



**World Health  
Organization**

Representative Office  
for Malaysia, Brunei Darussalam,  
and Singapore



Ministry of Health Malaysia

2019

Country Fact Sheet

# Public Health Data at a Glance

# MALAYSIA

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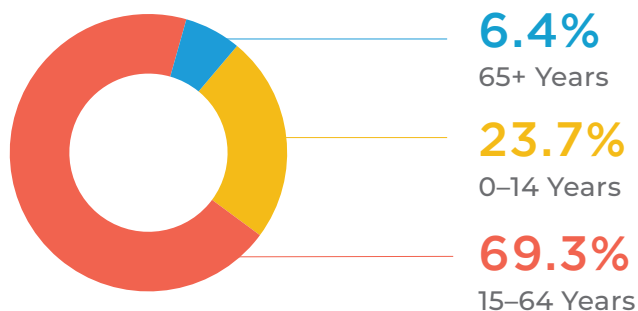
## 32.6 Million

Total Population, 2018

♂ **52%**  
Male

♀ **48%**  
Female

## Population by Age Group



Sources: Department of Statistics Malaysia (1,2).

### Demographic Indicators

### Source

| Indicator                         | Value | Source |
|-----------------------------------|-------|--------|
| Total population (millions, 2018) | 32.6  | (1)    |

### Economic Indicators

|                                                                                                    |        |     |
|----------------------------------------------------------------------------------------------------|--------|-----|
| Gross national income per capita based on purchasing power parity (current international \$, 2017) | 28 660 | (3) |
| Current health expenditure as percentage of gross domestic product (% , 2017)                      | 3.86   | (4) |
| General government health expenditure as percentage of current health expenditure (% , 2017)       | 56.17  | (4) |
| Population below national poverty line (% , 2016)                                                  | 0.4    | (5) |

### Vital Statistics

|                                                                                       |           |     |
|---------------------------------------------------------------------------------------|-----------|-----|
| Life expectancy at birth: male/female (years, 2018)                                   | 72.7/77.6 | (2) |
| Probability of dying between 15 and 60 years: male/female (per 1000 population, 2016) | 156/86    | (6) |
| Maternal mortality ratio (per 100 000 live births, 2017)                              | 25.0      | (7) |
| Under-5 mortality rate (per 1000 live births, 2017)                                   | 8.4       | (7) |
| Infant mortality rate (per 1000 live births, 2017)                                    | 6.9       | (7) |

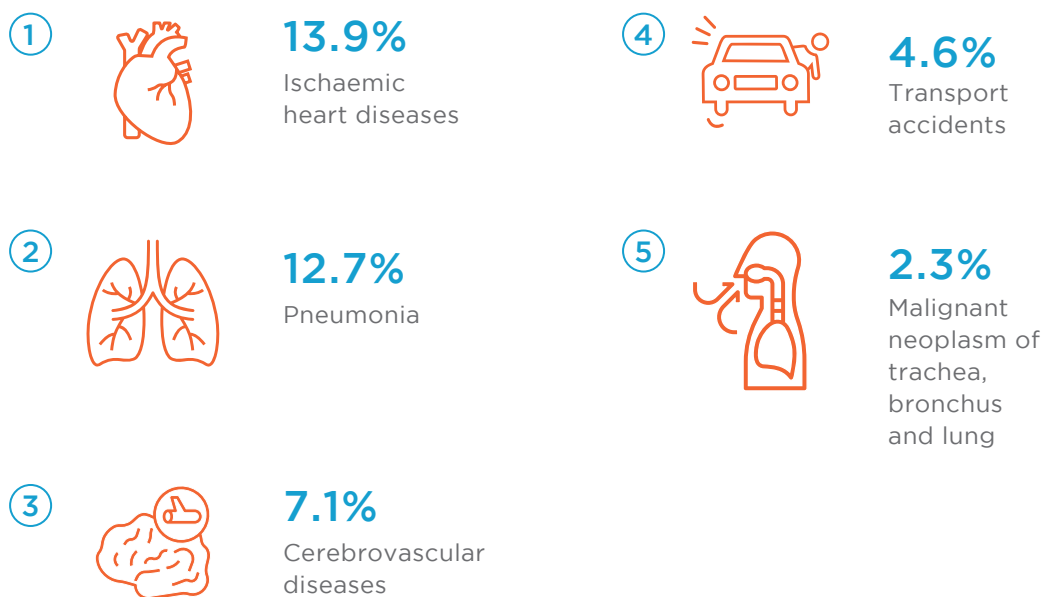
### Environmental Indicators

|                                                            |      |     |
|------------------------------------------------------------|------|-----|
| Population using improved drinking-water source (% , 2018) | 95.5 | (8) |
| Population using improved sanitation facilities            | NA   | -   |

