Thai Health 2007

"The Scent of the Lamduan Flower"
Preparing for an Aging Society

Institute for Population and Social Research, Mahidol University
Thai Health Promotion Foundation

14 Health Indicators
10 Health Issues

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Thai Health 2007

Preface

The 2007 issues of the Thai Health Report, like the previous three, takes a broad, multi-faceted view of health. The flower on the cover, lamduan, is the official symbol of elderly people in Thailand, and elderly people are this year's special topic. The reason for focusing the elderly is not, as some might guess, because the new government is composed mainly of elderly people. Instead, it reflects current trends in the Thai population. Thailand is slowly becoming an aging society. The proportion of the population aged 60 or over was 5.5% in 1980, 7.4% in 1990, and 9.5% in 2000.

How will population aging affect Thai society? Are elderly people a resource or a burden, or both? If they are a resource, do we recognize them as such, and are we using their skills efficiently? If they are a burden, have we prepared adequately for the future? The Thai Health Report contains a number of suggestions for how Thailand might get ready for an aging society.

The ten important health issues considered in the report include, for the third time now, conflict in the South. This conflict continues to affect the lives of people in the South and throughout Thailand. It is intractable and complex. Many different strategies for resolving the conflict have been tried and have failed. Violence in the southern border provinces features in the news every day, and even appears to be worsening. We can only hope that the various parties to the conflict will soon cooperate to find a solution.

Another important health issue is the government's decision to mandate production of three patented drugs. This story is still new, and we only just managed to include it before the Thai Health Report went to press. A complete list of the 10 important health issues in this year's report is: 1. Should the Government Keep the Two- and Three-Digit Lotteries? 2. From Chat Room to Video Clips and Camfrog: Getting to Know Online Life 3. The 'Facts about Medicine' Announcement: The Conflict between the Rights of Doctors and the Rights of Patients 4. Thai Children and Danger from Sex: More Protection Needed 5. Repeated Flooding: A Worsening Natural Disaster 6. The Fire in the South Continues after the Coup 7. Thai Students and Violence in Schools 8. The National Health Act: From Concept to

Implementation 9. Banning Alcohol Advertising: A Long Way to Go 10. Compulsory licensing of three drugs: Thai people's right to life is more important than profits

A new feature this year is a series of notes on positive health-related developments in Thai society. These are all things that Thais can be proud of. The list includes:1. Innovative wheelchairs for disabled and elderly people 2. Progress in protecting Thais from bird flu 3. Work to develop a vaccine for dengue fever is almost finished 4. Thai students win an international competition to build a 'independent' robot.

The report includes 14 sets of indicators measuring important health trends. One subject addressed is second hand smoke at home, a health hazard that legislation is powerless to address, in spite of its harmful effects on children. Another is cardiovascular disease. Fully 60% of Thai adults are have at least one risk factor for cardiovascular disease, though many people do not know they are at risk. A third subject is gambling by young people: one in three Thai young people gambles.

A complete list of the 14 indicators is: (1) dementia: an Epidemic on the horizon; (2) occupational health; (3) mental illness; (4) happiness; (5) risk factors for cardiovascular disease; (6) risk from secondhand smoke; (7) hazardous waste; (8) food supplements (9) consumer protection; (10) income, savings, and debt; (11) the sufficiency economy; (12) Thai young people gambling to get rich quick (13) Thai young people in the cyber age. (14) educational inequalities.

As societies grow, and as countries become more and more closely interlinked, social problems become more complex. Solutions to these problems accordingly require cooperation from many groups. The Thai Health Report aims to be useful to anyone involved in health. It draws attention to health problems that are often overlooked. It offers solutions or it provides information that might help in the search for solutions. Addressing health problems requires the participation of everyone, from all sections of society.

The Thai Health Report Team

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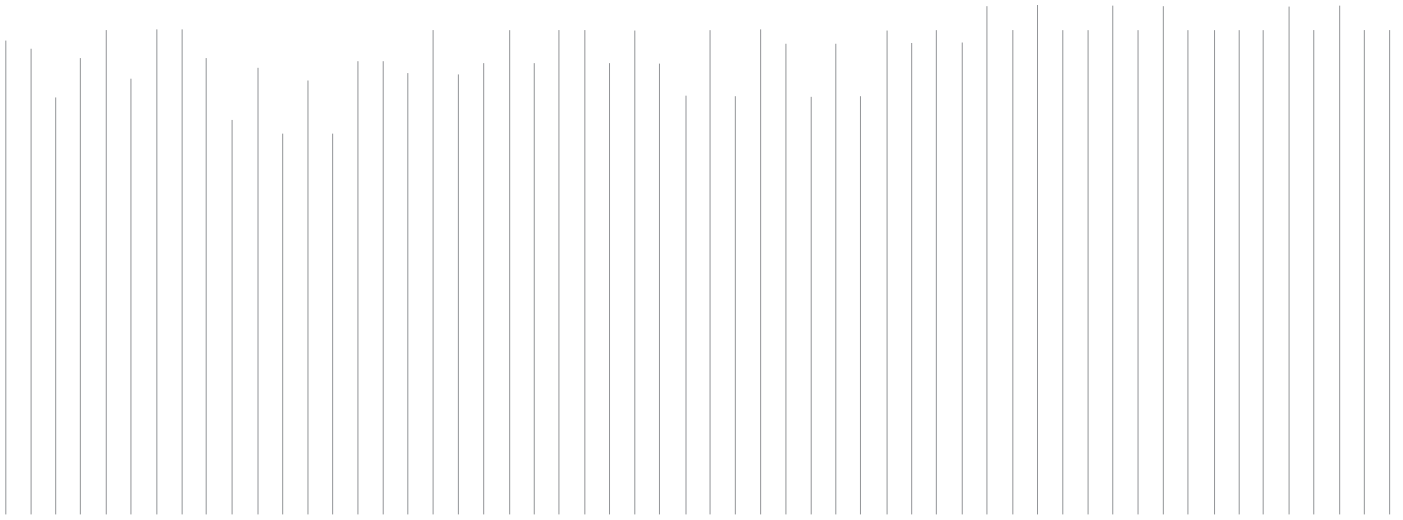
14 Health Indicators 2007

The Fourteen Indicators in the 2007 Thai Health Report



The 2007 Thai Health Report includes 14 indicators measuring the mental, physical, social health and spiritual health of Thais. Thailand will soon become an aging society, and is about to face a silent epidemic of dementia. There are currently 230,000 people with dementia in Thailand. In 20 years time, the number will climb to 450,000, and in 50 years it will reach one million. Two caregivers are needed for every person with severe dementia. Expenses for the person with dementia are typically 4,000 - 6,000 baht per month. Expenses for two caregivers are about 16,000 per month. This is an enormous financial burden for a family.

