Chapter 5
Health Status and Health Problems of Thai People

1. Overall Health Status Indicators

Over the past three decades, the overall health status of Thai people has a promising trend of improvement as evidenced by the following:

1.1 Life Expectancy at Birth

In 2004, the life expectancy at birth of Thai people was 70.3 years. Though higher than that of the people in other developing countries and of the world population, life expectancy of Thai people is still lower than that for several other ASEAN countries (Table 5.1). However, during 1964-2006, Thais' life expectancy at birth substantially increased from 55.9 years to 69.9 years for males and 62.0 years to 77.6 years for females. In 2025, it is expected that the life expectancy of Thai citizens will reach 74.8 years for males and 80.3 years for females (Table 5.2).

The World Health Report 2003 also revealed that, in 2002, Thailand's healthy life expectancy (HALE) was 60.1 years: 57.7 for males and 62.4 for females, which were lower than those for several other ASEAN countries (Table 5.1).

Table 5.1 Life expectancy at birth (in years) of Thai people in comparison with those for other countries

Group of countries	Life expectancy at birth					Health life expectancy[6]		
	1998[1]	2001[2]	2002[3]	2003[4]	2004[5]	Both sexes	Male	Female
WHO / SEAR								
Sri Lanka	73.3	72.3	72.5	74.0	74.3	61.6	59.2	64.0
Thailand	68.9	68.9	69.1	70.0	70.3	60.1	57.7	62.4
Indonesia	65.6	66.2	66.6	66.8	67.2	58.1	57.4	58.9
Maldives	65.0	66.8	67.2	66.6	67.0	57.8	59.0	56.6
India	62.9	63.3	63.7	63.3	63.6	53.5	53.3	53.6
Bhutan	61.2	62.5	63.0	62.9	63.4	52.9	52.9	52.9
Myanmar	60.6	57.0	57.2	60.2	60.5	51.7	49.9	53.5
Bangladesh	58.6	60.5	61.1	62.8	63.3	54.3	55.3	53.3
Nepal	57.8	59.1	59.6	61.6	62.1	51.8	52.5	51.1
ASEAN								
Singapore	77.3	77.8	78.0	78.7	78.9	70.1	68.8	71.3
Brunei	75.7	76.1	76.2	76.4	76.6	65.3	65.1	65.5
Malaysia	72.2	72.8	73.0	73.2		63.2	61.6	64.8
Thailand	68.9	68.9	69.1	70.0	70.3	60.1	57.7	62.4
Philippines	68.6	69.5	69.8	70.4	70.7	59.3	57.1	61.5
Vietnam	67.8	68.6	69.0	70.5	70.8	61.3	59.8	62.9
Indonesia	65.6	66.2	66.6	66.8	67.2	58.1	57.4	58.9
Myanmar	60.6	57.0	57.2	60.2	60.5	51.7	49.9	53.5
Laos	53.7	53.9	54.3	54.7	55.1	47.0	47.1	47.0
Cambodia	53.5	57.4	57.4	56.2	56.5	47.5	45.6	49.5
High human development								
Japan	80.0	81.3	81.5	82.0	82.2	75.0	72.3	77.7
Canada	79.1	79.2	79.3	80.0	80.2	72.0	70.1	74.0
Ireland	79.1	79.6	79.9	80.7	80.9	72.8	72.1	73.6
Sweden	78.7	79.9	80.0	80.2	80.3	73.3	71.9	74.8
Switzerland	78.7	79.0	79.1	80.5	80.7	73.2	71.1	75.3
World	66.9	66.7	66.9	67.1	67.3	-	-	-
High human development	77.0	77.1	77.4	78.0	78.0	-	-	-
Medium human development	66.9	67.0	67.2	67.2	67.3	-	-	-

Source :
[1] UNDP, Human Development Report 2000.
[2] UNDP, Human Development Report 2003.
[3] UNDP, Human Development Report 2004.
[4] UNDP, Human Development Report 2005.
[5] UNDP, Human Development Report 2006.
[6] WHO, World Health Report 2003.

Table 5.2 Life expectancy at birth (in years) of Thai people

Year	Males	Females	Females-Males difference
1964-1965[1]	55.9	62.0	6.1
1974-1976[1]	58.0	63.8	5.8
1985-1986[1]	63.8	68.9	5.1
1989[1]	65.6	70.9	5.3
1991[1]	67.7	72.4	4.7
1995-1996[1]	69.9	74.9	5.0
2005-2006[1]	69.9	77.6	7.7
2005-2010[2]	69.6	76.2	6.6
2010-2015[2]	71.3	77.5	6.3
2015-2020[2]	73.1	78.9	5.8
2020-2025[2]	74.8	80.3	5.5

Sources: [1] Reports on Population Change Surveys, 1964-1965, 1974-1976, 1985-1986, 1989, 1991, 1995, 1996 and 2005-2006. National Statistical Office.

