of referral  
5 hospitals, mass spraying of disinfectants, improving health infrastructure, and the need to mainstream the  
6 one health approach [23].

7 Furthermore, some of the considerations that have been taken on board by the Indonesian government  
8 included the issues surrounding large clusters related to the spread of COVID-19 and traditional and  
9 modern market clusters (i.e. wet markets), Tabligh worshipers in large gatherings in Gowa, Christians in  
10 large gatherings in Bogor, and economic seminar clusters prior to the first COVID-19 case in Indonesia  
11 being announced. In the current study, we recommend to the Indonesian government to increase the  
12 availability and accessibility of ventilators in hospitals in anticipation of a significant increase in cases  
13 (i.e. second wave), restrict activities involving large gatherings of people, introduce strict protocols for  
14 foreigners and Indonesian citizens travelling back to Indonesia, introduce border controls (red and green  
15 zones) for COVID particularly in rural areas and review existing policies related to mass transportation to  
16 prevent an upsurge in the number of cases in minimising the number of fatalities.

17 There are several limitations inherent in this study. The first limitation concerns the data related to age  
18 and gender obtained from NGOs amounting to 459 cases and secondly, limited access to the distribution  
19 of mortalities by age, gender and comorbidity. However, this does not downplay the significance of this  
20 study since it describes the general situation of COVID-19 in the context of Indonesia.

## 21 **5. Conclusion**

22 In Indonesia, between the 2<sup>nd</sup> and 31<sup>st</sup> of March 2020, a total of 1,528 patients were diagnosed to be  
23 positive with COVID-19. The virus was commonly found in people aged between 31 and 70 years in a  
24 higher number of male patients compared to female patients. The CFR of Indonesia is the highest in the  
25 Southeast Asia region and the second-highest globally. Given the high fatality rate in COVID-19 cases,  
26 the Indonesian government should improve healthcare facilities such as hospitals and clinics by  
27 introducing appropriate interventions and other measures to prevent the spread of COVID-19.

28

1 **Author Contributions:** A. Bakar and V. Ningrum conceived and designed the work, A. Bakar and T.I.  
2 Kuncoroaji collected the data, S.C. Lee and A. Lee verified the analytical methods, A. Bakar and V.  
3 Ningrum organised the paper, and A. Bakar and T.I. Kuncoroaji analysed the findings of this work. All  
4 authors discussed the results and contributed to the final manuscript.

5 **Conflicts of Interest:** We declare there are no competing nor conflicting interests.

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7 19 and non-government organisation volunteers (kawalcovid19.id).

## 8 **References**

- 9 1. Huang, C.; Wang, Y.; Li, X.; Ren, L.; Zhao, J.; Hu, Y.; Zhang, L.; Fan, G.; Xu, J.; Gu, X.; et al.  
10 Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *Lancet* **2020**.
- 11 2. WHO *Coronavirus disease 2019 (COVID-19) Situation Report-68*; 2020;
- 12 3. Wu, Z.; McGoogan, J.M. Characteristics of and Important Lessons from the Coronavirus Disease  
13 2019 (COVID-19) Outbreak in China: Summary of a Report of 72314 Cases from the Chinese  
14 Center for Disease Control and Prevention. *JAMA - J. Am. Med. Assoc.* **2020**.
- 15 4. Onder, G.; Rezza, G.; Brusaferro, S. Case-Fatality Rate and Characteristics of Patients Dying in  
16 Relation to COVID-19 in Italy. *JAMA - J. Am. Med. Assoc.* 2020.
- 17 5. Chen, N.; Zhou, M.; Dong, X.; Qu, J.; Gong, F.; Han, Y.; Qiu, Y.; Wang, J.; Liu, Y.; Wei, Y.; et  
18 al. Epidemiological and clinical characteristics of 99 cases of 2019 novel coronavirus pneumonia  
19 in Wuhan, China: a descriptive study. *Lancet* **2020**.
- 20 6. Chan, J.F.W.; Yuan, S.; Kok, K.H.; To, K.K.W.; Chu, H.; Yang, J.; Xing, F.; Liu, J.; Yip, C.C.Y.;  
21 Poon, R.W.S.; et al. A familial cluster of pneumonia associated with the 2019 novel coronavirus  
22 indicating person-to-person transmission: a study of a family cluster. *Lancet* **2020**.
- 23 7. Guan, W.-J.; Ni, Z.-Y.; Hu, Y.; Liang, W.-H.; Ou, C.-Q.; He, J.-X.; Liu, L.; Shan, H.; Lei, C.-L.;  
24 Hui, D.S.C.; et al. Clinical Characteristics of Coronavirus Disease 2019 in China. *N. Engl. J.*  
25 *Med.* **2020**.
- 26 8. Li, Q.; Guan, X.; Wu, P.; Wang, X.; Zhou, L.; Tong, Y.; Ren, R.; Leung, K.S.M.; Lau, E.H.Y.;  
27 Wong, J.Y.; et al. Early Transmission Dynamics in Wuhan, China, of Novel Coronavirus-Infected