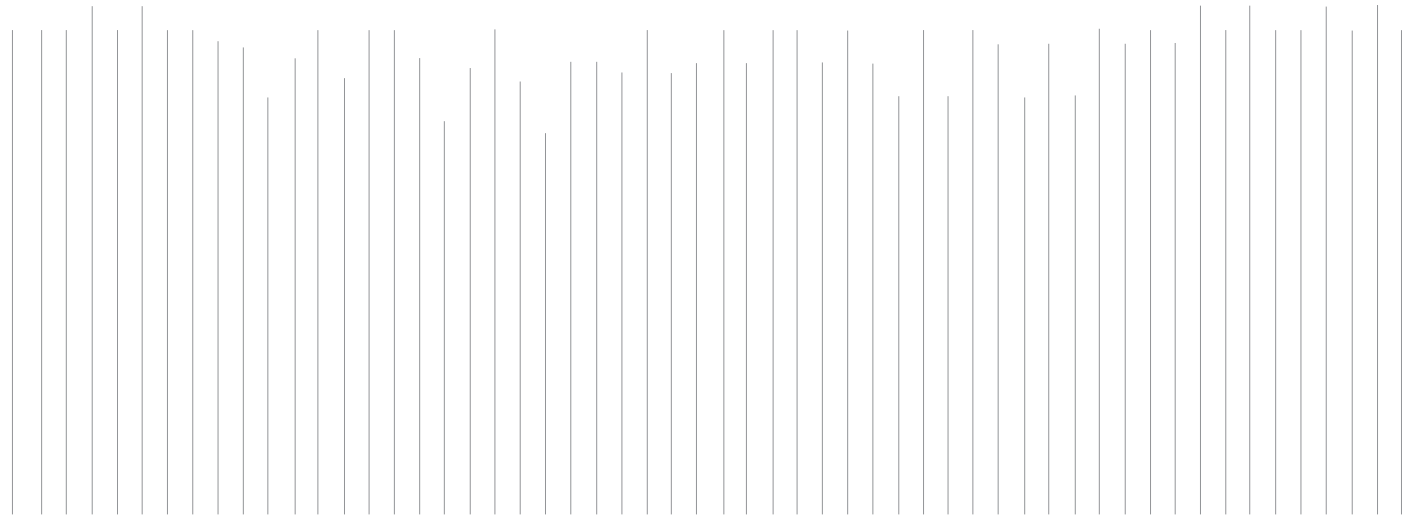
Health problems are not restricted to the elderly. Working-age people face the issue of occupational hazards. According to epidemiological surveillance reports, rates of occupational illnesses fell from 7.85 per 100,000 people in 1998, to 4.48 per 100,000 in 2004. However, many workers are still exposed to dangerous chemicals such as pesticides. As long as the production and importation of pesticides continues to rise, farmers and laborers will continue to suffer high levels of exposure.

One in five Thai people has some sort of mental illness. Common illnesses include major depressive disorder, anxiety disorder, psychotic disorder, and bipolar disorder. Altogether, 1.8 million Thais have one or more symptoms of depression, with the highest rates in the Northeast and among women. Stress is another notable mental health problem. The leading cause of stress is financial problems; other common causes are family and work problems.

Another perspective on mental health can be obtained by looking at measurements of happiness. Thailand comes 32nd in the world, and 7th among 24 countries in Asia on happiness scores. Within Thailand, there have been many proposals for measuring happiness using different variables. Savings, debt, income, environment, and strength of the community are indicators that are often used.

High blood pressure, high blood cholesterol, smoking, excessive consumption of alcohol, obesity, insufficient exercise, and diabetes are all important risk factors for cardiovascular illnesses. Smoking harms the health not only of the smoker, but also of people inhaling secondhand smoke. The United States Department of Health announced in 2006 that exposure to secondhand smoke at home or at work raises the risk of heart disease by 25-30%, and raises the risk of lung cancer by 20-30%. If pregnant women inhale secondhand smoke they have a greater chance of giving birth to a low birth weight baby. Their child also has a greater chance of dying of sudden infant death syndrome or of contracting respiratory illnesses such as respiratory infections or pneumonia.

One of the most important components of social health, and a crucial determinant of the health of Thai people, is the environment. Less than half of all industrial waste in Thailand is



treated properly. Dangerous chemicals, therefore, accumulate in the environment and in food chains. The industrial sector needs to rapidly improve its management of dangerous waste.

In a competitive society like Thailand, advertising helps support the capitalist system. Advertising also affects health. Companies spend over one billion baht per year advertising food supplements, which leads to excessive use. The most common complaint concerning food supplements is that they do not live up to claims made in advertisements.

Data from the Office of the Consumer Protection Board and the Food and Drug Administration indicate that the goods and services generating the highest number of consumer complaints are contracts, fixed assets, and food. Systems to protect consumers from exploitation need to be established as quickly as possible.

Economics have other effects on social health. Thai people's expenditures and debt are increasing. One in three debts is to pay for consumption, such as daily living expenses. One in three households in 2004 spent money on gambling. Households in Greater Bangkok spend the greatest proportions of their income on gambling.

When talking about economics, Thais should consider the principles of the Sufficiency Economy. Many people think that the Sufficiency Economy is relevant only to rural people working as farmers, but in fact it can be applied to all areas of economic life. The Sufficiency Economy is based on morality and knowledge. It has three components: rationality; a strong immune system; and sustainability.

Finally, an aspect of social health that requires attention is the lives of children and youth. One in three children and youth in Thailand gamble. Gambling can lead to violence, theft, blackmail, and prostitution. Young Thais often use new information technology inappropriately. Children and youth spend an average of eight hours per day using information technology, including playing computer games, watching movies, listening to music on MP3 players, surfing the Internet, and talking on mobile phones. Young people using information technology are often exposed to inappropriate or violent material. Another social problem experienced by youth is unequal access to education. Educational participation rates differ between rural and urban areas. The lowest rates for continuing education are in the Northeast. The most common reason for not continuing is financial hardship. Informal schooling is supposed to be the safety net for people who do not complete formal schooling. However, resources are allocated inequitably between formal and informal education.

1 Dementia: An Epidemic on the horizon

In twenty years time, the number of Thais suffering from dementia is likely to reach 450,000.

Prepared by Dr. Orapitchaya Krairit and Dr. Sirintorn Chansirikarnjana, Ramathibodi Hospital

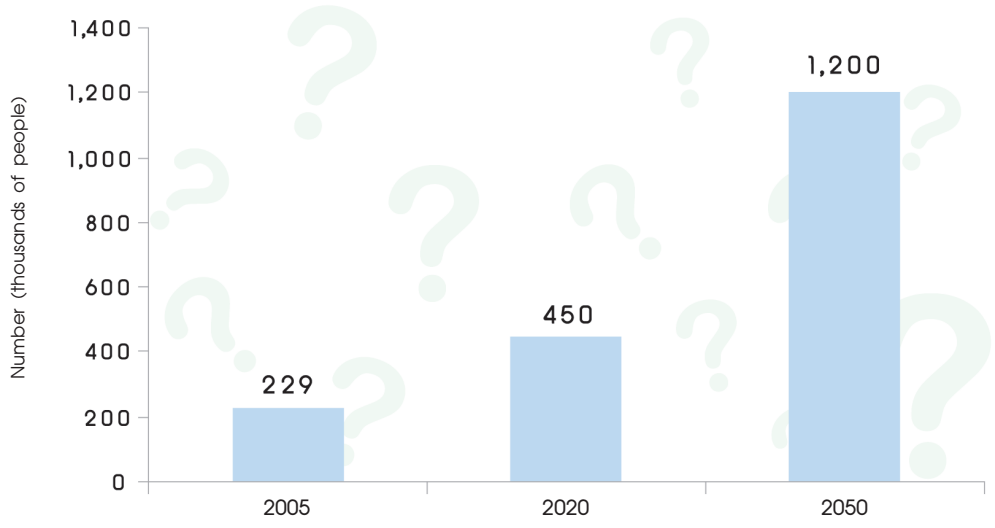
In addition to the dementia patients, who can no longer look after themselves, dementia also affects the physical, mental, social, and economic health of families and the society.

Dementia can strike all age groups, but is commonest among the elderly. The Asia-Pacific Working Group on Dementia estimates that 13.7 million people in this region suffer from dementia. The number of people with dementia will reach 64.6 million in 50 years time. The number of Thais with dementia is 229,000. In 20 years it will be 450,000, and by 2050 it will exceed one million.

Dementia is a silent epidemic. It destroys the victims' capacity to think, remember, work, and look after themselves. It also has mental, physical, economic, and social effects on people around them, such as caregivers and family members. To look after a person with dementia requires at least two caregivers. The costs of care are very high. Even if a family member provides care, the direct costs are still 4,000 to 6,000 baht a month. The indirect costs include lost earnings and the living expenses of caregivers, and can reach 8,000 to 16,000 baht a month. In cases of severe dementia, it is necessary to hire extra caregivers. Moreover, these estimates do not include the costs of drugs and hospitalization.