[2] Population Projection for Thailand, 2000-2025. Office of the National Economic and Social Development Board, 2003.

1.2 Maternal Mortality

The maternal mortality ratio (MMR) in Thailand has declined from 374.3 per 100,000 live births in 1962 to 9.8 per 100,000 live births in 2006 (Figure 5.1). However, MMR estimates from several surveys are higher than the reported figure. For example, the 1995-1996 RAMOS[1] survey on mortality among women of reproductive age revealed a MMR of 44.1, while the Safe Motherhood Project[2] reported the MMR at 16.3 and the 2003 study of Yongjuea Laosirithavorn[3] reported a MMR of 52.2 for the same period.

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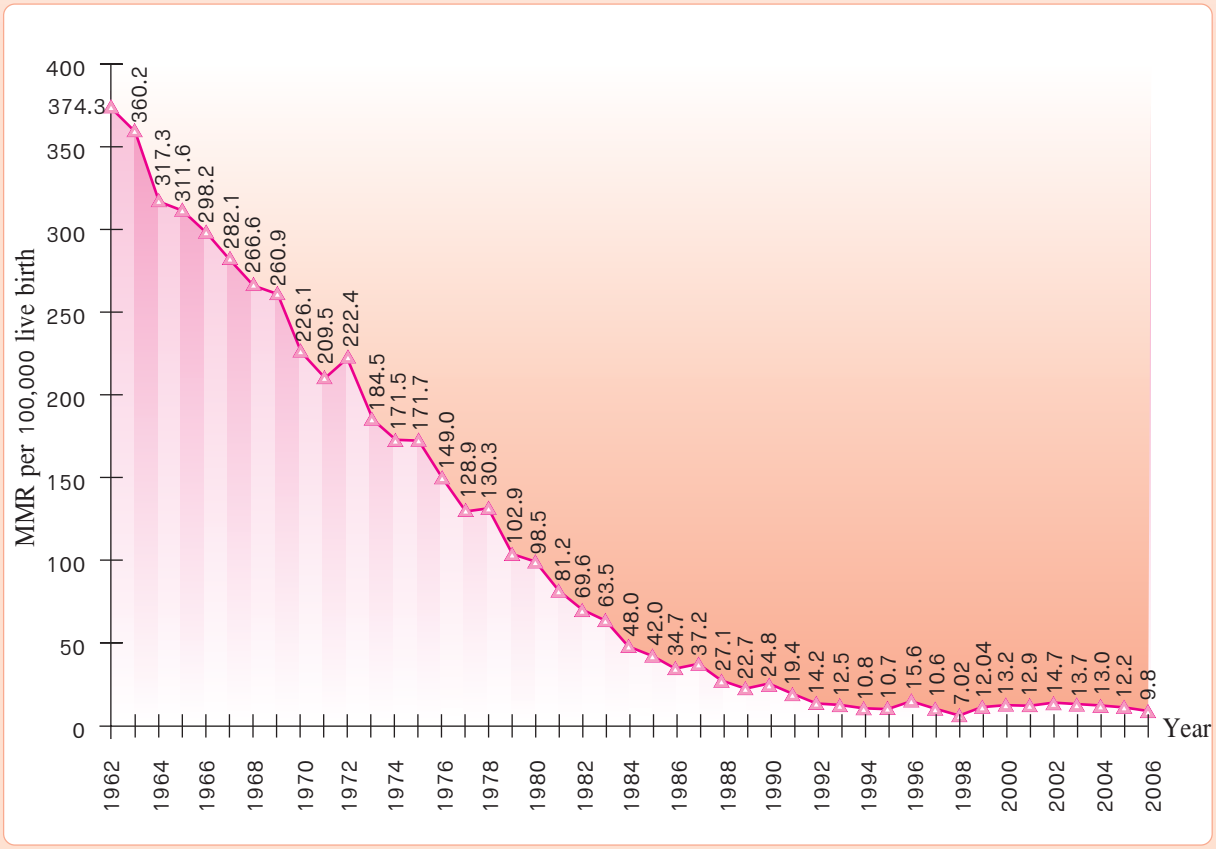
1 Survey on Mortality among Women of Reproductive Age Using the Reproductive Age Mortality Survey Method. Bureau of Health Promotion, Department of Health.