### Education Indicators

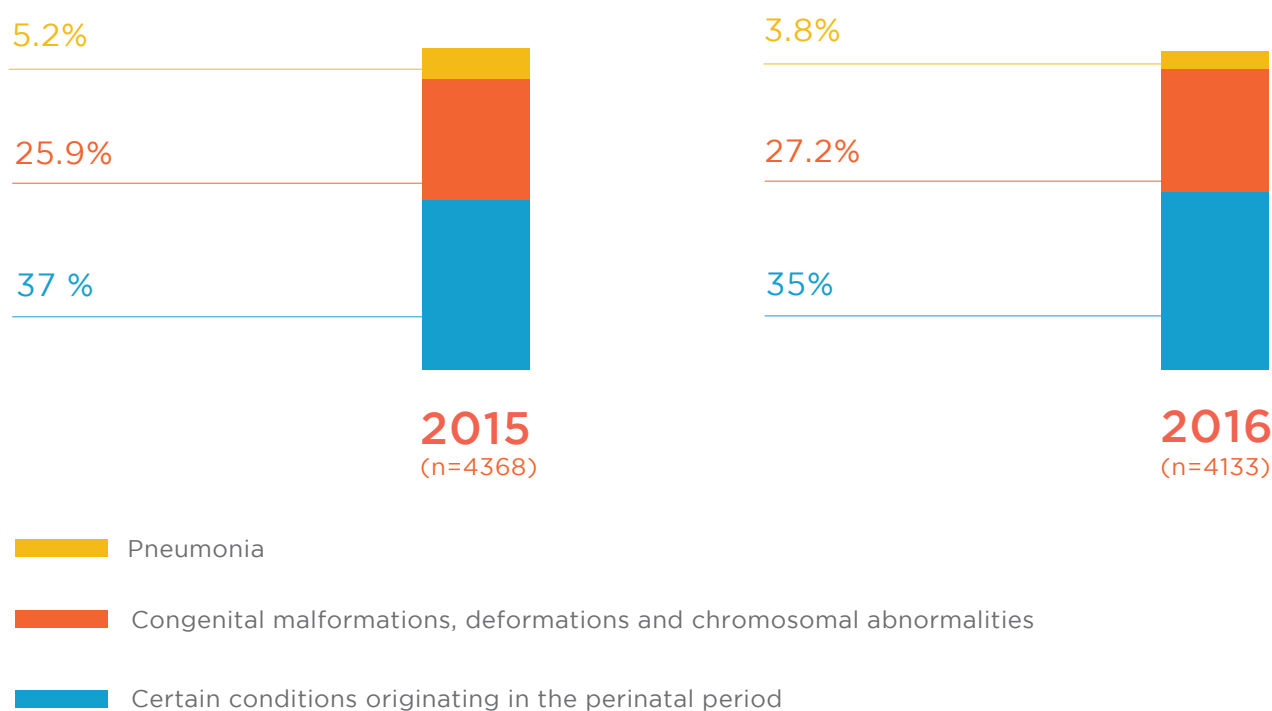
|                                                               |       |      |
|---------------------------------------------------------------|-------|------|
| Human development index (2017)                                | 0.802 | (9)  |
| Literacy rate among adults aged 15 years and above (% , 2017) | 95.1  | (10) |

## Top Five Principal Causes of Deaths, 2017

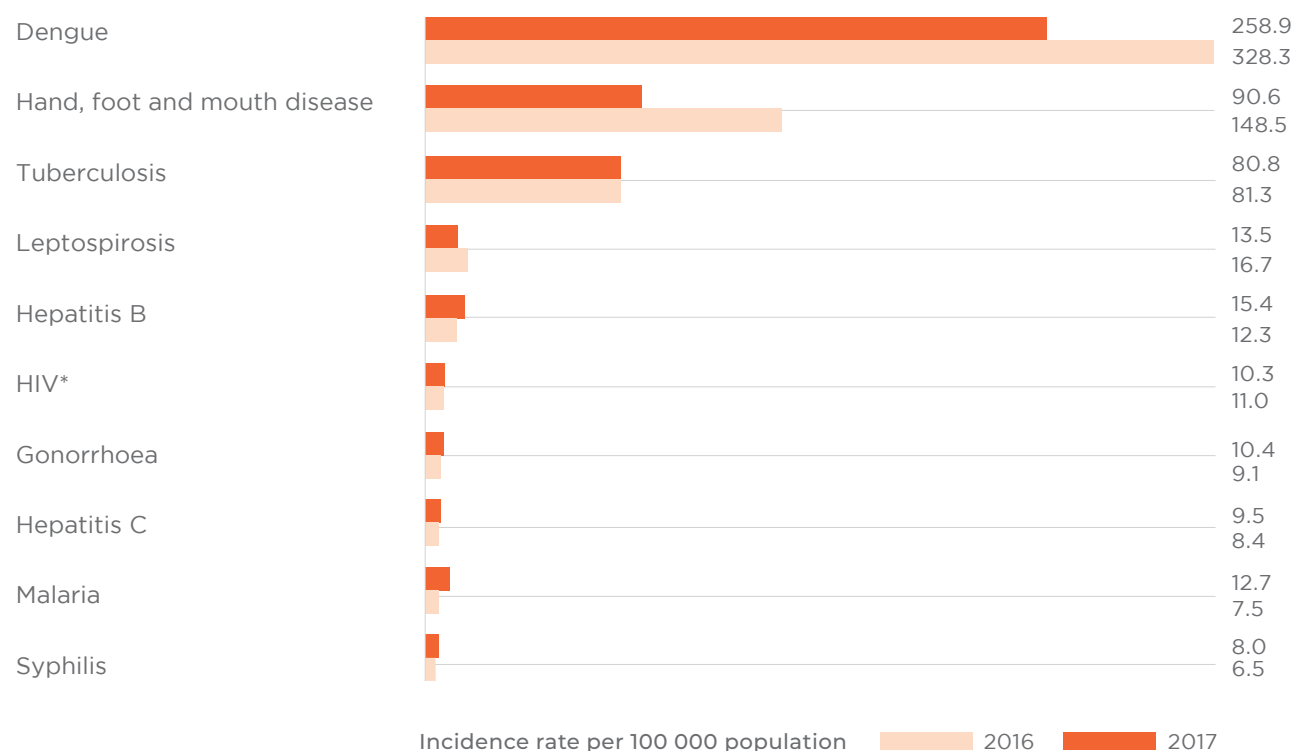


Note: Percentages are based on medically certified causes of death only. Over the past few years, approximately 50% of total deaths were classified as medically certified. Source: Department of Statistics Malaysia (11).