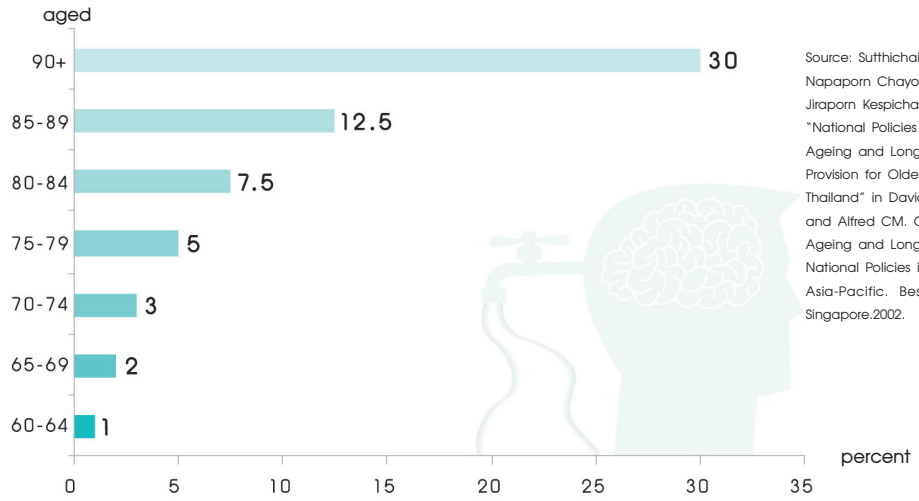
The time has come for us to begin learning about dementia, taking preventative measures, and recognizing the importance of the disease. As the International Alzheimer's Association says "there is no time to lose."

Estimates and projections of numbers of people with dementia in Thailand, 2005 - 2050



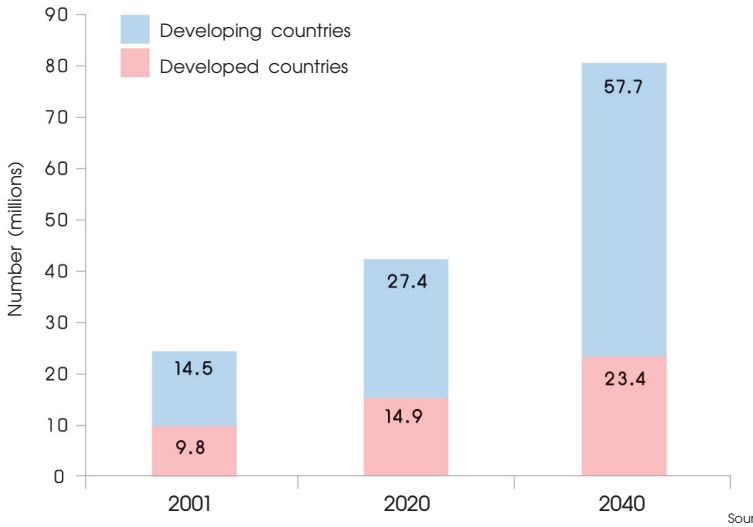
Source: Global prevalence of dementia: A Delphi consensus study, 2005

Percent of older people with dementia, by age



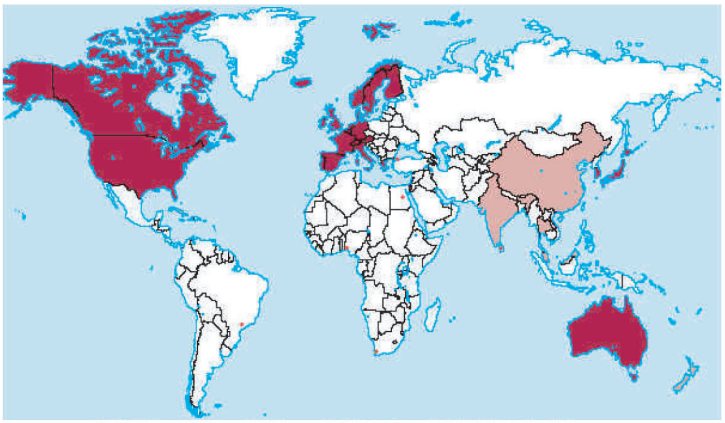
Source: Sutthichai Jitapunkul, Napaporn Chayovan and Jiraporn Kespichaywattana. "National Policies on Ageing and Long-term Care Provision for Older Persons in Thailand" in David R. Phillips and Alfred CM. Chan (Eds), Ageing and Long-term Care: National Policies in the Asia-Pacific. Bestprint Printing Co., Singapore.2002.

Numbers of people with dementia, developed and developing countries



Source: Global prevalence of dementia: A Delphi consensus study, 2005

Prevalence studies worldwide



Regions well covered with several studies of good methodological quality

Some studies but insufficient to derive regional estimates with confidence

Single epidemiological studies

No epidemiological studies

Source: Global prevalence of dementia: A Delphi consensus study, 2005

2 Occupational health

Occupational diseases are a major threat to Thai workers, particularly agricultural workers, who are exposed to dangerous levels of pesticides.

Prepared by The Thai Health Team

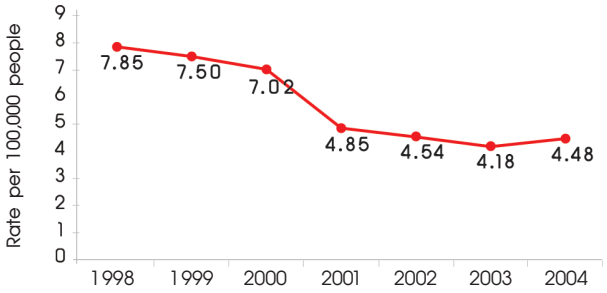
Half of all Thais who have occupational diseases work in agriculture. A further one in five is a non-agricultural laborer.

In mid-2005, Thailand had a population of 64.8 million, of whom 36.4 were employees aged 15 and over. Of these, 43% work in agriculture. When Thai workers are unhealthy, they cannot perform their work effectively and efficiently. This can lead to dismissal, which has a severe effect on the worker's family, and on economic production.

Occupational diseases are not yet a major cause of illness and death among Thais. According to the epidemiological surveillance reports produced by the Office of Epidemiology, Ministry of Public Health occupation diseases are the 22nd most important cause of illness and the 15th most important cause of death in Thailand. Encouragingly, the measured incidence of occupation diseases fell from 7.85 per 100,000 people in 1998 to 4.48 per 100,000 people in 2004. These figures are consistent with those from the Social Security Office, showing that the proportion of workers suffering accidents, mainly in the industrial sector, fell from 4.4% in 1995 to 2.8% in 2005.