2 Bureau of Health Promotion, Department of Health. Report on Maternal Mortality in Thailand. Safe Motherhood Project, 1995-1996.

3 Yongjuer Laosirithavorn. Situation and Report on Maternal Mortality Resulting from Pregnancy and Childbirth in Thailand, 1995-1996, 2003.

Figure 5.1 Maternal mortality ratio, Thailand, 1962-2006



Source: Bureau of Policy and Strategy, Office of the Permanent Secretary, MoPH.

1.3 Infant Mortality

In Thailand, the infant mortality rate (IMR, per 1,000 live births) rapidly declined from 84.3 in 1964 to 40.7 in 1984 and to 11.3 in 2005-2006 (Figure 5.2). However, although IMR for Thailand is lower than the global average, it is still higher than that for some other countries in the same region such as Singapore and Malaysia (Table 5.3).

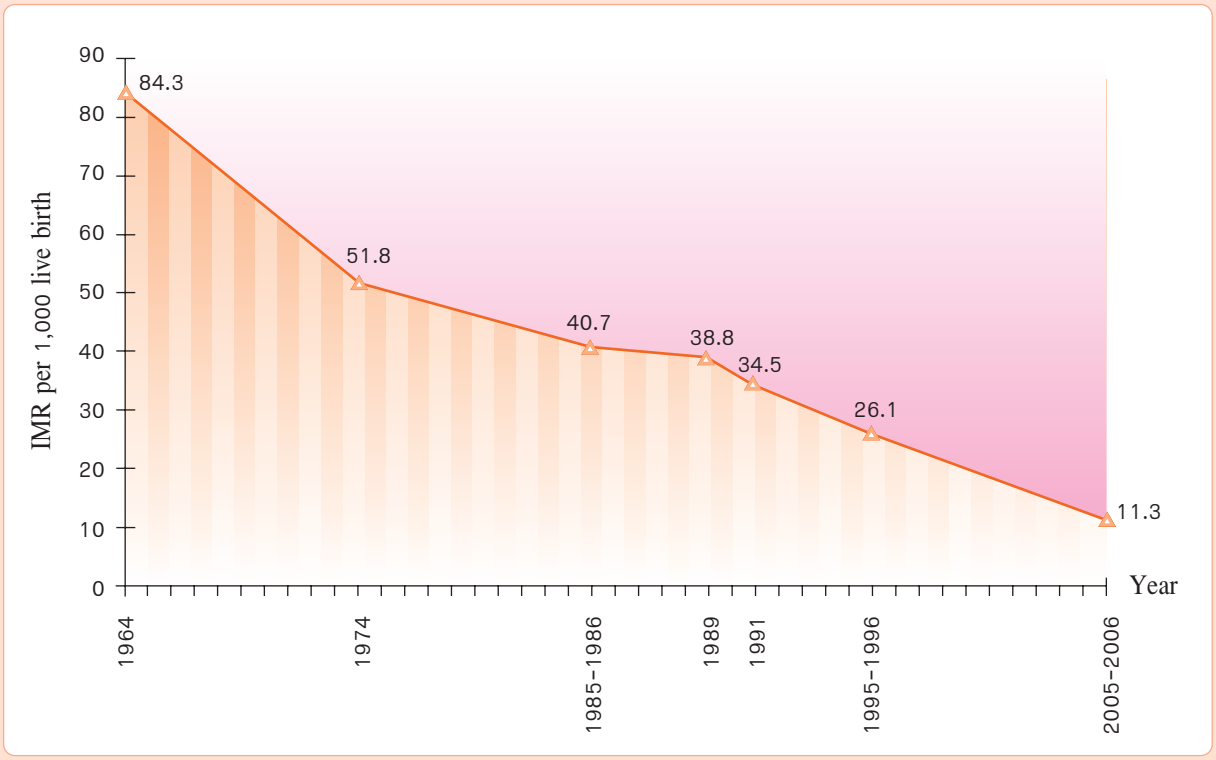
Table 5.3 Infant mortality rate and child mortality rate for Thailand in comparison with those for other countries, 1980, 2001, 2002, 2003 and 2004