- 1 Pneumonia. *N. Engl. J. Med.* **2020**.
- 2 9. Wang, D.; Hu, B.; Hu, C.; Zhu, F.; Liu, X.; Zhang, J.; Wang, B.; Xiang, H.; Cheng, Z.; Xiong, Y.;  
3 et al. Clinical Characteristics of 138 Hospitalized Patients with 2019 Novel Coronavirus-Infected  
4 Pneumonia in Wuhan, China. *JAMA - J. Am. Med. Assoc.* **2020**.
- 5 10. He, F.; Deng, Y.; Li, W. Coronavirus Disease 2019 (COVID-19): What we know? *J. Med. Virol.*  
6 **2020**.
- 7 11. Imai, N.; Cori, A.; Dorigatti, I.; Baguelin, M.; Donnelly, C.A.; Riley, S.; Ferguson, N.M. Report  
8 3: Transmissibility of 2019-nCoV. *Imp. Coll. London* **2020**.
- 9 12. How come Indonesia has no Covid-19 cases?: Jakarta Post 2020.
- 10 13. Sijabat, D.M.; Paddock, R.C. Indonesia Has No Reported Coronavirus Cases. Is That the Whole  
11 Picture? *Feb 11* 2020.
- 12 14. Gugus Tugas Percepatan Penanganan COVID-19 Situasi virus corona Available online:  
13 <https://www.covid19.go.id/situasi-virus-corona/> (accessed on Apr 19, 2020).
- 14 15. DISKOMINFOTIK Provinsi DKI Jakarta Peta sebaran kasus COVID-19 di Jakarta Available  
15 online: <https://corona.jakarta.go.id/id/peta-kasus> (accessed on Mar 31, 2020).
- 16 16. Pemerintah Provinsi Banten Peta Sebaran Covid-19 Provinsi Banten Available online:  
17 [infocorona.bantenprov.go.id](http://infocorona.bantenprov.go.id) (accessed on Mar 31, 2020).
- 18 17. Pusat informasi dan koordinasi Provinsi Jawa Barat Angka Kejadian di Jawa Barat: Peta titik  
19 sebaran kasus Available online: <https://pikobar.jabarprov.go.id/> (accessed on Mar 31, 2020).
- 20 18. Kawal informasi seputar COVID-19 secara tepat dan akurat Available online: [kawalcovid19.id](http://kawalcovid19.id)  
21 (accessed on Mar 31, 2020).
- 22 19. Liu, T.; Hu, J.; Kang, M.; Lin, L.; Zhong, H.; Xiao, J.; He, G.; Song, T.; Huang, Q.; Rong, Z.; et  
23 al. Transmission Dynamics of 2019 Novel Coronavirus (2019-nCoV). *SSRN Electron. J.* **2020**.
- 24 20. Livingston, E.; Bucher, K. Coronavirus Disease 2019 (COVID-19) in Italy. *JAMA* **2020**.
- 25 21. Ramadhan, A.; Meiliana, D. Heran Virus Corona Bikin Heboh, Menkes: Batuk Pilek Angka  
26 Kematiannya Lebih Tinggi Available online:

1 [https://nasional.kompas.com/read/2020/03/02/20040881/heran-virus-corona-bikin-heboh-menkes-](https://nasional.kompas.com/read/2020/03/02/20040881/heran-virus-corona-bikin-heboh-menkes-batuk-pilek-angka-kematiannya-lebih)  
2 [batuk-pilek-angka-kematiannya-lebih](https://nasional.kompas.com/read/2020/03/02/20040881/heran-virus-corona-bikin-heboh-menkes-batuk-pilek-angka-kematiannya-lebih) (accessed on Mar 31, 2020).

