8. Health Behaviours

Risk factors of Thai people have an impact on their lives and are a national problem affecting the country's economic and social security. It is noteworthy that in all groups of countries, risk factors related to behaviour are clearly a burden of diseases. In the group of developing countries with high mortality rates the top risk factor is malnutrition, while the group of more advanced developing countries face other risk behaviours of alcohol and tobacco use, and in the group of developed countries all risk factors are related to behaviour (Table 4.33).

Table 4.33 Top ten risk factors: percentage of disability-adjusted life years (DALYs) in three groups of countries, 2000

Order	Developing countries with high mortality rates	Percent	Developing countries with low mortality rates	Percent	Developed countries	Percent
1	Underweight	14.9	Alcohol	6.2	Smoking	12.2
2	Unsafe sex	10.2	Blood pressure	5.0	Blood pressure	10.9
3	Unsafe water, sanitation and hygiene	5.5	Smoking	4.0	Alcohol	9.2
4	Indoor smoke from solid fuels	3.6	Underweight	3.1	Cholesterol	7.6
5	Zinc deficiency	3.2	Overweight	2.7	Overweight	7.4
6	Iron deficiency	3.1	Cholesterol	2.1	Low fruit and vegetable intake	3.9
7	Vitamin A deficiency	3.0	Low fruit and vegetable intake	1.9	Physical inactivity	3.3
8	Blood pressure	2.5	Indoor smoke from solid fuels	1.9	Illicit drugs	1.8
9	Smoking	2.0	Iron deficiency	1.8	Unsafe sex	0.8
10	Cholesterol	1.9	Unsafe water, sanitation and hygiene	1.8	Iron deficiency	0.7
	Top 10 risk factors	49.9		30.5		57.8

Source: World Health Report 2002.

A study on major burdens of diseases of Thai people conducted in 1999 and 2004 by the International Health Policy Programme, using 15 leading risk factors for males and females, revealed that alcohol abuse and unsafe sex were the cause of burden of disease among males and unsafe sex and high body mass index were the cause of burden of disease among females (Table 4.34).

Table 4.34 DALYs from risk factors among Thai people, 1999 and 2004

Order	Risk factor	DALYS in males				Order	Risk factor	DALYs in females			
		2004		1999				2004		1999	
		DALYs		DALYs				DALYs		DALYs	
		($X10^5$)	Percent	($X10^5$)	Percent			($X10^5$)	Percent	($X10^5$)	Percent
1	Alcohol abuse	7.6	13	5.1	9	1	Unsafe sex	3.9	9	4.5	11
2	Unsafe sex	5.4	9	8.6	16	2	Hypertension	2.5	6	2.4	6
3	Smoking	5.0	9	4.4	8	3	High body mass index	2.5	6	2.3	6
4	Non-use of helmet	3.6	6	3.3	6	4	High Cholesterol	1.1	3	1.1	3
5	Hypertension	2.9	5	2.6	5	5	Non-use of helmet	0.8	2	0.7	2
6	High body mass index	1.4	2	1.3	2	6	Physical inactivity	0.7	2	0.6	2
7	High Cholesterol	1.2	2	1.1	2	7	Smoking	0.7	2	0.5	1
8	Low fruit and vegetable intake	1.1	2	0.9	2	8	Low fruit and vegetable intake	0.7	2	0.5	1
9	Substance abuse	0.7	1	3.3	6	9	Alcohol abuse	0.4	1	0.4	1
10	Physical inactivity	0.5	1	0.6	1	10	Air pollution	0.4	1	0.7	2
11	Air pollution	0.5	1	0.5	1	11	Unsafe water and sanitation	0.3	1	0.3	1
12	Unsafe water and sanitation	0.2	0	0.3	1	12	Substance abuse	0.2	0	0.4	1
13	Non-use of safety belt	0.2	0	0.3	1	13	Malnutrition, international standard	0.1	0	0.3	1
14	Malnutrition, international standard	0.2	0	0.4	1	14	Malnutrition, Thai standard	0.1	0	0.1	0
15	Malnutrition, Thai standard	0.1	0	0.2	0	15	Non-use of safety belt	0.0	0	0.1	0

* Male DALYs: N = 5.3 Million, Female DALYs: N = 3.9 Million

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

It is noteworthy that most of the risks for disease burden are health behaviors which are further elaborated as follows:

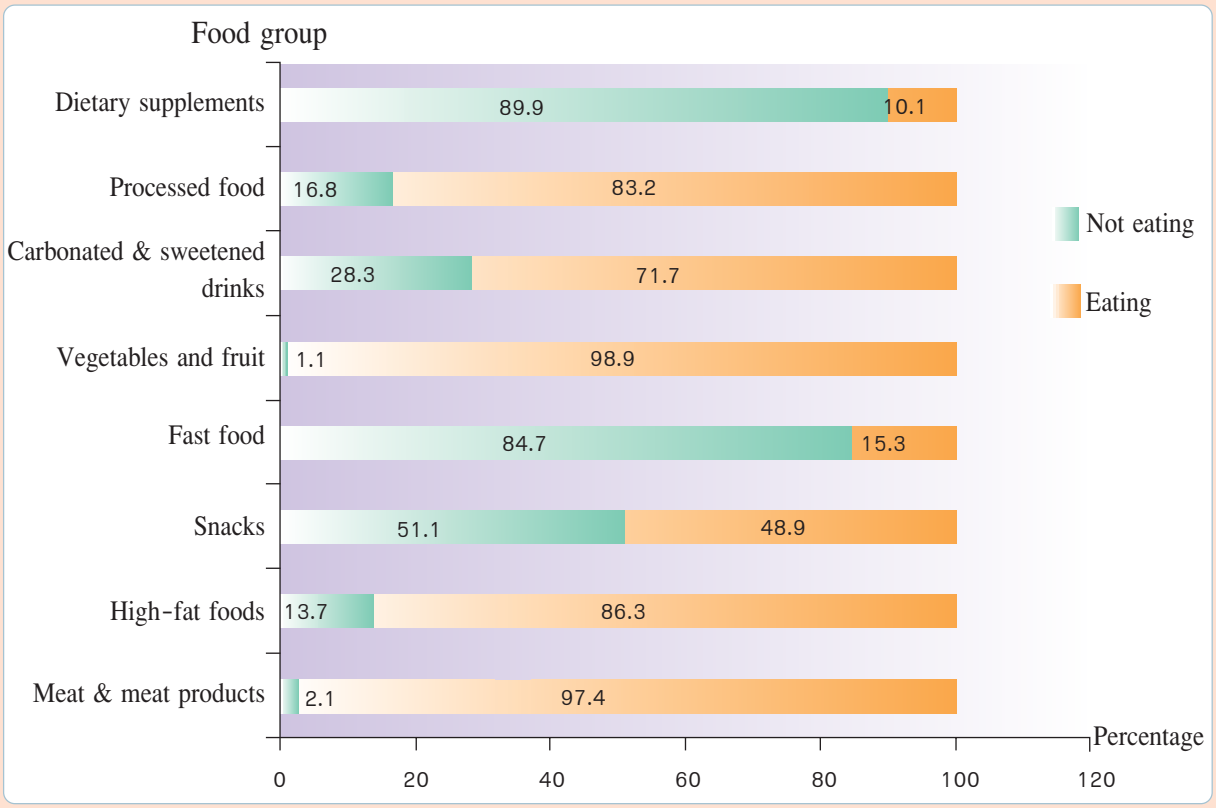
8.1 Food Consumption

The food consumption behaviors of Thai people have changed according to changing lifestyles and are different in urban and rural residents. Urban residents tend to take more meat and fat, while taking less vegetables and fruit. Teenagers prefer western foods to local or Thai food. More rushing lifestyles have pushed them to take ready-to-cook or semi-cooked food. The trend is rising in both urban and rural areas. Regarding food expenditures, Bangkok residents have 50% of their food spending on ready-to-eat or pre-cooked food while rural residents spend only 20% for such food.[10]

The 2005 survey on the types of food consumed by people aged 6 years and over conducted by the National Statistical Office revealed that the food groups that over 80% of respondents consumed were vegetables and fruit (98.9%), meat and meat products (97.4%), high-fat foods (86.3%), and processed foods (83.2%), followed by carbonated and sweetened drinks (71.7%), snacks (49.0%), while other groups were consumed in lower proportions, i.e. fast foods (15.3%) and dietary supplements (10.1%) (Figure 4.27).

[10] Patthanee Vinijjakul and Wongsawat Kosalwat. Food and Nutrition in Review and Revision of Strategic Plan for Health Research in Thailand, 2003.

Figure 4.27 Percentage of population aged six years and above and food consumption behaviour by food group



Source: Report on Thai People's Health Behaviour Survey, 2005: Food Consumption Behaviour. National Statistical Office.

However, the third round of the Thai people's health examination survey conducted in 2003-2004 revealed that Thais aged 15 years and over, both male and female, had a vegetable and food intake lower than the recommended daily requirement levels for health promotion and disease prevention (400-800 grams per day), i.e. 268 grams/day among males and 283 grams/day among females. The amounts consumed were found to be decreasing as they got older, lowest among the age group 80 and over at about 200 grams per day (Table 4.35).

Table 4.35 Amounts of daily fruit and vegetable intake in Thai people aged 15 years and above, by age and sex

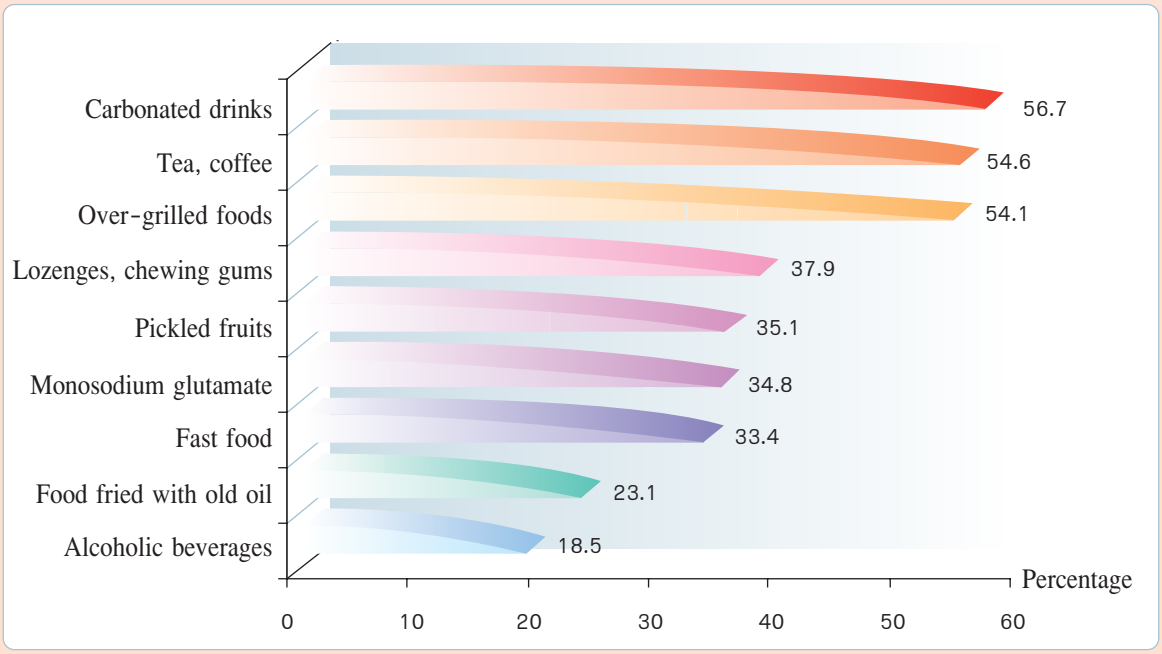
Age (years)	Average fruit and vegetable intake (grams/day)	
	Males	Females
15-29	285	300
30-44	272	293
45-59	261	283
60-69	238	245
70-79	216	215
80 years and over	203	193
Total	**268**	**283**

Source: Report on National Health Examination Survey, Third Round, Thailand (2003-2004). Ministry of Public Health.

A Cheevajit poll conducted on Bangkok residents in 2006 revealed that while the body was normal 38.7% of respondents had an eat-as-you-wish behaviour, eating the food that was not essential to health; indispensable items regularly consumed were carbonated drinks, tea, coffee, followed by over-grilled foods (Figure 4.28).

It was found that most people would change their food consumption behaviour when they got sick by avoiding spicy, fried and high-cholesterol foods and some meat but took more fruits and vegetables, some people would also take dietary supplements, vitamin C, vitamin B-complex, calcium and some medicinal herbs such as Fa Ta Lai Jone (green chiretta or Andrographis paniculata), Dok Kham Foi (safflower or Carthamus tinctorius), Ma Kham Khaek (senna or Cassia angustifolia) and Chinese traditional medicines. However, it is worrisome that 37.5% of respondents would revert to the food they liked with no nutritional consideration after they had recovered.

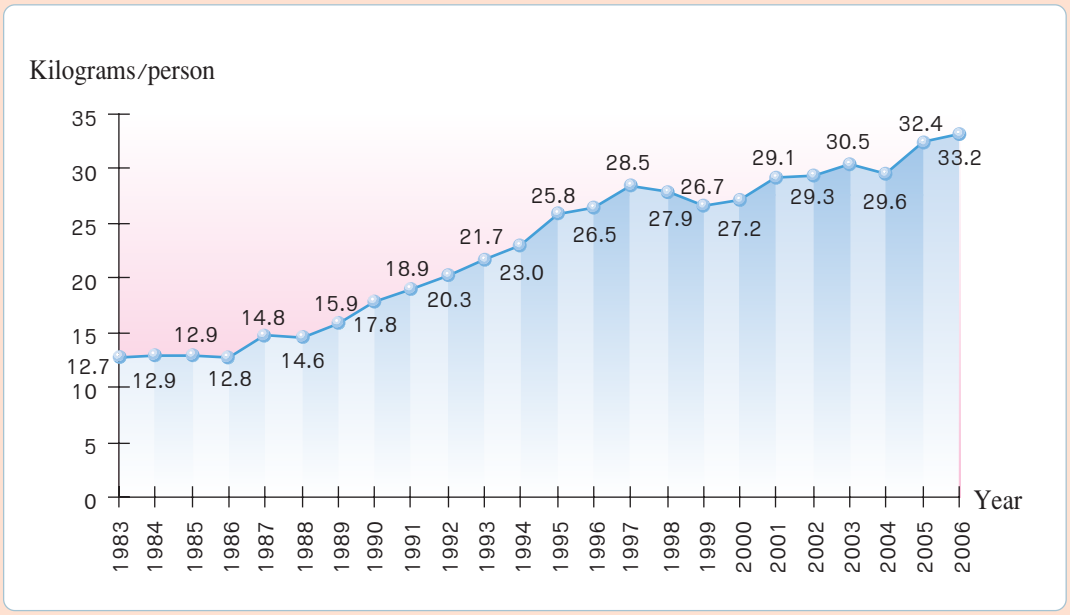
Figure 4.28 Food items that had to be regularly consumed



Source: Cheevajit Poll, Third Project. Amarin Printing & Publishing (Public Limited Company).

Besides, it was found that Thai people tended to consume more sugar and food prepared from flour and sugar. The sugar consumption rate during the past two decades has risen 2.6-fold from 12.7 kg/person/yr in 1983 to 33.2 kg/person/yr in 2006 (Figure 4.29).

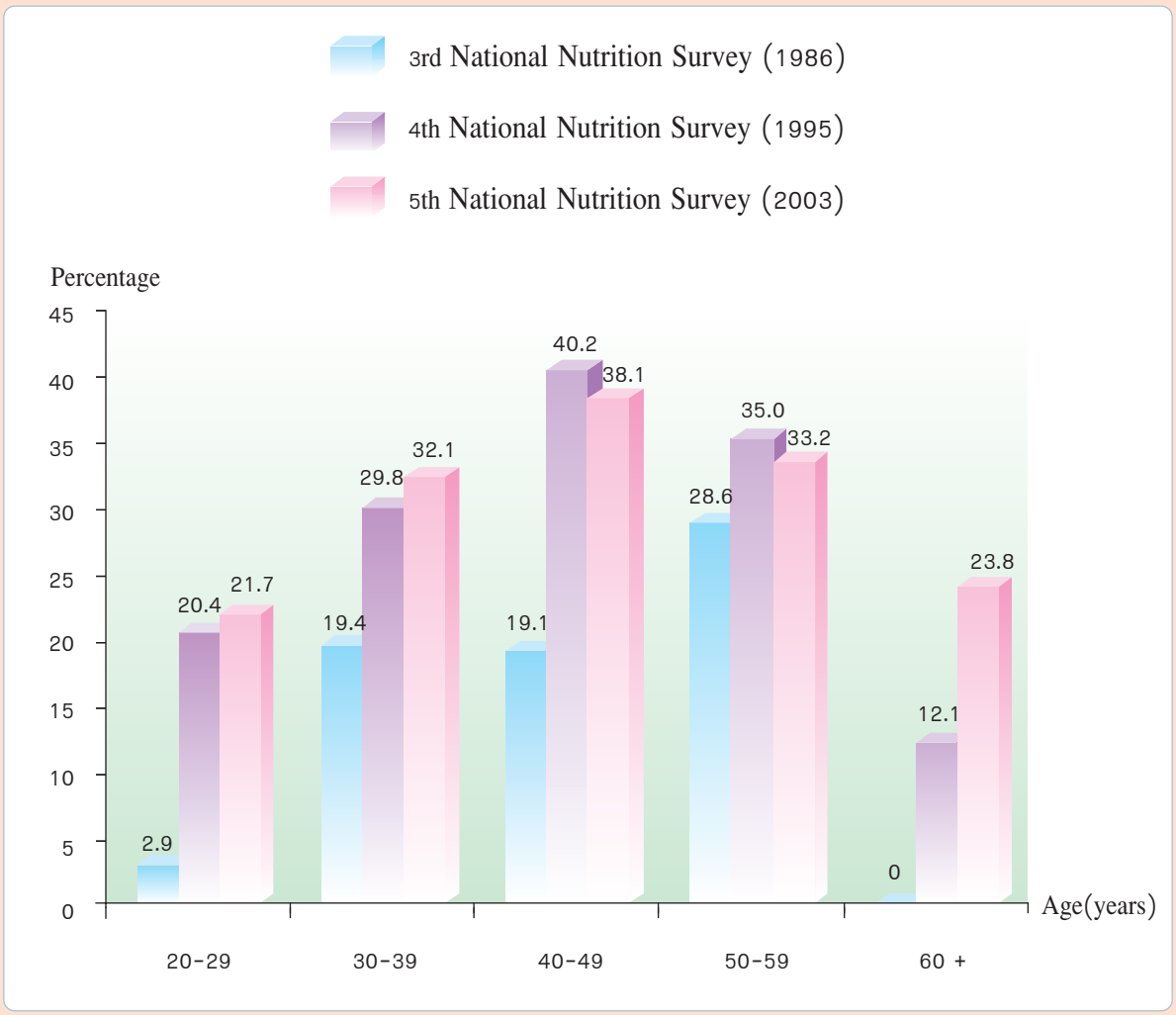
Figure 4.29 Quantity of sugar intake in Thailand, 1983-2006



Source: Production Management Centre. Office of the Sugar Cane and Sugar Commission.