Group of countries	IMP per 1,000 live births					CMR per 1,000 live births				
	1980	2001	2002	2003	2004	1980	2001	2002	2003	2004
WHO / SEAR										
North Korea	32	42	42	42	42	43	55	65	55	55
Sri Lanka	34	17	16	13	12	48	19	19	15	14
Thailand	49	24	24	23	18	58	28	28	26	21
Indonesia	90	33	32	31	30	125	45	43	41	38
Myanmar	109	77	77	76	76	134	109	108	107	106
India	115	67	65	63	62	173	93	90	87	85
Nepal	132	66	62	61	59	195	91	83	82	76
Bangladesh	132	51	48	46	56	205	77	73	69	77
ASEAN										
Singapore	12	3	3	3	3	13	4	4	5	3
Malaysia	30	8	8	7	10	42	8	8	7	12
Thailand	49	24	24	23	18	58	28	28	26	21
Philippines	52	29	28	27	26	81	38	37	36	34
Vietnam	57	30	20	19	17	70	38	26	23	23
Indonesia	90	33	32	31	30	125	45	43	41	38
Myanmar	109	77	77	76	76	134	109	108	107	106
Laos	127	87	87	82	65	200	100	100	91	83
High income										
Sweden	7	3	3	3	3	8	3	3	4	4
Japan	8	3	3	3	3	10	5	5	5	4
Switzerland	9	5	5	4	5	11	6	6	6	5
Canada	10	5	5	5	5	13	7	7	7	6
Ireland	11	6	6	5	5	14	6	6	7	6
Word	80	56	55	57	54	121	81	81	86	79
High income	13	5	5	5	6	15	7	7	7	7
Middle income	57	31	30	30	30	80	38	37	37	37
Low income	116	80	79	80	79	171	121	121	123	122

Source: World Bank, World Development Indicators, 1999, 2000/2001, 2002, 2003, 2004, 2005, 2006

Note: CMR per 1,000 live births among children under five years of age.

Figure 5.2 Infant mortality rate for Thailand, 1964-2006

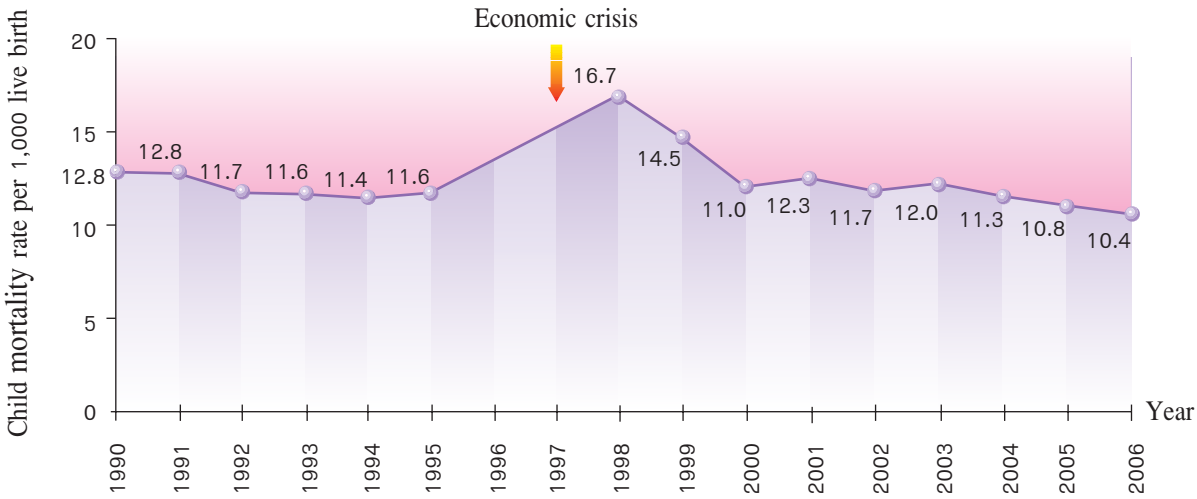


Source: Estimates were derived from the data from the Population Changes Survey. National Statistical Office.

1.4 Children Mortality Rate

The child mortality rate (among children aged under 5 years per 1,000 live births) has insignificantly changed from 12.8 in 1990 to 10.4 in 2006. It is noteworthy that, during the first stage of the economic crisis, the rate rose to 16.7 in 1998 and has had a tendency to drop since 1999 (Figure 5.3). However, even though the Thai CMR is lower than the global average, it is still higher than that for other countries in this region such as Singapore and Malaysia (Table 5.3). It is also noted that the rate reported by the civil registration office tends to be lower than reality, whereas the rate of 15.7 was derived from the 2006 population change survey.

