

# Insights Into Malaysian Children And Young People Mortality: Exploring Demographics And Causes From 2017 To 2021

AP35



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## INTRODUCTION

Understanding the mortality trends of our younger generation serves as a foundation in addressing the specific health challenges they are currently facing. Mortality reports focusing on specific age groups such as children (0-17 years), adolescents (10-19 years), youths (15-24 years) or young people aged 10-24 years enables the implementation of targeted public health measures<sup>1</sup>.

## PROBLEMS

Focusing on smaller-range age groups makes it harder to see the bigger picture of an overall mortality trend in our younger generation, and it also makes it difficult to figure out which age group needs higher priority, particularly in Malaysia.

## OBJECTIVE

This study aims to explore the mortality trend of children and young people in Malaysia from all age groups (0 to 24 years), allowing an insight into the death pattern our younger generations are currently facing from 2017 to 2021, according to gender, age groups and disease groups.

## METHODS

Study design: Cross-sectional  
 Studied year: 2017 to 2021

Data source: Department of Statistics Malaysia  
 Data type: Death and population count  
 Data variable: Gender, age (individuals age 0-24 years), causes of death

Data were handled according to methods outlined in the Global Burden of Diseases study by totalling up both medically certified deaths and non-medically certified deaths<sup>2</sup>

Total death were tabulated by sex, age groups of five-year interval, and three broad cause disease groups (Group I, Group II and Group III)

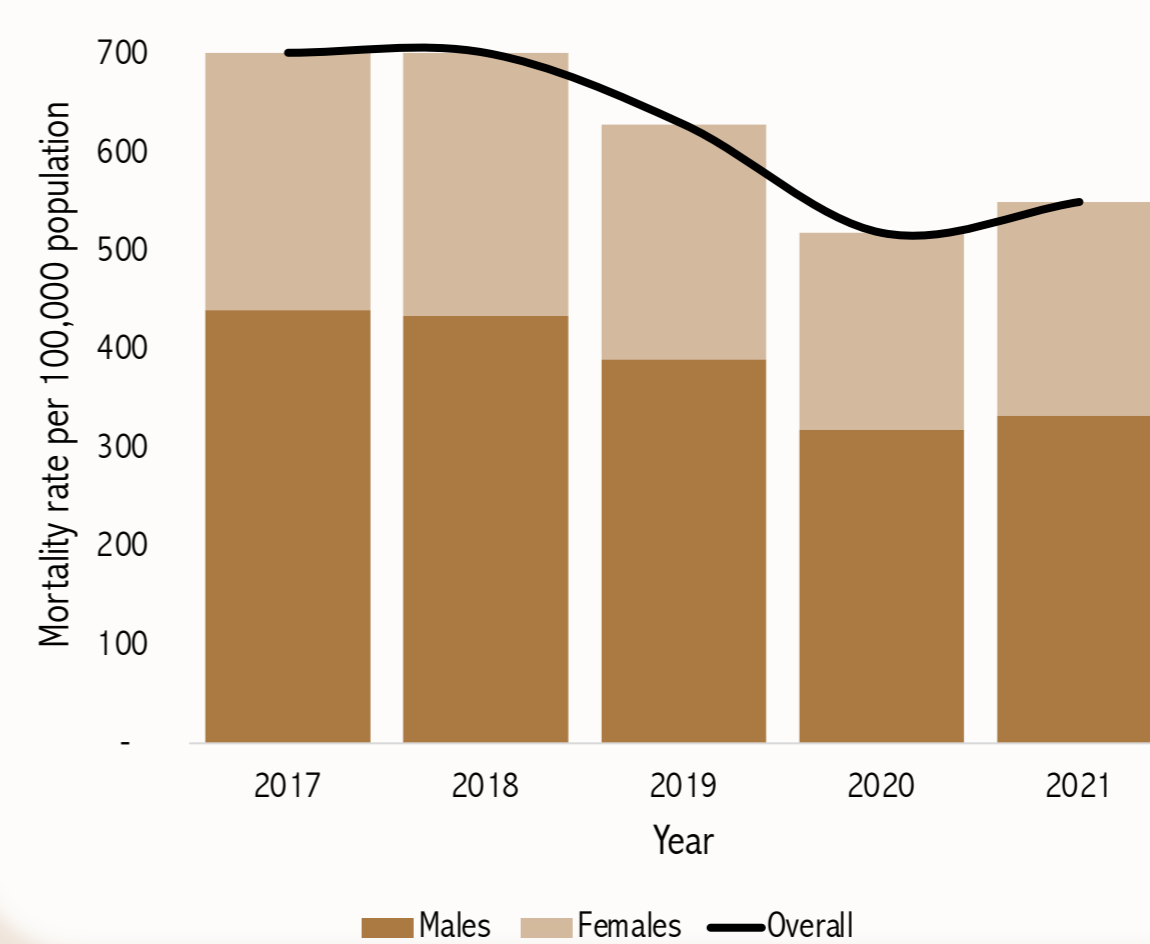
Mortality rates were calculated for every 100,000 population, and tabulated from year 2017 to 2021