Consuming food rich in fat content and calorie is a risk factor of cardiovascular diseases. According to the third through fifth national nutrition surveys in Thailand, the prevalence of obesity has been on the rise particularly in the age groups 20-29, 30-39 and 60 and over (Figure 4.30). An analysis of risk factors for cardiovascular diseases among Thai people aged 35-59 revealed a rising prevalence of people with high blood cholesterol, high blood sugar, overweight and obesity (Table 4.36). Bangkok residents, both males and females, had a highest prevalence of overweight and obesity, while the northern people had the lowest. The residents in municipal areas had a higher overweight/obesity prevalence, compared with rural residents.[11]

Figure 4.30 Prevalence rate of obesity in Thailand by age group, 1986, 1995, and 2003



Source: Department of Health, MoPH.

Note: Obesity in population aged >20 years: BMI ≥ 25 kilograms/square meter.

[11] Piyamit Srithara et.al. Cardiovascular Research Group in Review and Revision of Strategic Plan for Health Research in Thailand, 2003.

Table 4.36 Changes and prevalence of cardiovascular disease risk factors in Thai people aged 35-59 years

Risk factor	1st health survey (1991-1992)	2nd health survey (1996-1997)	Inter-Asia study (2000-2001)	3rd health survey (2003-2004)
Cholesterol (mg/dl)	189	198	201	207
Blood sugar (mg/dl)	87	92	99	100
Body mass index (BMI) (kg/m^2)	22.8	23.8	24.4	24.6
Overweight (percent)	20	25	30	38
Obesity (percent)	5	8	9	10

Sources: 1. Piyamit Srithara et al. Cardiovascular Research Group in Review and Revision of Strategic Plan for Health Research in Thailand, 2003.

2. Report on National Health Examination Survey, Third Round, Thailand (2003-2004). Ministry of Public Health.

Note: Population adjustment for 2000.

Snack consumption tends to be rising among Thai children under 5 and primary schoolchildren, resulting in a high dental health prevalence. During 2000-2001, 87.4% of 6-year-old children entering the schooling system had on average 6.0 decayed, missing and filled teeth (DMFT) per child, compared with only 71.6% with 4.9 DMFT per child in 1984 (Tables 4.37 and 4.38). And during 1995-2001, the DoH's dental health survey revealed that only 6% to 15% of children aged 5-6 had no tooth decay and that on average 12-year-old children had 1.6 to 2 DMFT per child. Besides, a survey on sweetened food consumption behaviour of Thai children under 5 in 2006 revealed that 61.7% of the underfives preferred high-sugar snacks and drinks, the average sugar content in snacks and drinks was 40.4 grams/day, which is higher than the suitable sugar consumption level (not exceeding 24 gm/d). This has resulted in a poor child health status: 46.1% with caries and 10.6% overnourished.[12] Another survey on child and youth situation conducted in 2004-2005 revealed that 26.95% and 20.28% of primary schoolchildren consumed crispy snacks and carbonated drinks regularly, respectively.[13]

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[12] Sunee Wongkongkathep et al. Sweetened Food Consumption Behaviour in Thai Children Under 5, 2006.

[13] Ramjitti Institute. Child and Youth Situation Reports, 2004-2005, 2006.

Table 4.37 Percentage of people with caries by age group, according to National Dental Surveys, 1984, 1989, 1994 and 2000-2001

Age group (years)	Percentage			
	1984	1989	1994	2000-2001
3*	-	66.5	61.7	65.7
6*	71.6	83.1	85.1	87.4
6**	74.4	82.8	85.3	87.5
6	30.3	19.2	11.1	-
12	45.8	49.2	53.9	57.3
18	63.1	63.3	63.7	62.1
35 - 44	80.2	76.8	85.7	85.6
60 and over	95.2	93.9	95.0	95.6

Sources: Reports on the 2nd, 3rd, 4th, and 5th National Dental Health Surveys. Department of Health, MoPH.

Notes: * Baby or deciduous teeth ** Mixed (permanent and baby teeth)
Other age groups - only permanent teeth

Table 4.38 Average DMFT in various age groups according to National Dental Surveys, 1984, 1989, 1994 and 2000-2001

Age group (years)	Average DMFT (teeth/person)			
	1984	1989	1994	2000-2001
3*	-	4.0	3.4	3.6
6*	4.9	5.6	5.7	6.0
6**	0.5	0.3	0.3	-
12	1.5	1.5	1.6	1.6
18	3.0	2.7	2.4	2.1
35 - 44	5.4	5.4	6.5	6.1
60 and over	16.3	16.2	15.8	14.4

Sources: Reports on the 2nd, 3rd, 4th, and 5th National Dental Health Surveys. Department of Health, MoPH.

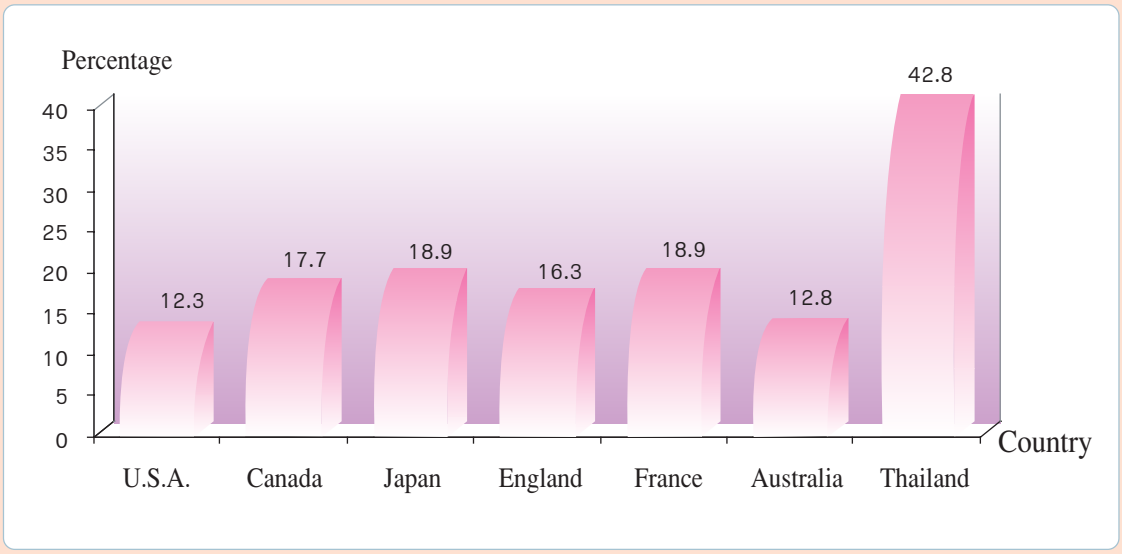
Notes: * Baby or deciduous teeth ** Mixed (permanent and baby teeth)
Other age groups - only permanent teeth.

8.2 Drug Consumption

In 2005, drug consumption of Thai people accounted for approximately 103,517 million baht in wholesale prices or 186,331 million baht in retail prices, or 42.8% of the overall national health expenditure (see Chapter 6, item 3, health technologies). This proportion is rather high, compared with only 10% to 20% in developed countries (Figure 4.31). During the period 1988-2005, the rising rates of drug consumption exceeded the increasing rates of national health spending and economic growth.

In general, an analysis of drug consumption patterns of Thai people revealed that about two-thirds of the consumption was done according to the decision or advice of professionals, such as doctors, pharmacists and other health personnel; the remainder was done as suggested by relatives, friends, or advertisements. Nevertheless, medication use according to the advice of health professionals is escalating (Table 4.39).

Figure 4.31 Proportion of expenditure on drugs and health in Thailand and other countries



Source: OECD Health Data 2006

Note: From OECD are data on OTC drug dispensary and outpatients, but for Thailand the data cover outpatient, inpatient and OTC drug use.

Table 4.39 Drug distribution in Thailand: percentage of drug values distributed through drug outlets

Type	1994 (Percent)	1995 (Percent)	1996 (Percent)	1997 (Percent)	1998 (Percent)	1999 (Percent)	2000 (Percent)	2001 (Percent)	2002 (Percent)	2003 (Percent)	2004 (Percent)	2005 (Percent)	2006 (Percent)
Drugstores	40	34	34	34	34	32	32	30	30	26	26	26	24
Public and private hospitals	43	46	52	52	52	58	58	60	60	64	64	64	66
Private clinics	10	15	9	9	9	} 7	} 7	} 8	} 8	} 9	} 9	} 9	} 8
GPO	2	2	2	2	2								
Others	5	3	3	3	3	3	3	2	2	1	1	1	2

Source: IMS Company Thailand.

No matter through whom the people get medication, it is evident that irrational use and over-use of drugs, particularly antibiotics, are found at all levels. A study on drug use in children with respiratory infections hospitalized nationwide revealed that 38.6% of the patients had ever taken antibiotics before coming to hospital. Other studies also indicated antibiotic use prior to visiting a doctor or health official, particularly for cases with respiratory and gastrointestinal tract diseases. Most of the cases had used drugs unnecessarily or inadequately.[14] Some inpatients with infectious diseases were given antibiotics without suitable indications (Table 4.40), partly due to advertising influence (Figure 4.32) while very little effort has been made to disseminate drug information to the public though various media including newspaper, radio, television and magazines. Although such efforts have been made more intensively, most people get drug information from drug business operators.

Besides, the third round health examination survey in Thailand (2003-2004) revealed that 8 to 9 million Thai people aged 15 years and above were on a certain kind of medication for at least a month. The proportion of people with regular drug use were found to increase with age, a higher proportion in females than in males. In addition, it was found that among people of all ages, the most commonly used medicine was "painkillers" (the older the more was used), followed by "health tonics" whose prevalence also rose with age (Table 4.41).

Table 4.40 Use of antibiotics without appropriate indications, compiled from 11 reports

Drug group	Study site (hospital)	Study period	No. of patients	Inappropriate use (percent)
Ceftriaxone	Phra Pokklao	Oct 98 - Sep 99	9	77.8
Parenteral antibiotics	Ban Mi	June - Nov 97	203	39.4
Ciprofloxacin	Lampang	Nov - Dec 95	24	50.0
Parenterala antibiotics	Chainat	Jan - June 93	219	44.7
Ceftazidime	Yasothon	July - Sep 99	48	60.4
Ceftazidime	Lampang	July - Sep 96	49	40.0
Cephalosporins	Taksin	Mar 91 - Feb 92	144	13.2-15.3
Ceftazidime	Nakhon Ratchasima	May - Aug 96	114	25.0
Ceftazidime	Phra Phutthachinnarat	Mar - Apr 2000	59	37.5
Ceftriaxone	Lampang	Oct 94	17	41.0
Cephalosporins	Uttaradit	Oct 95 - Sep 96	258	70.2

Source: Drug System in Thailand, 2002.

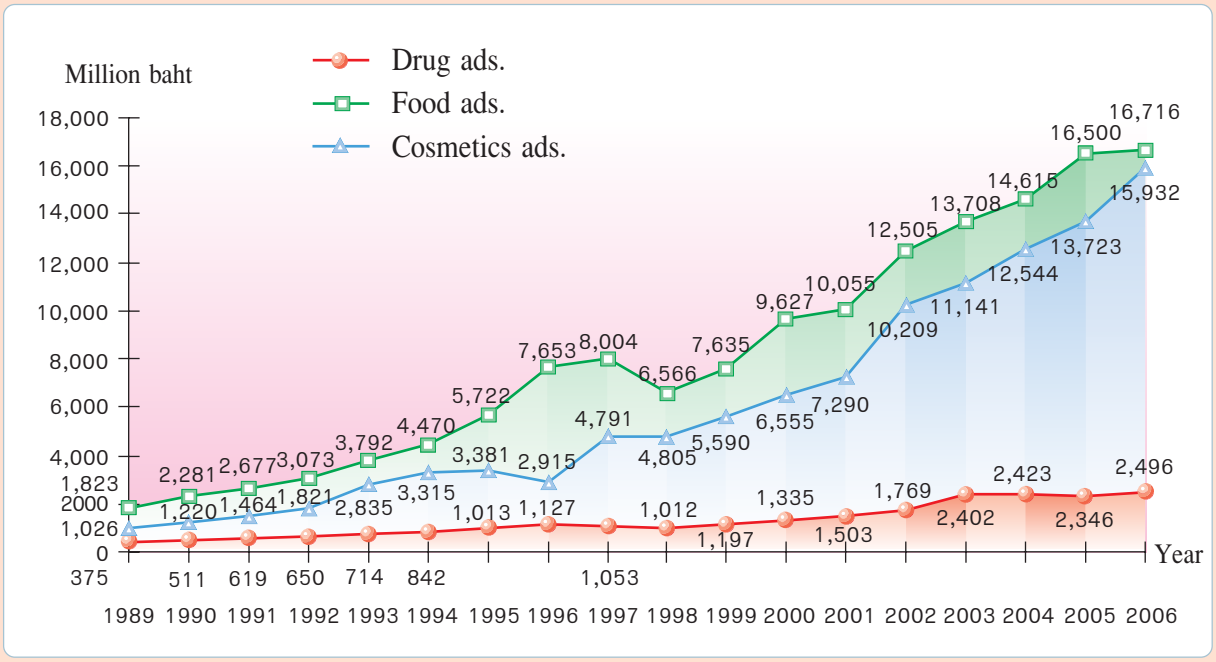
[14] Committee on Drug System Study Project in Thailand. Drug System in Thailand, 2002

Table 4.41 Percentage of people regularly taking medication by age, sex and type of medicine

Age (years)	Percentage of people on medication					
	Painkillers	Tranquilizers	Sedatives	Anti-obesity	Tonics	Others
Males						
15-29	1.4	0.4	0.4	0.2	1.5	3.3
30-44	3.6	0.4	0.8	0.1	0.8	7.8
45-59	5.2	0.5	0.7	0.2	1.5	15.8
60-69	7.9	0.5	1.3	0.0	4.0	27.6
70-79	8.0	0.6	1.8	0.1	6.2	29.8
80+	8.4	0.3	2.7	0.2	6.6	34.4
All ages	**3.8**	**0.4**	**0.7**	**0.1**	**1.7**	**10.6**
Females						
15-29	2.2	0.1	0.1	0.3	2.6	8.9
30-44	3.8	0.4	0.5	0.1	2.1	14.4
45-59	6.5	0.8	2.1	0.1	3.3	26.1
60-69	10.0	1.5	2.9	0.2	6.7	33.3
70-79	12.7	1.1	2.7	0.1	8.4	36.7
80+	10.6	0.5	2.2	0.0	10.6	30.2
All ages	**4.9**	**0.5**	**1.0**	**0.2**	**3.4**	**18.1**

Source: Report on National Health Examination Survey, Third Round, Thailand (2003 -2004). Ministry of Public Health.

Figure 4.32 Billings of drug, food and cosmetic advertisements, 1989-2006



Source: Media Data Resources (MDR).

Notes: 1. Food means alcoholic beverages, milk, energy drinks, snacks, soft drinks, candies, seasonings, instant noodles, coffee, food, cooking oil, canned food, dairy products, chocolates and cigarettes, liquid foods and others.

2. Cosmetic means shampoo, soap, general cosmetic, body powder and skin moisturizing cream.

8.3 Tobacco Consumption

Although Thailand has got laws related to tobacco products control, including laws on protection of health of non-smokers, the number of smokers is still high. In 2006, Thai people totally smoked 36,367 million cigarettes or an average of 87.6 packs/person/year (Table 4.42), rising from 71 packs/person/year for 2001-2002. The proportion of cigarette smokers changed slightly, decreasing from 20.5% in 1999 to 20.3% in 2006, the increase was noted for both males and females. It is noteworthy that although the smoking rate among youths (aged 15-24 years) is lower than those among the working-age group (aged 25-59 years) and the elderly (aged 60 and older), it was found that their smoking rate for 2001-2006 was higher than that for 1999-2001 in both males and females. This has indicated that smoking has more widely spread among youths.

