

# Coronavirus disease (COVID-19) pandemic

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The Coronavirus disease (COVID-19) pandemic (caused by the virus SARS-CoV-2) is the greatest threat not only to global health but also has far reaching socio economic impact on nearly all the countries in the world. The first 4 cases of COVID-19 was first reported on the 29<sup>th</sup> December 2019, all linked to Huanan (Southern China) seafood wholesale market.<sup>1,2</sup> On the 31<sup>st</sup> December 2019, the World Health Organization (WHO) China Country Office was informed of a pneumonia of unknown cause, detected in the city of Wuhan in the Hubei province, China.<sup>3</sup>

By 21<sup>st</sup> January 2020, 22 out of the 31 major cities, provinces and autonomous regions had cut their Gross Domestic Product expansion targets. It was not the Wuhan province alone but most of China was expecting a slower economic growth. The Public Health Medicine Specialists in Malaysia were already ringing the warning bell that the COVID-19 will impact our country. The concept in Public Health that 'No man is an island' fitted this occasion very appropriately. The need to be vigilant and prepare for an impending outbreak appeared imminent. By the 28<sup>th</sup> January 2020, 5,974 cases and 132 deaths had been reported from China. By the 31<sup>st</sup> January 2020, there were 9,776 cases and 213 deaths reported worldwide. On 1<sup>st</sup> February 2020, schools were closed nationwide in China, Lunar New Year holidays were extended to limit movement of people. Even at the village level, the village chiefs and community leaders cooperated with the Chinese Government to prevent its spread. Singapore banned visitors from China. On the 25<sup>th</sup> February 2020, the Center for Disease Control and Prevention (CDC) United States of America (USA), announced that they were preparing for a "potential pandemic" of the novel coronavirus.<sup>4</sup> On the 4<sup>th</sup> March 2020 the Health Minister of Germany said that the new coronavirus has become a "worldwide pandemic".<sup>5</sup> The WHO classified the outbreak of novel coronavirus (COVID-19) as a pandemic on the 11<sup>th</sup> March 2020. On the 13<sup>th</sup> March 2020, the WHO announced that Europe was now the "epicentre" for the global coronavirus pandemic.<sup>6</sup> By the 31<sup>st</sup> March 2020, there were a cumulative figure of 823,626 confirmed cases and 40,598 deaths reported to the WHO.<sup>7</sup> Within three months, the virus had spread like wild fire affecting all continents. The COVID-19 pandemic is straining not only health systems of many countries but also the economies worldwide. Most countries are still grappling and some are struggling with the problem.

In Malaysia, the first case was reported on the 25<sup>th</sup> January 2020.<sup>8</sup> The first death due to SARS-CoV-2 infection was on the 17<sup>th</sup> March 2020.<sup>9</sup> By the end of a week since the first reported COVID-19 case in Malaysia, there were already 8 cases.<sup>10</sup> In the following week, on the 8<sup>th</sup> February 2020, the number of cases had doubled to 16 cases.<sup>11</sup> By the subsequent week, the number of cases had escalated to 22.<sup>12</sup> There were no new cases reported for 11 days until on the 27<sup>th</sup> February 2020.

This date marked the beginning of the second wave of coronavirus infection.<sup>13</sup> One week later, there was an exponential growth of COVID-19 cases. There were already 55 cases reported in Malaysia.<sup>14</sup> The same trend was observed in the following week with 158 cases on the 12<sup>th</sup> March 2020.<sup>15</sup> The number of cases doubling every three days until 18<sup>th</sup> March 2020 when a total of 790 cases had been reported.<sup>16</sup> The movement control order (MCO) was enforced for the first time in Malaysia due to a pandemic.<sup>17</sup> Despite the implementation of MCO, the doubling of cases in a week was observed. On the 25<sup>th</sup> March 2020, there were already 1,796 cases.<sup>18</sup>

On the same day, the Prime Minister of Malaysia announced the extension of MCO for a further 2 weeks until the 14<sup>th</sup> April 2020.<sup>19</sup> By the 31<sup>st</sup> March 2020 there were a cumulative total of 2,766 cases with 43 deaths.<sup>20</sup> COVID-19 cases in Malaysia included: Imported cases from overseas, cases close contacts of local confirmed cases, community-acquired cases where the source of the infection is known (example, the *Tabligh* gathering) or unknown. The larger clusters were then detected from a massive gathering at Sri Petaling, Selangor between the 27<sup>th</sup> February 2020 till 3<sup>rd</sup> March 2020 attended by an estimated 15,000 or more participants. The local authority was alerted by the Brunei Health Authority when they had detected the first COVID-19 patient in Brunei, who had attended the gathering.<sup>21</sup> Following the notification, many governmental agencies carried out extensive efforts to trace all Malaysian participants of the gathering for health screening. It is now a rapidly evolving situation. The *Tabligh* cluster has contributed to the bulk of cases in Malaysia so far. Many of the results of specimen taken are still pending.

