Adolescent Health and Development Situation in Thailand

Cataloging in Publication Data

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Adolescent health and development situation in Thailand. - - 1st ed. -
-Nakhon Pathom: Institute for Population and Social Research, Mahidol University, 2007
(Publication / Institute for Population and Social Research, Mahidol University; No. 336)

ISBN 978-974-11-0817-6

1. Adolescent. 2. Health. I. Mahidol University. Institute for Population and Social Research. II. Title. III. Series.

Published by:
Institute for Population and Social Research
Mahidol University
Salaya, Phuttamonthon
Nakhon Pathom 73170
Thailand
Telephone: 66 2 441 0201-4
Fax: 66 2 441 9333
Website: http://www.ipsr.mahidol.ac.th

Printed by:
Edison Press Products Co. Ltd.
46/20 Moo 5 Soi Sangha Ladplakao Rd. Anusaowaree Bangkhen Bangkok
Thailand 10220 Tel. 0-2971-7019-24

Layout and graphic design:
Kittilwin Wachiratriyakul

With support from the World Health Organization
South East Asia Regional Office

Preface

In Thailand, as in many countries in this region, adolescents and youth constitute a significant proportion of the population. The paths to adulthood of Thai youth are diverse and continuously evolving. Although most adolescents are physically healthy, many behaviours common among adolescents, such as alcohol abuse, cigarette smoking, poor eating habits, unsafe sex, and limited exercise put them at risk of short-term and long-term health problem. The health care seeking behaviour of adolescents is also a matter of great concern. Often young people are reluctant to use mainstream services.

The government and public needs to improve its understanding of the health and development of young people. There is a need to consolidate and review the existing situation of adolescent health and development, the government policies and programmes, and institutions working with young people.

This report was initiated and funded by the World Health Organization South East Asia Regional Office (WHO SEARO). Dr. Neena Raina, Regional Advisor for Adolescent Health and Development, WHO/SEARO, provided technical support in preparing this report. Dr. Aree Prohmmo, of the Institute for Population and Social Research, Mahidol University, was responsible for writing the report. Several consultative meetings between stakeholders working with young people were held, and the report was revised in line with participants' suggestions. The Department of Health, Ministry of Public Health, was heavily involved in the preparation of the profile, demonstrating the enthusiasm of the Ministry of Public Health towards addressing the health issues and the diverse needs of young people.

Dr. Narongsakdi Aungkasuvapala
Director General
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Preface

This profile summarizes the current situation of adolescent health and development in Thailand using numerous sources of information obtained from many organizations and institutions. Many meetings with experts and with organizations working with adolescents were held during the preparation of this report. Contributions from the Department of Health, Ministry of Public Health (MOPH), were particularly important. The country profile was prepared following the steps mentioned below:

- Prepared a framework for collecting information in consultation with stakeholders including Ministry of Public Health.
- Reviewed the existing literature (published and unpublished), survey, studies conducted on adolescents and young people and prepared a profile. Included experience with present programmes and interventions implemented by MOPH, partners and NGOs.
- Obtained consensus on the contents of the profile, and revise and finalised the profile.
- Prepared a background concept paper on health sector strategy on Adolescent Health and Development and organized consensus meeting to endorse it.

The preparation of this profile has drawn on data generated by many sources. The most important single source was the Health and Welfare Survey, conducted by the National Statistical Office. Other sources include published reports and articles, Internet sites, and unofficial documents and statistics provided by the government ministries and organizations invited to the consultative meetings. These sources are listed in the References. The profile synthesizes existing information on the health and development of adolescents in Thailand, and provides a background strategy for health sector, to improve the overall health and development of adolescents.

The Institute for Population and Social Research is grateful to the Adolescent Health and Development unit WHO South East Asia Regional Office for their generous support, which made this report possible. We hope that this profile will help shape the formulation and implementation of policies for young people.

Associate Professor Dr. Churnrurtai Kanchanachitra
Director, Institute for Population and Social Research,
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List of Abbreviations

AIDS	–	Acquire Immunodeficiency Syndrome
ASEAN	–	The Association of Southeast Asian Nations
BMA	–	Bangkok Metropolitan Administration
DOH	–	Department of Health
FC	–	Friend Corner
GDP	–	Gross Domestic Product
GOs	–	Government Organizations
HIV	–	Human Immunodeficiency Virus
ICPD	–	International Conference on Population and Development
IEC	–	Information, Education and Communication
IPSR	–	Institute for Population and Social Research, Mahidol University
MOE	–	Ministry of Education
MOPH	–	Ministry of Public Health
NESDB	–	National Economic and Social Development Board
NGOs	–	Non-government Organizations
NSO	–	National Statistical Office
OPD	–	Out Patient Department
RTIs	–	Reproductive Tract Infections
SEARO	–	WHO South-East Asia Regional Office
STDs	–	Sexually transmitted diseases
STIs	–	Sexually Transmitted Infections
UNDP	–	United Nations Development Programme
UNFPA	–	United Nations Population Fund
UNICEF	–	United Nations Children's Fund
UNESCAP	–	United Nations Economic and Social Commission for Asia and the Pacific
VHVs	–	Village Health Volunteers
WHO	–	World Health Organization

Executive summary

It is tempted to assume that adolescents are the healthiest part of the population. However, some behaviours common among adolescents such as alcohol consumption, smoking, eating disorders, substance abuse, unsafe sex, and limited exercise put them at risk. Adolescents' access to health services, particularly reproductive health services, is relatively poor. Health publications seldom provide data on adolescents as a distinct group.

WHO defines "adolescence" as ages 10-19 years and "youth" as ages 15-24 years and "young people" as ages 10-24 years. In 2004, Thailand has 10.4 million adolescents (17 percent of the total population) and 10.5 million youth (17.3 percent).

As in many countries, Thai youth currently spend longer in school than past generations. However, in 2003 only 60 percent of people in the appropriate age group attended upper secondary school. Increase cost of education is the main reason that prevents many young people to continue their education after completing compulsory school. Half of out-of-school youth aged 15-24 are employed. The most common occupation for those who are employed is agriculture.

Delayed married is becoming more common. Two third of males aged 20-24 years were unmarried in 1970. By 2000, the proportion unmarried had increased to three quarters. The corresponding figures for females were one third and over one half. However, adolescent fertility is higher in Thailand than in many neighbouring countries.

Seventy percent of Thais aged 9-14 live with both parents, 15 percent live with only one parent, and 15 percent live with no parents. Only 5 percent of youth are not covered by any health insurance scheme. The common source of insurance is the Thirty Baht Scheme.

Many youth do not spend their spare time productively. On average Thais aged 10-24 spend three hours a day watching television. Many young people have insufficient exercise. Only one in twelve young women aged 20-24 exercise at least three times per week. Forty four percent of males aged 20-24 smoke, and ten per cent drink alcohol most days.

The most important cause of serious illness and death among youth is accidents. Each month one percent of Thai young people aged 10-24 suffer injuries requiring rest or medical treatment. The leading cause of injuries is traffic accidents. Injury rates are 2-3 times higher among males than females. The second most important cause of death, besides traffic accidents, is HIV/AIDS. During the epidemic of HIV/AIDS, young men were about three times more likely to be infected than young women. However, recent trends have shown that there has been increased in the incidence of HIV/AIDS among female youth. In 2004, youth accounted for at least 10 percent of new case of AIDS.

One reason for the high morbidity and mortality from traffic accidents is limited use of protective devices. Almost 50 percent of Thais aged 10-14 who ride in the front of cars or ride motorbikes never wear seatbelts or wear motorcycle helmets. The dangerous behaviours is hammered by alcohol consumption of the drivers of motor vehicle as at least five percent (60,000 youth) always drink and drive.

Surprisingly high proportion of both male and female youth (at least two third) reported that they or their partners are currently using contraceptive methods. The two most common methods are pills and injectables. None of male youth reported that they or their partners used condoms as a method for pregnancy prevention whilst 3.5 percent of female youth or partners did so.

Youth reported having used condom for protection against sexual transmitted infection including HIV/AIDS is particularly of concern. According to surveys, only 20-30 percent of sexually active young people use condoms consistently. Despite the Hundred Percent Condom Programme, only half to two-thirds of conscripts and male factory workers report that they use condoms every time they have sex with a commercial sex worker.

A study by Ministry of Public Health in 1999 found that 41 percent of women treated for complications from abortion were aged less than 25 years. Among young persons, the main reason for having an abortion was avoiding interrupting education.

In terms of mental health of youth, the recent national survey on mental health reveals that the three most common mental disorders in youth are alcohol use disorders, major depressive disorders, and generalized anxiety disorder. Alcohol use disorders are more prevalent among male youth, about seven times higher than that of females. Whilst many more females are suffer from depressive disorders.

Adolescents' health-related behaviours indicate great needs for information and service provision. Good coverage of health services increase in health facilities and resources, high coverage of health insurance in young people are positive move in the health policy in Thailand. Increase attention has been paid to the issues of adolescent health and development. The current national health plan places emphasis on health promotion and disease prevention to all people providing a broad framework for putting plan into action. In addition inter-sectoral collaboration between principal government agencies responsible for young people such as MOPH and MOE has taken place. The Department of Health and Department of Mental Health have been working closely with MOE in designing curriculum and teaching materials as well as training of school teachers in specific concern matters have certainly indicate that adolescent issues are put at the heart of development.

Current programmes for adolescent health and development are being implemented by various organizations both GOs and NGOs. The NGOs programmes, however, are project basic and tend to cover only small and specific group of population. GOs programmes, in contrast, have larger coverage but operate in conventional ways and not designed specifically to meet the need of young and sensitive people. Counseling services, for example, have been offering to all people including adolescent concerning sex and reproductive health issues and drug abuse in most public hospitals across the country, the services are underutilized. Studies have shown that major barriers for adolescents to use the services include lack privacy and confidentiality, lack of counseling skill of staff, and inconvenient place or time of services operation.

Many programmes are concentrated in the education institutions for example sex education. This left nearly 40 per cent of out-of-school adolescents with little choices of information resources and services as many engage in non-formal employment. In addition NGOs' and GOs' programmes heavily focuses on the issues of reproductive health and sexuality, and drugs abuse, however, little programmes are dealing with problems such as traffic accident, mental health, and nutrition.

To achieve the ultimate goal for adolescent health and development as outline above, a holistic and development approach is recommended. Not only adolescents should fully participate throughout the process including planning and implementing, but also the family, schools, community, media, and various organizations at both local and national levels. More importantly need assessment of adolescents is crucial for improve adolescents' knowledge and skills appropriate to enabling them to have healthy development and prevent health problems, and to increase access to health services to meet their needs.

This profile outlined the major interventions of which the government and non-government organizations should be focusing on to improving the health and development of adolescents. These include increase access to information and skills; increase access to health services and counseling; policy and legislation to support safe and supportive environment; family and community; schools, colleges and universities; media and entertainment; improve information system and resources for adolescent health. Youth development approach whereby adolescents and youth proactively involve as part of efforts to promote their health is recommended. Moreover, multilevel approach rather than concentrating on changing the knowledge and behaviours of individual adolescents are the keys to improve their health and development.

To conclude, adolescent health and development are closely linked with their behaviour and life styles. The context in with they live their family, their schools, their workplaces and their communities also help shaping young people lives. To achieve better overall health for young people means working on a number of fronts simultaneously. Families, schools, and workplaces as well as local and central government agencies all have a role to play in improving young people's health and development.

1

Introduction

1 Introduction

1.1 Adolescence -a significant phase of health and development

Adolescence is a unique time in the life cycle that brings special challenges and opportunities. It is the time when young people develop the physical, mental, and social capacities to take up adult responsibilities (WHO, 1994). Physically, there is a spurt of growth marked by changes in size and shape of the body. Mentally and socially, young people strive to meet their basic need for love, security and appreciation and to feel valued and useful. They also acquires a sense of identity at the same time developing intense relationship with peers and interest in major decisions in life such as searching for a mate or a job. During this crucial stage of life, the issues of gender and sexuality are inevitably extremely prominent. It is also the time when young men and women adopt attitudes and behaviour that will shape their experience of life throughout its course (Gray and Punpiung, 1999). It is essential that young people receive opportunities and support for health and development.

Young people have typically had better health than people at other age groups. However, changing social and environmental conditions are placing greater strains on young people, modifying their behaviours and relationships, which lead to health problems. These health problems include the age at which sexual activity begins, whether safe sex is practiced, eating habits, levels of physical activity, and use of tobacco, alcohol and other psychoactive substances (WHO/UNFPA/UNICEF Study Group, 1999). However, not all young people are equally vulnerable. Adolescents who have had the opportunity to develop their physical, psychological, social, moral, spiritual, artistic or vocational potential are more likely to have self-esteem, knowledge and skills to behave in ways that prevent life or health-threatening problems. Health services must also be available and accessible for young people who need them.

1.2 Definition

1.2.1 Adolescence and youth

The definition of adolescence varies from society to society. In Thailand, the Child and Youth Development Plan defines young people are those aged 25 years and younger. Children are those aged 0-14 years and youth aged 15-25 years (The Office of National Commission for Young People, not dated). Internationally, the World Health Organization (WHO) defines an "adolescent" as someone aged 10-19 years, while "youth" covers the period of 15-24 years old and "young people as someone aged 10-24 years. To facilitate country comparisons, this profile adopts the WHO definition of adolescence and youth.

Attempts will be made, wherever possible, to classify young people into three subgroups: 10-14 years, 15-19 years and 20-24 years. The purpose of such classification is to observe differences in different age groups. While facing different stages of growth and development, the three age groups are exposed to different surroundings: the majority of the younger age group is in school, whereas those in the older age groups are more exposed to adult life and work experiences. Results disaggregated by gender will be presented. Ethnic minorities and migrant adolescents will not be covered in this profile, due to lack of information. These groups need special attention and approaches concerning their health and development.

1.2.2 Health and development

Health and development are essential and intertwined during the period of rapid growth of the adolescence. The definition of health and development used in this report follows the WHO's definition. Adolescent health comprises physical, mental and social well-being and not merely the absence of disease or infirmity, and it is closely related to adolescent behaviour. Health problems commonly related to behaviour include unwanted and unprotected sexual relations, eating habits, lack of physical activity, and drinking and substance abuse. Adolescent health, adolescent development is a positive concept which includes not only physical aspect, but also emotional, intellectual, social, moral, spiritual, and aesthetic. To develop to full potential, therefore, a young person requires a healthy body and mind and social interaction. They also require support from the family and society (WHO/UNFPA/UNICEF study group, 1999).

1.3 Health and development measures

In addressing the health and development of young people, it is recommended that a wide range of measure pertaining to health, both positive and negative aspects, and health-related behaviour of young people, where feasible be disaggregated by age and sex (WHO/UNFPA/ UNICEF study group, 1999). These include direct measures such as (1) mortality and morbidity of selected health problems including reproductive health such as maternal mortality ratio, adolescent fertility, knowledge and use of contraceptive, condom use, rate of abortion, and STDs and HIV infection; (2) mental health such as incidence of acute psychosis, attempted and completed suicide rate; (3) health-related behaviour such as tobacco, alcohol and other substance use, seat belt use, helmet use, sexual practices, general and oral health, diet, exercise, use of protective devices, interpersonal skills, stress management; (4) education and employment including the extent of school enrolment, employment, housing status and family structure, environmental conditions.

1.4 Organization of the profile

This country profile is divided into seven sections: introduction, adolescent demographic and socio-economic profile, health status and behaviour, health policy and programmes, identification of gaps, strategy for adolescent health and development, and conclusions. The design and scope of the report were decided through consultations with stakeholders and experts (see Annex 2 and 3). The health issues discussed in the report include morbidity and mortality, health seeking behaviour, risk behaviour, sexual and reproductive health, mental health and nutritional status.

The data used in this project were drawn from several sources including published documents, research and survey reports, internet sources, and interviews.

2

Adolescent demographic and socio-economic profile

2 Adolescent demographic and socio-economic profile

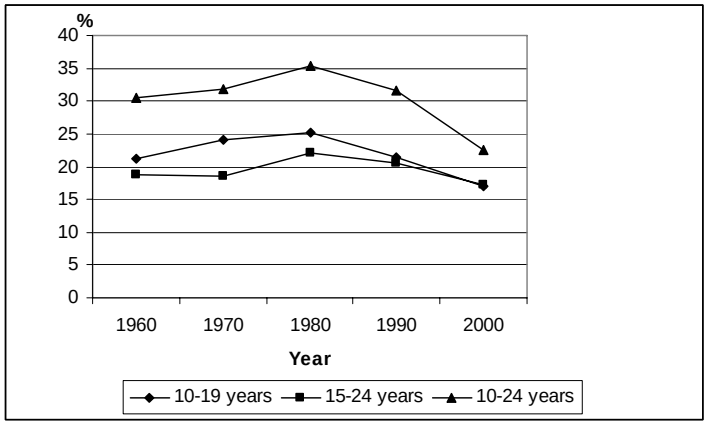
2.1 Demography

2.1.1 Age and sex composition of adolescents

The population of Thailand reached 63.7 million in 2004, with a growth rate of 0.7 per cent per year (IPSR, 2004). The dramatic decline of fertility and mortality in the last three decades has brought about a steady decline in the rate of population growth, from nearly 3 percent in the 1960s to below 1 percent at present. This will result in changing the age structure of the Thai population. Most significant will be increasing numbers and proportions of old people and declining numbers and proportions in the young age groups, including young people (NESDB, 1999; IPSR, 2003). Based on the population censes, the proportions of adolescent have increased markedly from 30 percent of the total population in 1960 which peaked in 1980 of 35 percent (see Figure 1). In terms of numbers, the number of adolescents increased from 10 million in 1960 to 17.2 million in 1990. The numbers and proportion of adolescents has leveled off in 2000 which reached 22.6 percent of the total population or 15.6 million.

The recent figures for age and sex breakdown indicated that there were about the same number of adolescents (10.47 million) and youth (10.50 million) in 2004. Males were slightly out number of females in both age groups. There were 5.40 million male adolescents and 5.08 female adolescents; 5.37 million male and 5.13 million female youth. In total, Thai young people aged 10-24 years constituted approximately 24.7 per cent of the total population. It is projected that in 2015 these age groups will number 14.2 million or 20 per cent of the total population (IPSR, 2003).

Figure 1 Percentage distribution of adolescents and youth, Thailand, 1960-2000



Source: NSO, Report of population census 1960-2000.

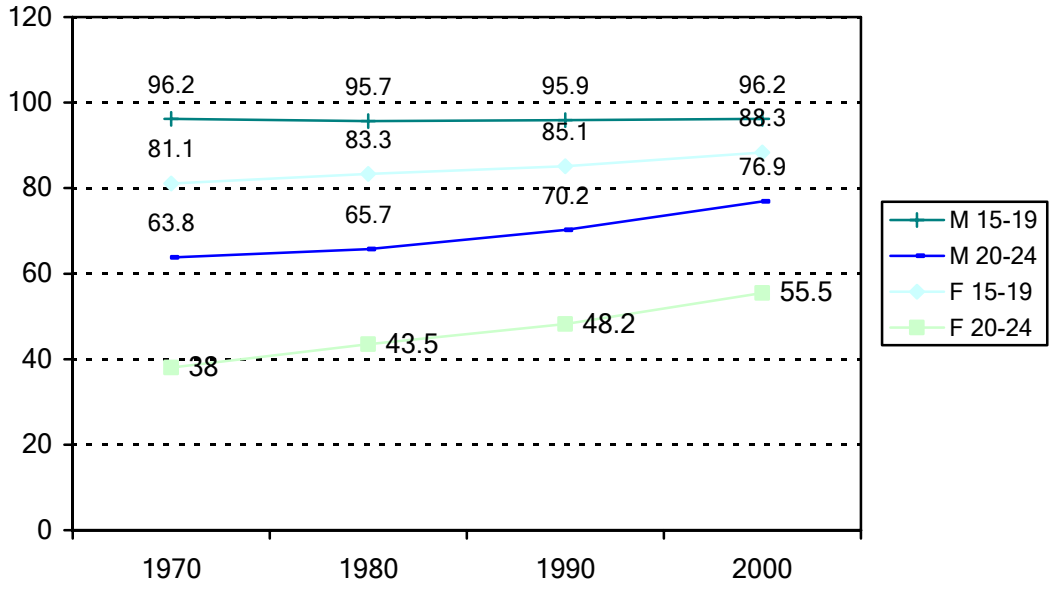
2.1.2 Marital status and age at marriage

In most societies, marriage largely determines the entry into sexual activity, especially for women. Age at marriage affects the number of years a woman is exposed to the chance of having a child (Vanden Heuvel and McDonald, 1994). Women who marry at very young age will have longer reproductive period and tend to have more children than those who marry late. Trends in numbers of never married and age at marriage among Thai adolescents have increased overtime as indicated from Tables 1 and 2.