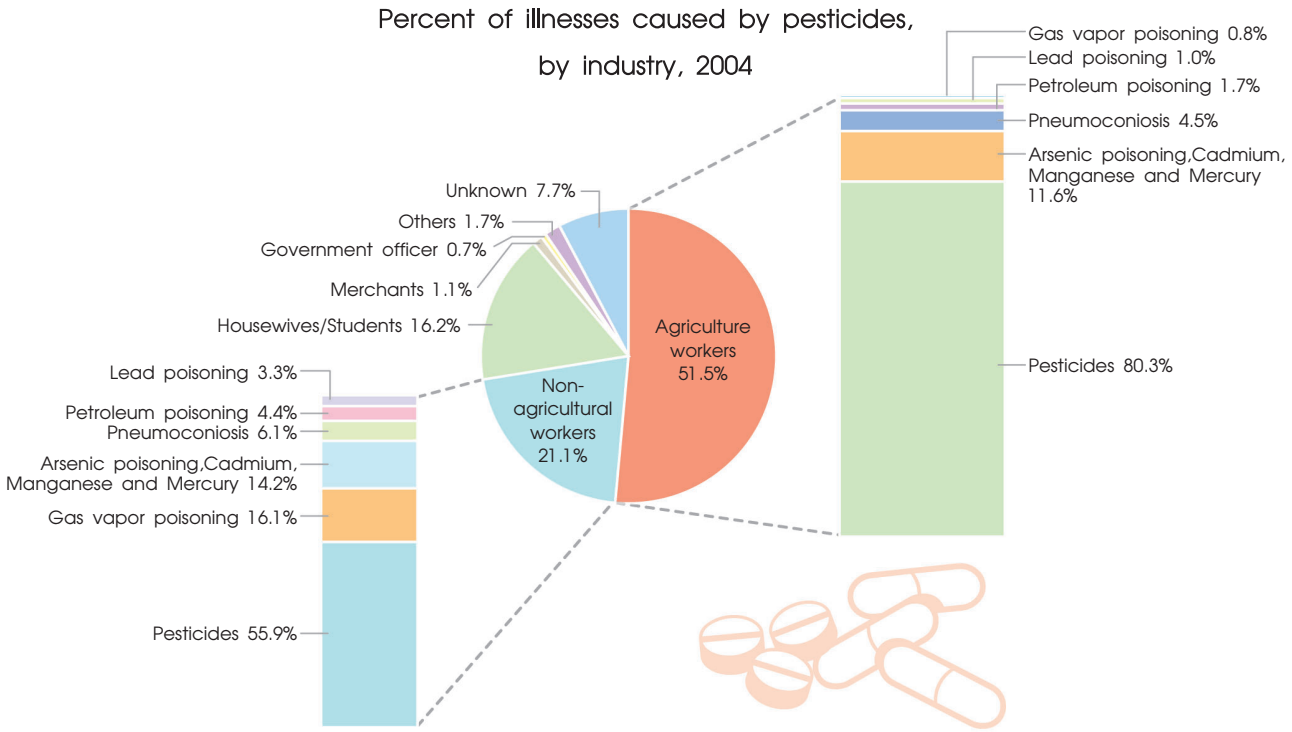
However, a research program to assess the effects of pesticides on the health of agricultural workers in 5 provinces found that 42.2% of workers had had sufficiently high levels of exposure to affect their enzyme levels. Moreover, pesticides are still an important source of risk to industrial workers. As long as Thailand produces and imports increasing quantities of chemicals, agricultural and industrial workers will continue to accumulate chemicals in their bodies, weakening Thailand's economy and society.

Reported Cases of Occupational illnesses per 100,000 people, 1998-2004



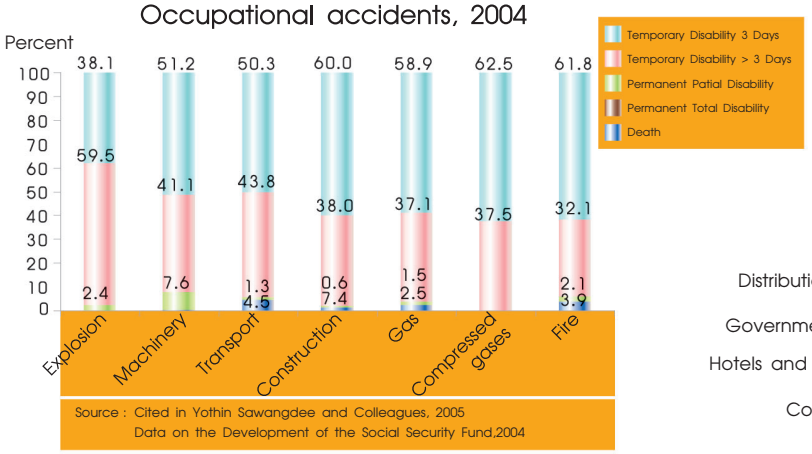
Source : Annual Epidemiological Surveillance Reports for 2002, 2003, 2004, Bureau of Epidemiology, Ministry of Public Health.

Percent of illnesses caused by pesticides, by industry, 2004



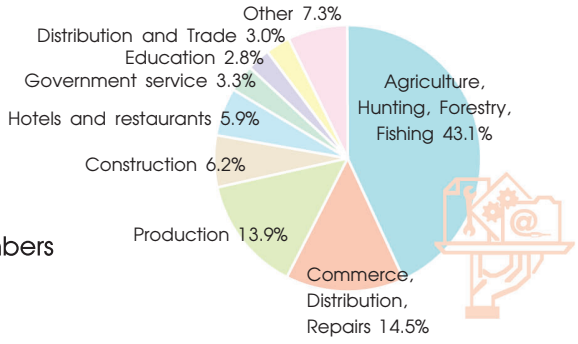
Source: Epidemiological Surveillance Reports for 2004, Bureau of Epidemiology, Ministry of Public Health.

Occupational accidents, 2004



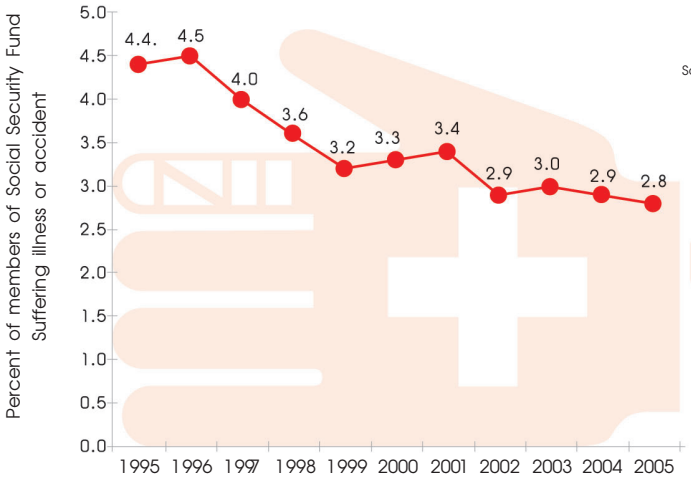
Source : Cited in Yothin Sawangdee and Colleagues, 2005
Data on the Development of the Social Security Fund,2004

Employees aged 15 and over, by industry, 2005



Source : Report on Population Characteristics from the Survey of Population Change, 2005-2006.
National Statistical Office.

Percent of Illness and Accident for members of Social Security Fund, 1995 - 2005



Source: Social Security Office, Ministry of Labor, 1995-2005

3 Mental illness

One in five Thais suffers from some sort of mental illness. The most common illnesses are depression and anxiety disorder. Stress is also a serious mental health problem.

Prepared by Dr. Taweesin Visanuyothin, Ministry of Public Health

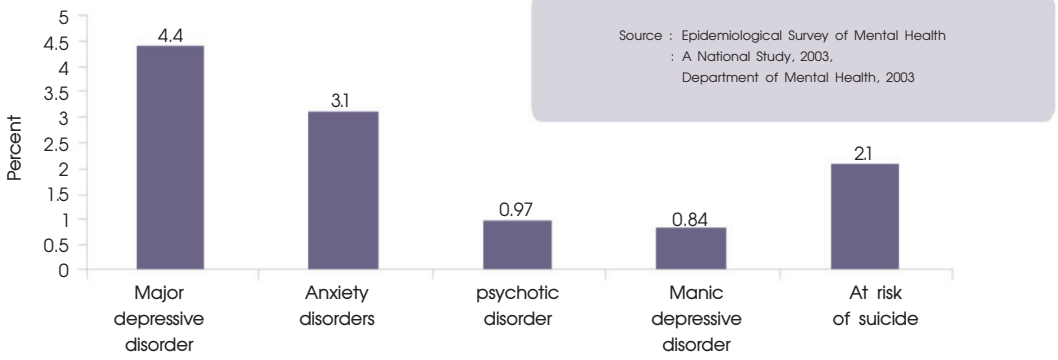
'The mind is the master and the body the slave' is an insightful and very old Thai expression. However, misunderstanding and prejudice about mental illness mean that many people do not recognize the warning signs.