## Top Three Causes of Death Among Children Under 5, 2015–2016

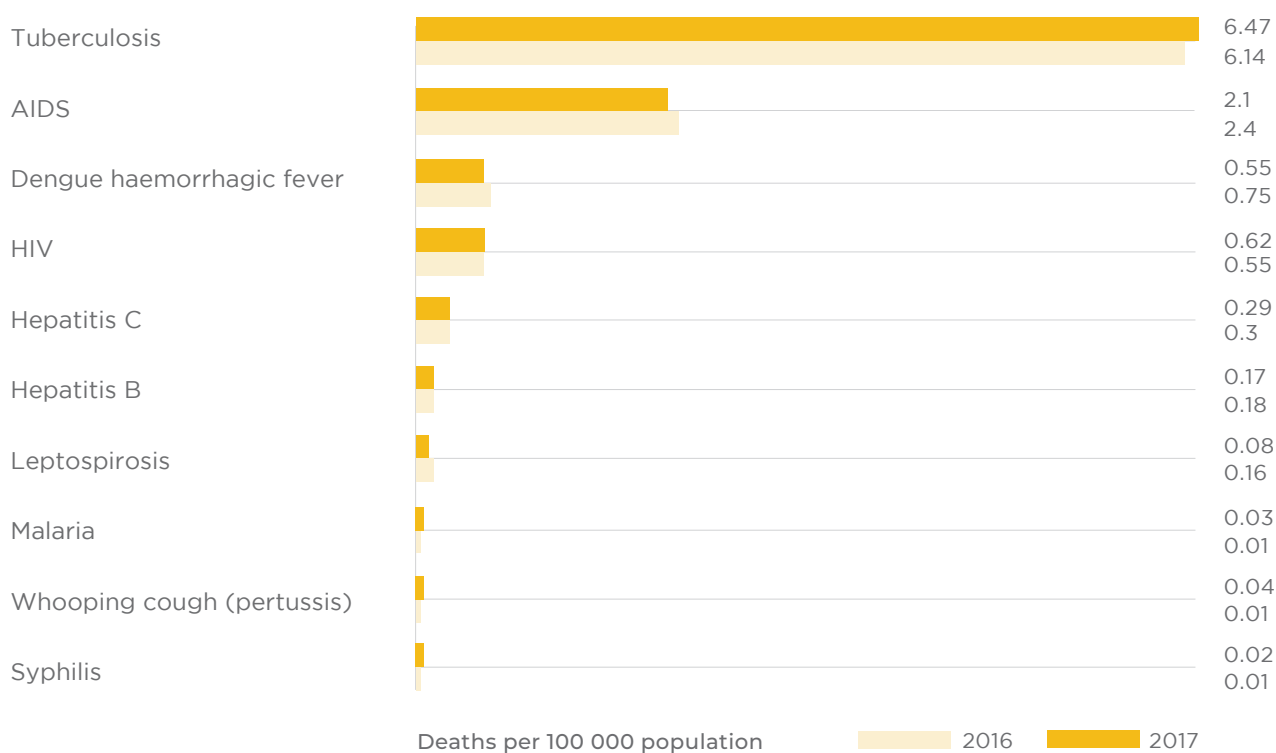


## Incidence Rates of Top 10 Communicable Diseases, 2016–2017



Sources: Ministry of Health Malaysia (10,13,14). \* Data for HIV refer to new case notification rate per 100 000 population.

## Mortality Rates of Top 10 Communicable Diseases, 2016–2017



Sources: Ministry of Health Malaysia (10,13).