3 22. Indonesia, P.R. *Keputusan Presiden Republik Indonesia Nomor 7 Tahun 2020 tentang Gugus*  
4 *Tugas Percepatan Penanganan Corona Virus Disease 2019 (COVID-19)*; 2019; Vol. 2019, pp.  
5 1–8;.

6 23. Djalante, R.; Lassa, J.; Setiamarga, D.; Mahfud, C.; Sudjatma, A.; Indrawan, M.; Haryanto, B.;  
7 Sinapoy, M.S.; Rafliana, I.; Djalante, S.; et al. Review and analysis of current responses to  
8 COVID-19 in Indonesia: Period of January to March 2020. *Prog. Disaster Sci.* **2020**.

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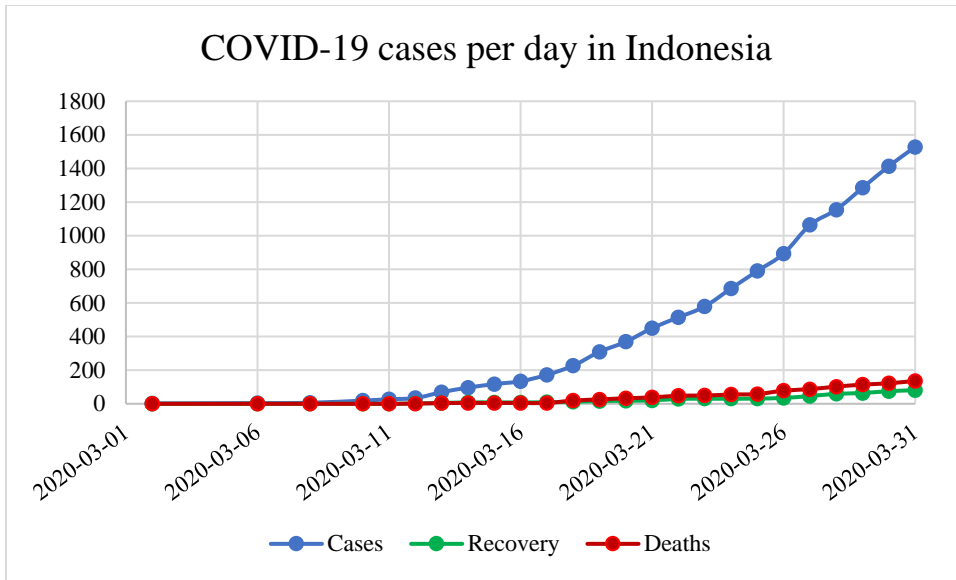
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**Figures Legends**

**Figure 1.** COVID-19 daily cases, recovery and deaths in Indonesia during March 2020

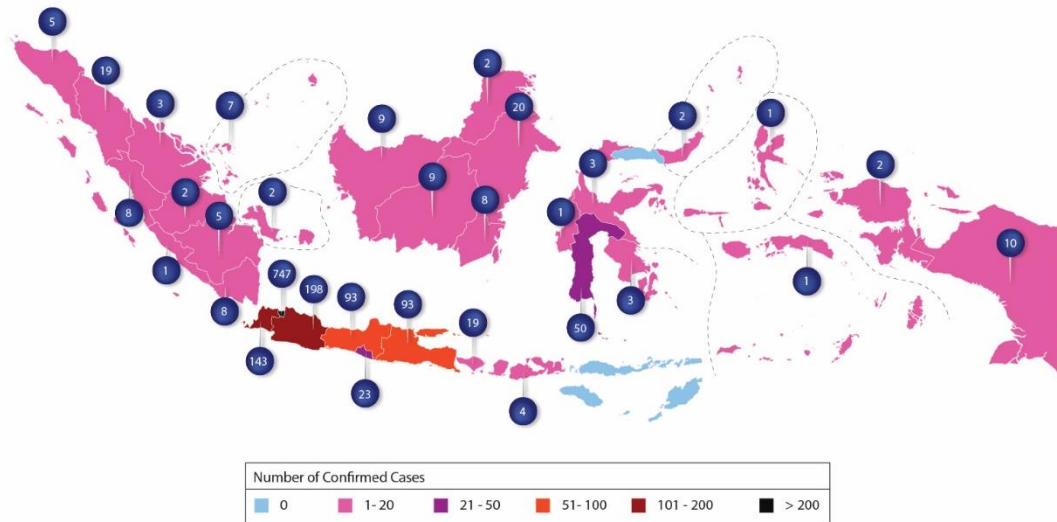
**Figure 2.** COVID-19 distribution cases in Indonesia