The National Survey of the Prevalence of Mental Illness in 2003 found that one in five people aged 15 to 59 was experiencing some kind of mental illness. The illnesses included Major depressive disorder, anxiety disorder, psychotic disorder, and Manic depressive disorder. Altogether, 1.8 million Thais have one or more symptoms of depression. Prevalence rates are highest in the Northeast. Women have higher rates of major depressive disorder than men in all parts of the country. Approximately 1.3 million people have an anxiety or emotional disorder. Over 800,000 people are at risk of suicide.

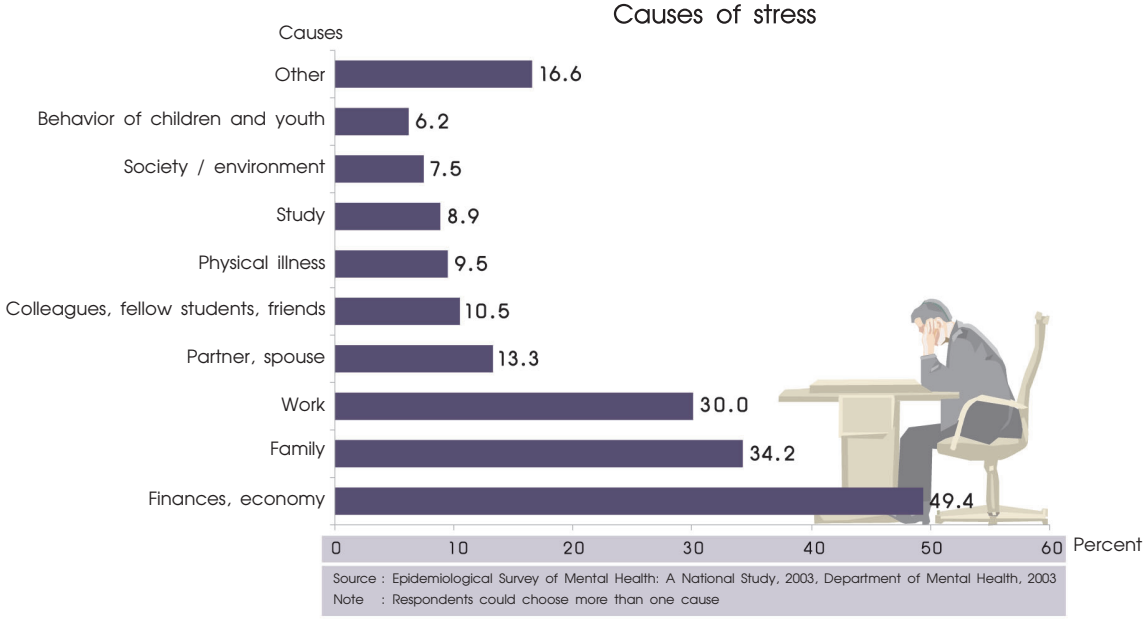
Stress is another important mental health problem. Eight percent of Thais experience severe stress. Everyone faces stress of some kind. A small amount is healthy, and can stimulate mental and physical activity. However, excessive amounts can lead to mental health problems. Sources of stress include problems with finances, family, and work. The Survey of Mental Health among Employees at Workplaces found that 23.9% of employees suffered from major stress, and 32.8% suffered from depression.

The main ways to reduce the prevalence of mental illness are providing people with information, raising awareness, promoting acceptance, and reducing prejudice. People who have received treatment for mental illness should not be stigmatised, but should be welcomed as members of the community.

Prevalence of mental illness and risk of suicide

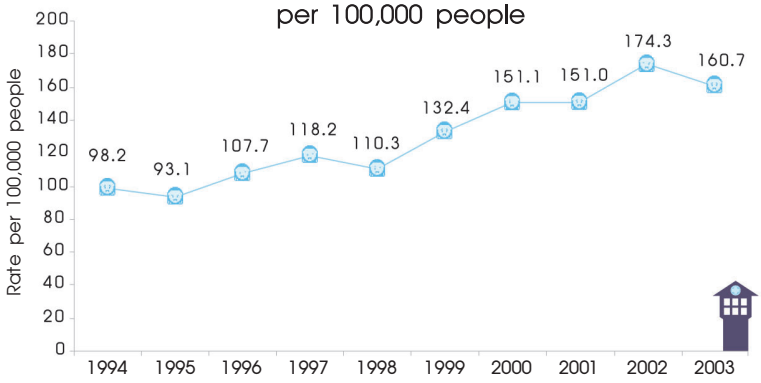


Causes of stress



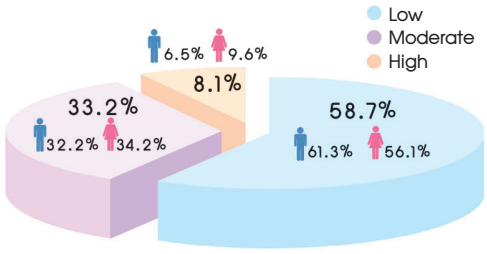
Source : Epidemiological Survey of Mental Health: A National Study, 2003, Department of Mental Health, 2003
Note : Respondents could choose more than one cause

Hospital admissions for mental illnesses per 100,000 people



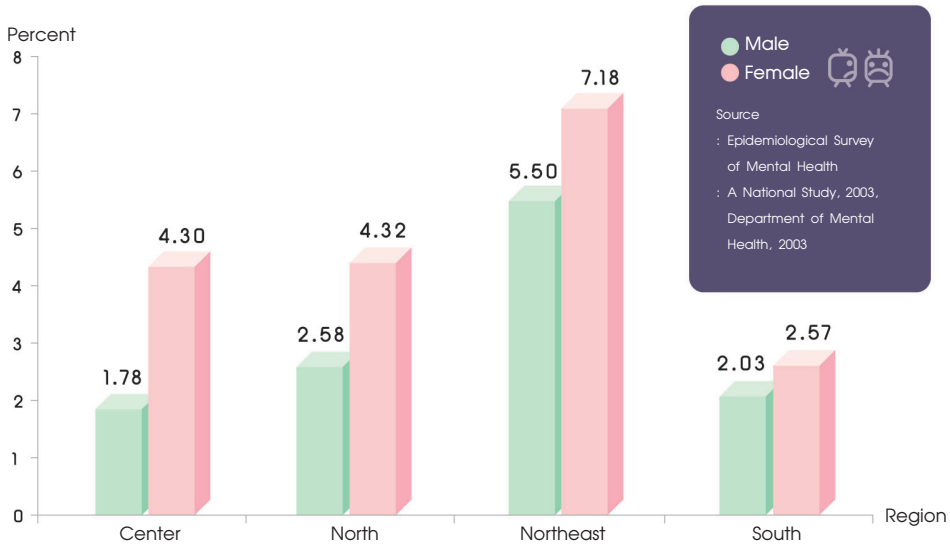
Source: Inpatient reports, Office for Policy and Strategy, Ministry of Public Health, 1994-2003

Level of stress reported in survey, by gender 2003



Source : Epidemiological Survey of Mental Health:
A National Study, 2003, Department of Mental Health, 2003

Prevalence of major depressive disorder in Thailand, by region



4 Happiness

Thailand comes seventh out of 24 Asian countries for levels of happiness.

Prepared by The Thai Health Team

Circumstances affect whether Thai people are happy or not, but the variables that most effect the happiness of Thais are the existence of savings, the level of income compared with other people, community solidarity, income sufficiency, and living together with the father, mother, and children in the same house.

