

20th Edition



MINISTRY OF HEALTH
BRUNEI DARUSSALAM

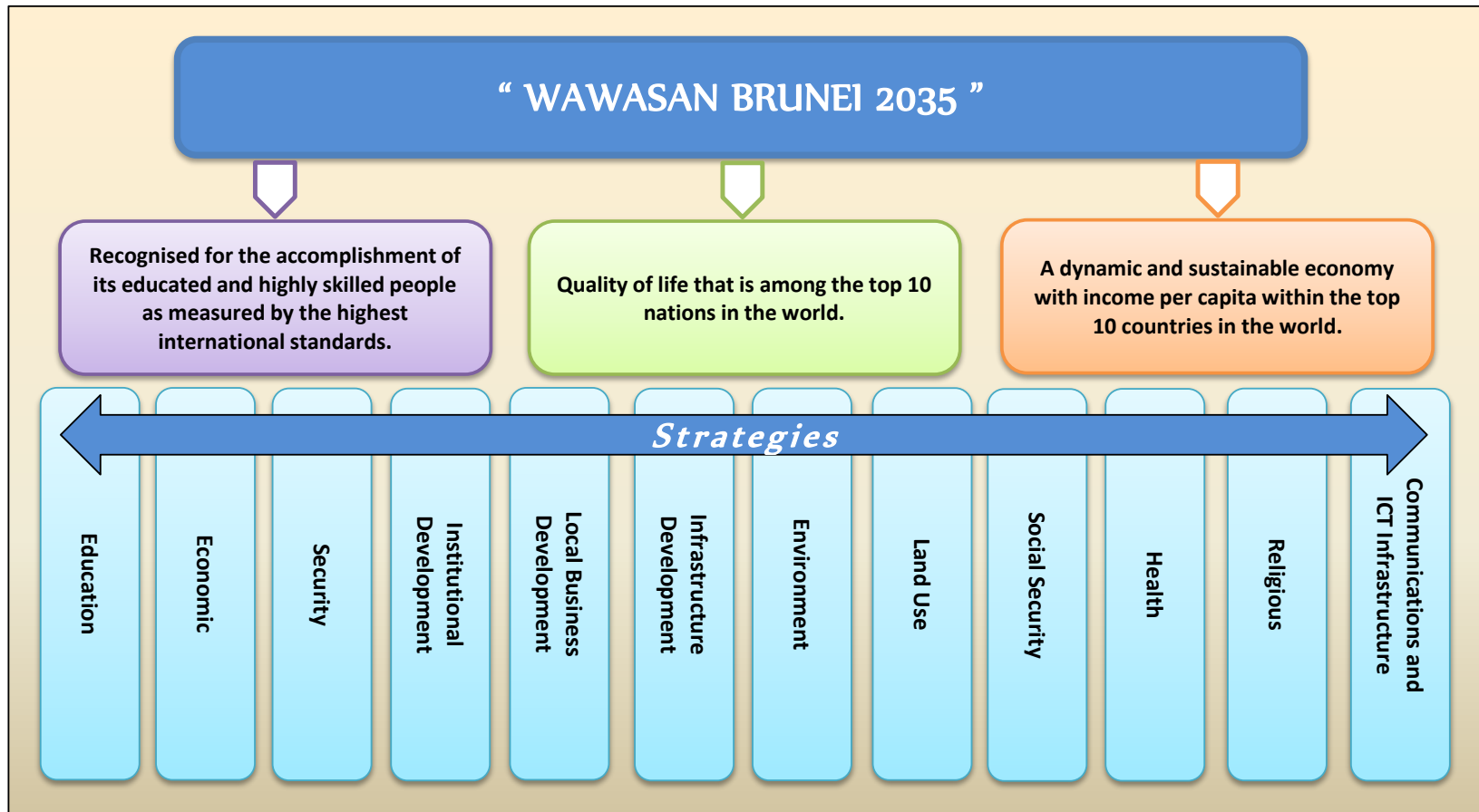
HEALTH INFORMATION BOOKLET 2015

DATA MANAGEMENT
OFFICE OF POLICY AND FORESIGHT
MINISTRY OF HEALTH
BRUNEI DARUSSALAM

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Brunei Darussalam's Vision and Strategies



Ministry of Health's Vision and Organisational Values



VISION

'together towards a healthy nation'

PURPOSE

'to improve the health and wellbeing of the people of Brunei Darussalam through a **high quality and comprehensive health care system** which is effective, efficient, responsive, affordable, equitable and accessible to all in the country'



dynamic

we embrace change and develop our people through having a "growth mindset" we thrive on the opportunity to continuously improve



client first

our clients define us



excellence

we uphold the highest level of professionalism, where everyone matters and everyone delivers the highest quality service every time

ORGANISATIONAL VALUES



together

we are one and we embrace diversity
we are united through one common purpose

OUR PRIORITIES

01

to make "health everyone's business"

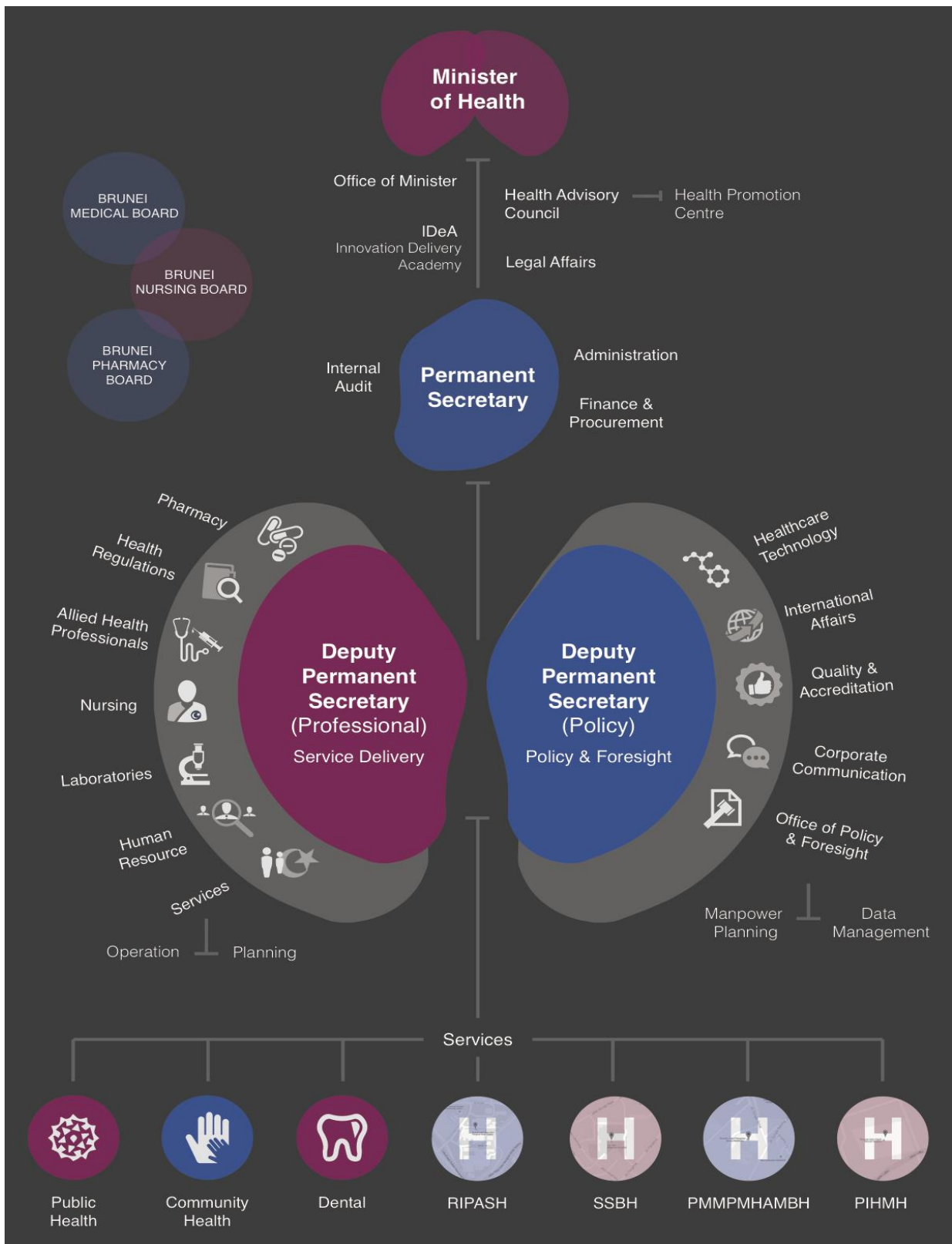
02

to enhance quality of service delivery

03

to prevent and control non-communicable diseases

Organisational Structure



Population (2015)



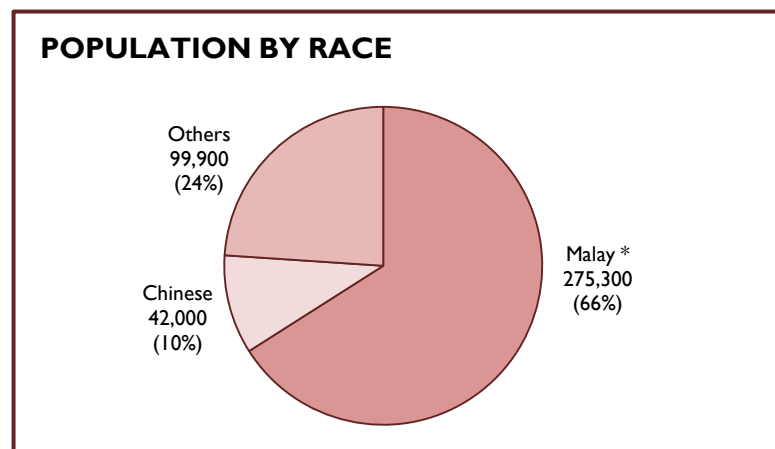
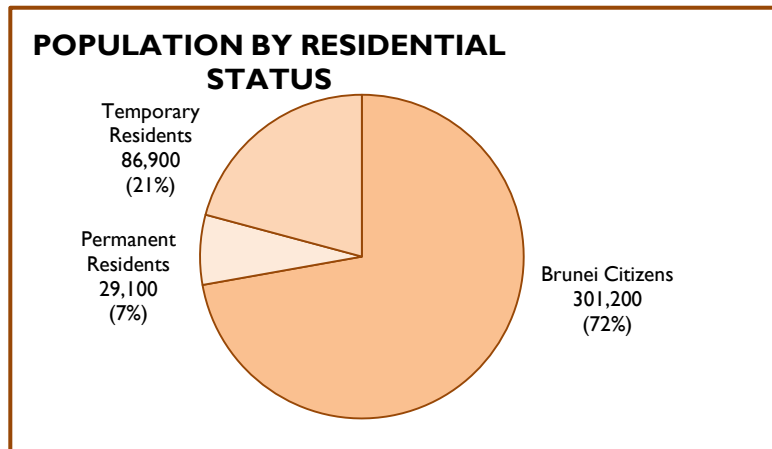
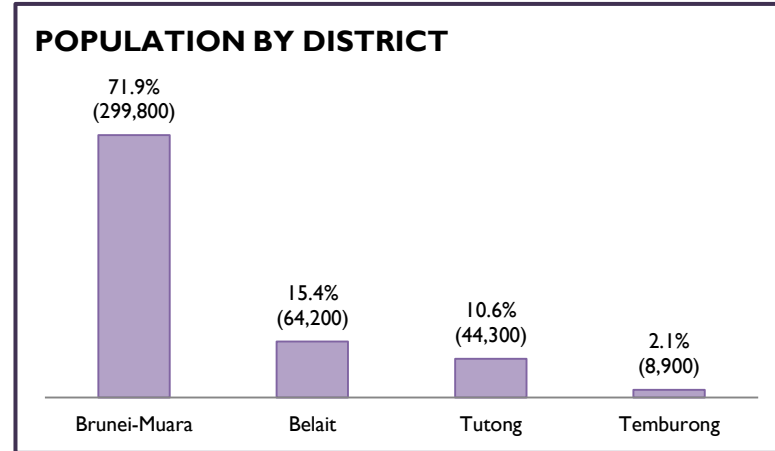
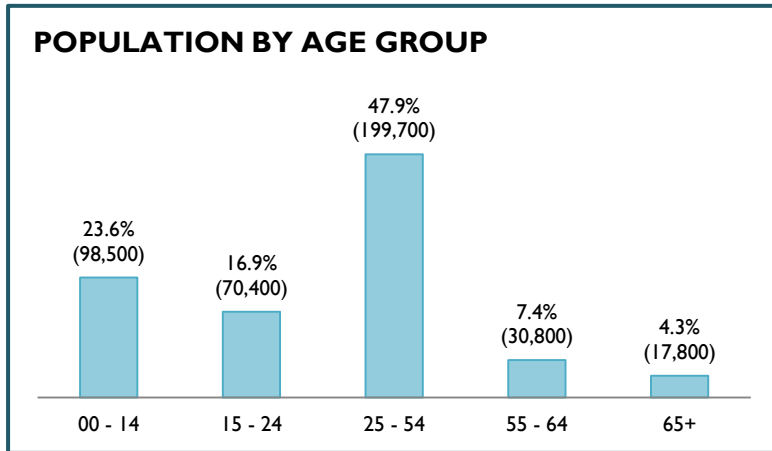
TOTAL POPULATION
417,200 PEOPLE



MALE
216,600 PEOPLE



FEMALE
200,600 PEOPLE



Note :

* Includes Other Indigenous Groups of the Malay race namely Belait, Bisaya, Brunei, Dusun, Kedayan, Murut and Tutong.

Source :

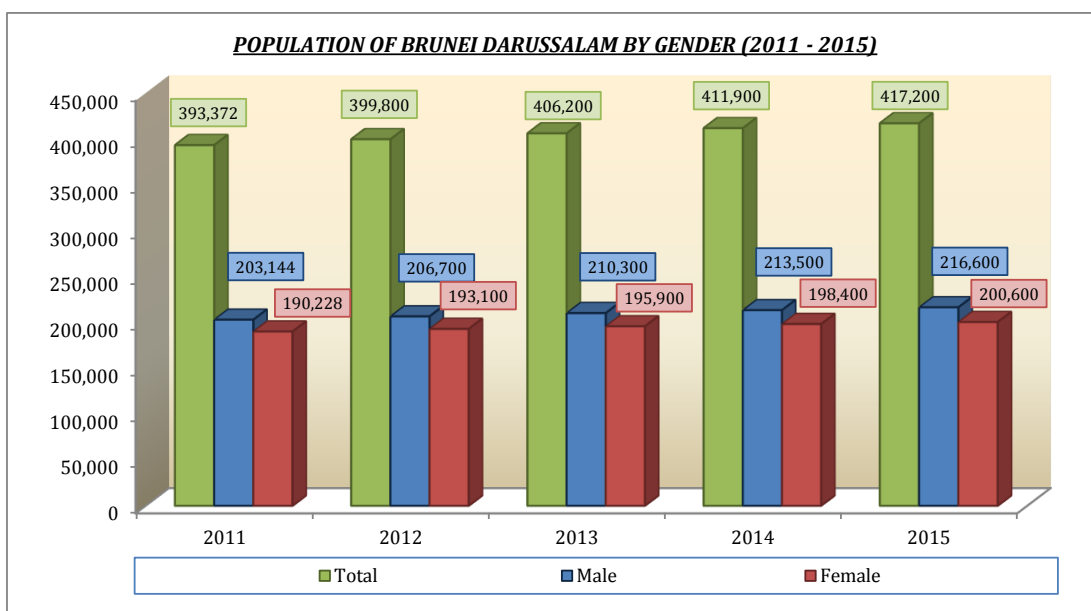
Department of Economic Planning and Development, Prime Minister's Office

Population distribution by Age

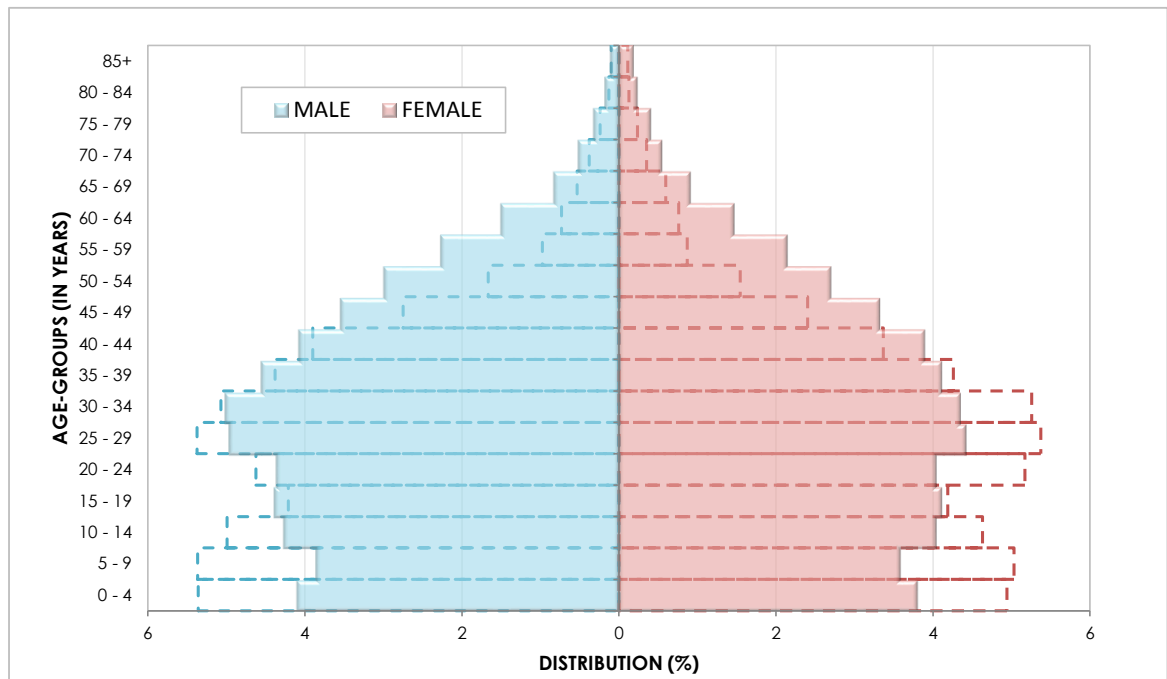
| <i>Age Group (in thousands)</i> | <i>2011</i> | <i>2012</i> | <i>2013</i> | <i>2014</i> | <i>2015</i> |
|---------------------------------|-------------|-------------|-------------|-------------|-------------|
| 0 - 4 | 30.323 | 31.1 | 32.0 | 32.4 | 32.9 |
| 5 - 9 | 33.659 | 33.0 | 31.9 | 31.5 | 31.0 |
| 10 - 14 | 35.453 | 35.5 | 35.6 | 35.4 | 34.6 |
| 15 - 19 | 34.967 | 35.0 | 35.1 | 35.2 | 35.4 |
| 20 - 24 | 38.150 | 37.4 | 36.4 | 35.6 | 35.0 |
| 25 - 29 | 39.185 | 39.3 | 39.7 | 39.4 | 39.1 |
| 30 - 34 | 36.896 | 37.8 | 38.3 | 38.8 | 39.0 |
| 35 - 39 | 33.796 | 34.1 | 34.7 | 35.1 | 36.1 |
| 40 - 44 | 30.122 | 31.2 | 32.0 | 32.9 | 33.2 |
| 45 - 49 | 24.610 | 25.4 | 26.3 | 27.7 | 28.6 |
| 50 - 54 | 19.781 | 20.8 | 22.2 | 22.6 | 23.7 |
| 55 - 59 | 14.044 | 15.0 | 16.1 | 17.1 | 18.4 |
| 60 - 64 | 8.518 | 9.5 | 10.4 | 11.5 | 12.4 |
| 65 - 69 | 5.088 | 5.3 | 5.7 | 6.5 | 7.3 |
| 70 - 74 | 3.901 | 4.4 | 4.6 | 4.6 | 4.5 |
| 75 - 79 | 2.601 | 2.6 | 2.6 | 2.8 | 3.1 |
| 80 - 84 | 1.405 | 1.4 | 1.6 | 1.8 | 1.8 |
| 85 & Over | 0.873 | 1.0 | 1.0 | 1.0 | 1.1 |

Source :

Department of Economic Planning and Development, Prime Minister's Office



Population Pyramid (2015)



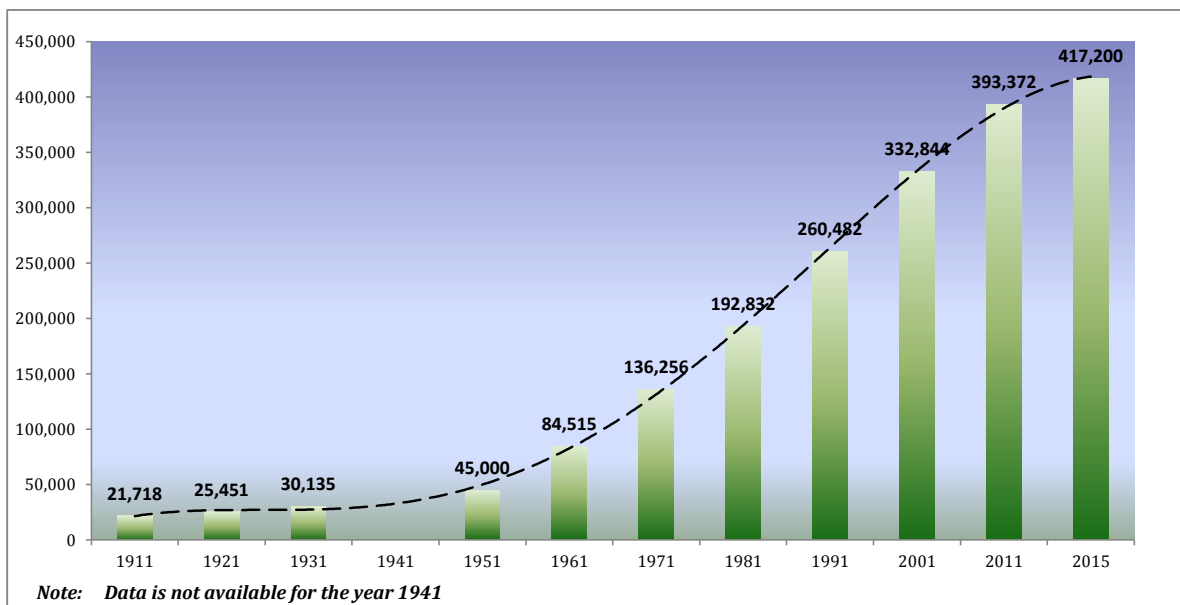
Total population in 2001 -----
Total population in 2015 —————

Note:

Population pyramid shows percentage distribution of population by gender and age-groups.

For example, (0 - 4) age-group for the year 2015 is represented with 7.9% of total population in which 4.1% and 3.8% are made up of male and female population respectively.