From 1970 to 2000, the percentage of males who were still single at ages 15-19 remained the same at around 96 per cent, while the corresponding figures for females increased from 81 per cent to 88 percent. There have been increases in the percentage of unmarried persons aged 20-24, nearly two-third of males were not married compared to that of nearly half of the females (Figure 2).

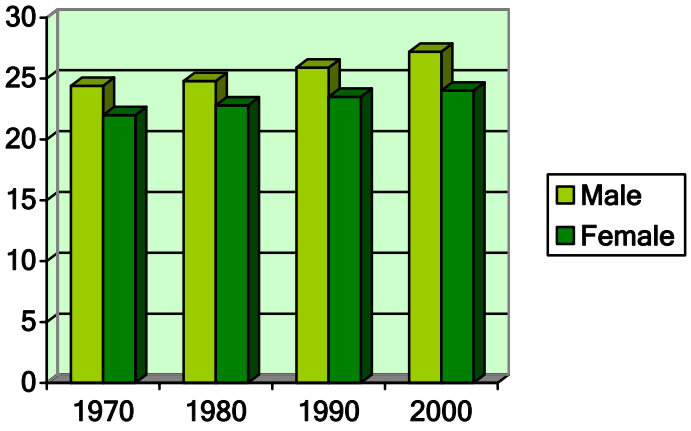
During the same period, the singulate age at marriage (the average age at first marriage, for those who marry) increased from 24.4 years to 27.2 years for men and 22.0 to 24.0 for women. The age gap between men and women was 2-3 years (Figure 3). The extended period of adolescence resulting from changing marriage age pattern for young people has raised concerns about reproductive health issues among young men and women. As adolescence has become an extended period before marriage, issues such as premarital sex and its consequences, including STDs and HIV infection, are of great concern (Metha, Groenen and Roque, 1998).

Figure 2 Percent never-married, 1970-2001



Sources: 1970-1990 NSO, undated; 2000 – NSO, 2002.

Figure 3 Average age at first marriage, 1970-2001



Sources: 1970-1990 NSO, undated, Table E; 2000 – NSO, 2002.

2.1.3 Age specific fertility

Adolescent fertility, aged 15-19 years, is relatively high in Thailand where fertility level (TFR of 1.9 children per woman) is below replacement level. The major contributing factors to the low fertility in the context of Thailand include high contraceptive use, delay marriage and increased female labour force participation (Knodel, Chanratrithirong and Debavalya, 1987). Fertility has declined substantially over the last three decades in all age groups. However, adolescent fertility has not changed at the same pace as fertility in the other age groups. In the year 1964-65, age specific fertility rate (ASFR) among women aged 15-19 was 66 per 1000 women which increased to 80 per 1000 women in 1974-75 (NSO, 1980). Thereafter, it declined to 56 per 1000 women in 1991. Fertility rate among adolescents has further declined to 31 per 1000 women in 2000. However, the rate has bounced back again to 47.3 per 1000 women in the year 2004 (MOPH, 2005). The Ministry of Public Health has recently called for public attention to tackle the root causes of these social problems.

According to UNESCAP (2005), age specific fertility rates among Thai women, aged 15 – 19, is 49 per 1000 which is relatively high compared to the regional average level of South East Asia (42 per 1000). Fertility at age 15-19 years accounts for 13 per cent of total fertility, the highest among ASEAN counties (Table 1). This relatively high fertility in young Thai people reflects the persistence of unmet needs for reproductive health among unmarried youth. Regardless of whether childbirth takes place in or outside marriage, there are serious health consequences for adolescent girls. Pregnancy at young age is a risk factor for maternal mortality, especially those living in poor conditions and where health services are lacking. Therefore, special attention for appropriate policy and programme is needed.

Table 1 Fertility at age 15-19, and total fertility, ASEAN and the United States, 2000-2005

Country	Fertility at age 15-19 (births per 1000)	Total fertility rate (births per woman)	Fertility at age 15-19 as % of total fertility
Brunei Darussalam	26	2.48	5%
Cambodia	60	4.76	6%
Indonesia	55	2.35	12%
Lao PDR	91	4.78	9%
Malaysia	18	2.90	3%
Myanmar	24	2.86	4%
Philippines	38	3.18	6%
Singapore	6	1.36	2%
Thailand	49	1.93	13%
Viet Nam	21	2.30	5%
USA	53	2.11	13%

Source: United Nations Population Division, World Population Prospects online database.

2.1.4 Living arrangements

Living arrangements may have a significant impact on adolescents' lives. Adolescents depend largely on their families, and especially their parents, for financial, emotional and psychological support. Living with parents not only means love and affection, but also supervision and guidance in time of need. Studies have shown that children who are raised by their parents or an 'intact family' are better off in terms of health and development than those who have experienced family dissolution (Waite and Lehrer, 2003). Table 2 presents data on whether parents live in the same household as children. The reasons that parents were not present in the household could be due to migration, marriage dissolution, or death of one or both parents. Unfortunately, it has not been possible to disaggregate by these different causes. In general, the majority (70 per cent) of young children ages 9-14 years old live in the same household as their parents, males had slightly higher proportion of co-residence with parents than females. One in seven children lived in the household with either father or mother, and the same as children without both parents at home. Those whose parents were not at home may be looked after by other family members such as grandparents or relatives. This is a common practice in Thailand.

Table 2 Co-residence with parents among children aged 9-14 year, 2002

Co-residence	Male		Female		Total	
	Number (000)	%	Number (000)	%	Number (000)	%
Both parents	2350.0	70.6	2248.4	69.7	4598.5	70.2
Father only	86.0	2.6	76.1	2.4	162.0	2.5
Mother only	402.2	12.1	431.7	13.4	834.0	12.7
None	489.5	14.7	469.5	14.6	958.9	14.6
Total	3327.7	100.0	3225.7	100.0	6553.4	100.0

Source: Calculated from the data from Children and Youth Survey 2002, Table 3, page 15.

2.1.5 Migration

Studies have shown that young Thai people are more likely than other age groups to move from rural areas to cities, including Bangkok (Pejaranonda, Santipaporn and Guest 1995; Isarabhakdi, 2000). For example, 40 per cent of all persons who migrated between 1985 and 1990 were aged between 15 and 24; the corresponding figures for rural-urban migrants and migrants to Bangkok were 51 and 53 per cent, respectively. Female migrants outnumber males. In 1990, one third of males, and slightly more than one third of females, aged 15-19 migrated from rural areas to Bangkok (Pejaranonda, Santipaporn and Guest 1995).

In 2004, migrant youth (15-24 years) accounted for 34.5 percent, the largest group of people migrated in Thailand and women were about ten percent higher than men who were likely to migrate (Table 3). A survey of 1,228 youth aged 15-24 in the North and Northeast region reveal that 45 per cent had ever moved to Bangkok for at least one month and another half had ever moved to other cities. The main reasons that youth lived away from home were economic (Isarabhakdi, 2000). The majority of young people who migrated to urban areas tend to engage in production, transport, and other services (NSO 1993, cited in Pejaranonda, Santipaporn and Guest 1995; Isarabhakdi, 2000).

Table 3 Migration status by age and sex, 2004 (%)

	Migrants			Non-migrants		
Age	Total	Male	Female	Total	Male	Female
0-14	12.9	11.7	14.4	25.0	25.6	24.4
15-24	34.5	30.9	39.0	16.2	16.7	15.7
25-34	30.7	33.2	27.4	16.6	16.7	16.4
35-59	20.1	22.4	17.2	31.8	31.4	32.3
60+	1.8	1.8	2.0	10.4	9.6	11.2
Total	100	100	100	100	100	100

Source: NSO, 2004, Report of Survey of migration, April to June 2004, Table b, page 21.

2.2 Socio-Economic Status

2.2.1 Education

A formal education system was introduced to Thailand in 1932. Initially, it began with a four-year elementary education plus another six- to eight-year of schooling for those who qualified and wanted to continue. The system of education was revised in 1936 which classified education into five levels: kindergarten, primary, secondary, pre-university and higher education. In 1951, special and adult education was also added to the system. In the late 1980s, Thailand set a goal that every child receives primary level by 2000 (MOE, 1999). A new education reform began in 1999 when the basic compulsory education was offered free to all Thai children.

The current system of formal education is divided into 2 levels: basic education and higher education. Basic education provides 12 years schooling before higher education. The first nine years are compulsory and provided free for all children from ages 7-16. Started in 2002 another three years of basic education was added. This means that the compulsory education is extended to 12 years. Pre-school for the children ages 3-5, primary for ages 6-11 (grades 1-6), lower secondary for ages 12-14 (grades 7-9) and upper secondary for the ages of 15-17 (grades 10-12), is available. Higher education is divided into 2 levels: lower-than-degree and degree levels. At the degree level, it is generally provided in a 4-year program for the bachelor degree. At present, the Basic Education Commission under the Ministry of Education supervises the basic education and the National Commission for Higher Education (formerly Ministry of University Affairs) supervises higher education, which offers an associate degree, a four-year bachelor's degree, and a two to five-year postgraduate degree.

Besides formal education through the school system, the government has also provided non-formal education, some forms of which are foundation education, professional education, information and data services, and distance learning for professional certificates. Primary oversight is provided by the Office of Non-Formal Education Commission, together with the Office of the Private Education Commission, the Office of the Vocational Education Commission, and others. Informal education is provided in the form of library services, reading places, radio, television, and magazines. Throughout the country there are 843 public libraries and 4,000 libraries belonging to various agencies (MOE, 2005).

Primary education

Some progress has been made regarding primary school enrolment. During the period between 1980 and 1990, the net enrolment rates increased from 77.2 per cent and 80.9 per cent among boys and from 74.6 per cent to 81.0 per cent among girls (United Nations 1996). Recent trends in gross and net enrolment are presented in Table 4. The gross enrolment ratios reach 96 per cent for males and 92 per cent for females during the period 1998/1999. The ratios then increased gradually for both males and females. However, males had slightly higher enrolment ratios than that of females.

Table 4 Gross and net enrolment ratios for primary education, by gender, 1989-2002

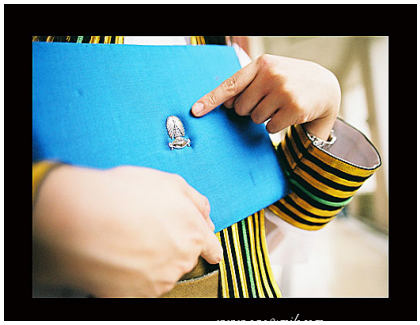
	Gross enrollment			Net enrollment		
Year	Total	Male	Female	Total	Male	Female
1998/1999	94	96	92	80	82	78
1999/2000	95	97	92	84	86	82
2000/2001	96	98	94	87	88	85
2001/2002	98	100	96	86	87	85

Source : www.uis.unesco.org/Template/html/Exeltables/WEI2002/table21.xls, retrieved on 5/9/2004.

Note : Gross primary enrolment ratio refers to the percentage of students enrolled in Grade 1 to Grade 6, regardless of age, as a percentage of population aged 6 to 11 years. Net primary enrolment ratio refers to the percentage of students aged 6-11 years enrolled in Grade 1 to Grade 6 as a percentage of population aged 6 to 11 years. UNESCO adjusts the data for, which is why the rates are lower than many published enrollment rates.

Secondary education

In the Thai education system, secondary education level is divided into two levels: lower secondary (Grades 7 to 9), and upper secondary (Grades 10-12). The official ages for attending secondary education are 12-17 years. At the upper secondary level, there are two streams of study: academic and vocational. The academic stream is supposed to prepare students for further study at universities, whereas the aims of vocational stream are mainly to provide specialize training to those who want to enter into the labour market.



Gross enrolment rates in 2000 were 85 per cent for lower secondary but only 63 per cent for upper secondary schools. Females had slightly higher rates than males for both levels (Table 5). However, the proportion of young people attending school decreases with age. At 15-19 years of age, 66 per cent were attending school, and only 16 per cent among the age groups 20-24 (Figure 4). The 2002 Youth Survey asked school students at grades 6, 9, and 12 whether they would like to continue to the next level. Virtually all (97 per cent) said that they would (NSO, 2002). It appears that there is significant unmet need for secondary schooling.

Over the period between 1999 and 2003, there has been a slight increase in enrolment ratio from 68.7 percent to 71.1 percent (Table 6). At the lower secondary level, the enrolment ratio reached at high rate at 83 percent in 1999 and remained unchanged since then. The enrolment ratio at the upper secondary level lag behind the lower secondary level and only reached 58 percent in 2003 and again with a very slow pace.

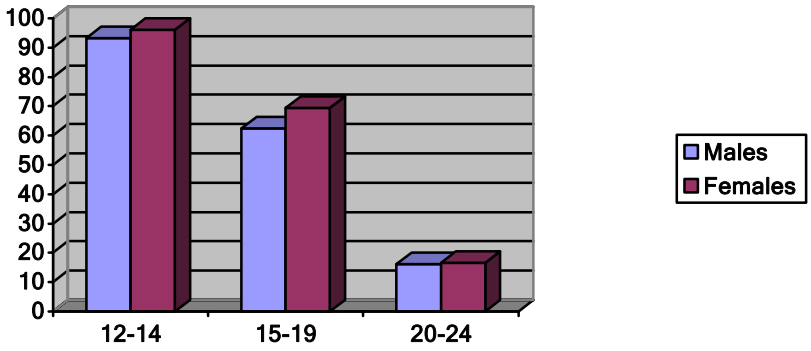
Table 5 Gross entry rates to secondary education by sex, 2000

Level	Total	Male	Female
Lower secondary	85	83	88
Upper secondary	63	60	66

Source: www.uis.unesco.org, Table 24. (Administrative data)

Note : Gross entry rate refers to new entrants as a percentage of total population at typical age of entry.

Figure 4 youth currently attending educational (%)



Source: Calculated from NSO, 2003, *Report of the Children and Youth Survey 2002* (Bangkok) p23, table 4

Higher education

Higher education comprises two levels: the diploma level and degree level. Studies at the diploma level require one to four years. The degree level comprises undergraduate and graduate degrees. Undergraduate programmes normally require a maximum of four years of study, with the exception of subjects such as architecture, medicine, and dentistry, which require five to six years of study. Graduate programmes include a one-year graduate diploma, a one- or two-year master degree, and a minimum of three-year doctoral degree.

In 2003, approximately 1.2 million students enrolled in higher education in Thailand. The majority of them studied at bachelor degree level in public institutions. However the share of private institutions in providing higher education is relatively large, with one out of five students enrolled in a private institution (http://www.mua.go.th/infodata/). Again there has been gradually increased in the enrolment ratio in higher education from 22.7 percent in 1999 to 29.5 percent in 2003 (Table 6). While demand for higher education has increased substantially, barriers to entry into education particularly financial constraints adversely affect many talented persons.

The cost of tertiary education has increased markedly. For instance, between 1992 and 1997 the real cost of education increased by 17 percent (NSO, 1997).

Table 6 Enrolment ratios by level of education in Thailand, 1999-2003 (%)

Enrolment ratio*	Age (years)	1999	2000	2001	2002	2003
Pre-primary	3-5	96.8	95.8	93.1	90.6	87.7
Primary	6-11	102.4	103.2	103.8	104.8	104.4
Secondary	12-17	68.7	69.7	70.6	68.6	71.7
- Lower secondary	12-14	83.5	82.8	82.2	82.2	84.6
- Upper secondary	15-17	55.3	57.3	59.3	54.8	58.6
• Academic	15-17	33.2	36.6	38.9	38.8	37.5
• Vocational	15-17	22.1	20.7	20.4	16.0	21.0
Higher	18-21	22.7	24.9	26.1	27.4	29.5

Note: * the number of students as percentage to school aged population. Excluding students enrolled through open admission at graduate degree level, ecclesiastic education of the non-formal school system and Ratjabhat Institute.

Source: Education statistics in Thailand, academic year 1999-2003, Office of the National Education Commission, Ministry of Education.

2.2.2 Employment

The 2002 Health and Welfare Survey reported that, among 11.3 million of youth aged 15-24, about half had worked during the 12 months before the survey, with 10 per cent more males employed than females. The two major sectors for youth were agriculture and services (NSO, 2003).

As summarized in Table 7, the most common occupation for employed youth was skilled agricultural work for both males (one in two) and females (one in three). About one in five female youth were service workers, while the corresponding figure for males was one in ten. Only a small percentage of youth are engaged in occupation such as professional, technicians and clerk. For these occupations, however, the participation rates of women were about two times higher than men. This reflects to certain extent that youth still had relatively low education levels. The high participation in unskilled workers among youth reflects the low education attainment of the workforce in Thailand which has largely been considered as the major factor contributing to financial and economic crises in 1997 and the main obstacle to economic recovery (UNESCAP, 2000).

Table 7 Occupation for youth not in education, 2002

Occupation	Males (%)		Females (%)	
	15-19	20-24	15-19	20-24
Professional	0.2	2.1	0.4	3.6
Technicians	0.4	2.2	1.7	5.2
Clerks	0.7	2.1	2.7	7.2
Service workers	9.7	8.6	18.4	16.7
Skilled agricultural	47.9	42.1	40.0	33.4
Crafts	15.6	18.3	11.8	14.2
Plant and machinery operators	6.5	11.2	9.1	10.4
Elementary occupations	18.9	13.4	16.0	9.3
Total	100.0	100.0	100.0	100.0

Source: Calculated from NSO, 2003, *Report of the Children and Youth Survey 2002* (Bangkok) p173, table 22

2.2.3 Poverty

It has been documented that the number of people who live in poverty has decreased over the last three decades (NESDB, 2003). The official registration of poor people nationwide reveals that in December 2003 there were at least 8 million poor people in Thailand with about 41 per cent of them living in the poorest region, the Northeast (Department of Provincial Administration, 2004, cited by Kittisuksathit, 2004).

While no data on the poverty among adolescents are available, the administrative data from the Ministry of Education on the number of students who lack educational qualification is illuminating. In 2003, as many as 3.7 million students in Grade 5 to Grade 9 lacked essential items such school uniforms, books, stationery and lunch (Table 8). Among them, over one million could not afford to buy or have lunch at school. Altogether, 1.3 million students lacked books or textbooks. The number lacking at least three items was only slightly less than one million. An inability to acquire these necessities has a tremendous impact on students' ability to learn and on education outcomes.

Table 8 Number of students lacking essential educational items, by level of education, 2003

Level	Uniform	Stationery	Book	Lunch	Three or more items	Total number of students
Grade 5	447,440	447,141	475,967	396,157	343,534	760,991
Grade 6	445,857	442,722	470,358	391,064	339,719	766,182
Grade 7	139,268	130,783	145,959	98,981	95,542	789,519
Grade 8	117,168	109,243	115,722	84,580	80,603	717,360
Grade 9	104,178	100,830	104,953	77,839	74,053	675,790
Total	1,253,911	1,230,719	1,312,959	1,048,621	933,451	3,709,842

Source: Office of the Basic Education Commission, Education Information 2003, Table 12, page 17

3

Adolescent health status and behaviours

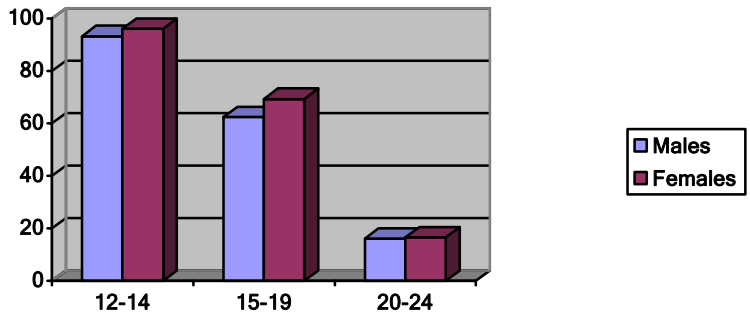
3 Adolescent health status and behaviours

This section describes adolescent health status and behaviour. Measures of health status include mortality and self-reported morbidity. Two main sources of data were used in this section: Verbal Autopsy Study on Causes of Death 2000 by Choprapawon et al (2003), and estimates from the nationally representative Health and Welfare Survey 2003, conducted by the National Statistical Office (NSO, 2004a). The estimates from the Health and Welfare Survey were calculated by the author.