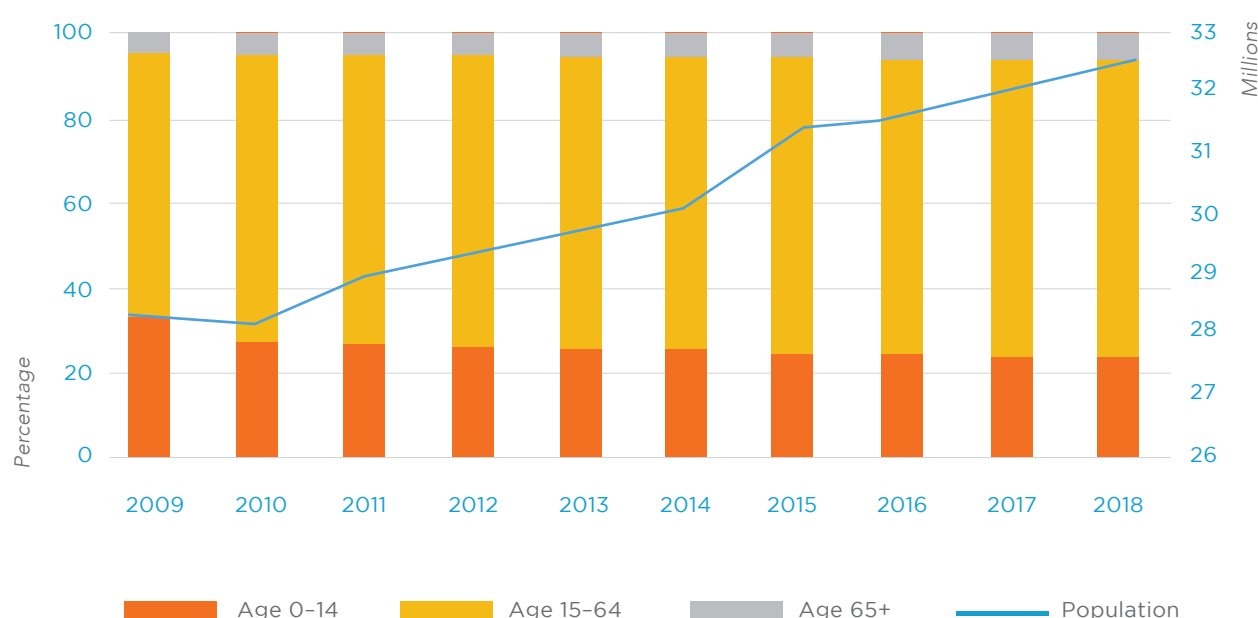
# Overview

Based on 2018 estimates, Malaysia's population reached approximately 32.6 million people with an average population growth rate of 1.6% over the period 2009–2018 (Fig. 1) (7). The percentage of population aged 15–64 years increased from 67.3% in 2010 (75) to 69.3% in 2018 (7), contributing to an increase in the median age from 26.2 years in 2010 to 28.3 years in 2017 (76,77).

By 2018, nine persons in the older population (65 years and above) were being supported by 100 persons in the working-age population (15–64 years) (2). The sex ratio in 2018 was 107 males to 100 females (7). The World Bank classifies Malaysia as an upper-middle-income country (78).

Figure 1

## Population growth, by age, 2009–2018



Sources: Ministry of Health Malaysia (10,13,19–24); Department of Statistics Malaysia (1).

Generally, Malaysia has experienced dramatic improvements in health. The reported infant mortality rate declined from 41 deaths per 1000 live births in 1970 (25) to 6.7 in 2016 (13), but increased slightly to 6.9 in 2017 (10). The maternal mortality ratio fell from 141 deaths per 100 000 live births in 1970 (25) to 28.8 in 2007 (79), and further declined to **25.0** in 2017 (10). Over the past decade, the probability of a 15-year-old male dying before reaching age 60 decreased from 177 per 1000 population in 2007 to 156 in 2016 (6). For females, the corresponding probability of dying slightly decreased from 89 to 86 per 1000 population over the same period (6). The under-5 mortality rate in Malaysia dropped from 16.8 deaths per 1000 live births in 1990 (26) to 8.9 per 1000 live births in 2000 (26), and plateaued until 2017 at **8.4** per 1000 live births (7).

Table 1

## Trends of vital statistics, 1990, 2000, 2007 and 2017

|                                                                          | 1990 | 2000 | 2007                    | 2017                              |
|--------------------------------------------------------------------------|------|------|-------------------------|-----------------------------------|
| Infant mortality rate<br>(per 1000 live births)                          | 13.1 | 6.5  | 6.2                     | 6.9                               |
| Under-5 mortality rate<br>(per 1000 live births)                         | 16.8 | 8.9  | 7.9                     | 8.4                               |
| Maternal mortality ratio<br>(per 100 000 live births)                    | -    | -    | 28.8                    | 25                                |
| Probability of dying<br>between 15 and 60 years<br>(per 1000 population) | -    | -    | Male: 177<br>Female: 89 | Male: 156<br>Female: 86<br>(2016) |

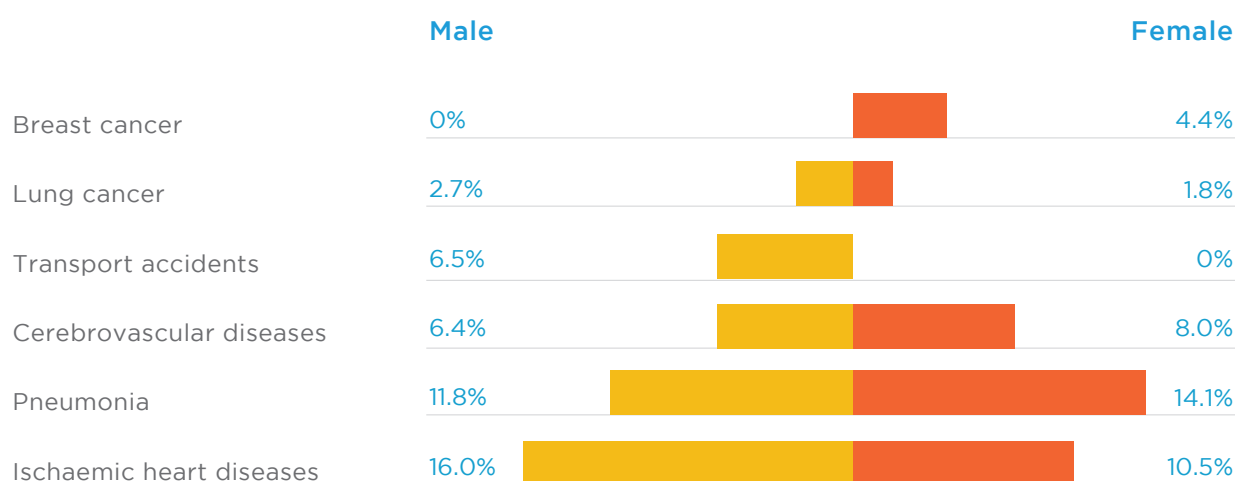
Sources: Ministry of Health Malaysia (10,13,19); Department of Statistics Malaysia (7,26); World Health Organization (6).