**Figure 3.** COVID-19 distribution cases in Java Island



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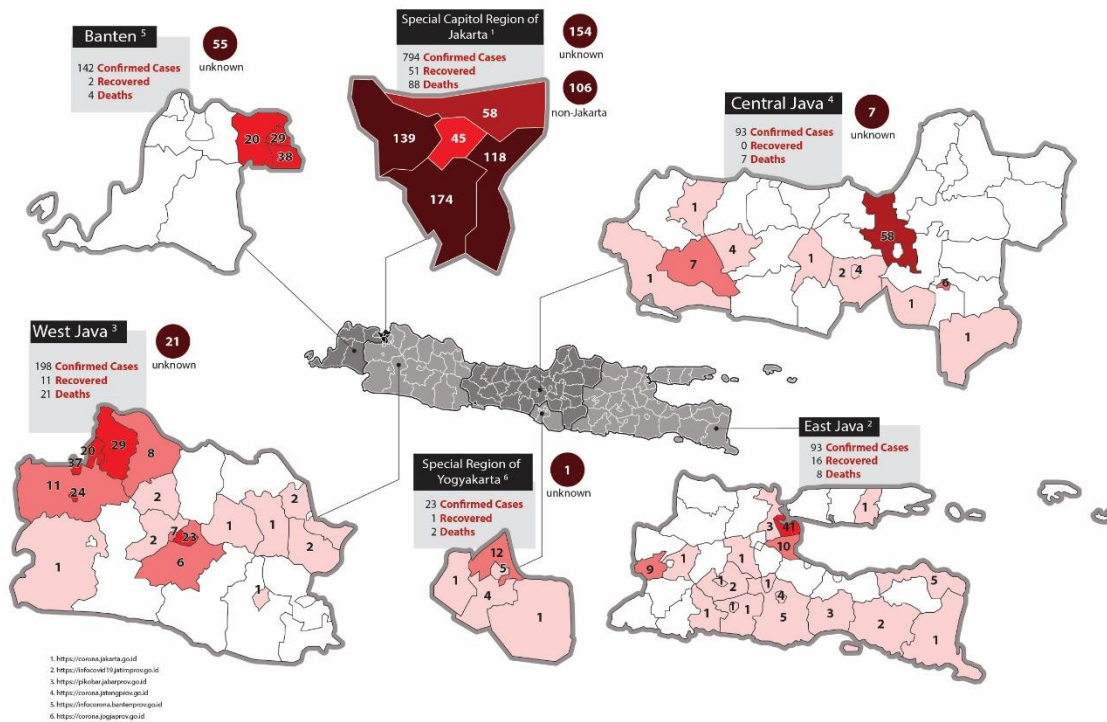
**Figure 1.** COVID-19 daily cases, recovery and deaths in Indonesia during March 2020