3.1 Morbidity

National age-specific morbidity statistics are not available. Some data on self-reported morbidity were drawn from the Health and Welfare Survey 2003. The data indicate that one out of ten adolescents experienced illness in the month before the survey (Figure 5). The self-reported illness of females is marginally higher than that of males. There are small differences in self-reported morbidity in the three age groups.

Figure 5 Youth who suffered an injury requiring rest or medical treatment in the month before the 2003 Health and Welfare Survey (%)



Source: Calculated from NSO, 2003, Report of the Children and Youth Survey 2002 (Bangkok) p23, table 4

3.1.1 Causes of illness

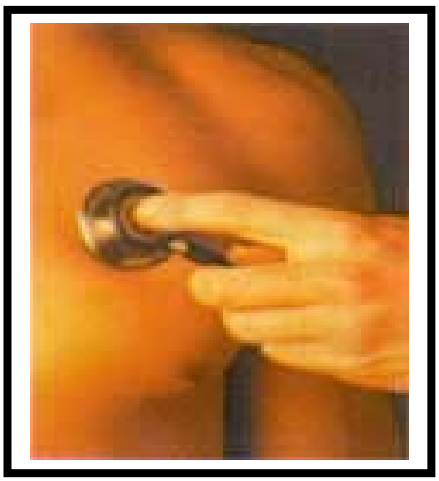
Table 9 gives causes of illnesses among those who were ill in the last month. The table indicates that diseases of respiratory system are the most common cause of ill-health for both males and females in all age groups. These diseases are particularly common for the age group 10-14 years. The second most common cause of ill-health is diseases of the digestive system. The survey shows no HIV. This is probably due to under-reporting. Other sources (Jenkins et al, 2002) show a prevalence rate of 2 per cent among youth.

Table 9 Type of illness, for youth who were ill in the month before the survey (%)

Type of illness	Males			Females		
	10-14	15-19	20-24	10-14	15-19	20-24
Diseases of the respiratory system	68.8	52.4	46.2	61.8	39.4	46.6
Diseases of the digestive system	10.9	9.3	15.7	13.6	13.9	11.2
Diseases of the urinary system	0.0	0.7	2.6	1.0	1.0	5.0
Cardiovascular diseases	0.2	0.7	0.0	0.2	1.3	0.4
Infectious diseases	3.8	5.1	0.4	3.1	3.2	2.4
Diseases of skin	0.9	0.8	0.5	1.3	1.8	0.7
Allergic conditions	1.7	2.7	2.2	2.1	3.9	1.1
Diseases of oral cavity, ear, nose, throat, eye	3.2	5.2	5.5	1.9	6.8	4.4
Diseases of female genital organ	0.0	0.0	0.0	1.1	5.8	4.8
Conditions related to delivery	0.0	0.0	0.0	0.0	1.6	0.9
Diseases of endocrine system, metabolic diseases, and nutritional status	0.0	1.0	4.8	1.6	1.0	2.6
Diseases of musculoskeletal system and connective tissue	1.2	3.2	4.9	1.9	3.6	4.2
Diseases of the nervous system and mental disorders	0.3	2.2	1.8	0.5	2.4	0.8
Ill-defined conditions	7.1	12.3	12.8	9.1	13.6	13.6
Others	1.9	4.2	2.8	0.7	0.4	1.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
n (unweighted)	333	212	187	329	239	239
n (weighted)	286,712	251,570	220,779	276,349	243,424	322,664

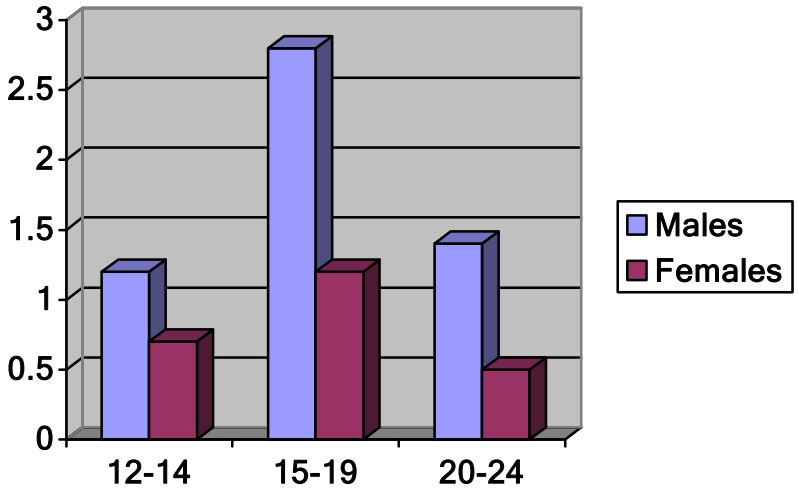
Source: Calculated from data from the 2003 Health and Welfare Survey.

3.1.2 Chronic disease



At least one in twenty adolescents suffered from chronic diseases, with a slightly higher proportion of women than men, and an increase with age (Figure 6). Allergic conditions were the most common chronic illness among adolescents of all age groups. The diseases of respiratory system and digestive system were also particularly prevalent among younger adolescents. The diseases of nervous system and mental disorders were among the leading chronic conditions particularly in the age group of 20-24 years, especially among women (Table 10).

Figure 6 Percent of youth with chronic conditions



Source: Calculated from data from the 2003 Health and Welfare Survey

Table 10 Type of chronic condition, for youth with a chronic condition (%)

Type of chronic condition	Males			Females		
	10-14	15-19	20-24	10-14	15-19	20-24
Diseases of the respiratory system	26.3	26.2	20.8	28.6	12.9	12.6
Diseases of the digestive system	10.7	8.7	19.7	8.2	17.1	19.6
Diseases of the urinary system	3.7	0.9	1.1	1.4	0.3	5.5
Cardiovascular diseases	0.9	8.4	3.5	3.1	5.7	4.4
Infectious diseases	0.1	0.0	1.0	0.0	0.5	2.3
Diseases of skin	2.6	2.3	2.0	2.6	2.2	0.3
Allergic conditions	34.3	23.3	15.1	17.9	22.6	17.7
Diseases of oral cavity, ear, nose, throat, eye	2.1	2.4	1.3	5.3	4.5	2.4
Diseases of female genital organ	0.0	0.0	0.0	0.0	4.3	0.5
Diseases of endocrine system, metabolic, and nutritional status	0.0	0.0	0.0	0.0	0.0	0.0
Diseases of musculoskeletal system and connective tissue	3.9	7.7	8.1	15.7	8.8	12.3
Diseases of the nervous system and mental disorders	2.4	4.6	10.4	1.1	2.0	4.6
Ill-defined conditions	6.4	7.5	12.3	11.3	12.7	15.5
Total	6.6	8.0	4.6	4.9	6.3	2.2
n (unweighted)	*158*	*139*	*112*	*165*	*154*	*159*
n (weighted)	*132,527*	*127,012*	*164,107*	*120,377*	*169,923*	*251,799*

Source: Calculated from data from the 2003 Health and Welfare Survey

3.1.3 Injury

WHO defines injury as any unintentional or intentional damage to the body resulting from acute exposure to thermal, mechanical, electrical, or chemical energy or from the absence of essentials such as heat or oxygen. Injury is one of the leading causes of death and disability worldwide. In Thailand, injury has become the second common cause of death following neoplasm (MOPH, 2004). Data from the national survey revealed that only about one per cent of young people aged 11-24 years reported suffering injuries that required rest or medical treatment in the previous month. The rate is slightly higher among males than among females for all age groups (Table 11). Traffic accidents are the leading cause of injury for both sexes and in all age groups, especially among youth aged 20-24 years which caused about two-third of all injury (Table 12).

Table 11 Percent of youth who suffered an injury requiring rest or medical treatment in the month before the 2003 Health and Welfare Survey

Age	Males	Females
10-14	1.2	0.7
15-19	2.8	1.2
20-24	1.4	0.5
n (unweighted)	*7,660*	*7,726*
n (weighted)	*8,434,661*	*8,211,638*

Source: Calculated from data from the 2003 Health and Welfare Survey

Table 12 Cause of injury, for youth suffering an injury (%)

Cause of injury	Males			Females		
	10-14	15-19	20-24	10-14	15-19	20-24
Slip	19.7	4.6	0.0	8.7	0.0	0.0
Sharp object	17.5	2.0	1.8	21.1	43.2	43.6
Burn	15.2	0.0	0.0	0.0	0.8	0.0
Animal	8.1	2.6	1.0	38.6	10.2	0.0
Traffic accident	26.9	69.6	92.2	19.7	44.6	55.8
Electric shock	0.0	0.0	0.0	0.0	0.0	0.0
Sport	0.0	0.0	0.0	0.0	0.3	0.0
Assault	7.8	11.0	4.3	0.0	0.0	0.0
Collision	4.5	2.8	0.7	0.0	0.9	0.0
Fall from height	0.0	0.0	0.0	8.9	0.0	0.0
Work-related	0.3	4.7	0.0	3.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
n (unweighted)	*36*	*47*	*34*	*29*	*27*	*18*
n (weighted)	*33,241*	*79,191*	*39,796*	*18,782*	*32,688*	*13,972*

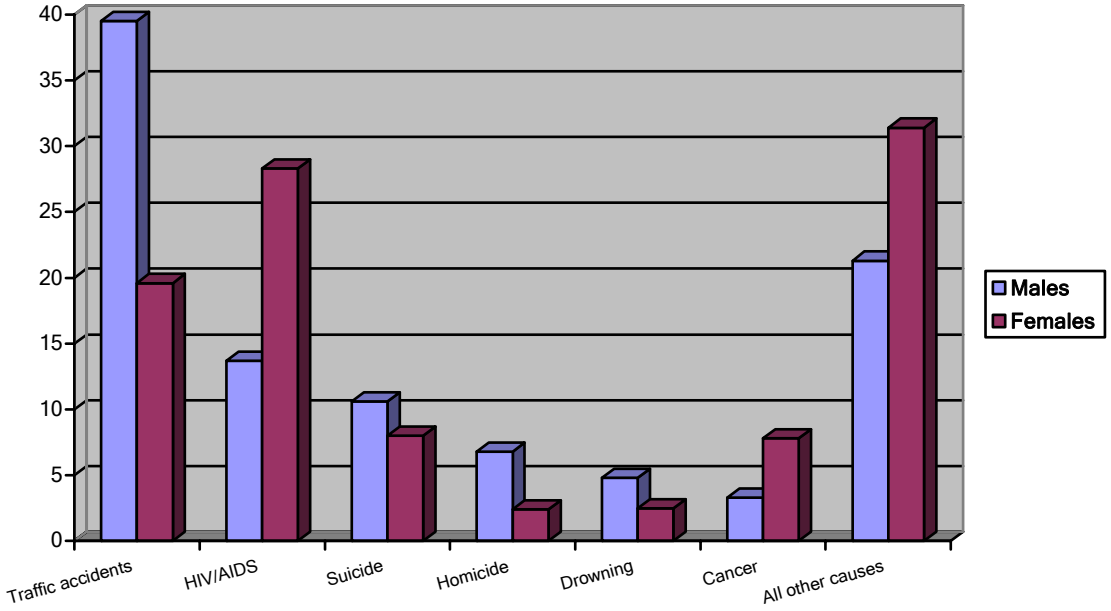
Source: Calculated from data from the 2003 Health and Welfare Survey

3.2 Mortality

This section presents causes of death. The data were drawn from the Verbal Autopsy Study on Causes of Death in Thailand (Choprapawon et al. 2000). The study verified causes of all deaths that occurred between 1 July 1997 and 30 June 1998. Overall, four leading causes of death of Thai people are infectious diseases, including HIV/AIDS, cardiovascular diseases, cancer, and lower respiratory diseases. Among youth, causes of death, in order of importance, are traffic accidents, HIV/AIDS, suicide, homicide, drowning, and cancer (Table 18). It is also observed that two-thirds of deaths in youth are caused by unintentional and intentional injuries. Traffic accidents caused many more deaths among males than among females. There are many factors that contribute to high deaths due to accidents including drunken driving, low use of seatbelt and crash helmet while riding motor vehicles.

Deaths due to HIV/AIDS are much higher in females than males, (28% in females as compared to 14% in males). Increase in sexual activity among adolescents and especially unprotected sex may have contributed to the alarming cause of deaths due to the diseases. Deaths caused by cancer appear to be higher in females than males.

Figure 7 Leading causes of death among youth aged 15-24 (%)



Source: Chanpen Chopraphawon, The Rural Doctor volume 25 issue 295 November 2003 [in Thai], cited in THR p91.

Maternal mortality is an important indicator reflecting not only health status of the population, but also access and adequacy of health care. However, information on maternal mortality and cause of deaths are underreporting under the vital registration system. A nationwide reporting system of maternal and perinatal deaths under the Safe Motherhood programme was introduced in 1997. However, the reporting system was only included public health facilities under the administration of MOPH in 12 regions cover 75 provinces and some areas in Bangkok (Maternal and Child Health Group, 2004). Based on this system, 638,928 women gave births in 2003. Women under 20 years of ages accounted for about 13 percent. Maternal mortality rates dropped from 23.79 per 100000 live births in 2001 to 20.63 in 2003. The reported total number of maternal deaths in the same period was 153 and 132 persons respectively. Complications in childbirth was the major cause that lead to maternal deaths. These, in order of importance, include heamorrhoea (27.78%), hypentensive disorders (16.67%), amniotic fluid embolism (11.9%), and sepsis (8.73%).

3.3 Use of health services

The majority of young people who reported being ill in the month before the 2003 Health and Welfare Survey sought care for their illness. Government health facilities (hospital and health center) were the main source for health care among adolescents, especially those aged 10-14 years. Private sources and self-treatment played a more important role among older age groups (Table 13).

As noted above, there has been an increase in sexual and reproductive health issues and increase risk of STIs among young people. Self-treatment may not be an appropriate source of health care for such conditions. Health services are available at the government health facilities, but these facilities are under use by adolescents. Studies have shown that the underused of public health facilities is attributable to factors that relate to health providers and adolescents themselves. Lack of skills and knowledge about adolescents are among many obstacles that health providers face in trying to reach this group. Lack of privacy and confidentiality are the main factors for underutilization of health services by the adolescents.

Table 13 Source of outpatient treatment, for youth who were ill in the month before the survey (%)

Source of treatment	Males			Females		
	10-14	15-19	20-24	10-14	15-19	20-24
None	5.5	10.4	5.8	3.1	13.3	8.6
Traditional healer*	0.8	1.6	1.7	0.0	1.8	0.2
Buy medicine, self-treat	17.0	32.9	28.4	26.3	27.9	23.4
Health centre	37.2	18.5	14.1	30.7	18.6	16.5
Government hospital	22.3	23.0	28.4	26.7	22.6	29.5
Private clinic	9.5	11.5	15.3	9.7	9.2	11.5
Private hospital	7.2	1.6	4.8	2.2	6.0	9.0
Other	0.5	0.5	1.3	1.4	0.6	1.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
n (unweighted)	*333*	*212*	*187*	*329*	*239*	*239*
n (weighted)	*286,712*	*251,570*	*220,779*	*276,349*	*243,424*	*322,664*

Note: *Also includes use of traditional medicine.

Source: Calculated from data from the 2003 Health and Welfare Survey.

For the in-patient treatment in the last year, the majority of adolescents used public health facilities (Table 14). High use of public health facilities for in-patient services may be due to high coverage of health insurance in young people.

Table 14 Source of in-patient treatment, for youth who were in-patients in the year before the survey (%)

Source of treatment	Males			Females		
	10-14	15-19	20-24	10-14	15-19	20-24
Government hospital	78.5	93.7	76.8	85.1	93.7	89.0
Private hospital	21.0	6.3	23.2	14.9	6.3	11.0
Other	0.5	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
n (unweighted)	*161*	*123*	*64*	*113*	*205*	*206*
n (weighted)	*138,526*	*151,128*	*83,602*	*88,852*	*129,382*	*314,309*

Source: Calculated from data from the 2003 Health and Welfare Survey

3.4 Coverage of health insurance

Overall, less than five per cent of adolescents were not covered by any health insurance schemes, with the proportion increasing with age (see Table 15). The majority of both sexes and age groups hold the gold health card, which entitles the holder to free health care at the government health facilities. At least one in five youth aged 20-24 years were covered by social security schemes. This reflects the fact that many youth are employed in the formal labour market, and qualify for health insurance under the social security scheme.

Table 15 Percent of youth covered by health insurance schemes

	Males			Females		
	10-14	15-19	20-24	10-14	15-19	20-24
None	3.6	5.0	5.7	3.3	5.2	4.9
CSMBS	7.5	10.1	2.5	9.7	7.3	4.0
Social security	0.2	3.8	15.5	0.2	3.8	21.3
Gold Card	87.4	79.6	74.2	85.8	82.0	67.4
Other	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
n (unweighted)	*3,149*	*2,474*	*2,037*	*3,124*	*2,495*	*2,107*
n (weighted)	*2,718,507*	*2,802,319*	*2,913,835*	*2,656,752*	*2,728,023*	*2,826,864*

Source: Calculated from data from the 2003 Health and Welfare Survey.

Note:

1. CSMBS refers to Civil Servants' Medical Benefits Scheme. Under CSMBS scheme, civil servants, their children under 18 years and their parents are entitled to receive free health care.
2. Social security scheme, by law, employees in companies or firms which employ at least 20 persons are entitle to be covered. Contributions are taken from employers, employees and government.
3. The gold card is part of the universal health insurance scheme or 30 baht scheme. Those who hold a gold card are entitled to free health care.

3.5 Health behaviours

3.5.1 Use of spare time by adolescents

Adolescents need to perform a wide range of activities in order to stimulate their growth and development. According to the Children and Youth Survey 2002 (NSO, 2003: 34), the majority of adolescents (88 per cent) spent their free time watching television or video, followed by listening to radio and music (28 per cent), socializing with friends (27 per cent), and reading books and library study (25 per cent). The average time spent per day doing activities is presenting in Table 16. Adolescents spend about three hours per day watching television or videos. Studies have shown that the amount of time children spend watching television or videos and playing video games correlates with aggressive behaviour (Gottlieb, 2001). Thai television often shows programs that are not suitable for young people and many of the programs contain violence (Pipitkul and Gunpai, 2004).

Table 16 Activities of youth (hours per day)

Activities	Males		Females	
	10-14	15-24	10-14	15-24
Watching TV, video	2.9	3.1	3.0	2.9
Using computers	1.9	2.0	1.2	1.9
Playing sport	1.7	1.7	1.5	1.2
Playing games	1.6	2.1	1.4	1.1
Playing music	1.4	1.5	1.1	1.4
Listening to the radio	1.3	1.4	1.1	1.4
Watching sports, music, and movies	1.2	1.9	0.8	1.7
Reading books	1.1	1.5	1.1	1.2
Going to the library	0.3	0.7	0.0	0.9

Source: National Statistical Office, *Survey of Time Use 2001*, cited in Institute for Population and Social Research, *Thai Health Profile*, p86

3.5.2 Physical exercise

In all age groups, more males than females report having done physical exercise at least three times per week and the proportion of those who had exercise seem to decrease with ages (Figure 8). Only one in twelve women aged 20-24 said they exercised at least three times per week. Younger age groups are more likely to report playing sport than older age groups (Figure 9). Part of the reason that younger age groups are more likely to play sport is the school curriculum which includes sports as a compulsory subject for all school children. Once the students leave school, particularly among females, they are less likely to play sport or do physical exercise. The lack of physical activities among adolescents is worrying. The lack of exercise together with poor eating habits is attributable to poor health. Previous evidence has shown strong link that people who lead active lifestyles are less likely to die early, or to experience major illnesses such as heart disease, diabetes and obesity (Stampfer, et al., 2000; Hu, et al., 2001).