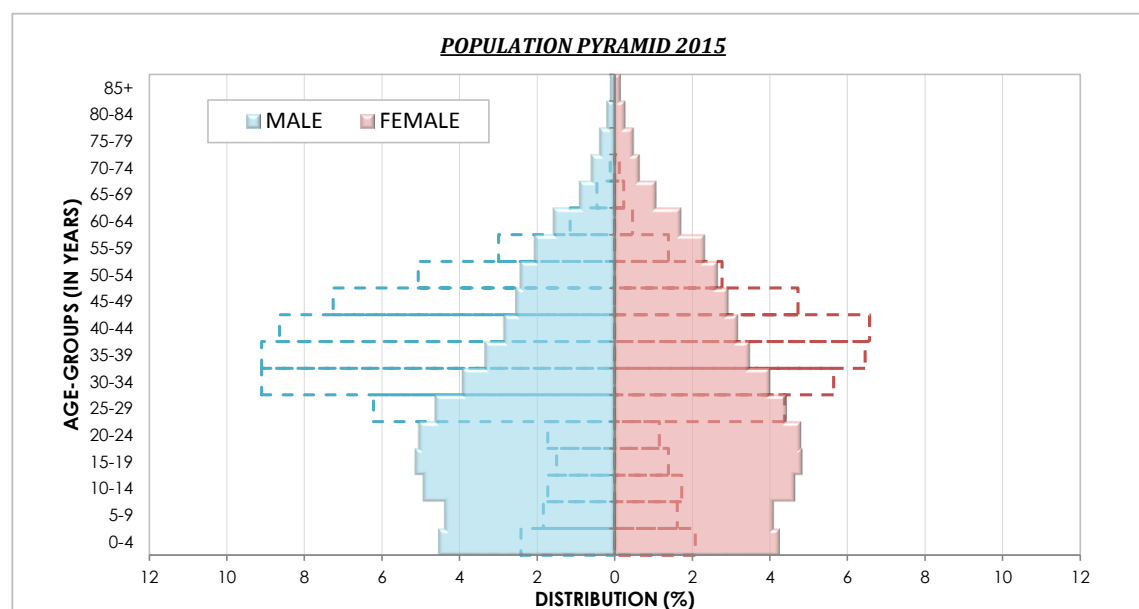
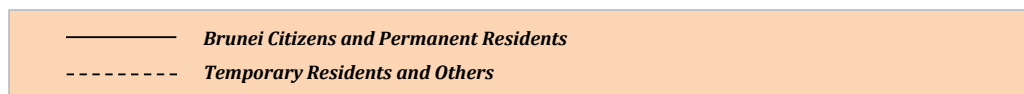
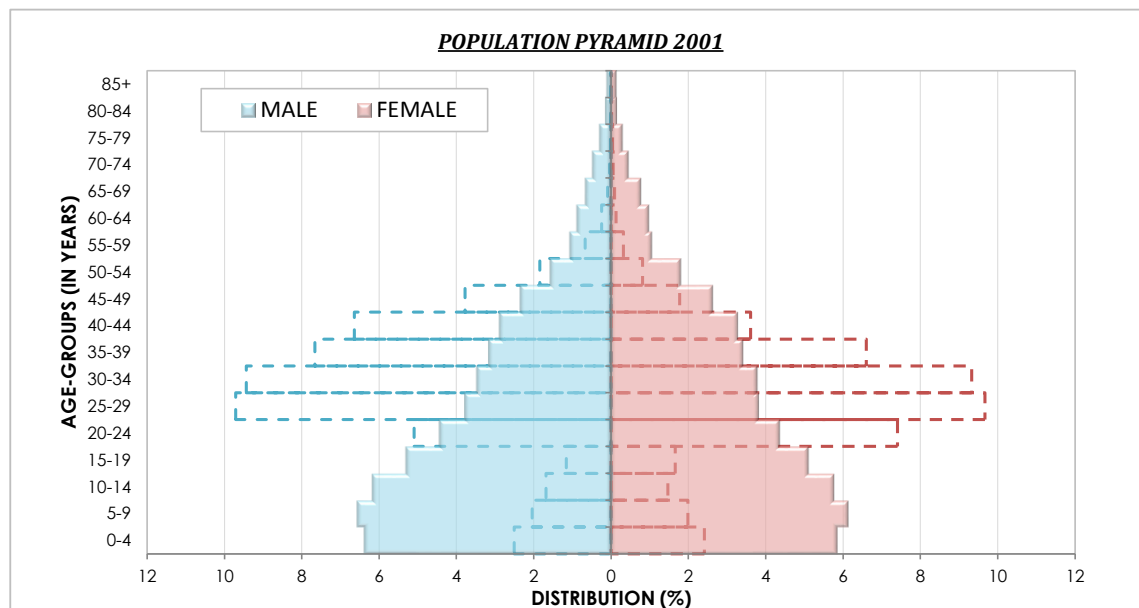
Population Trend of Brunei Darussalam (1911 - 2015)



Source :

Department of Economic Planning and Development, Prime Minister's Office

Population Pyramid by Age-Group, Gender and Residential Status for the Years 2001 and 2015



Population aged 60 years and above for the year 2015 is represented with 7.2% of total population in which 3.5% and 3.7% are made up of male and female population respectively.

On the residential status, the share of the Brunei Citizens was around 72.2%, Permanent Residents 7.0% and Temporary Residents 20.8%. As is the case of affluent countries with small populations, the foreign proportion of the population is rather high. The relatively high number of foreign population is being contributed by the number of working immigrants.

Source: Department of Economic Planning and Development, Prime Minister's Office

Vital Statistics

| | 2011 | 2012 | 2013 | 2014 | 2015 |
|--|------|------|------|------|-------|
| Crude Birth Rate (per 1,000 Population) : | 17.1 | 17.3 | 16.4 | 16.7 | 16.1 |
| General Fertility Rate (per 1,000 Female Population Aged (15-49)) : | 58.8 | 59.9 | 57.5 | 58.9 | 57.0 |
| Total Fertility Rate (per Female Population Aged (15-49)) : | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 |
| Crude Death Rate (per 1,000 Population) : | 3.1 | 3.0 | 3.4 | 3.6 | 3.7 |
| Infant Mortality Rate (per 1,000 Live Births) : | 8.3 | 9.3 | 7.8 | 7.3 | 8.8 |
| Late Fetal Death Ratio (per 1,000 Live Births) : | 3.7 | 3.9 | 5.5 | 6.4 | 5.1 |
| Perinatal Mortality Ratio (per 1,000 Live Births) : | 6.8 | 7.5 | 8.4 | 9.0 | 8.7 |
| Early Neonatal Mortality Rate (per 1,000 Live Births) : | 3.1 | 3.6 | 2.8 | 2.6 | 3.6 |
| Late Neonatal Mortality Rate (per 1,000 Live Births) : | 2.1 | 1.7 | 0.9 | 1.2 | 1.8 |
| Neonatal Mortality Rate (per 1,000 Live Births) : | 5.2 | 5.4 | 3.7 | 3.8 | 5.4 |
| Post Neonatal Mortality Rate (per 1,000 Live Births) : | 3.1 | 3.9 | 4.0 | 3.5 | 3.4 |
| Under 5 Mortality Rate (per 1,000 Live Births) : | 10.0 | 10.3 | 9.7 | 8.7 | 10.3 |
| Number of Maternal Deaths * : | 0 | 3 | 1 | 1 | 4 |
| Maternal Mortality Ratio (per 100,000 Live Births) : | 0.0 | 43.4 | 15.0 | 14.5 | 59.7 |
| Maternal Mortality Ratio (per 1,000 Live Births) : | 0.00 | 0.43 | 0.15 | 0.15 | 0.60 |
| Life Expectancy At Birth - Total : | 77.1 | 78.1 | 77.1 | 77.4 | 77.4 |
| - Male : | 75.6 | 76.3 | 75.7 | 75.9 | 76.9 |
| - Female : | 78.5 | 79.9 | 78.4 | 78.8 | 78 |
| Percentage of Newborns Weighing At Least 2500g At Birth : | 88.1 | 87.9 | 88.2 | 88.1 | 87.7 |
| Percentage of Deliveries by Trained Health Personnel : | 99.7 | 99.8 | 99.7 | 99.9 | 100.0 |
| Per Capita GDP at current prices (B\$) Thousand : | 59.2 | 59.5 | 55.7 | 52.6 | 42.6 |

Note :

Red text - Millennium Development Goals (MDGs) Indicators

* - as per registered by Birth, Death and Adoption Section, Immigration and National Registration Department and amended for coding misclassifications by the Statistics Unit, Ministry of Health.

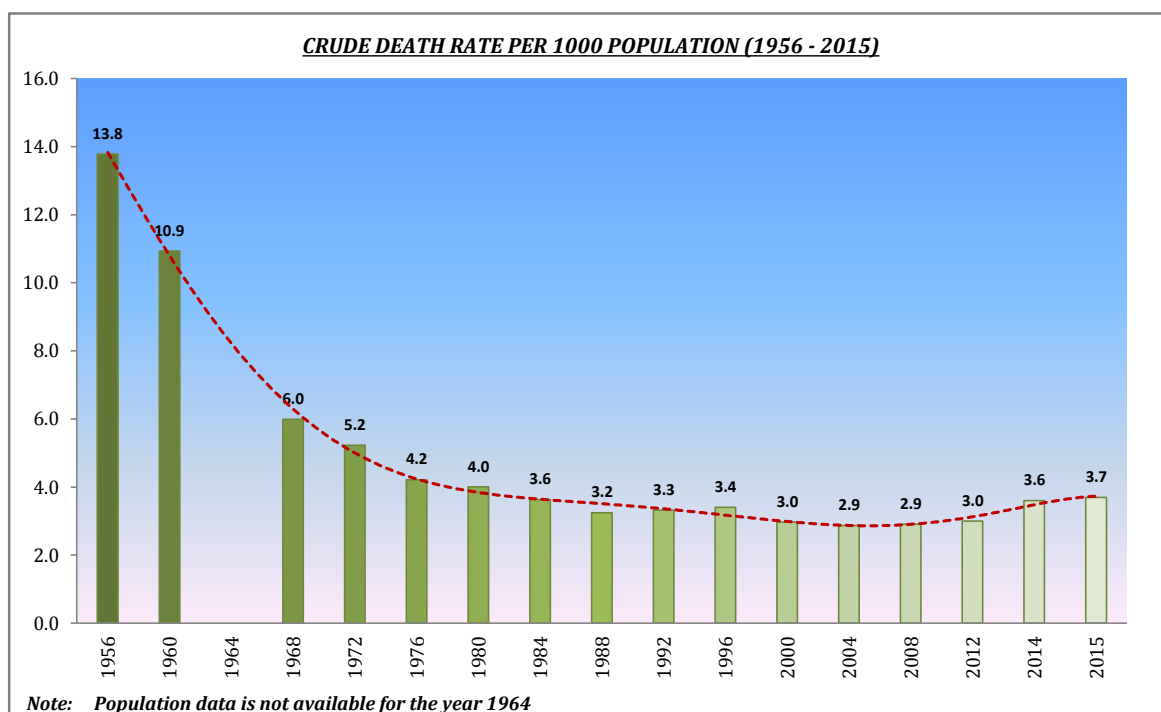
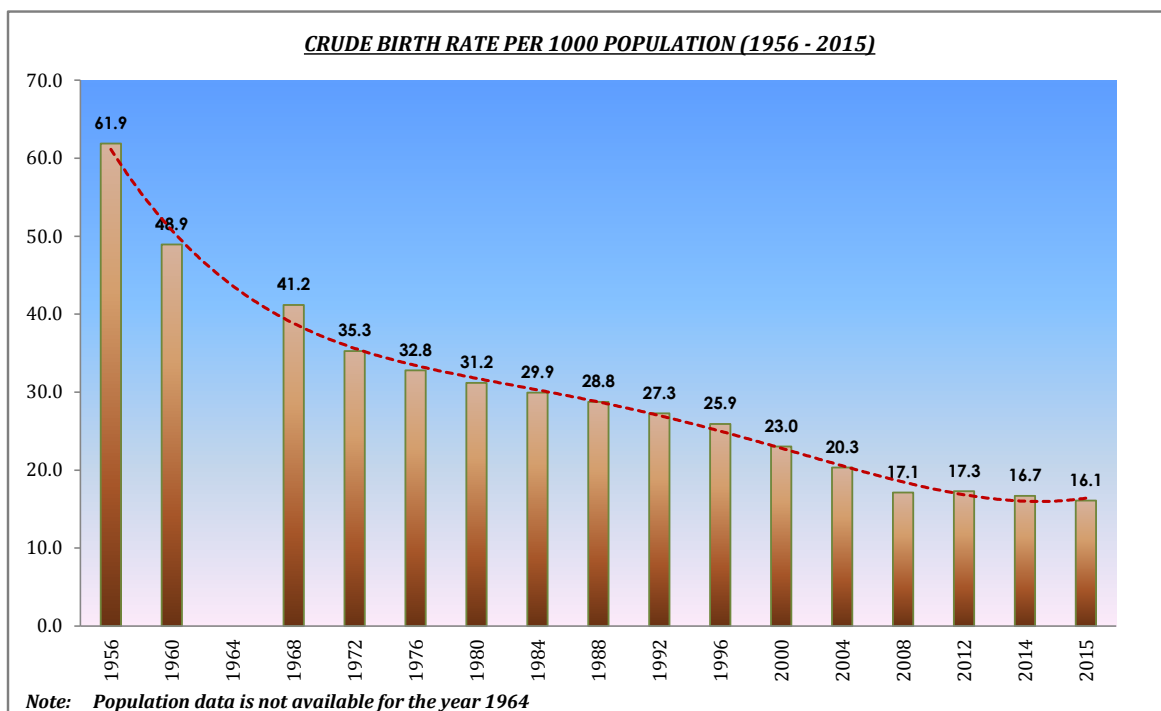
Vital Statistics

| Country | Life Expectancy at Birth (MALE) | Life Expectancy at Birth (FEMALE) | Life Expectancy at Birth (BOTH SEXES) | Maternal Mortality Ratio (per 100,000 livebirths) | Under-five Mortality Rate (per 1000 livebirths) | Neonatal Mortality Rate (per 1000 livebirths) |
|------------------------------|---------------------------------|-----------------------------------|---------------------------------------|---|---|---|
| <i>Latest available year</i> | <i>2015</i> | | | | | |
| BRUNEI DARUSSALAM | 76.3 | 79.2 | 77.7 | 23 | 10.2 | 4.3 |
| MALAYSIA | 72.7 | 77.3 | 75.0 | 40 | 7.0 | 3.9 |
| SINGAPORE | 80.0 | 86.1 | 83.1 | 10 | 2.7 | 1.0 |
| AUSTRALIA | 80.9 | 84.8 | 82.8 | 6 | 3.8 | 2.2 |
| AUSTRIA | 79.0 | 83.9 | 81.5 | 4 | 3.5 | 2.1 |
| BELGIUM | 78.6 | 83.5 | 81.1 | 7 | 4.1 | 2.2 |
| CZECH REPUBLIC | 75.9 | 81.7 | 78.8 | 4 | 3.4 | 1.8 |
| DENMARK | 78.6 | 82.5 | 80.6 | 6 | 3.5 | 2.5 |
| FINLAND | 78.3 | 82.8 | 81.1 | 3 | 2.3 | 1.3 |
| FRANCE | 79.4 | 85.4 | 82.4 | 8 | 4.3 | 2.2 |
| GERMANY | 78.7 | 83.4 | 81.0 | 6 | 3.7 | 2.1 |
| GREECE | 78.3 | 83.6 | 81.0 | 3 | 4.6 | 2.9 |
| ICELAND | 81.2 | 84.1 | 82.7 | 3 | 2.0 | 0.9 |
| IRELAND | 79.4 | 83.4 | 81.4 | 8 | 3.6 | 2.3 |
| ITALY | 80.5 | 84.8 | 82.7 | 4 | 3.5 | 2.1 |
| JAPAN | 80.5 | 86.8 | 83.7 | 5 | 2.7 | 0.9 |
| REPUBLIC OF KOREA | 78.8 | 85.5 | 82.3 | 11 | 3.4 | 1.6 |
| LUXEMBOURG | 79.8 | 84.0 | 82.0 | 10 | 1.9 | 0.9 |
| NETHERLAND | 80.0 | 83.6 | 81.9 | 7 | 3.8 | 2.4 |
| NEW ZEALAND | 80.0 | 83.3 | 81.6 | 11 | 5.7 | 3.1 |
| NORWAY | 79.8 | 83.7 | 81.8 | 5 | 2.6 | 1.5 |
| OMAN | 75.0 | 79.2 | 76.6 | 17 | 11.6 | 5.2 |
| PORTUGAL | 78.2 | 83.9 | 81.1 | 10 | 3.6 | 2.0 |
| SPAIN | 80.1 | 85.5 | 82.8 | 5 | 4.1 | 2.8 |
| SWEDEN | 80.7 | 84.0 | 82.4 | 4 | 3.0 | 1.6 |
| SWITZERLAND | 81.3 | 85.3 | 83.4 | 5 | 3.9 | 2.7 |
| UK | 79.4 | 83.0 | 81.2 | 9 | 4.2 | 2.4 |

REFERENCE WORLD HEALTH STATISTICS 2016 : MONITORING HEALTH FOR THE SDGs, WHO PUBLICATION

Health Indicators

The crude birth rate of Brunei Darussalam has declined from 23.0 in 2000 to 16.1 per 1000 population in 2015 whilst the crude death rate is 3.7 per 1000 population in 2015.



Millennium Development Goals (MDGs)

Brunei Darussalam has achieved most of the health related targets set in the Millennium Development Goals. These include significant reductions in under 5 mortality rate (U5MR) and infant mortality rate (IMR) that the figures from the last two decades have shown only slight fluctuations to the current level, which is on par with the standard set in developed nations.

Brunei Darussalam does well in maternal health. In fact, Brunei Darussalam ranks highly in the lowest incidence of maternal mortality. The most important reason for Brunei Darussalam's success in lowering maternal mortality to record levels since independence is that almost 100 percent of deliveries take place in hospitals with highly trained medical staff. Moreover, the Maternal and Child Health (MCH) programme that provides universal coverage of prenatal care, has ensured universal healthcare access to its people.

| Goals and Targets (from the Millennium Declaration) | Indicators for Monitoring progress | Brunei Darussalam's Current Status Related to Health (2015 data) |
|---|---|--|
| Goal 1 : Eradicate Extreme Poverty and Hunger | | |
| Target 1.C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger. | 1.8 Prevalence of underweight children under-five years of age (%) | 9.6 * |
| Goal 2 : Achieve Universal Primary Education | | |
| Goal 3: Promote Gender Equality and Empower Women | | |
| Goal 4: Reduce Child Mortality | | |
| Target 4.A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate | 4.1 Under-five mortality rate (per 1,000 live births) | 10.3 |
| | 4.2 Infant mortality rate (per 1,000 live births) | 8.8 |
| | 4.3 Proportion of 1 year-old children immunised against measles (%) | 96.0 |
| Goal 5: Improve Maternal Health | | |
| Target 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio | 5.1 Maternal mortality ratio (per 100,000 live births) | 59.7 |
| | 5.2 Proportion of births attended by skilled health personnel (%) | 100 |
| Target 5.B: Achieve, by 2015, universal access to reproductive | 5.3 Contraceptive prevalence rate (%) | ... |
| | 5.4 Adolescent birth rate (per 1,000 female population aged (15-19) years) | 11.4 |
| | 5.5 Antenatal care coverage (at least one visit and at least four visits) (%) | ... |
| | 5.6 Unmet need for family planning (%) | ... |

Note :

* - 2nd National Health and Nutritional Status Survey (NHANSS), Phase 1 : 0 - 5 years old

... - not available

Millennium Development Goals (MDGs)

Brunei Darussalam has been successful in reversing the trend for HIV/AIDS and Malaria and other diseases. This is made possible by providing universal access to treatment for HIV/AIDS for all those who need it, through a series of integrated measures aimed at preventing and controlling the outbreak of existing diseases and the emergence of new ones.

The achievements of Brunei Darussalam are internationally recognised by the World Health Organization (WHO) that certified Brunei Darussalam a Malaria Free country in 1987, Poliomyelitis Free in 2000 and has achieved Measles Elimination in March 2015.

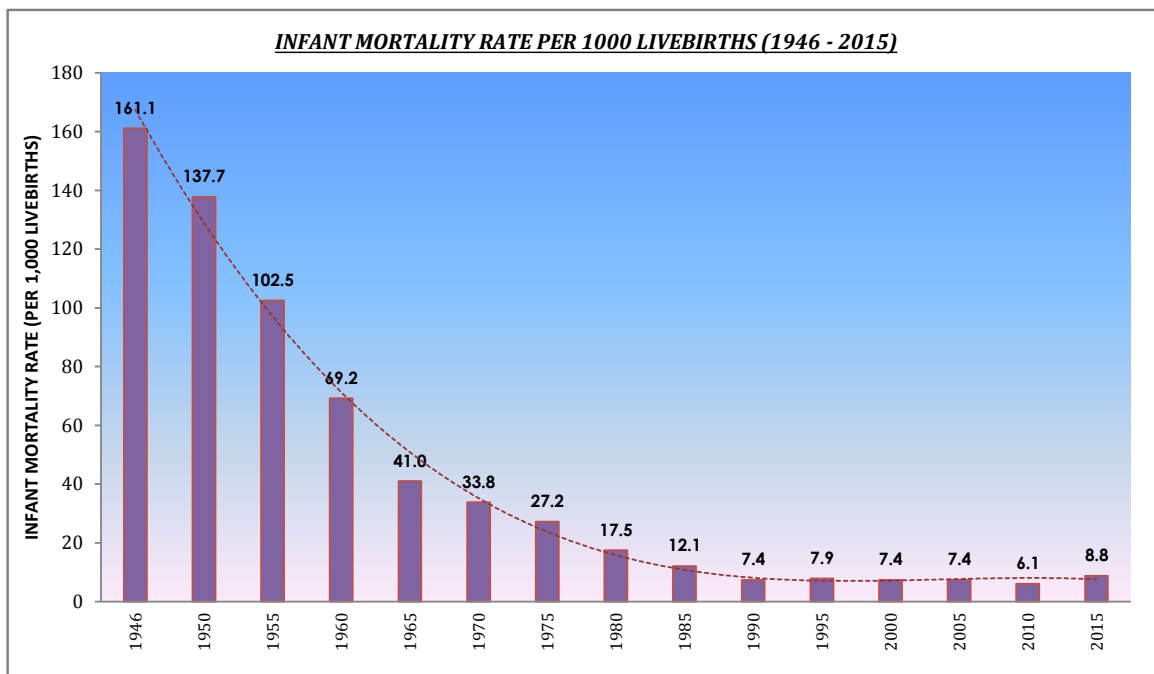
| Goals and Targets (from the Millennium Declaration) | Indicators for Monitoring progress | Brunei Darussalam's Current Status Related to Health (2015 data) |
|---|---|--|
| Goal 6: Combat HIV/AIDS, Malaria and Other Diseases | | |
| Target 6.A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS | 6.1 HIV prevalence among population aged 15-24 years (%) | 0.01 |
| | 6.2 Condom use at last high-risk sex (among population aged 15-24 years) (%) | ... |
| | 6.3 Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS (%) | ... |
| Target 6.B: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it | 6.5 Proportion of population with advanced HIV infection with access to anti-retroviral drugs (%) | 100.0 |
| Target 6.C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases | 6.6 Incidence and death rates associated with malaria (per 100,000 population) | Incidence Rate (1.9) Death Rate (0.0) |
| | 6.7 Proportion of children under 5 sleeping under insecticide-treated bednets (%) | ... |
| | 6.8 Proportion of children under 5 with fever who are treated with appropriate anti-malarial drugs (%) | ... |
| | 6.9 Incidence, prevalence and death rates associated with tuberculosis (per 100,000 population) | Incidence Rate (51.5) Prevalence Rate (63.6) Death Rate (4.9) |
| | 6.10 Proportion of tuberculosis cases detected and cured under directly observed treatment short course (%) | 100.0 |
| Goal 7: Ensure Environmental Sustainability | | |
| Goal 8: Develop A Global Partnership For Development | | |

Note:

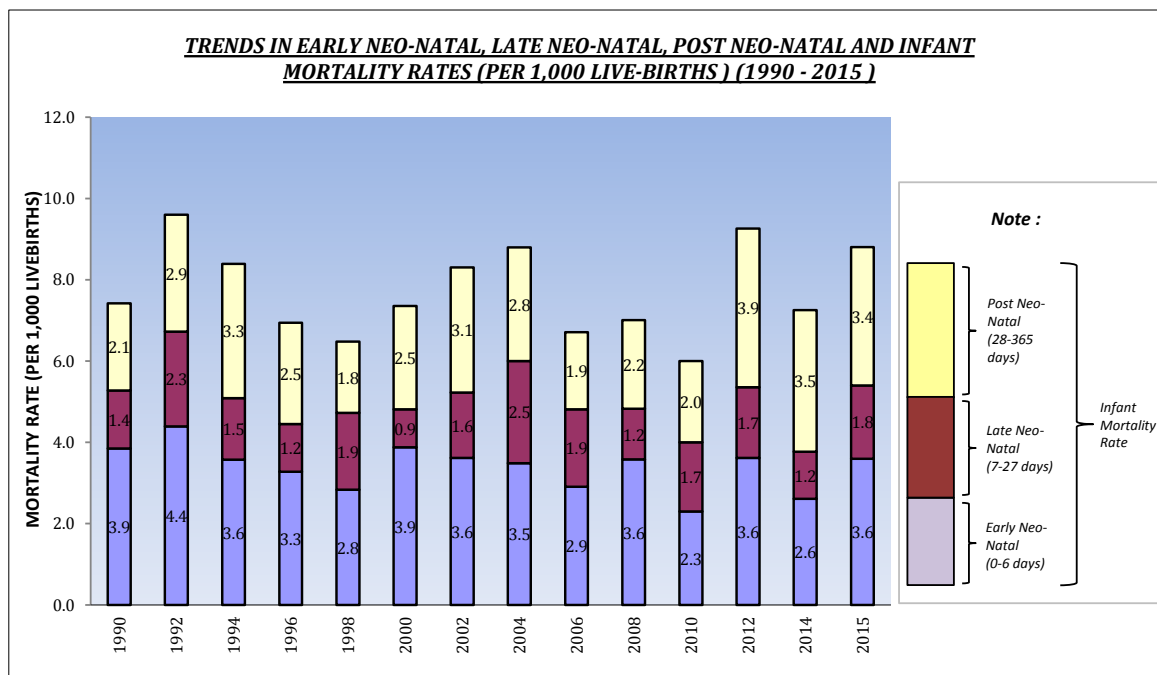
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Millennium Development Goals (MDGs) Indicators

Brunei Darussalam's infant mortality rate has reached a steady state since 1990 and is on par with figures in developed nations. Infant mortality rate has declined rapidly from 50.8 per 1000 livebirths in 1962 to 8.8 per 1000 livebirths in 2015.



