

Epidemiology of the COVID-19 outbreak in Malaysia, 2020-2021

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ABSTRACT

Introduction: The COVID-19 pandemic has spread rapidly across the global resulting in recurrent waves worldwide. This study aims to describe the epidemiological characteristics of COVID-19 cases and mortality during each wave of COVID-19 in Malaysia from the beginning of the outbreak in 2020 to 2021. **Materials and methods:** Data was sourced from GitHub repository and the Ministry of Health (MOH), Malaysia official COVID-19 website. Data was aggregated by epidemiological weeks and analysed by years (2020 and 2021) and COVID-19 waves (first, second and third wave). **Results and conclusion:** A total of 2,761,472 cases and 31,514 deaths were reported from 2020 to 2021. The COVID-19 incidence and mortality rates were 40.6 and 0.46 per 1,000 populations respectively from 2020 to 2021. By wave, a total of 22(0.001%), 10,145 (0.4%) and 2,751,305 (99.6%) cases were reported during the first, second and third wave respectively while 131 (0.4%) and 31,383 (99.6%) deaths were reported during second and third wave. Higher cases and deaths was reported in the year 2021 and during the third wave. We concluded that, the third wave of COVID-19 was the most severe in terms of number of infected individuals and deaths, which is due to the longer outbreak duration larger magnitude and severity compared to the previous waves. Close monitoring and surveillance of the COVID-19 outbreak would preventing future resurgence of COVID-19 case which could potentially have more devastating effects.

Keywords: COVID-19, epidemiology, waves, Malaysia