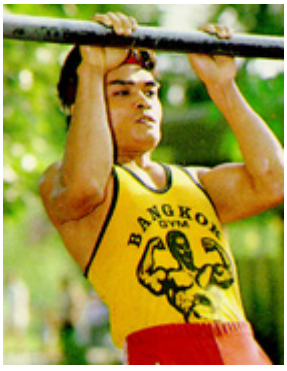
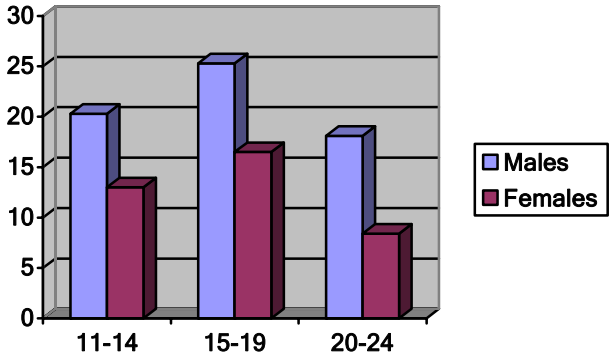
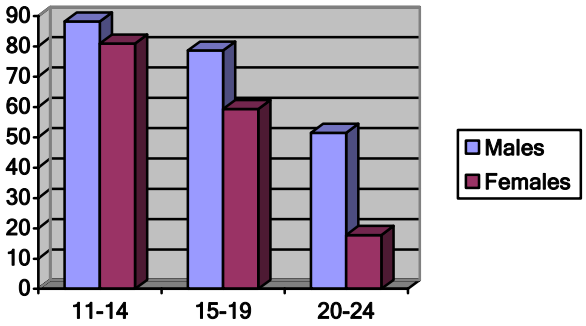


Figure 8 Youth who exercise at least three times per week, according to the 2003 Health and Welfare Survey (%)



Source: Calculated from data from the 2003 Health and Welfare Survey

Figure **9 Youth play sport, according to the 2002 Survey of Children of Youth**



Source: National Statistical Office, 2002 Survey of Children and Youth, cited in Institute for Population and Social Research, Thai Health Report, p87.

3.5.3 Cigarette smoking

The majority of adolescents did not smoke especially among the younger age groups and women in all age groups (see Table 17). According to the National Statistical Office (1999; 2001; 2004b) the overall rates of smoking have declined over time. However, the rates remain high among older male youth. An average age at started smoking is 18.4 or 18.2 year for male and 21.5 years for female youth. Among youth who smoke, 90.4 percent started smoking before the ages of 25 years, and 9.3 percent started smoking before reaching 14 years of ages (Thai Health Promotion Foundation, 2004). The Consumer Protection Act 1992 in effect penalizes smoking in public places and selling cigarette to children under the age of 18 years. The relatively high rate of smoking among male youth, however, may reflect in part the failure in law enforcement and aggressive advertisement of tobacco companies with heavy targeting of adolescents (Kanchanachitra, et al 2004).

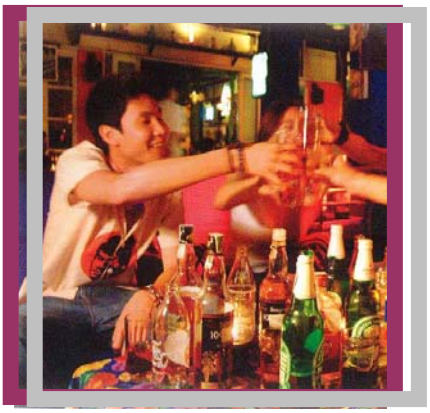
Table 17 Percent of youth who smoke, 2003

	Males			Females		
	11-14	15-19	20-24	11-14	15-19	20-24
Currently smoke	0.2	18.8	44.2	0.1	0.7	1.1
Once smoked now quit	0.0	2.3	5.9	0.3	0.0	0.8
Never smoked	99.7	78.9	50.0	99.6	99.3	98.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
n (unweighted)	992	1,314	1,093	1,143	1,499	1,413
n (weighted)	877,483	1,488,508	1,641,574	1,014,354	1,704,375	1,989,877

Source: Calculated from data from the 2003 Health and Welfare Survey.

3.5.4 Alcohol drinking

As with cigarette smoking, only a very small proportion of female adolescents drink alcohol. Higher rates of alcohol drinking are observed in males, in older age groups in particular (Table 18). One in ten males aged 20-24 years drinks most days. Trends of alcohol drinking between 1993 and 2003 reveal that there has been increased in alcohol consumption in youth and the starting age is much younger (NSO, 2004b). Over the same period, the consumption rate increased from one percent to 5.6 percent among female youth aged 15-19. It was estimated that 1.1 million of male youth aged 11-19 years drink alcohol regularly (those who drink at least twice a week). Aside from the direct health effect, alcohol drinking among adolescents is closely linked with traffic accidents (National Highway Traffic Safety Administration, 2002) and unsafe sex (WHO, 2002). Since, as discussed above, traffic accidents and HIV/AIDS are two of the main causes of death and disability among youth, effective measures are urgently needed. It is important to have public health interventions to curb abuse of alcohol among adolescents.



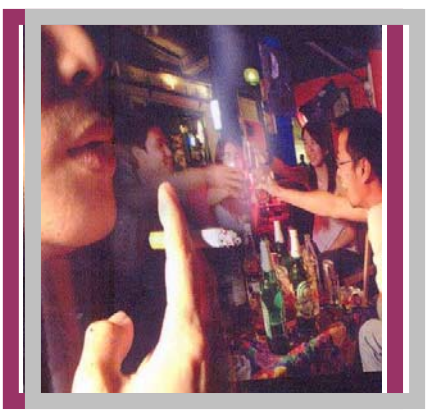


Table 18 Percent of youth who drink alcohol

	Males			Females		
	11-14	15-19	20-24	11-14	15-19	20-24
Most days	0.0	5.2	12.5	0.0	0.4	0.7
Less often	0.5	28.3	57.9	0.4	5.2	11.1
Never	99.5	66.5	29.6	99.6	94.4	88.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
n (unweighted)	992	1,314	1,093	1,143	1,499	1,413
n (weighted)	877,483	1,488,508	1,641,574	1,014,354	1,704,375	1,989,877

Source: Calculated from data from the 2003 Health and Welfare Survey

3.5.5 Use of seat belt and crash helmet

By law, the drivers of motor vehicles and persons sitting on the front seats are required to wear seatbelts. Motorcycle riders are required to wear crash helmets. According to Health and Welfare Survey data as shown in Tables 19 and 20, less than 20 per cent of adolescents always wear a seatbelt or crash helmet when they ride in the front of motor vehicle. Alarmingly, nearly half of youth aged 10-14 never wear seatbelts and never wear motorcycle helmets.

Table 19 Percent of youth who wear a seatbelt when they ride in the front of motor vehicle

	Males			Females		
	10-14	15-19	20-24	10-14	15-19	20-24
Always	15.8	18.5	20.0	17.9	21.5	21.5
Sometimes	34.3	49.9	51.0	35.0	44.5	49.1
Never	45.3	26.0	24.9	41.8	29.3	26.5
Other	4.6	5.6	4.2	5.3	4.7	2.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
n (unweighted)	*1,611*	*1,841*	*1,587*	*1,700*	*1,815*	*1,583*
n (weighted)	*363,637*	*1,320,477*	*2,002,998*	*294,955*	*1,396,040*	*1,901,890*

Note : These figures exclude youth who never ride in the front of a motor vehicle. The proportion who never do so ranges from 22.1% for 20-24 year old males to 34.7% for 10-14 year old males.

Source : Calculated from data from the 2003 Health and Welfare Survey

Table 20 Percent of youth who wear a crash helmet when they ride a motorbike

	Males			Females		
	10-14	15-19	20-24	10-14	15-19	20-24
Always	8.2	16.5	17.9	9.9	16.4	17.3
Sometimes	44.5	64.8	63.9	47.8	62.2	62.7
Never	45.4	17.4	16.8	40.4	20.1	19.2
Other	1.9	1.3	1.4	1.9	1.3	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
n (unweighted)	*2,234*	*2,368*	*1,934*	*2,287*	*2,368*	*1,976*
n (weighted)	*488,610*	*1,899,892*	*2,622,856*	*427,223*	*1,924,685*	*2,498,799*

Note : These figures exclude youth who never ride a motorbike. The proportion who never do so ranges from 4.5% for 15-19 year old males to 10.5% for 10-14 year old males.

Source : Calculated from data from the 2003 Health and Welfare Survey.

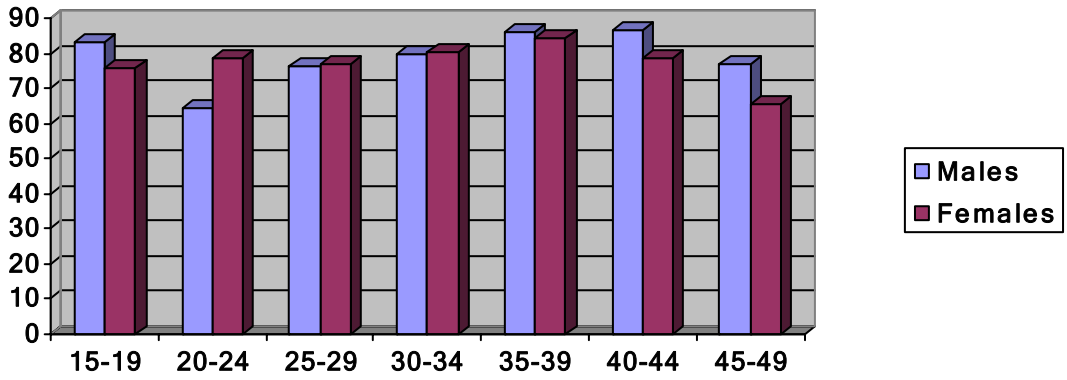
3.6 Sexual and Reproductive Health

Although adolescent reproductive health is one of the ten broad components of the national policy on reproductive health, national data are still scarce. Much information regarding the sexual and reproductive health of adolescents is derived from small scale studies.

3.6.1 Contraceptive use

The most recent picture in the level of contraceptive use in Thailand is drawn from the survey entitled 'Economic Crisis, Demographic Dynamic and Family in Thailand', which was conducted by Chayovan and associates in 2000 (Chayovan et al., 2003). Information on contraceptive currently using was collected from both men and women by asking the following question: at present (during last month), are you or your partner using a contraceptive? What method are you or your partner using now? In general, it is observed that there is high rate of current use of contraceptives for both males and females. Well over two-third of adolescent aged 15-19 years reported either themselves or their partners using contraceptives with higher proportions in males than females. The levels of current use are much higher among male aged 15-19 and 35 years and older than that of females in corresponding age groups (Figure 10).

Figure 10 Percentage of age group currently using any contraceptive method



Source: Chayovan et al, 2003, Table 5.5, page 142.

It is apparent in Table 21 that the three most contraceptive methods currently used, in order of importance, are pills, female sterilization, and injectables. The rates of use for these three methods reported by men and women are at comparable levels. Contraceptive pills is the most common methods currently use among adolescents, followed by injectables reported by men and women. Condom use was reported around 3.6 per cent in men and 2.5 per cent in women. However, none of male respondents reported currently use condom as a method of contraception among adolescent males, the corresponding figure for females aged 20-24 was 3.5 per cent.

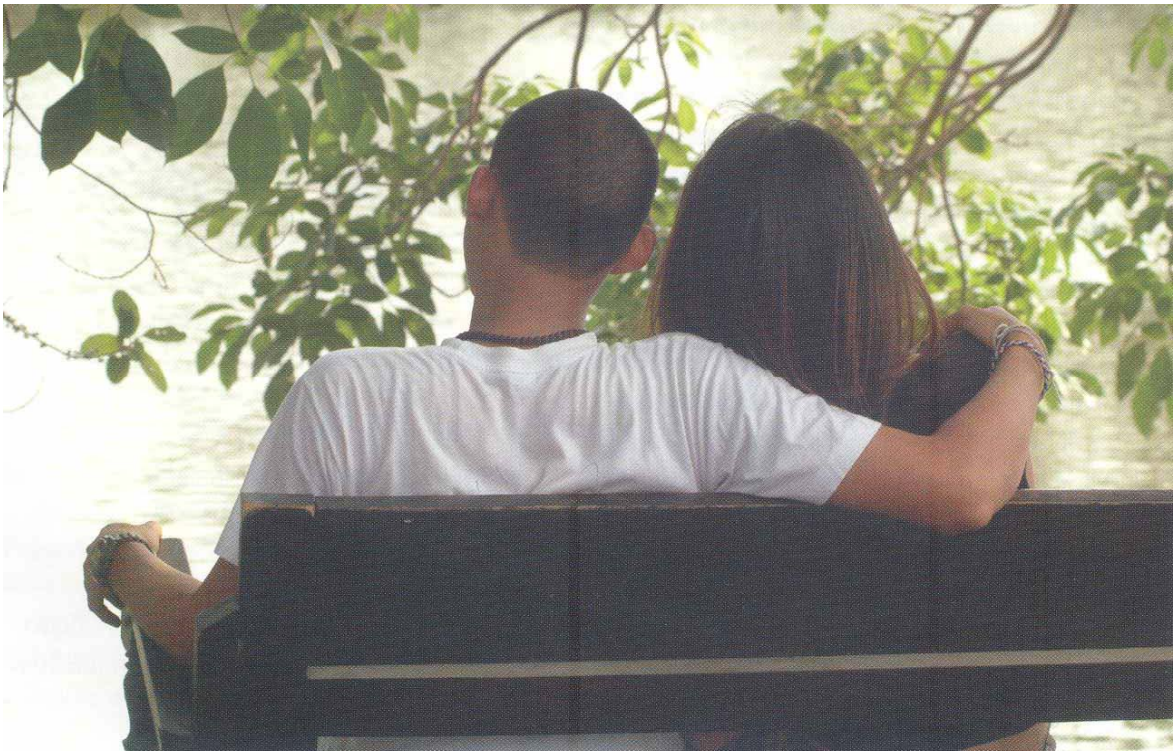


Table 21 Percentage of current users aged 15-49 currently using contraceptives, by method used and sex

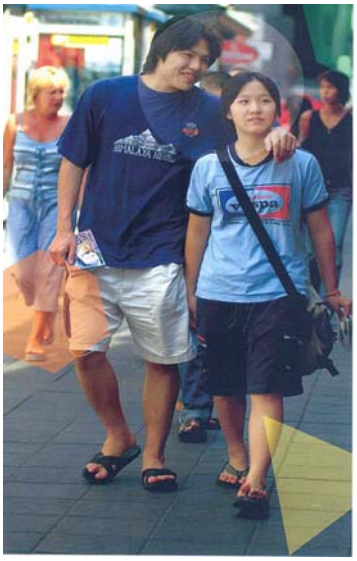
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
Males								
Pills	88.0	77.9	53.1	44.5	33.8	25.5	25.9	37.4
IUD	-	1.5	1.0	3.9	3.7	4.7	8.8	4.4
Injectables	12.0	16.8	21.4	18.1	18.5	11.5	8.8	15.4
Implants	-	-	3.0	1.9	2.3	1.5	1.7	1.9
Female sterilization	-	1.4	7.0	22.2	34.2	48.3	47.7	32.4
Vasectomy	-	-	0.3	1.3	1.5	4.4	5.1	2.5
Condoms	-	-	10.0	3.6	4.1	2.3	1.3	3.6
Safe period	-	1.8	1.4	2.8	0.8	0.3	0.5	1.1
Withdrawal	-	-	2.8	1.3	0.5	0.3	0.5	1.1
Other	-	-	-	-	-	-	-	-
Don't know	-	0.6	-	0.4	0.6	0.3	0.1	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Females								
Pills	65.7	61.8	47.9	39.1	29.4	28.2	14.1	36.5
IUD	3.3	1.3	2.1	4.5	4.6	2.0	5.5	3.5
Injectables	25.1	24.6	25.5	19.6	15.6	11.8	7.7	17.5
Implants	4.9	0.4	2.5	2.3	1.3	1.3	0.3	1.6
Female sterilization	0.6	7.3	14.1	28.9	43.0	48.7	60.8	33.9
Vasectomy	0.4	-	0.3	0.2	2.8	3.6	9.4	2.5
Condoms	-	3.5	3.5	3.5	1.4	2.1	1.5	2.5
Safe period	-	0.7	1.1	0.7	1.0	0.8	0.3	0.8
Withdrawal	-	0.4	3.0	1.1	0.4	0.9	0.4	1.0
Other	-	-	-	-	0.2	-	-	0.0
Don't know	-	-	0.1	0.1	0.4	-	-	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Both men and women were asked whether they themselves or their partners are using contraceptive methods.

Source: Chayovan et al, 2003, Table 5.5, page 142.

Although condom has been promoted as dual protection – pregnancy prevention and sexual transmitted disease prevention – reported condom used has always been low, especially for the purpose of contraception. Studies in Thailand revealed that many women associate condoms with prostitution. They would be suspicious if their husbands use condoms when having sex with them. The Behavioral Surveillance Survey in conscripts, male factory workers, and male students (see Table 22) indicate that well over half of them used condom every time with commercial sex workers (CSW), but a much lower proportion of them use condoms with their girlfriends or women other than CSWs.

3.6.2 Premarital sex and unsafe sex



Major health concerns arising from premarital sex include unwanted pregnancy, unprotected sex, and HIV/AIDS and STDs. According to Chayowan et al. (2003), male youth are more likely to experience premarital sex than female youth. For example, nearly half of married males aged 20-24 have ever had premarital sex, whereas the corresponding figure for females was 36 per cent. A survey of 1,600 secondary school students and vocational schools across Thailand found that attitudes towards premarital sex in adolescents are that it is acceptable especially among males and without responsibility (UNAIDS, 2003). Studies have shown that there has been increasing trends in the proportion of adolescents who have experienced sexual activities (Sethaput, 1995; Ford and Kittisuksathit, 1996; Isarabhakdi, 2000) and decreasing age at sexual debut (Ampanwong, 2002; Kanchanachitra et al, 2004). In general, males experienced first sex at much younger ages than females. For instance, age at first sex ranged from 18 to 20 years in 2001 (Chayowan et al, 2003), the recent figure is 14.5 years (Ruangkanchanasetr et al., 2002).

Studies in Thailand have shown low condom use among adolescents. For instance, only 20-30 per cent of sexually active young people are using condoms consistently (UNDP, 2004: 49). Low use of condom in adolescent can be partly explained by the perception of low risk of contacting the diseases (Soonthorndhada, 2002).

Adolescent pregnancy is a medical risk, irrespective of the mother's marital status. The younger the mother is the higher the risk (WHO, 1993 & 1995; AGI, 1998). A Survey of Sexual Behaviours in 1,725 in-school students in one province in the North of Thailand reveal that about 17-27 per cent of adolescents had ever been pregnant, and among them at least four out of five had ever had an abortion (see Table 23).

Table 22 Selected sexual health indicators data from a survey of secondary school student, in one province in the North of Thailand

Behaviour	Male	Female
Average number of sex partner	4.6 persons	2.8 persons
Average age of sex partner	18.0 years	20.4 years
Had regular partner in the last 3 months	41.8%	46.6%
Always used condom with regular partner	32.7%	47.8%
Ever get pregnant or partner ever get pregnant	16.9%	27.3%
Ever had abortion or partner had abortion (as % ever pregnant)	84.8%	83.0%
Gonorrhea infection	22 cases	27 cases
HIV positive	2 cases	3 cases
Number	893	832

Source: AIDSNet Newsletter, 2001, cited in Kittisuksathit, 2002, table 1, page 14.

