**Sustainable Development Goal 3**

**Ensure healthy lives and promote well-being for all ages**

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Ensuring healthy lives and promoting well-being for all people at all ages is the focus of Sustainable Development Goal 3 of the 2030 Agenda for Sustainable Development. Its nine targets address a broad and comprehensive range of priorities for sustainable protection of healthy lives, including the following: reducing maternal mortality; infant and under-5 mortality; communicable and non-communicable diseases; environmental causes of ill-health and death; substance use and abuse; and road traffic accidents; as well as ensuring access to sexual and reproductive health-care services; and achieving universal health coverage.

While the breadth of those commitments presents a formidable challenge, the statistical information readily available for the region and thus present here are limited only to the topics of: (a) communicable and non-communicable diseases; (b) health coverage, financial risk protection and access to health services; (c) behaviour and health; and (d) maternal and child health.

3.1 **Communicable and non-communicable diseases**

Non-communicable diseases include cardiovascular diseases (myocardial infarction, stroke), cancer, chronic respiratory diseases and diabetes. Communicable or infectious diseases, for which data are collected regionally and globally, include human immunodeficiency virus (HIV) infection and AIDS, malaria and tuberculosis.

The mortality rate for non-communicable diseases in Asia and the Pacific is between 1.3 and 22.1 times higher than that of communicable diseases

Across the Asia-Pacific region, more people aged 15-60 years die of non-communicable diseases than of communicable diseases and injuries. The age-standardised mortality rate associated with non-communicable diseases is between 1.3 and 22.1 times higher than that of communicable diseases, and between 4.0 and 9.8 times higher than that of injuries.
The mortality rate resulting from communicable diseases is similar to that of injuries for most countries across the Asia-Pacific region. In low income and lower-middle-income countries, such as Afghanistan, Bangladesh, India, Nepal, Pakistan, Papua New Guinea, Solomon Islands and Tajikistan, however, significantly more adults die of communicable diseases than do of injuries. (Fig 1)

Based on the data available, age-standardized mortality due to non-communicable diseases in high income and upper middle economies ranges from 244 deaths per 100,000 people in Japan to 1,025 in Turkmenistan. These rates are typically lower than the comparable mortality rates in low and lower-middle income economies; they range from 435.4 deaths per 100,000 people in Viet Nam to 847.5 in Armenia. The wide divergence in mortality rates attributable to non-communicable diseases in countries indicates that there are factors other than economic wealth, such as diet and lifestyle circumstances, that increase the risk of developing non-communicable diseases. (Fig 2)

2.3 million people in Asia and the Pacific contracted malaria in 2013, 400,000 fewer than the 2.7 million people in 2012

Malaria is transmitted by female Anopheles mosquitoes, typically found in tropical and subtropical areas, and is strongly associated with poverty, the incidence of malaria being particularly high in low income countries in the region. In 2013, malaria affected almost 2.3 million people, or 59 of every 100,000 people living in Asia and the Pacific. In contrast, malaria has been eradicated in all but one of the region’s high income countries, namely the Republic of Korea, where the incidence of malaria was 1 for every 100,000 people.

Of every 10 new cases of malaria found in Asia and the Pacific during 2013, 4 were in India; 5 of every 10 cases were found in South and South-West Asia. However, since 2000, the number of new cases of malaria in South and South-West Asia fell from 166 per 100,000 people to 65 per 100,000 in 2013, and in India,
from 193 per 100,000 people to 69 over the same period. These incidences are far lower than those in Pacific island countries, where in 2013, the number of new cases of malaria per 100,000 people in Solomon Islands, Papua New Guinea and Vanuatu were 4,567, 3,831 and 940 respectively.

In contrast with South and South-West Asia, the cases of malaria per 100,000 people in South-East Asia increased between 2004 and 2010, but the number of cases has fallen over the last three years to 130, although at levels still higher than those in 2004. (Fig 3)

The incidence of tuberculosis is more than 4 times higher in Asia-Pacific low income countries than in high income countries

Tuberculosis (TB) is a major health problem globally and in Asia and the Pacific. It causes ill-health among millions of people each year and ranks alongside AIDS as a leading cause of death worldwide. 

Non-communicable diseases undermine the health and well-being of Pacific island populations

Similar to the region as a whole, and based on data available for 2012, non-communicable diseases (NCDs) were the primary cause of death in all of the five Pacific island countries with relevant data; the incidence of such diseases was highest in Fiji, Solomon Islands and Papua New Guinea where mortality rates were 804, 710 and 693 per 100,000 respectively.

