

# Preventing the Seasonal Flu in the Post-Pandemic Age

Influenza is a common cause of acute upper and lower respiratory tract infections.<sup>1</sup> The influenza virus, particularly types A and B, are primarily responsible for annual epidemic “flu seasons” seen across the globe.<sup>1,2</sup>

Epidemiological studies in Malaysia have identified three strains of influenza that have been in circulation in recent years: influenza A(H1N1)pdm09, A(H3N2), and B.<sup>3</sup> Between 2011 and 2016, one of these three strains accounted for more than 50% of recorded seasonal influenza samples.<sup>3</sup> The A(H3N2) is presently the dominant strain of the flu season in Malaysia.<sup>4</sup>

higher portion of the population will have a reduced immunity towards influenza.<sup>9</sup> Consequently, this may increase the risk of contracting influenza or developing severe disease.<sup>9</sup>

## Dangers of Influenza

The burden and seriousness of influenza is highlighted by its ravaging effects during the 2019 to 2020 flu season in the United States (Table 1).<sup>10</sup> A lack of surveillance has made it difficult to determine the burden of influenza in Malaysia.<sup>11</sup> However, modelled predictions estimate that the mortality rate in South East Asia is between 3.5-9.2 per 100,000 individuals.<sup>12</sup>

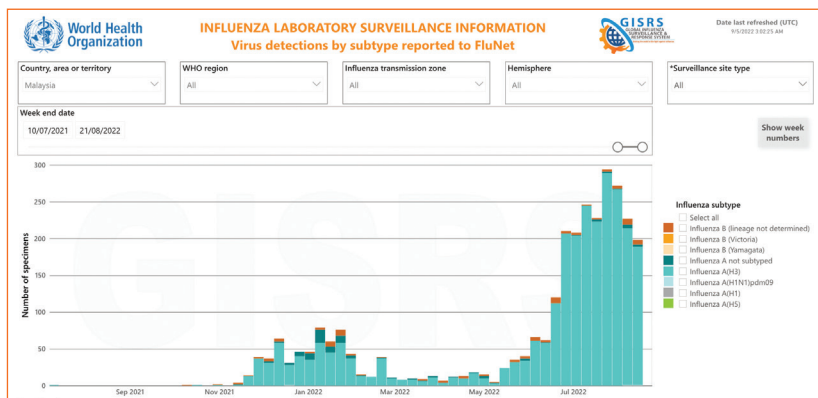


Figure 1: Influenza surveillance data in Malaysia from July 2021 to August 2022. Turquoise bars indicate positive influenza samples which are of Influenza A (H3) lineage.<sup>4</sup>

In Malaysia, influenza activity occurs throughout the year without any definitive trends to indicate seasonality.<sup>3</sup> Interestingly, studies have reported peak influenza activity to be from May to August and November to January.<sup>5,6</sup>

## Influenza in Malaysia: The Impact of the COVID-19 Pandemic

In response to the COVID-19 pandemic, the Malaysian government mandated the Movement Control Order (MCO), physical distancing, and masking.<sup>7</sup> These non-pharmaceutical intervention (NPI) measures reduced the transmission of SARS-CoV-2 as well as other air-borne pathogens like the influenza virus and respiratory syncytial virus.<sup>7</sup>

The downside of the MCO is that both routine vaccinations and other recommended vaccinations have fallen behind.<sup>8</sup> As the graph above (Figure 1) illustrates, when control measures are relaxed, the burden of influenza has returned to pre-pandemic levels. As less people were exposed to influenza throughout the pandemic, it is expected that a

Table 1: Statistics on the overall burden of influenza in the United States from 2019 to 2020 by the Centres for Disease Control and Prevention (CDC).<sup>10</sup>

Burden of Influenza During the 2019-2020 Flu Season in the United States
35 million flu-related illnesses
16 million flu-related medical visits
380,000 flu-related hospitalisations
20,000 flu-related deaths

Generally speaking, influenza infections are well tolerated in most individuals. However, some high-risk groups are susceptible to develop severe complications like inflammation of the heart (myocarditis) or brain (encephalitis), and bacterial co-infection, which may result in hospitalisation or even death.<sup>13</sup> These include the elderly, children, pregnant women, and individuals with comorbidities or those who are immunosuppressed.<sup>13</sup>

## Preventing Influenza Infection

The best form of protection against vaccine preventable diseases like influenza is vaccination. The influenza vaccination has been reported to reduce the risk of flu illness by 40-60%, depending on the viral strain circulating within a population in a given season.<sup>14</sup> Immunological studies show that flu vaccines have more than 98% sero-protection rates in adults.<sup>15</sup>

Although the vaccine does not completely eliminate the risk of infection, it can significantly reduce the severity of illness, reducing admission to hospitals, ICU and deaths.<sup>14</sup> The flu vaccination has shown to reduce the risk of hospitalisation in the elderly and pregnant women (by 41 and 40% respectively) and protect children under 18 years old against critical illness by 63%.<sup>14,16,17</sup> The flu vaccine is also safe with few serious adverse effects.<sup>15</sup>

## Conclusion

The World Health Organization has proposed vaccination as a cost-effective tool for preventing serious forms and complications of influenza in high risk groups. Influenza prevention with the flu vaccine makes good health investments that impact positively on direct and indirect healthcare costs.

We are in the midst of an influenza season and we should seriously consider getting the flu vaccine especially those who are in the high-risk groups. It is a relatively inexpensive vaccine, which would protect you and your family from the serious complications of influenza which may require very costly hospitalisations.



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