## Leading Causes of All Recorded Deaths

In 2017, the leading cause of medically certified death for males was ischaemic heart diseases (IHD), accounting for 16.0% of recorded deaths (Fig. 2). Pneumonia was the leading cause of death for females, accounting for 14.1% of deaths, followed by IHD (10.5%). Notably, breast cancer as a cause of death among females increased by 0.6 percentage points, from 3.8% in 2016 to 4.4% in 2017 (11). In 2016, 35.0% of under-5 deaths were mainly due to certain conditions originating in the perinatal period, followed by congenital malformations, deformations and chromosomal abnormalities (27.2%) and pneumonia (3.8%) (12).

Figure 2

### Leading underlying causes of death, by sex, 2017



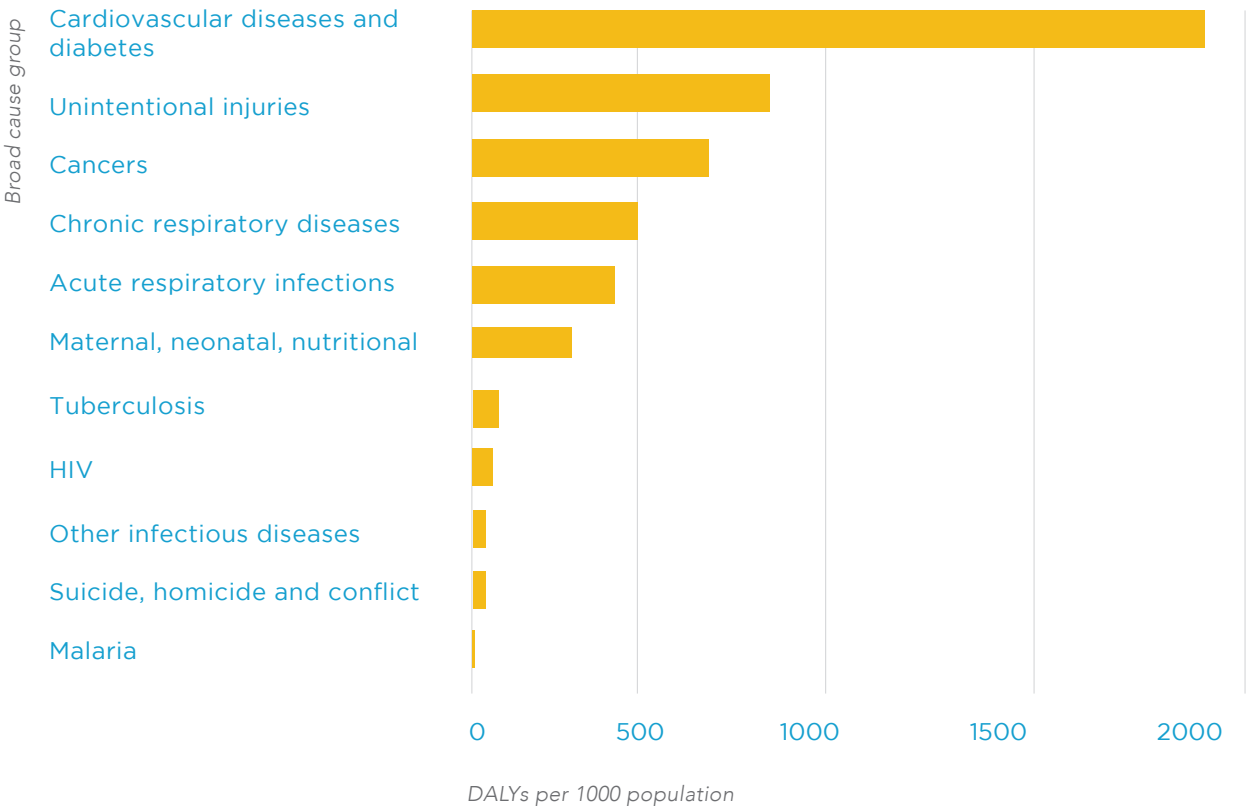
Note: Percentages are based on medically certified deaths only. Source: Department of Statistics Malaysia (11).

# Burden of Morbidity & Mortality

Disability-adjusted life years (DALYs), the sum of years of life lost due to premature mortality and years of healthy life lost due to disability, are used as a measure of disease burden. Fig. 3 shows DALYs by broad cause group for Malaysia in 2014. Of the total 6150.7 DALYs per 1000 population in 2014, 62% were due to premature mortality and 38% to non-fatal health outcomes (27).

The disease burden was dominated by noncommunicable diseases (NCDs), accounting for 71% of burden of disease, similar to other upper-middle-income countries (77%), yet about 20% higher than other South-East Asian countries (58%). Cardiovascular diseases (29%) and cancers (9%) were the most common NCDs (27).