However, when considering the age of first smoking, males started smoking at a younger age then did females, but there is a tendency that males would start later while females would start earlier (Tables 4.43 and 4.44). This is consistent with the WHO forecast which indicates that the

smoking rate among females in developing countries in 2025 will increase from 8% to 20%, but the rate among males will drop from 60% to 45%. A survey conducted the Kasikorn Research Centre[15] revealed that, in 2003, the motivation for smoking among Bangkok residents included stress, alcohol use, anger, uneasiness, visiting night spots and seeing movies with smoking scene. It was also found that one-third of youths aged under 13 years indicated seeing a movie with a smoking scene was the cause of their smoking desire. A regular male smoked 9.0-10.6 cigarettes per day on average; males smoking more than females (Figure 4.33). Regarding the type of cigarettes smoked the most, it was found that after the economic crisis a number of smokers shifted from using local brands to foreign brands and self-rolled cigarettes (Table 4.45). The market share of imported cigarettes has increased from 4.1% in 1997 to 22.6% in 2006; vice versa the market share of cigarettes produced by the Tobacco Monopoly of Thailand has dropped from 95.9% in 1997 to 77.4% in 2006 (Table 4.46). The smoking of self-rolled cigarette might result from people's lower income after the economic crisis; and more people turned away from factory-produced cigarettes to self-rolled ones.

Tobacco use has also had an impact on the economy. A study conducted by the Kasikorn Research Centre[15] found that, for Bangkok residents, spending on cigarettes was 15.07% of total monthly income. On average a Bangkok resident spent about 150 baht a month on cigarettes, the value of cigarette market in Bangkok was about 500 million baht for 2003. Despite intensive campaigns against smoking during the past two decades, the cigarette spending has been rising steadily. According to a World Bank report, tobacco causes an economic loss worth 200,000 million US dollars worldwide each year, which is higher than the revenue from tobacco sales; one-third of which occurred in developing countries.[16]

In Thailand, approximately 42,000 people die each year from smoking-related illnesses or 115 deaths per day (6 deaths per hour).[17] Research studies have revealed that smoking is the cause of serious illnesses; 90% of male cancer patients, 82% of larynx cancer patients, and 80% of pharynx cancer patients had ever smoked.

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[15] Kasikorn Research Centre. Smoking Behaviours of Bangkok's Residents, 2003.

[16] Prakit Vateesatogkit. What Will Occur With Tobacco in the Future. In New Generations Do Not Smoke Journal, 7: Jan-Feb 2000.

[17] Based on the estimates calculated by Prof. Dr. Prakit Vateesatogkit. Statistics on Smoking among Thai People. Action on Smoking and Health Foundation (photocopied document).

Table 4.42 Tobacco consumption of Thai people, 1988-2006

Description	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total tobacco consumption (million cigarettes)	34,090	38,718	38,887	38,825	40,068	42,245.2	44,849.6	45,755.3	47,235.9	48,336.6	39,057.1	36,166.1	36,469.7	29,502	29,682	31,366	34,174	34,237	36,367
consumption (packs/person/year)	91.5	100.6	98.4	95.8	96.5	101.7	108.0	110.2	113.8	116.4	98.8	87.1	87.8	71.0	71.5	75.5	82.3	82.4	87.6
Quantity imports (million packs)	-	-	-	12	51	60	71	71	77	99	172	261	239	261	262	293	508	574	454
Value of imports (million bath) Cigarettes domestically produced	-	-	-	-	716.8	968.5	787.0	1,032.1	952.2	907.3	2,755.6	4,289.8	4,586.3	6,151.9	6,136	6,472	8,698.7	9,810.3	9,548.8
Million cigarettes	32,505.41	37,198.47	38,235.21	39,719.55	39,591.40	41,219.63	44,542.46	43,183.83	47,751.79	47,125.75	34,568.73	32,023.63	31,796.45	29,742.35	29,598.67	31,498.95	33,685.42	34,030.0	29,148.80
Million packs	1,625.27	1,859.92	1,911.76	1,986.0	1,979.57	2,060.98	2,227.12	2,159.19	2,387.59	2,356.28	1,728.44	1,601.18	1,589.82	1,487.12	1,479.93	1,574.95	1,684.27	1,701.50	1,457.44
Sales value (million bath)	18,674	20,996	23,640	26,910	27,613	28,890	35,117	34,869	40,340	46,977	44,670	40,700	42,600	42,617	45,219	46,739	45,062	44,541	42,273
Tobacco tax (million bath)	11,467	12,989	14,785	17,060	16,991	17,439	22,375	22,911	26,134	28,296	25,816	23,100.6	23,540.2	23,912.2	25,641	26,349	33,922	34,936	32,250
Profits sent to Ministry of Finance(million bath)	1,069	2,595	2,064	2,244	3,202	2,802	2,954	3,588	3,445	3,600	4,657	5,000	5,310	5,232	4,958	5,948	6,232	6,090	5,211
Excise tax (percent)	35-56.5	35-56.5	35-56.5	55	55	60	60	62	68	70	70	71.5	71.5	75	75	75	75	79	79

Sources : - Thailand Tobacco Monopoly and the Excise Department, Ministry of Finance

- Statistics on Trade and Economic Indicattors of Thailand, Department of Business Economics.

Table 4.43 Number and proportion of smokers, 1976-2006

Year	Population (millions)	No. of smokers			Proportion of smokers (percent)		
		Total	Males	Females	Total	Males	Females
1976	28.7[1]	8.6	7.7	0.9	30.1	54.7	6.1
1981	35.1[1]	9.8	9.0	0.8	27.8	51.2	4.4
1986	38.0[2]	10.4	9.6	0.8	27.4	50.4	4.2
1988	40.5[2]	10.1	9.4	0.7	25.0	46.7	3.5
1991	43.3[2]	11.4	10.6	0.8	26.3	49.0	3.8
	38.3[3]	11.3	10.5	0.8	29.7	55.3	4.3
1993	45.7[2]	10.4	9.8	0.6	22.8	43.2	2.5
	40.7[3]	10.4	9.8	0.6	25.5	48.5	2.8
1996	48.0[2]	11.2	10.6	0.6	23.4	44.6	2.5
1999	49.9[2]	10.2	9.6	0.6	20.5	38.9	2.4
2001	51.2[2]	10.5	10.0	0.5	20.6	39.3	2.2
2003	35.8[2]	7.7	7.1	0.6	21.6	44.1	2.9
2004	49.4[3]	11.3	10.7	0.6	21.1	40.1	2.4
2006	54.5[2]	11.0	10.3	0.7	20.3	38.8	2.6

Sources: 1. Health and Welfare Surveys. National Statistical Office.

2. Preliminary Results of Survey on Population's Tobacco and Liquor Consumption, 2001. National Statistical Office.

Notes: 1. [1]Population aged 10 and over.

[2]Population aged 11 and over.

[3]Population aged 15 and over.

2. In the 2003 Health and Welfare Survey, the interview was undertaken only when the interviewee was present; thus, the total population surveyed was smaller than the overall population of the country.

Table 4.44 Proportion of regular smokers in population aged 11 years and over by age group and gender, 1999, 2001, 2003, 2004 and 2006

Age group (years)	Proportion of smokers (percent)															Change in regular smoking rates					
	1999			2001			2003			2004			2006			1999-2001			2001-2006		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
11-14	0.2	0.5	-	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.3	0.0	0.4	0.6	0.2	-0.1	-0.3	+0.1	+0.3	+0.4	+0.1
15-24	12.3	24.0	0.3	13.5	26.0	0.6	15.2	32.1	0.9	15.1	29.0	0.8	14.1	26.4	1.3	+1.2	+2.0	+0.3	+0.6	+0.4	+0.7
25-59	26.3	49.8	3.0	26.2	49.9	2.6	25.3	51.8	3.4	26.3	49.6	3.0	25.0	48.3	3.0	-0.1	+0.1	-0.4	-1.2	-1.6	+0.4
60 and over	23.3	45.1	4.8	21.1	40.9	4.3	21.5	43.3	4.6	20.6	40.3	3.9	19.2	38.1	4.0	-2.2	-4.2	-0.5	-1.9	-2.8	-0.3
Total	20.5	38.9	2.4	20.6	39.3	2.2	21.6	44.1	2.9	21.1	40.1	2.4	20.3	38.8	2.6	+0.1	+0.4	-0.2	-0.3	-0.5	+0.4
Age at first smoking	18.2	17.9	22.2	18.5	18.3	21.9	18.4	18.2	21.5	18.4	18.2	21.7	18.3	18.2	20.2						

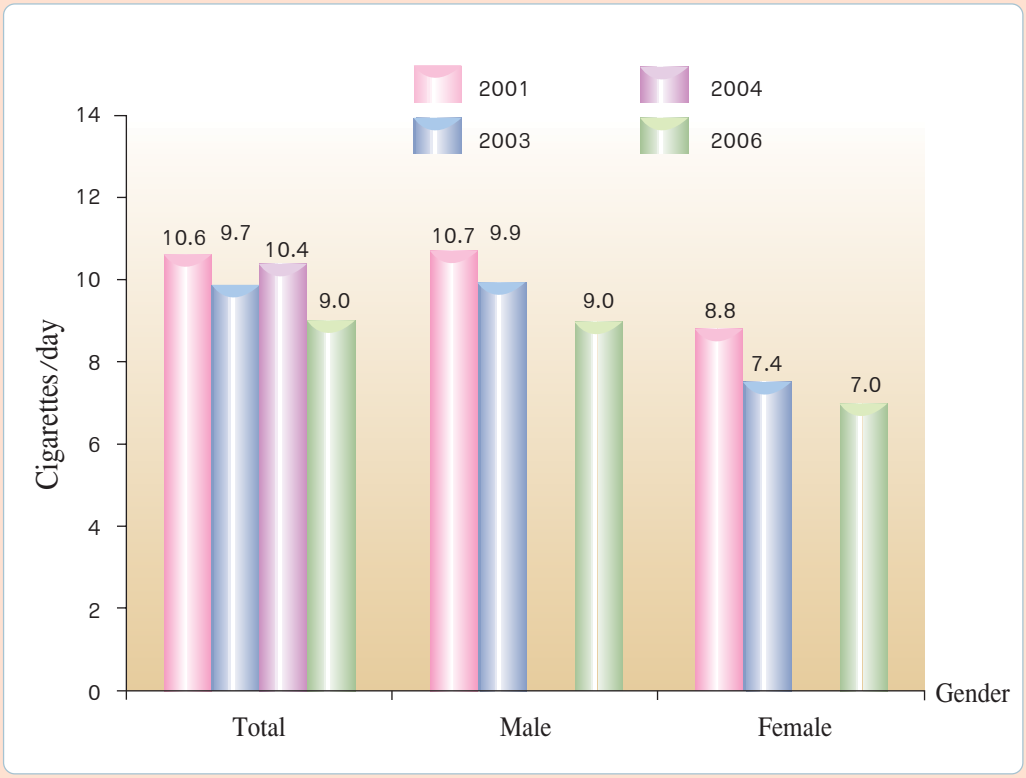
Sources: 1. Report on Survey of Population's Tobacco Use Behaviours, 1999. National Statistical Office.

2. Report on Survey of Population's Tobacco and Liquor Consumption, 2001. National Statistical Office.

3. Reports on Health and Welfare Surveys, 2003 and 2006. National Statistical Office.

4. Report on Survey of Population's Tobacco and Liquor Consumption, 2004. National Statistical Office.

Figure 4.33 Average number of cigarettes smoked per day by a regular smoker aged 11 years and over by gender, 2001, 2003, 2004 and 2006



Sources: 1. Preliminary Results of Population's Smoking and Drinking Behaviours Survey, 2001. National Statistical Office.

2. Health and Welfare Surveys, 2003 and 2006. National Statistical Office.

3. Report on Population's Smoking and Drinking Behaviours Survey, 2004. National Statistical Office.

Note: For 2004, survey on population aged 15 years and over; no analysis by sex.

Table 4.45 Percentage of population aged 11 and over using tobacco products regularly by product category most frequently used

Product category (most frequently used)	Before the crisis		After the crisis		
	1993	1996	1999	2001	2004
Local cigarettes	44.9	55.6	44.3	46.0	46.2
Imported cigarettes	0.9	1.1	1.3	1.2	1.3
Self-rolled cigarettes	54.0	42.5	54.1	52.7	50.0
Cigars	< 0.1	0.2	0.1	} 0.1	} 2.5
Pipe	0.1	0.2	0.2		
Unknown	0.1	0.4	-		

Sources: 1. Report on Health and welfare Survey. National Statistical Office.

2. Report on Survey of Population's Tobacco Use Behaviours, 1999. National Statistical Office.
3. Preliminary Results of Population's Tobacco and Liquor Consumption Survey, 2001. National Statistical Office.
4. Report on Population's Tobacco and Liquor Consumption Survey, 2004. National Statistical Office.

Table 4.46 Market shares of domestic and imported cigarettes, 1991-2006

Fiscal year	Market share (percent)	
	Local cigarettes	Imported cigarettes
1991	99.4	0.6
1992	97.4	2.5
1993	97.2	2.8
1994	97.0	3.0
1995	96.7	3.2
1996	96.8	3.1
1997	95.9	4.1
1998	91.5	8.4
1999	86.4	13.5
2000	86.7	13.3
2001	85.0	15.0
2002	84.7	15.3
2003	85.9	14.1
2004	80.1	19.9
2005	77.7	22.3
2006	77.4	22.6

Source: Thailand Tobacco Monopoly, Ministry of Finance.

8.4 Alcoholic Beverage Consumption

Alcohol abuse is number one cause of burden of disease among males and number nine among females in Thailand (Table 4.34). Thai people tend to consume more alcoholic beverages. In the past decade, alcohol use rose from 721.8 million litres in 1988 to 1,604.3 million litres in 1997, a two-fold increase. After the economic crisis, alcohol consumption had a declining trend from 1,689.8 million litres in 1998 to 1,340.9 million litres in 1999. However, after the economic recovery in 2006, alcohol use appears to rise to 2,479.7 million litres. The Food and Agriculture Organization estimated that the amount of alcohol consumed per capita per day of Thai people in 2000 was ranked fifth, compared with those in France, the U.S.A., Japan and the Philippines[18] (Figure 4.34).

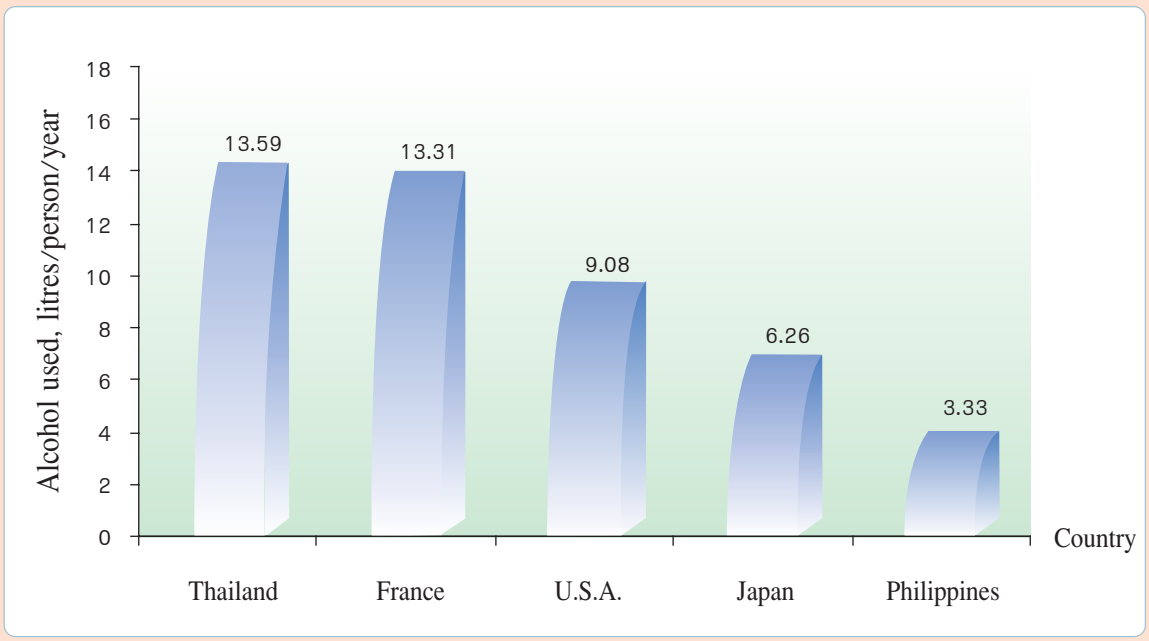
By type of alcoholic beverages, the rate of liquor consumption seemed to be stable while those for beer and wine were rising (Table 4.47 and Figure 4.35) as a result of the government's free trade policy beginning in 1992. After that many more beer brewery and winery plants have been operational (Figure 4.36); coupled with lower prices, the sales volumes and amounts of beer consumed were higher than those for liquor.

[18] Yongyout Kachondham. Advertisements of Alcoholic Drinks and Losses. Thai Health Promotion Foundation, 2004.

A survey conducted by the NSO revealed a similar result, i.e. the proportion of drinkers increased from 31.5% in 1991 to 35.3% in 2004, but dropped to 29.2% in 2006 (Table 4.48). It is noteworthy that during the ten-year period (1996-2006), the proportion of female drinkers has risen in all age groups, particularly those aged 15-19 years, increasing from 1.0% to 2.9% (Table 4.49).