NCDs have coincided with increases in health expenditure in Pacific island countries and territories. For instance, between 1995 and 2011 per capita government health expenditure almost doubled in Federal State of Micronesia, Kiribati and Papua New Guinea, from 215 to 419, from 138 to 204 and from 55 to 91 respectively; expenditure increased three times in Solomon Islands (from 73 to 246) and four times in Samoa (from 72 to 286).

One of the recognized risk factors for NCDs in the Pacific is an unhealthy diet high in fat, sugar and salt. Since the 1960s, Pacific islanders’ diets have gradually changed from what had been based on root crops, starchy foods, seafood and leafy greens to diets dominated by imported processed foods. For example, in Fiji the value of imported processed foods increased from A$ 84 per capita in 2008 to A$ 405 in 2013. Similarly, in Solomon Islands, there was an almost fivefold increase in the value of such imported foods, from A$ 20 to A$ 95, between 2008 and 2013; in Vanuatu, the per capita importation of such items increased in value from A$ 12 to A$ 57 in the same time period.

There has also been an increase in the incidence of behavioural risk factors for poor health, including tobacco use, alcohol use and low levels of physical activity. For instance, among males aged 15 and above, the prevalence of tobacco smoking is 67 per cent in Kiribati, 52 per cent in Nauru and 43 per cent in Vanuatu, substantially higher than the average rate of 27 per cent for the Pacific subregion overall.

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**Box 1**

Non-communicable diseases undermine the health and well-being of Pacific island populations

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In 2013, there were an estimated 5.8 million new TB cases in Asia and the Pacific, or 64 per cent of all new cases worldwide. India, China and Indonesia had the largest numbers of new cases, accounting for 23 per cent, 11 per cent and 6 per cent respectively of the global total.

TB prevalence, or the number of affected individuals, in Asia and the Pacific in 2013 was 182 per 100,000 people, which was 42 per cent lower than the rate in 2000. The incidence and prevalence of tuberculosis are typically higher in lower-income countries. Although the number of cases of tuberculosis per 100,000 people in low income countries fell between 2000 and 2013 from 569 to 410, a 28 per cent decrease, the prevalence in 2013 was still 5 times higher than the 77 cases per 100,000 in high income countries. (Fig 4a, 4b)

Although almost all people with TB can be cured given a timely diagnosis and correct treatment, globally there were an estimated 1.5 million deaths from TB in 2014, 0.6 million of which were in Asia and the Pacific. People infected with HIV are 29 times more vulnerable to TB, and one in four deaths from TB globally in 2014 was among people living with HIV. In addition, inadequate/incomplete treatment of TB can lead to multi-drug-resistant tuberculosis and extensively drug-resistant TB which are much more difficult to treat than normal TB and also involve higher financial costs for treatment.7

### 3.2 Mental health

A standard diagnostic and statistical manual identifies 21 categories of mental “disorders” encompassing acute and chronic debilitating illnesses. Perhaps in part due to the diversity of those disorders and the difficulty involved in diagnosing them, there is a lack of comparable national-level data. Available data include those pertaining to suicide, depression and the governance and care of mental health.

Suicide is a major health challenge in all countries; in Asia and the Pacific, male suicide rates range from 2 per 100,000 people in Azerbaijan to 46 per 100,000 people in the Sri Lanka, while female suicide rates range from 0.9 per 100,000 in Armenia to 35 in the Democratic Republic of Korea. To put this situation into perspective, death rates from suicides ranged from 0.9 to 46 per 100,000 people, broadly comparable to death rates for TB, which ranged from 0.1 to 87 per 100,000 people.

Suicide rates are also, with few exceptions, higher for men than for women, and in 2012, 38 per cent of all countries in the region had male suicide rates that were at least double...
female suicide rates. It has been reported that clinical depression, being one risk factor for suicide, likely affects between 4 and 7 per cent of the Asia-Pacific population. (Fig 5)

3.3 Health coverage, financial risk protection and access to health services
Promoting and protecting health is essential to human welfare and sustained economic and social development, and timely access to health services through a mix of promotion, prevention, treatment and rehabilitation is critical.

Statistics on health expenditure and the coverage of health services can guide the prioritization, formulation and implementation of measures undertaken by public and non-public sector stakeholders.