Since 1995, the Bureau of Epidemiology of the Ministry of Public Health has conducted a behavioral surveillance survey among high risk groups for HIV/AIDS infection. These include conscripts, pregnant women, male and female factory workers, and male and female students attending secondary schools. Table 23 presents the selected sexual behaviour in conscripts, male factory workers and male students. The percentage of young men especially conscripts and students who had had sex with commercial sex workers declined over the surveillance period but only in the last three years that the rates gradually increased. A marked decline is observed among factory workers. Similar patterns were also observed for their sex experiences with other women. There has been inconsistent use of condoms among young men who reported to have sex with CSWs. In 2004, two-third of conscripts and male factory workers reported using a condom every time with a CSW, while only half of male students did so. Strikingly, regularly use of condom when they had sex with other girls was much lower than that of CWS in all three groups.

With respect to female students' sexual behaviour, it is observed that although females reported having less experience in sexual relations, there has been increased in the proportion of female students especially who had sex with their boyfriends or friends over the period between 1996 and 2004. Report of condom use was also found inconsistently and relatively low. Nearly all female students who had sex with other men never used condom and only one in six students always use condom with their boyfriends.

Table 23 Behavioural Surveillance Survey of selected target groups, 1995-2004

Experience of sexual intercourse last year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Conscripts (%)										
Sex with commercial sex worker	48.8	37.8	45.0	29.4	25.9	23.0	16.8	19.5	22.3	24.0
Always use condom with CSW	50.4	54.7	60.1	56.7	63.4	60.1	56.1	55.6	59.5	63.1
Sex with other women	-	52.8	55.7	52.0	38.7	28.9	24.9	27.2	35.7	41.6
Always use condom other women	23.9	20.1	19.9	20.9	25.5	36.6	32.6	30.9	25.0	35.3
Male factory workers (%)										
Sex with commercial sex worker	30.6	28.4	25.6	21.6	17.3	15.1	14.6	14.7	-	13.3
Always use condom with CSW	53.1	54.6	60.5	63.4	53.5	62.4	66.7	63.4	-	63.0
Sex with other women	45.2	39.5	-	-	27.3	22.1	21.8	25.4	-	29.7
Always use condom other women	26.2	26.3	-	-	32.6	38.3	33.4	38.6	-	47.1
Male students grade 12 (%)										
Sex with commercial sex worker	-	1.8	2.5	2.2	2.8	1.6	1.9	2.2	2.6	3.5
Always use condom with CSW	-	73.9	37.5	51.9	37.5	50.0	30.8	50.0	50.0	43.1
Sex with other women	-	3.0	7.2	4.7	4.4	3.6	4.6	4.3	4.0	5.2
Always use condom other women	-	30.0	22.7	25.0	16.7	22.2	22.4	25.7	38.9	38.3
Female students grade 12 (%)										
Sex with boyfriends or friends	-	2.4	1.7	1.4	1.1	2.1	2.3	2.6	3.8	3.8
Always use condom boyfriends	-	9.1	10.0	3.5	0.0	9.7	0.0	15.1	9.7	16.8
Sex with other men	-	0.6	0.3	0.0	0.3	0.3	0.3	0.0	0.3	0.5
Always use condom with other men	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0

Source: Bureau of Epidemiology, Department of Disease Control, Ministry of Public health, 2004, report on behaviour surveillance survey of risk factors for HIV/AIDS in Thailand round 10.

3.6.3 STDs and HIV/AIDS

Thailand has experienced one of the most severe HIV/AIDS epidemics in Asia, but has had considerable success in controlling the epidemic. The reported cumulated numbers of HIV/AIDS infections between 1984 and 2004 was more than1 million cases. After 1991 when HIV/AIDS peaked at 143,000 new infections or an incidence rate was at 44.66 per 100000 population, yearly new patients have fallen remarkably to about 19,000 in 2003 (MOPH, 2003; UNDP, 2004). Strong commitment by the top political leaders at an early stage of the epidemic helped create a political and institutional environment necessary for a broad-based response. More importantly, pragmatic approaches have allowed an open dialogue about safe sex and condom promotion (UNDP, 2004).

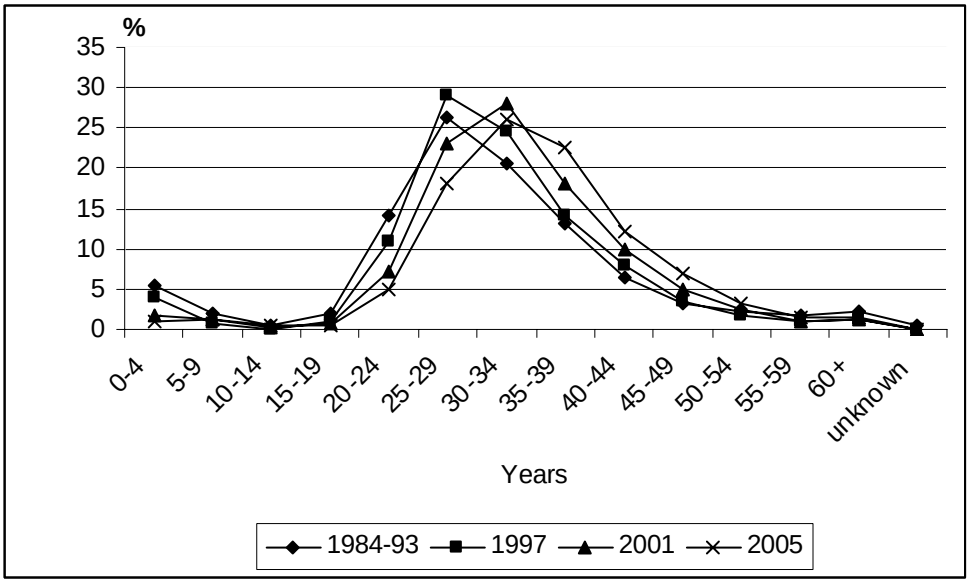
Youth are the vulnerable groups and has been hit hard since the epidemic of HIV/AIDS. Male aged 24 years old was the first AIDS case reported in 1984. Since 1990 HIV/AIDS infection in youth has increased rapidly from 450 new cases and peaked at 3342 cases in 1996. Male patients outnumbered of female since the beginning of the epidemic until 1999 when the reported number of new cases for female youth began to offset and became dominant afterwards (Ratanarat and Saengwonloi, 2005). Likewise, the pattern of deaths due to AIDS was also observed over the same period. During the outbreak of HIV/AIDS, youth accounted for

at least 16 percent of new case of AIDS, after those aged 25-29 years (26 percent) and 30-34 years (21 percent). The infection rates remain very high among young adults (see Figure 11). This indicates that many infected cases contact the virus when they were young. Over the period of January 2002 to August 2004, there has been reported of 45,501 new cases. Men are accounted for nearly twice as many cases as women: 28787 men and 16714 women. About seven percent of new AIDS patients fall into the ages 10-24 years compare to 21 percent and 28 percent in the age groups of 25-29 and 30-34 years respectively.

In 1991, the national 100% condom programme was implemented in all provinces which targeted at sex workers and their clients. An extensive public education and information campaign was also launched via media across the country and in educational institutions which cover the wide range of audiences. As a result, the rate of STDs infection dropped from 88.52 per 100,000 population in 1993 to 25.57 per 100,000 population 2002. The decline in STDs infection is observed for all age groups. Over the same period, it was observed that there was a sharp declined in the first five years the rates then became plateau (Bureau of Epidemiology, 2002). In 2002, the reported cases of STDs in Thailand were 15,996. STDs was highly common among young adults aged 25-34 years (5125 cases) and 35-44 years (4112 cases) while the 15-24 years was the third largest groups suffer from STDs.

The challenges ahead, however, is that young people are becoming increasingly vulnerable to infection. As can be seen in Figure 11, new AIDS cases remain high over the period of 1980s onwards among young adults at 25-34 years of age. This indicates that they possibly have contacted HIV at younger ages. As discussed above, there has been increasing sexual activity in youth, and only a minority are consistently using condoms with casual sex partners. The survey of students in secondary schools and vocational colleges in Bangkok in 2004 found that 26.3 percent experienced sexual activities, but only one-third of both female and male students reported having used condom in the last sexual intercourse (Wongsawat, et al., 2005). The perception that there is no risk of contacting the disease when having sex with people other than sex workers puts the young people at great risk. Evidence shows that half of new infections are reported occurring between spouses, or boyfriends and girlfriends (UNDP, 2004).

Figure 11 Percentage distribution of AIDS cases by ages in Thailand, 1984-2005

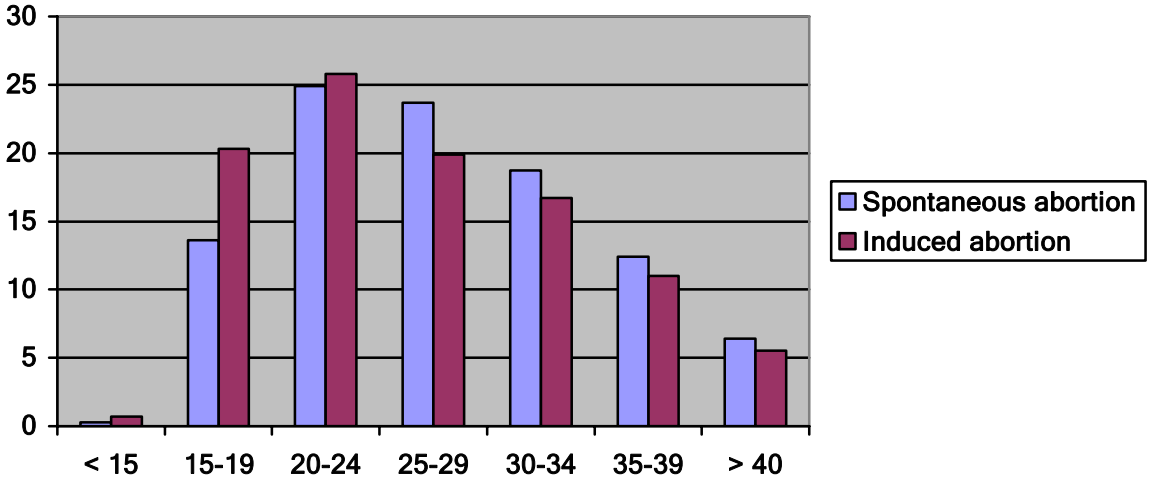


Source: Bureau of Epidemiology, Department of Disease Control, Ministry of Public health, 2004, Annual Epidemiological Surveillance Report 2002. Nonthaburi: MOPH for Figures in 1984-93 and 1997. 2001 and 2005 figures were calculated from Table 1 Number of AIDS cases by age and sex, September 1994 to January 2006, retrieved from http://epid.moph.go.th/epi32_aids.html.

3.6.4 Abortion

Induced abortion is illegal in Thailand. It is only permitted if the induced abortion is performed by physicians for two conditions: when the health of the women is at risk due to pregnancy; and the women get pregnant as a result of rapes. So far, there are no official statistics at local and national levels depicting the number of abortions. However, it was estimated that the number of abortion episodes could be as high as 200,000 to 300,000 in 1991. There has been very limited research on abortion in Thailand, in part because it is a delicate and sensitive issue to most women (Reproductive health Division, 2003). In 1999, the Department of Health of the Ministry of Public health conducted a hospital-based survey among abortion cases coming for complication treatment in 787 public hospitals countrywide. It was found that there were 45,990 abortion cases in 1999. Among them, 41 percent of all women were aged less than 25 years old and almost half had induced abortion (see Figure 12). Of the 13,090 induced abortions, 29.2 percent had serious complications such as septicemia, uterine perforation, and death (Warakamin et al., 2004). A 2000 survey indicated that at least 46 percent of women were under 25 years who visited public health facilities as a result of abortion complications (MOPH and WHO, 2003). For young women, the main reason for having abortion was the concern for interrupting education.

Figure 12 Percentage of women who were admitted to public hospitals in 1999 according to type of abortion and age



Source: Reproductive Health Division, 2003, Table 2, page 68.

3.6.5 Attitudes towards sex

In Thai society, people have been taught to keep a distance from sexuality. Whilst gender biases towards sexuality also exist. Pre-marital sex in men is accepted as almost all male adolescents in the past had their first sexual intercourse with commercial sex workers (Podhisita and Pattaravanich, 1995), though the practice is considerably less common at present. In contrast, women are expected to keep their virginity until marriage (Archavanitkul, 1999; Boonmongkon, 2000). Knodel et al. (1996) studied attitudes towards premarital sex and found that women rarely sought sex with men for their own sake. Women tended to show that they needed to be on their guard against men who often take advantage of them. For the women who experienced premarital sex, especially the non-engaged, they risked disapproval for the loss of their virginity. This attitude reflects the traditional value placed on female virginity before marriage. This attitude has been promoted by the national organization such as the Committee of Women's Role Reinforcement and the Thai Council of Social Welfare (Hantrakul, 1993). Moreover, young Thai women are expected to be calm in manner and behaviors; artful in dress according to time and place, neat, tidy and beautiful; and non-seductive, not provoking men.

Studies have found that male and female youth have increasingly accepted pre-marital sex with their peer group as a normal practice (Archavanitkul and Chamsanit, 1994; Sintanang, 1996). There has been a shift in sexual partners in male adolescents from female sex workers to girlfriends or lovers (Koetsawang, 1987; Vanlandingham et al., 1993: Archavanitkul and Chamsanit, 1994; Podhisita and Pattaravanich, 1995; Baker et al., 2000; Ngamprapasom, 2001). Only a small proportion of sexually active male students aged 15-21 years old had sex with prostitutes where as at least half of them committed having had sex with their girlfriends (Bureau of Epidemiology, 2003). The change in youth's attitudes towards sex is due largely to changes in their life-styles. Young people spend much longer time in school than the past generation. Many of them live independently away from home and have more freedom to do whatever they want. Recent social and economic development has also opened up opportunity for young people to a wide range of education and job.

3.7 Nutrition

3.7.1 Under-nutrition

School students enrolled at public schools between grades 6 and 9 had about 9 per cent low weight-for-age and 9 per cent low weight-for-height (Table 24 and Table 25). There is evidence of a slight increase in low weight-for-height or stunted in young students in the period 2001-2002.

Table 24 Percentage under weight-for-age among school students, 2001-2002

	2001		2002	
School level	Number undernourished	% of all students	Number undernourished	% of all students
Grade 6	67,602	9.2	69,130	9.1
Grade 7	20,443	9.6	19,470	9.0
Grade 8	16,087	8.2	16,521	8.2
Grade 9	13,255	6.9	12,677	6.8
Total	117,387	8.8	117,798	8.7

Source: Calculated from data from the Office of the Basic Education Commission, 2001, 15.1, page 138; 2002, Table 20, page 130.

Table 25 Percentage under weight-for-height among school students, 2001-2002

	2001		2002	
School level	Number undernourished	% of all students	Number undernourished	% of all students
Grade 6	65,471	8.9	72,014	9.5
Grade 7	19,469	9.2	19,758	9.2
Grade 8	14,956	7.6	16,590	8.3
Grade 9	11,786	6.1	12,087	6.5
Total	111,682	8.3	120,449	8.9

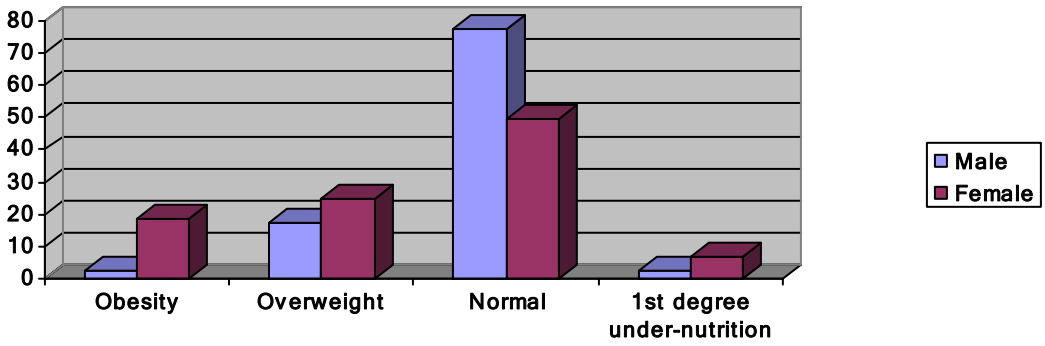
Note: The nutritional status is based on the Thai standard.

Source: Calculated from data from the Office of the Basic Education Commission, 2001, Table 15.2, page 142; 2002, Table 21, page 134.

3.7.2 Over-nutrition

There has recently been an increase in the prevalence of over-nutrition and obesity in young children and the general population in Thailand (Mohsuwan, 2004; Division of Nutrition, undated). Figure 13 presents data on the nutritional status of adolescents taken from the National Survey on Food and Nutrition, 1995. Around 15.5 per cent of adolescents (15-19 years) were obese, 23.5 per cent were overweight, and 6 per cent suffered from under-nutrition. Over nutrition is more prevalent in females than males. Females had about three times the obesity rate of males.

Figure 13 Percent distribution by weight-for-height, 1995



Source: Division of Nutrition, no date, Table 4.13, page 109.

3.7.3 Micronutrient deficiencies

Anemia remains a major public health problem in Thailand. Several factors can contribute to anemia, including iron deficiency, adolescent pregnancy, and illness. A small study in 2002 in 200 youth factory workers in Nakhon Pathom and Ratchburi provinces, found that the prevalence was 20 percent. Anemia due to iron deficiency accounts for about 50 percent (Dr Pattanee Wanichkul, personal communication, September 7, 2004).

Selected nutritional indicators are presented in the table below. Although the data came from a nationally representative survey, the numbers in some age groups are quite small. The fact that on the sample selection was based on households with children age 0-5 years has resulted in an unusual age structure. For example, there were only 218 people aged 15-19 years, compared to 4,067 aged 0-5. Therefore, the drawback of the sampling may explain the unusual prevalence of some malnutrition index. The rate of iron deficiency was 40 per 1,000 population for total population. The rates in adolescents were very high, 73 per 1,000 population in those aged 15-19 years. Anemia rate in the same age group was around 19 per 1,000 population (see Table 26).

Table 26 Prevalence of selected indicators for malnutrition by age groups, 1995 (per 1,000)

Age	Total number	Iodine deficiency	Anemia	Vitamin A deficiency	Vitamin B2 deficiency	Deficiency of other vitamin B
0-5	4,067	1.97	13.76	0	5.90	13.02
6-14	1,187	25.27	19.36	0	15.16	21.90
15-19	218	73.40	0	0	0	4.59
20-29	2,107	85.90	10.91	0.47	3.32	9.96
30-39	1,576	55.83	16.50	0.54	3.81	11.42
40-49	727	74.29	26.13	2.75	0	6.88
50-59	770	53.25	46.75	2.60	2.60	6.49
60+	774	58.14	38.76	1.29	3.88	16.80
Total	11,426	40.51	18.64	0.87	5.25	12.42

Source: Division of Nutrition, no date, Table 5.1, page 114.

In 2002-2003, the Division of Nutrition, Ministry of Public health conducted a survey of nutrition and nutritional status in Bangkok (Division of Nutrition, 2005). The survey recruited 3,521 persons in two main groups of population: children aged 6-14 years and working ages, 15-59 years old. Nutritional status of children aged 9-14 years using the international NCHS standard revealed that 13.8 percent had high weight for height and 12.3 percent were overweighed (over weight for age). The prevalence of anemia, those who have hemoglobin less than 12 grams per decilitre, was 14.2 percent (8.9 percent in male children and 18.5 percent in female children).

3.7.4 Eating habits and eating disorders

There have been increasing concerns that many adolescents engage in bad eating habits such as consumption of a low fiber, high fat, high sugar diet. There has been an increase in sugar consumption in Thailand, from 12.7 kilograms per person per year in 1985 to 29.17 kilograms per person per year in 2002. The increase in sugar consumption is pronounced among children and young people (www.maikinwan.com). This leads to the likelihood of occurrence of over-nutrition and obesity and consequently increasing risk of cardiovascular diseases, hypertensive diseases, and cancer in young people and later in life (Lloyd and Wolff, 1980). It is widely accepted that in adulthood over-nutrition is associated with increased mortality rates, and that there is an association between obesity and ischemic heart disease, hypertension, and diabetes mellitus. Obesity also causes disability and reduces quality of life causing emotional and social disability, especially in women. One-third of adult obesity originates in childhood or adolescence and obesity in childhood tends to persist into adult life. Prevention during childhood is of major importance (Lloyd and Wolff, 1980).