Regarding drinking frequency among drinkers, it was found that about half of them drank occasionally, but the proportion of regular drinkers was rising from 8.6% in 1996 to 13.0% in 2006 (Table 4.50). The 2003/2004 health examination survey revealed that, among the population aged 15 years and above, 16.6% of males and 2.1% of females drank alcohol at a dangerous level, on overage 39.7 gm/d for males and 6.3 gm/d for females. A future study conducted by Dr. Virasakdi Chongsuvivatwong of the Faculty of Medicine, Prince of Songkla University, revealed that alcohol use has been rising in both sexes and all age groups, females having a chance to drink more alcohol, more than 3-4 times per week. The reasons are socializing, following friends' behaviour, testing and being influenced by advertisements. The values or billings of alcohol advertisements have been rising, particularly during 2000-2006, to more than 2000 million baht each year (Table 4.51). Thus, in 2006 the government proposed an alcohol consumption control law to the National Legislative Assembly so as to ban alcohol advertisements in all kinds of media and to ban the sale of alcohol to any one aged less than 20 years.

Figure 4.34 Comparison of alcohol consumption per person, 2000



Source: WHO Alcohol Consumption Database, referred to in Yongyout Kachondham. "Advertisements and Consumption of Alcohol and Losses." Thai Health Promotion Foundation, 2003.

Table 4.47 Alcohol consumption in Thailand, 1988-2006

Category	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2004	2005	2006
Total liquor consumption (million litres)	561.85	499.61	611.92	681.76	670.92	678.01	557.63	743.82	795.63	736.61	734.87	666.27	641.48	760.55	711.28	616.93	595.57	477.95
Average liquor consumption per person (litres)	15.7	13.9	16.3	17.6	17.0	16.7	13.8	17.4	18.4	16.7	16.5	14.7	14.0	16.4	14.7	12.6	12.2	9.7
Total beer consumption (million litres)	157.80	178.53	260.80	278.47	320.15	419.75	509.36	616.38	714.89	863.91	950.69	666.27	1,148.40	1,149.18	1,248.55	1,535.99	1,620.68	1,983.67
Average beer consumption per person (litres)	4.4	5.0	6.9	7.2	8.1	10.3	12.1	14.4	16.5	19.6	21.3	14.7	25.1	24.8	25.8	31.5	33.3	40.3
Total wine consumption (million litres)	2.14	0.89	0.83	1.49	1.52	1.51	1.39	2.39	4.40	3.85	4.30	8.39	12.91	16.34	19.20	27.04	26.50	18.80
Average wine consumption per person (litres)	0.06	0.03	0.02	0.04	0.04	0.04	0.03	0.06	0.10	0.09	0.10	0.20	0.30	0.35	0.40	0.55	0.54	0.38
Total alcohol consumption (million litres)	721.80	679.04	873.56	961.73	992.59	1,099.28	1,088.39	1,362.60	1,514.93	1,604.38	1,689.87	1,340.94	1,802.81	1,926.08	1,979.03	2,170.95	2,242.76	2,479.70
Average alcohol consumption per person (litres)	20.2	18.9	23.3	24.8	25.2	27.1	25.9	31.9	35.0	36.4	37.9	29.5	39.3	41.6	40.9	44.7	46.1	50.3
Amount of imported liquor(thousand litres)	-	-	-	-	12,783.3	14,801.3	18,165.9	20,700.4	33,334.5	32,749.2	17,467.4	28,728.5	39,728.3	48,921.7	57,154.1	NA	NA	NA
Taxes on imported liquor(million bath)	-	-	-	-	1,105.5	1,227.2	1,671.1	1,603.3	2,536.6	2,525.0	1,959.9	2,998.5	3,358.3	5,377.7	6,146.1	7,918.24	7,741.39	8,245.50

Source: The Excise Department, ministry of Finance.

Note: Average consumption per person aged 15 and over.

Table 4.48 Number and proportion of alcoholic beverage drinkers, 1991-2006

Year	Population (millions)	No. of drinkers (millions)			Proportion of drinkers (percent)		
		Total	Males	Females	Total	Males	Females
1991	39.5	12.4	10.5	1.8	31.5	53.7	9.5
1996	43.4	13.7	11.9	1.7	31.6	55.4	8.1
2001	46.9	15.3	13.0	2.3	32.6	55.9	9.8
2003	35.8	12.7	9.8	2.8	35.5	60.8	14.5
2004	49.4	16.1	13.6	2.5	35.3	59.3	11.7
2006	54.5	15.9	13.3	2.6	29.2	50.3	9.1

Sources: 1. Reports on Health and Welfare Surveys, 1991, 1996, 2001, 2003 and 2006. National Statistical Office.
2. Report on Smoking and Drinking Survey, 2004. National Statistical Office.

Note: In the 2003 Health and Welfare Survey, the interview was undertaken only when the interviewee was present; thus, the total population surveyed was smaller than the overall population of the country.

Table 4.49 Alcohol drinking rate among population aged 11 and over by age and sex

Age group (years)	1991		1996		2001		2003		2004		2006	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
11-14	-	-	0.2	0.05	-	-	0.5	0.4	0.5	0.3	0.9	0.4
15-19	21.7	2.1	20.8	1.0	19.9	1.9	33.5	5.6	25.5	3.3	24.2	2.9
20-24	59.5	5.4	56.0	5.7	55.8	7.2	70.4	11.8	59.7	10.1	58.1	8.2
25-29	66.7	9.2	67.6	6.9	68.1	10.2	75.7	16.8	72.8	13.1	64.2	9.8
30-34	68.6	11.9	67.7	9.5	67.0	12.3	76.5	20.0	72.9	13.5	66.1	12.0
35-39	66.2	15.3	69.0	12.2	69.2	14.2	73.3	19.2	73.6	17.6	64.8	14.3
40-49	65.1	15.6	65.8	12.9	67.5	14.2	73.0	21.7	73.7	17.4	64.6	13.2
50-59	56.1	14.2	59.9	10.1	58.7	11.5	64.5	14.4	70.2	13.5	56.3	10.0
60 and over	38.0	8.5	36.8	6.3	37.0	5.7	41.9	8.6	62.7	10.4	33.2	5.9
Total	**53.7**	**9.5**	**50.1**	**7.4**	**55.9**	**9.8**	**60.8**	**14.5**	**59.3**	**11.7**	**50.3**	**9.1**

Source: A reanalysis of the Health and Welfare Survey Database. National Statistical Office.

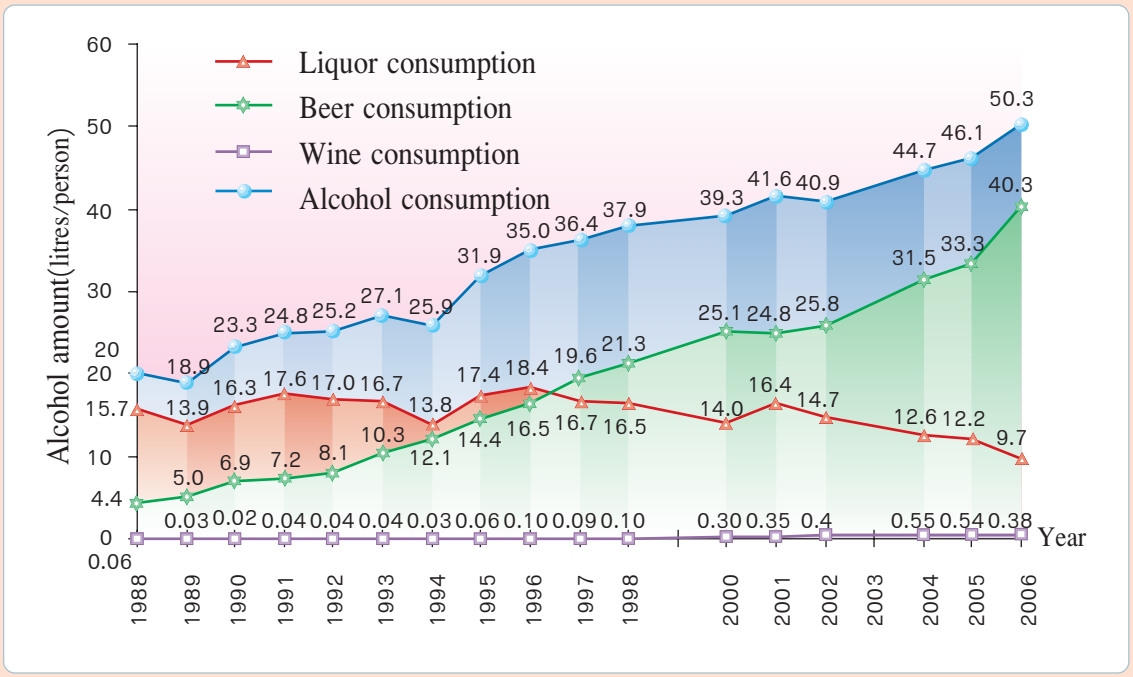
Table 4.50 Percentage of drinking population by frequency of drinking, 1996, 2001, 2003, 2004 and 2006

Drinking frequency	1996[1]	2001[2]	2003[1]	2004[2]	2006[2]
Every day	8.6	7.9	9.4	9.5	13.0
Quite frequent (3-4 times/wk.)	10.7	9.9	10.7	10.2	11.2
Some day (1-2 times/wk.)	17.4	17.2	17.7	18.6	21.1
1-2 times/month	16.4	15.3	12.2	16.3	13.2
Occasionally	46.2	49.4	50.0	45.5	41.5
Unknown	0.6	0.3	-	-	-

Sources: 1. Reports on Health and Welfare Surveys, 1996, 2003 and 2006. National Statistical Office.
2. Report on Population's Smoking and Drinking Behaviours Survey, 2001. National Statistical Office.

Notes: [1]Population aged 15 years and over.
[2]Population aged 11 years and over.

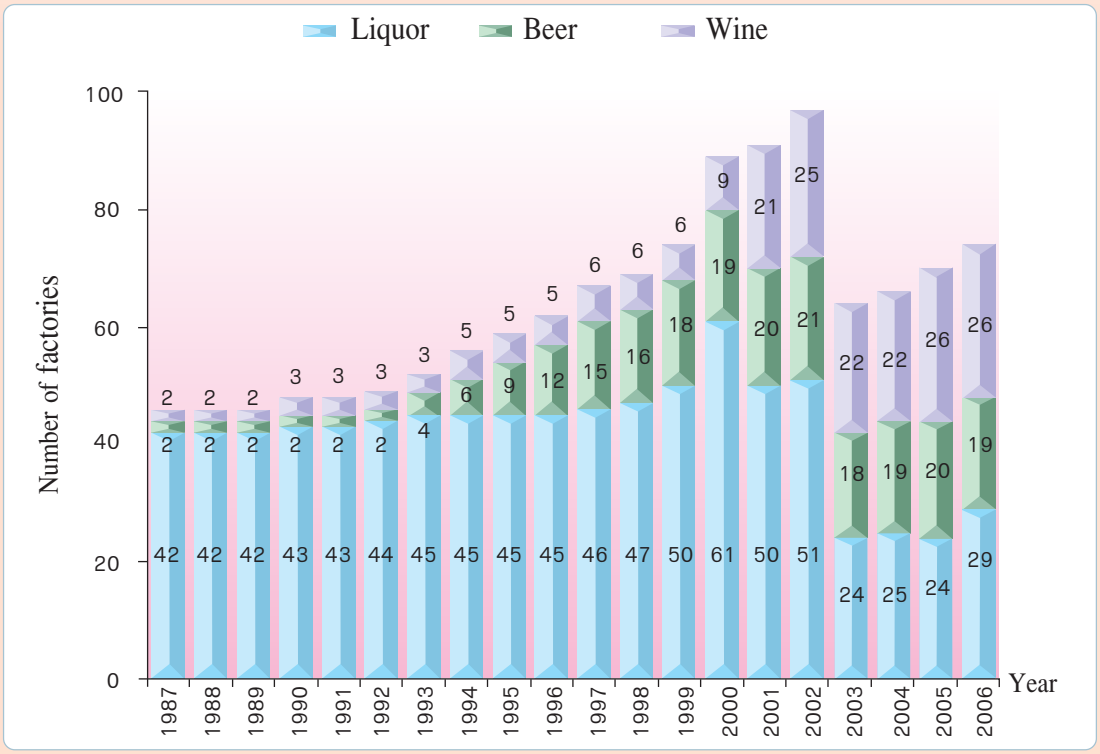
Figure 4.35 Sales quantities of liquor, beer and wine, and amount of alcohol consumed per person aged 15 years and over, 1988-2006



Source: The Excise Department, Ministry of Finance.

Note: Average consumption per person aged 15 years and over.

Figure 4.36 Numbers of liquor, beer and wine factories, 1987-2006



Source: Department of Industrial Works, Ministry of Industry.

Note: In 2003-2006, the number of liquor factories decreased due to factory closure and merger.

Table 4.51 Alcohol advertisements billings, 1989-2006

Year	Advertisement billings (million baht)	Increase (percent)
1989	255	-
1990	347	+36.1
1991	460	+32.6
1992	514	+11.7
1993	705	+37.2
1994	772	+9.5
1995	1,318	+70.7
1996	2,169	+64.6
1997	1,859	-14.3
1998	1,264	-32.0
1999	1,812	+43.4
2000	2,522	+39.2
2001	1,910	-24.3
2002	2,180	+14.1
2003	2,025	-7.1
2004	2,007	-0.9
2005	2,302	+14.7
2006	2,000	-13.1

Source: Media Data Resources (MDR).

8.5 Consumption of Caffeine Drinks

As a result of all kinds of sales promotion, the volume of caffeine drinks consumed rose from 131.10 million litres in 1992 to 310.05 million litres in 1997. During the economic crisis, the consumption of such drinks dropped markedly, but after the economic recovery, the consumption rose again to 991.06 million litres in 2006 (Table 4.52).

Table 4.52 Volumes of caffeine drinks (energy drinks) in Thailand, 1992-2006

Year	Production volume (million litres)	Sales volume (million litres)	Per capita consumption (litres/yr.)	Change in per capita consumption (percent)
1992	138.40	131.10	3.32	-
1993	173.75	329.26	8.10	+144.0
1994	183.62	181.84	4.33	-46.5
1995	209.31	217.08	5.08	+17.3
1996	180.87	182.92	4.22	-16.9
1997	308.08	310.05	7.03	+66.6
1998	134.73	126.12	2.82	-59.9
1999	174.59	155.44	3.42	+21.3
2000	337.56	332.47	7.25	+112.0
2001	364.84	355.14	7.66	+5.6
2002	366.30	433.59	8.95	+16.8
2003	445.47	433.21	8.90	-0.6
2004	741.35	786.80	16.14	+81.3
2005	1,020.81	968.07	19.88	+23.2
2006	1,003.80	991.06	20.12	+1.2

Source: The Excise Department, Ministry of Finance.

Note: Per capita consumption among population aged 15 years and over.

In 2000, the Food and Drug Administration, the Institute of Nutrition of Mahidol University, and the Health Systems Research Institute jointly conducted a survey on consumption behaviour of caffeine drinks among Thai people aged 12 years and over. It was found that approximately two-fifths of respondents (38.6%) drank caffeine drinks, approximately two-thirds (66.6%) drank coffee or tea, and approximately three-fourths (77.0%) drank carbonated caffeine drinks. Moreover, it was found that the prevalence of Thais drinking all three kinds of drinks was 23.7% of respondents, 36.6% for males and 11.1% for females, four times higher in males (Table 4.53); the reasons being for sleepiness prevention, refreshment and favouring their good taste.

Table 4.53 Number and prevalence of caffeine drinkers aged 13-70 years by sex

Drinking behaviour	Caffeine drinkers			Coffee and tea drinkers			Carbonated caffeine drinkers		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
Drinking	1,257	442	1,699	1,541	1,592	3,133	1,656	1,925	3,581
Used to drink	266	192	458	202	209	411	175	200	375
Never drink	648	1,830	2,478	428	663	1,091	338	337	675
Total	2,171	2,464	4,635	2,171	2,464	4,635	2,169	2,462	4,631
Prevalence									
Drinking	57.9%	17.9%	36.7%	71.0%	64.6%	67.6%	76.3%	78.2%	77.3%
Used to drink	12.3%	7.8%	9.9%	9.3%	8.5%	8.9%	8.1%	8.1%	8.1%
Never drink	29.8%	74.3%	53.5%	19.7%	26.9%	23.5%	15.6%	13.7%	14.6%
Adjusted Prevalence*									
Drinking	59.8%	17.8%	38.6%	70.1%	63.1%	66.6%	76.3%	77.6%	77.0%
Used to drink	10.9%	7.5%	9.2%	9.1%	8.3%	8.7%	7.6%	7.7%	7.6%
Never drink	29.3%	74.7%	52.3%	20.8%	28.6%	24.8%	16.1%	14.7%	15.4%

Sources: Food and Drug Administration, Institution of Nutrition of Mahidol University and Health Systems Research Institute. Report on Consumption Behaviours of Thai Drinking Caffeine Drinks, 2000.

Note: *Adjusted prevalence was calculated based on the proportion of the population by sex.