Analyses were performed using Microsoft Excel 365 to compare the yearly trend according to gender, age and disease groups

## RESULTS

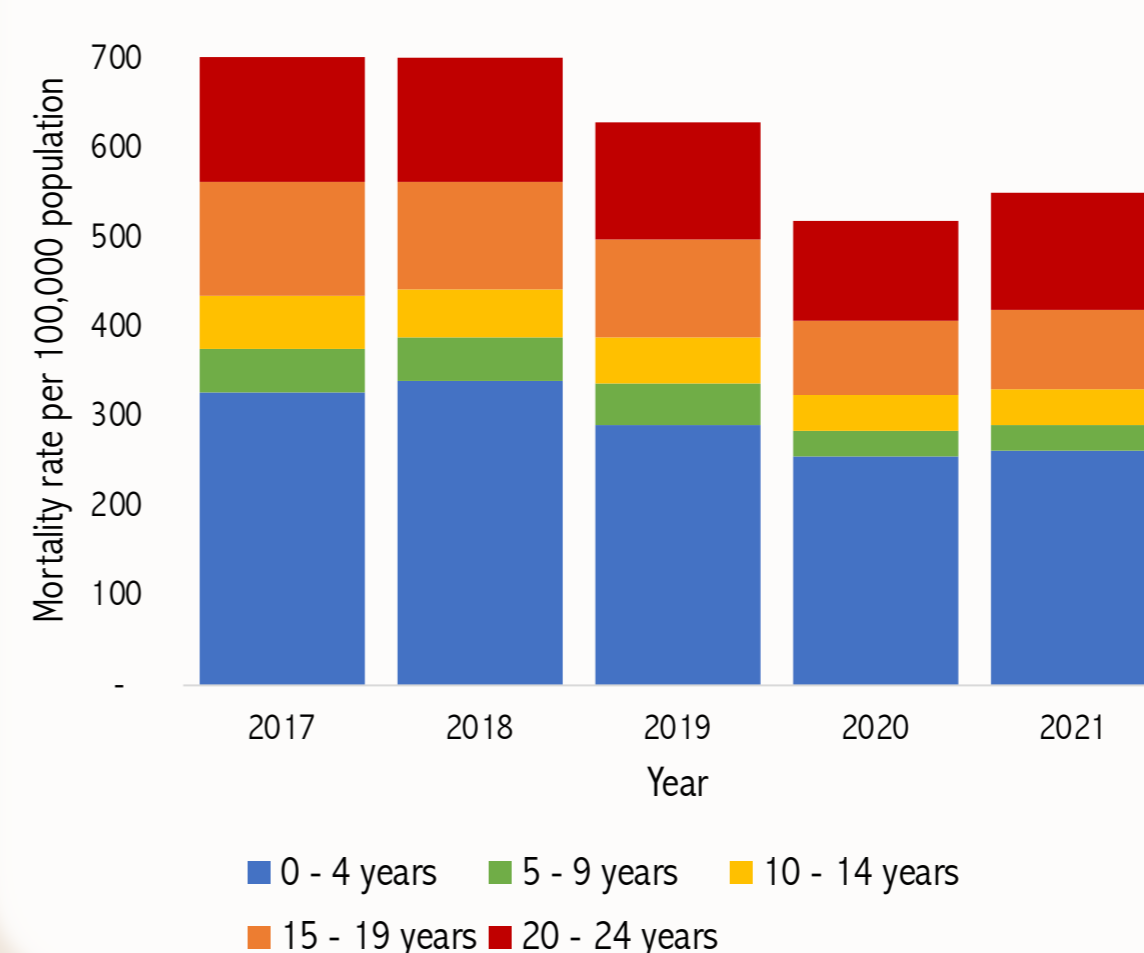
Overall mortality rate demonstrated a downward trend from year 2017 (703 death per 100,000 population) to year 2020 (520 death per 100,000 population), followed by an increase in year 2021 (551 death per 100,000 population), Figure 1.

Figure 1. Mortality trend for children and young people from 2017 to 2021 according to gender, Malaysia



**GENDER**  
**Males** consistently exhibited higher mortality rates compared to females throughout the five-year study period (Figure 1).