The survey of nutrition and nutritional status by the Division of Nutrition also provided interesting results regarding youth eating behaviour (see Table 27). Only about one third of youth have vegetable everyday; at least 20 per cent of youth regularly have a high fat diet such food contained coconut milk or fried food everyday; soft drink and other drink that contained sugar or sweeten condensed milk were very popular among youth as nearly one in four youth consume these drink every day..

Table 27 Dietary behaviour of youth aged 15-19 in Bangkok, 2003-2004 (%)

	Vegetables	Instant noodles	Fried or food cooked with coconut cream	Drink contained sugar and condensed milk	Soft drink
Not consume	1.6	18.8	3.8	12.7	24.0
3 times or less per month	21.4	41.9	24.4	39.7	21.5
1-4 days per week	27.0	33.3	41.2	23.0	32.2
5-6 days per week	10.3	3.4	10.7	6.3	3.3
Everyday	39.7	2.6	19.8	18.3	19.0
Total	100.0 (n=126)	100.0 (n=117)	100.0 (n=131)	100.0 (n=126)	100.0 (n=121)

Source: Division of Nutrition, Department of Health, Ministry of Public Health, 2005, Report of nutrition and nutritional status survey in Bangkok, 2003-2004.

3.8 Mental health

The 2003 Health and Welfare Survey contained some self-reported indicators of mental health (tables are not shown here) in terms of feelings of sadness and difficulties in concentrating. Overall, well over 80 per cent of youth reported not experiencing feelings of sadness in the last month. Those who felt sad account for less than 10 per cent in male adolescents and 15 per cent in females, with higher rate in older age groups than younger groups. Very few felt severe sadness. Similar findings were also observed when asked about the difficulty in concentrating in the month before the survey.

Table 28 presents the results from the nationally representative Survey on Mental Health, which included 11,700 people aged 15-59 in 2003 (Gongsuk, 2004). This survey assessed 9 mental health disorders using standard measures. It was found that the three most prevalent mental disorders, in order of importance, are alcohol use disorders, major depressive disorders, and generalized anxiety disorder. Similar patterns of mental disorders were found in youth as compared with adults. Forty-three per cent of male youth and 7 per cent of female youth were found to have alcohol use disorders, including alcohol harmful use and alcohol dependent disorder. All assessed mental health problems, apart from alcohol use disorders, had higher prevalence rates among female than male youth.

Table 28 Percentage of major mental disorders among persons aged 15-24 and 15-59 years, 2003

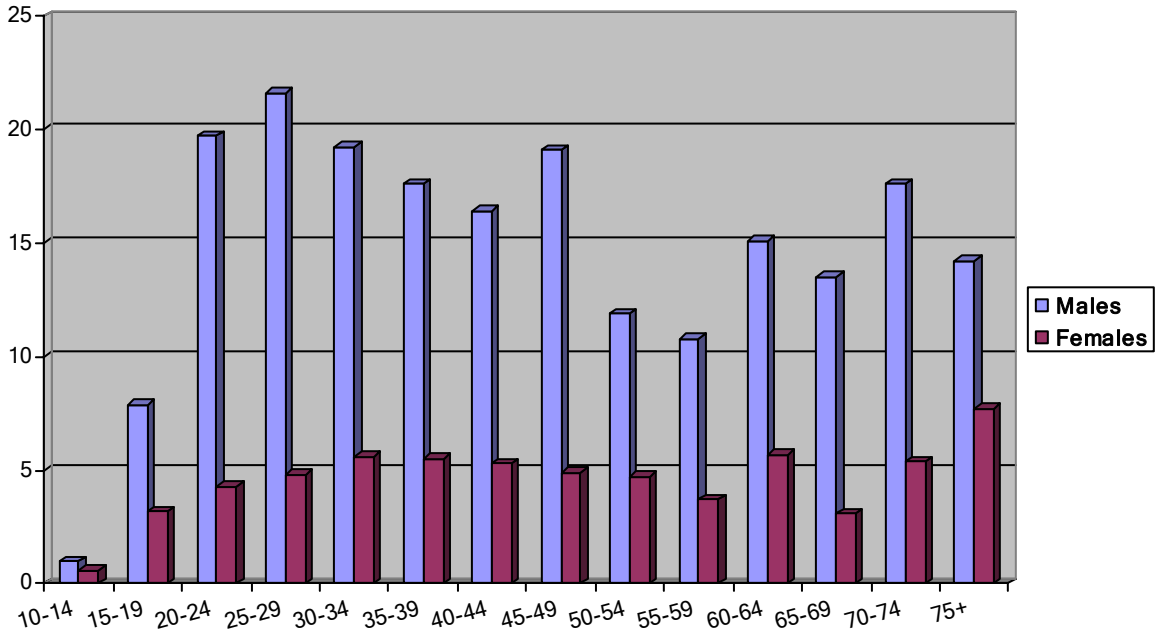
	Males		Females	
	15-24	15-59	15-24	15-59
Alcohol use disorder	42.55	46.08	6.87	9.96
Major depressive disorder	1.79	2.47	2.16	3.98
Generalize anxiety disorder	0.93	1.37	1.16	2.35
Psychotic disorder: lifetime	0.70	1.17	1.39	1.17
Psychotic disorder: current	0.31	0.58	0.54	0.60
Hypomania	0.47	0.47	0.54	0.46
Low suicidal risk	3.65	4.80	4.94	6.48
Moderate suicidal risk	0.70	0.73	1.39	1.61
High suicidal risk	0.62	0.47	1.08	1.35
Low stress	35.87	37.10	40.90	43.49
Moderate stress	15.99	17.71	16.75	21.24
High stress	2.10	2.43	2.70	5.77

Source: Gongsuk 2004, Table 2, page 64.

3.8.1 Suicide

Suicide rates are higher for males than for females in all age groups (Figure 14). There is evidence of a recent increase in suicide in Thailand (Thai mental health, 2002-2003, Department of Health, cited in Kanchanajitra et al, 2004).

Figure 14 Suicide rate per 100,000 in the year 2001



Source: Department of Mental Health, Mental Health in Thailand, 2001-2002, cited in Thai Health Report, p91

3.8.2 Drug abuse

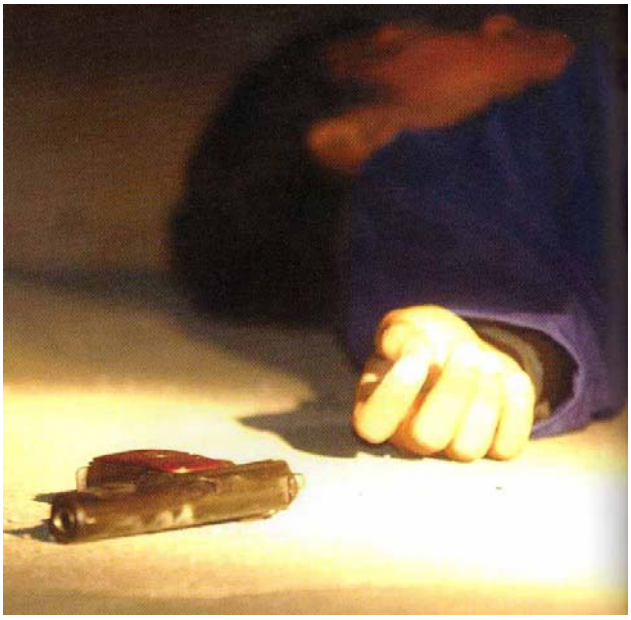
Illicit drug consumption has become increasingly concerns in Thailand. Recently, there has been rapid increased in the abuse of synthetic drugs, particularly amphetamine type stimulants (ATS). Despite the lack of reliable data on the prevalence, there has widespread use of drugs in socially and economically groups including young people. Table 29 presents the proportion of youth (15-24 years) who have ever used drugs, based on the self-administered questionnaire survey of Family and Youth. Due to the illicit drugs being legally and socially unacceptable in Thailand, there is likely to be under-reporting. Overall, males out number females in relation to reported drug use. Marijuana and amphetamine use are common among youth. One in five males has ever used marijuana and one in ten has ever used amphetamine.

Table 29 Percentage of youth reporting ever-use of drugs

	Urban		Rural	
	Male	Female	Male	Female
Marijuana	19.9	3.6	20.3	--
Heroine	2.5	--	--	--
Pain reliever	--	--	--	--
Glue sniffing	7.5	2.1	7.6	--
Amphetamine	11.4	--	10.5	--

Note: The numbers are 10 cases or smaller.

Source: Podhisita and Pattaravanich, 1995, table 7.1, page 89-90.



A survey of 1,725 school students in Chiang Rai Province, in northern Thailand, conducted by the Chiang Rai Provincial Health Office, found that 146 female students and 348 male students have ever used amphetamines. Tests found traces of amphetamines in the urine of 22 female and 108 male students (AIDSNet Newsletter, 2001, cited in Kittisuksathit, 2002, page 13). In 2001, the ABAC-KSC Internet Poll Research Center conducted a survey in education institutions countrywide and found that 6.2 percent of students were involved in drugs. The common drugs used by students in order of importance include Amphetamine (58.5%), Marijuana (42.2%), Tranquilizer, i.e. dormicum and valium (33.6%), Ecstasy (11.3%), love drug (10.5%), Ketamine (8.7%), Heroine (7.6%), Opium (5.6%), Cociane (4.9%), and Morphine (4.9%). It was estimated that as many as 374,653 students are involved in drugs (ABAC Poll, 2001 cited in Wibulpolprasert, 2005)

Table 30 shows the number of students registered at public health facilities for drug addiction treatment. There has been an increase in number of cases from 1,289 students in 1992 to 6,499 in 2001. The number reached a peak of 9,193 in 1998.

Table 30 Number of students registered for treatment of drug addiction

Year	New cases	Readmitted cases	Total
1992	1,119	170	1,289
1993	2,390	429	2,819
1994	3,091	793	3,884
1995	3,998	1,231	5,229
1996	3,147	1,137	4,284
1997	3,389	980	4,369
1998	8,109	1,084	9,193
1999	6,133	976	7,109
2000	6,862	698	7,560
2001	5,631	868	6,499
2002	5,903	1,659	7,562

Source: Department of Medical Services, MOPH, cited in Wibulpolprasert, 2005, table 4.75, page 147.

3.8.3 Violence

Internationally, much violence against women and youth remains hidden (WHO, 1994). In Thailand, there are no reliable national data on violence. However, many people feel that there has been increasingly concern about the issues of violence particularly among young people. Information on victims of violence have be collected unsystematically and scattered in several sources including media reports, NGOs, police records, hospital records for children and women suffering from physical and sexual violence, and research reports but they are scattered and unsystematic collected (Archavanitkul et al, 2005: 8). Among a few studies in Thailand, a survey of 2,616 women aged 15-49 years in two provinces in Thailand was conducted as part of WHO Multi-Country Study on Women's Health and Domestic Violence against Women in 2001 (Archavanitkul et al, 2005). It was found that 44 percent and 51 percent of youth aged 15-24 years experience of intimate partner violence in Bangkok and the other province respectively. The women's childhood experience of exposures to domestic violence was also studied. At least half of the women in both provinces experienced of intimate violence by their childhood exposure to violence against their mother and their female sibling.

Srinual (2003) conducted a survey of 1,292 male and female secondary school students on issues relating to attitudes towards and experiences of sexual violence. It was found that the most sexual violence offenders were lovers, friends and acquaintances. Female students reported sexual violence act against their will ranging from verbal harassment, touching and kissing, attempted rape or rape. It was also found that those who were victims of attempted rape or rape were more likely to be free from their parental control. Contradicting view was observed comparing male and female students on perception that their partners were their property, 25 percent of male and only 12 percent of female students agree. This social norm may partly explain the gender-based violence in Thai society.

In 2004, the Bureau of Epidemiology conducted the Behavioural Surveillance Survey as part of the HIV/AIDS surveillance system in lower secondary school students in 24 provinces (Khemanasiri and Plipat, 2004). There were 6,302 male and 6,496 female students recruited in the survey and self-administered questionnaire was used. It was found that 3.6 percent of male and 1.1 percent of female students experienced sexual relation in the last year. Sixty seven percent of female students reported having had their first sexual intercourse with their boyfriends or friends, and alarmingly half of them was forced or coerced.

Data drawn from the official criminal records show that the number of adolescent criminals has increased markedly, especially for those who committed serious crimes (Table 31). Increases in the number of crimes committed by youth are observed in all age groups.

Table 31 Number of youth by court sentence, 1998-2000

Year/ age	Death penalty	Life in prison	In prison > 10 years	In prison < 10 years	In prison < 3 years	In prison < 6 months	Probation	Fine	Other penalty	Total
1998										
7-14	-	-	2	-	67	85	2,669	1,176	5,501	9,500
15-18	-	1	44	225	1,568	1,994	29,180	8,538	9,638	51,187
19-20	5	27	355	1,770	6,746	7,946	48,226	36,344	2,498	103,917
Total	5	28	401	1,995	8,380	10,025	80,075	46,058	17,637	164,604
1999										
7-14	-	-	2	6	57	49	2,143	1,012	4,412	7,681
15-18	-	2	47	295	1,670	1,821	29,497	7,251	9,827	50,410
19-20	2	33	425	2,466	7,191	8,217	45,650	29,403	1,889	95,276
Total	2	35	474	2,767	8,918	10,087	77,290	37,666	16,128	153,367
2000										
7-14	-	-	1	1	57	59	2,011	710	3,874	6,713
15-18	1	-	43	317	1,486	1,853	29,429	5,498	9,313	47,940
19-20	2	33	471	2,689	8,204	8,660	46,034	24,388	1,733	92,214
Total	3	33	515	3,007	9,747	10,572	77,474	30,596	14,920	146,867

Source: Office of International Service, Office of the Attorney General, cited in Suepientham, 2001, table 1, page 58.

4

Health policies and programmes

4 Health policies and programmes

4.1 Health service system

4.1.1 Health resources

Although there has been a general increase in the numbers of health personnel, there are still large regional differences. Bangkok has the least health personnel per capita, and the Northeast has the highest (Table 32).

Table 32 Numbers of health personnel, and ratio of population to health personnel, 2002

	Doctor		Dentist		Pharmacist		Nurse		Health centre staff	
Region	No.	Ratio	No.	Ratio	No.	Ratio	No.	Ratio	No.	Ratio
Bangkok	7,504	767	1,788	3,218	2,295	2,507	19,889	289	-	-
Central	4,135	3,566	828	17,810	1,543	9,557	21,545	684	8,027	1,470
North	2,698	4,499	681	17,824	1,200	10,115	15,456	785	6,456	1,603
South	1,678	4,984	416	20,105	874	9,569	10,993	765	4,761	1,416
Northeast	2,972	7,251	758	28,432	1,438	14,987	16,860	1,278	9,591	1,971
Total	18,987	3,295	4,471	13,991	7,350	8,511	84,683	739	28,835	1,657

Source: Wibulpolprasert, 2005, tables: 6.5, 6.13, 6.19, 6.23 and6.26.

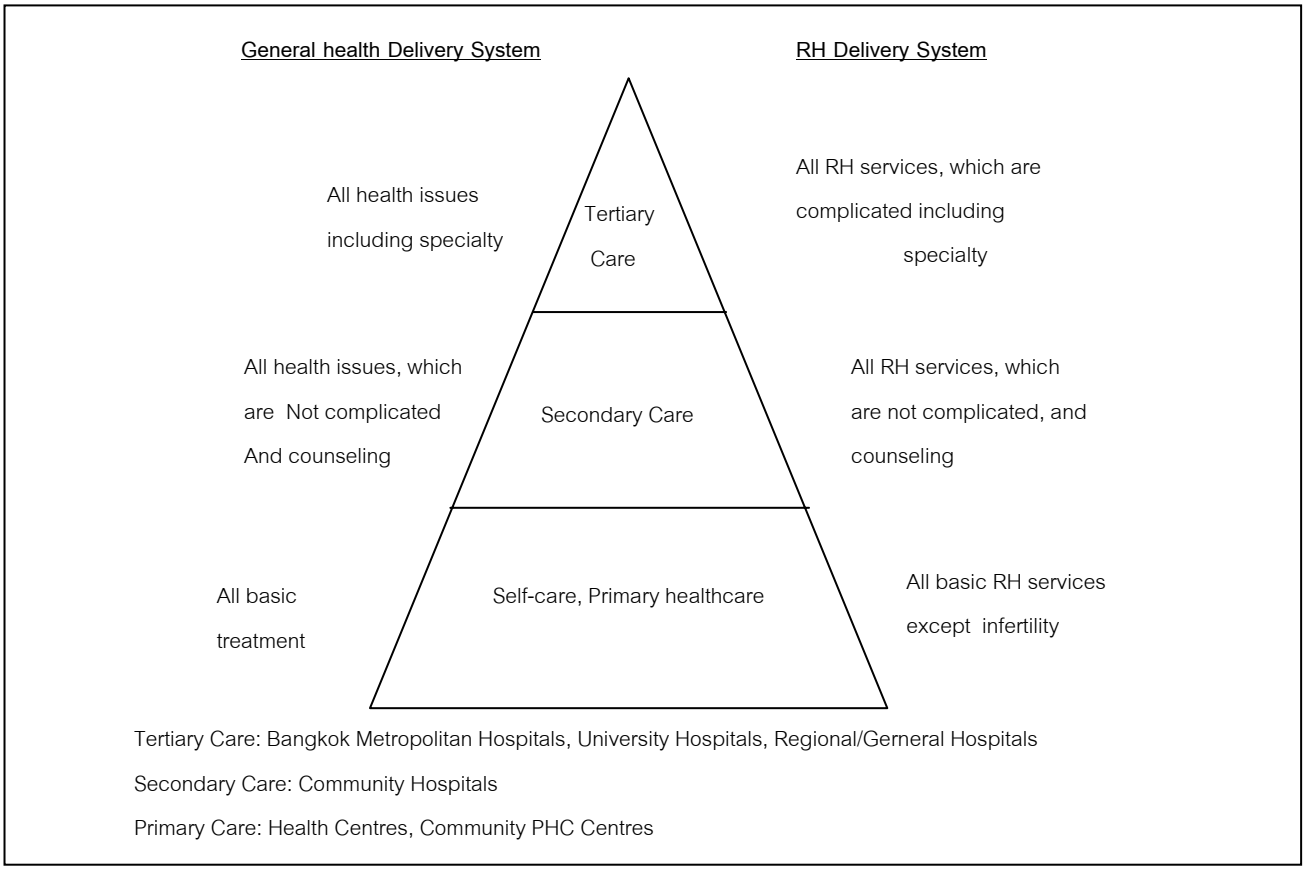
In 2001, all 76 provinces had general public hospitals, 90.6 per cent of districts had community hospitals (totaling 720 hospitals), all 7,255 sub-districts had health centres, and 96.2 per cent of communities were covered by primary health care centres (Wilbulpolprasert, 2002). The distribution of public health facilities was far from equal, with most tertiary care and teaching hospitals concentrated in Bangkok.

Private health facilities also play an important role in the provision of curative care. Major private health facilities include pharmacies, clinics, and hospitals. In 2001, there were 13,310 private pharmacies, 14,403 private clinics, and 436 private hospitals. As with public sector facilities, private sector facilities are concentrated in Bangkok (Wibulpolprasert, 2004: 282).

4.1.2 Health services

Thai health services are classified into five levels: self-care, primary health care, primary care, secondary care, and tertiary care (Figure 15). At the self-care level, people and the family are encouraged to take measure to enhance their health and promote healthy behaviour. At primary health care level, the people in the community are organized in order to provide basic health and medical services. Village health volunteers (VHVs) are local people who receive training from the MOPH to provide services to people in their communities. The primary care level has the lowest-level public health facilities. These facilities are staffed by non-medical personnel based at health centres or community health posts in villages and towns. Health services provided include health promotion, disease prevention, and curative care. The secondary and tertiary services are staffed by medical doctors and other health professionals, and provide more sophisticated care.