8.6 Substance Abuse

The narcotic problem is getting more and more complex in relation to economic and social changes by ramifying into communities, business facilities or even educational institutions. In Thailand, despite the fact that there are numerous legal measures and continuos campaigns for drug control and suppression, the illicit drug problem is still prevalent. Currently, the major narcotic widely used is methamphetamine or “ya ba” in Thai. Although the country is encountering the economic crisis, drug trafficking is on the rise. Significant examples include a rising number of methamphetamine-crime arrests, especially in northern border areas where the proportion of arrests has risen from 16.7% in 1995 to 46.0% in 2006 (Table 4.54).

Table 4.54 Statistics of methamphetamine seizures, 1993-2006

Year	Whole country (tablets)	The North	
		Tablets	Percent
1993	7,000,000	40,000	0.6
1994	4,000,000	600,000	15.0
1995	6,000,000	1,000,000	16.7
1996	9,000,000	3,500,000	38.9
1997	15,000,000	9,000,000	60.0
1998	31,770,127	17,689,136	55.7
1999	49,887,050	33,137,431	66.4
2000	83,000,000	34,000,000	41.0
2001	93,800,000	55,670,540	59.3
2002	95,900,000	37,810,500	39.4
2003	71,400,000	33,227,800	46.5
2004	31,169,919	10,021,603	32.1
2005	17,225,511	7,375,668	42.8
2006	13,480,000	6,195,800	46.0

Source: Office of the Narcotics Control Board.

In 2003 the number of new drug abuse treatment admissions to drug dependence treatment facilities was highest as the government stepped up efforts to send drug addicts into treatment facilities more than those in 2001-2002 (Table 4.55). The serious concern, however, is a remarkable increase in the number of students taking drugs, specially stimulant or methamphetamine, escalating from 0.2% in 1985 to 1.5% in 1999 or a 7.5-fold increase (Table 4.56).

Table 4.55 Number of substance abuse treatment admissions at dependence treatment facilities in Thailand, 1987-2006

Year	No. of all admissions	No. of readmissions	New admissions	
			No.	Percentage of total admissions
1987	57,874	42,748	14,895	25.7
1988	61,218	46,766	13,779	22.5
1989	60,000	44,048	13,723	22.9
1990	58,327	41,942	13,984	24.0
1991	66,465	46,253	18,398	27.7
1992	63,978	44,816	19,162	30.0
1993	82,620	51,053	29,468	35.7
1994	80,618	49,644	30,189	37.4
1995	101,145	61,490	38,565	38.1
1996	81,050	50,774	29,223	36.1
1997	62,362	39,075	21,956	35.2
1998	73,079	45,001	28,060	38.4
1999	64,232	37,150	27,082	42.2
2000	67,155	38,778	28,377	42.3
2001	72,646	41,265	31,381	43.2
2002	68,623	32,772	35,851	52.2
2003	319,748	n.a.	n.a.	n.a.
2004	41,499	n.a.	n.a.	n.a.
2005	43,343	n.a.	n.a.	n.a.
2006	49,772	11,323	38,449	77.2

Sources: 1. Department of Medical Services, MoPH.
2. Department of Health Service Support, Ministry of Public Health.

Note: During 2003-2005, there was a change in the system for drug abuse monitoring, no data were collected on the type of drug abuse treatment admissions.

Table 4.56 Percentage of secondary school students with substance abuse, 1985-1999

Types of drug/ narcotic	1985 (n=155,541)	1987 (n=30,097)	1989 (n=4,986)	1996 (n=15,306)	1999 (n=24,110)
Tobacco	9.16	6.73	7.62	7.60	5.28
Liquor	9.79	5.96	7.97	14.00	13.56
Marijuana	1.05	0.92	1.78	1.18	0.80
Inhalants	0.52	1.78	2.38	0.85	0.44
Stimulants or methamphetamines	0.18	0.73	0.60	1.64	1.52
Dry liquor (LSD)	0.19	0.28	0.28	0.55	0.37
Tranquilizers	0.12	0.26	0.40	0.92	0.42
Heroin	0.74	0.12	0.46	0.33	0.19

Source: Survey on Substance Abuse among Secondary School Students. Department of General Education and Office of the Narcotics Control Board, 1999.

According to the estimates on the number of students with illicit drug use nationwide by the ABAC-KSC Internet Research Institute (ABAC Poll) in 2001, about 6.2% of students had drug use behaviour. Methamphetamine was the drug that they used the most (58.5%; Table 4.57).

Table 4.57 Estimated number of students using drugs by drug category, 2001

Rank	Narcotic category	Estimated number of students	Percent
1	Methamphetamines	219,284	58.5
2	Marijuana	158,065	42.2
3	Tranquilizers, e.g. Domicum, Valium	125,918	33.6
4	Inhalants, rubber glue, lacquer	62,354	16.6
5	"Ecstasy" drug	42,443	11.3
6	"Love" drug	39,349	10.5
7	"K" drug (ketamine)	32,655	8.7
8	Heroin	28,402	7.6
9	Opiates	20,807	5.6
10	Cocaine	18,249	4.9
11	Morphine	18,231	4.9

Source: Estimation of Students Using Drugs: A Case Study of Students from All Educational Institutions Nationwide. ABAC-KSC Internet Research Institute (ABAC Poll), 2001.

Note: There were totally 374,653 students using drugs.

However, after the government implemented the war on drug policy in 2001, the Office of the Narcotics Control Board estimated that the proportion of drug users had declined from 16.4% in 2001 to 6.9% in 2003, a more-than-50% decrease (Table 4.58).

Table 4.58 Number of substance abusers nationwide by type of use duration, 2001 and 2003

Substance	2001			2003		
	Abusers in thousands (and percent)			Abusers in thousands (and percent)		
	Ever used	Ever used in 1 year	Ever used in 30 days	Ever used	Ever used in 1 year	Ever used in 30 days
Any kind of drug	**7,312.2(16.4)**	**1,942.1(4.3)**	**998.7(2.2)**	**3,155.5(6.9)**	**455.5(1.0)**	**257.8(0.6)**
Methamphetamines	3,491.6(7.8)	1,092.5(2.4)	490.3(1.1)	1,094.0(2.4)	83.8(0.2)	34.1(0.1)
Drug E or Love	360.1(0.8)	46.5(0.1)	17.7(0.0)	19.7(0.3)	13.3(0.0)	7.4(0.0)
Ketamine	40.7(0.1)	7.2(0.0)	1.2(0.0)	23.4(0.1)	1.0(0.0)	0.04(0.0)
Cocaine	52.8(0.1)	4.9(0.0)	1.1(0.0)	29.4(0.1)	7.4(0.0)	1.0(0.0)
Marijuana	5,425.3(12.1)	667.2(1.5)	210.0(0.5)	2,019.1(4.4)	83.4(0.2)	18.7(0.0)
Krathom (Mitragyna speciosa)	2,105.8(4.7)	643.8(1.4)	364.2(0.8)	1,160.0(2.6)	344.7(0.8)	221.6(0.5)
Opium	907.0(2.0)	38.6(0.1)	12.3(0.0)	323.7(0.7)	0.6(0.0)	0.3(0.0)
Heroin	274.2(0.6)	22.7(0.1)	9.4(0.0)	192.6(0.4)	1.4(0.0)	-
Thinner, glue, benzene	933.9(2.1)	199.7(0.4)	101.2(0.2)	447.9(1.1)	21.2(0.1)	13.2(0.0)

Source: Office of the Narcotics Control Board. Report on Estimation of Drug Users in Thailand, 2003.

8.7 Physical Activity and Relaxation

8.7.1 Physical Activity

The 2004 survey of the National Statistical Office revealed that **approximately 29.1% of Thai people regularly exercised**[19] (Table 4.59). However, when considering the trend in regular exercise for 1987-2004, it was found that **Thai people had a fluctuating rate of exercise**, ranging from 20 to 30% on average (Table 4.59), **males exercising more than females** (Figure 4.37) and more than half of the people exercising were under 15 years of age; the prevalence of exercise decreased with age (Figure 4.37).

[19] Exercise or physical activity means any movement of the body or part of body for health promotion, entertainment, and socialization, using simple activities or simple rules, such as walking, running, rope-jumping, body-stretching, and weight-lifting (except for exercise while working or body movement in daily life activities).

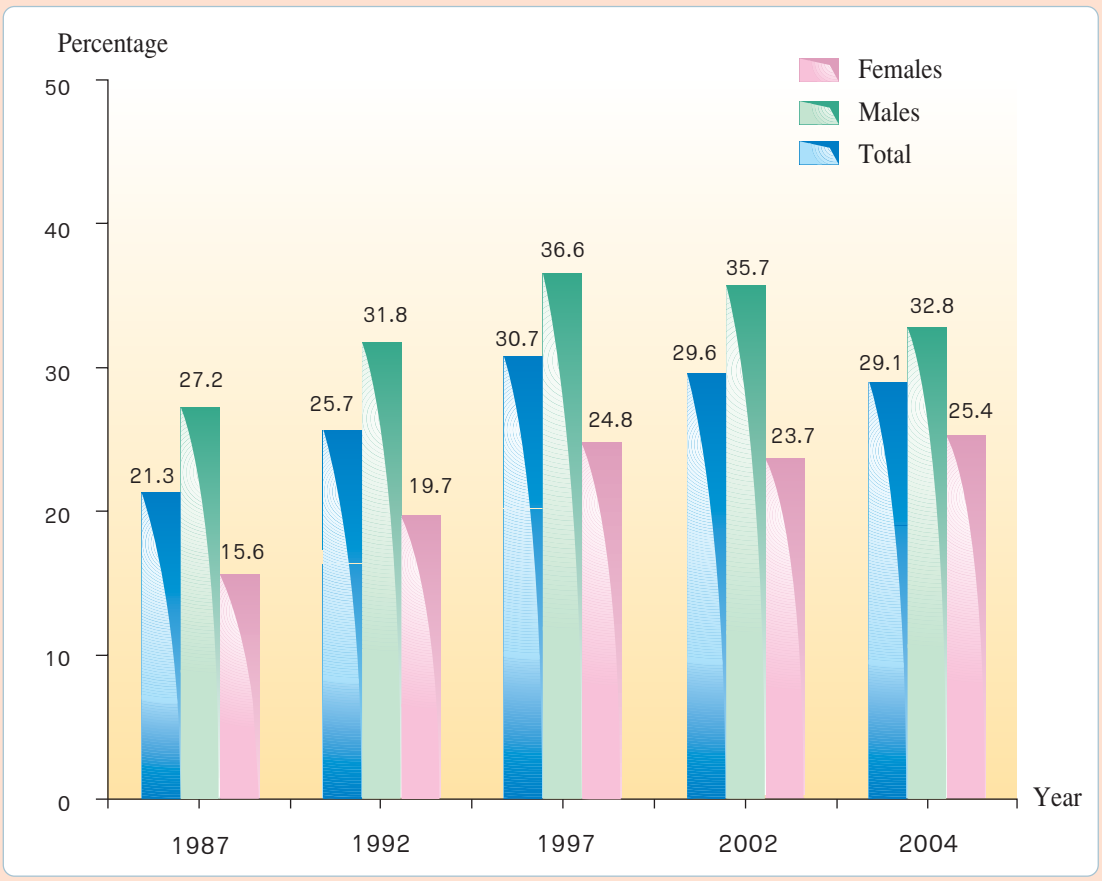
Table 4.59 Percentage of Thai people who regularly exercised, 1987-2004

Year	People regularly exercising	
	Percent	Change (percent)
1987	21.3	-
1992	25.7	+20.7
1997	30.7	+19.5
2002	29.6	-3.6
2004	29.1	-1.7

Sources: 1. Reports on Surveys of People Aged 6 Years and Above Playing or Watching Sports, 1987, 1992, 1997 and 2002. National Statistical Office.

2. Report on Exercise Behaviour of People Aged 11 Years and Above, 2004. National Statistical Office.

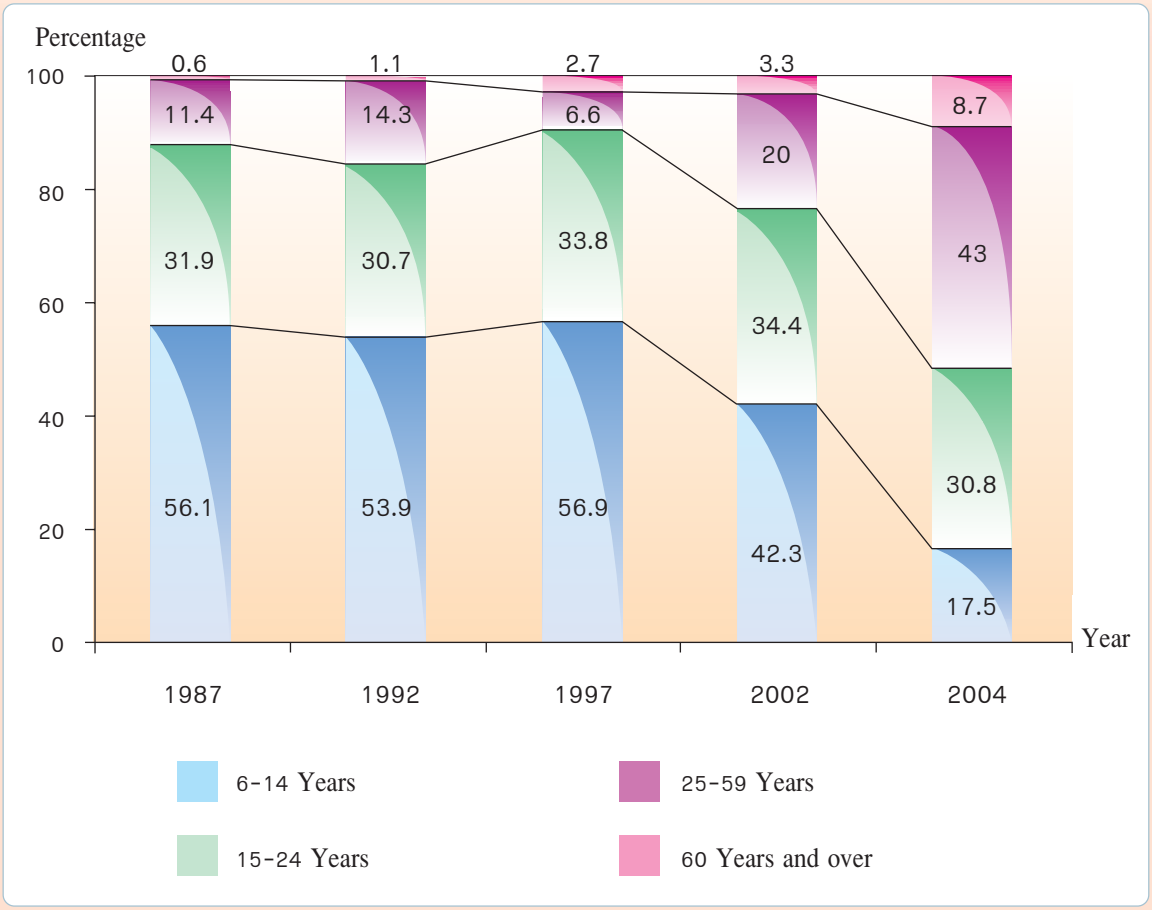
Figure 4.37 Percentage of Thai people who regularly exercised, by sex, 1987-2004



Sources: 1. Reports on Surveys of People Aged 6 Years and Above Playing or Watching Sports, 1987, 1992, 1997 and 2002. National Statistical Office.

2. Report on Exercise Behaviour of People Aged 11 Years and Above, 2004. National Statistical Office.

Figure 4.38 Percentage of Thai people who regularly exercised by age group, 1987-2004

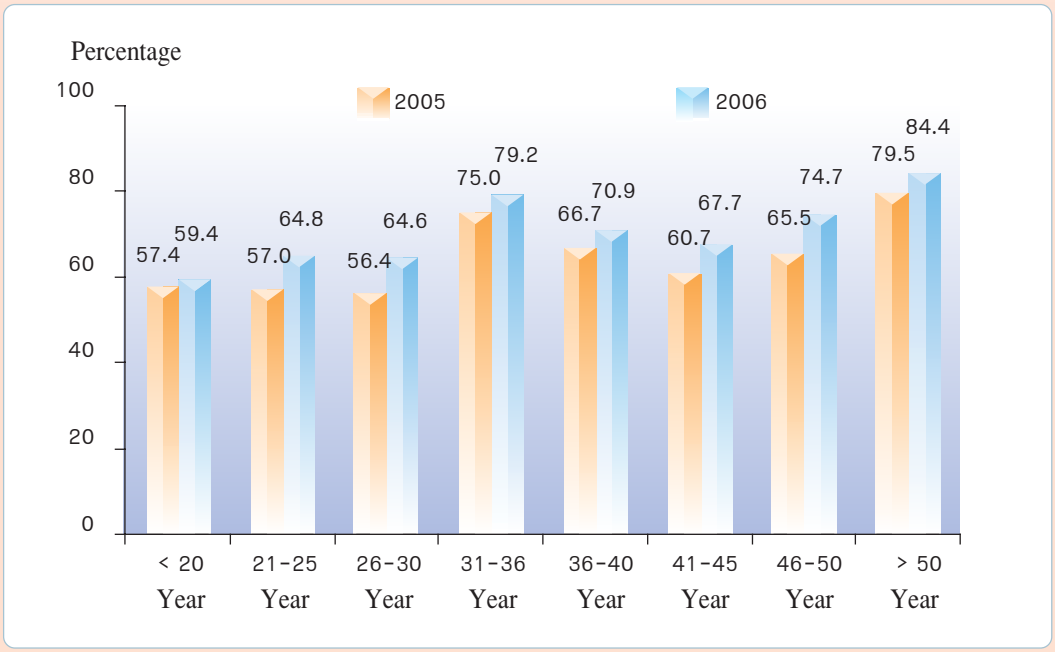


Sources: 1. Reports on Surveys of People Aged 6 Years and Above Playing or Watching Sports, 1987, 1992, 1997 and 2002. National Statistical Office.