Figure 5.3 Child mortality rate in Thailand, 1990-2006



Source: Bureau of Policy and Strategy, Office of the Permanent Secretary, MoPH.

Note: In 1996-1997, there was some adjustment in the data processing system of the civil registration office and, as a result, there were no child death data processing for those years, possibly resulting in the higher CMR for 1998.

1.5 Causes of Death

A study on the causes of death among Thai people during a one-year period between 1997 and 1999 in 16 provinces using the verbal autopsy method, conducted by the MoPH Bureau of Policy and Strategy, revealed that only **29.3% of specified causes of death were consistent with those stated in the death certificates**. The categories of diseases with high levels of consistency were "unclear causes", followed by cancer and tumors, external causes and infectious diseases, whereas other categories had a very low consistency level.

For all age groups, the study revealed that the number one cause of death was the diseases of **circulatory system** (18.6% of all causes), more than half of which were due to cerebrovascular diseases; the second leading cause was cancer and tumors (16.2%), nearly half of which were liver/bile-duct and lung cancers; the third leading cause was infectious diseases (15.5%), most of which were HIV infection particularly among teenage and young adult males, followed by tuberculosis; and the fourth leading cause was external causes among children and youths (12.4%), i.e. accidental drowning among school-age children and road traffic accidents among teenagers and adults, most of which were associated with motorcycles.

An analysis of the differences in causes of death in males and females revealed a proportion of 21.4% for diseases of the circulatory system, followed by 16.5% for cancer/tumors in females, and 18.2% for infectious diseases, followed by 16.6% for diseases of the circulatory system in males, whereas external causes ranked third for males and fifth for females.

By age group and sex, **the causes of death** are as shown in the table below:

Age group (years)	Major causes of death	
	Males	Females
0 - 4	Low birth weight, perinatal asphyxia	Low birth weight, congenital heart defect
5 - 14	Road traffic accidents, accidental drowning	Accidental drowning, HIV/AIDS
15 - 29	Road traffic accidents, HIV/AIDS	HIV/AIDS, road traffic accidents
30 - 44	HIV/AIDS, road traffic accidents	HIV/AIDS, road traffic accidents
45 - 59	Liver/bile-duct cancer, HIV/AIDS	Cerebrovascular diseases, liver cancer
60 - 69	Liver cancer, cerebrovascular diseases	Cerebrovascular diseases, diabetes
70 - 79	Cerebrovascular diseases, chronic obstructive pulmonary disease	Cerebrovascular diseases, diabetes
80 and over	Cerebrovascular diseases, chronic obstructive pulmonary disease	Cerebrovascular diseases, ischemic heart disease

1.6 Causes of Illness

Surveys on people's illnesses conducted by the National Statistical Office between 1991 and 2006 revealed that the most prevalent illness was diseases of the respiratory tract, followed by musculoskeletal diseases and gastrointestional diseases. However, when considering the trends in illness, it was found that the prevalence of cardiovascular diseases, endocrine system diseases, allergies and neuropsychiatric diseases were on the rise (Table 5.4).

Table 5.4 Percentage of people with illnesses by major group of diseases, 1991-2006

Group of diseases	1991	1996	2001	2003	2004	2005	2006
Respiratory tract diseases	38.1	45.7	39.6	40.2	44.8	45.0	44.3
Musculoskeletal diseases	15.7	13.2	14.0	14.9	11.8	12.2	11.4
Gastrointestinal diseases	15.4	11.3	10.0	10.3	9.1	9.3	9.4
Cardiovascular diseases	3.0	6.6	6.6	6.3	5.2	5.9	6.3
Endocrine system diseases	1.4	3.3	4.7	4.4	3.1	4.4	4.1
Oral/dental, eye, ear, nose and throat diseases	4.7	3.2	3.6	2.6	3.3	3.2	2.7
Infectious diseases	2.2	2.1	1.8	1.3	2.1	1.7	0.9
Urinary tract diseases	1.4	1.8	1.3	1.3	1.1	0.9	1.0
Allergies	0.7	1.5	1.8	2.1	1.8	1.9	2.3
Neuropsychiatric diseases	0.8	1.3	1.5	1.7	1.6	1.9	2.1
Skin diseases	3.2	1.2	1.5	1.1	1.0	1.2	1.4
Female genital diseases	1.4	0.8	0.9	0.9	0.8	0.8	0.7

Source: Reports on Health and Welfare Surveys, 1991, 1996, 2001, 2003, 2004, 2005 and 2006. National Statistical Office.