Figure 15 Health Service Delivery System, Thailand 2004



4.1.3 Health expenditure

National health expenditure has increased substantially over the recent years. In 2000, health expenditure accounted for 6.1 per cent of GDP, up from 3.8 per cent in 1980. During the same period per capita spending increased in real terms from 545 baht to 4,832 baht. Most of the national health spending is used for curative care. The policy of providing universal coverage for health insurance is one of the reasons for the continuing increases.

4.2 Adolescent Health and Development Policy

In Thailand, there is a comprehensive national policy for children and young people. This policy does not separate health from other objectives. Several aspects of health policy and planning for adolescents have been implemented. In some instances, adolescent health issues have been addressed together with children's health problems, such as the promotion of good health in schools. Other adolescent health issues are included in adult policies, as in the national AIDS prevention plan and maternal health care. However, since the introduction of the national reproductive health policy in 1997, following the ICPD, adolescent reproductive health has been addressed as a separate reproductive health element. The Reproductive Health Division, formerly the Family Planning and Population Division, under the Department of Health, is responsible for conducting research, setting standards, and coordinating the implementation of the reproductive health including the family planning in Thailand.

The MOPH is responsible for formulating the national health policy under the National Social and Economic Development Plan. A shift in the formulation of the national health policy occurred during the Eighth National Health Development Plan, 1997-2001, when more attention was paid to health promotion and disease prevention than in previous plans (Wibulpolprasert,2002). The Eighth Health Plan placed emphasis on 'human-centered development' as a key determinant of health. The plan stressed decentralization of health management and greater collaboration between public and private sectors and local administrative organizations. Public participation and community involvement in all decision-making processes were encouraged. Health promotion and disease prevention received more attention. Measures taken include promotion of self-care among individuals, family and community as care-givers, and the encouragement of healthy behaviour.

4.2.1 Ninth National Health Development Plan (2002-2006)

The Ninth Health Plan stresses the necessity to assure all Thai people to live happily; have equal access to quality health services; live in a family, community and society that are capable to learn and participate in managing health using local wisdom and global knowledge. Through mobilizing all forces or 'all for health', in order to build up health by means of raising awareness of all agencies and encourage people to participating in the development to their full potential to meet the goal of health and well-being. The plan emphasizes on proactive health promotion and protection of safe and healthy life throughout the life course including adolescent health by way of enhancing full potential in promoting the ability of individual, families, and communities; establish a mechanism to speed up universal health insurance coverage; enhance health equity; reorganizing and restructuring roles and responsibilities of health care resources; and decentralization of health management.

4.2.2 Child and Youth Development Plan (2002-2011)

The national plan for children and youth was initially put in place as a result of political pressure. The first national youth policy was introduced in 1983 in order to promote the students participation in monarchy democracy. Five years later, the government introduced the second youth plan which focused on youth's responsibility to preserving Thai culture. The first long term child and youth development plan (1991-2001) was initiated and this was the first time that comprehensive approaches were set forth. The plan was to promote the full potential of growth and development of young people not only physical and mental development, but also intellectual and moral as well. However, among many drawbacks of the previous plans are discontinuation of the programmes due to political instability and the fragmentation of activities which discouraged access and use of available services and programmes.

The current child and youth development plan (2002-2011) classified young people into three main groups: aged 0-5 years, aged 6-14 years, and 15-25 years. This plan places emphasis on promoting family and community to providing and supporting the quality of life of young people and to enhancing access to and use of available services, enhancing life skills, and to achieve self-reliance. Moreover, these young people should be encouraged to participating in

development activities and contributing to the community. It also proposed the ideal child and youth as follows: family connectedness and respect the rights of others; be in good health and adhere to desirable health-related behaviours; emotional, moral and ethical maturity; honest; critical thinking and engage in life-long learning; assist the disadvantaged and participating in community development. The plan also recognized the family as the prime institution responsible for the healthy development of children and youth. Other social institutions such as schools and community, media and related government organizations, local government organizations, and non-government organizations are expected to support the.family.

4.3 Government programmes responding to adolescent health and development

As stated in the Ninth National Health Development Plan (2002-2006), the government must attention to the promotion of health and well-being of all population groups, including adolescents. Numerous organizations within the MOPH are involved in implementing the programmes. These include the Department of Health, the Department of Mental Health, the Department of Disease Control and the Provincial Health Offices. Other organizations with direct responsibility for aspects of adolescent development and reproductive health are the Ministry of Education (MOE), Bangkok Metropolitan Authority (BMA), the Office the Prime Minister, Ministry of Labour and Social Welfare, Ministry of Justice, Ministry of Interior, and local government. The main government programmes tailored to meet health and development needs for adolescents are as follows.

4.3.1 Health promotion

Current programmes as listed below indicated that there are several activities promoting health and wellbeing of adolescents mainly those in-school settings. Some health risk behaviours have not yet received attention such as traffic accident.

Health Promoting School (HPS)

The Department of Health in the MOPH has adopted the WHO Health Promoting School as part of its 'Healthy Thailand' campaign since 1998. The Health Promoting School is defined as a school in which all groups work together to promote behaviour and environments to achieve health and well-being for all people (DOH, 2003). This programme involves schools as a focal point of community health promotion

in order to create understanding and collaboration among agencies and organizations, as well as developing the capacity of local personnel to meet the need for health development. The groups involved include families, schools, and community and local organizations. Both public and private schools are encouraged to join the programme on a voluntarily basis. At present there are 30,687 schools participating in the programme, though only 12,572 schools have achieved HPS standard.

The Health Promoting School consists of ten components: school policy on health promotion; school procedures and practice in implementing change processes; school-family-community partnerships; safe and healthy physical environments; school health support services; health education with special health needs for different age groups; nutrition and food safety; physical exercise, sport and recreation activities; counseling and social support; and school staff health and well-being.

The Department of Health has developed standard indicators for each of these components,for each level of education, with different set of indicators to be used for self-assessment and for external assessors.

Premarital counseling

The programme aims to provide males and females in reproductive age with a wide range of information essential for forming a family including family planning, parenting, childbearing, and health. The following activities are performed: disseminate and advertise the project through mass media; outreach of mobile working units to provide health examination and give advice to target groups; provide technical support to public and private organizations involved with married couples; and give advice on request.

Physical Activity Promotion

MOPH launched 'Walking-Running for Health of All Families' campaigns in all 76 provinces which is not specifically targeted. The purpose of the campaigns is to promote physical activity and mental health. A number of exercise clubs have been established throughout the country. Activities also include producing and disseminating videos and manuals for exercise.

Campaigns on anti-smoking

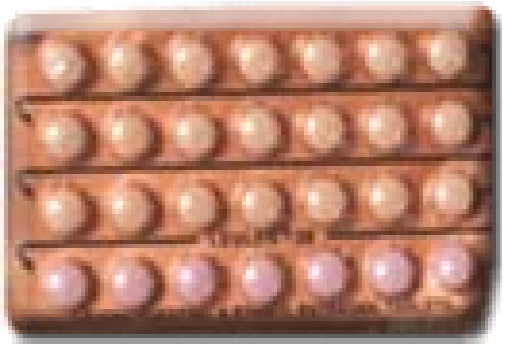
The Thai Health Promotion Foundation and MOPH play an active role in campaigning against smoking. Several activities have been implemented, including smoke-free class projects introduced in 12 schools in Bangkok and expanded to other schools nationwide; the Women Don't Smoke programme; and village health volunteer campaigns for smoke-free air.

Campaigns on National Health Guidance

The MOPH has developed the National Health Guidance for the promotion of healthy behaviour in children, teenagers, workers, the aging, and the underprivileged. The nationwide campaign was held in 2000, and disseminated through mass media, television, radios and electronic media.

4.3.2 Sexual and reproductive health

The government programmes tailored for sexual and reproductive health needs of adolescents aim to increase knowledge about sexual and reproductive health; to build up appropriate skills in problem solving, decision making, and life planning; to offer youth friendly services; and to promote a safe and supportive environment (Reproductive Health Division, 2004). However, evaluations of existing programmes are lacking. Health professionals involved in the provision of services need sufficiently training to enable them to deal more sensitively with adolescent clients. Sex education programmes reach mainly adolescents in school settings but much less so in workplace and community. The following programmes currently implemented are related to adolescent sexual and reproductive health.



Sexuality education for youth

Sexuality education at school is taught as part of a subject called 'Family Life Education'. This subject is compulsory and has been taught to primary and secondary school students for more than 20 years. The curriculum on sexuality education underwent a major revision in 2001 by the Ministry of Education and MOPH. The MOPH also developed manual and trained teachers and educators to provide them with the skills to transfer sex information to youth using a student-centered approach. Some schools have introduced sexual education as part of an extra curriculum. The MOPH has developed IEC materials to be used by parents to educate their children.

Life skill education

The Ministry of Education (MOE) in collaboration with the MOPH has implemented life skill education as part of the regular curriculum, aimed at strengthening students' ability in decision making and problem solving and also preventing HIV/AIDS. Significant activities include production of a life-skills manual with a participatory learning approach.

Reproductive health counseling

In Thailand, all schools are required to have student advice systems. Prior to the HIV/AIDS epidemic this system mainly provided counseling services concerning education and students' behaviour. Since the epidemic, however, the system has become closely linked with health services. Peer counselors were recruited on voluntary basis and were trained by the MOPH to enable them to provide sexual and reproductive health education to their friends. Schools, through peer educators, were encouraged to set up a 'Friend Corner Club'. Information and IEC materials were also disseminated through this channel. The Ministry of Education, in collaboration with the MOPH, has launched a programme to reduce drug abuse in schools called the 'Drug-Free School Programme'. Teachers receive training in counseling and provide counseling services to problem students, referring them to appropriate treatment if necessary.

Counseling services are made available at all public hospitals and some health centres. Trained counselors provide services to all people, and not just adolescents, in matters including family planning, sex, STIs, and mental health. However, counseling services are not popular among adolescents. Lack of confidentiality and privacy are among many factors that discourage adolescents from using existing services (Sirirassamee and Sethaput, 2003).

A telephone hotline has been set up in all public hospitals to provide a channel for youth to communicate directly with health professionals in response to adolescent health issues. The MOPH has also set up a toll-free numbers from which health information can be obtained automatically. For example, 1667 is the number for mental health issues, and 1556 for food, drug and consumer protection.

Several public and private sector organizations have set up electronic websites providing health information and interactive communication. Available websites include www.teenpath.net, www.friendcorner.net, www.teenhealth.org, www.eotoday.com, www.icantalk.com, www.thaiteen.com. www.clinicrak.com,

Friend Corner Project

In 2001, the Department of Health launched the Friends' Corner (FC) project, which uses the principles of primary preventive care to increase young people's access to health and RH services. Places where adolescents were more likely to visit, with adequate space, or privacy, such as schools or shopping malls are selected for use. Health and RH information, counseling, basic health services, and referrals are offered to adolescents. The project has been implemented through the cooperation of the DOH, Regional Health Centres and Provincial Public Health Offices. The DOH has provided technical support and partial funding to provincial health authorities to set up at least one Friends' Corner in each province. The Friends' Corners are run by qualified health personnel, and volunteer youth are trained to heop provide services to their peers.

An evaluation of the Friends' Corners project in 20 provinces was conducted in 2003. The evaluations shows that those involved in the project regarded it as belonging to the DOH, so it gained support from local administrators. The project help build the capacity of participating adolescents. About one-third of adolescents were aware of the existence of the Friends' Corners in their communities. The key sources of information about the services were friends, teachers, printed media, and radio programmes. The main services used, in order of usage, were health information, basic health care, counseling and referral services. Almost all adolescents reported positive attitudes toward the services and thought that they would use the service and recommend it to their friends. According to service providers, adolescent clients reported high levels of satisfaction toward services provided, particularly counseling service. Some Friends Corners attracted satisfactory numbers of clients.

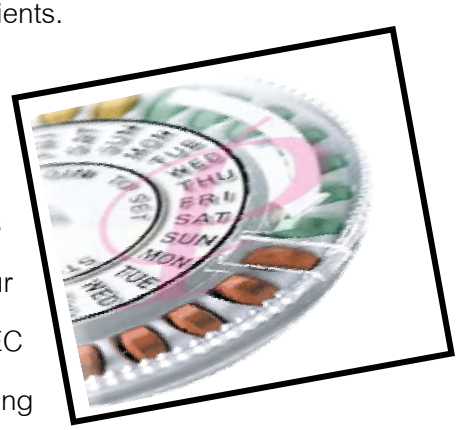
The evaluation recommended that the program be executed by the central level, and should receive sufficient budget during the trial period before recommending it to local organizations. At the same time, the central level should develop standard guidelines for participating provinces. Local organizations should support sufficient project staff, increase public relations activities, extend core adolescent networks in education institutions, and strengthen organizational networks and the evaluation system.

Family Planning Services

Family planning services have in the past been targeted only at married couples. Not until recently were services extended to cover the population at all ages including adolescents – married or unmarried (Reproductive Health Division, 2004). At present the Family planning services are provided through the existing family planning clinics at all levels. No outreach services have yet been provided.

Prevention and control of HIV/AIDS

Effective voluntary counseling and testing is essential for identifying individuals who need early treatment, for promoting treatment adherence and for bolstering prevention (UNDP, 2004). Voluntary counseling and testing services have been available at approximately 1000 hospitals across Thailand. However, these services are underutilized, and face problems concerning the quality of the services (World Bank, 2000). Factors contributing to the problems include excessive workloads, burnout of staff, inadequate counseling skills, and lack of privacy and confidentiality for clients.



The Ministry of Education in 2002 approved and provided financial support to 85 projects submitted by 20 organizations under the Ministry and other government organizations. These projects include activities such as campaigns, youth training, behaviour surveillance, life skills training, monitoring and evaluation, research, IEC production, workshop, training of counselors and educators, counseling services, information services, Anti-AIDS volunteers, and education for family.

4.3.3 Nutrition

The current programmes on nutrition deal with a fraction of nutritional problems among adolescents. Programmes concerning pressing nutrition problems in youth particularly iron deficiency, obesity and iodine deficiency should be addressed in the programme. Health information on nutrition is not widely disseminated and again limited to school and educational institutions. Selected programmes currently implemented are listed below.

Healthy diet campaign

This includes a hotline number 1675, the 'Right Consumption, Great Health' campaign; a Vitamin -A-rich food consumption promotion; green vegetable promotion; and Vegan Diet Promotion. There are no campaigns targeted specifically at youth.

School lunch programme

Public schools receive a budget from the MOE to provide nutritious lunches, including high calcium, to students. Parents and students are encouraged to participate in food preparation. To reduce the cost of food, some schools raise their own chickens and keep vegetable gardens. Cow milk is also given for free to students, especially at pre-primary and primary levels. Students receive nutrition education through the regular school curriculum and school lunch activities.

Iodine deficiency control programme

The programme was introduced by the MOPH in 1998. It aims to reduce the prevalence of iodine deficiency syndrome in school children and the general population. Activities include promotion of iodized salt consumption; media campaigns; health education; surveillance; survey of household consumption of iodized salt and urine iodine in pregnant women; and monitoring and evaluation of the programme.

4.3.4 Mental health

Mental health services have been less accessible than services for physical health in Thailand. Not until recently has mental health has received much attention from the government. Wherever the services are available, social labels for those who suffer from mental health problems may discourage young people and family from seeing specialists. Staff dealing with specific areas such as mental health needs assistance from specialists. There is, however, a pressing shortage of mental health specialists in Thailand, which needs to be addressed.

Prevention of drug abuse in school

The Ministry of Education in collaboration with the Department of Mental Health, has launched a programme focusing on the prevention of drug abuse in 2001. Activities are tailored to suit different target groups and address different problems. Students in each school are classified into 4 groups and important activities implemented accordingly.

Group 1 includes students who are not at all involved in any drug use. Activities include: (1) provision of information on drug abuse, as part of the regular curriculum or outside the curriculum; (2) dissemination of information to reinforce knowledge on drug abuse through activities such as campaigns, posters, school

broadcasting systems, and meetings or gathering on special occasion; and (3) alternative school activities such as sport, music, job training.

Group 2 includes at-risk students who have tried drugs or are likely to try them in the future. Activities include: (1) counseling; (2) behaviour modification and personality development such as joining military training and participating in activities organized by religious groups or temples; (3) preventive measures such as urine tests.

Group 3 consists of drug addicts. Activities for these include (1) treatment and rehabilitation in MOPH institutions; and (2) legal measures, if necessary.

Group 4: drug seller or suppliers and drug addicts. Activities include (1) counseling and getting the family involved; and (2) referral to the correction department.

In addition, many organizations under the Ministry of Education also implement specific activities in dealing with drug issues. These organizations include the Department of Religious Affairs, the Department of General Education, the Department of Physical Health Education, Rachabhat Institutes, the Rachmonkong Technology Institute, the Department of Vocational Education, the Office of Private Education Commission, and the National Office of the Cultural Commission. Activities include producing information materials and training modules for students and educators, campaigns, rehabilitation and summer camps, workshops, and creating alternative activities and recreation space.

To Be Number One

The Department of Mental Health introduced this programme in July 2001 under the patronized of Her Royal Highest Princess Ubonratana. This comprehensive programme is not only involved the various government organizations such as Ministry of Interior, Ministry of Justice, Ministry of Education, Ministry of Labour, and Ministry of Defense, but also business, local government and non-government organizations take part in the programme. The programme is aimed at raising public awareness in preventing and solving the problems related to drug abuse, strengthening the ability of and building life skills in young people, and establishing social network in preventing drug abuse. The programme has targeted a wide range of population including in-school and out-of-school youth, drug addicted, and general population. Youth are encourage to form a group or club in the education institutions or community in all provinces nationwide in order to campaign against drugs and build moral support and positive thinking.

Several channels are used to spread the message about the campaign including television and radio programmes, printed media, music and CD, electronic media and websites. Several activities such as music competition, DJ competition, and sport are also used as means to attract young people to join the programme. Services such as counseling and skill building are also provided through 'To Be Number One Friend Corner' by peers and/or health professionals. At present, there are 250 friend corners located in 75 provinces and 50 in Bangkok. A hotline number of 1111 is set up to provide counseling through as well.

Mental Health Networking

The Institute of Child and Adolescent Mental Health of the Department of Mental Health has a programme to establish school networks assisting students who need help for mental illnesses and drug abuse. The programme was introduced in 2002. It aims to strengthen referral systems between education institutions and health facilities. School students in 13 provinces are targeted.

Mental Health Counseling

The programme was introduced by Department of Mental Health to extend mental health services across the country, based on lessons learned from mental health networking. The programme aims to improve mental health services to children and adolescents through integrated counseling for mental health and drug problems in existing services at general and regional hospitals in 63 provinces not covered by the Mental Health Network. The counseling services are provided by counselors who have received training from the Department of Mental Health. Special training modules and materials are produced for training and distributing for use by counselors.

National Youth Assembly in Health 2003

This health initiative was established in 2003 aims to provide public forum and bring together children and youth networks, GOs (MOPH and MOE), NGOs, civil societies, and child and youth organizations to take part in informal learning process and sharing information. Through this process and friendly environment, children and youth were actively involved in the process to proposing their ideas and projects. The National Health System Reform Office (HSRO) acted as the focal point of this multi-sectoral cooperation project. The initiative was fully funded by the Thai Heath Promotion Foundation.

The time frame for this event was 5 months (September 2002 to January 2003). All 76 provinces had set up the Provincial Youth Assembly responsible for planning and implementing the activities at the provincial level. The total number of children and youth attending the assembly was 20,000 persons and more than 1,293 activities and events under the theme 'The Miracle We Made', were invented and documented.

The miracles include health promotion and community development, natural resource and environment, intention and occupation, local wisdom, music, cultural and performance art, and co-op and savings. Apart from such inventions, children and youth networks were also established all over the country. It is recommended that continuous support should be provided to sustain the assembly and perhaps annual meeting should also be carried out.