Figure 3  
DALYs by broad cause group, 2014



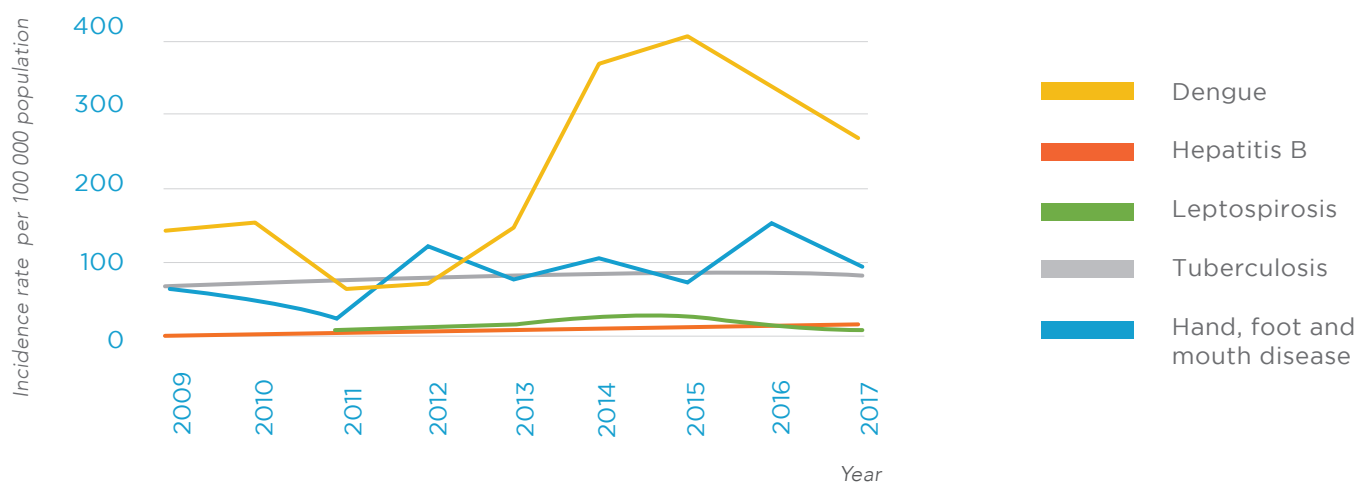
Source: Ministry of Health (27)

# Communicable Diseases

The incidence rate of dengue disease in 2014 was 361.1 cases per 100 000 population, more than twice the incidence rate in 2013, which was 145.9 cases per 100 000 population (Fig. 4). This dramatic rise was due to policy change in the Ministry of Health that authorized the rapid diagnostic test as a confirmatory test for all suspected dengue cases. The dengue incidence rate in 2014 reflects the true disease burden of dengue in Malaysia (74). Since 2015, the incidence rate has trended downwards for two consecutive years, declining to 258.9 cases per 100 000 population in 2017 (70).

Figure 4

## Incidence rates of communicable diseases, 2009–2017



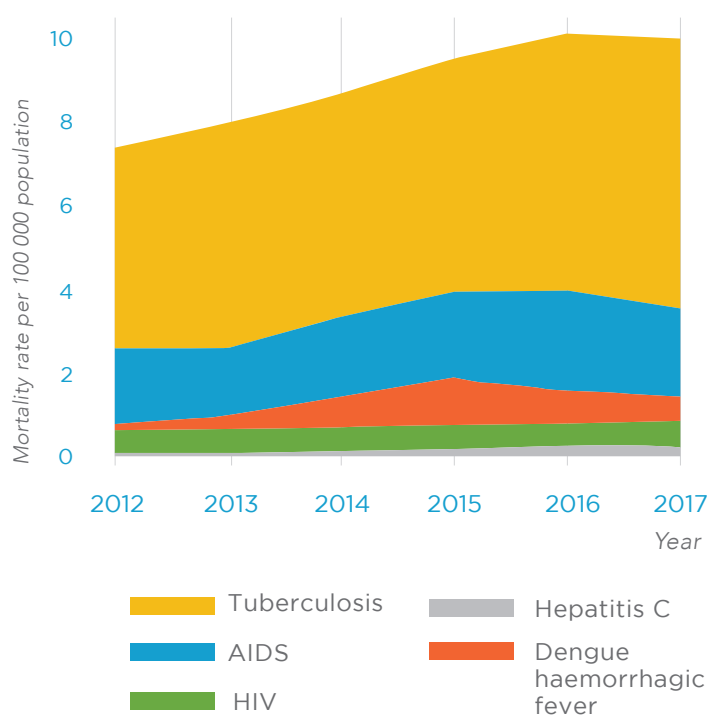
Sources: Ministry of Health Malaysia (10,13,19–24).

Tuberculosis (TB) not only had the third highest incidence rate (**80.8** per 100 000 population) of all communicable diseases in 2017, but also accounted for the highest mortality rate (6.5 per 100 000 population) (Fig. 5). In 2017, the top three states reporting the highest TB incidence and mortality rates were from East Malaysia, namely Labuan (138.4 per 100 000 population), Sabah (132.5 per 100 000 population) and Sarawak (100.3 per 100 000 population) (10).