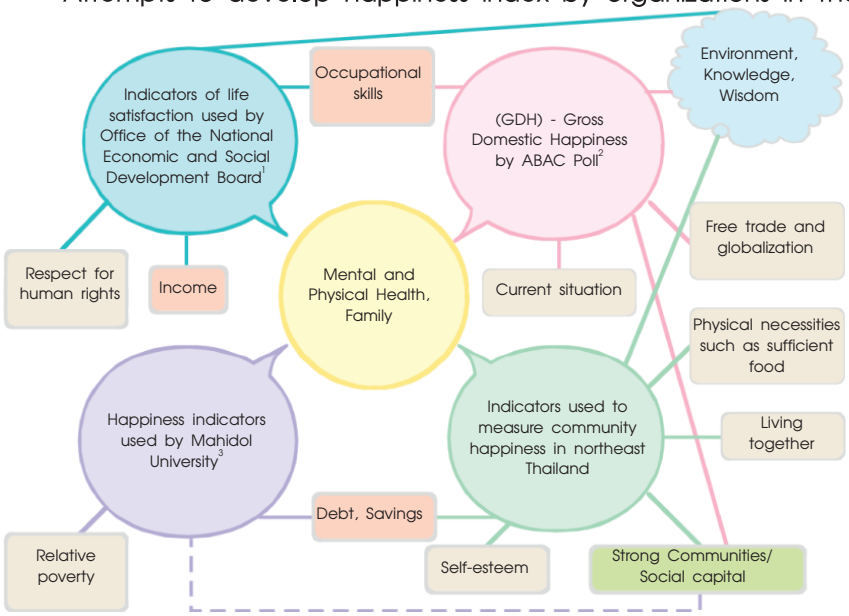
Around the world, the measurement of happiness is receiving increasing attention. Examples include the index of Gross National Happiness (GNH) in Bhutan, and the Happy Planet Index (HPI), developed by the New Economics Foundation. Both indexes incorporate ethics and consumption of natural resources. However, the Happy Planet Index also uses life expectancy and life satisfaction to measure happiness, while the index of Gross National Happiness uses economic self-sufficiency, preservation of culture, and good governance. When the Happy Planet Index was calculated for 178 countries in 2006, Thailand came thirty-second.

In Thailand there have been many proposals for measuring happiness at the local and national level. However, most authorities agree on the importance of physical and mental health and of loving families. Indicators that are widely accepted include: income, debt, savings, employment, environment, and community solidarity. Different groups have added other items to this list.

ABAC Poll has measured happiness levels on a monthly basis. They have found that Thais are moderately happy: neither very happy nor very unhappy. However, unusual circumstances can raise or lower general levels of happiness. For instance, during the 60th anniversary of the King's accession to the throne (in May 2006), levels of happiness increased to almost 10 out of 10. During the major floods of October, which caused widespread economic difficulties, happiness levels dropped dramatically.

A survey in two provinces found similar levels of happiness in the two places. Most people were moderately happy. However, if a household had savings, if it felt that it was no poorer than other households, if the community was strong, if household income was higher than 50,000 baht per year, and if the parents and children lived together, then household members were more likely to be happy.

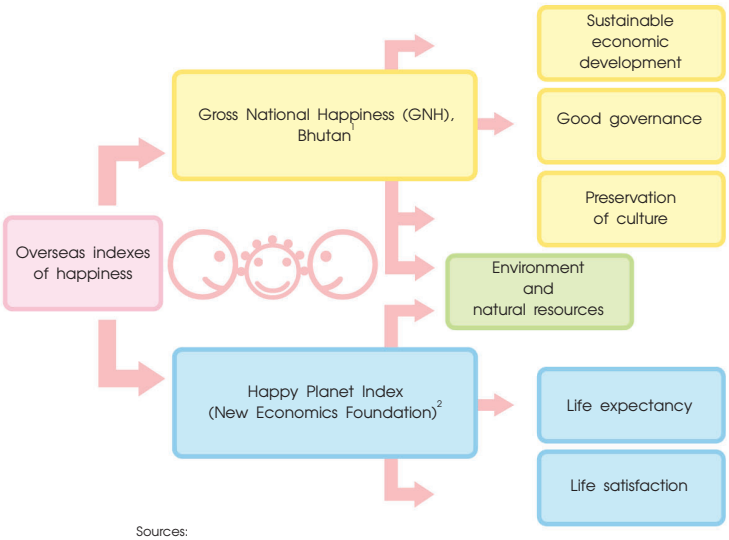
Attempts to develop happiness index by organizations in Thailand



Source:
1. Office of the National Economic and Social Development Board
2. ABAC Poll, Assumption University, Monthly Report on the Happiness Indexes in Thailand, October 2006
3. Rossarin Gray and colleagues, 2006, Happiness Indexes in Chainat and Kanchanaburi Provinces: Part of a Local Participatory Research Program for Addressing Poverty in Western Thailand
4. Aphisit Thamrongworrakun, 2006, Sustainable Community Development for Quality of Life and a Healthy Environment, Khon Kaen

Rank in Asia for the Happy Planet Index, 2006

Rank	Country	Score out of 100
12	Vietnam	61.2
13	Bhutan	61.1
15	Sri Lanka	60.3
17	Philippines	59.2
23	Indonesia	57.9
31	China	56.0
32	Thailand	55.4
39	Maldives	53.5
41	Bangladesh	53.2
44	Malaysia	52.7
48	Timor Leste	52.0
54	Nepal	50.0
56	Mongolia	49.6
62	India	48.7
77	Burma	44.6
84	Taiwan	43.4
88	Hongkong	42.9
91	Cambodia	42.2
95	Japan	41.7
100	Brunei Darussalem	41.2
102	Korea	41.1
109	Laos	40.3
112	Pakistan	39.4
131	Singapore	36.1



Sources:
1. Gross National Happiness: A New Development Strategy, prepared by the Center for Bhutanese Studies, translated by Jaesani Sukhumchitikan 2004
2. Conceptual Framework for the Development of a Happiness Index for Thai Society Conference Proceedings, Thai Health Council, 2006

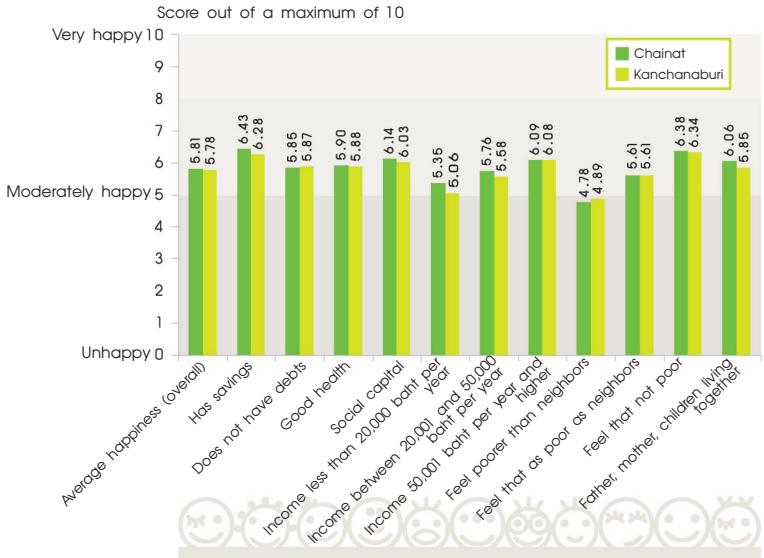
The countries with the highest and lowest happiness scores

10 highest scores	Score out of 100
Vanuatu	68.2
Colombia	67.2
Costa Rica	66.0
Dominica	64.6
Panama	63.5
Cuba	61.9
Honduras	61.8
Guatemala	61.7
El Salvador	61.7
St. Vincent and the Grenadines	61.4

10 lowest scores	Score out of 100
Zimbabwe	16.6
Swaziland	18.4
Burundi	19.0
Democratic Republic of the Congo	20.7
Ukraine	22.2
Estonia	22.7
Russia	22.8
Lesotho	23.1
Equatorial Guinea	23.8
Turkmenistan	24.0

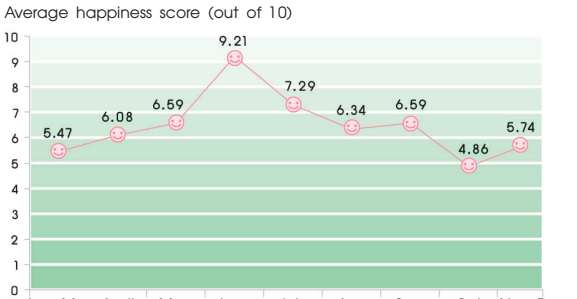
Source: The New Economics Foundation. 2006. www.happyplanetindix.org/survey.htm
Note: Thailand is in 32nd place with a score of 55.4. Happiness is measured using the Happy Planet Index.