Per capita spending on health by governments in Asia and the Pacific in 2011 ranged from as high as 2,540 USD per person PPP in high income economies, to as low as 4 USD per person PPP in low income economies

One indication of a Government’s prioritization of health and well-being is the allocation and expenditure of budgetary resources on health services. Spending per capita is typically higher in higher income economies; in 2011, such expenditures in USD per person 2005 PPP were highest in Australia (2,529), Japan (2,540) and New Zealand (2,524) and lowest in Afghanistan (8) and Myanmar (4). This difference in spending is in part responsible for the higher life expectancy of people living in higher-incomes economies, which ranged from 81 to 83 for Australia, Japan and New Zealand to between 59 and 65 in Afghanistan and Myanmar. (Fig 6)

Another measure of a country’s commitment to health care is the proportion of GDP allocated to health services. This measure, unlike health spending per capita, is not determined by the size of the overall budget available; in 2013, 7.2 per cent of GDP in low income economies was allocated to health services, which was

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**Box 2**

**Mental health and happiness**
One measure of mental health is happiness. According to the Sustainable Development Solutions Network, an initiative of the United Nations, as reported in its *World Happiness Report 2015*, countries in the Asia-Pacific region range from being the ninth happiest in the world (New Zealand) to the 153rd happiest (Afghanistan), based on a total of 158 countries globally. The happiest countries in Asia and the Pacific, according to the report, tend to have high incomes; with a few exceptions, happiness increases as a country transitions from being a low- to a middle- and then a high income country. Furthermore, men in the Asia-Pacific region are reportedly marginally happier than women. For both sexes, the experiences of worry, sadness, depression and pain tend to increase with age, while experiences of anger and stress decline.

1.6 percentage points lower than the 8.8 per cent allocated in high income economies, but higher than the 3.8 and 5.5 per cent allocated in lower- and upper middle-income countries, respectively.

3.4 Behaviour and health

Differences in behaviour affect health outcomes and well-being. Driving and travelling in motor vehicles, and the use and abuse of tobacco, alcohol and other drugs are among the behaviours that contribute most to increased morbidity and mortality risks.

Nearly three quarters of a million fatalities occurred on the roads of Asia and the Pacific in 2013

Road traffic injuries are the eighth leading cause of death globally and the leading cause of death among young people aged 15-29 years; thus, such accidents take a heavy toll on those entering their most productive years of life.¹¹

In Asia and the Pacific, 733,541 people died on roads in 2013, which is equivalent to 17.2 fatalities per 100,000 people, a rate marginally lower than the global average of 17.4 per 100,000 people. Of the ten countries in 2013 with highest number of fatalities per 100,000 people, two were in Asia and the Pacific: in Thailand it was 36.2 per 100,000 population and in the Islamic Republic of Iran 32.1 per 100,000.

Road traffic fatality rates in high income countries, where safety measures may be better developed or more systematically applied, tend to be the lowest in the region, at around 11.5 per 100,000 people. Fatality rates in low income countries, where the volume of traffic may not be very large, are also relatively lower in the region, at about 16.5 per 100,000 people. The highest rates typically are recorded in middle-income countries; in 2013, the rates were 16 and 20 per 100,000 people in lower and upper middle-income countries respectively. In such countries, the volume of traffic may be greater than in low income countries, but safety measures may not be as well embedded as in high incomes countries. (Fig 7)

In Asia and the Pacific, 40 per cent of males and 5 per cent of females smoked tobacco in 2011

Tobacco use poses a significant threat to health. Yet, across the Asia-Pacific region, 40 per cent of males aged 15 years and older smoke tobacco compared with 5 per cent of females. A higher percentage of men smoke than women in every country in the region, except for Australia, Nauru and New Zealand. The male-to-female prevalence ratio for smoking
was highest in Malaysia (43:1) and lowest in Nauru (approximately 1:1).

These figures equated to 726 million tobacco users in Asia and the Pacific in 2011, 647 million men and 79 million women. China has the largest number of tobacco users: 268 million men and 11 million women; in India, the numbers are 111 million men and 17 million women. (Fig 8)

The average alcohol consumption in Asia and the Pacific increased by a third from 1990 to 2010

Alcohol consumption in Asia and the Pacific has increased from 3.0 litres to 4.1 litres per person per year between 1990 and 2010. This is still below the global average which increased from 4.7 litres to 5.0 litres per person per year over the same period. These figures exclude unrecorded consumption of such drinks as homemade alcohol, or alcohol produced illegally or sold outside normal government channels of control.