2. Report on Exercise Behaviour of People Aged 11 Years and Above, 2004. National Statistical Office.

Besides, exercise bahaviour surveys on Bangkok residents conducted by Cheewajit Poll in 2005 and 2006 revealed that the prevalence of exercise increased by 4.2% on average and the time spent was 2.44 hrs per session, a two-fold increase. By age group, teenagers were the laziest to exercise, an increase of only 2.0% (Figure 4.39). Most students tend to overlook self-healthcare as they deem that they are already healthy and thus do not pay any attention to exercise as expected. This is different from the working-age group who are specially interested in exercise, always getting themselves fit as a way to get relieved from stress.

Figure 4.39 Proportion of Bangkok residents regularly exercising, 2005-2006



Source: Cheewajit Poll, third Project. Amarin Printing and Publishing (Public Limited Company).

Considering the exercise behaviour based on the criteria of **physical activity for health, it was found that more than 60% of the people exercise more than three days a week and approximately 80% to 90% exercise for 30 minutes or longer each day** (Tables 4.60 and 4.61). Regarding the continuity of exercise, it was found that 67.5% of the people had exercised continuously for over seven months and 18.1% for 1 to 3 months (Figure 4.40).

Table 4.60 Percentage of population aged 6 years and over exercising each week, 1987-2004

Days exercised	1987	1992	2002	2004
<3 days/wk	38.4	37.0	31.8	34.2
3+ days/wk	61.6	62.9	68.2	65.8
Total	**100.0**	**100.0**	**100.0**	**100.0**

Sources: 1. Reports on Surveys of People Aged 6 Years and Above Playing or Watching Sports, 1987, 1992 and 2002. National Statistical Office.

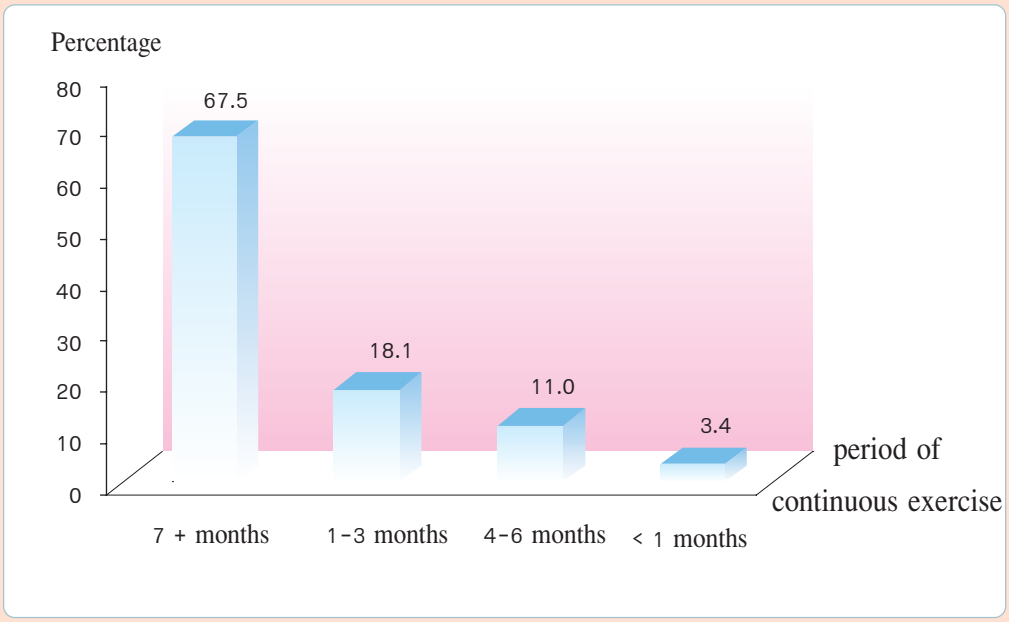
2. Report on Exercise Behaviour of People Aged 11 Years and Above, 2004. National Statistical Office.

Table 4.61 Percentage of population aged 6 years and over exercising each day, 1987-2002

Time period Exercised each day	1987			1992			1997			2002		
	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females
< 30 minutes	25.8	21.3	34.9	21.1	17.7	26.5	12.0	10.3	14.7	4.1	3.0	5.7
≥ 30 minutes	74.2	78.7	65.1	78.8	82.2	73.5	87.9	89.6	85.2	95.9	97.0	94.3
Unspecified	-	-	-	0.1	0.1	-	0.1	0.1	0.1	-	-	-
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Sources: Reports on Surveys of People Aged 6 Years and Above Playing or Watching Sports, 1987, 1992, 1997 and 2002. National Statistical Office.

Figure 4.40 Percentage of Thai people regularly exercising by period of time of continuous exercise, 2004



Source: Report on Exercise Behaviour Survey on People Aged 11 Years and Over, 2004. National Statistical Office.

The types of exercise most favored are jogging and aerobics while other sports and walking are less popular (Table 4.62). Where they want to play or exercise depends on the type of exercise, their own readiness and venue's convenience. However, it was found that **sports playgrounds of educational institutions** are mostly used for exercising, followed by empty spaces in a community and residential compounds.

Table 4.62 Percentage of people that exercised by type of exercise, 2001 and 2004

Type	2001	2004
Playing sports	55	51
Jogging	16	18
Aerobics	4	14
Walking	16	12

Source: Report on Exercise Behaviour Survey on People Aged 11 Years and Over, 2004. National Statistical Office.

The Ministry of Public Health has set a policy to promote and support the people to exercise simultaneously across the country and organized four major campaigns on exercise for health. Continuous support has also been provided to organize sports and exercise events, resulting in an increase in the number of people taking exercise from 0.3 million in 2002 to 8.6 million in 2003 and 43.1 million in 2004. As the MoPH set the target of the people participating in the third power of exercise for health campaign at 33 million, but in 2005 the number decreased to only 8.8 million (Table 4.63).

Table 4.63 Number of people participating in power of exercise for health campaigns

Region of campaign	No. of people participating			
	1st campaign (2002)	2nd campaign (2003)	3rd campaign (2004)	4th campaign (2005)
Central	46,894	76,986	290,100	83,719
Provincial	271,873	8,584,103	42,820,543	8,717,208
Total	**318,767**	**8,661,089**	**43,110,643**	**8,801,017**

Sources: 1. Bureau of Health promotion, Department of Health.
2. Health Education Division, Department of Health Service Support.
3. Office of the Secretary, Department of Disease Control.

8.7.2 Relaxation

A survey on health status of working-age population in 1996-1997 demonstrated that the average sleeping time period was 7.6 hours. Half the working-age population spent 7-8 hours on sleeping. It was also found that when they got older, the proportion of people sleeping for more than eight hours would decrease. A sleeping time around that range was also noted in the 2004 survey conducted by the National Statistical Office: males and females aged 10 years and older on average slept for 8.3 hours, children slept on average as long as 9.3 hours, followed by the elderly, youths and working-age people, respectively (Tables 4.64 and 4.65).

With regard to time spending for recreation, it was found in 2004 that each person spent 3.6 hours on average, a 1.8-fold increase compared with that for 2001, males spending more time than females (Table 4.65).

Table 4.64 Proportion of working-age population by daily sleeping time, 1996-1997

Age, years	Less than 6 hrs		6-7 hrs		8 hrs and over	
	Males	Females	Males	Females	Males	Females
13-19	1.8	2.0	17.8	23.6	80.4	74.5
20-34	6.3	6.7	37.5	34.1	56.2	59.2
35-44	7.6	8.2	39.5	41.1	52.9	50.7
45-59	9.9	13.8	36.6	43.4	53.5	42.8

Source: Data reanalyzed from the database of Survey on Health Status of Working-age Population, 1996-1997. Thailand Health Research Institute and Bureau of Policy and Strategy, MoPH, 1998.

Table 4.65 Average time periods (hours) spent on sleeping and recreation each day by sex and age group, 2001 and 2004

Activity	10-14		15-24		25-59		60+		Total	
	2001	2004	2001	2004	2001	2004	2001	2004	2001	2004
Males										
Sleeping	9.2	9.3	8.4	8.5	8.4	8.2	10.6	8.8	8.7	8.4
Recreation*	2.2	4.6	2.4	4.4	2.0	3.3	2.4	4.3	2.2	3.8
Females										
Sleeping	9.2	9.1	8.4	8.2	8.4	7.9	10.6	8.8	8.7	8.2
Recreation*	1.7	4.2	1.6	3.5	1.8	3.1	2.4	4.1	1.8	3.4
Total										
Sleeping	9.3	9.2	8.6	8.4	8.5	8.0	10.4	8.8	8.8	8.3
Recreation*	2.0	4.4	2.1	4.0	1.9	3.2	2.4	4.2	2.0	3.6

Source: Reports on the Time Spending of the People Surveys, 2001 and 2004. National Statistical Office.

Note: * Including social and cultural activities.

8.8 Driving Behaviours

8.8.1 Use of Safety Belt

A survey on safety-belt use among all driver categories reveals that, even through the law requires that all drivers and passengers use safety belts at all times, the safety-belt use rate has dropped from 35.8% in 1996 to only 31.3% in 2006 (Table 4.66).

8.8.2 Use of Helmet

The rate of constant use of helmet among motorcyclists was found to be declining, similar to that for safety belt, i.e. helmet use rate has declined from 29.0% in 1996 (the year in which the Helmet Use Royal Decree was first in effect) to only 18.6% in 2006 (Table 4.67).

Table 4.66 Proportion of drivers aged 14 years and over using safety belts

Use of safety belt	1991[1]	1996[1]	1997[2]	2000[3]	2001[1]	2003[1]	2004[4]	2006[1]
Vehicles with safety belts								
- Constant use	4.3	35.8	35.7	25.9	27.1	23.5	30.4	31.3
- Occasional use	11.7	28.0	29.6	32.2	44.2	39.7	16.9	45.2
- Non-use	12.6	6.3	34.7	13.9	12.1	32.2	11.5	21.9
Vehicles without safety belts	64.6	29.9	-	-	4.4	2.4	-	1.6

Sources: (1) Data for 1991, 1996, 2001, 2003 and 2006 were derived from Health and Welfare Surveys. National Statistical Office.

(2) Data for 1997 were derived from Prapapen Suwan et al. Study on Behaviours and Environmental Conditions for Health Promotion among Youths, Housewives and Factory Workers, 1997. Faculty of Public Health, Mahidol University.

(3) Data for 2000 were derived from the Survey of Health Behaviour of Working-age Population (15-59 years). Health Education Division, Department of Health Service Support.

(4) Data for 2004 were derived from the Smoking and Drinking Behaviour Survey, 2004. National Statistical Office.

Note: Data for 2001 were derived from a survey on safety-belt use of drivers and passengers aged 15 and over in front seats.

Table 4.67 Proportion of motorcyclists aged 14 years and over using helmets while driving

Use of helmets	1991[1]	1996[1]	2000[2]	2001[1]	2003[1]	2004[3]	2006[1]
- Constant use	7.2	29.0	32.0	16.1	16.0	34.4	18.6
- Occasional use	21.7	55.4	44.2	64.3	49.5	31.0	59.7
- Non-use	11.0	6.0	15.8	10.3	32.8	15.9	21.7
- No helmet	59.8	9.3	-	9.1	-	-	-

Sources: (1) Data for 1991, 1996, 2001, 2003 and 2006 were derived from Health and Welfare Surveys. National Statistical Office.

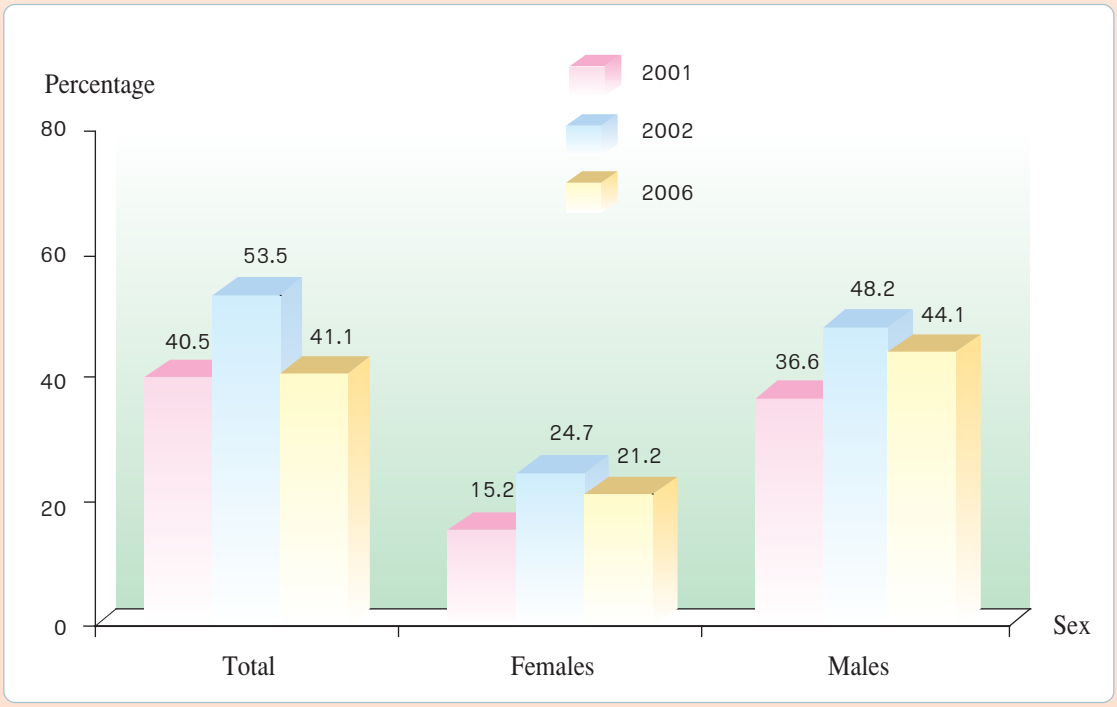
(2) Data for 2000 were derived from the Survey of Health Behaviours of Working-age Population (15-59 years). Health Education Division. Department of Health Service Support.

(3) Data for 2004 were derived from the Smoking and Drinking Behaviour Survey, 2004. National Statistical Office.

Note: Data for 2001 were derived from a survey on helmet use among motorcyclists and passengers aged 15 and over.

Alcohol drinking and drunk driving are a major factor causing road traffic accidents/injures. Even though Thailand has launched campaigns against drunk driving, having law prohibiting driving for any person with a blood alcohol concentration exceeding the specified limit, the number of drunk drivers has risen by 30%, i.e. rising from 40.5% in 2001 to 41.1% in 2006; males being twice more likely to do so than females (Figure 4.41).

Figure 4.41 Proportion of drunk drivers by sex, 2001, 2002 and 2006



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

8.9 Sexual Behaviours

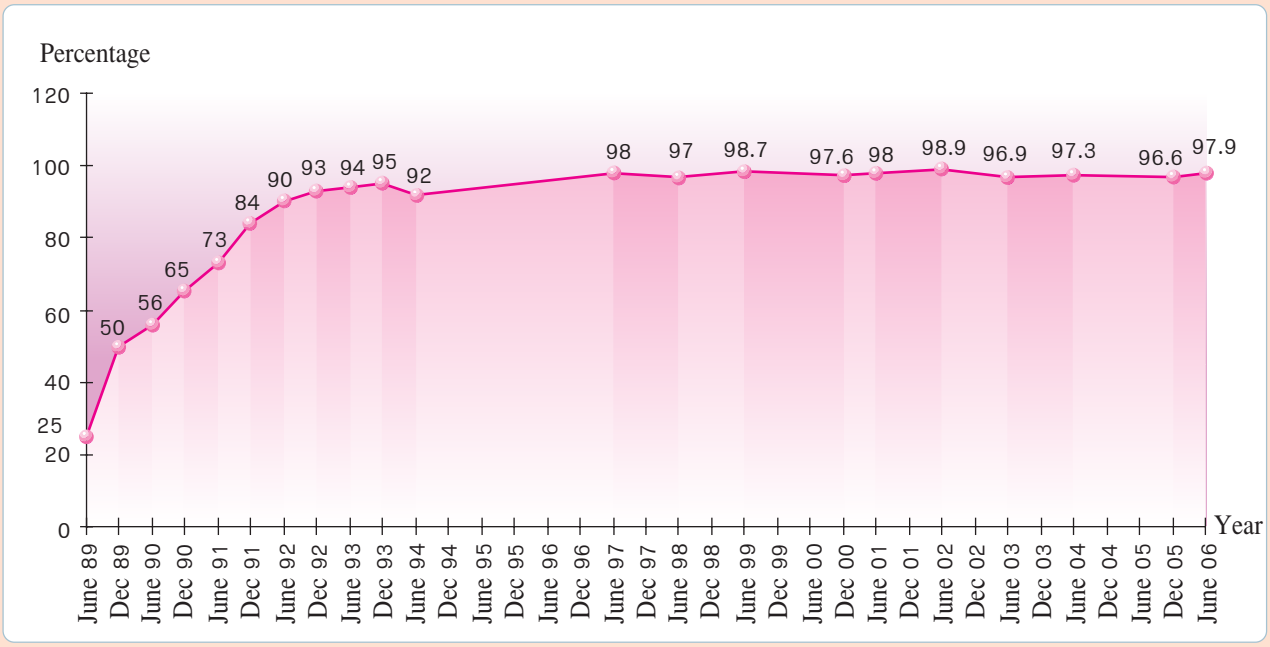
Unsafe sex is a primary health risk in spreading sexually transmitted infections (STIs), especially HIV/AIDS. Thanks to intensive campaigns, people are more aware of self-protection when having sex with a female commercial sex worker (CSW). This brings about a higher condom use rate in CSWs from 25% in 1989 to 97.9% in 2006 (Figure 4.42). However, it has been recently discovered that people are more likely to have sex with other women who are not CSWs. In particular, youths tend to have first sex at a younger age and practise unsafe sex.