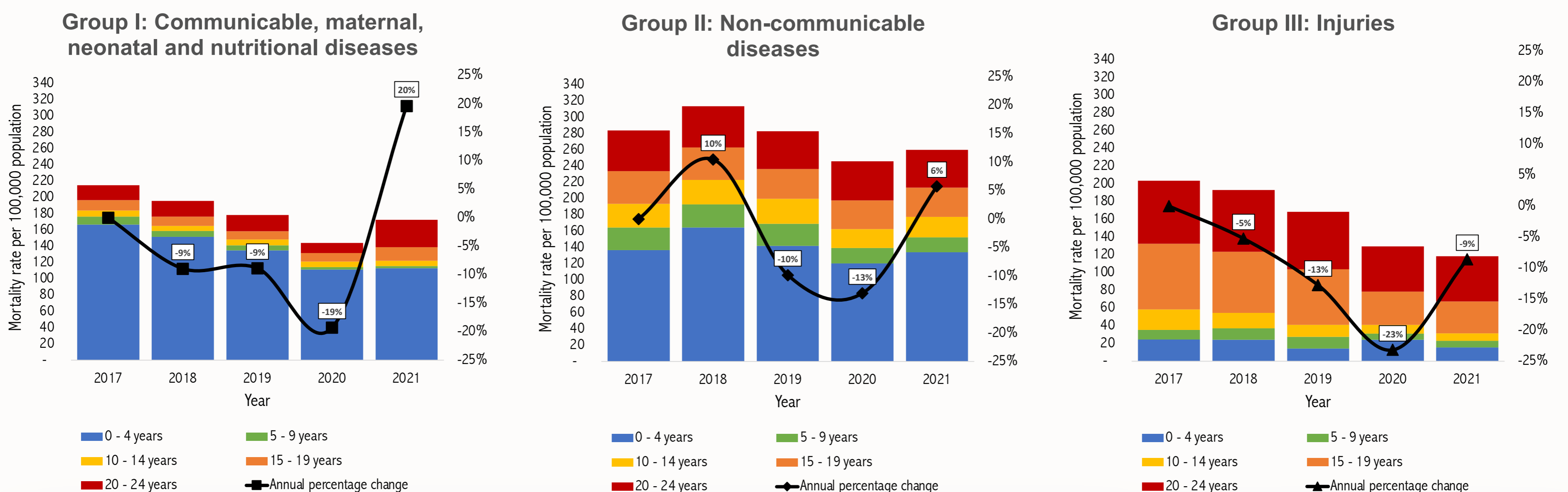
Figure 2. Mortality trend for children and young people from 2017 to 2021 according to age groups, Malaysia



**AGE GROUPS**  
 Children aged **0-4 years** contributed the highest mortality rate each year, followed by young people aged **20-24 years** and **15-19 years** (Figure 2).

**DISEASE GROUP**  
**Group II (Non-communicable diseases)** remained the annual leading cause of mortality from 2017 to 2021. All disease groups demonstrated the most pronounced decline in year 2020 (Figure 3).

Figure 3. Mortality trend for children and young people from 2017 to 2021 according to disease groups, Malaysia



## DISCUSSION & CONCLUSION

- Mortality among children and young people in Malaysia showed a declining trend until the year 2020 when the novel coronavirus pandemic emerged, leading to a subsequent upsurge in 2021.
- The persistent higher mortality rates among males underscore the need for substantial efforts in understanding the root causes of this gender disparity.
- In the effort to reduce overall mortality among younger generation in Malaysia, priority should be given to children aged 0-4 years, by tackling the communicable, maternal and nutritional diseases group as well as the non-communicable diseases (NCDs). Attention should also be given to young people aged 15-24 years due to their high mortality rates caused by injuries. Promoting healthy behaviours among them is one of the recommended options<sup>3,4</sup>.
- Persistent high rates of NCDs over the years continue to pose a significant health challenge for Malaysia. Identifying the underlying factors that brought to its reduction, especially in year 2020 is imperative, as it may inform better prevention methods and effective public health responses.

## REFERENCES

- UNICEF. Situation analysis of adolescents in Malaysia. United Nations Children's Fund Malaysia Country Office: Putrajaya, Malaysia. 2020.
- Mathers CD, Lopez AD, Murray CJ. The burden of disease and mortality by condition: data, methods, and results for 2001. Global burden of disease and risk factors. 2006 Jan 1;45(88):10-596.
- Masquelier B, Hug L, Sharrow D, You D, Mathers C, Gerland P, Alkema L. Global, regional, and national mortality trends in youth aged 15-24 years between 1990 and 2019: a systematic analysis. The Lancet Global Health. 2021 Apr 1;9(4):e409-17.
- World Health Organization. Global Accelerated Action for the Health of Adolescents (AA-HA!): guidance to support country implementation.

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