

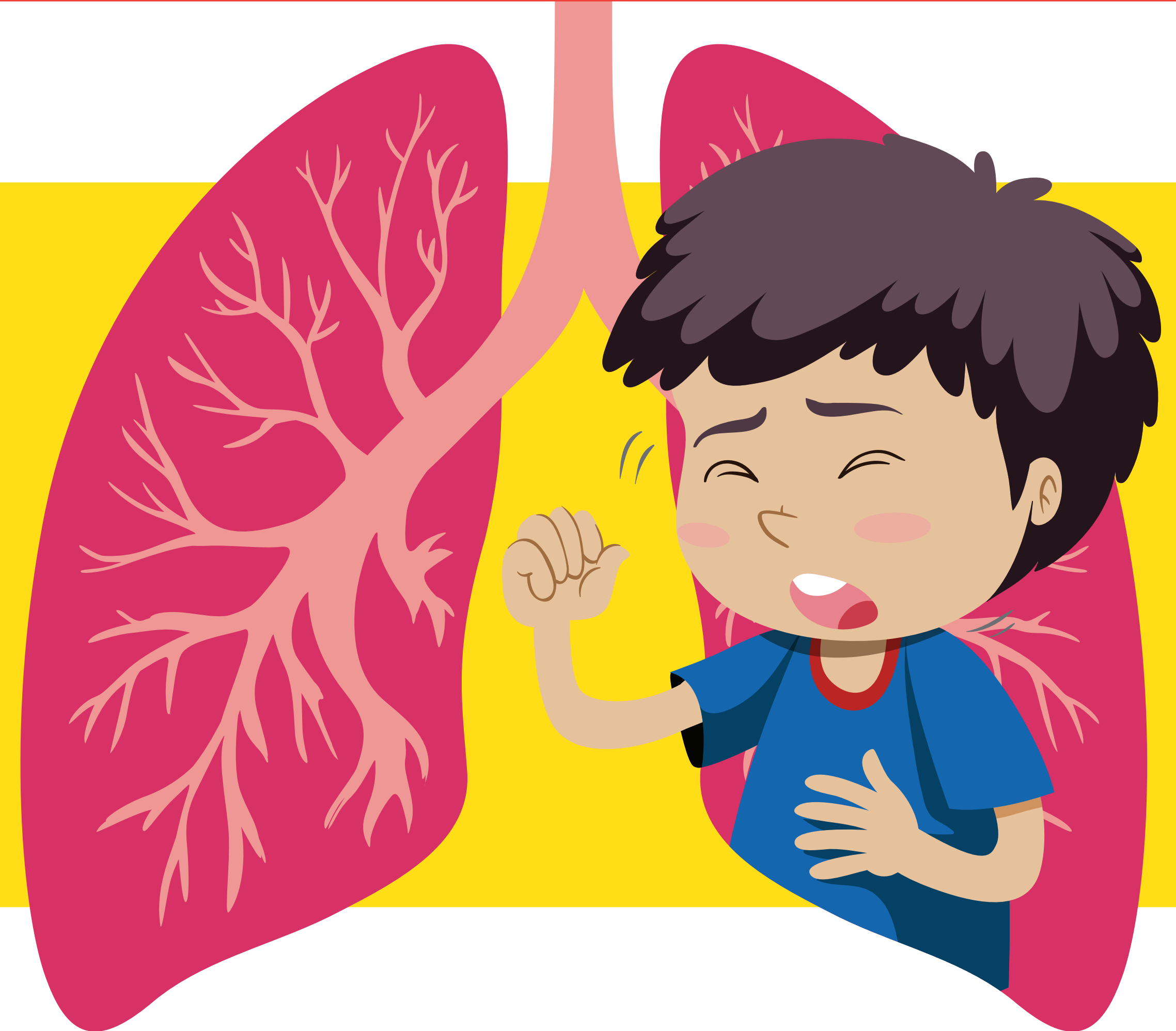
INCIDENCE OF ACUTE RESPIRATORY INFECTION AND ITS TREATMENT AMONG MALAYSIAN CHILDREN UNDER FIVE BETWEEN 2016 AND 2022

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BACKGROUND

According to the World Health Organization (WHO), Acute Respiratory Infection (ARI) is one of the leading causes of morbidity and mortality among children under five worldwide, including Malaysia [1-2]. ARI causes almost 20% of all deaths of children under five worldwide. In Malaysia, pneumonia ranked as the third leading cause of death in this group, causing 2.1% of deaths in 2021 [3]. Nonetheless, there is a scarcity of current Malaysian data. Therefore, this study aims to compare the incidence of ARI and treatment received by Malaysian children under five between 2016 and 2022.