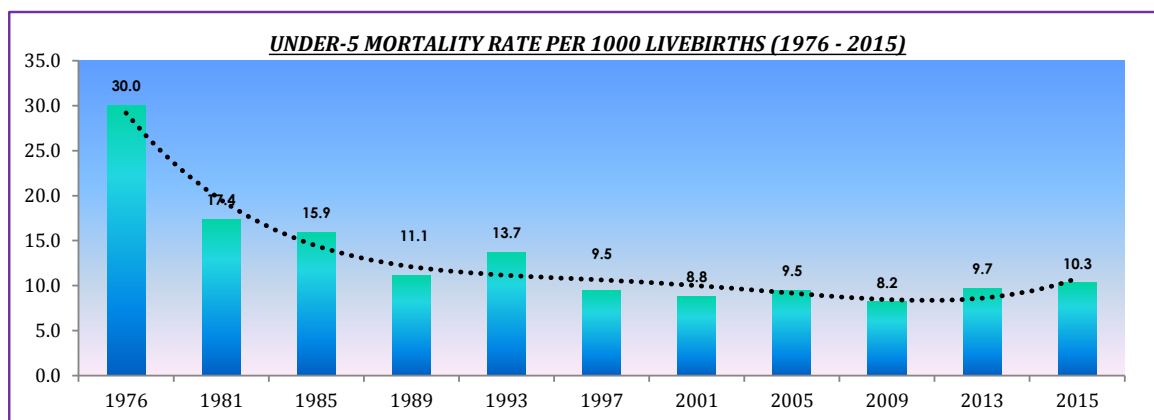
Data from 2004-2015 showed over two thirds of deaths occurred during early and late neonatal periods, mainly due to perinatal conditions and congenital abnormalities. In 2015, deaths occurring at infant period (less than 1 year) account for 85.5% of total deaths in U5MR.



Millennium Development Goals (MDGs) Indicators

Brunei Darussalam has been able to gradually reduce the under-5 mortality rate (U5MR) from 30 deaths per 1000 livebirths in 1976 to 10.3 deaths per 1000 livebirths in 2015. The current challenge is to achieve further reductions in U5MR where the data analysis from 2004 to 2015 showed a high proportion of neonatal deaths, mainly due to perinatal conditions and congenital abnormalities.

Abortion in Brunei Darussalam is only legal when it will save a woman's life. The prohibition does not permit the termination of a pregnancy even when there is a high risk to the baby's life. For example, in certain conditions originating in the perinatal period or congenital malformations, which are the leading causes of infant mortality in Brunei Darussalam. In 2015, this caused more than 76.8 percent of total under five deaths.



| LEADING CAUSES OF UNDER 5 MORTALITY IN BRUNEI DARUSSALAM (2011 - 2015) | | | | | |
|--|--|---|--|--|--|
| | 2011 | 2012 | 2013 | 2014 | 2015 |
| 1 | Certain Conditions Originating In The Perinatal Period 24 | Certain Conditions Originating In The Perinatal Period 38 | Certain Conditions Originating In The Perinatal Period 26 | Certain Conditions Originating In The Perinatal Period 24 | Certain Conditions Originating In The Perinatal Period 27 |
| 2 | Congenital Malformations, Deformations and Chromosomal Abnormalities 23 | Congenital Malformations, Deformations and Chromosomal Abnormalities 9 | Congenital Malformations, Deformations and Chromosomal Abnormalities 15 | Congenital Malformations, Deformations and Chromosomal Abnormalities 17 | Congenital Malformations, Deformations and Chromosomal Abnormalities 26 |
| 3 | Heart Diseases 2 | Septicaemia 2 | Cancer 3 | Septicaemia 2 | Heart Diseases 2 |
| 4 | Accidental Drowning and Submersion 2 | Cancer 2 | Transport Accidents 3 | Diarrhoea and Gastroenteritis of Presumed Infectious Origin 1 | Accidental Drowning and Submersion 2 |
| 5 | Meningococcal Infection 1 | Heart Diseases 2 | Heart Diseases 2 | Other Intestinal Infectious Diseases 1 | Cancer 1 |
| 6 | Septicaemia 1 | Influenza & Pneumonia 2 | Septicaemia 1 | Cancer 1 | Exposure to Smoke, Fire and Flames 1 |
| 7 | Cancer 1 | Bronchitis, Chronic & Unspecified Emphysema & Asthma 1 | Influenza & Pneumonia 1 | Anaemias 1 | |
| 8 | Influenza & Pneumonia 1 | Assault 1 | Unspecified Acute Lower Respiratory Infection 1 | Heart Diseases 1 | |
| OTHERS ** | 12 | 14 | 13 | 12 | 8 |
| TOTAL | 67 | 71 | 65 | 60 | 67 |

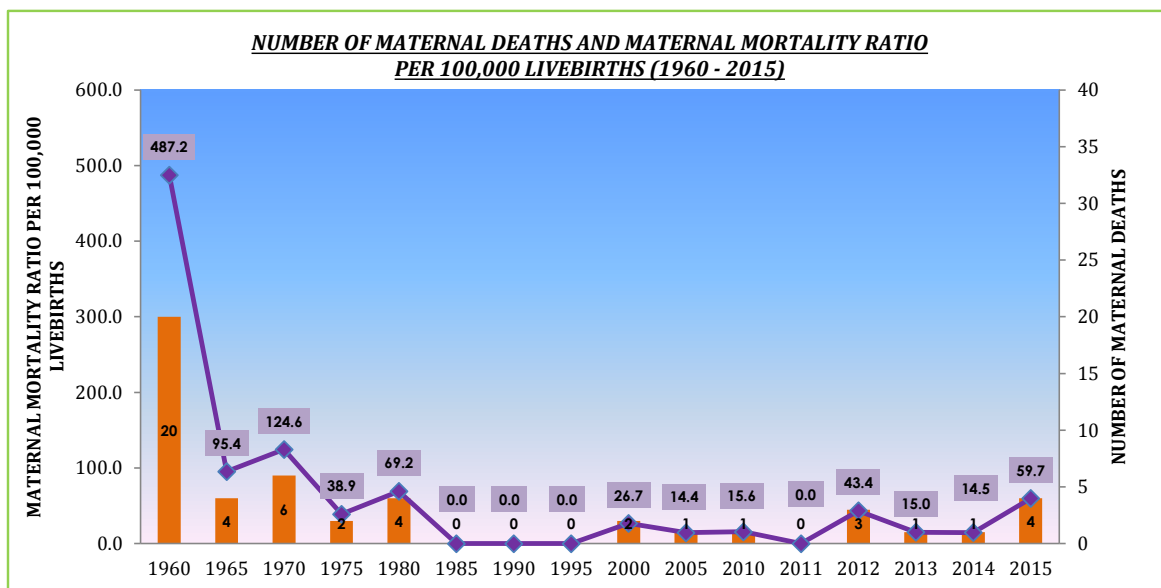
Note: * - No other single cause of death.

** - Remainders.

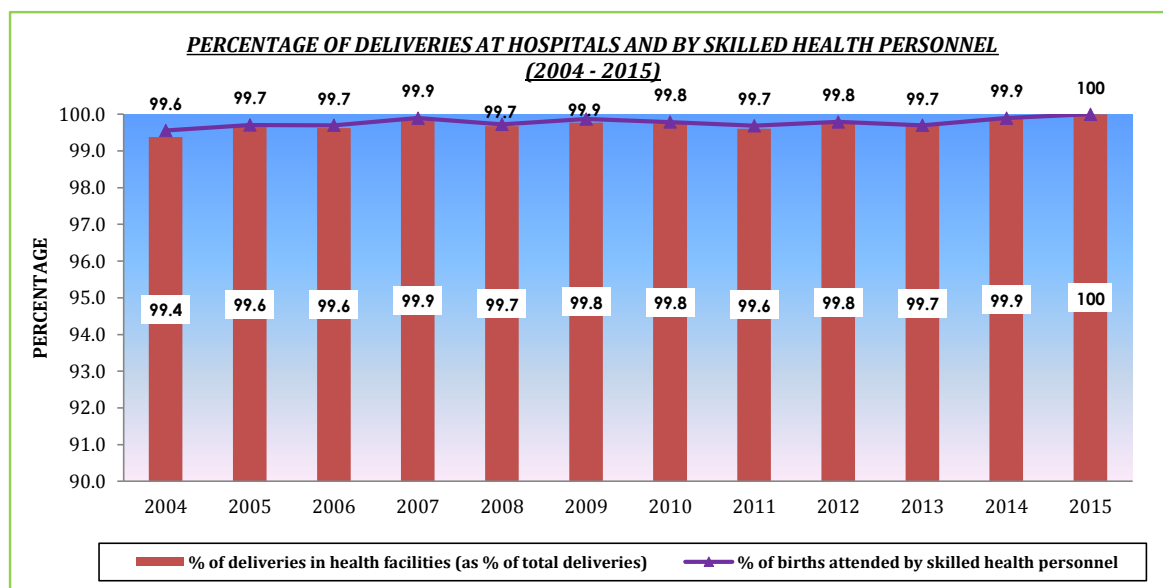
Millennium Development Goals (MDGs) Indicators

The Maternal Mortality Ratio (MMR) in Brunei Darussalam has shown a marked decline since the 1960s - from 487.2 per 100,000 live births in 1960 down to 0.0 per live birth in 1990. Since then, the MMR has shown slight fluctuations and consistently very low maternal mortality ratio (MMR). In 2015, four maternal death was recorded which the ratio is equivalent to 59.7 per live births.

It must be noted that Brunei Darussalam's small population and relatively low live births (around 7,000 annually) makes calculation of MMR sensitive to small changes and any small fluctuations will result in significant jump in MMR. The very low value of MMR can be attributed to the high access to reproductive health care, immunisation programmes as well as high percentage deliveries in hospitals by skilled health



Almost all deliveries in Brunei Darussalam are attended by skilled health personnel who supervise, provide care and advice to women during pregnancy, labour and the postpartum period. They also conduct deliveries and care for the newborn child.



Sustainable Development Goals (SDGs)

In 2015, the Millennium Development Goals (MDGs) has come to the end of their term. On 25 September 2015, the United Nations (UN) General Assembly adopted the new development agenda "Transforming our world: the 2030 agenda for sustainable development". The post-2015 agenda comprising 17 Sustainable Development Goals (SDGs) and 169 targets, including one specific goal for health with 13 targets, of the new development agenda integrate the three dimensions of sustainable development around people, planet, prosperity, peace and partnership.



Sustainable Development Goals (SDGs)

| Goals and Targets |
|---|
| Goal 3 : Good Health and Well-Being |
| Target 3.1: By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births |
| Target 3.2: By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 to at least as low as 25 per 1,000 live births |
| Target 3.3: By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases |
| Target 3.4: By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being |
| Target 3.5: Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol |
| Target 3.6: By 2020, halve the number of global deaths and injuries from road traffic accidents |
| Target 3.7: By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes |
| Target 3.8: Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all |
| Target 3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination |
| Target 3.a: Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate |
| Target 3.b: Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all |
| Target 3.c: Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States |
| Target 3.d: Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks |

Note:

... - not available

Health Facilities (2015)

| MEDICAL CARE | NUMBER |
|---|-------------------|
| - HOSPITALS | 5 ⁽¹⁾ |
| - MEDICAL CLINICS (Ministry of Defence) | 8 |
| - DIALYSIS CENTRES | 7 |
| HEALTH SERVICES | |
| - HEALTH CENTRES | 16 |
| - HEALTH CLINICS | 6 |
| - MATERNAL AND CHILD HEALTH CLINICS | 7 |
| - TRAVELLING HEALTH CLINICS | 5 |
| - FLYING MEDICAL SERVICES | 2 |
| DENTAL SERVICES | |
| - DENTAL SERVICES AT: | |
| HOSPITALS | 4 |
| HEALTH CENTRES | 1 |
| HEALTH CLINICS | 17 |
| STATIC SCHOOL CLINICS | 44 |
| MOBILE SQUAD | 11 |
| TRAVELLING (FLYING TEAM) | 0 |
| PRIVATE HEALTH SERVICES | |
| - HOSPITALS ⁽²⁾ | 2 |
| - HEALTH CENTRE | 1 ⁽³⁾ |
| - HEALTH CLINICS | 34 ⁽⁴⁾ |
| - DENTAL CLINICS | 5 ⁽⁵⁾ |

Note:

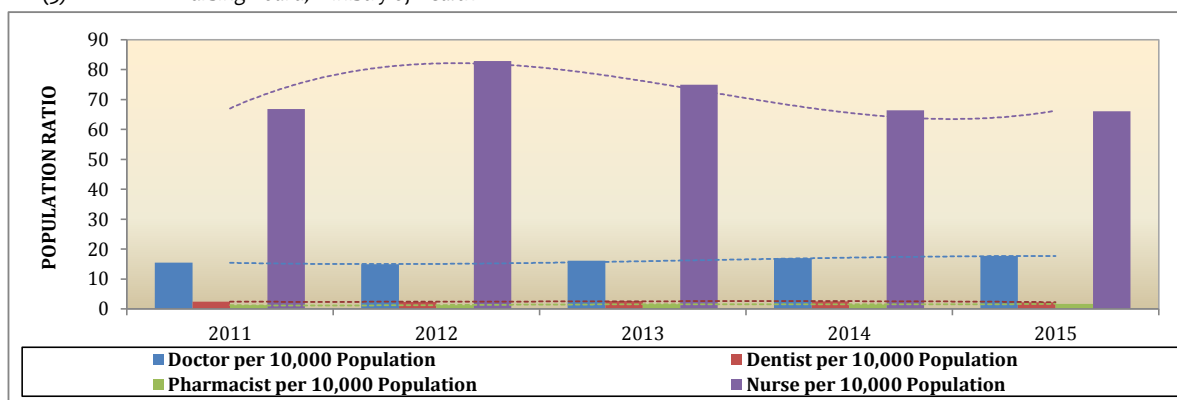
- (1) - Including The Brunei Cancer Centre (TBCC)
- (2) - Jerudong Park Medical Centre (JPMC) and Gleneagles Jerudong Park Centre (GJPMC)
- (3) - Panaga Health Centre
- (4) - Including 12 health clinic branches
- (5) - Including 1 dental clinic branch

Human Resource in Health

| Human Resources (2015) | | Government | Army | Private | Total |
|--|--------------|-------------|-----------|------------|-------------|
| Doctors ⁽¹⁾ | Male | 353 | 6 | 53 | 412 |
| | Female | 275 | 10 | 42 | 327 |
| | TOTAL | 628 | 16 | 95 | 739 |
| Population per Doctor | | | | | 565 |
| Doctor per 10,000 Population | | | | | 18 |
| Dentists ⁽¹⁾ | Male | 30 | 4 | 9 | 43 |
| | Female | 46 | 2 | 3 | 51 |
| | TOTAL | 76 | 6 | 12 | 94 |
| Population per Dentist | | | | | 4438 |
| Dentist per 10,000 Population | | | | | 2 |
| Pharmacists ⁽²⁾ | Male | 8 | 0 | 2 | 10 |
| | Female | 41 | 0 | 20 | 61 |
| | TOTAL | 49 | 0 | 22 | 71 |
| Population per Pharmacist | | | | | 5876 |
| Pharmacist per 10,000 Population | | | | | 2 |
| Nurses (including midwives) ⁽³⁾ | Male | 456 | 9 | 75 | 540 |
| | Female | 1909 | 15 | 292 | 2216 |
| | TOTAL | 2365 | 24 | 367 | 2756 |
| Population per Nurse | | | | | 151 |
| Nurse per 10,000 Population | | | | | 66 |

Source :

- (1) - Brunei Medical Board, Ministry of Health
- (2) - Pharmacy Department, Ministry of Health
- (3) - Nursing Board, Ministry of Health



Human Resource in Health

| Country | Physicians per 10 000 population | Nursing and Midwifery Personnel per 10 000 population | Dentistry Personnel per 10 000 population | Pharmaceutical Personnel per 10 000 population |
|--------------------------|----------------------------------|---|---|--|
| Latest available year | (2007 - 2013) | | | |
| BRUNEI DARUSSALAM | 14.4 | 80.5 | 4.2 | 4.0 |
| MALAYSIA | 12.0 | 32.8 | 3.6 | 4.3 |
| SINGAPORE | 19.5 | 57.6 | 4.1 | 4.1 |
| AUSTRALIA | 32.7 | 106.5 | 5.4 | 10.2 |
| AUSTRIA | 48.3 | 79.1 | 5.7 | 6.9 |
| BELGIUM | 29.9 | 167.6 | 7.5 | 25.6 |
| CZECH REPUBLIC | 36.2 | 84.3 | 7.1 | 7.6 |
| DENMARK | 34.9 | 167.9 | 7.9 | ... |
| FINLAND | 29.1 | 108.6 | 7.3 | 11.1 |
| FRANCE | 31.9 | 93.0 | 6.6 | 10.9 |
| GERMANY | 38.9 | 114.9 | 8.1 | 6.2 |
| GREECE | ... | ... | ... | ... |
| ICELAND | 34.8 | 155.9 | 8.2 | 10.9 |
| IRELAND | 26.7 | ... | ... | 11.7 |
| ITALY | 37.6 | ... | ... | ... |
| JAPAN | 23.0 | 114.9 | 7.9 | 21.5 |
| REPUBLIC OF KOREA | 21.4 | 50.1 | 4.5 | 6.7 |
| LUXEMBOURG | 29.0 | 126.1 | 8.9 | 7.3 |
| NETHERLAND | ... | 83.8 | ... | 2.1 |
| NEW ZEALAND | 27.4 | 108.7 | 4.6 | 10.1 |
| NORWAY | 42.8 | 172.7 | 8.8 | 6.8 |
| OMAN | 24.3 | 53.8 | 2.8 | 18.8 |
| PORTUGAL | 41.0 | 61.1 | 7.6 | 10.2 |
| SPAIN | 49.5 | 56.7 | 8.2 | 14.2 |
| SWEDEN | 39.3 | 110.5 | 8.1 | 7.7 |
| SWITZERLAND | 40.5 | 173.6 | 5.4 | 5.6 |
| UK | 28.1 | 88.0 | 5.4 | 8.1 |

REFERENCE WORLD HEALTH STATISTICS 2015, WHO PUBLICATION

Note:

... - not available or not applicable

Human Resource in Health

| Allied Health Professionals for 2015 | Male | Female | TOTAL |
|--|------|--------|-------|
| Audiologist | 0 | 5 | 5 |
| Biomedical Engineer | 8 | 5 | 13 |
| Cardiac Technologist / Technician | 0 | 1 | 1 |
| Clinical Psychologist | 3 | 19 | 22 |
| Dental Hygienist / Therapist | 37 | 52 | 89 |
| Dietician / Nutritionist | 7 | 20 | 27 |
| Health Education Officer | 4 | 7 | 11 |
| Health Inspector | 35 | 39 | 74 |
| Maxillofacial Prosthetist & Technologist | 4 | 0 | 4 |
| Medical Laboratory Technicians | 8 | 19 | 27 |
| Medical Record Officer | 30 | 63 | 93 |
| Medical Social Worker | 1 | 16 | 17 |
| Neurophysiology Technologist | 3 | 11 | 14 |
| Occupational Therapist | 3 | 23 | 26 |
| Optometrist | 0 | 9 | 9 |
| Orthoptist | 1 | 1 | 2 |
| Paramedic | 14 | 12 | 26 |
| Physiotherapist | 9 | 12 | 21 |
| Podiatrist | 1 | 7 | 8 |
| Prosthetist and Orthotist | 3 | 0 | 3 |
| Public Health Officer | 4 | 13 | 17 |
| Radiographer | 7 | 27 | 34 |
| Laboratory Scientific Officer | 32 | 81 | 113 |
| Speech Language Therapist | 0 | 5 | 5 |
| Teacher for the Hearing Impaired | 1 | 1 | 2 |

Source: Department of Administration and Finance, Ministry of Health

Government Health Expenditure

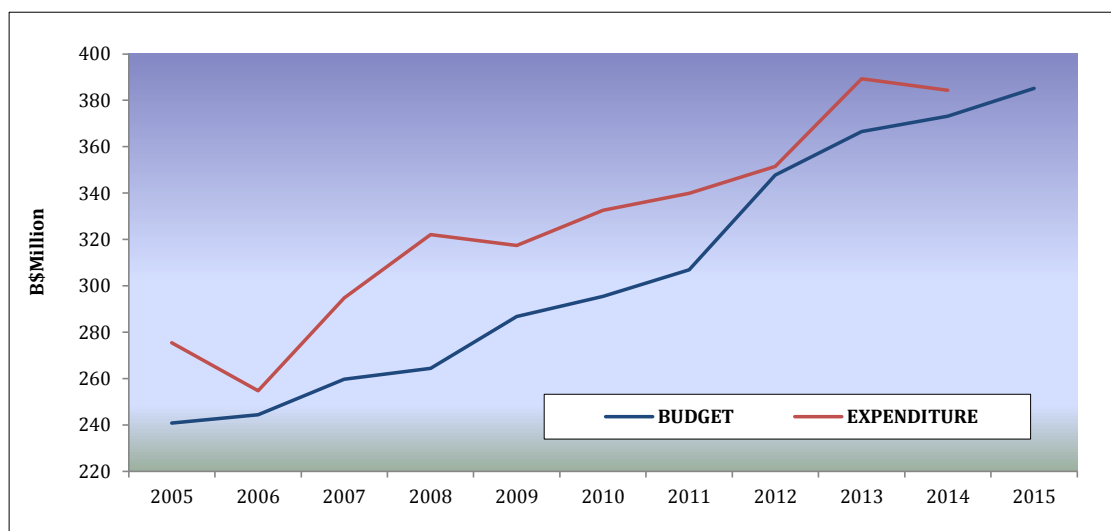
| | 2013/14 | 2014/15 | 2015/16 |
|---|---------|---------|---------|
| Total Health Budget (B\$ Millions) | 366.48 | 373.21 | 385.12 |
| Health Budget as % of National Budget | 8.37 | 7.73 | 8.19 |
| Per Capita Health Budget (B\$) | 902 | 906 | 923 |
| Health Budget as % of GDP | 1.62 | 1.72 | 2.17 |
| Total Health Expenditure (B\$ Millions) | 389.33 | 384.31 | ... |
| Health Expenditure as % of Government Expenditure | 8.27 | 8.04 | ... |
| Per Capita Health Expenditure (B\$) | 958 | 933 | ... |
| Health Expenditure as % of GDP | 1.72 | 1.77 | ... |

Note:

- GDP - Gross Domestic Product
- ... - Not available

Source:

- (Budget) - Budget Section, Ministry of Finance
- (Expenditure) - Ledger Section, Treasury Department, Ministry of Finance



Hospital Services

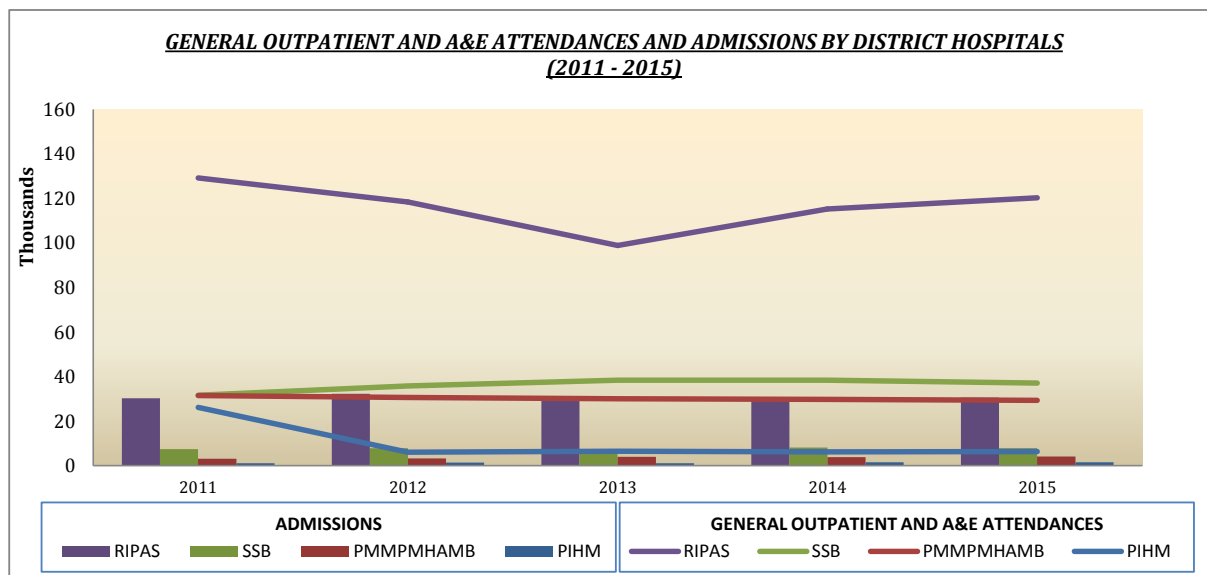
The Department of Medical Services is responsible for the delivery of hospital services in all four districts. The hospital services in the country have developed and progressed tremendously in providing secondary and tertiary care. This includes providing highly specialized care in almost all areas of specialties in line with the current disease trends and enabling patients to access medical care in the country.