Average happiness of Thais in Western Thailand, 2005



Source : Rossarin Gray and colleagues, 2006, Happiness Indexes in Chainat and Kanchanaburi Provinces: Part of a Local Participatory Research Program for Addressing Poverty in Western Thailand

Average happiness of Thais, monthly, 2006



Indicators for measuring happiness

1. Physical health
2. Mental health
3. Culture, unique Thai identity
4. Family, children, and community
5. Education
6. Following the self-sufficient economy model
7. Work satisfaction
8. Atmosphere in community
9. Environment
10. Natural resources and ethical management
11. Equity and morality in society
12. Good governance
13. Free trade area in globalization
14. Monthly situation

Source : ABAC Poll, Assumption University, Monthly Report on the Happiness Indexes in Thailand, December 2006

5 Risk factors for cardiovascular disease

Three in five Thais have at least one risk factor for cardiovascular disease. Cardiovascular disease is the most important cause of ill health among Thai women and the fifth most important cause among Thai men.

Prepared by Dr. Wichai Aekplakorn, Ramathibodi Hospital

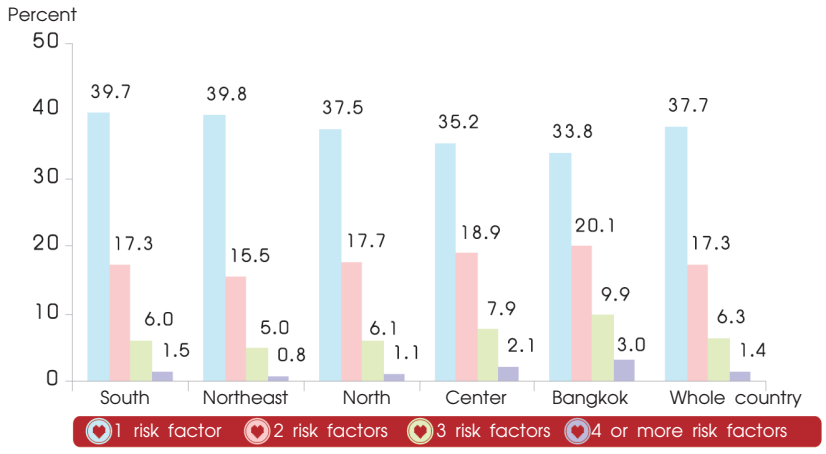
Measures to control cardiovascular disease need to emphasize the simultaneous prevention and treatment of diverse risk factors.

The leading chronic illness among Thais is cardiovascular disease. Twenty eight percent of Thais have some form of cardiovascular disease. Heart attack and stroke kill 65,000 Thais per year. Cardiovascular disease has many risk factors, including high blood pressure, high levels of blood cholesterol, smoking, fat deposits around the waist, excessive body weight, alcohol consumption, insufficient exercise, and diabetes.

Data from the third National Health Examination Survey in 2004 show that almost 50% of Thai males smoke regularly. Men are more likely than women to have high blood pressure. Men in Bangkok are two times more likely than men elsewhere in Thailand to have diabetes. In other parts of Thailand, diabetes is more common among women than among men. Another risk factor that is more common among women than men is high levels of blood cholesterol, which are three times more common in Bangkok than in the Northeast. Insufficient exercise leading to excessive weight and deposits of fat around the waist is also more common among females than males.

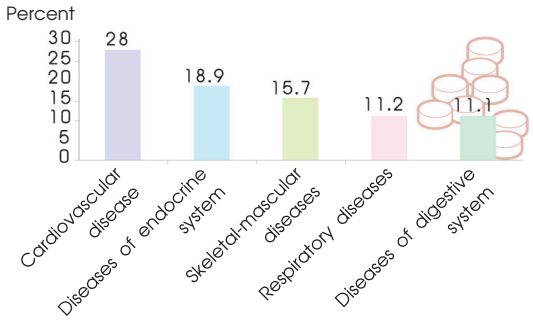
Increases in the risk factors for cardiovascular disease has meant that heart disease rose from being the second most important cause of ill health among Thai women in 1999 to being the first in 2004. Reducing the risk factors would reduce illness and deaths from cardiovascular disease. Policy measures to reduce risk factors include food regulations, changes in the environment aimed at increasing exercise, and improved quality of care. Lifestyle changes that individuals can make include: eating healthier food such as fruit and vegetables, not smoking, increasing exercise levels, and controlling stress. Some of these changes are easier than others, but all are possible with sufficient determination.

Number of risk factors for cardiovascular disease



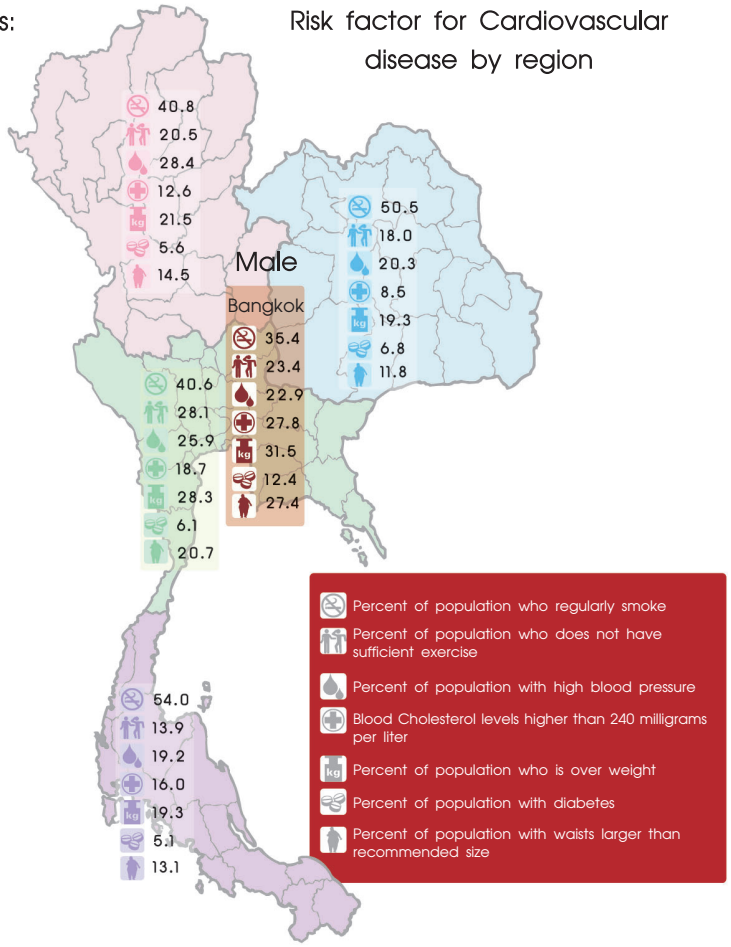
Source: the third National Health Examination Survey in 2004

Percent of population with chronic illness: The five most important disease groups

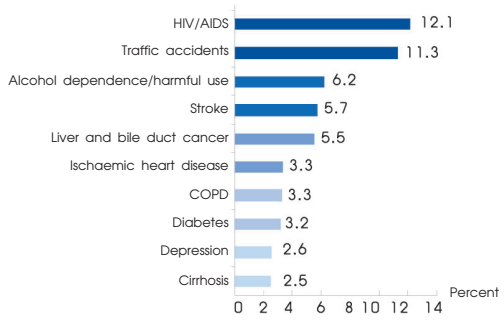


Source: Health and Welfare Survey 2005

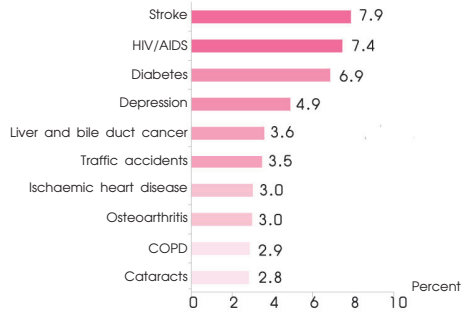
Risk factor for Cardiovascular disease by region