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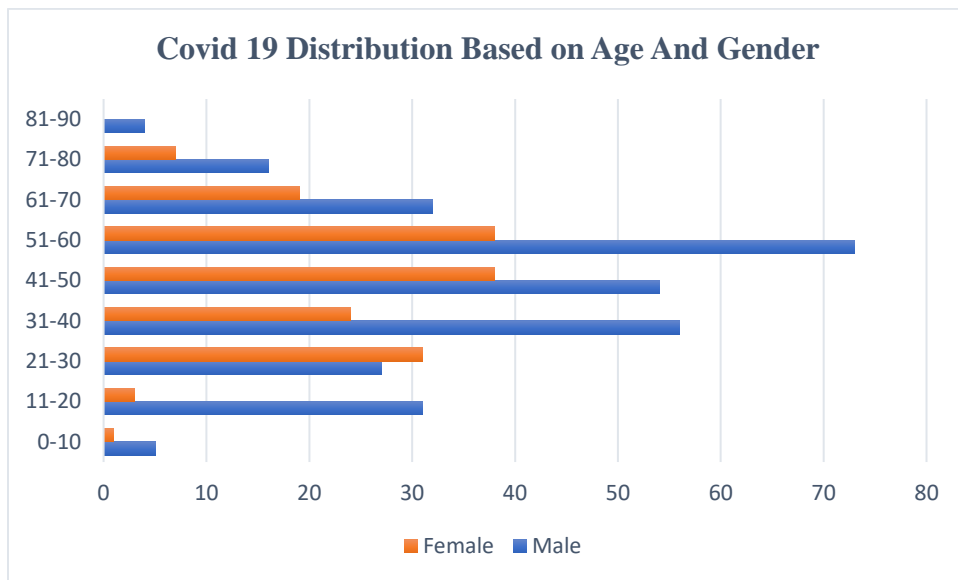
**Figure 2.** COVID-19 distribution cases in Indonesia

### Coronavirus Outbreak of the Java Island (by province) as of March 31<sup>th</sup> 2020



1  
2 **Figure 3.** COVID-19 distribution cases in Java Island

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4  
5 **Figure 4.** COVID 19 distribution based on Age and Gender (Data source from kawalcovid19.id)

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1 **Tables.**

2 **Table 1.** Number of cases in Indonesia by age distribution

3 **Table 2.** Number of cases, recovery, death cases, hospital number, and ventilators number in Indonesia by  
4 province.

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1 **Table 1.** Number of cases in Indonesia by age distribution

Official			KawalCovid19.id		
Age	Cases	Percentage	Age	Cases	Percentage
			0-10	6	1.3
<20	4	5.7	11-20	34	7.4
20-29	18	11.5	21-30	58	12.6
30-39	15	21.7	31-40	80	17.4
			41-50	92	20.0
40-59	31	44.9	51-60	111	24.2
>59	11	15.9	61-70	51	11.1
			71-80	23	5.0
			>80	4	0.8
<b>Total</b>	<b>79</b>		<b>Total</b>	<b>459</b>	

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1 **Table 2.** Number of cases, recovery, death cases, hospital number, and ventilators number in Indonesia by  
 2 province.

Province	Cases	Recov	Death	CFR	Hospitals number	Ventilators number
Jakarta	747	48	83	11.1%	144	1071
West Java	198	11	21	10.6%	271	1214
Banten	142	2	4	2.8%	73	323
Central Java	93	0	7	7.5%	186	1154
East Java	93	16	8	8.6%	229	942
South Sulawesi	50	0	1	2.0%	65	289
In investigation	28	0	0	0%		
Yogyakarta	23	1	2	8.7%	33	238
East Kalimantan	20	0	0	0%	31	114
Bali	19	0	2	10.5%	51	226
North Sumatra	19	0	1	5.3%	120	479
Papua	10	0	0	0%	22	45
West Kalimantan	9	0	0	0%	31	143
Central Kalimantan	9	2	0	0%	71	53
South Kalimantan	8	0	2	25%	28	114
Lampung	8	0	0	0%	39	91
West Sumatera	8	0	0	0%	42	206
Riau Islands	7	0	1	14.3%	24	108
Aceh	5	0	0	0%	43	139
South Sumatera	5	0	2	40%	55	281
West Nusa Tenggara	4	0	0	0%	17	121
Riau	3	0	0	0%	43	139
Central Sulawesi	3	0	0	0%	27	80
Southeast Sulawesi	3	0	0	0%	20	68
Jambi	2	0	0	0%	28	87
North Kalimantan	2	0	0	0%	6	56
Bangka Belitung Islands	2	0	0	0%	15	113
West Papua	2	0	1	50%	8	31
North Sulawesi	2	1	0	0%	27	83
Bengkulu	1	0	1	100%	14	66
Maluku	1	0	0	0%	12	22
North Maluku	1	0	0	0%	9	39
West Sulawesi	1	0	0	0%	8	63
East Nusa Tenggara	0	0	0	0%	25	80
Gorontalo	0	0	0	0%	10	41
<b>Total</b>	<b>1528</b>	<b>81</b>	<b>136</b>	<b>8.9%</b>	<b>859</b>	<b>3326</b>

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