The main referral government hospital in the country is Raja Isteri Pengiran Anak Saleha (RIPAS) Hospital; located at the capital city. RIPAS Hospital offers a very wide and comprehensive range of medical and surgical services covering almost 30 different specialties and subspecialties.

| ACTIVITIES FOR THE YEAR 2015 | RIPAS | SSB | PMMPMHAMB | PIHM | TOTAL |
|---|----------------|----------------|---------------|---------------|----------------|
| OUTPATIENT ACTIVITIES | | | | | |
| General Outpatient Attendances | ... | ... | ... | 15,718 | 15,718 |
| Accident & Emergency (A&E) Outpatient Attendances | 120,311 | 37,156 | 29,360 | 6,293 | 193,120 |
| Specialist Outpatient Attendances | 267,373 | 84,840 | 40,449 | 8,058 | 400,720 |
| TOTAL OUTPATIENT ATTENDANCES | 387,684 | 121,996 | 69,809 | 30,069 | 609,558 |
| INPATIENT ACTIVITIES | | | | | |
| Available Beds | 761 | 222 | 109 | 51 | 1,143 |
| Admissions | 30,571 | 7,918 | 4,059 | 1,471 | 44,019 |
| Discharges & Deaths | 30,514 | 7,853 | 4,086 | 1,117 | 43,570 |
| Patient Days | 165,044 | 44,274 | 19,920 | 232 | 229,470 |
| Day Patients | 10,785 | 12,874 | ... | 4,399 | 28,058 |
| TOTAL (ADMISSIONS + DAY PATIENTS) | 41,356 | 20,792 | 4,059 | 5,870 | 72,077 |
| PERFORMANCE INDICES | | | | | |
| Average Number of Inpatients per Day | 452 | 121 | 55 | 1 | 629 |
| Bed Occupancy Rate | 59 | 55 | 50 | 1 | 55 |
| Average Duration of Stay (Days) | 5.4 | 5.6 | 4.9 | 0.2 | 5.3 |
| Average Turnover of Patients per Bed | 40 | 35 | 37 | 22 | 38 |
| Average Turnover Interval (Days) | 3.7 | 4.7 | 4.9 | 16.5 | 4.3 |

Note:

... - Since the decentralisation of primary healthcare services in 2000, hospital outpatient services are now provided at numerous health centres.

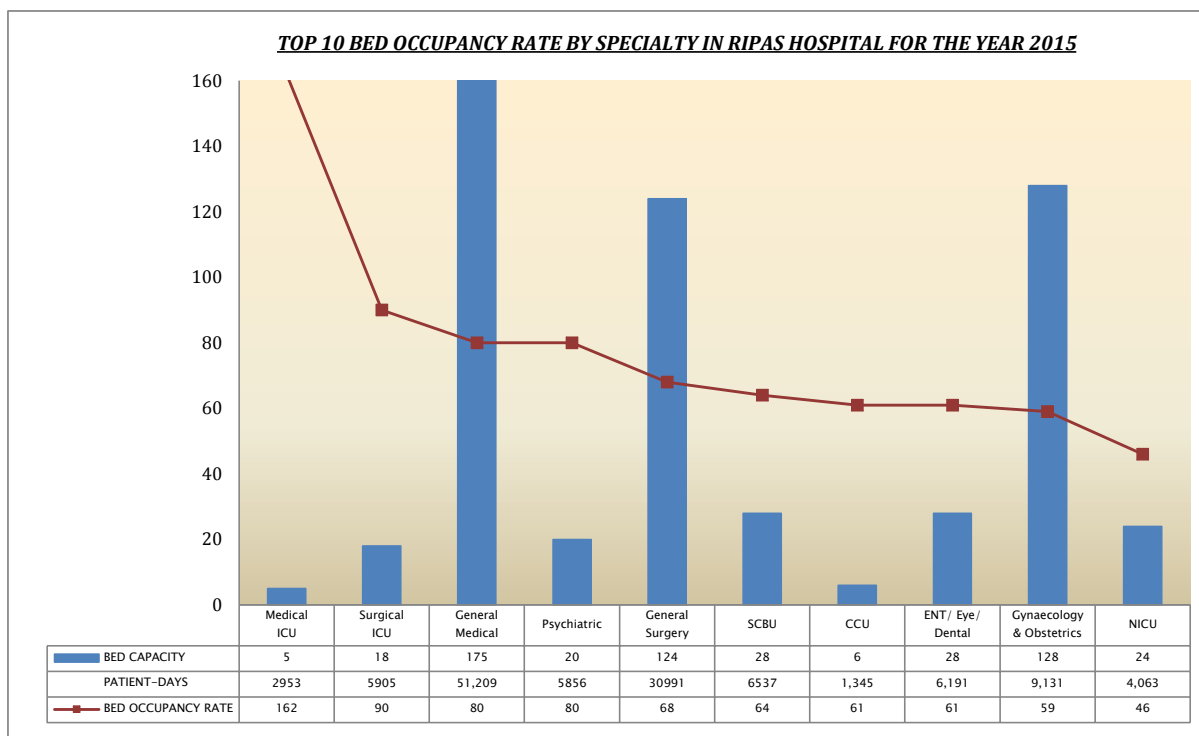


Hospital Services

BED CAPACITY AND OCCUPANCY RATES (2011 - 2015)

| HOSPITAL | 2011 | | 2012 | | 2013 | | 2014 | | 2015 | |
|--------------|--------------|------------------------|--------------|------------------------|--------------|------------------------|--------------|------------------------|--------------|------------------------|
| | Bed Capacity | Bed Occupancy Rate (%) | Bed Capacity | Bed Occupancy Rate (%) | Bed Capacity | Bed Occupancy Rate (%) | Bed Capacity | Bed Occupancy Rate (%) | Bed Capacity | Bed Occupancy Rate (%) |
| RIPAS | 607 | 68% | 607 | 74% | 619 | 72% | 619 | 74% | 761 | 59% |
| SSB | 222 | 53% | 222 | 57% | 222 | 55% | 222 | 56% | 222 | 55% |
| PMPMHAMB | 107 | 27% | 108 | 26% | 103 | 45% | 109 | 46% | 109 | 51% |
| PIHM | 32 | 10% | 39 | 12% | 39 | 21% | 49 | 24% | 51 | 1% |
| TOTAL | 968 | 58% | 976 | 62% | 983 | 63% | 999 | 64% | 1143 | 55% |

TOP 10 BED OCCUPANCY RATE BY SPECIALTY IN RIPAS HOSPITAL FOR THE YEAR 2015



Source:
RIPAS Hospital Monitoring Services

Hospital Services

SPECIALIST OUTPATIENT ATTENDANCES BY CLINICAL DISCIPLINE (RIPAS HOSPITAL)

| CLINICAL DISCIPLINE | 2011 | 2012 | 2013 | 2014 | 2015 |
|-------------------------------|----------------|----------------|----------------|----------------|----------------|
| Clinical Psychology | 1,076 | 1,167 | 1,054 | 476 | 602 |
| Dental / Dental Clinic | 5,239 | 5,493 | 5,380 | 5,711 | 6,457 |
| Diabetes & Endocrinology | 9,229 | 9,515 | 8,872 | 6,814 | 7,847 |
| Dietition | 11,751 | 12,273 | 12,763 | 13,186 | 14,566 |
| Eye | 34,003 | 34,982 | 30,662 | 30,324 | 30,982 |
| Gastroenterology & Hepatology | 14,700 | 16,004 | 14,819 | 14,726 | 11,464 |
| Gynaecology | 14,073 | 13,381 | 13,544 | 14,105 | 13,704 |
| Haematology | 10,096 | 11,590 | 11,609 | 12,033 | 12,272 |
| Hearing Therapy | 599 | 491 | 677 | 748 | 829 |
| Medical | 9,857 | 7,987 | 10,850 | 12,418 | 12,020 |
| Neuro-surgical | 2,751 | 2,806 | 2,879 | 2,986 | 2,978 |
| Obstetrics | 18,583 | 17,964 | 19,405 | 16,934 | 14,883 |
| Occupational Therapy | 6,815 | 7,944 | 8,243 | 8,161 | 8,770 |
| Oral Maxillo-facial | 14,380 | 14,623 | 15,822 | 15,821 | 17,574 |
| ORL / ENT | 43,808 | 12,025 | 17,367 | 11,141 | 12,068 |
| Orthopaedic | 18,485 | 18,445 | 17,901 | 19,732 | 20,394 |
| Orthotic / Prosthetic | 1,190 | 1,066 | 715 | 452 | 602 |
| Paediatrics | 10,650 | 9,567 | 7,770 | 9,206 | 13,212 |
| Physiotherapy | 15,649 | 12,633 | 13,040 | 11,612 | 12,313 |
| Plaster Room | 2,558 | 2,246 | 2,754 | 2,929 | 3,438 |
| Podiatry | 3,331 | 3,882 | 3,767 | 4,164 | 4,652 |
| Psychiatric | 6,285 | 6,292 | 7,217 | 7,706 | 7,679 |
| Respiratory Medicine | 5,590 | 5,721 | 5,706 | 6,055 | 6,169 |
| Skin | 19,813 | 17,949 | 17,183 | 17,862 | 18,792 |
| Speech Therapy | 2,720 | 2,949 | 3,353 | 3,014 | 414 |
| Surgical | 11,066 | 8,819 | 8,683 | 11,170 | 12,692 |
| TOTAL | 294,297 | 257,814 | 262,035 | 259,486 | 267,373 |

Hospital Services

SPECIALIST OUTPATIENT ATTENDANCES BY CLINICAL DISCIPLINE (SSB HOSPITAL)

| CLINICAL DISCIPLINE | 2011 | 2012 | 2013 | 2014 | 2015 |
|----------------------------|---------------|---------------|---------------|---------------|---------------|
| Cardiology Clinic | 154 | 132 | 667 | 1,026 | 1,941 |
| Chest Clinic | 416 | 469 | 559 | 584 | 516 |
| Daycare (Psychiatric) | 3,017 | 3,012 | 3,448 | 3,579 | 3,757 |
| Dental / Dental Clinic | 8,972 | 9,324 | 8,906 | 9,469 | 9,548 |
| Diabetes & Endocrinology | ... | ... | ... | ... | 4,769 |
| Dietition | 751 | 681 | 623 | 626 | 666 |
| Eye | 9,540 | 9,301 | 7,654 | 8,191 | 8,745 |
| Gastro | 976 | 965 | 772 | 849 | 871 |
| Gynaecology | 4,793 | 4,357 | 3,004 | 2,539 | 2,445 |
| Oral Maxillo-facial | 772 | 666 | 684 | 638 | 469 |
| Medical | 10,572 | 11,236 | 8,432 | 7,176 | 8,237 |
| Medical Social Worker | 265 | 206 | 203 | 215 | 287 |
| Neurology | 259 | 110 | 55 | 109 | 161 |
| Neuro-surgical | 209 | 193 | 222 | 182 | 174 |
| Nursing Personnel (Dental) | 2,660 | 2,495 | 2,080 | 2,035 | 2,056 |
| Occupational Therapy | 3,360 | 3,980 | 2,441 | 1,650 | 1,786 |
| Oncology | 286 | 322 | 354 | 369 | 356 |
| ORL / ENT | 5,057 | 5,312 | 3,834 | 3,733 | 3,704 |
| Orthopaedic | 4,172 | 4,730 | 3,233 | 3,066 | 2,962 |
| Paediatrics | 8,891 | 9,404 | 7,977 | 9,317 | 9,281 |
| Physiotherapy | 8,451 | 6,158 | 5,896 | 5,057 | 6,121 |
| Podiatry | 305 | 340 | 353 | 338 | 350 |
| Psychiatric | 2,096 | 2,068 | 1,894 | 2,169 | 2,309 |
| Renal Unit | 587 | 633 | 355 | 292 | 7,123 |
| Respiratory Medicine | 543 | 470 | 342 | 267 | 233 |
| Rheumatology | ... | ... | ... | ... | 129 |
| Skin | 5,764 | 3,164 | 1,927 | 1,588 | 1,469 |
| Speech Therapy | 407 | 434 | 475 | 573 | 642 |
| Surgical | 5,844 | 5,210 | 4,324 | 4,006 | 3,733 |
| TOTAL | 89,119 | 85,372 | 70,714 | 69,643 | 84,840 |

Hospital Services

SPECIALIST OUTPATIENT ATTENDANCES BY CLINICAL DISCIPLINE (PMMPMHAMB HOSPITAL)

| CLINICAL DISCIPLINE | 2011 | 2012 | 2013 | 2014 | 2015 |
|------------------------|---------------|---------------|---------------|---------------|---------------|
| Daycare (Psychiatric) | 1,437 | 1,133 | 1,343 | 778 | 325 |
| Dental / Dental Clinic | 14,734 | 14,505 | 10,164 | 10,058 | 10,772 |
| Dietition | ... | 1,100 | 376 | 484 | 712 |
| Eye | 4,147 | 5,597 | 6,687 | 6,686 | 7,034 |
| Gynaecology | 2,226 | 4,215 | 2,996 | 2,983 | 2,728 |
| Medical | 7,574 | 8,153 | 7,542 | 7,856 | 6,735 |
| Occupational Therapy | 766 | 751 | 811 | 763 | 949 |
| Oral Maxillo-facial | ... | 360 | 325 | 290 | 273 |
| ORL / ENT | 1,898 | 1,528 | 2,139 | 1,042 | 1,231 |
| Orthopaedic | 358 | 234 | 344 | 387 | 359 |
| Paediatrics | 3,238 | 3,097 | 2,744 | 2,688 | 2,602 |
| Physiotherapy | 4,072 | 3,105 | 3,587 | 3,905 | 4,484 |
| Psychiatric | 583 | 794 | 611 | 2,029 | 755 |
| Renal Unit | 85 | ... | ... | ... | ... |
| Respiratory Medicine | 498 | 395 | 384 | 387 | 344 |
| Skin | 2,269 | 1,515 | 754 | 580 | 499 |
| Surgical | 1,014 | 757 | 1,006 | 744 | 647 |
| TOTAL | 44,899 | 47,239 | 41,813 | 41,660 | 40,449 |

SPECIALIST OUTPATIENT ATTENDANCES BY CLINICAL DISCIPLINE (PIHM HOSPITAL)

| CLINICAL DISCIPLINE | 2011 | 2012 | 2013 | 2014 | 2015 |
|--------------------------|---------------|--------------|--------------|--------------|--------------|
| Cardiology Clinic | 44 | 65 | 42 | 8 | 6 |
| Daycare (Psychiatric) | ... | ... | ... | 19 | ... |
| Dental / Dental Clinic | 4,650 | 3,897 | 4,503 | 4,227 | 4,645 |
| Diabetes & Endocrinology | 1,099 | 1,101 | 805 | 526 | 282 |
| Dietition | 156 | 125 | 89 | 59 | 56 |
| Eye | 1,560 | 1,055 | 913 | 1,131 | 914 |
| Gynaecology | 931 | 1,224 | 1,113 | 948 | 953 |
| Handicapped Playgroup | 525 | 406 | 148 | ... | ... |
| Medical | 260 | 496 | 443 | 404 | 373 |
| Oral Maxillo-facial | 86 | 152 | 63 | 46 | 66 |
| Orthopaedic | 191 | 175 | 151 | 178 | 175 |
| Physiotherapy | 245 | 214 | 225 | 198 | 261 |
| Podiatry | 41 | 21 | 37 | 21 | 24 |
| Psychiatric | 132 | 91 | 66 | 97 | 82 |
| Renal Unit | 191 | 173 | 168 | 185 | 221 |
| Skin | 421 | 217 | ... | ... | ... |
| TOTAL | 10,532 | 9,412 | 8,766 | 8,047 | 8,058 |

Note: ... - not available

Leading Causes of Deaths for the Year 2015 (Based on ICD-10)

The four leading causes of deaths which accounted for 58.7 percent of the total deaths were comprised of Non-Communicable Diseases namely Cancer, Heart Diseases, Diabetes Mellitus and Cerebrovascular Diseases.

| No. | ICD-10 CODE | TYPE OF DISEASE | MALE | FEMALE | TOTAL | % | RATE PER 100,000 POPULATION |
|---------------------|----------------------|--|------------|------------|--------------|--------------|-----------------------------|
| 1 | C00 - C97 | Cancer (Malignant Neoplasms) | 137 | 175 | 312 | 20.2 | 74.8 |
| 2 | I00 - I09, I20 - I52 | Heart Diseases (Including Acute Rheumatic Fever) | 128 | 65 | 193 | 12.5 | 46.3 |
| 3 | E10 - E14 | Diabetes Mellitus | 82 | 65 | 147 | 9.5 | 35.2 |
| 4 | I60 - I69 | Cerebrovascular Diseases | 60 | 42 | 102 | 6.6 | 24.4 |
| 5 | J10 - J18 | Influenza and Pneumonia | 33 | 42 | 75 | 4.8 | 18.0 |
| 6 | I10 - I15 | Hypertensive Diseases | 30 | 24 | 54 | 3.5 | 12.9 |
| 7 | A40 - A41 | Septicaemia | 25 | 26 | 51 | 3.3 | 12.2 |
| 8 | J40 - J46 | Bronchitis, Chronic & Unspecified Emphysema & Asthma | 15 | 29 | 44 | 2.8 | 10.5 |
| 9 | Q00 - Q99 | Congenital Malformations, deformations and Chromosomal Abnormalities | 21 | 13 | 34 | 2.2 | 8.1 |
| 10 | V01 - V99 | Transport Accidents | 26 | 8 | 34 | 2.2 | 8.1 |
| Others | | | 273 | 228 | 501 | 32.4 | 120.1 |
| TOTAL DEATHS | | | 830 | 717 | 1,547 | 100.0 | 370.8 |

Leading Causes of Deaths (2011 - 2015)

| No. | 2011 | 2012 | 2013 | 2014 | 2015 |
|--------------------|---|---|---|---|---|
| 1 | Cancer (Malignant Neoplasms) 256 (20.7%) | Cancer (Malignant Neoplasms) 280 (23.0%) | Cancer (Malignant Neoplasms) 295 (21.1%) | Cancer (Malignant Neoplasms) 298 (20.3%) | Cancer (Malignant Neoplasms) 312 (20.2%) |
| 2 | Heart Diseases (Including Acute Rheumatic Fever) 183 (14.8%) | Heart Diseases (Including Acute Rheumatic Fever) 152 (12.5%) | Heart Diseases (Including Acute Rheumatic Fever) 183 (13.1%) | Heart Diseases (Including Acute Rheumatic Fever) 228 (15.5%) | Heart Diseases (Including Acute Rheumatic Fever) 193 (12.5%) |
| 3 | Diabetes Mellitus 116 (9.4%) | Diabetes Mellitus 123 (10.1%) | Diabetes Mellitus 131 (9.4%) | Diabetes Mellitus 141 (9.6%) | Diabetes Mellitus 147 (9.5%) |
| 4 | Cerebrovascular Diseases 86 (7.0%) | Cerebrovascular Diseases 70 (5.8%) | Cerebrovascular Diseases 82 (5.9%) | Cerebrovascular Diseases 103 (7.0%) | Cerebrovascular Diseases 102 (6.6%) |
| 5 | Bronchitis, Chronic and Unspecified Emphysema & Asthma 50 (4.0%) | Hypertensive Diseases 45 (3.7%) | Hypertensive Diseases 71 (5.1%) | Hypertensive Diseases 64 (4.4%) | Influenza and Pneumonia 75 (4.8%) |
| 6 | Hypertensive Diseases 49 (4.0%) | Transport Accidents 45 (3.7%) | Bronchitis, Chronic and Unspecified Emphysema & Asthma 54 (3.9%) | Influenza and Pneumonia 63 (4.3%) | Hypertensive Diseases 54 (3.5%) |
| 7 | Transport Accidents 42 (3.4%) | Influenza and Pneumonia 41 (3.4%) | Influenza and Pneumonia 48 (3.4%) | Bronchitis, Chronic and Unspecified Emphysema & Asthma 48 (3.3%) | Septicaemia 51 (3.3%) |
| 8 | Congenital Malformations, Deformations and Chromosomal Abnormalities 35 (2.8%) | Bronchitis, Chronic and Unspecified Emphysema & Asthma 39 (3.2%) | Septicaemia 35 (2.5%) | Septicaemia 42 (2.9%) | Bronchitis, Chronic and Unspecified Emphysema & Asthma 44 (2.8%) |
| 9 | Septicaemia 29 (2.3%) | Certain Conditions Originating In The Perinatal Period 38 (3.1%) | Transport Accidents 30 (2.1%) | Transport Accidents 28 (1.9%) | Congenital Malformations, Deformations and Chromosomal 34 (2.2%) |
| 10 | Certain Conditions Originating In The Perinatal Period 24 (1.9%) | Septicaemia 27 (2.2%) | Certain Conditions Originating In The Perinatal Period 26 (1.9%) | Certain Conditions Originating In The Perinatal Period 24 (1.6%) | Transport Accidents 34 (2.2%) |
| OTHERS | 365 (29.6%) | 356 (29.3%) | 445 (31.8%) | 431 (29.3%) | 501 (32.4%) |
| GRAND TOTAL | 1,235 (100.0%) | 1,216 (100.0%) | 1,400 (100.0%) | 1,470 (100.0%) | 1,547 (100.0%) |

Leading Causes of Deaths for Population Below 19 years (2015)

In 2015, 5.6 percent of total deaths were for the age-group (0-18) years old.

| No. | Under 1 year | 1 - 4 years | 5 - 9 years | 10 - 14 years | 15 - 18 years | TOTAL (< 19 years) |
|--------------------|--|---|---|---|---|--|
| 1 | Certain Conditions Originating In The Perinatal Period 27 (45.8%) | Accidental Drowning and Submersion 2 (25.0%) | Congenital Malformations, Deformations and Chromosomal Abnormalities 1 (16.7%) | Cancer (Malignant Neoplasms) 1 (11.1%) | Heart Diseases (Including Acute Rheumatic Fever) 1 (25.0%) | Congenital Malformations, Deformations and Chromosomal Abnormalities 28 (32.6%) |
| 2 | Congenital Malformations, Deformations and Chromosomal Abnormalities 25 (42.4%) | Heart Diseases (Including Acute Rheumatic Fever) 1 (12.5%) | Transport Accidents 1 (16.7%) | Hypertensive Diseases 1 (11.1%) | Accidental drowning and submersion 1 (25.0%) | Certain Conditions Originating In The Perinatal Period 27 (31.4%) |
| 3 | Cancer (Malignant Neoplasms) 1 (1.7%) | Congenital Malformations, Deformations and Chromosomal Abnormalities 1 (12.5%) | - | Diseases of Musculoskeletal System and Connective Tissue 1 (11.1%) | - | Accidental drowning and submersion 4 (4.7%) |
| 4 | Heart Diseases (Including Acute Rheumatic Fever) 1 (1.7%) | Exposure to Smoke, Fire and Flames 1 (12.5%) | - | Congenital Malformations, Deformations and Chromosomal Abnormalities 1 (11.1%) | - | Heart Diseases (Including Acute Rheumatic Fever) 3 (3.5%) |
| 5 | - | - | - | Transport Accidents 1 (11.1%) | - | Cancer (Malignant Neoplasms) 2 (2.3%) |
| 6 | - | - | - | Accidental drowning and submersion 1 (11.1%) | - | Transport Accidents 2 (2.3%) |
| 7 | - | - | - | - | - | Hypertensive Diseases 1 (1.2%) |
| 8 | - | - | - | - | - | Diseases of Musculoskeletal System and Connective Tissue 1 (1.2%) |
| 9 | - | - | - | - | - | Exposure to Smoke, Fire and Flames 1 (1.2%) |
| 10 | - | - | - | - | - | |
| OTHER DISEASES | 5 (8.5%) | 3 (37.5%) | 4 (66.7%) | 3 (33.3%) | 2 (50.0%) | 17 (19.8%) |
| GRAND TOTAL | 59 (100.0%) | 8 (100.0%) | 8 (100.0%) | 9 (100.0%) | 4 (100.0%) | 86 (100.0%) |

Leading Causes of Deaths for Population Aged 60 years and above (2011 - 2015)

In 2015, about 60 percent of total deaths were for the age 60 years and above and the top five leading causes of deaths were comprised Non-Communicable Diseases: Cancer, Heart Diseases, Diabetes Mellitus, Cerebrovascular Diseases; and Hypertensive Diseases.

| No. | 2011 | 2012 | 2013 | 2014 | 2015 |
|--------------------|---|---|---|---|---|
| 1 | Cancer (Malignant Neoplasms) 157 (22.1%) | Cancer (Malignant Neoplasms) 147 (21.8%) | Cancer (Malignant Neoplasms) 169 (20.5%) | Cancer (Malignant Neoplasms) 182 (20.5%) | Cancer (Malignant Neoplasms) 178 (19.3%) |
| 2 | Heart Diseases (Including Acute Rheumatic Fever) 107 (15.0%) | Diabetes Mellitus 87 (12.9%) | Heart Diseases (Including Acute Rheumatic Fever) 105 (12.7%) | Heart Diseases (Including Acute Rheumatic Fever) 133 (15.0%) | Heart Diseases (Including Acute Rheumatic Fever) 115 (12.5%) |
| 4 | Diabetes Mellitus 88 (12.4%) | Heart Diseases (Including Acute Rheumatic Fever) 81 (12.0%) | Diabetes Mellitus 98 (11.9%) | Diabetes Mellitus 95 (10.7%) | Diabetes Mellitus 94 (10.2%) |
| 3 | Cerebrovascular Diseases 61 (8.6%) | Cerebrovascular Diseases 45 (6.7%) | Cerebrovascular Diseases 60 (7.3%) | Cerebrovascular Diseases 76 (8.5%) | Cerebrovascular Diseases 66 (7.1%) |
| 5 | Bronchitis, Chronic and Unspecified Emphysema & Asthma 45 (6.3%) | Bronchitis, Chronic and Unspecified Emphysema & Asthma 35 (5.2%) | Hypertensive Diseases 57 (6.9%) | Hypertensive Diseases 50 (5.6%) | Influenza and Pneumonia 62 (6.7%) |
| 6 | Hypertensive Diseases 32 (4.5%) | Hypertensive Diseases 34 (5.1%) | Bronchitis, Chronic and Unspecified Emphysema & Asthma 50 (6.1%) | Influenza and Pneumonia 48 (5.4%) | Bronchitis, Chronic and Unspecified Emphysema & Asthma 39 (4.2%) |
| 7 | Septicaemia 23 (3.2%) | Influenza and Pneumonia 26 (3.9%) | Influenza and Pneumonia 29 (3.5%) | Bronchitis, Chronic and Unspecified Emphysema & Asthma 38 (4.3%) | Hypertensive Diseases 35 (3.8%) |
| 8 | Senility Without Mention of Psychosis 19 (2.7%) | Septicaemia 16 (2.4%) | Senility Without Mention of Psychosis 23 (2.8%) | Septicaemia 29 (3.3%) | Septicaemia 31 (3.3%) |
| 9 | Influenza and Pneumonia 12 (1.7%) | Senility Without Mention of Psychosis 9 (1.3%) | Septicaemia 22 (2.7%) | Senility Without Mention of Psychosis 21 (2.4%) | Senility Without Mention of Psychosis 26 (2.8%) |
| 10 | Bronchiectasis 10 (1.4%) | Viral Hepatitis 8 (1.2%) | Diseases of Skin and Subcutaneous Tissue 11 (1.3%) | Tuberculosis 8 (0.9%) | Tuberculosis 8 (0.8%) |
| OTHERS | 158 (22.2%) | 185 (27.5%) | 201 (24.4%) | 209 (23.5%) | 266 (28.9%) |
| GRAND TOTAL | 712 (100.0%) | 673 (100.0%) | 825 (100.0%) | 889 (100.0%) | 920 (100.0%) |

Health Services

The Department of Health Services, Ministry of Health is responsible for providing public health services in the country. The mission of the department is to promote well-being and prevent ill health, through various activities and programmes that have been developed and established under three main services: Community Health Services, Environmental Health Services, and Scientific Services.