METHODS

Data was obtained from two cross-sectional population-based surveys conducted in 2016 and 2022 involving 15,188 and 17,176 children under the age of five, respectively. Trained research assistants conduct data collection through face-to-face method. The study questionnaire was adapted from the WHO Multiple Indicator Cluster Survey [4]. ARI is defined as children who have cough and fast breathing or difficulty breathing in the last two weeks as perceived by their mother or caretaker. Descriptive analyses were conducted using IBM SPSS Statistics (Version 25) taking into consideration the complex survey design.

RESULTS

The incidence of children who had symptoms of ARI (coughing and difficulty breathing) was 1.4%, slightly increased from 1.3% in 2016 with an estimated population of 32,220 children aged 0-59 months in Malaysia (Figure 1). Among children with ARI, 99.5% received treatment from a health facility, which has marked increase from 2016 (88.9%) (Figure 2). In 2022, those with ARI received treatment from health facilities, including public [42.2% (95%CI: 21.18, 66.54)] and private facilities [59.7% (95%CI: 35.91, 79.66)]. Among those with ARI, 74.6% received antibiotics in 2022, compared to only 58.9% in 2016 (Figure 3).

Figure 1: Incidence of Acute Respiratory Infection among Malaysian Children under five between 2016 and 2022

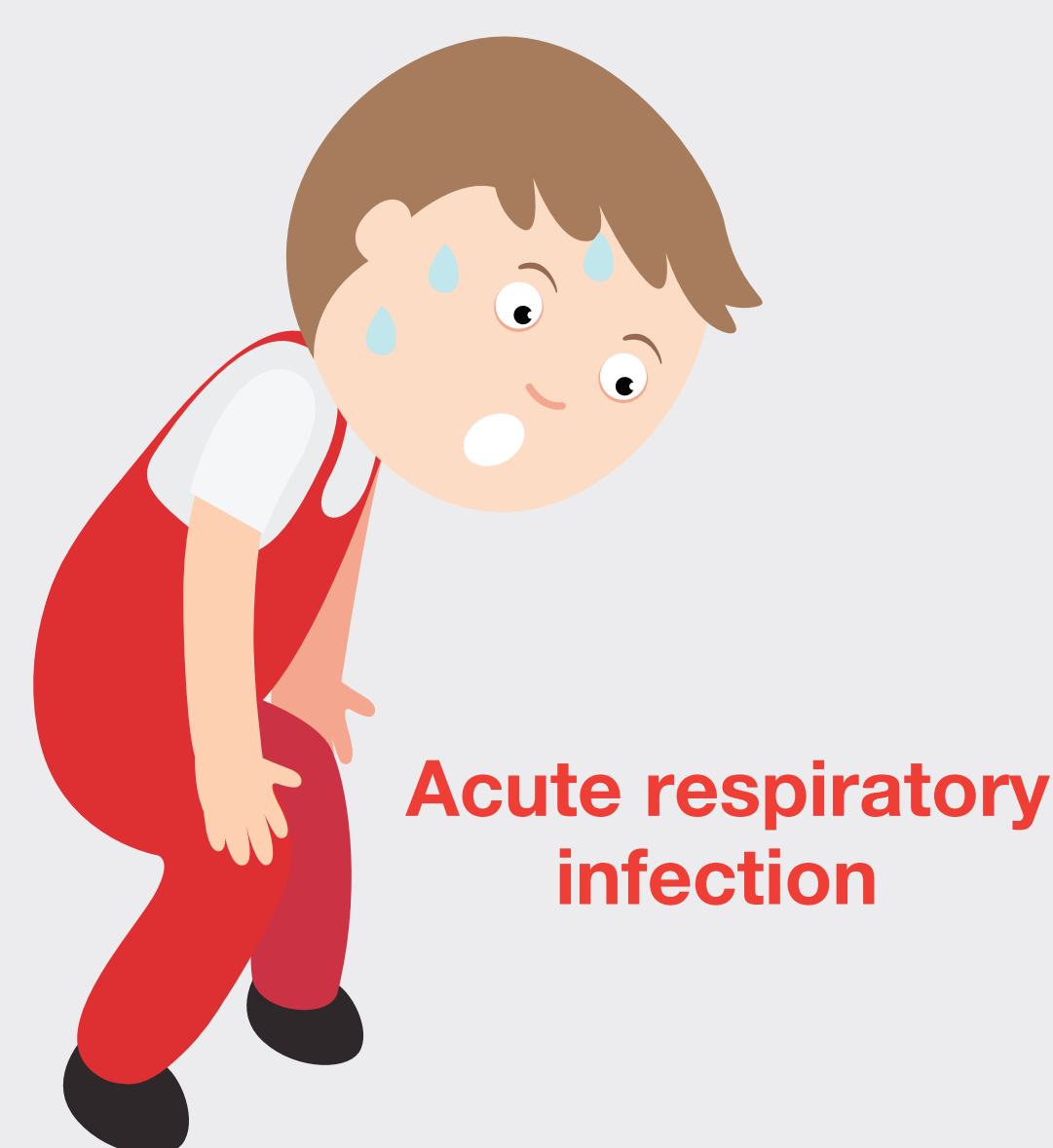


Figure 2: Percentage treatment received from a health facility among Malaysian children under five with acute respiratory infection between 2016 and 2022