The incidence rate of leptospirosis steadily increased from 7.8 per 100 000 population in 2011 to 16.7 per 100 000 population in 2016, and dropped to 13.5 per 100 000 in 2017 (10,13,20). In 2017, Terengganu reported the highest incidence rate of leptospirosis (41.7 per 100 000 population), followed by Kelantan (26.5 per 100 000 population) (10).

Figure 5

## Mortality rates of the top five communicable diseases, 2012–2017



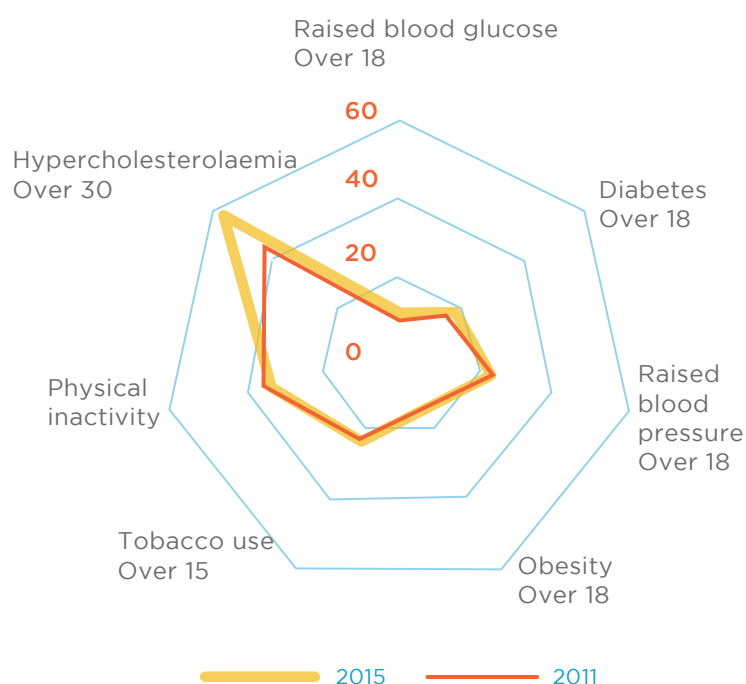
## Noncommunicable Diseases

The probability of dying between ages 30 and 70 years from one of the four main NCDs, namely cancer, diabetes, cardiovascular diseases and chronic respiratory diseases, was 19.3% in 2005, with a continued decline to 18.2% in 2010 and **17.2%** in 2016 (28). The spider chart in Fig. 6 represents the trends of NCD risk factors in selected age groups in 2011 and 2015.

Between 2007 and 2011, the top five cancers among males were colorectal cancer; trachea, bronchus and lung cancers; nasopharyngeal cancer; lymphoma; and prostate cancer. Among females, the top five cancers were breast cancer; colorectal cancer; cervical cancer; ovarian cancer; and trachea, bronchus and lung cancers (Table 2) (29).

Figure 6

### Prevalence (%) of NCD risk factors in selected age groups, 2011 and 2015



Sources: Institute for Public Health Malaysia (30,31); World Health Organization (32).

Table 2

### Age-standardized incidence rates of top five cancers, by gender, 2007-2011

#### Males

| Cancer                  | Number | Age-standardized rate (per 100 000) |
|-------------------------|--------|-------------------------------------|
| Colorectal              | 7646   | 14.6                                |
| Trachea, bronchus, lung | 7415   | 14.4                                |
| Nasopharynx             | 3785   | 6.4                                 |
| Lymphoma                | 3171   | 5.5                                 |
| Prostate                | 3132   | 6.6                                 |

#### Females

| Cancer                  | Number | Age-standardized rate (per 100 000) |
|-------------------------|--------|-------------------------------------|
| Breast                  | 18 206 | 31.1                                |
| Colorectal              | 6047   | 11.1                                |
| Cervix Uteri            | 4352   | 7.6                                 |
| Ovary                   | 3472   | 5.9                                 |
| Trachea, bronchus, lung | 3193   | 6                                   |



## Obesity

In 2015, 17.7% of Malaysian adults were reported to be obese, up slightly from 15.1% in 2011. Around 20.6% of women aged 18 years and above were obese, compared to 15.0% of men aged 18 years and above. Among the major ethnic groups in Malaysia, obesity prevalence rates in 2015 were 27.1% among Indians, 21.1% among Malays and 11.7% among Chinese (30).



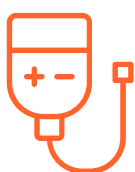
## Blood Pressure

The prevalence of raised blood pressure declined steadily from 32.7% in 2011 to 30.3% in 2015. While one in three adults aged 18 years and above reported hypertension in 2015, prevalence was slightly higher among men (30.8%) than women (29.7%) (30,31).



## Alcohol Consumption

In 2015, **8.4%** of adults aged 18 years and above consumed alcohol. The percentage of men who consumed alcohol (12.1%) was three times higher than that of women (4.3%) (30).



## Blood Glucose

The prevalence of raised blood glucose ( $\geq 7.0$  mmol/L or on medication) increased from 7.1% in 2000 to 9.6% in 2014. The prevalence of diabetes mellitus also increased, from 11.6% in 2006 to 17.5% in 2015 among adults aged 18 years and above, and from 14.9% in 2006 to 22.5% in 2015 among adults aged 30 years and above. Among the major ethnic groups, Indians had the highest prevalence rate of diabetes mellitus (22.1%), followed by Malays (14.6%) and Chinese (12.0%) (32-34). The National Diabetes Registry reported in 2012 that the most common complications of diabetes mellitus were nephropathy (7.8%), retinopathy (6.7%) and ischaemic heart disease (5.3%) (35).