1.7 Disabilities

A survey conducted by the National Statistical Office revealed that the proportion of people with disability was rising from 0.5% in 1974 to 1.7% in 2002 (Table 5.5). However, other surveys have reported higher prevalence, compared with that reported by NSO. For example, the 1991-1992 health examination survey on the Thai population revealed a 6.3% disability prevalence[4] (excluding mental/intellectual disabilities); and if all kinds of disabilities are taken into account, the overall prevalence of disabilities will be 8.1% of the total population.

Besides, Suwit Wibulpolprasert and colleagues (1997) projected that the prevalence of people with disabilities had increased at a rate higher than that of the population growth. The physical and movement disabilities were most commonly found, which is associated with the socio-economic changes and the country's epidemiologic transition.[5] Regarding the characteristics of disability, the 2002 report on disabilities and crippling conditions revealed that most of the disabled persons had impaired vision in both eyes, hearing impairment, paresis, atrophied/inflexible limbs, and blurred vision in one eye (Figure 5.4).

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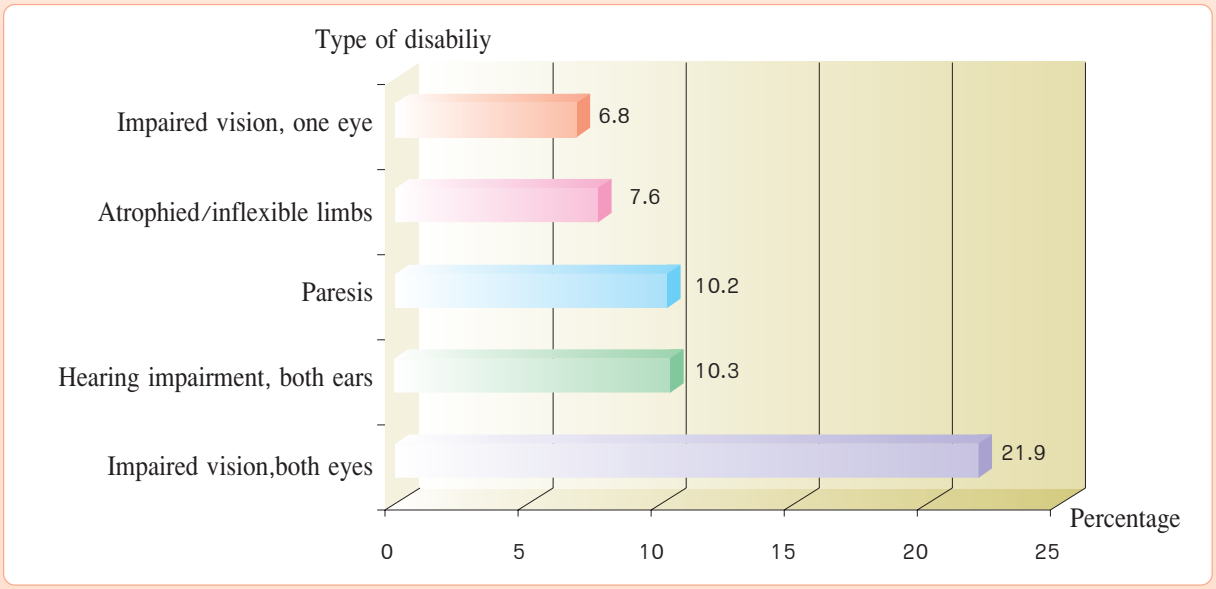
[4] Chanpen Choprapawon (editor). Report on the First Nationwide Health Examination Survey on Thai People, 1991-1992. Thai Health Research Institute and Health Systems Research Institute, 1992.

[5] Suwit Wibulpolprasert et al. Medical Rehabilitation Service System for the Disabled, 1997.

Figure 5.4 Proportion of people with disabilities (first five major types), 2001



Source: Report on Disabilities and Crippling Conditions Survey, 2002. National Statistical Office.

In addition, the 2001 survey on illnesses among the disabled revealed that cardiovascular disease was most common (22.2%), followed by musculoskeletal diseases (19.4%), respiratory system diseases (14.8%), and neuropsychiatric disorders (11.8%). It is noteworthy that cardiovascular and neuropsychiatric diseases were more common in males, whereas musculoskeletal diseases were more common in females (Table 5.6).