There is a possibility of a conservative cumulative total of 12,000 cases with 200 deaths by year end if the public, private sector and community leaders do not respond positively and work in hand with the Government efforts. The number of reported cases and deaths will always lag slightly behind compared to what is actually happening on the ground. It is going to be tough as the current generation of Malaysians have not experienced such a situation, neither have our doctors, nurses and other health care workers. It is not the time to complain and point fingers but work together as a Nation. The best way to prevent and slow down the transmission is for all parties to work together and be well informed about the novel coronavirus. All Physicians and Health care workers need to know about the transmission, diagnosis, prevention and management of Coronavirus disease (COVID-19). Particularly, the general public need to be well informed.

Li and colleagues have reported a detailed clinical and epidemiologic description of the first 425 cases reported in the epicenter of the outbreak: the city of Wuhan in Hubei

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province, China.<sup>1</sup> The novel coronavirus is primarily transmitted between people through respiratory droplets and contact routes.<sup>22,23</sup> A publication in the *New England Journal of Medicine* reported over 50% coronavirus patients didn't have fever.<sup>24</sup> During the incubation period, the person may not have fever but is highly infectious. A study on three coronavirus patients with mild and moderate infections demonstrated environmental contamination. The item included tables, chairs, light switch, sink, floor, glass door and glass windows and air outlet fans.<sup>25</sup> Hence the constant cleaning works of all localities with positive cases is considered essential. Another study on aerosol and surface stability of SARS-CoV-2 showed that SARS-CoV-2 remained viable in aerosols for at least 3 hours, while viable up to 72 hours on containers made of plastic and stainless steel; and up to 4 hours on copper and 24 hours on cardboard.<sup>26</sup> Currently, there is no specific treatments or vaccine to prevent COVID-19. Scientists are working hard to develop effective vaccines and treatments for the COVID-19 infection.

Social distancing and movement control measures are some of the important strategies to break the chain of infection and flattening the current curve. WHO recommends that if a person is healthy, he/she only need to wear a mask when taking care of a person with suspected COVID-19 infection. Our personal opinion is that mask should be worn when taking care of a person with suspected COVID-19 infection or not suspected of COVID-19 infection. The reason is how can one be sure if the patient who is asymptomatic, is not a carrier. It is clearly one of the preventive measures that can limit the spread of COVID-19. The use of a mask alone is insufficient and must be combined with frequent hand-cleaning and other prevention and control measures to prevent human-to-human transmission of COVID-19. You are also required to wear mask if you are coughing or sneezing. So one must know how to use it and dispose of the mask properly. We support wearing of mask in public to prevent infected individuals infecting others in public places.

WHO has come out with a lot of material such as "COVID-19 Country & Technical Guidance" and "Advice for the public in general". Several documents are available in the WHO web site including "Critical preparedness, readiness and response actions for COVID-19".<sup>27</sup> The CDC has provided updates and "Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 in Healthcare Settings".<sup>28</sup> The key concepts in this guidance are: limit how germs can enter the facility, isolate symptomatic patients as soon as possible and protect the healthcare personnel. The *New England Journal of Medicine* is reporting updates on COVID-19, many of which are available free for readers. Dr. Saurabh Jha reported in *Medpage* in its Primary Care Update on 31<sup>st</sup> March 2020 on "False Negative: COVID-19 Testing's Catch-22 and the consequences of being wrong".<sup>29</sup> Readers are encouraged to look for details in the referred articles.

In Malaysia, what we are doing right now is relearning from our own unique experiences and also from the experiences of other countries. What we are seeing today is the result of our actions several weeks ago. We should start planning now based on the transmission dynamic we are observing in

Malaysia and put an end to the transmission of the COVID-19 in the country. We must have short term (next few weeks), medium (next three months) and long term targets. We need to estimate the number of our healthcare workers who are likely to be infected in the government and private sector. The Government needs to plan ahead the projected number of ventilators, masks, and personal protective equipment needed based on what we have seen in China and other countries. We should strive to block this infection from spreading to our senior citizens.<sup>30</sup>

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