According to Thailand's surveillance of HIV/AIDS risk behaviours in the past 12 years (1995-2006), the proportions of military recruits and male industrial workers having sex with CSWs and other women were **declining** except for a slightly rising rate in 2003 and a rising trend of military recruits having sex with other women (Figures 4.43 and 4.44). The constant condom use rate among military recruits having sex with CSWs was higher than with other women they superficially knew (Figures 4.45 and 4.46). Regarding female industrial workers and pregnant women attending an antenatal clinic (ANC), there was a **reduction** in sexual relation with several partners (Figures 4.47 and 4.48). And the rate of constant condom use when having sex with other males was increasing except for 2003 when the rate decreased markedly (Figures 4.49 and 4.48).

For male teenagers, it was revealed that there was a reduction in sexual relations with various groups of females, girlfriends, lovers, close friends, CSWs and others (Figure 4.50). They were

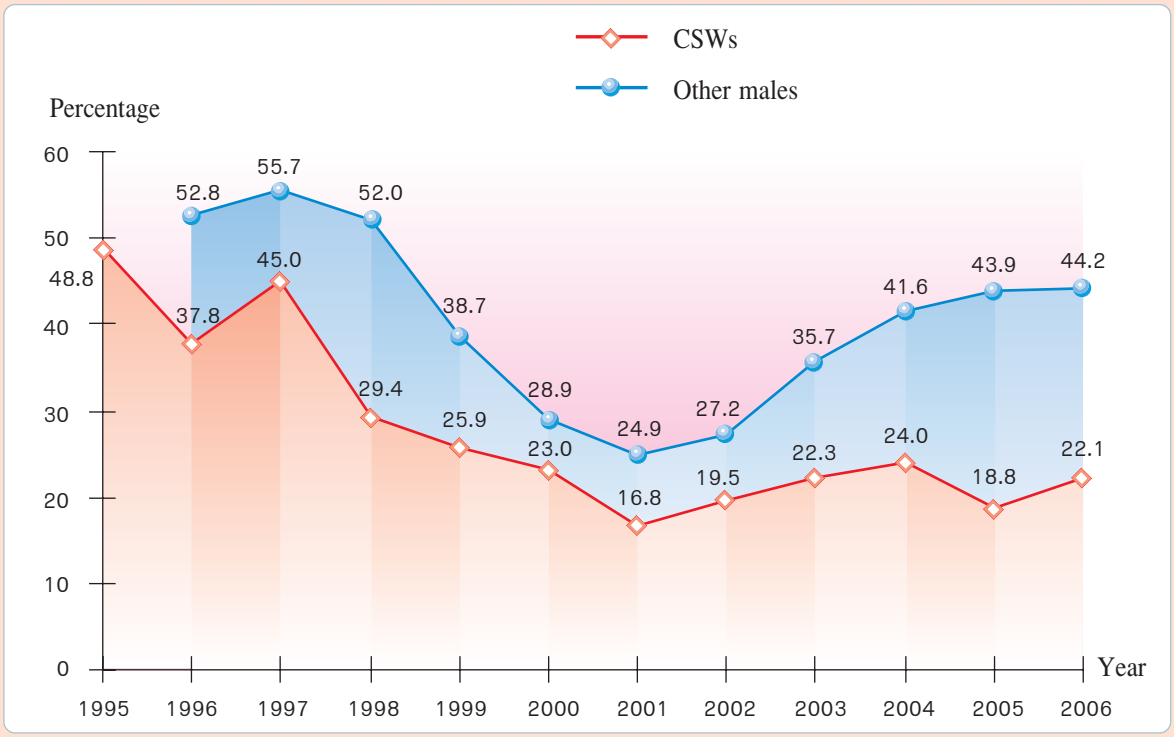
more likely to use a condom when having sex with CSWs than with other kinds of sex partners (Figure 4.51). But a survey conducted by the ABAC Poll Research Centre of Assumption University (2006) on pre-mature sex among youths (aged 15-24) in Bangkok and its vicinity reveals that two-thirds (45.0%) of respondents have ever had sex before and 55.0% have not. Among those with sexual experience, most of them (85%) have had their first sexual encounter with their lovers, followed by schoolmates (7.5%) and friends in other schools/institutions (3.5%), citing sex-stimulating situations such as love (66.9%), followed by intimacy (34.2%), desire to experiment (28.8%), alcohol drinking (9.9%), watching sex movie or obscene media (7.1%) and friend's persuasion (4.9%) as the reasons for having sex. Besides, another survey conducted by the Institute for Population and Social Research (2006) reveals that 67% of male teenagers and 44% of female teenagers (18-19 years old) in Bangkok have ever had sex before; their age with the first sex encounter was 15.5 years in males and 16.5 years in females (Figure 4.52)

Figure 4.42 Condom use rate among female commercial sex workers, 1989-2006



Source: Bureau of Epidemiology, Department of Disease Control, MoPH.

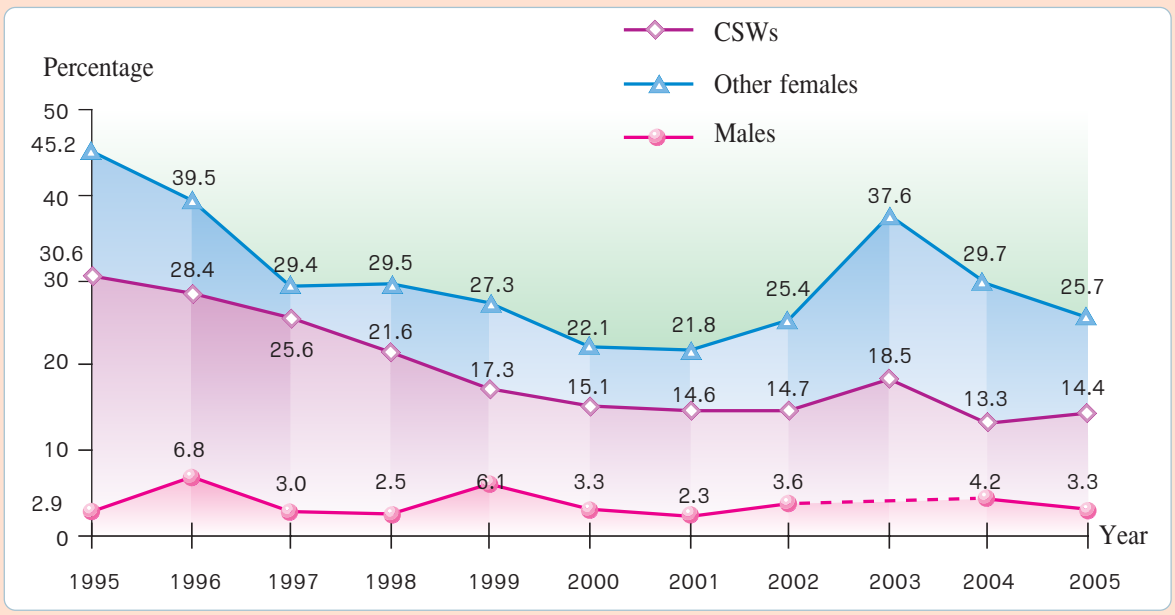
Figure 4.43 Proportion of military recruits' sex partners in the past year according to survey on HIV/AIDS risk behaviours in Thailand, 1st-12th rounds, 1995-2006



Source: Bureau of Epidemiology, Department of Disease Control, MoPH.

Note: The Bureau of Epidemiology deployed the new data analysis method for the 1st-12th rounds of survey (1995-2006).

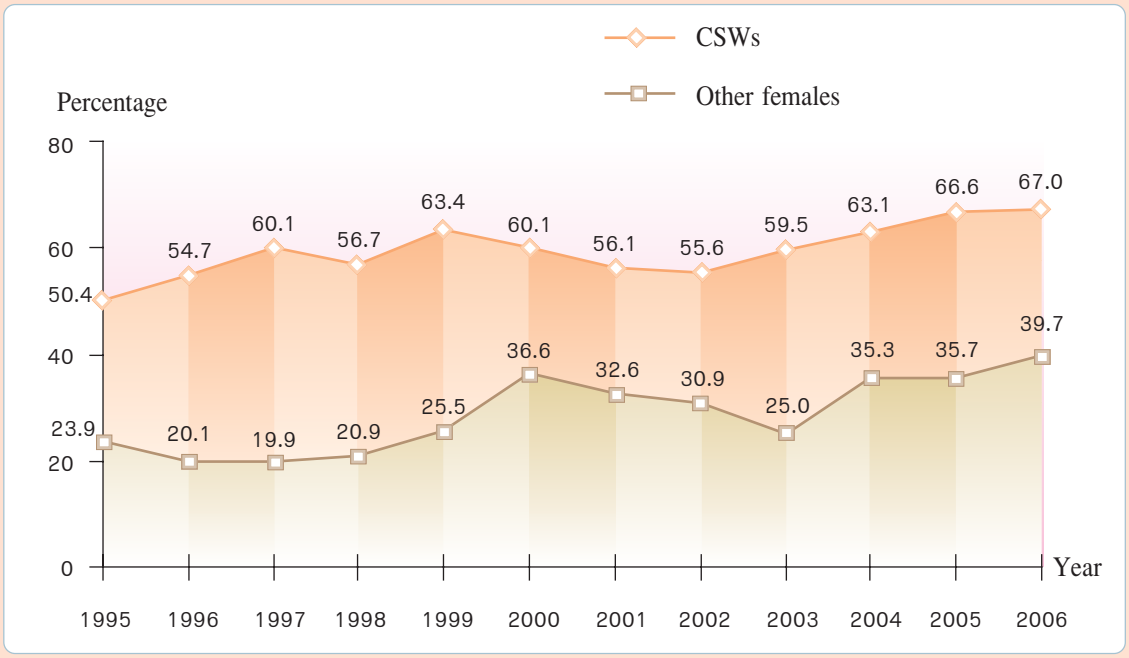
Figure 4.44 Proportion of male industrial workers' sex partners in the past year according to survey on HIV/AIDS risk behaviours in Thailand, 1st-11th rounds, 1995-2005



Source: Bureau of Epidemiology, Department of Disease Control, MoPH.

Note: The Bureau of Epidemiology deployed the new data analysis method for the 1st-11th rounds of survey (1995-2005).

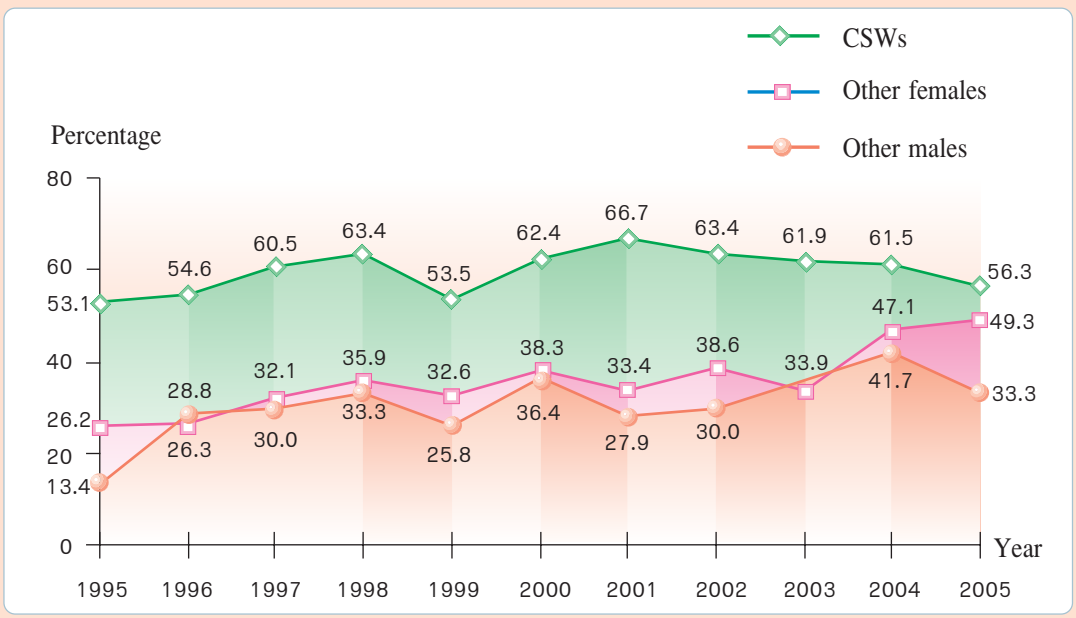
Figure 4.45 Rate of constant condom use during sexual encounters in the past year of military recruits according to survey on HIV/AIDS risk behaviours in Thailand, 1st-12th rounds, 1995-2006



Source: Bureau of Epidemiology, Department of Disease Control.

Note: The Bureau of Epidemiology deployed the new data analysis method for the 1st-12th rounds of survey (1995-2006).

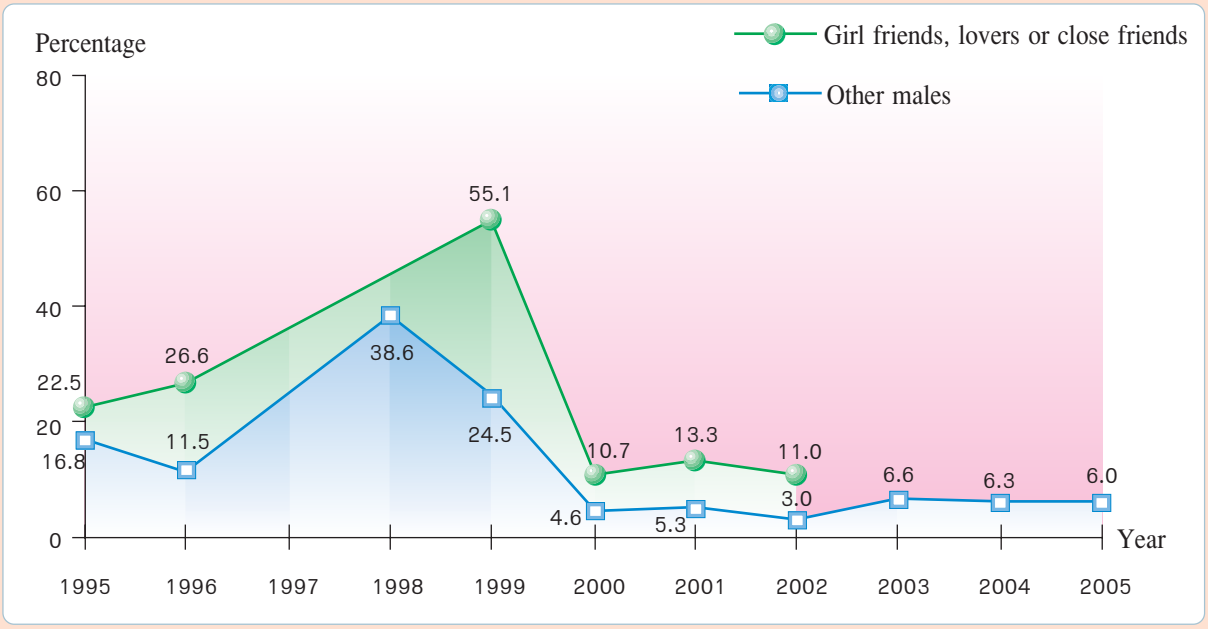
Figure 4.46 Rate of constant condom use during sexual encounters in the past year of male industrial workers according to survey on HIV/AIDS risk behaviours in Thailand, 1st-11th rounds, 1995-2005



Source: Bureau of Epidemiology Division, Department of Disease Control.

Note: The Bureau of Epidemiology deployed the new data analysis method for the 1st-11th rounds of survey (1995-2005).