## Hypercholesterolaemia

In 2015, nearly half (47.7%) of adults aged 18 years and above were identified as having hypercholesterolaemia (known and undiagnosed). Roughly one in two (52.2%) women and four in 10 men (43.5%) aged 18 years and above had hypercholesterolaemia in 2015. Regardless of ethnicity and gender, an increasing trend has been observed since 2011, approximately 10-15% over the past five years. More than half (56.8%) of adults aged 30 years and above had hypercholesterolaemia in 2015 (30,34).



## Physical Exercise

Among adults aged 16 years and above, 33.5% reported having sufficient physical exercise in 2015 (30).



## Smoking

Tobacco use among Malaysians aged 15 and above dropped only slightly from 23.1% in 2011 to **22.8%** in 2015. In 2015, 43.0% men reported being current smokers, compared to 1.4% women (30).

# UNIVERSAL HEALTH COVERAGE (UHC)

| Indicator                                                                        | Value       | Year | Source |
|----------------------------------------------------------------------------------|-------------|------|--------|
| Family planning demand satisfied with modern methods and traditional methods (%) | <b>86.6</b> | 2014 | (36)   |
| Antenatal care, 4+ visits (%)                                                    | 97.4        | 2016 | (37)   |
| Child immunization (DTP3)* (%)                                                   | 98.9        | 2017 | (10)   |
| Care-seeking behaviour for childhood pneumonia (%)                               | 87.0        | 2015 | (38)   |
| Tuberculosis effective treatment (%)                                             | 87.0        | 2016 | (39)   |
| HIV treatment** (%)                                                              | 54.0        | 2017 | (14)   |
| At least basic sanitation (%)                                                    | 100.0       | 2015 | (38)   |
| Normal blood pressure (%)                                                        | 69.7        | 2015 | (30)   |
| Mean fasting plasma glucose (mmol/L)                                             | 5.3         | 2015 | (30)   |
| Tobacco nonsmoking (%)                                                           | 77.2        | 2015 | (30)   |

| Indicator                                                | Value | Year | Source |
|----------------------------------------------------------|-------|------|--------|
| Hospital beds per 10 000 population                      | 18.6  | 2015 | (38)   |
| Physicians per 1000 population                           | 1.5   | 2015 | (38)   |
| Psychiatrists per 100 000 population                     | 0.8   | 2015 | (38)   |
| Surgeons per 100 000 population                          | 6.9   | 2015 | (38)   |
| International Health Regulations core capacity index (%) | 100.0 | 2016 | (38)   |

Values in blue bold denote latest available SDG indicators.\* DTP3, diphtheria-tetanus-pertussis, third dose.

\*\*Antiretroviral therapy (ART) coverage among people with HIV infection eligible for ART according to 2010 World Health Organization guidelines.

## OTHER SUSTAINABLE DEVELOPMENT GOALS (SDG) INDICATOR VALUES

Goal 2.

### End hunger, achieve food security and improved nutrition and promote sustainable agriculture

|                                                              | %    | Year | Source |
|--------------------------------------------------------------|------|------|--------|
| Prevalence of stunting among children under 5 years of age   | 20.7 | 2016 | (40)   |
| Prevalence of wasting among children under 5 years of age    | 11.5 | 2016 | (40)   |
| Prevalence of overweight among children under 5 years of age | 6.0  | 2016 | (40)   |

Goal 3.

### Ensure healthy lives and promote well-being for all at all ages

|                                                                | Value | Year | Source |
|----------------------------------------------------------------|-------|------|--------|
| Proportion of births attended by skilled health personnel (%)  | 99.6  | 2017 | (10)   |
| Neonatal mortality rate per 1000 live births                   | 4.4   | 2017 | (7)    |
| New HIV incidence per 100 000 population                       | 25.0* | 2017 | (14)   |
| Malaria incidence per 100 000 population                       | 12.7  | 2017 | (10)   |
| Hepatitis B incidence per 100 000 population                   | 15.4  | 2017 | (10)   |
| Immunization coverage of BCG, DPT/Hib, polio and hepatitis (%) | >95.0 | 2017 | (10)   |
| Immunization coverage of MMR (MCV1) (%)                        | 93.5  | 2017 | (27)   |
| Immunization coverage of MMR (MCV2) (%)                        | 88.8  | 2017 | (10)   |
| Suicide mortality rate per 100 000 population                  | 5.5   | 2017 | (41)   |

Goal 8.

### Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

|                                                | Value | Year | Source |
|------------------------------------------------|-------|------|--------|
| Unemployment rate (%)                          | 3.3   | 2018 | (42)   |
| Per capita GDP at current market prices (US\$) | 9945  | 2017 | (43)   |
| Income Gini coefficient                        | 0.399 | 2016 | (5)    |

BCG, *Bacillus Calmette–Guérin*; DPT, diphtheria-tetanus-pertussis; GDP, gross domestic product; Hib, *Haemophilus influenzae* type B; MCV1, measles-containing vaccine, first dose; MCV2, measles-containing vaccine, second dose; MMR, measles, mumps and rubella; polio, poliomyelitis. \*Modelled estimate.

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