Alcohol consumption varies across Asia-Pacific subregions; in 2010, such consumption was highest in North and Central Asia, at 9.8 litres per person per year in South-East Asia and South and South-West Asia, which are the lowest rates among Asia-Pacific subregions. (Fig 9)

Alcohol consumption also tends to be higher in high income countries; it was 9.0 litres per person per year in 2010 in high income countries compared with 2.0 litres per person per year in low income countries. It should be pointed out, however, that social factors, particularly cultural traditions and religion, have substantial impacts on alcohol consumption.

3.5 Maternal and child health

In both the Millennium Development Goals and the Sustainable Development Goals, improving maternal and child is objective. Major reductions in maternal and child mortality rates have been documented across the Asia-Pacific region. However, available data also indicate that sustained action and investment are required to reduce preventable damage to the health and well-being of women and young children.
Maternal, infant and child mortality rates in Asia and the Pacific are 16, 9 and 10 times higher respectively in low income economies than in high income economies

Maternal mortality
Across the Asia-Pacific region, the number of maternal deaths per 100,000 live births decreased by 61 per cent, from 1990 to 2013, from 323 to 127. Consequently, half of the 58 countries in the region had maternal mortality ratios lower than 100 deaths per 100,000 live births in that year; about 43 per cent had ratios below 70 per 100,000 (the target to be achieved for maternal deaths under Sustainable Development Goal 3).

The reductions in maternal deaths per 100,000 live births between 1990 and 2013 have been greatest for lower-middle-income countries (from 481 per 100,000 to 174) and low income countries (from 845 per 100,000 to 267). However, the maternal mortality ratios in these countries remain significantly higher than the 17 deaths per 100,000 live births in 2013 in the high income countries. (Fig 10)

Infant mortality rate
Infant mortality rates in Asia and the Pacific have also decreased dramatically. The number of children estimated to have died within the first year of their birth decreased by 53 per cent in 2013, that is, from 64 per 1,000 live births in 1990 to 30 per 1,000 live births. However, children born in low income countries in 2013 were nearly nine times more likely to die before reaching the age of one year than those in high income countries, with estimated infant mortality rates of 48 per 1,000 live births and 6 per 1,000 respectively.

Under age-5 mortality
The number of children estimated to die before reaching 5 years of age decreased by 57 per cent, from 88 per 1,000 live births in 1990 to 38 per 1,000 live births in 2013. However, children born in low income countries in 2013 were nearly 10 times more likely to die before reaching 5 years of age than those in high income countries, where estimated under age-5 mortality rates were 64 per 1,000 live births and 7 respectively. (Fig 11)

Maternal health-care services in Asia and the Pacific are improving
Data are often insufficient for making robust comparisons of the health-care services furnished to women by their income levels, but as can be seen in figure 12, women in higher-income countries, where maternal and infant mortality rates are the lowest, are more likely to have received antenatal care coverage and to have had skilled personnel present at the births of their children than are women in lower-income countries.

The percentage of women of reproductive age in Asia and the Pacific receiving antenatal care from skilled health personnel at least once during their pregnancy increased from 61 per cent in 1991 to 85 per cent in 2014. Data are insufficient to produce a similar figure for women receiving four or more such visits in 2014, but in previous years the percentage of women receiving four visits was typically between 33 and 35 percentage points lower than the percentage receiving just one visit.
Similar increases have been observed in the percentage of live births attended by a skilled health professional in Asia and the Pacific, which have increased from 57 per cent in 1990 to 75 per cent in 2014. (Fig 12)

3.6 Data and monitoring issues

Large variations in the availability of data to monitor health and well-being in Asia and the Pacific

Non-communicable and communicable diseases

Annual estimates are made of the incidence and prevalence of TB for every country in the region from 2002 onwards, prior to which time observations for Timor-Leste only are missing. Data held by ESCAP on the incidence of malaria are less complete, but are sufficient to support the calculation of annual subregional aggregates, except for the Pacific, where no subregional aggregates have been calculated, and for North and Central Asia, where no aggregates were calculated for 2012 and 2013.

Non-communicable diseases, such as cardiovascular diseases, cancer, diabetes and chronic respiratory diseases, also have a major impact on the health and well-being of people in Asia and the Pacific, but no data are presented on them in this chapter due to data and time constraints.

Mental health

Suicide rates in Asia and the Pacific are available for 40 of the 58 member States – but for 2012 only. Coverage is particularly low in the Pacific subregion where data are available for only 5 of 21 countries and territories.

Health coverage, financial risk protection and access to health services

Annual estimates of government expenditure and out-of-pocket expenditure on health are available for about 90 per cent of the countries in the region. Other issues related to financial risk protection, such as the number of people protected against catastrophic and impoverishing out-of-pocket health expenditure, are not readily available.