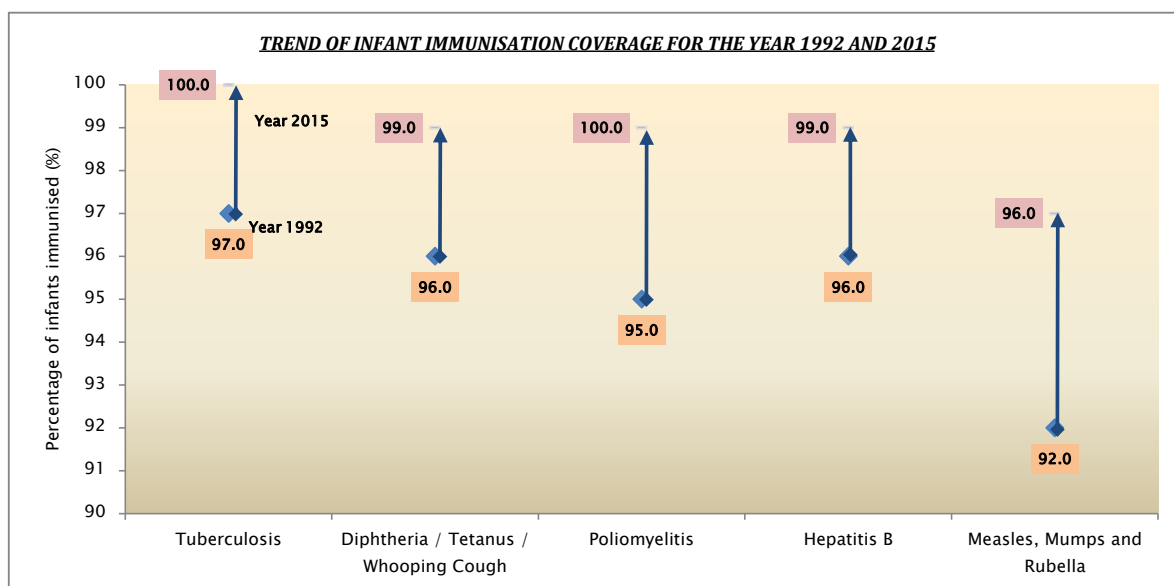
| WORKLOAD INDICATORS | 2011 | 2012 | 2013 | 2014 | 2015 |
|--|---------|---------|---------|---------|---------|
| 1. Ante Natal attendances | 44,749 | 42,187 | 44,418 | 44,812 | 46,459 |
| 2. Post Natal attendances | 8,698 | 10,312 | 10,167 | 9,188 | 9,955 |
| 3. Child (<5) attendances | 106,377 | 185,379 | 94,501 | 80,968 | 82,653 |
| 4. General O/P attendances in Health Centres / Clinics | 475,068 | 467,792 | 445,127 | 467,792 | 423,575 |
| - Extended Hours + After Office Hours Services | 78,628 | 75,301 | 76,638 | 75,301 | 63,818 |
| 5. No. of students medically examined (Year 1, 4 & 8) | 13,820 | 12,616 | 17,728 | 12,515 | 12,911 |
| 6. No. of students screened (Year 1, 3, 4, 6 & 8) | 29,160 | 33,228 | 27,270 | 27,088 | 26,242 |

Over the years, immunisation coverage has been consistently above 95.0 percent for all vaccinations in the programme which met the targets set by the WHO. In 2003, it was made compulsory in line with the Infectious Disease Order for all children in Brunei Darussalam to be vaccinated according to the Expanded Program of Immunisation. The success of this programme is one of the factors that contributed to the progression of Brunei Darussalam in achieving one of the health objectives under the United Nations Millennium Development Goal for reduction in child mortality.

| IMMUNISATION COVERAGE | 2011 | 2012 | 2013 | 2014 | 2015 |
|--|-------|------|-------|-------|-------|
| % of infants immunised against | | | | | |
| - Tuberculosis (at birth) | 96.0 | 95.4 | 100.0 | 100.0 | 100.0 |
| - Diphtheria/Tetanus/Whooping Cough (Tetract-HIB) ₃ | 97.0 | 95.4 | 99.6 | 99.0 | 99.0 |
| - Poliomyelitis IPV ₃ | 100.0 | 99.0 | 99.1 | 99.0 | 100.0 |
| - Hepatitis B ₃ | 93.0 | 95.8 | 97.9 | 99.5 | 99.0 |
| - Measles, Mumps and Rubella 1 (MMR ₁) | 91.0 | 98.6 | 96.0 | 97.0 | 96.0 |

Note: **Red text** - Millennium Development Goals (MDGs) Indicators

Source: Maternal and Child Health (MCH) Clinic Data



Maternal and Child Health

ANTENATAL REGISTRATION (2013-2015)

| No. of Pregnant Women Registered | 2013 | 2014 | 2015 |
|---|---------------|---------------|---------------|
| Maternal and Child Health (MCH) Clinic, Ministry of Health | 6,153 | 6,404 | 6,308 |
| Obstetrics and Gynaecology (O&G) Department, RIPAS (Tertiary) Hospital | 272 | 236 | 315 |
| MRS Clinic, Ministry of Defence | 127 | 113 | 92 |
| Jerudong Park Medical Centre (JPMC) * | 238 | 408 | 380 |
| TOTAL | 6,790 | 7,161 | 7,095 |
| National Live Births | 6,680 | 6,891 | 6,699 |
| % COVERAGE AT LEAST ONE VISIT | 101.6% | 103.9% | 105.9% |

Note: * - Private Hospital

PREVALENCE OF ANAEMIA AMONG PREGNANT WOMEN AT FIRST ANTENATAL CLINIC PRESENTATION (2015)

| | MATERNAL AND CHILD HEALTH (MCH) CLINIC DATA | | | | |
|---|---|-------------|-------------|-------------|-------------|
| | BRUNEI MUARA | BELAIT | TUTONG | TEMBURONG | TOTAL |
| NO. OF WOMEN WITH DOCUMENTED RESULT | 4,491 | 834 | 588 | 117 | 6,030 |
| NORMAL [11 g/dl & above] | 3,869 | 669 | 483 | 99 | 5,120 |
| MILD ANAEMIA [10 to 10.9 g/dl] | 416 | 120 | 70 | 9 | 615 |
| MODERATE ANAEMIA [7 to 9.9 g/dl] | 199 | 44 | 34 | 9 | 286 |
| SEVERE ANAEMIA [6.9 g/dl or less] | 7 | 1 | 1 | 0 | 9 |
| TOTAL NO. OF PREGNANT WOMEN WITH ANAEMIA | 622 | 165 | 105 | 18 | 910 |
| % ANAEMIA | 13.8 | 19.8 | 17.9 | 15.4 | 15.1 |

Note: - All pregnant women in Brunei Darussalam are routinely screened for anaemia at the first antenatal visit.
 - In 2015, 6308 pregnant women were registered in MCH clinics throughout the country.
 - Of these, 6030 (95.6%) had their full blood count (FBC) results documented.
 - 4.9% of these women were found to have anaemia at the first antenatal clinic presentation.

Source: Maternal and Child Health (MCH) Clinic Data

Maternal and Child Health

PREVALENCE OF ANAEMIA AMONG PREGNANT WOMEN AT FIRST ANTENATAL CLINIC PRESENTATION (2014-2015)

| MRS CLINIC DATA (MINISTRY OF DEFENCE) | 2014 | | | 2015 | | |
|--|----------------------------------|--|------------|----------------------------------|--|-------------|
| | NO. OF PREGNANT WOMEN REGISTERED | NO. OF PREGNANT WOMEN DOCUMENTED TO HAVE ANAEMIA | % ANAEMIA | NO. OF PREGNANT WOMEN REGISTERED | NO. OF PREGNANT WOMEN DOCUMENTED TO HAVE ANAEMIA | % ANAEMIA |
| BERAKAS | 50 | 7 | 14.0 | 44 | 5 | 11.4 |
| MUARA | 6 | 0 | 0.0 | 0 | 0 | 0.0 |
| PENANJONG | 20 | 0 | 0.0 | 16 | 0 | 0.0 |
| TUTONG | 23 | 2 | 8.7 | 24 | 5 | 20.8 |
| LUMUT | 14 | 2 | 14.3 | 8 | 0 | 0.0 |
| TOTAL | 113 | 11 | 9.7 | 92 | 10 | 10.9 |

Source:

Maternal and Child Health (MCH) Clinic Data

REGISTERED LIVEBIRTHS BY BIRTH WEIGHT (2011 - 2015)

| Birth Weight | NUMBER OF LIVEBIRTHS | | | | |
|---|----------------------|--------------|--------------|--------------|--------------|
| | 2011 | 2012 | 2013 | 2014 | 2015 |
| At Least 2500g | 5,896 | 6,054 | 5,850 | 6,037 | 5,877 |
| Less Than 2500g (LOW BIRTH WEIGHT) | 798 | 834 | 791 | 819 | 791 |
| - Less Than 1500g (VERY LOW BIRTH WEIGHT) | 102 | 124 | 88 | 100 | 97 |
| - Less Than 1000g (EXTREMELY LOW BIRTH WEIGHT) | 37 | 42 | 37 | 38 | 32 |
| Not Known | 30 | 21 | 39 | 35 | 31 |
| TOTAL | 6,724 | 6,909 | 6,680 | 6,891 | 6,699 |
| % Low Birth Weight (Less Than 2500g) | 11.9 | 12.1 | 11.8 | 11.9 | 11.8 |

Source:

Birth, Death and Adoption Section, Immigration and National Registration Department, Ministry of Home Affairs

Maternal and Child Health

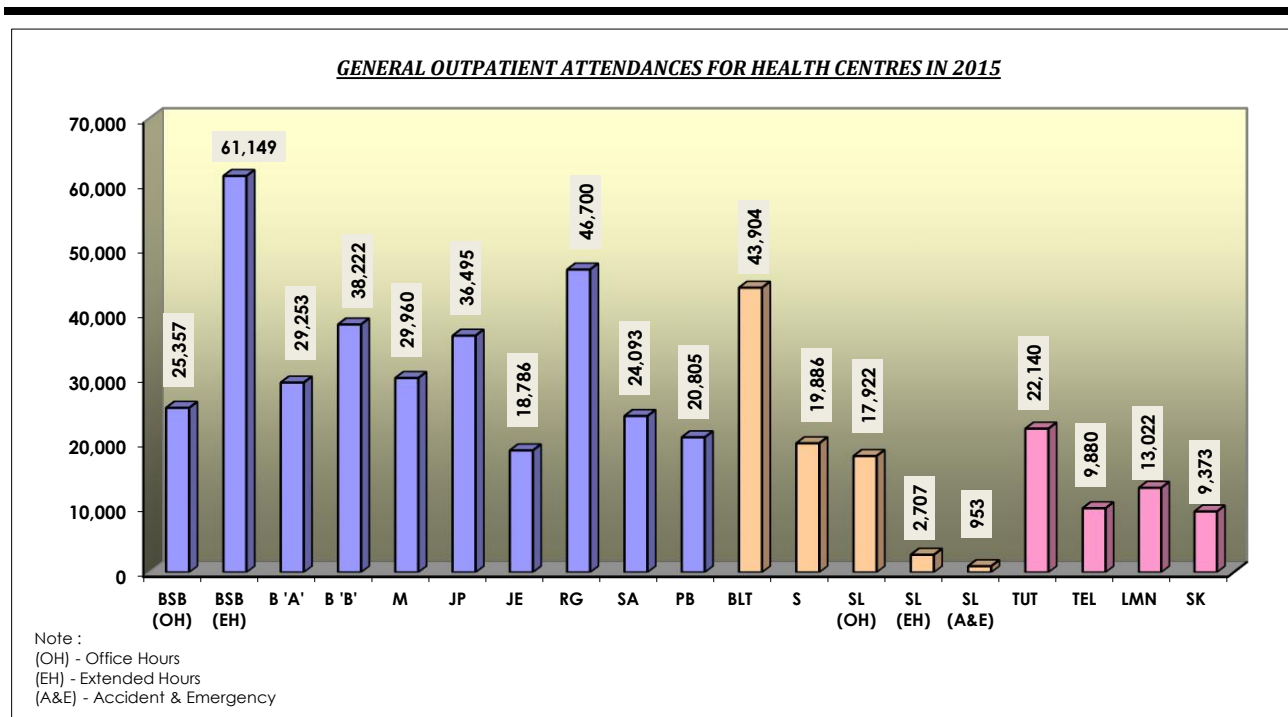
TOTAL NUMBER OF REGISTERED LIVEBIRTHS BY AGE OF MOTHER (2011 - 2015)

| Age Group of Mother | 2011 | 2012 | 2013 | 2014 | 2015 |
|--|--------------|--------------|--------------|--------------|--------------|
| Under 15 | 3 | 7 | 7 | 5 | 4 |
| 15 - 19 | 244 | 268 | 221 | 197 | 195 |
| 20 - 24 | 1,142 | 1,074 | 1,097 | 1,083 | 987 |
| 25 - 29 | 2,134 | 2,201 | 2,124 | 2,212 | 2,233 |
| 30 - 34 | 1,913 | 2,031 | 1,886 | 2,042 | 1,939 |
| 35 - 39 | 992 | 1,043 | 1,044 | 1,079 | 1,064 |
| 40 - 44 | 274 | 266 | 279 | 254 | 264 |
| 45 - 49 | 19 | 18 | 20 | 16 | 13 |
| 50 above | 0 | 1 | 1 | 2 | 0 |
| unknown | 3 | 0 | 1 | 1 | 0 |
| TOTAL | 6,724 | 6,909 | 6,680 | 6,891 | 6,699 |
| Adolescent Fertility Rate (per 1,000 female population aged (15-19)) | 14.3 | 15.7 | 13.0 | 11.6 | 11.4 |
| General Fertility Rate (per 1,000 female population aged (15-49)) | 58.8 | 59.9 | 57.5 | 58.9 | 57.0 |
| Total Fertility Rate (per female population aged (15-49)) | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 |

Source:

Birth, Death and Adoption Section, Immigration and National Registration Department, Ministry of Home Affairs

General Outpatient Attendances for Health Centres (2015)



BRUNEI MUARA HEALTH CENTRES

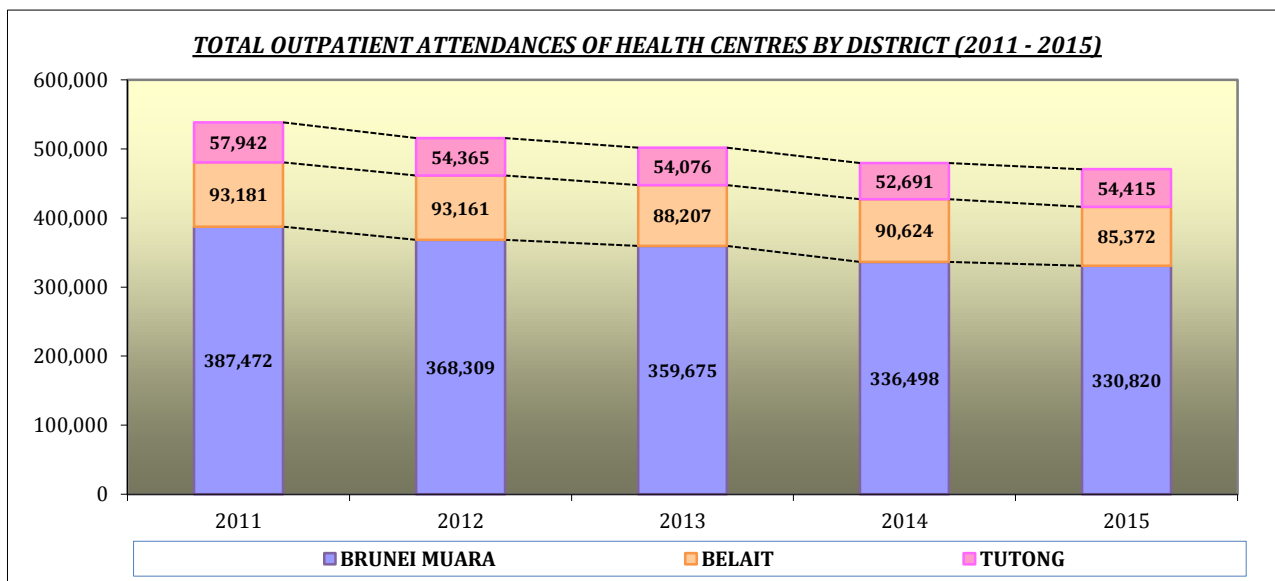
- BSB : BSB Health Centre
- B 'A' : Berakas 'A' Health Centre
- B 'B' : Berakas 'B' Health Centre
- M : Muara Health Centre
- JP : Jubli Perak Health Centre
- JE : Jubli Emas Health Centre
- RG : PAP Hjh Muta-Wakkilah Hayatul Bolkiah Health Centre
- SA : PAP Hjh Rashidah Sa'adatul Bolkiah Health Centre
- PB : Pengkalan Batu Health Centre (started in July 2012)

BELAIT HEALTH CENTRES

- BLT : Belait Health Centre
- S : Seria Health Centre
- SL : Sungai Liang Health Centre

TUTONG HEALTH CENTRES

- TUT : Tutong Health Centre
- TEL : Telisai Health Centre
- LMN : Lamunin Health Centre
- SK : Sungai Kelugos Health Centre



General Outpatient Attendances

OUTPATIENT ATTENDANCES FOR TRAVELLING CLINIC SERVICE (2011 - 2015)

Travelling Clinic is a service that has been established since 1930s to provide basic health care to citizens or residents who live in the remote areas of the country. In its early days, travelling clinic which was usually operated by a trained community health nurse or midwife would travel by boat. Over time, with the development of land infrastructure, many of the remote areas are now accessible by road. Citizens and residents living in some of the remote villages can now access primary health care within their catchment areas.

| YEAR | Buau | | | Sg Mau | | | Total | | |
|------|------|--------|-------|--------|--------|-------|-------|--------|-------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 2011 | 39 | 58 | 97 | 24 | 57 | 81 | 63 | 115 | 178 |
| 2012 | 43 | 55 | 98 | 44 | 81 | 125 | 87 | 136 | 223 |
| 2013 | 50 | 63 | 113 | 36 | 60 | 96 | 86 | 123 | 209 |
| 2014 | 51 | 59 | 110 | - | - | - | 51 | 59 | 110 |
| 2015 | 43 | 52 | 95 | - | - | - | 86 | 123 | 209 |

Note: Sg Mau Health Clinic has been closed since November 2013. The facility is used by Emergency Medical Ambulance Services (EMAS), SSB Hospital during flood season.

OUTPATIENT ATTENDANCES FOR FLYING MEDICAL SERVICE (2011 - 2015)

Flying Medical Services started its service of providing medical care to rural areas in Tutong and Belait Districts in 1964. The service was initially mainly provided by nursing staff with occasional visits by the doctors. It finally became a doctor-led service in 1998. Currently, the service is provided by doctors and nurses from the Division of Primary Healthcare Services from the Department of Health Services, Ministry of Health

| YEAR | BELAIT | | TUTONG | | Total |
|------|-----------|------------|----------------|----------|-------|
| | Kg Sukang | Kg Melilas | Kg Supon Besar | Kg Mapol | |
| 2011 | 297 | 171 | 189 | 235 | 892 |
| 2012 | 156 | 74 | 59 | 107 | 396 |
| 2013 | 207 | 107 | - | - | 314 |
| 2014 | 159 | 201 | - | - | 360 |
| 2015 | 152 | 154 | - | - | 306 |

Note: Flying Medical Service to Tutong District at Kg Supon Besar and Kg Mapol was stopped in October 2012 because of a better road access which the provision of health services has been taken over by Tutong District Health Services.

Notifiable Infectious Diseases (2015)

Notification of infectious diseases is required by Brunei Darussalam's law under the 'Infectious Diseases Act'. A total of 57 infectious diseases are listed as notifiable in the country. All notifications must be reported to the Disease Control Division at the Department of Health, Ministry of Health.

| DISEASES | BM | TUT | TEM | KB | unknown | TOTAL |
|--|--------------|------------|------------|-------------|----------|---------------------|
| FOOD AND WATER BORNE DISEASES | | | | | | |
| Cholera | 0 | 0 | 0 | 0 | 0 | 0 |
| Dysentery (Shigella) | 2 | 0 | 0 | 0 | 0 | 2 |
| Food Poisoning | 57 | 20 | 0 | 12 | 0 | 89 |
| Gastroenteritis | 6819 | 429 | 65 | 1424 | 0 | 8737 ⁽¹⁾ |
| Hepatitis A | 11 | 0 | 0 | 0 | 0 | 11 |
| Para/Typhoid Fever | 1 | 0 | 0 | 0 | 0 | 1 |
| Salmonella Infection | 32 | 3 | 0 | 7 | 0 | 42 |
| Total | 6922 | 452 | 65 | 1443 | 0 | 8882 |
| PERSON TO PERSON TRANSMITTED DISEASES | | | | | | |
| Chicken Pox | 2,111 | 307 | 80 | 288 | 0 | 2786 |
| Ebola Fever | 0 | 0 | 0 | 0 | 0 | 0 |
| Hand, Foot & Mouth Disease | 666 | 135 | 33 | 458 | 0 | 1292 |
| Influenza A | 0 | 0 | 0 | 0 | 0 | 0 |
| Influenza B | 0 | 0 | 0 | 0 | 0 | 0 |
| Influenza Others | 0 | 0 | 0 | 0 | 0 | 0 |
| Leprosy | 0 | 0 | 0 | 0 | 0 | 0 |
| Meningitis | 0 | 0 | 0 | 0 | 0 | 0 |
| Scarlet Fever | 0 | 0 | 0 | 0 | 0 | 0 |
| Severe Acute Respiratory Syndrome | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 2,777 | 442 | 113 | 746 | 0 | 4078 |
| VACCINE PREVENTABLE DISEASES | | | | | | |
| Diphtheria | 0 | 0 | 0 | 0 | 0 | 0 |
| Hepatitis B | 0 | 0 | 0 | 0 | 0 | 0 |
| Measles | 0 | 0 | 0 | 4 | 0 | 4 |
| Mumps | 1 | 1 | 0 | 1 | 0 | 3 |
| Pertussis | 4 | 0 | 0 | 1 | 0 | 5 |
| Acute Flaccid Paralysis (AFP) | 0 | 0 | 0 | 0 | 0 | 0 |
| Rubella | 0 | 0 | 0 | 0 | 0 | 0 |
| Smallpox | 0 | 0 | 0 | 0 | 0 | 0 |
| Tetanus | 0 | 0 | 0 | 0 | 0 | 0 |
| Tetanus Neonatorum | 0 | 0 | 0 | 0 | 0 | 0 |
| Tuberculosis | 149 | 22 | 11 | 30 | 0 | 212 |
| Total | 154 | 23 | 11 | 36 | 0 | 224 |

Note:

(1) - Even though gastroenteritis was notifiable disease in Brunei Darussalam, there were under reporting of gastroenteritis cases. During September 2014 with increasing awareness of viral gastroenteritis outbreak, more gastroenteritis notifications were reported. After the outbreak, the number of gastroenteritis cases became stable and continued reporting as the baseline level.