Table 5.5 Number and percentage of Thai people with disabilities, 1974-2002

Year of survey	Population (thousands)	People with disabilities (thousands)	Percentage of total population
1974	39,796.9	209.0	0.5
1976	42,066.9	245.0	0.6
1977	44,211.5	296.2	0.7
1978	45,344.2	324.6	0.7
1981	47,621.4	367.5	0.8
1986	51,960.0	385.9	0.7
1991	57,046.5	1,057.0	1.8
1996	59,902.8	1,024.1	1.7
2001	62,871.0	1,100.8	1.8
2002	63,303.0	1,098.0	1.7

Source: Health and Welfare Survey Projects, 1974-2002. National Statistical Office.

Table 5.6 Proportion (percentage) of disabled persons with commonly found diseases or symptoms by sex, 2001

Disease/symptom	Total	Males	Females
- Cardiovascular diseases	22.2	25.6	18.3
- Musculoskeletal diseases	19.4	17.6	21.6
- Respiratory tract diseases	14.8	14.6	14.9
- Neuropsychiatric disorders	11.8	14.1	9.0

Source: Report on Disabilities Survey, 2001, National Statistical Office.

1.8 Epidemiologic Transition

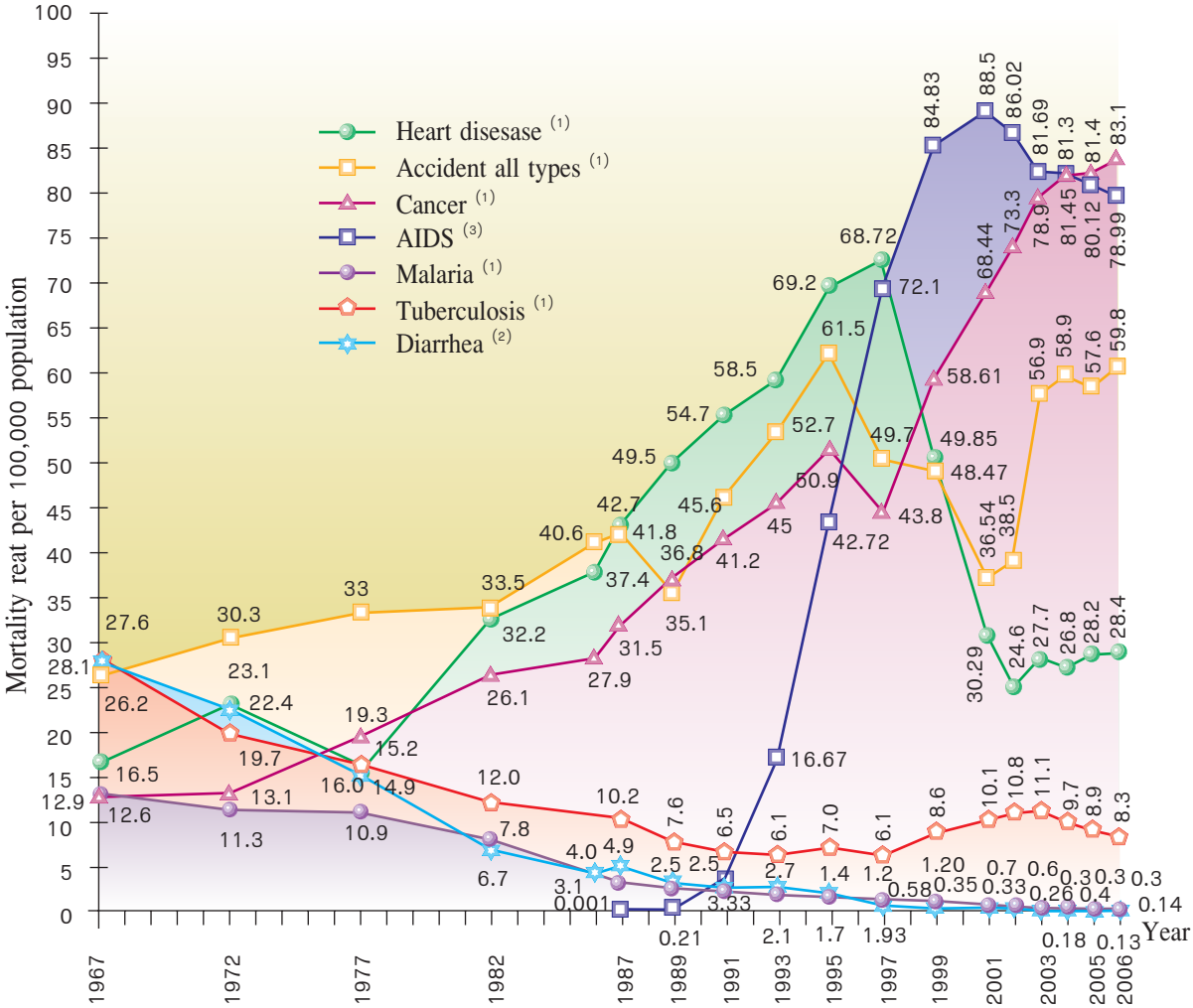
Overall, according to a death certificates analysis, the major and rising causes of death among Thai citizens are non-communicable diseases, accidents, and HIV/AIDS (which is currently a major health problem of the country). The prevalence rates of communicable diseases, which used to be significant health problems, have been declining except for re-emerging diseases such as tuberculosis that is associated with HIV/AIDS (Figure 5.5). This is consistent with the results of the Burden of Disease Study which revealed that the disease burdens in terms of disability-adjusted life years (DALY) from non-communicable diseases were three times as much as those from communicable diseases, and that the longer the people live, the greater the tendency for them to have non-communicable diseases (Table 5.7).