Behaviour and health

Analysis of road traffic deaths in Asia and the Pacific is based on data for 2010 and 2013 only. Coverage in these two years is sufficiently high to generate subregional estimates, but coverage is comparatively low in the Pacific subregion where observations for 8 of 21 countries are missing. Data on the victims of road traffic deaths, such as “pedestrian” and “cyclist”, are more scarce but still sufficient to calculate subregional totals.

Data held by ESCAP data on the prevalence of smoking among males and females older than 15 years are available for 2011 only. Data on the prevalence of smoking among adolescents aged 13-15 years old in the region are available from 2000 to 2014, but coverage is sporadic and no subregional aggregates have been estimated. Coverage of data on alcohol consumption is greater than that for tobacco, and regional and subregional estimates have been calculated for every year from 1990 to 2010. There are, however, fewer observations from 2011 onwards.

Maternal and child health

Annual estimates of infant and under age 5 mortality rates in Asia and the Pacific are available for about 90 per cent of countries in the region. Maternal mortality data have improved dramatically as a result of the Millennium Development Goals, but are not available annually. Over the last 15 years, data
are presented for 2000, 2005, 2010 and 2013 only. Further disaggregation of maternal and child health data should include age, place of residence and socioeconomic status.

Maternal health-care services
Coverage of data obtained from household surveys on the provision of health-care services for pregnant women vary. The frequency of observations by country on women receiving at least one antenatal care visit from skilled health personnel are typically high enough to generate robust annual and subregional estimates. Coverage tends to decline for women receiving at least four visits, and it has not been possible to generate a regional aggregate for Asia and the Pacific after 2008. Of the three indicators that feature under maternal health-care services, the percentage of births attended by a skilled health professional is the most complete.

Civil registration and vital statistics are needed for better understanding of causes of death
Improving population health outcomes in the Asia-Pacific region requires a sound understanding of the causes of death, including why, where, when and how death occurs. Accurate data on both the numbers and locality of deaths and their causes are critical for addressing public safety risks in general and health risks in particular, as well as those risks faced by vulnerable groups in society.

Reliable data on mortality is necessary for informing policymaking, planning health programmes, setting priorities and increasing awareness. Accurate data are also critical for monitoring and evaluating the outcomes and impacts of programmes and interventions for addressing health concerns.

The most suitable source of information on cause of death is a well-functioning civil registration and vital statistics system that includes accurate information on cause of death as identified by physicians working in health facilities. This type of information is preferred as it is the only source of continuous nationally representative information on cause-specific mortality. However, only a few developing countries have been able to achieve full registration of vital events; many countries are therefore unable to produce reliable mortality estimates on the basis of vital statistics.

Data from the United Nations Statistics Division on the coverage and completeness of vital events registration indicate that death registration coverage in the Asia-Pacific region ranges from a low of 9 per cent in Tuvalu to 100 per cent in a few developed countries. Even in developed countries with complete registration of deaths, however, the measurement of mortality is challenged by issues related to the classification of the causes of death. Globally, less than two fifths of countries have a complete civil registration system with accurate attribution of the cause of death, which is necessary for the measurement of specific mortality patterns.

In order to improve data availability, timeliness and quality with respect to causes of death, national civil registration and vital statistics systems need to be strengthened. Improving civil registration and vital statistics would produce multiple gains for countries. On one hand, civil registration and vital statistics systems provide timely and reliable data for informing policymaking, planning and programme development and implementation, as well as for monitoring development goals. On the other, the registration process can ensure that all individuals have the legal documentation to establish their civil status and ensuing rights. Compared with surveys, civil registration and vital statistics systems are cheaper to maintain in the long run and also enable the production of the disaggregated data demanded for attainment of the Sustainable Development Goals, in particular for living up to its principle of “leaving no one behind”.
Endnotes

1 United Nations (2015), General Assembly resolution 70/1.
3 World Health Organization data for “injuries”.
4 Age-standardised mortality rates (number of deaths per 100,000 population) are used in an attempt to estimate and remove the effect of variations in age composition of a population on mortality rates in order to enable comparisons of crude age-specific rates over time and between populations.
6 For details, see http://www.who.int/malaria/en/.
9 In Indonesia, Bangladesh and Pakistan, the suicide rates for females are higher than those for males.
10 For details, see http://www.washingtonpost.com/blogs/worldviews/files/2013/11/depression-rates.jpg.