Notifiable Infectious Diseases (2015) (cont'd)

| DISEASES | BM | TUT | TEM | KB | unknown | TOTAL |
|--|-------------|------------|------------|-------------|----------|-------------|
| SEXUALLY TRANSMITTED DISEASES | | | | | | |
| AIDS | 0 | 0 | 0 | 0 | 0 | 0 |
| Chancroid | 0 | 0 | 0 | 0 | 0 | 0 |
| Chlamydial Infection | 174 | 15 | 28 | 1 | 1 | 219 |
| Genital Herpes | 2 | 0 | 0 | 0 | 0 | 2 |
| Gonococcal Infections | 56 | 5 | 0 | 5 | 1 | 67 |
| Hepatitis C | 0 | 0 | 0 | 0 | 0 | 0 |
| HIV * (Local only) | 15 | 0 | 2 | 11 | 0 | 28 |
| Non Gonococcal Urethritis | 1 | 0 | 0 | 0 | 0 | 1 |
| Ophthalmia Neonatorum | 0 | 0 | 0 | 0 | 0 | 0 |
| Syphilis (All forms) | 19 | 1 | 1 | 0 | 0 | 21 |
| Other STI - Genital Warts, Trichomonas Vaginalis | 31 | 1 | 0 | 3 | 0 | 35 |
| Total | 298 | 22 | 31 | 20 | 2 | 373 |
| VECTOR BORNE DISEASES | | | | | | |
| Chikugunya | 1 | 0 | 0 | 0 | 0 | 1 |
| Dengue Fever | 182 | 98 | 17 | 19 | 0 | 316 |
| Dengue Haemorrhagic Fever | 1 | 0 | 0 | 0 | 0 | 1 |
| Filariasis | 0 | 1 | 0 | 0 | 0 | 1 |
| Leptospirosis | 0 | 1 | 0 | 0 | 0 | 1 |
| Malaria | 2 | 3 | 0 | 3 | 0 | 8 |
| Plague | 0 | 0 | 0 | 0 | 0 | 0 |
| Typhus | 0 | 0 | 0 | 0 | 0 | 0 |
| West Nile Fever | 0 | 0 | 0 | 0 | 0 | 0 |
| Yellow Fever | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 186 | 103 | 17 | 22 | 0 | 328 |
| ZOONOTIC DISEASES | | | | | | |
| Anthrax | 0 | 0 | 0 | 0 | 0 | 0 |
| Bovine Spongiform Encephalitis | 0 | 0 | 0 | 0 | 0 | 0 |
| Nipah Virus | 0 | 0 | 0 | 0 | 0 | 0 |
| Rabies | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 |
| OTHER INFECTIOUS DISEASES | | | | | | |
| Conjunctivitis (Chlamydia) | 3 | 0 | 0 | 0 | 0 | 3 |
| Encephalitis | 0 | 0 | 0 | 0 | 0 | 0 |
| Japanese Encephalitis | 0 | 1 | 0 | 0 | 0 | 1 |
| Puerperal Infection | 0 | 0 | 0 | 0 | 0 | 0 |
| Viral Encephalitis | 0 | 0 | 0 | 0 | 0 | 0 |
| Viral Hepatitis | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 3 | 1 | 0 | 0 | 0 | 4 |
| GRAND TOTAL | 5342 | 884 | 269 | 1601 | 1 | 8097 |

Note:

* Indicate incidence of AIDS/HIV cases amongst locals only.

BM - Brunei Muara District

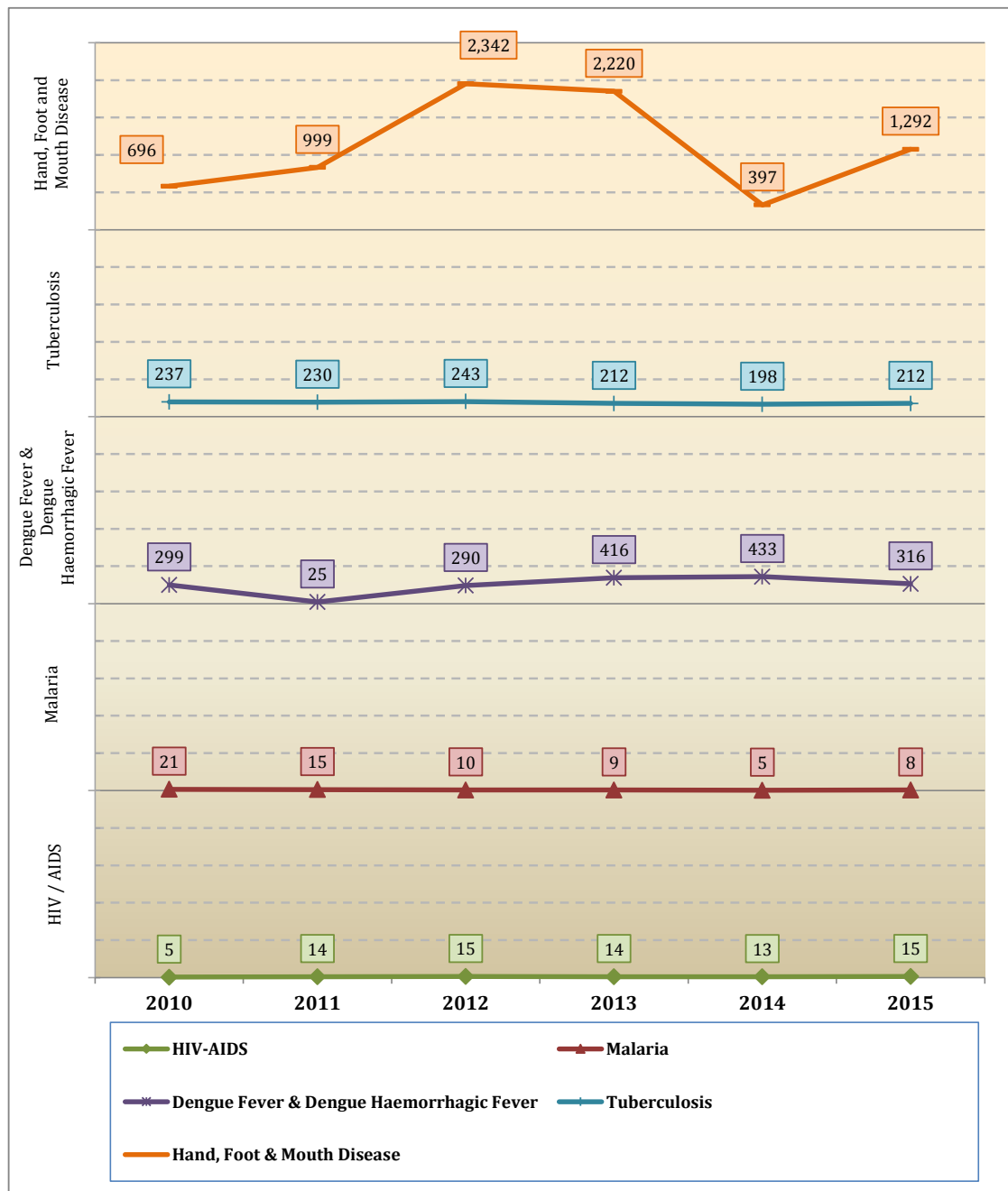
TUT - Tutong District

Source: Disease Control Division, Ministry of Health

TEMB - Temburong District

KB - Belait District

Trend of Notifiable Infectious Diseases (2011 - 2015)



Note:



Possible causes of decrease in Dengue cases in 2011 are:

- The control measures done in 2010 especially in Kg Ayer might still be effective;
- There is a possibility of a relationship between dengue diseases with a three to five year cyclical pattern. This pattern was seen in neighbouring countries. Brunei may now be in low cycle

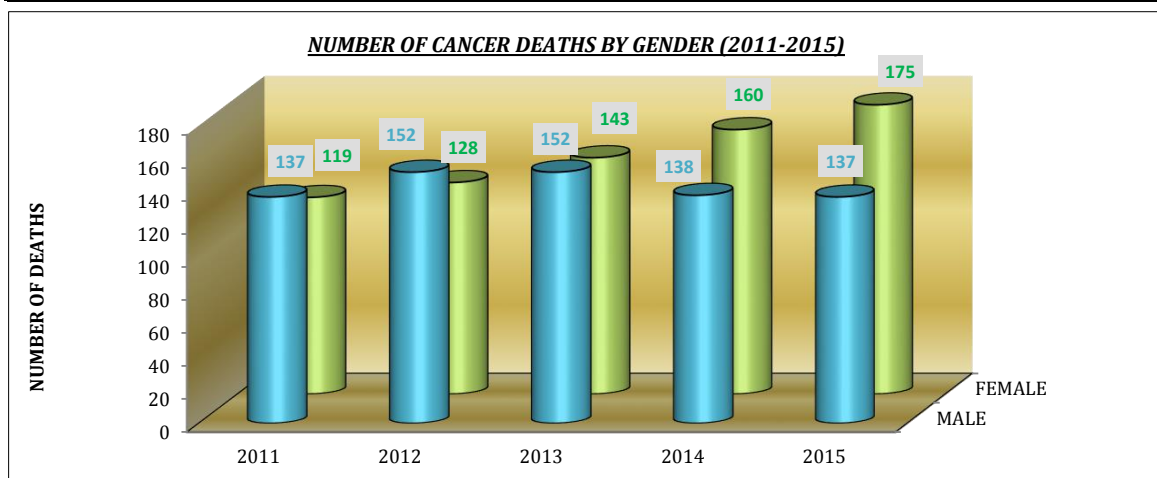
Mortality due to Cancer for the Year 2015

The top three causes of cancer deaths among male in Brunei Darussalam for 2015 were Trachea, Bronchus and Lung; Liver and Intrahepatic Bile Ducts; and Prostate; and Non-Hodgkin's Lymphoma; and for female cancer deaths were Breast; Trachea, Bronchus and Lung; and Cervix Uteri; and Ovary.

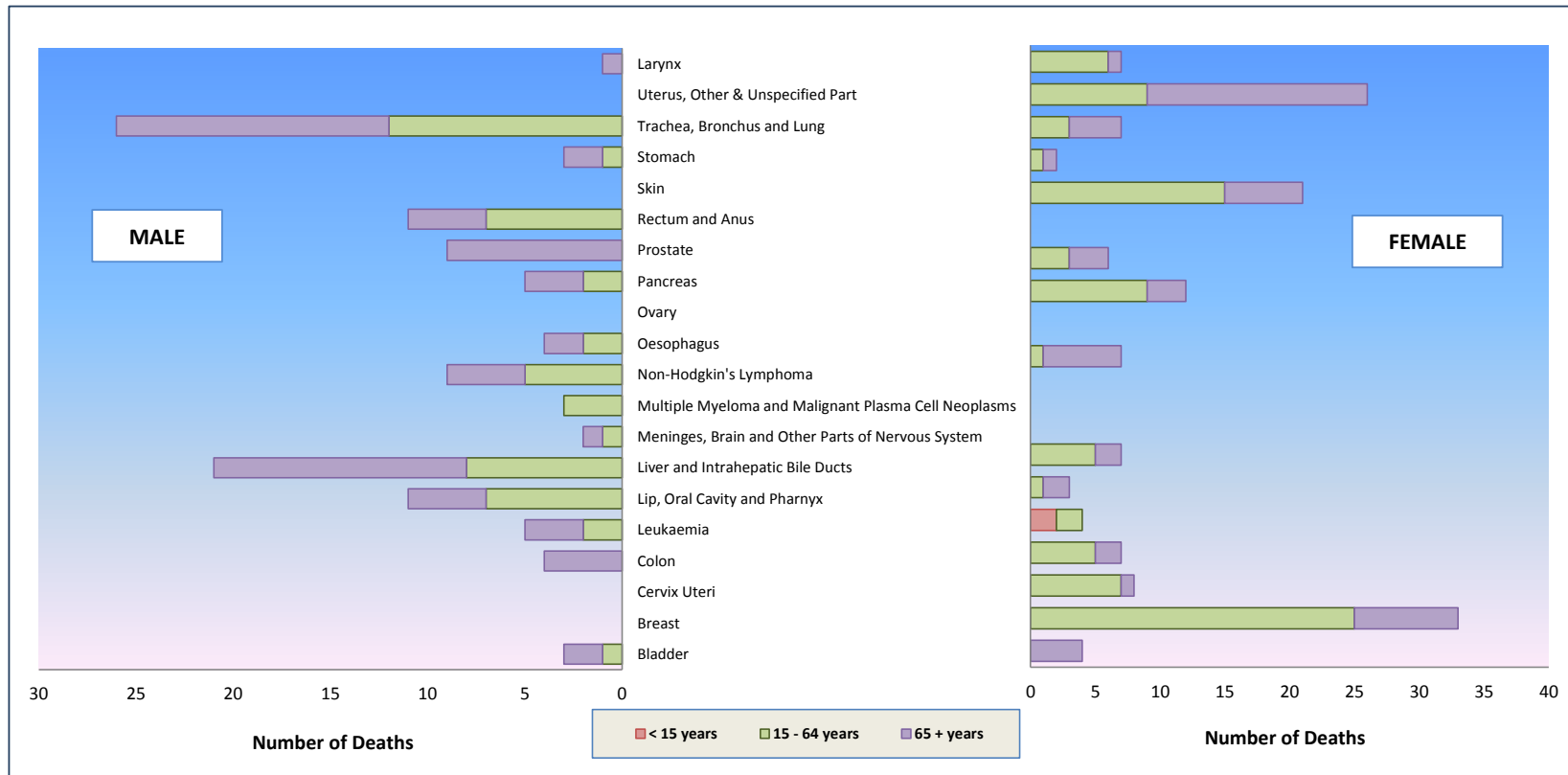
| TYPE OF CANCER | MALE | FEMALE | TOTAL |
|---|------------|------------|------------|
| Trachea, Bronchus and Lung | 26 | 26 | 52 |
| Breast | 0 | 33 | 33 |
| Liver and Intrahepatic Bile Ducts | 21 | 7 | 28 |
| Stomach | 3 | 7 | 10 |
| Rectum and Anus | 11 | 21 | 32 |
| Non-Hodgkin's Lymphoma | 9 | 7 | 16 |
| Colon | 4 | 7 | 11 |
| Leukaemia | 5 | 4 | 9 |
| Prostate | 9 | | 9 |
| Cervix Uteri | | 8 | 8 |
| Ovary | | 12 | 12 |
| Lip, Oral Cavity and Pharynx | 11 | 3 | 14 |
| Bladder | 3 | 4 | 7 |
| Pancreas | 5 | 6 | 11 |
| Oesophagus | 4 | 0 | 4 |
| Other and Unspecified Parts of Uterus | | 7 | 7 |
| Meninges, Brain and Other Parts of Central Nervous System | 2 | 0 | 2 |
| Multiple Myeloma and Malignant Plasma Cell Neoplasms | 3 | 0 | 3 |
| Skin | 0 | 2 | 2 |
| Larynx | 1 | 0 | 1 |
| Remainder | 20 | 21 | 41 |
| TOTAL | 137 | 175 | 312 |

Note: Top three leading causes of cancer death for male  female 

| YEAR | 2011 | 2012 | 2013 | 2014 | 2015 |
|--------------------------------------|------|------|------|------|------|
| TOTAL NUMBER OF CANCER DEATHS | 256 | 280 | 295 | 298 | 312 |



Cancer Deaths by Gender, Type and Age-Groups in Brunei Darussalam (2015)



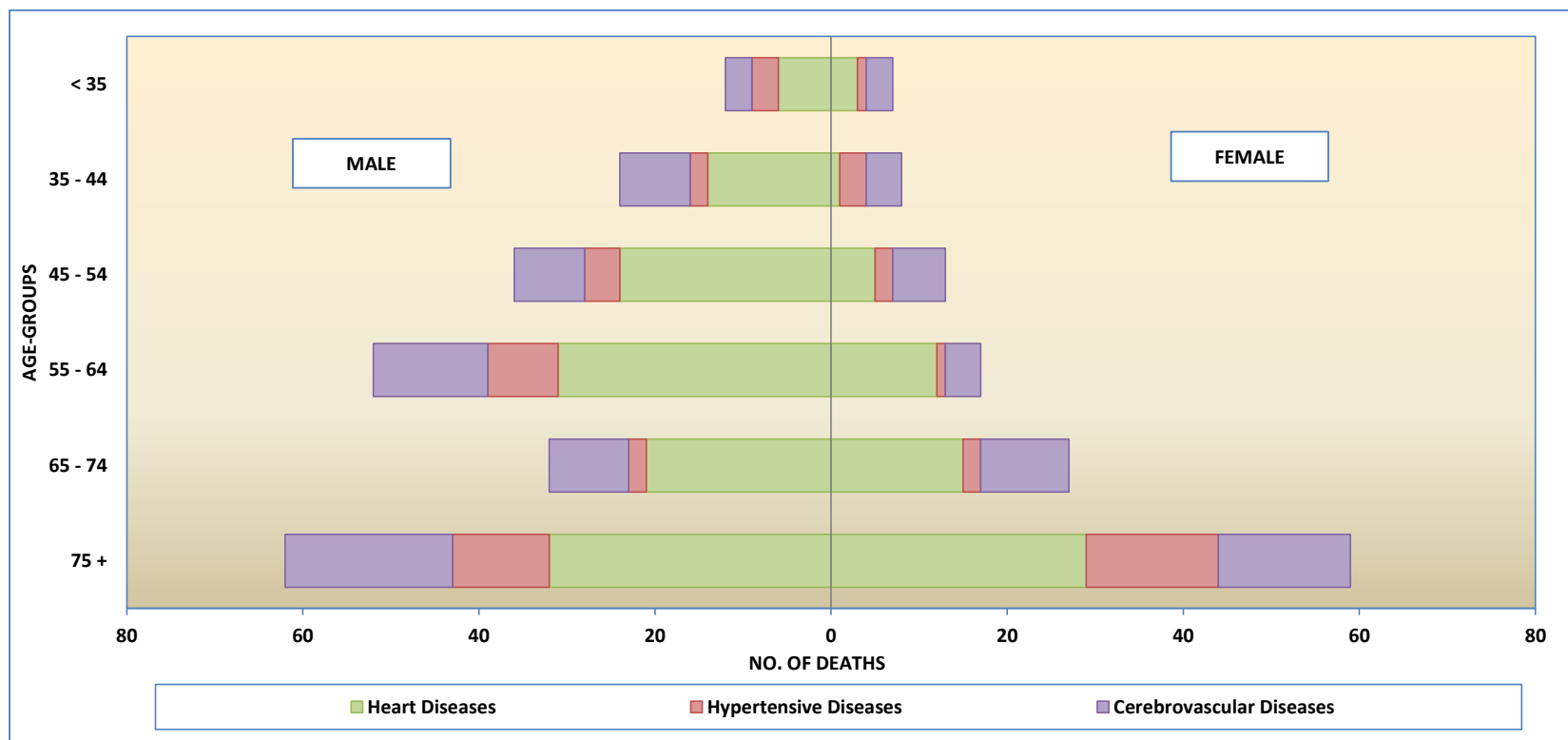
Trend in Leading Cancer Deaths in Brunei Darussalam (2011 - 2015)

| No. | 2011 | 2012 | 2013 | 2014 | 2015 |
|--------------------|---|---|---|---|---|
| 1 | Trachea, Bronchus and Lung 50 (19.5%) | Trachea, Bronchus and Lung 44 (15.7%) | Trachea, Bronchus and Lung 64 (21.7%) | Trachea, Bronchus and Lung 62 (20.8%) | Trachea, Bronchus and Lung 52 (16.7%) |
| 2 | Rectum and Anus 28 (10.9%) | Rectum and Anus 30 (10.7%) | Rectum and Anus 30 (10.2%) | Breast 30 (10.1%) | Breast 33 (10.6%) |
| 3 | Breast 23 (9.0%) | Liver and Intrahepatic Bile Duct 22 (7.9%) | Liver and Intrahepatic Bile Duct 21 (7.1%) | Liver and Intrahepatic Bile Duct 23 (7.7%) | Rectum and Anus 32 (10.3%) |
| 4 | Stomach 18 (7.0%) | Stomach 19 (6.8%) | Breast 20 (6.8%) | Stomach 21 (7.0%) | Liver and Intrahepatic Bile Duct 28 (9.0%) |
| 5 | Lip, Oral Cavity and Pharynx 13 (5.1%) | Breast 19 (6.8%) | Colon 17 (5.8%) | Rectum and Anus 18 (6.0%) | Non-Hodgkin's Lymphoma 16 (5.1%) |
| 6 | Prostate 13 (5.1%) | Colon 17 (6.1%) | Lip, Oral Cavity and Pharynx 13 (4.4%) | Non-Hodgkin's Lymphoma 18 (6.0%) | Lip, Oral Cavity and Pharynx 14 (4.5%) |
| 7 | Liver and Intrahepatic Bile Duct 12 (4.7%) | Pancreas 13 (4.6%) | Ovary 13 (4.4%) | Colon 17 (5.7%) | Ovary 12 (3.8%) |
| 8 | Colon 10 (3.9%) | Prostate 12 (4.3%) | Leukaemia 13 (4.4%) | Leukaemia 15 (5.0%) | Colon 11 (3.5%) |
| 9 | Non-Hodgkin's Lymphoma 9 (3.5%) | Lip, Oral Cavity and Pharynx 11 (3.9%) | Cervix Uteri 11 (3.7%) | Prostate 12 (4.0%) | Pancreas 11 (3.5%) |
| 10 | Leukaemia 9 (3.5%) | Cervix Uteri 8 (2.9%) | Non-Hodgkin's Lymphoma 11 (3.7%) | Cervix Uteri 11 (3.7%) | Stomach 10 (3.2%) |
| OTHERS | 71 (27.7%) | 85 (30.4%) | 82 (27.8%) | 71 (23.8%) | 93 (29.8%) |
| GRAND TOTAL | 256 (100.0%) | 280 (100.0%) | 295 (100.0%) | 298 (100.0%) | 312 (100.0%) |