Table 5.7 Percentage of causes of disability-adjusted life years (DALY) lost of Thai people by age group, 2004

Cause of DALY lost	Percentage of DALY lost by age group					
	0 - 4	5 - 14	15 - 44	45 - 59	60 and over	Total
- Communicable diseases	55.3	33.6	25.6	14.6	10.3	20.2
- Non-communicable diseases	32.9	34.7	50.7	73.7	85.8	65.1
- Accidents	11.7	31.6	23.7	11.7	3.9	14.8

Source: Working Group on Burden of Disease and Risk Factors, Thailand. International Health Policy Programme, 2006.

Figure 5.5 Mortality rates due to major causes of death, Thailand, 1967-2006



Sources: (1) Bureau of Policy and Strategy, Office of the Permanent Secretary, MoPH.

(2) Bureau of Epidemiology, Department of Disease Control, MoPH.

(3) Working Group on Forecast of HIV-infected Cases. Forecast of HIV-infected Cases in Thailand, 2000-2020, 2001.

1.9 Disability-Adjusted Life Years of Thai People

In measuring the health status of Thai people using DALY[6] as the indicator, it was found that **the number one cause of DALY is HIV/AIDS for males, cerebrovascular diseases for females**, the second and third causes were road traffic injuries and alcohol abuse-related diseases respectively among males, and HIV/AIDS and diabetes respectively among females (Table 5.8).

Besides, when considering the health problems by age group, the differences in life-threatening problems are as follows:

- Age group 0-14 years: major health problems are low birth weight and perinatal asphyxia;
- Age group 15-29 years: major health problems are HIV/AIDS, road traffic injuries, drug abuse, schizophrenia, and alcohol abuse;
- Age group 30-59 years: major health problems are HIV/AIDS, road traffic injuries, diabetes, and liver cancer;
- Age group 60 years and over: major health problems are cerebrovascular diseases, emphysema, and diabetes.

Table 5.8 Major diseases attributable to disability-adjusted life years (DALY) of Thai people by sex, 2004

No.	Male			Female		
	Disease	DALYs	Percent	Disease	DALYs	Percent
1	HIV/AIDS	645,426	12.1	Cerebrovascular disease	307,131	7.9
2	Road traffic injuries	600,004	11.3	HIV/AIDS	290,711	7.5
3	Alcohol abuse	329,068	6.2	Diabetes	267,549	6.9
4	Cerebrovascular diseases	305,105	5.7	Depression	191,490	4.9
5	Liver cancer	294,868	5.5	Liver cancer	140,480	3.6
6	Ischemic heart disease	178,011	3.3	Road traffic injuries	135,832	3.5
7	Chronic obstructive pulmonary disease	175,549	3.3	Ischemic heart disease	117,790	3.0
8	Diabetes	168,702	3.2	Knee osteoarthritis	117,042	3.0
9	Depression	136,895	2.6	Chronic obstructive pulmonary disease	112,663	2.9
10	Cirrhosis	133,046	2.5	Cataract	110,572	2.8

Source: Working Group on Burden of Disease and Risk Factors, Thailand. International Health Policy Programme, 2006.

[6] Disability-Adjusted Life Years (DALY): One DALY is one lost year of healthy life; calculated from the formula "DALYs = years lost to premature death + years lost to illness or disability".