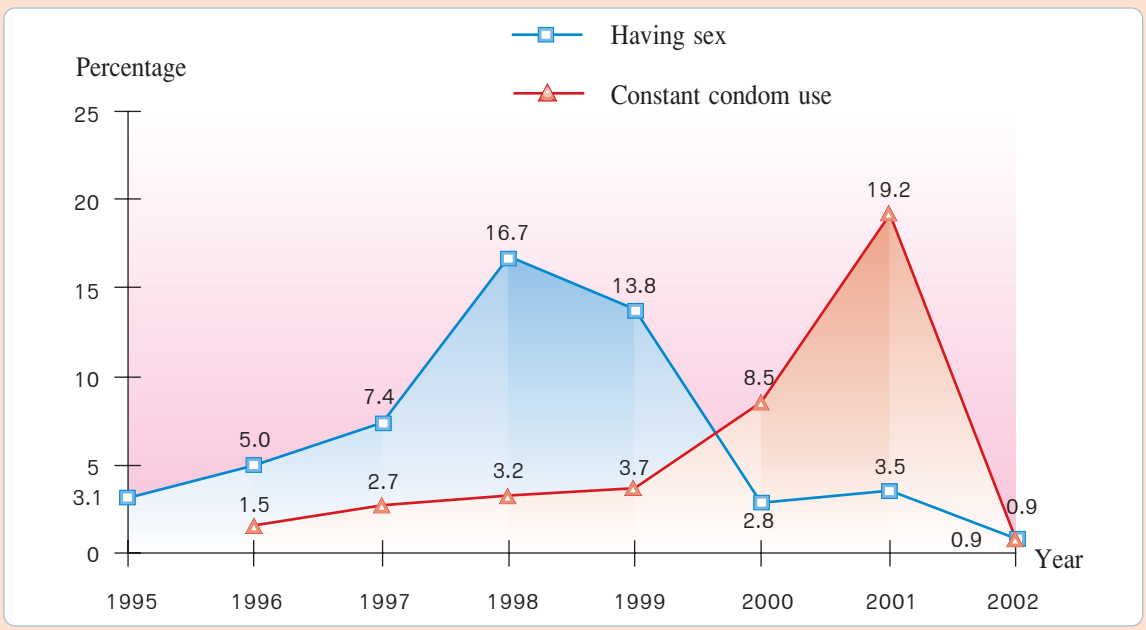
Figure 4.47 Proportion of female industrial workers having sexual encounters in the past year according to survey on HIV/AIDS risk behaviours in Thailand, 1st-11th rounds, 1995-2005



Source: Bureau of Epidemiology, Department of Disease Control.

Note: The Bureau of Epidemiology deployed the new data analysis method for the 1st-11th rounds of survey (1995-2005).

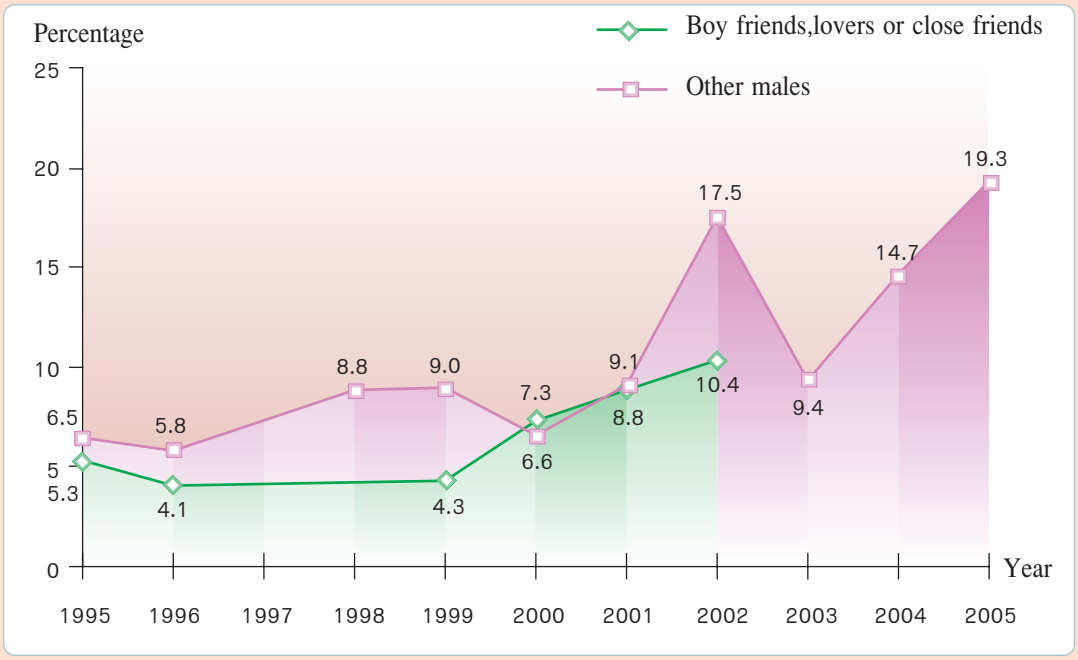
Figure 4.48 Proportion of pregnant women attending ANC having sex with other males and constant condom use rate according to survey on HIV/AIDS risk behaviour in Thailand, 1st -8th rounds, 1995-2002



Source: Bureau of Epidemiology, Department of Disease Control, MoPH.

Note: The Bureau of Epidemiology deployed the new data analysis method for the 1st-8th rounds of survey (1995-2002)

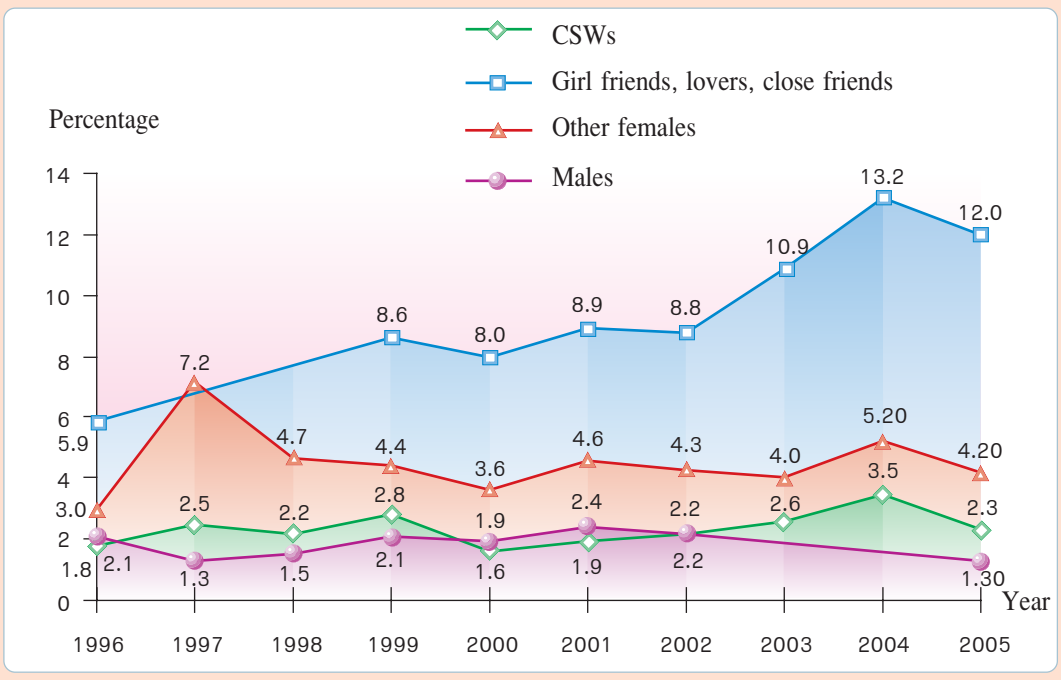
Figure 4.49 Rate of constant condom use during sexual encounters in the past year of female industrial workers according to survey HIV/AIDS risk behaviour, 1st-11th rounds, 1995-2005



Source: Bureau of Epidemiology, Department of Disease Control, MoPH.

Note: The Bureau of Epidemiology deployed the new data analysis method for the 1st-11th rounds of survey (1995-2005).

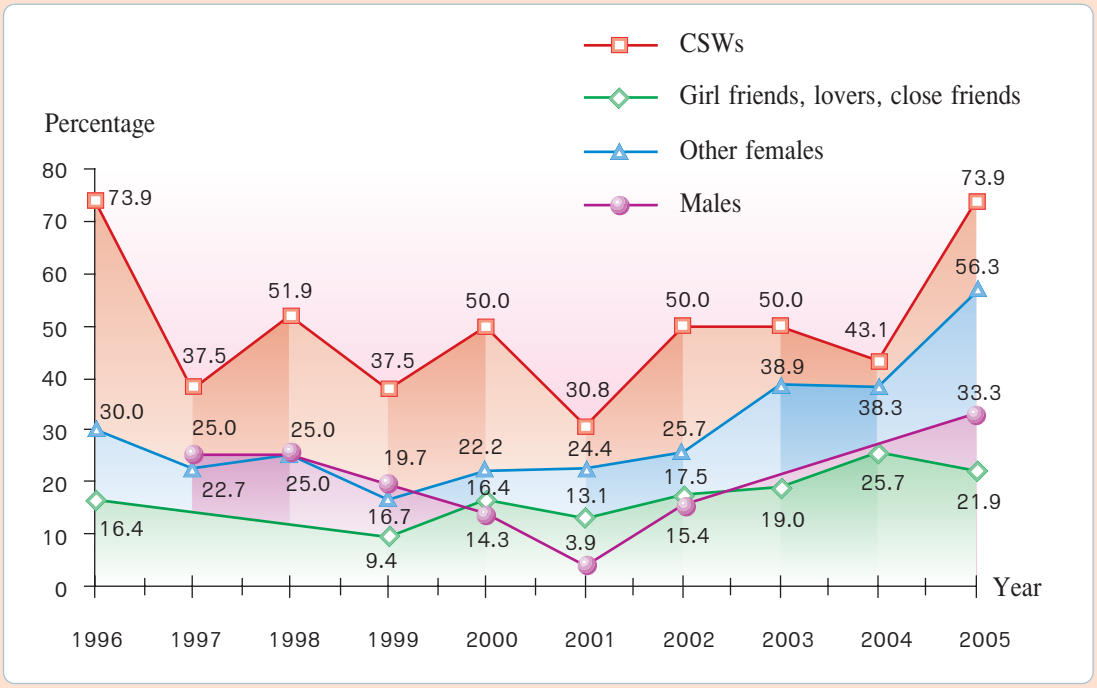
Figure 4.50 Proportion of male secondary school students (mathayomsueksa 5 or grade 11) having sex in the past year according to surveys on HIV/AIDS risk behaviours in Thailand, 2nd-11th rounds, 1996-2005



Source: Bureau of Epidemiology, Department of Disease Control, MoPH.

Note: The Bureau of Epidemiology deployed the new data analysis method for the 2nd-11th rounds of survey (1996-2005).

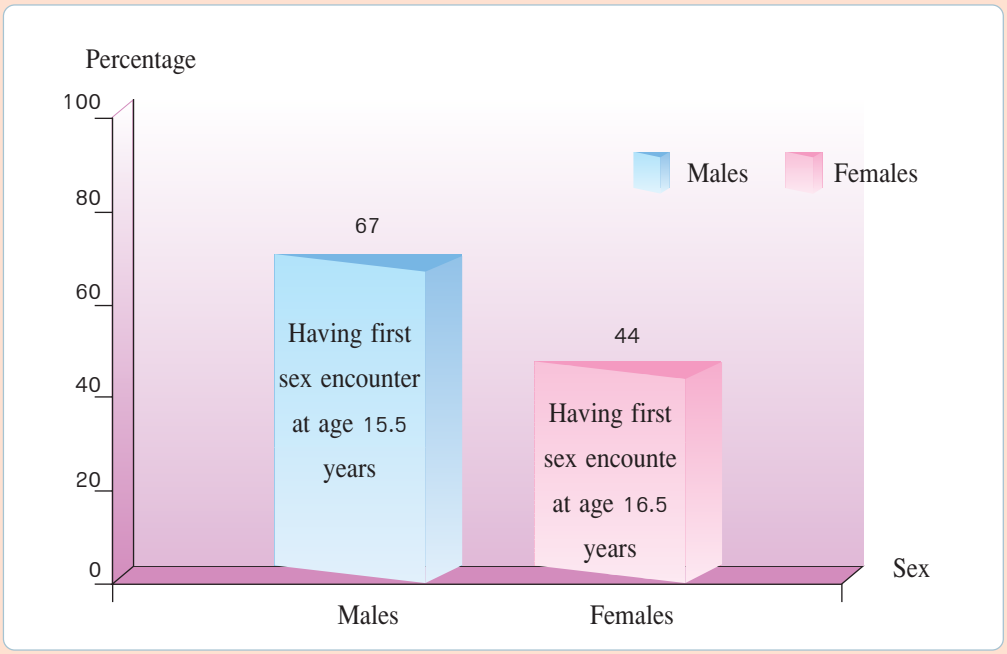
Figure 4.51 Rate of constant condom use during sexual encounters in the past year of male secondary school students (mathayomsueksa 5 or grade 11) according to survey on HIV/AIDS risk behaviours in Thailand, 2nd-11th rounds, 1996-2005



Source: Bureau of Epidemiology, Department of Disease Control.

Note: The Bureau of Epidemiology deployed the new data analysis method for the 2nd-11th rounds of survey (1996-2005).

Figure 4.52 Percentage of teenagers (18-19 yrs) having had sex experience and average age at first sex encounter in Bangkok by sex, 2006



Source: Survey on HIV/AIDS Risk Factors and Knowledge about Antiretrovirals in Thailand, 2006.

8.10 Self-Healthcare and Healthcare Seeking Behaviour

People's healthcare seeking behaviours have been changing. Overall, the proportion of people seeking care at public health facilities rose from 15.5% in 1970 to 33.7% in 1996, while the rate of self-medication decreased from 51.4% in 1970 to 37.9% in 1996; and the rate of health care seeking at private clinics and hospitals slightly fell from 22.7% in 1970 to 18.7% in 1996. Nonetheless, after the universal coverage of healthcare scheme was launched, there has been a change in the health service delivery system; the proportion of people seeking treatment at state-run health facilities has risen from 33.7% in 1996 to 46.2% in 2006, while the self-medication rate has dropped from 37.9% to 25.1% for the same period (Table 4.68).

Table 4.68 Pattern of healthcare seeking behaviours among Thai people when ill (percent)

Care or health facility attendedwhen ill	1970 IPSR	1979 IPSR	1985 IPSR	1991 HWS	1996 PHS	1996 HWS	2001 HWS	2003 HWS	2004 HWS	2006 HWS
Both rural and urban areas										
Nothing	2.7	4.2	15.9	15.9	0.5	6.9	5.4	5.9	5.3	5.1
Traditional care or others	7.7	6.3	2.4	5.7	4.2	2.8	2.5	2.9	4.4	2.3
Self-medication	51.4	42.3	28.6	38.3	17.1	37.9	24.2	21.5	20.9	25.1
Health centres	4.4	16.8	14.7	14.8	34.5	20.8	17.4	23.9	24.6	16.3
Public hospitals	11.1	10.0	32.5	12.9	19.4	12.9	34.8	33.1	30.2	29.9
Private clinics/hospitals	22.7	20.4	21.8	12.4	24.2	18.7	15.0	19.4	22.7	26.3
Rural areas										
Nothing				15.6	0.4	6.7	5.8	6.0	5.0	
Traditional care or others				5.8	6.2	2.5	2.6	3.0	4.4	
Self-medication				38.6	11.6	38.4	22.1	19.9	18.7	
Health centres				17.0	49.6	24.6	22.3	29.5	30.8	
Public hospitals				12.8	20.0	13.8	35.2	34.4	31.0	
Private clinics/hospitals				10.2	12.3	14.0	11.4	15.4	19.5	
Urban areas										
Nothing				17.9	0.7	7.5	4.4	5.4	6.1	
Traditional care or others				4.7	1.3	4.3	2.1	2.6	4.7	
Self-medication				36.9	25.2	36.0	29.4	25.6	27.0	
Health centres				2.7	12.8	3.5	5.5	9.6	7.1	
Public hospitals				13.1	18.5	8.9	33.9	30.2	28.3	
Private clinics/hospitals				24.7	41.6	39.8	24.0	29.8	32.0	

Sources: 1. IPSR: Institute for Population and Social Research, Mahidol University, 1988.
2. HWS: The Health and Welfare Survey, NSO, 1991, 1996, 2001, 2003, 2004 and 2006.
3. PHS: Provincial Health Survey, BHPP 1996.

Notes: 1. Different definition of illness in different sources.
2. More than one answer could be mentioned.

8.11 Trends in Health Behaviour of Thai People

When considering Thai people's health behaviours based on the framework of risk factors and burden of disease, i.e. food consumption, drug consumption, tobacco use, alcohol drinking, caffeinated beverage drinking, substance abuse, exercise and relaxation, driving behaviour, sex behaviour, self-health care and healthcare seeking behaviour, the trends of such factors are as follows:

Food consumption: Thai people have low fruit and vegetable intake in relation to the recommended level of fruit and vegetable consumption for health promotion and disease prevention purposes (400-800 grams/day), but have a tendency to take more high-carbohydrate and high-sugar food as well as more snacks, especially among children.

Drug consumption: Thai people tend to use medications irrationally, particularly antibiotics (overconsumption and underconsumption), and use certain medicines such as painkillers for a long period of time.

Tobacco use. The smoking prevalence of Thai people is on the rise in both males and females, the age at smoking initiation for females being lower than before.

Alcohol consumption: The rates of alcohol drinking among Thai males and females are on the rise, particularly those for beer and wine; the rapidly rising rate of caffeinated beverage consumption is also noted.

Substance abuse: The trends have been on the rise, especially for methamphetamines among youths; but after the government's strong drug suppression measures, the number of any abusers tend to be declining.

Exercise: The proportion of Thai people regularly taking exercise is unstable; however, two-thirds of regular exercisers have had such practice for more than seven months.

Relaxation: About half of the working-age population have 7-8 hours of sleep each day and the sleeping periods decline when they get older.

Rood safety: The trends in the use of safety belts (for automobile drivers) and helmets (for motorcyclists) are declining, while the rising trends are noted for drunk driving.

Sex behaviour: The rate of condom use among commercial sex workers is on the rise, but such rates among conscripts as well as male and female industrial workers when having sex with partners (other than sex workers) are unstable, essentially among teenagers who have had sex prematurely.

Self-healthcare and healthcare seeking: When sick, more Thai people tend to seek medical treatment at state health facilities, and fewer people will go to private clinics/hospitals or seek self-medication.