4.4 Non-governmental organization responding to adolescent health and development

There are two main categories of non-government organizations: non-profit and for-profit. There are at present about 375 health-related, non-profit, private organizations registered with the National Cultural Commission, Ministry of Education and Ministry of Interior. These organizations mainly receive financial support from international agencies and from donations and government subsidies in Thailand. In 2001, there were 66 non-profit organizations with 166 health projects and 371 non-profit organizations involved in HIV/AIDS prevention with 457 granted projects which received financial support from MOPH (Wibulpolprasert, 2002: 315). Many NGOs are involved in matters of adolescent health development in Thailand. NGOs that work in specialized areas of adolescent health and development and cover only a small number of adolescents are not included in this profile. Please see Annex 1 for list of NGOs response in the area of adolescent health

5

Identification of gaps

5 Identification of gaps

The profile has identified positive and negative features of the health and development of Thai youth. Young people universally receive formal education up to 6 years, with no evidence of discrimination against females. In fact, a higher proportion of female adolescents are enrolled in formal education at all levels than males. Evidence also shows that adolescents have high coverage of health insurance. These successes reflect the effect of the national policy to provide free compulsory education to all children, and universal health coverage. However, there is still a relatively high drop out rate in secondary education, due partly to the costs of studying. Rising costs of education put heavy burdens on parents. Even among young people who receive formal education, the basic needs of many students are not yet fulfilled, as many are facing poverty and malnutrition. These problems inhibit the achievement of full potential of learning and development in young people.

Many adolescents who have left education to enter the labour force market are engaged in low-skilled and semi-skilled occupations. This reflects their low education attainment. Non-formal education does, however, offer them an opportunity to be trained while participating in workforce.

The profile has identified several pressing health problems that need attention from governmental and non-governmental organizations, as well as the general public. These include traffic accidents, sexual and reproductive health including HIV/AIDS and STD, low levels of physical exercise, poor eating habits and nutritional problems, and mental health.

Traffic accidents are the leading cause of death and disability in adolescents, especially males. The reason for the high rates of death and disability are clear from the data showing a low use of seatbelts and crash helmets, and, among males, high use of alcohol. Use of helmets and safety belts is lowest among young people aged 10-14 years. Programmes working to improve health and well-being should focus efforts on these young people – to ensure that they have appropriate information and skills, to increase their likelihood of adopting healthy behaviours in later life, and to enforce the legal age of drinking and driving.

Many youth have engaged in risky sexual behaviours. There has been an increase in the proportion of sexually active youth, but only 20-23 per cent of sexually active youth are using condoms consistently. The age at sexual debut has also declined. Given the HIV epidemic in Thailand, such behaviours are worrying. While HIV infection in the general population has been successfully brought under control, recent trends show signs of increasing infection among youth. Young people are considered to be a hard-to-reach population for HIV/AIDS prevention, because of their diverse settings, needs and access to information and services.

The nutritional status of adolescents is another pressing health problem, especially when considering their diet together with their physical activity. Young women who have finished school are the group least likely to do exercise. Many young people consume a high sugar, high fat and low fiber diet, and have minimal exercise. Many adolescents spend most of their leisure time in watching television and videos. The increase in obesity and percentages overweight in female youth in particular is notable. Only a few measures have been taken to tackle the problems in Thailand so far.

Survey evidence also shows that some adolescents are facing mental health problems. About one-fifth of adolescents have some degree of stresses and alcohol use disorder. Suicide attempts and the suicide rate have gradually increased over recent years.

Adolescents' health needs and health seeking behaviours indicate great needs in information and service provision. Good coverage of health services is evident from increases in health facilities and resources, and high coverage of health insurance. There are positive developments in health policy in Thailand. Increased attention has been paid to the issues of adolescent health and development. The recent national health plan emphasizes health promotion and disease prevention to all people. In addition, multi-sectoral collaboration between principal government agencies responsible for young people, such as the Ministry of Public Health and the Ministry of Education has taken place. The Department of Health, the Department of Mental Health, and the Department of Disease Control have started to work closely with the Ministry of Education in designing curriculums and teaching materials as well as training

school teachers in specific concern matters. However, the programmes are far from reaching young people and are facing many obstacles.

NGO programmes for adolescent health and development are project-based and tend to cover only small and specific populations. Government programmes have larger coverage but operate in conventional ways and are not designed specifically to meet the special needs of young people. Counseling services, for example, have been offered to all people including adolescent concerning sex and reproductive health issues and drug abuse in most public hospitals across the country, but the services are underutilized by adolescents. Studies have shown that major barriers discouraging adolescents from using the services include lack of privacy and confidentiality, lack of counseling skill by staff, and inconvenient places or times of service.

Many programmes, such as sex education, are concentrated in educational institutions. This leaves the nearly 40 per cent of adolescents who are not in school with little access to information resources and services. In addition non-governmental and governmental programmes focus mainly on the issues of reproductive health and sexuality, and drugs abuse. There are few programmes dealing with traffic accidents, mental health, and nutrition. Information and prevention on traffic accident, for example, should be introduced to adolescent at young ages, as the youngest age groups are the least likely to use protective devices. Comprehensive programmes using many measures that work in other countries combine education, campaigns, behaviour modification, driving lessons and license and law enforcement. The programmes should be implemented in various settings including homes, community and schools to reach the largest proportion of young people.

Health planners need accurate and up-to-date data on adolescent's needs and behaviours to formulate decent programmes and evaluate them accordingly. At present, such information is scattered and incomplete. Information systems should be established whereby information is documented, updated, and disseminate.

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6

Background strategy for adolescent health and development

6 Background strategy for adolescent health and development

Responding to a complex stage of human development such as adolescent and diverse requires a holistic approach (WHO/SEARO, 1998). A holistic approach involves adolescents, family, schools, community, media, and organizations at local and national levels in implementing and evaluating interventions. WHO/UNICEF/UNFPA (1999) highlights the importance of programming for adolescent health, based on their distinct needs. This report recommends 3 key strategies: increase access to information and skills; increase access to counseling and health services; and provide safe and supportive environments for young people.

6.1 Increase access to information and skills

General Objectives

To provide young people with appropriate health and reproductive health information and to improve their skills to protect themselves from health problems.

Strategies

Use various means including interpersonal communication, mass media, formal education, non-formal education, entertainment, clinic-based, community-based activities, and computer-based activities to provide complete and appropriate information on health and development to as many young people as possible.

6.2 Increase access to counseling and health services

General Objectives

Establish an institution-based comprehensive friendly health service system for young people. Several types of health care services are offered at all level of health system and including health promotion, prevention, care and support. These friendly health services should be linked to settings where young people are likely to gain access, such as schools, communities, workplaces, drugstores, and slum areas

Strategies

1. Establish and strengthen friendly health services for young people in health facilities, schools, workplaces, communities, and drugstores.
2. Reorient and strengthen health providers towards friendly health services especially for young people. Also develop curriculum and ICE materials for training health providers.

3. Promote public and community participation aim at improving access to friendly health services for young people. Both GOs and NGOs at local and national levels are to be targeted and shared responsibility in providing quality friendly health services for your people.
4. Promote the sharing of lessons learned and experiences among networks and GOs and NGOs organizations.

6.3 Providing safe and supportive environment

General Objectives

To provide supportive environment that are socially and physically safe.

Strategies

1. Develop law enforcement strategies.
    a. Develop strategic plans for adolescent health development. Map out public organizations responsible for promoting health and development of young people. Coordinate GOs and NGOs to implement plans.
    b. Develop MIS and surveillance systems to facilitate health assessment for young people and disseminate information to the public at local and national levels.
    c. Promote enforcement of laws on child protection and child rights.
    d. Develop and introduce tools to build the national and local capacity in rights-based programming.
2. Enhance the roles of peer, family, education institutions, religious institutions, and community.
    a. Improve the skills of teachers, parents, and village health volunteers to assist and communicate with young people.
    b. Promote family connectedness.
    c. Expand and strengthen school-based health promotion, aiming to improve the health not only of students but also of teachers, parents and the community.
    d. Encourage local government to become involved in promoting and providing health services to young people.
    e. Support education institutions at all levels to include adolescent health and sexual and reproductive health in their curricula.
    f. Encourage religious institutions to take a role in the moral development of young people.
    g. Organize and support platforms for networks to share experiences.
    h. Train youth peers in planning, implementing and evaluating youth health programmes.

3. Media and entertainment

   a. Establish media partnerships and networks to involve young people in promoting healthy living and preventing health risks in young people.

   b. Use all available communication channels, including the private media, radio, television, films, electronic media, and printed media, to influence the social norms shaping adolescent behaviour. Examples include norms discouraging tobacco use and alcohol drinking, responsible sexual and gender relations, and use of seatbelts and helmet.

   c. Review and implement legislation to regulate the role of media, especially in broadcasting inappropriate information such as pornography and sexual violence.

7

Conclusion

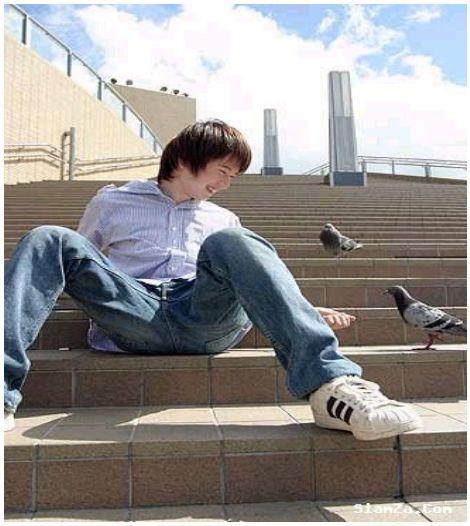
7 Conclusion

This profile has outlined the major features of adolescent health and development in Thailand. It has long been believed that adolescents are the healthiest group of the population. However, the evidence identifies behaviours common among adolescents which put them at risk. These include alcohol consumption, smoking, eating disorders, substance abuse, unsafe sex, and limited exercise. The health consequences of such behaviours include an increase in the number of youth infected with STIs, infection with HIV at young ages, a high prevalence of traffic accidents, poor eating habits, obesity, and mental health problems. Adolescents' access to health services, particularly reproductive health services, requires further development towards providing friendly health services in all health facilities.

In Thailand, there is a comprehensive national policy for children and young people. Health development is among many important components involving many public organizations following the broad strategies and plan. The MOPH is the primary public organization responsible for adolescent health. There have been several innovative programmes designed specifically for young peopler. These include the Friend Corners, To Be Number 1, Health Promoting Schools, Campaigns on Anti-smoking, Life Skills Education, and Prevention of Drug Abuse in School. Sex education begins in primary school level as part of health education and physical education. Moreover, life skills training has been incorporated into the education curriculum by the Ministry of Education. Out of school youth probably receive less coverage for sexual and health education than other groups. Therefore, community- and workplace-based programmes should be developed in order to reach as many youth as possible.

Based upon the issues outlined above, it is recommended that three major areas need to be emphasized: increase access to information and skills; increase access to counseling and health services; and provide safe and supportive environments for young people. Families, schools, workplaces, civil society, media, and government agencies all have a role to play in improving young people's health and development. Wherever possible, holistic approach should be used. Young people need to be encouraged and given the necessary information to take responsibility for their own health and well-being. Attention should be given to the pressing health issues including sexual and reproductive health, HIV/AIDS, traffic accident, lack of exercise, and mental health.

Health programmes can make a difference by reaching out to meet the needs of those young people who are most in need of health care, and by working collaboratively with other organizations to effect changes in the wider environment, rather than only confining themselves to health institutions. Providing young people with the knowledge, skills and support to cope with the risks they encounter is the best way to reduce youth health problems.



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Annex

Annex 1: Institutional responses in the area of adolescent health

1. Initiatives in adolescent health promotion and prevention

Government Organization:

Department of Health, Ministry of Public health (MOPH)

Department of mental health, MOPH

Department of Disease Control, MOPH

Department of Health Services Support, MOPH

Bangkok Metropolitan

Community Development Department, Ministry of Interior

Office of the Narcotics Control Board, Ministry of Justice

Bureau of Welfare Promotion and Protection of Children, Youth, the Disadvantaged, Persons with Disabilities and Older Persons, Ministry of Social Development and Human Security (MSDHS)

Department of Women Affairs and Families, MSDHS

Thai Army, Air Force, and Navy, Ministry of Defense

Non-Government Organization:

PATH (Program for Appropriate Technology in Health)

PPAT (Planned Parenthood Association of Thailand)

PDA (Population and Community Development Association)

Rak Thai (Care International in Thailand)

Women's Friends Foundation

Access

Sahathai Foundation

Young Men's Christian Foundation

Association for the Promotion of the Status of Women

Association for the Protection of Children's Rights (CPCR)

Duang Prateep Foundation (DPF)

EMPOWER

Life Improvement Foundation for Children and Youth (LIF)

National Children and Youth Assembly

2. Initiatives in curative health and rehabilitation

Government Organization:

Department of Health Services Support, MOPH

Regional Hospitals, General Hospitals, and Community Hospitals, Specific Medical Treatment Institutes, MOPH

Medical Schools under Government University

Department of Social Development and Welfare, MSDHS

Non-Government Organization:

PPAT (Planned Parenthood Association of Thailand)

PDA (Population and Community Development Association)

Emergency Home

Centre for the Protection of Child Rights Foundation

Foundation for Slum Child Care

Private Clinics/Hospitals

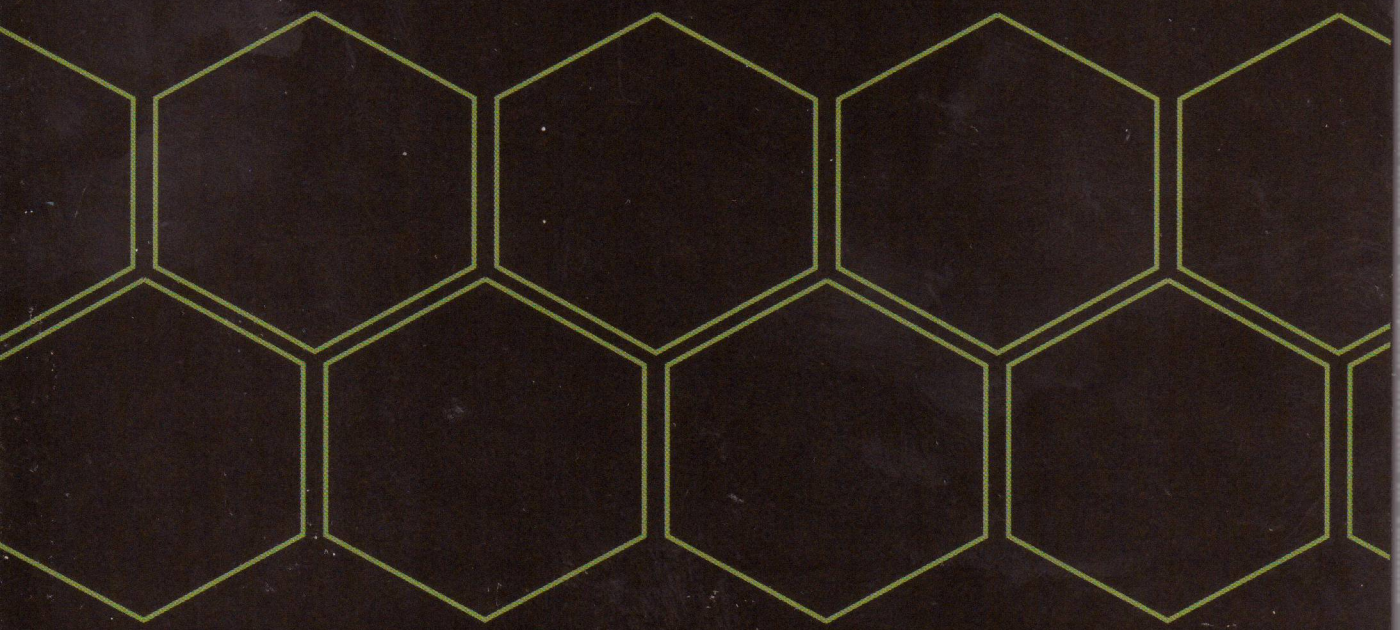
Annex 2: Directory of organizations for consultation meetings at IPSR

Organization name and address	Contact person	Contact details
Reproductive Health Division Department of health Ministry of Public health Tiwanond Road Nonthaburi 11000	Ms Yupa Poonkhum	02 590 4248 fax: 02 590 4163 poonkhum@health.moph.go.th
Bureau of health Promotion Department of health Ministry of Public health Tiwanond Road Nonthaburi 11000	Ms Nopparat Plitakul	02 590 4487 fax: 02 590 4463
National Statistical office Ministry of Information and Communications Technology Larn Luang Road Bangkok 10100	Ms Navarat Opanapan Ms Pornthip	02 281 0333 x 1217 fax: 02 281 8617 navarat@nso.go.th
Bureau of Welfare Promotion and Protection of Children, Youth, the Disadvantaged, Persons with Disabilities and Older Persons Ministry of Social Development and Human Security Makkasan Road, Rajthevee Bangkok	Ms Piyachat Klinsuwan	02 651 6524 fax: 02 651 6481
Institute of Child and Adolescent Mental Health Ministry of Public Health 75/1 Rama 6 Road Rajthevee, Bangkok 10400	Ms Sodsakorn Wichai	02 354 8303 Fax: 02 354 8302 Yupavadee_3@hotmail.com
Division of Nutrition Department of Health	Ms Achara Pornsateinkul	02 590 4328 fax: 02 591 5162

Ministry of Public health Tiwanond Road Nonthaburi 11000		
Institute of Nutrition Mahidol University Slaya, Phuttamonthon Nakhon pathom 73170	Dr Pattanee Wanichakul	02 889 2168
Planned Parenthood Association of Thailand (PPAT) 8 Soi Vipawadee 44, Vipawadee Road, Ladyao, Chatochak Bangkok 10900	Ms Ladda Chitwattanapath	02 941 2320 fax: 02 941 2338 ppat@samart.co.th
Institute for Population and Social Research Mahidol University Salaya, Phuttamonthon Nakhon Pathom 73170	Assoc. Prof. Dr Bencha Yoddumnern-Attig Emeritus Prof. Dr Boonlert Leoprapai Prof. Pramote Prasartkul Assoc. Prof. Dr Uriwan Kanungsukkasem Assoc. Prof. Dr Yothin Sawangdee Asst. Prof. Dr Sirinan Kttisuksathit Assoc.Prof. Dr Amara Soonthondhada Assoc. Prof. Dr Chanya Sethaput Assoc. Prof. Dr Chai Podhisita Assoc. Prof. Orapin Pitakmahaket Assoc. Prof. Kritaya Archavanitkul	prbyd@mahidol.ac.th prblp@mahidol.ac.th prpps@mahidol.ac.th prukn@mahidol.ac.th prysw@mahidol.ac.th prskt@mahidol.ac.th prast@mahidol.ac.th prcst@mahidol.ac.th prcpd@mahidol.ac.th propt@mahidol.ac.th prkac@mahidol.ac.th

Annex 3: Directory of organizations for consultation meetings at MOPH

Dr. Nanta Auamkul	Director, Bureau of Technical advisor , Department of Health, MOPH
Dr. Metee Pongkittilah	Director, Reproductive Health Division, MOPH
Mrs. Phandhipaya Dharmasaroja	Bureau of policy and strategies
Mrs. Wanida Chanintayuthawong	Department of Mental Health, MOPH
Mrs. Nuntawun Yantadiloh	Department of Disease Control, MOPH
Miss. Soythong Tejasen	Planning Division, DOH, MOPH
Mrs. Nopparat Plitakul	Bureau of Health Promotion, DOH, MOPH
Mrs. Sumalee Permpaengpun	Reproductive Health Division, DOH, MOPH
Mrs. Yupa Poonkhum	Reproductive Health Division, MOPH
Mrs. Kobkarn Mahunttano	Reproductive Health Division, DOH, MOPH
Ms. Ladda Chitwattanapath	Planned Parenthood Association of Thailand (PPAT)
Ms. Woranuch Chinworasopark	PATH



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2007