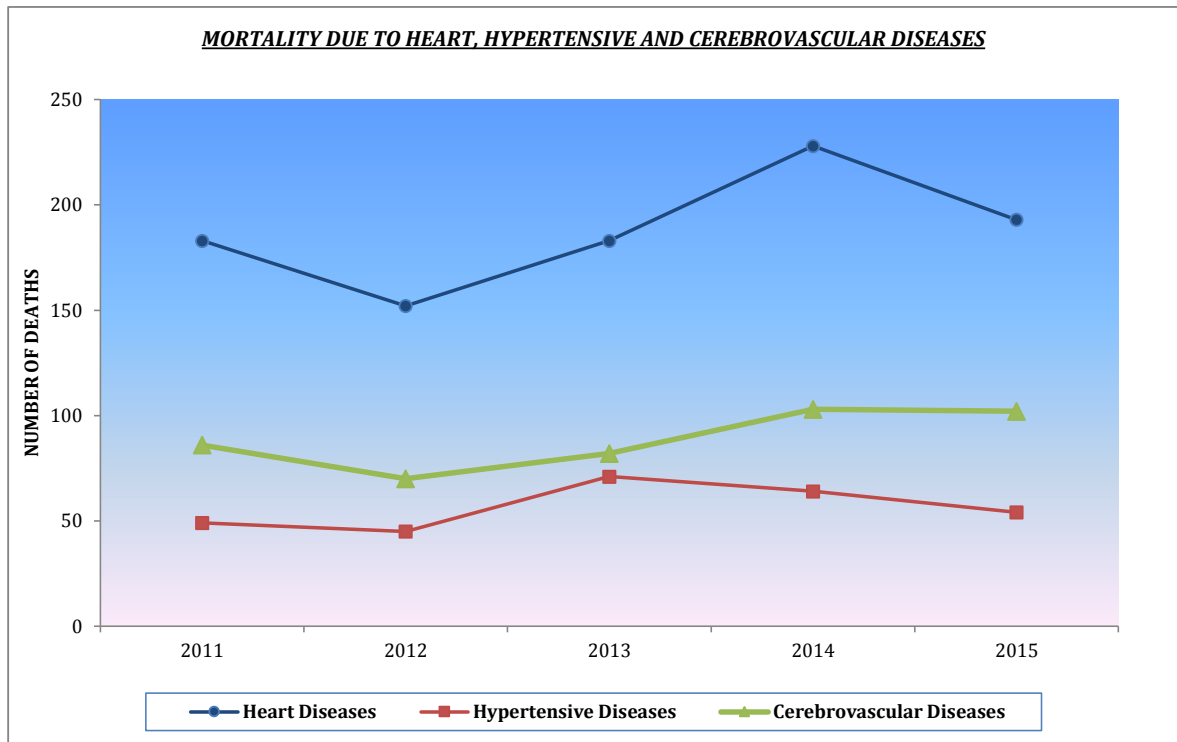
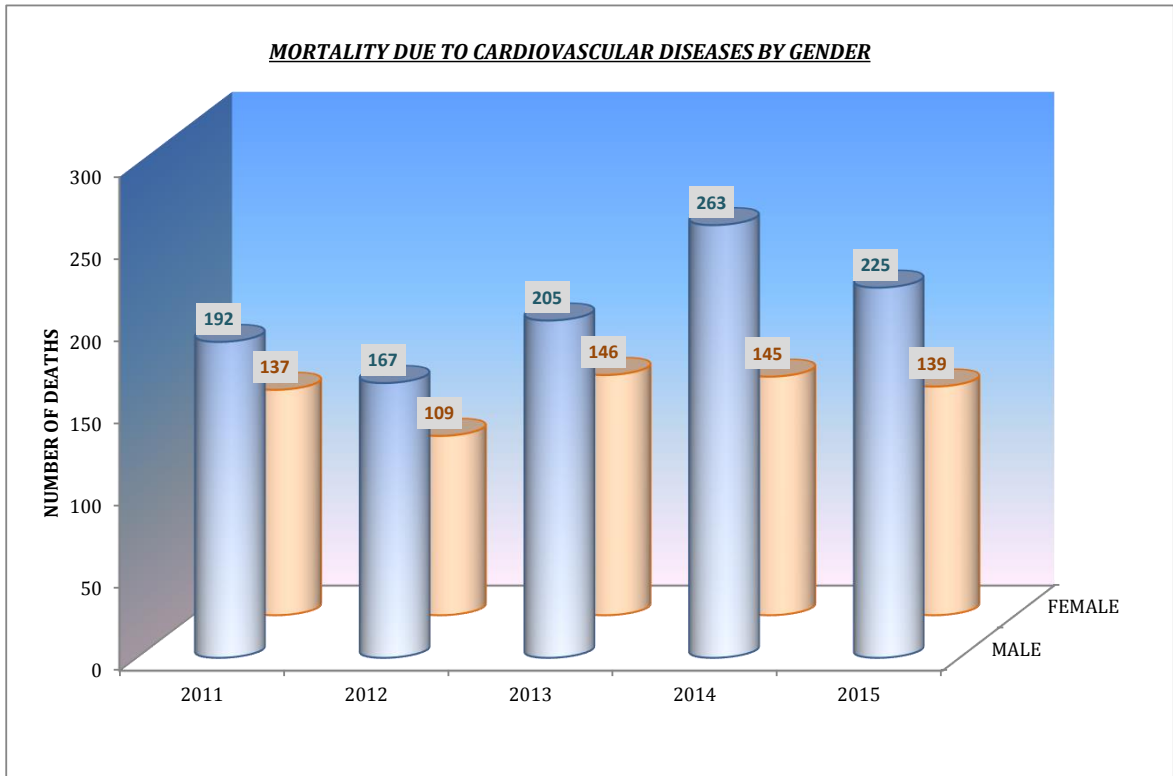
Mortality due to Cardiovascular Diseases for the Year 2015 (Based on ICD-10)

| ICD-10 CODE | TYPE OF DISEASE | AGE-GROUP IN YEARS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|----------------------|--|---|---------|---|---------|---|---------|---|---------|---|-----|---|-------|---|---|----|---|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|---|
| | | <35 | | 35 - 44 | | 45 - 54 | | 55 - 64 | | 65 - 74 | | 75+ | | TOTAL | | | | | | | | | | | | | | | | | | | |
| | | M | F | M | F | M | F | M | F | M | F | M | F | M | F | T | | | | | | | | | | | | | | | | | |
| 1 | I00 - I09, I20 - I52 | Heart Diseases | | | | | | | | | | | | | | | 6 | 3 | 14 | 1 | 24 | 5 | 31 | 12 | 21 | 15 | 32 | 29 | 128 | 65 | 193 | | |
| | i | I00 - I09 | Acute Rheumatic Fever & Chronic Rheumatic Heart Diseases | | | | | | | | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| | ii | I20 - I25 | Ischaemic Heart Diseases | | | | | | | | | | | | | | | 3 | 0 | 13 | 1 | 22 | 3 | 26 | 9 | 17 | 7 | 26 | 16 | 107 | 36 | 143 | |
| | | I21 | Acute Myocardial Infarction | | | | | | | | | | | | | | | 2 | 0 | 8 | 0 | 15 | 1 | 15 | 3 | 13 | 5 | 13 | 7 | 66 | 16 | 82 | |
| | | I20, I22 - I25 | Other Ischaemic Diseases | | | | | | | | | | | | | | | 1 | 0 | 5 | 1 | 7 | 2 | 11 | 6 | 4 | 2 | 13 | 9 | 41 | 20 | 61 | |
| | iii | I26 - I52 | Diseases of Pulmonary Circulation & Other Forms of Heart Diseases | | | | | | | | | | | | | | | 3 | 3 | 1 | 0 | 2 | 2 | 5 | 0 | 4 | 8 | 6 | 13 | 21 | 26 | 47 | |
| 2 | I10 - I15 | Hypertensive Diseases | | | | | | | | | | | | | | | 3 | 1 | 2 | 3 | 4 | 2 | 8 | 1 | 2 | 2 | 11 | 15 | 30 | 24 | 54 | | |
| 3 | I60 - I69 | Cerebrovascular Diseases | | | | | | | | | | | | | | | 3 | 3 | 8 | 4 | 8 | 6 | 13 | 4 | 9 | 10 | 19 | 15 | 60 | 42 | 102 | | |
| 4 | I70 - I98 | Other Diseases of the Circulatory System | | | | | | | | | | | | | | | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 1 | 1 | 1 | 5 | 3 | 7 | 8 | 15 | | |
| | | I70 | Atherosclerosis | | | | | | | | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | I71 - I98 | Others | | | | | | | | | | | | | | | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 1 | 1 | 1 | 5 | 3 | 7 | 8 | 15 | |
| 1 to 4 | I00 - I98 | All Cardiovascular Diseases | | | | | | | | | | | | | | | 12 | 7 | 24 | 10 | 36 | 14 | 53 | 18 | 33 | 28 | 67 | 62 | 225 | 139 | 364 | | |

Mortality due to Cardiovascular Diseases by Age-Groups and Gender in Brunei Darussalam (2015)



Mortality Trend of Cardiovascular Diseases (2011 - 2015)



Age Standardised Mortality Rate
- Noncommunicable Diseases (NCDs) (2013-2015)

| AGE-GROUP | Age Standardized Mortality Rate per 100,000 | | | | | | | | |
|-----------------|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 2013 | | | 2014 | | | 2015 | | |
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 0 - 4 | 8.0 | 7.5 | 7.8 | 7.4 | 6.8 | 7.1 | 10.4 | 8.4 | 9.4 |
| 5 - 9 | 0.5 | 0.6 | 0.5 | 1.6 | 2.9 | 2.2 | 1.6 | 1.7 | 1.7 |
| 10 - 14 | 2.3 | 3.0 | 2.7 | 0.5 | 0.5 | 0.5 | 0.0 | 2.6 | 1.2 |
| 15 - 19 | 2.8 | 1.5 | 2.2 | 0.5 | 1.5 | 1.0 | 1.4 | 0.5 | 1.0 |
| 20 - 24 | 2.2 | 2.8 | 2.5 | 2.7 | 1.4 | 2.1 | 2.3 | 2.4 | 2.3 |
| 25 - 29 | 3.4 | 1.7 | 2.6 | 4.2 | 1.7 | 3.0 | 3.4 | 3.0 | 3.2 |
| 30 - 34 | 4.1 | 4.2 | 4.2 | 4.4 | 3.4 | 3.9 | 4.7 | 3.4 | 4.1 |
| 35 - 39 | 6.4 | 2.1 | 4.3 | 10.2 | 5.1 | 7.7 | 6.0 | 4.2 | 5.1 |
| 40 - 44 | 12.1 | 7.1 | 9.7 | 14.0 | 8.6 | 11.4 | 10.1 | 12.2 | 11.1 |
| 45 - 49 | 13.6 | 7.7 | 10.8 | 18.0 | 11.3 | 14.8 | 16.7 | 14.0 | 15.4 |
| 50 - 54 | 25.9 | 23.8 | 24.9 | 20.8 | 16.6 | 18.8 | 16.7 | 16.3 | 16.5 |
| 55 - 59 | 25.8 | 28.0 | 26.8 | 30.5 | 16.4 | 23.7 | 30.6 | 28.6 | 29.7 |
| 60 - 64 | 41.5 | 27.9 | 34.7 | 32.7 | 32.6 | 32.7 | 39.6 | 30.5 | 35.1 |
| 65 - 69 | 53.9 | 42.9 | 48.3 | 58.3 | 40.4 | 49.2 | 48.2 | 41.3 | 44.6 |
| 70 - 74 | 63.3 | 49.7 | 56.2 | 57.2 | 50.6 | 53.8 | 66.3 | 55.7 | 60.9 |
| 75 - 79 | 101.3 | 79.2 | 89.4 | 77.1 | 67.9 | 72.2 | 78.1 | 59.9 | 68.1 |
| 80 - 84 | 75.1 | 68.2 | 71.6 | 78.5 | 57.3 | 66.7 | 67.1 | 52.8 | 59.1 |
| 85 + | 63.0 | 69.3 | 66.1 | 89.4 | 84.4 | 86.9 | 60.5 | 57.7 | 59.0 |
| ALL AGES | 505.1 | 427.3 | 465.3 | 507.9 | 409.4 | 457.6 | 463.7 | 395.2 | 427.7 |

Note:

Noncommunicable Diseases include Malignant Neoplasms; Other Neoplasms; Diabetes Mellitus; Endocrine Disorders; Neuropsychiatric Conditions; Sense Organ Diseases; Cardiovascular Diseases; Respiratory Diseases; Digestive Diseases; Genitourinary Diseases; Skin Diseases; Musculoskeletal Diseases; Congenital Anomalies; Congenital Anomalies; Oral Conditions; and Ill-defined Conditions.

ASMR: Age-standardised mortality rate per 100,000 per year.

ASMR derived by the direct method using the 'World Standard Population'

**Age Standardised Mortality Rate
- Malignant Neoplasms (Cancer) (2013-2015)**

| AGE-GROUP | Age Standardized Mortality Rate per 100,000 | | | | | | | | |
|-----------------|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 2013 | | | 2014 | | | 2015 | | |
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 0 - 4 | 0.5 | 0.6 | 0.6 | 0.5 | 0.0 | 0.3 | 0.0 | 0.6 | 0.3 |
| 5 - 9 | 0.5 | 0.0 | 0.3 | 0.0 | 0.6 | 0.3 | 0.0 | 0.0 | 0.0 |
| 10 - 14 | 0.0 | 1.0 | 0.5 | 0.5 | 0.0 | 0.2 | 0.0 | 0.5 | 0.2 |
| 15 - 19 | 1.4 | 0.0 | 0.7 | 0.0 | 1.5 | 0.7 | 0.0 | 0.5 | 0.2 |
| 20 - 24 | 0.0 | 1.9 | 0.9 | 1.3 | 0.0 | 0.7 | 0.9 | 0.5 | 0.7 |
| 25 - 29 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.2 | 0.4 | 0.9 | 0.6 |
| 30 - 34 | 0.7 | 1.7 | 1.2 | 0.0 | 1.3 | 0.6 | 1.5 | 2.1 | 1.8 |
| 35 - 39 | 0.8 | 0.9 | 0.8 | 1.6 | 1.7 | 1.6 | 1.5 | 1.3 | 1.4 |
| 40 - 44 | 2.8 | 1.7 | 2.3 | 2.7 | 4.9 | 3.8 | 0.4 | 5.3 | 2.8 |
| 45 - 49 | 3.1 | 3.4 | 3.2 | 2.1 | 5.9 | 3.9 | 2.0 | 5.3 | 3.6 |
| 50 - 54 | 6.9 | 9.1 | 8.0 | 7.2 | 9.0 | 8.1 | 5.6 | 8.6 | 7.0 |
| 55 - 59 | 11.0 | 15.2 | 13.0 | 5.2 | 7.7 | 6.4 | 9.6 | 13.8 | 11.6 |
| 60 - 64 | 12.2 | 8.6 | 10.4 | 7.7 | 13.7 | 10.7 | 8.3 | 12.8 | 10.5 |
| 65 - 69 | 18.0 | 16.3 | 17.1 | 18.5 | 12.6 | 15.5 | 13.5 | 16.4 | 15.0 |
| 70 - 74 | 17.1 | 18.4 | 17.8 | 17.1 | 12.9 | 14.9 | 23.1 | 18.3 | 20.6 |
| 75 - 79 | 19.0 | 14.1 | 16.4 | 17.5 | 20.3 | 19.0 | 17.4 | 10.7 | 13.7 |
| 80 - 84 | 17.1 | 10.2 | 13.6 | 12.5 | 10.9 | 11.6 | 10.2 | 10.9 | 10.6 |
| 85 + | 16.4 | 6.3 | 11.3 | 18.9 | 13.9 | 16.4 | 11.3 | 6.3 | 8.6 |
| ALL AGES | 127.4 | 109.3 | 118.0 | 113.7 | 116.8 | 114.8 | 105.7 | 114.6 | 109.3 |

Note:

ASMR: Age-standardised mortality rate per 100,000 per year.

ASMR derived by the direct method using the 'World Standard Population'

**Age Standardised Mortality Rate
- Cardiovascular Disease (2013-2015)**

| AGE-GROUP | Age Standardized Mortality Rate per 100,000 | | | | | | | | |
|-----------------|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 2013 | | | 2014 | | | 2015 | | |
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 0 - 4 | 0.0 | 1.2 | 0.6 | 0.5 | 0.6 | 0.5 | 0.0 | 1.1 | 0.5 |
| 5 - 9 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.3 | 0.5 | 0.0 | 0.3 |
| 10 - 14 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.2 | 0.0 | 0.5 | 0.2 |
| 15 - 19 | 0.5 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 20 - 24 | 0.9 | 0.0 | 0.5 | 0.9 | 0.0 | 0.5 | 0.5 | 0.5 | 0.5 |
| 25 - 29 | 1.5 | 0.4 | 1.0 | 1.5 | 0.4 | 1.0 | 1.9 | 0.4 | 1.2 |
| 30 - 34 | 1.9 | 1.7 | 1.8 | 2.6 | 0.0 | 1.4 | 1.8 | 0.8 | 1.4 |
| 35 - 39 | 2.0 | 0.9 | 1.4 | 4.7 | 1.7 | 3.3 | 2.3 | 0.8 | 1.6 |
| 40 - 44 | 6.5 | 1.7 | 4.1 | 7.8 | 1.2 | 4.6 | 7.0 | 3.3 | 5.2 |
| 45 - 49 | 4.4 | 1.4 | 3.0 | 9.2 | 0.5 | 5.0 | 8.6 | 2.6 | 5.7 |
| 50 - 54 | 14.8 | 5.6 | 10.4 | 7.7 | 4.0 | 5.9 | 6.4 | 3.8 | 5.2 |
| 55 - 59 | 6.6 | 5.2 | 5.9 | 14.0 | 4.9 | 9.6 | 12.0 | 4.6 | 8.4 |
| 60 - 64 | 12.2 | 7.2 | 9.7 | 14.7 | 5.9 | 10.3 | 16.5 | 5.5 | 11.1 |
| 65 - 69 | 9.5 | 7.1 | 8.3 | 18.5 | 11.7 | 15.0 | 16.9 | 8.6 | 12.6 |
| 70 - 74 | 25.1 | 12.0 | 18.3 | 19.1 | 12.0 | 15.4 | 13.1 | 16.3 | 14.7 |
| 75 - 79 | 34.2 | 29.3 | 31.6 | 31.6 | 23.3 | 27.1 | 33.6 | 19.7 | 26.0 |
| 80 - 84 | 28.4 | 27.3 | 27.9 | 40.9 | 27.3 | 33.4 | 26.2 | 11.8 | 18.2 |
| 85 + | 18.9 | 36.5 | 27.7 | 31.5 | 36.5 | 34.0 | 16.4 | 28.3 | 22.9 |
| ALL AGES | 167.2 | 137.5 | 152.3 | 205.7 | 130.4 | 167.5 | 163.6 | 108.8 | 135.6 |

Note:

ASMR: Age-standardised mortality rate per 100,000 per year.

ASMR derived by the direct method using the 'World Standard Population'

**Age Standardised Mortality Rate
- Diabetes Mellitus (2013-2015)**

| AGE-GROUP | Age Standardized Mortality Rate per 100,000 | | | | | | | | |
|-----------------|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 2013 | | | 2014 | | | 2015 | | |
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 0 - 4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5 - 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10 - 14 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15 - 19 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 20 - 24 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 |
| 25 - 29 | 0.0 | 0.0 | 0.0 | 1.1 | 0.9 | 1.0 | 0.0 | 0.4 | 0.2 |
| 30 - 34 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 35 - 39 | 0.8 | 0.0 | 0.4 | 0.8 | 0.4 | 0.6 | 0.0 | 0.8 | 0.4 |
| 40 - 44 | 0.4 | 1.3 | 0.8 | 1.2 | 0.8 | 1.0 | 1.2 | 1.6 | 1.4 |
| 45 - 49 | 1.8 | 0.0 | 0.9 | 1.7 | 1.4 | 1.5 | 2.0 | 2.2 | 2.1 |
| 50 - 54 | 1.9 | 2.0 | 1.9 | 3.2 | 2.0 | 2.6 | 2.6 | 2.4 | 2.5 |
| 55 - 59 | 4.4 | 4.1 | 4.2 | 5.7 | 1.6 | 3.7 | 6.7 | 4.1 | 5.4 |
| 60 - 64 | 7.9 | 6.4 | 7.2 | 3.8 | 4.6 | 4.2 | 8.3 | 5.5 | 6.9 |
| 65 - 69 | 7.4 | 8.2 | 7.8 | 9.2 | 7.2 | 8.2 | 6.8 | 6.2 | 6.5 |
| 70 - 74 | 11.0 | 6.4 | 8.6 | 4.0 | 10.1 | 7.2 | 13.1 | 4.8 | 8.8 |
| 75 - 79 | 15.2 | 13.0 | 14.0 | 16.4 | 5.1 | 10.3 | 7.6 | 7.2 | 7.4 |
| 80 - 84 | 4.5 | 10.2 | 7.4 | 8.0 | 3.6 | 5.6 | 6.8 | 4.5 | 5.6 |
| 85 + | 5.0 | 5.0 | 5.0 | 15.1 | 8.8 | 12.0 | 7.6 | 5.2 | 6.3 |
| ALL AGES | 60.3 | 56.7 | 58.4 | 70.6 | 46.5 | 58.2 | 62.5 | 45.0 | 53.5 |

Note:

ASMR: Age-standardised mortality rate per 100,000 per year.

ASMR derived by the direct method using the 'World Standard Population'

**Age Standardised Mortality Rate
- Respiratory Diseases (2013-2015)**

| AGE-GROUP | Age Standardized Mortality Rate per 100,000 | | | | | | | | |
|-----------------|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 2013 | | | 2014 | | | 2015 | | |
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 0 - 4 | 0.5 | 0.0 | 0.3 | 0.5 | 0.6 | 0.5 | 0.0 | 1.1 | 0.5 |
| 5 - 9 | 0.5 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.3 |
| 10 - 14 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15 - 19 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 20 - 24 | 0.9 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 25 - 29 | 0.4 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.4 | 0.9 | 0.6 |
| 30 - 34 | 1.1 | 0.0 | 0.6 | 0.4 | 0.0 | 0.2 | 0.0 | 0.4 | 0.2 |
| 35 - 39 | 0.0 | 0.0 | 0.0 | 0.8 | 0.4 | 0.6 | 0.4 | 0.8 | 0.6 |
| 40 - 44 | 0.0 | 0.0 | 0.0 | 0.4 | 0.4 | 0.4 | 1.2 | 0.4 | 0.8 |
| 45 - 49 | 0.0 | 0.0 | 0.0 | 0.8 | 1.4 | 1.1 | 2.4 | 1.8 | 2.1 |
| 50 - 54 | 0.0 | 1.5 | 0.7 | 0.5 | 0.0 | 0.2 | 0.9 | 1.0 | 0.9 |
| 55 - 59 | 0.0 | 0.6 | 0.3 | 1.0 | 0.5 | 0.8 | 0.5 | 1.0 | 0.7 |
| 60 - 64 | 2.1 | 2.1 | 2.1 | 0.6 | 0.7 | 0.6 | 4.1 | 3.7 | 3.9 |
| 65 - 69 | 7.4 | 3.1 | 5.2 | 3.7 | 1.8 | 2.7 | 7.6 | 9.3 | 8.5 |
| 70 - 74 | 7.0 | 5.5 | 6.2 | 7.0 | 6.4 | 6.7 | 6.0 | 6.7 | 6.4 |
| 75 - 79 | 12.7 | 7.6 | 9.9 | 5.8 | 5.1 | 5.4 | 7.6 | 16.1 | 12.3 |
| 80 - 84 | 12.5 | 6.8 | 9.7 | 8.0 | 4.5 | 6.1 | 8.0 | 19.1 | 14.2 |
| 85 + | 15.1 | 6.3 | 10.7 | 10.1 | 10.1 | 10.1 | 21.4 | 13.6 | 17.2 |
| ALL AGES | 60.3 | 33.6 | 46.7 | 39.6 | 31.9 | 35.6 | 60.4 | 76.5 | 69.1 |

Note:

ASMR: Age-standardised mortality rate per 100,000 per year.

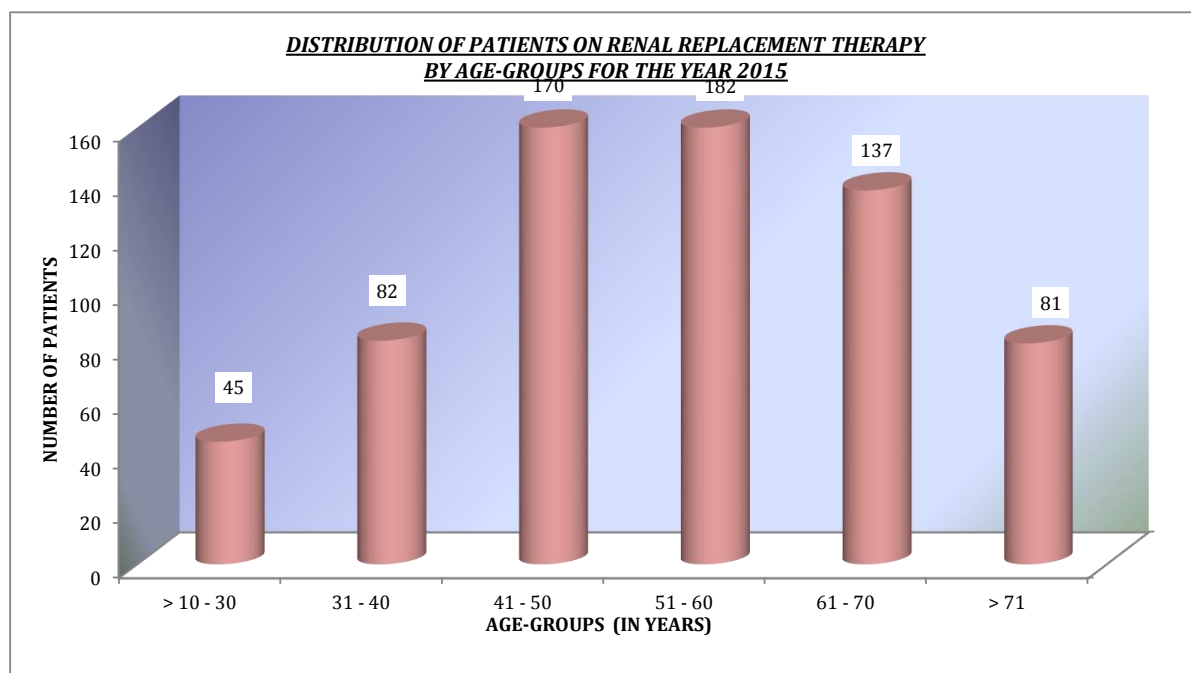
ASMR derived by the direct method using the 'World Standard Population'

Renal Services

| DIALYSIS CENTRE / UNIT | NO. OF PATIENTS ATTENDING FOR RENAL REPLACEMENT THERAPY | | | | | | | | |
|---|---|------------|------------|------------|------------|------------|------------|------------|------------|
| | 2013 | | | 2014 | | | 2015 | | |
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Rimba Dialysis Centre | 115 | 125 | 240 | 129 | 119 | 248 | 123 | 121 | 244 |
| Kiarong Dialysis Centre | 30 | 34 | 64 | 28 | 32 | 60 | 28 | 32 | 60 |
| Dialysis Centre RIPAS Hospital | 53 | 52 | 105 | 69 | 63 | 132 | 54 | 58 | 112 |
| Dialysis Centre SSB Hospital, Belait | 52 | 41 | 93 | 50 | 35 | 85 | 50 | 33 | 83 |
| Tutong Dialysis Centre | 21 | 16 | 37 | 31 | 20 | 51 | 32 | 24 | 56 |
| Continuous Ambulatory Peritoneal Dialysis | 19 | 26 | 45 | 21 | 32 | 53 | 29 | 38 | 67 |
| Transplant Unit | 23 | 13 | 36 | 26 | 13 | 39 | 31 | 14 | 45 |
| Dialysis Centre PIHM Hospital, Temburong | 11 | 19 | 30 | 17 | 13 | 30 | 13 | 14 | 27 |
| TOTAL | 324 | 326 | 650 | 371 | 327 | 698 | 360 | 334 | 694 |