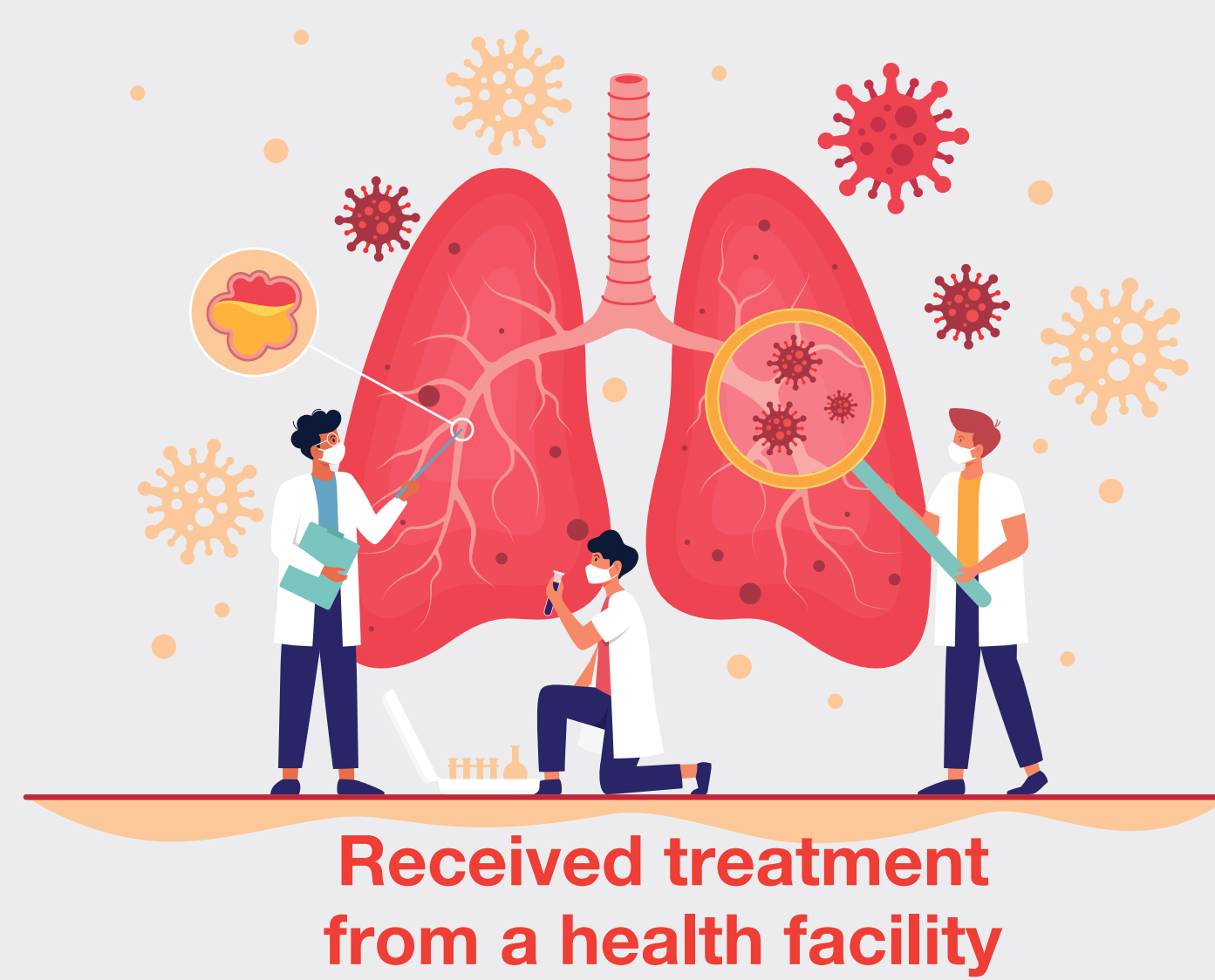
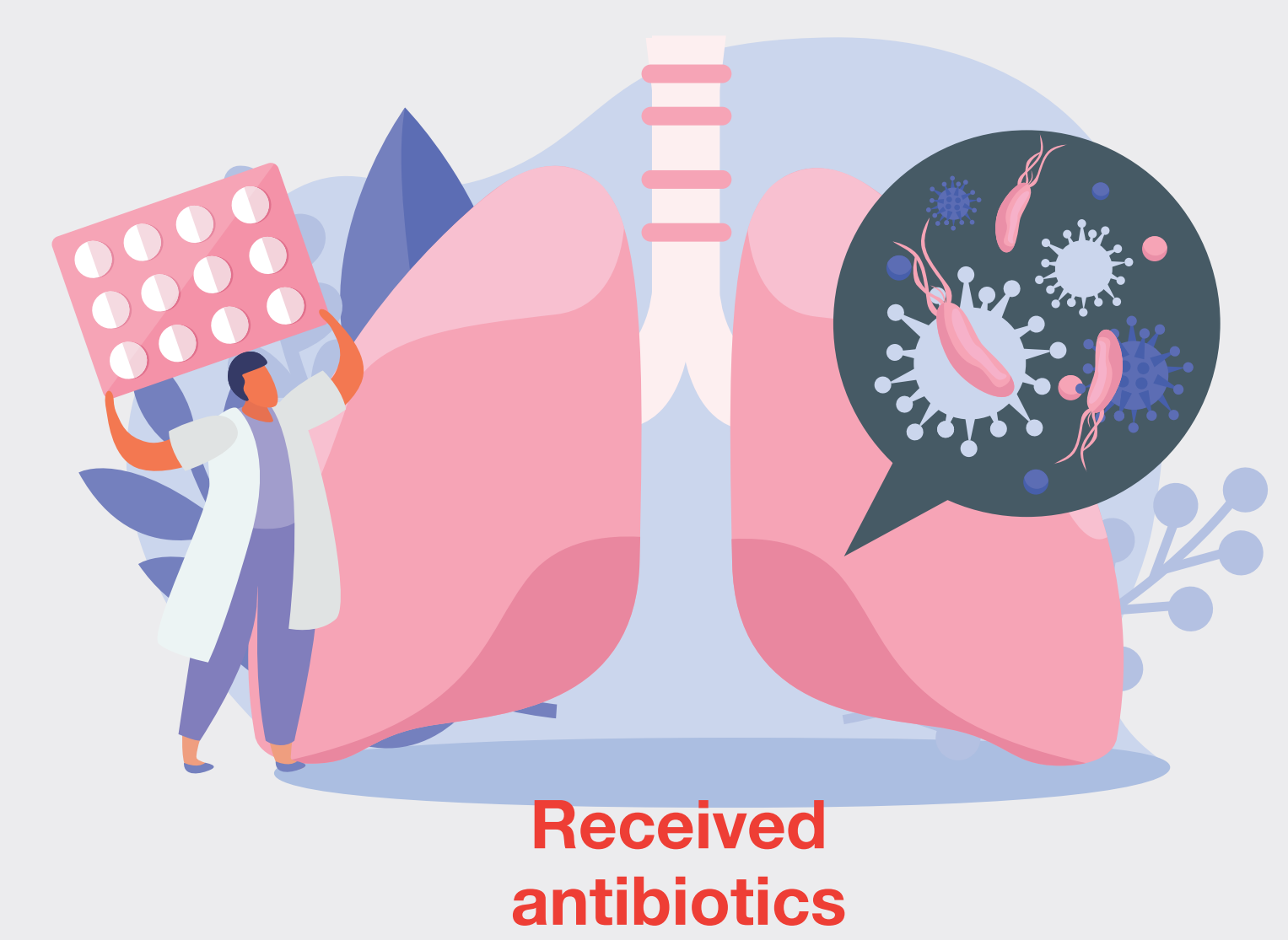


Figure 3: Percentage of antibiotics received among Malaysian children under five with acute respiratory infection between 2016 and 2022



DISCUSSION & CONCLUSION

In conclusion, the incidence of ARI among Malaysian children has increased slightly since 2016, along with an increased usage of antibiotics. Health care providers should carefully evaluate each child with ARI before prescribing antibiotics, taking into account the child's medical history, symptoms and other factors. Antibiotics should only be prescribed according to the 3rd National Antimicrobial Guidelines when there is a clear indication of bacterial infection and when the benefits of treatment outweigh the risks of side effects, such as antimicrobial resistance.

ACKNOWLEDGEMENT

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