Source:

Renal Registry Unit, Department of Renal Services, Ministry of Health



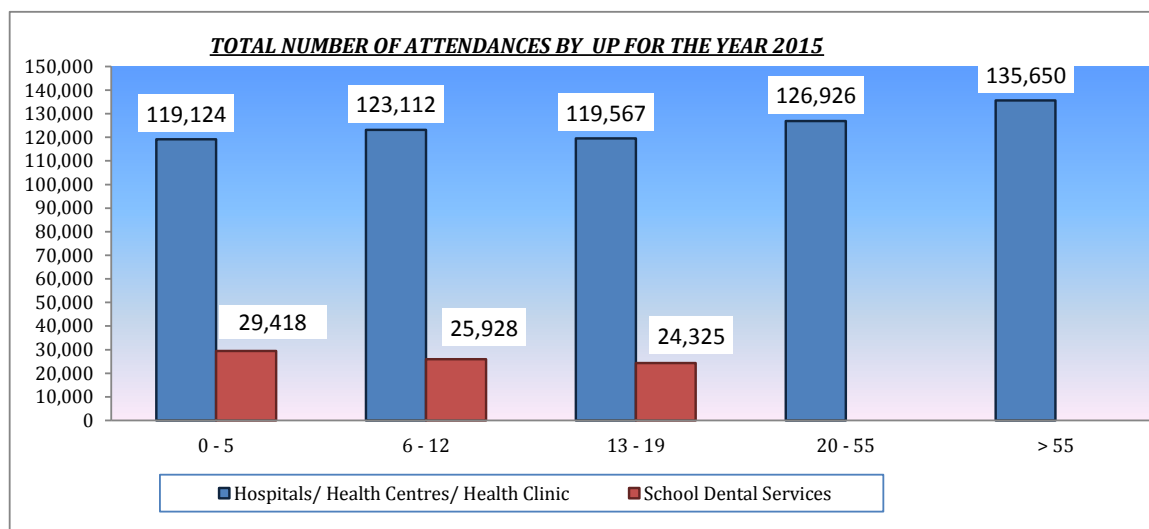
Dental Health Services

TOTAL ATTENDANCE IN HOSPITALS/HEALTH CENTRES/ HEALTH CLINIC BY AGE GROUP FOR (2011-2015)

| YEAR | 0 - 5 | 6 - 12 | 13 - 19 | 20 -55 | >55 | TOTAL |
|------|-------|--------|---------|--------|--------|---------|
| 2011 | 8,440 | 17,131 | 17,614 | 64,125 | 11,814 | 119,124 |
| 2012 | 6,889 | 16,613 | 17,672 | 69,115 | 12,823 | 123,112 |
| 2013 | 5,399 | 13,800 | 15,314 | 71,036 | 14,018 | 119,567 |
| 2014 | 5,457 | 14,526 | 15,499 | 76,631 | 14,813 | 126,926 |
| 2015 | 5,678 | 15,208 | 17,882 | 79,328 | 17,554 | 135,650 |

TOTAL ATTENDANCE IN SCHOOL DENTAL SERVICES BY AGE GROUP FOR (2011-2015)

| YEAR | 0 - 5 | 6 - 12 | 13 - 19 | TOTAL |
|------|-------|--------|---------|--------|
| 2011 | 2,428 | 26,956 | 34 | 29,418 |
| 2012 | 2,401 | 23,470 | 57 | 25,928 |
| 2013 | 2,070 | 22,236 | 19 | 24,325 |
| 2014 | 2,037 | 23,722 | 15 | 25,774 |
| 2015 | 2,672 | 19,392 | 127 | 22,191 |



For more details please go to:

Oral Health Information Booklet, Ministry of Health (<http://www.moh.gov.bn/SitePages/Downloads.aspx>)

Nutritional Status

PERCENTAGE OF STUDENTS SCREENED FOR WEIGHT STATUS (2011 - 2015)

| SCHOOL HEALTH (YEAR 1, 4, 6 and 7 only) | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|------|------|------|------|------|
| 1. Normal weight | 49.7 | 43.7 | 55.6 | 42.8 | 59.6 |
| 2. Overweight | 11.5 | 12.1 | 13.9 | 14.8 | 15.3 |
| 3. Obese | 16.9 | 16.9 | 17.3 | 17.6 | 18.6 |
| 4. Severe Underweight | 8.2 | 11.3 | 4.0 | 1.9 | 1.3 |
| 5. Underweight | 13.8 | 15.9 | 9.3 | 6.7 | 5.2 |

Note :

In 2015, the Total Number of School Target Population is 26,242 for Year 1, 4, 6 & 7.

Source :

School Health Services, Ministry of Health

PERCENTAGE OF CHILDREN ATTENDING NUTRITIONAL CONSULTATION BY WEIGHT STATUS (2011 - 2015)

| MOTHER & CHILD HEALTH CLINICS (BELOW 5 YEARS) | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|--------------|------------|------------|------------|------------|
| 1. Underweight | 46.9 | 53.7 | 50.9 | 56.5 | 60.9 |
| 2. Overweight | 45.8 | 41.9 | 44.9 | 37.4 | 36.8 |
| 3. Others * | 7.3 | 4.4 | 4.2 | 6.1 | 2.2 |
| TOTAL NUMBER OF CASES | 1,025 | 881 | 790 | 735 | 850 |

Note :

Others * include Healthy Eating, Low Birth Weight and Premature.

Source :

Community Nutrition Unit, Ministry of Health

Occupational Health Services

Occupational Health Division is responsible for the monitoring health and safety at the workplace. The activities are streamlined to include worker's health surveillance, workplace surveillance and industrial hygiene, training, information and advisory functions as well as in the areas of compensation, counselling and rehabilitation.

A total of 141 work accidents were reported to the Occupational Health Division in 2015. About 72 percent were in non-health care settings. Majority of these accidents occurred at the construction sites. Within the healthcare sector, most of the injuries involved needlestick injuries.

| TYPE OF INDUSTRIES INSPECTED BY OCCUPATIONAL HEALTH DIVISION (OHD) | |
|--|--|
| A. | Agriculture, Hunting and Forestry |
| B. | Fishing |
| C. | Mining and Quarrying |
| D. | Manufacturing |
| E. | Electricity, Gas and Water Supply |
| F. | Construction |
| G. | Wholesale and Retail Trade, Repair of Motor Vehicles, Motorcycles and Personal and Household Goods |
| H. | Hotels and Restaurants |
| I. | Transport, Storage and Communications |
| J. | Financial Intermediation |
| K. | Real Estate, Renting and Business Activities |
| L. | Public Administration and Defence, Compulsory Social Security |
| M. | Education |
| N. | Health and Social Work |
| O. | Other Community, Social and Personal Service Activities |
| P. | Private Households with Employed Persons |
| Q. | Extra-Territorial Organisations and Bodies |

Note : The classification of industries is based on the International Labour Organisation (ILO) Classification of Industries.

| WORKPLACE SURVEILLANCE BY OCCUPATIONAL HEALTH DIVISION | | | | | | | | | | |
|---|----------------|-----------|------------|------------|------------|------------|-----------|-----------|-----------|-----------|
| PURPOSE | NON HEALTHCARE | | | | | HEALTHCARE | | | | |
| | 2011 | 2012 | 2013 | 2014 | 2015 | 2011 | 2012 | 2013 | 2014 | 2015 |
| 1. Workplace Inspection (First, Periodic & Follow-up Inspections) | 50 | 39 | 51 | 48 | 77 | 1 | 6 | 3 | 7 | 22 |
| 2. Workplace Survey | 158 | 26 | 47 | 177 | 223 | 0 | 0 | 0 | 0 | 0 |
| 3. Others (Accidents at Workplace Investigation, Occupational/Work-Related Disease Investigation, Requests, Complaints) | 25 | 26 | 38 | 43 | 46 | 11 | 6 | 13 | 7 | 11 |
| TOTAL | 233 | 91 | 136 | 268 | 346 | 12 | 12 | 16 | 14 | 33 |

Source : Occupational Health Division, Ministry of Health

Occupational Health Services

| TYPES OF INJURY (NON HEALTHCARE) | 2011 | 2012 | 2013 | 2014 | 2015 |
|--|------------|------------|-----------|-----------|------------|
| A. Agriculture, Hunting and Forestry | 3 | 1 | 3 | 0 | 1 |
| B. Fishing | 0 | 0 | 0 | 0 | 0 |
| C. Mining and Quarrying | 0 | 0 | 0 | 0 | 0 |
| D. Manufacturing | 59 | 14 | 7 | 12 | 13 |
| E. Electricity, Gas and Water Supply | 3 | 0 | 2 | 2 | 3 |
| F. Construction | 57 | 21 | 21 | 18 | 41 |
| G. Wholesale and Retail trade, Repair of Motor Vehicle, Personal and Household goods | 13 | 0 | 5 | 2 | 5 |
| H. Hotel and Restaurant | 2 | 0 | 1 | 0 | 5 |
| I. Transport, Storage and Communication | 2 | 0 | 2 | 1 | 3 |
| J. Financial Intermediation | 0 | 0 | 0 | 0 | 0 |
| K. Rental Estate, Renting and Business Activities | 0 | 0 | 0 | 0 | 0 |
| L. Public Administration, Defense, Compulsory Social Security | 5 | 0 | 0 | 0 | 0 |
| M. Education | 0 | 0 | 0 | 1 | 0 |
| N. Health and Social Work | 1 | 0 | 0 | 0 | 2 |
| O. Other Community, Social, and Personal Service Activities | 22 | 13 | 5 | 23 | 12 |
| P. Private Household with Employed Persons | 0 | 0 | 2 | 3 | 2 |
| Q. Extra- Territorial Organizations and Bodies | 0 | 0 | 0 | 0 | 0 |
| Unknown | 0 | 184 | 15 | 2 | 14 |
| TOTAL | 167 | 233 | 63 | 64 | 101 |

| TYPES OF INJURY (HEALTHCARE) | 2011 | 2012 | 2013 | 2014 | 2015 |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| 1. Needle Prick | 52 | 16 | 20 | 39 | 36 |
| 2. Other Injuries * | 9 | 14 | 3 | 2 | 4 |
| TOTAL | 61 | 30 | 23 | 41 | 40 |

Note

Other Injuries * include Blood/Body Fluid Splash, Scalpel/Elevator and Glass Cut.

OCCUPATIONAL AND WORK RELATED DISEASES

| DISEASES | 2011 | 2012 | 2013 | 2014 | 2015 |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| 1. Noise Induced Deafness | 72 | 37 | 45 | 36 | 66 |
| 2. Occupational Dermatitis | 2 | 1 | 2 | 0 | 1 |
| 3. Occupational Asthma | 0 | 0 | 1 | 0 | 2 |
| 4. Occupational Lung Disease | - | - | 1 | 0 | 0 |
| TOTAL | 74 | 38 | 49 | 36 | 69 |

Source : Occupational Health Division, Ministry of Health

Tobacco Control

NUMBER OF OFFENCES RECORDED (TOBACCO ORDER 2005)

| YEAR | COMPOUND FINES ISSUED | STERN WARNING ISSUED | REQUIRED TO ATTEND SMOKING CESSATION CLINIC | CASES TRANSFERRED TO CUSTOMS AND EXCISE DEPT. | TOTAL NUMBER OF OFFENCES | NUMBER OF OFFENDERS RECORDED |
|------|-----------------------|----------------------|---|---|--------------------------|------------------------------|
| 2011 | 177 | 40 | 0 | 3 | 220 | 216 |
| 2012 | 191 | 0 | 3 | - | 194 | 192 |
| 2013 | 306 | 9 | 14 | - | 329 | 322 |
| 2014 | 243 | 2 | 32 | - | 277 | 277 |
| 2015 | 325 | 1 | 50 | - | 376 | 376 |

Source:

Health Enforcement Unit, Ministry of Health

Pharmacy Services

NUMBER OF PRESCRIPTIONS AND ITEMS BY HOSPITAL FOR THE YEAR 2015

| | RIPAS Hospital | | | | | SSB Hospital | | | PMMPMHAMB Hospital | | | PIHM Hospital | TOTAL |
|---|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|--------------------|----------------|--------------|---------------|------------------|
| | IPP | RIMBA RU | OPP | W&C Pcy | A&E | IPP | OPP | A&E | IPP | OPP | A&E | | |
| NUMBER OF PRESCRIPTIONS | | | | | | | | | | | | | |
| Out-Patient Prescriptions / Discharge Prescriptions | 23,569 | 8,184 | 211,640 | 17,630 | 57,152 | 6,795 | 102,001 | 11,817 | 3,189 | 31,829 | 3,121 | 25,406 | 502,333 |
| In-Patient Prescriptions | 43,280 | 0 | 0 | 0 | 0 | 6,108 | 0 | 0 | 3,592 | 0 | 0 | 150 | 53,130 |
| Total Prescription | 66,849 | 8,184 | 211,640 | 17,630 | 57,152 | 12,903 | 102,001 | 11,817 | 6,781 | 31,829 | 3,121 | 25,556 | 555,463 |
| NUMBER OF ITEMS | | | | | | | | | | | | | |
| Out-Patient Prescriptions / Discharge Prescriptions | 75,129 | 47,143 | 760,089 | 36,735 | 150,944 | 25,315 | 395,429 | 32,702 | 12,770 | 116,254 | 9,208 | 95,957 | 1,757,675 |
| In-Patient Prescriptions | 67,706 | 0 | 0 | 0 | 0 | 10,518 | 0 | 0 | 5,534 | 0 | 0 | 334 | 84,092 |
| Total Items | 142,835 | 47,143 | 760,089 | 36,735 | 150,944 | 35,833 | 395,429 | 32,702 | 18,304 | 116,254 | 9,208 | 96,291 | 1,841,767 |
| <i>Average No. of Items / OPP & DC Prescription</i> | <i>3.19</i> | <i>5.76</i> | <i>3.59</i> | <i>2.08</i> | <i>2.64</i> | <i>3.73</i> | <i>3.88</i> | <i>2.77</i> | <i>4.00</i> | <i>3.65</i> | <i>2.95</i> | <i>3.78</i> | <i>3.50</i> |
| <i>Average No. of Items / In-Patient Prescriptions</i> | <i>1.56</i> | <i>0.00</i> | <i>0.00</i> | <i>0.00</i> | <i>0.00</i> | <i>1.72</i> | <i>0.00</i> | <i>0.00</i> | <i>1.54</i> | <i>0.00</i> | <i>0.00</i> | <i>2.23</i> | <i>2.23</i> |

Source: Department of Pharmacy, Ministry of Health

Note: IPP - In Patient Prescriptions; OPP - Out Patient Prescriptions; Rimba RU - Rimba Renal Unit

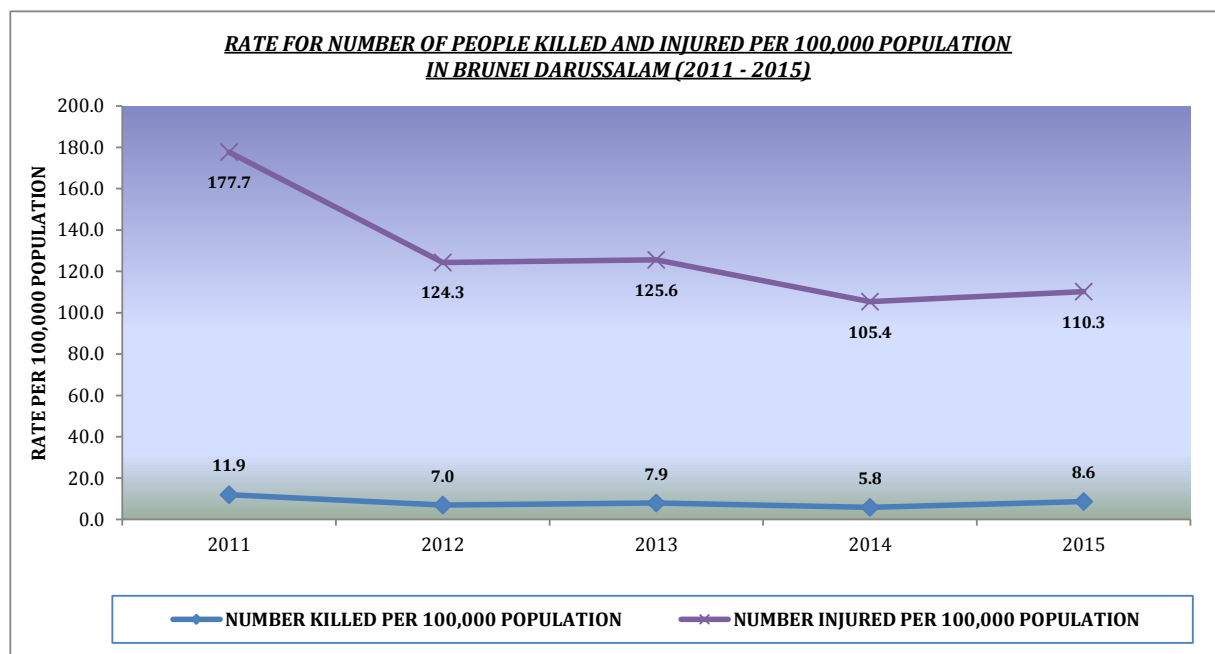
Road Traffic Accidents

Road traffic accidents remain as one of the top ten leading causes of deaths in Brunei Darussalam. In 2015, Brunei Darussalam reported 3345 road accidents.

| ROAD TRAFFIC ACCIDENTS (2011 - 2015) | | | | | | |
|--------------------------------------|-----------|--------|--------------------------------------|---------|---|-------------------------------------|
| Y E A R | ACCIDENTS | KILLED | NUMBER KILLED PER 100,000 POP. | INJURED | NUMBER INJURED FOR EACH PERSON KILLED | CASE FATALITY RATE % (CFR) |
| 2011 | 3,598 | 47 | 11.9 | 699 | 14.9 | 6.3 |
| 2012 | 3,310 | 28 | 7.0 | 497 | 17.8 | 5.3 |
| 2013 | 3,338 | 32 | 7.9 | 510 | 15.9 | 5.9 |
| 2014 | 3,366 | 24 | 5.8 | 434 | 18.1 | 5.2 |
| 2015 | 3,345 | 36 | 8.6 | 460 | 12.8 | 7.3 |

Sources :

The Royal Brunei Police Force, Prime Minister's Office



Definitions

- 1 **INFANT DEATHS** : Deaths aged less than 1 year
- 2 **EARLY NEONATAL DEATHS** : Deaths aged less than 7 days
- 3 **LATE NEONATAL DEATHS** : Deaths aged 7 days to less than 28 days
- 4 **POST NEONATAL DEATHS** : Deaths aged 28 days to less than 365 days
- 5 **NEONATAL DEATHS** : Deaths aged less than 28 days
- 6 **PERINATAL DEATHS** : Stillbirths (Late Fetal Deaths) plus Early Neonatal Deaths
- 7 **MATERNAL DEATH** : Death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes (*Source: WHO ICD-10 International Statistical Classification of Diseases and Related Health Problems*)
- 8 **DIRECT OBSTETRIC DEATHS** : Those resulting from obstetric complications of the pregnancy state (pregnancy, labour and puerperium), from interventions, omissions, incorrect treatment, or from a chain of events resulting from any of the above (*Source: WHO ICD-10 International Statistical Classification of Diseases and Related Health Problems*).
- 9 **INDIRECT OBSTETRIC DEATHS** : Those resulting from previous existing disease or disease that developed during pregnancy and which was not due to direct obstetric causes, but which was aggravated by physiologic effects of pregnancy (*Source: WHO ICD-10 International Statistical Classification of Diseases and Related Health Problems*).
- 10 **LIVEBIRTH** : The complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached; each product of such a birth is considered liveborn (*Source: WHO ICD-10 International Statistical Classification of Diseases and Related Health Problems*).
- 11 **STILLBIRTH (ALSO KNOWN AS LATE FETAL DEATH)** : Refers to any child which has issued forth from its mother after the twenty-fourth (24th) week of pregnancy and showing NO signs of life at birth (complete expulsion from its mother).

HOSPITAL INPATIENT ACTIVITIES

- 1 **ADMISSIONS** : Patients admitted direct to the hospitals or transferred from other institutions. These include newborn babies born outside the hospital and admitted to the hospital but excludes babies born in the hospital.
- 2 **DISCHARGES (ALIVE AND DEATHS)** : These relate to live separations from the hospital or transfers to other institutions.
- 3 **DEATHS** : These include deaths after admissions to the hospital and exclude patients brought in dead and dying before admissions.
- 4 **PATIENT DAYS** : The number of days inpatient stayed in the hospital (services received by one inpatient in one 24-hour period). Patients admitted and discharged the same day are counted as having stayed one day in the hospital. The days a patient does not use his bed because he is on leave or absence are excluded.
- 5 **DAY PATIENTS** : Patients with conditions without the need to stay in the hospital overnight.

Formulae

- 1 **CRUDE BIRTH RATE (per 1,000 population)** = $(\text{LIVEBIRTHS} / \text{POP.}) \times 1000$
- 2 **GENERAL FERTILITY RATE** = $[\text{LIVEBIRTHS} / \text{WOMEN POP. AGED (15-49)}] \times 1000$
- 3 **CRUDE DEATH RATE** = $(\text{NO. OF DEATHS} / \text{POP.}) \times 1000$
- 4 **UNDER 5 MORTALITY RATE** = $[(0-4) \text{ DEATHS} / \text{LIVEBIRTHS}] \times 1000$
- 5 **LATE FETAL DEATH RATIO** = $(\text{FETAL DEATHS} / \text{LIVEBIRTHS}) \times 1000$
- 6 **PERINATAL MORTALITY RATIO** = $(\text{PERINATAL DEATHS} / \text{LIVEBIRTHS}) \times 1000$
- 7 **EARLY NEONATAL MORTALITY RATE** = $(\text{EARLY NEONATAL DEATHS} / \text{LIVEBIRTHS}) \times 1000$
- 8 **LATE NEONATAL MORTALITY RATE** = $(\text{LATE NEONATAL DEATHS} / \text{LIVEBIRTHS}) \times 1000$
- 9 **NEONATAL MORTALITY RATE** = $(\text{NEONATAL DEATHS} / \text{LIVEBIRTHS}) \times 1000$
- 10 **POST NEONATAL MORTALITY RATE** = $(\text{POST NEONATAL DEATHS} / \text{LIVEBIRTHS}) \times 1000$
- 11 **INFANT MORTALITY RATE** = $(\text{INFANT DEATHS} / \text{LIVEBIRTHS}) \times 1000$
- 12 **MATERNAL MORTALITY RATIO (per 100,000 live births)** = $(\text{MATERNAL DEATHS} / \text{LIVEBIRTHS}) \times 100000$
- 13 **MATERNAL MORTALITY RATIO (per 1,000 live births)** = $(\text{MATERNAL DEATHS} / \text{LIVEBIRTHS}) \times 1000$

HOSPITAL PERFORMANCE INDICES

- 1 **AV. INPATIENTS / DAYS** = $\text{PATIENTS DAYS} / \text{NO OF DAYS}$
- 2 **BED OCCUPANCY RATE** = $[(\text{AV. INPATIENTS} / \text{DAYS}) / \text{AVAILABLE BEDS}] \times 100$
- 3 **AV. LENGTH OF STAY (days)** = $\text{PATIENT DAYS} / \text{DISCHARGES \& DEATHS}$
- 4 **AV. TURNOVER OF PATIENTS / BED** = $\text{DISCHARGES \& DEATHS} / \text{AVAILABLE BEDS}$
- 5 **AV. TURNOVER INTERVAL (days)** = $[(\text{AVAILABLE BEDS} \times 365) - \text{PATIENT DAYS}] / \text{DISCHARGES \& DEATHS}$
- 6 **DAY CASE PERCENTAGES (per 100 admissions)** = $(\text{DAY-PATIENTS} / \text{ADMISSIONS}) \times 100$
- 7 **HOSPITAL DEATH RATE (per 100 discharges & deaths)** = $(\text{DEATHS} / \text{DISCHARGES \& DEATHS}) \times 100$

POPULATION BASED HOSPITAL ACTIVITIES

- 1 **OP ATTENDANCE RATE / 1000 POP.** = $(\text{GENERAL OP ATTENDANCES} / \text{POP.}) \times 1000$
- 2 **A&E OP ATTENDANCES RATE / 1000 POP.** = $(\text{A\&E OP ATTENDANCES} / \text{POP.}) \times 1000$
- 3 **HOSPITALISATION RATE / 1000 POP.** = $(\text{ADMISSION} / \text{POP.}) \times 1000$
- 4 **RATE OF PATIENT DAYS / 1000 POP.** = $(\text{PATIENT DAYS} / \text{POP.}) \times 1000$

Note:

AV. = Average

OP = Outpatient

POP. = Population

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Budget Section
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Ministry of Home Affairs

Birth, Death and Adoption Section, Immigration and National Registration Department

Ministry of Communication

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