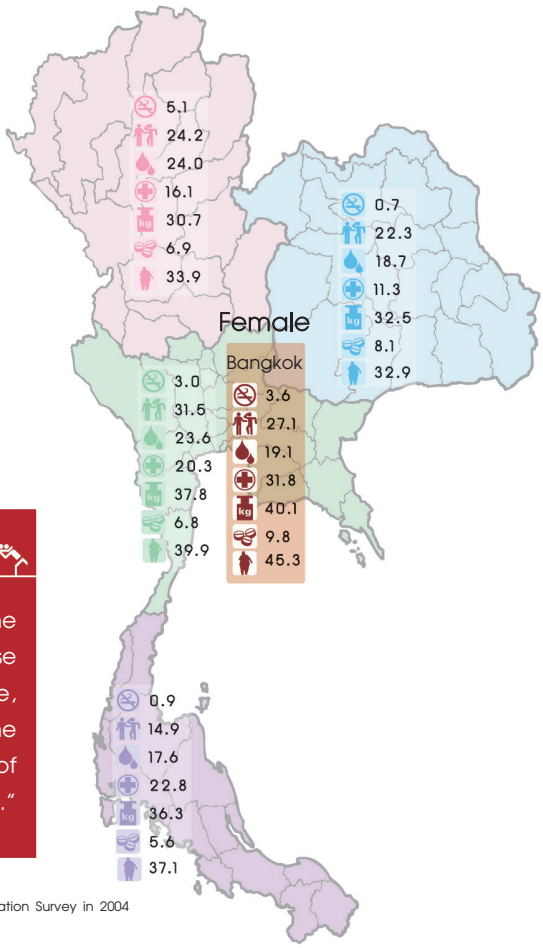
Burden of Disease in male population, 2004



Burden of Disease in female population, 2004



Source: The Thai Working Group on Burden of Disease and Injuries, International Health Policy Program, 2006



Source: the third National Health Examination Survey in 2004

insufficient exercise

"People need at least three hours of moderate exercise or one hour of intense exercise per week. Examples of moderate exercise include walking around the workplace, cleaning the house, washing the car, cleaning windows, using a lawnmower to cut the grass, and walking less than 10 minutes to get to work. Examples of intense exercise include walking fast, playing tennis, and swimming."

6 Risks from secondhand smoke

For children, the home is a major source of secondhand smoke, but is not covered by current smoke-free laws.

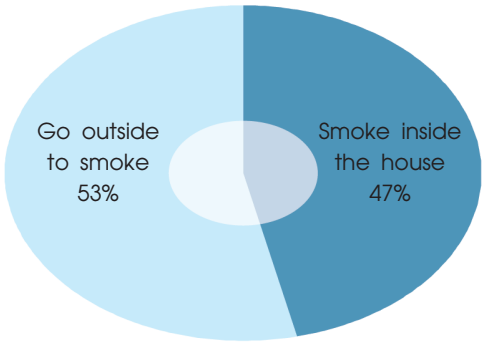
Prepared by Action on Smoking and Health

Almost one half of fathers who smoke do so in the house, putting their children at risk.

When non-smokers inhale smoke produced by smokers, this is called 'passive smoking'. As soon as a smoker lights up, two types of smoke are produced: smoke from the cigarette itself, and smoke exhaled by the smoker. Secondhand smoke contains over 4,000 chemicals, of which 250 are dangerous, and more than 50 cause cancer. The Environmental Protection Agency of California, the World Health Organization, and other scientific bodies agree that secondhand smoke can cause cancer, even when the amounts inhaled are very small. Non-smokers who are exposed to secondhand smoke face risks almost as great as the smokers themselves. Moreover, the risks are greatest for children. Children are especially vulnerable to secondhand smoke at home, since this is where they spend the most time.

The regulations on smoke-free zones established by the Protection of the Health of Non-Smokers Act 1992 prohibit smoking in public places and workplaces. These regulations help protect non-smokers from exposure to secondhand smoke. However, the regulations do not cover private houses. It is therefore important to campaign to protect children from secondhand smoke.

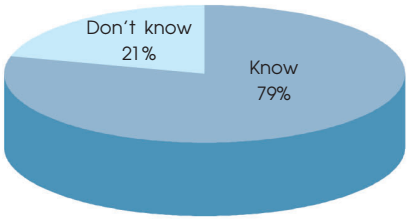
Where do adults smoke?



Source: ABAC Poll survey "Children's attitudes towards parents who smoke : A case study of Year 2-4 students in Bangkok", 2004

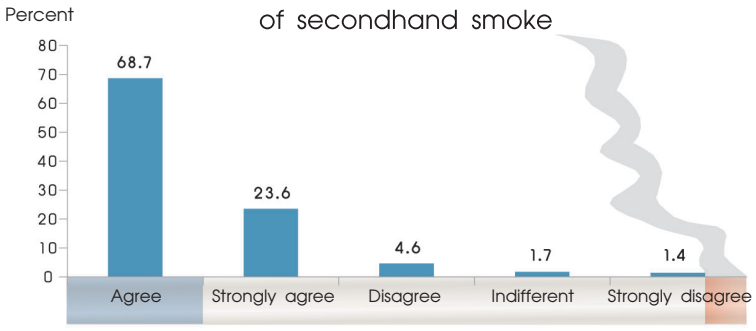
Smoke- Free zone as defined by the Act

Knowledge about the Protection of the Health of Non-Smokers Act 1992, declaring that government offices must be smoke free



Source : Professor Dr Montha Kengkanpanit and colleagues, "Implementation and Attitudes towards the Protection of Health of Non-Smokers Act 1992", The Center for the Management and Control of Tobacco, Department of Health Education and Behavior, Faculty of Public Health, Mahidol University

Attitudes towards the dangers of secondhand smoke



Source: International tobacco control policy (Thailand) adolescents survey wave (2005)

The 2005 Annual Report from the United States Department of Health states that people exposed to secondhand smoke suffer the following effects

- People exposed to secondhand smoke at home or work have a 25-30% greater chance of developing heart diseases, and a 20-30% greater change of developing lung diseases.
- Secondhand smoke has an immediate effect on the cardiovascular system

Pregnant women

- Pregant women exposed to secondhand smoke face an elevated risk of low birth weight babies.
- Elevated risk of Sudden Infant Death Syndrome (SIDS)

Small children

- Increased risk of respiratory infections and asthma
- Increased risk of infections of the inner ear
- Over the long term, retards development of lungs

Results of testing for PM 2.5 in Bangkok workplaces

1. In 39 workplaces where smoking is banned, the average particulate matter was 36 micrograms per cubic meter
2. In 15 workplaces where smoking is not banned, the average particulate matter was 48 micrograms per cubic meter

Note: The safe level of PM 2.5 is 15 micrograms per cubic meter (Environmental Protection Agency, USA). The level of PM 2.5 is directly related to the level of cigarette smoke.

Source: Associate Professor Charoenkha and colleagues, 'Global Air Monitoring Study: A Multi-Country Comparison of Levels of Indoor Air Pollution in Different Workplaces. Results from Thailand'. May 2005 (Unpublished report)

PM (Particulate Matter) is fine dust in the air due to, for instance, fuel combustion, factories, automobile pollution, and construction.

Particulate matter that is less than 10 microns wide can be inhaled. This means that particular matter between 10 and 2.5 microns wide can come into contact with the respiratory system, with severe effects on the victim.

7 Hazardous waste

More than half of all hazardous waste is not disposed of correctly.

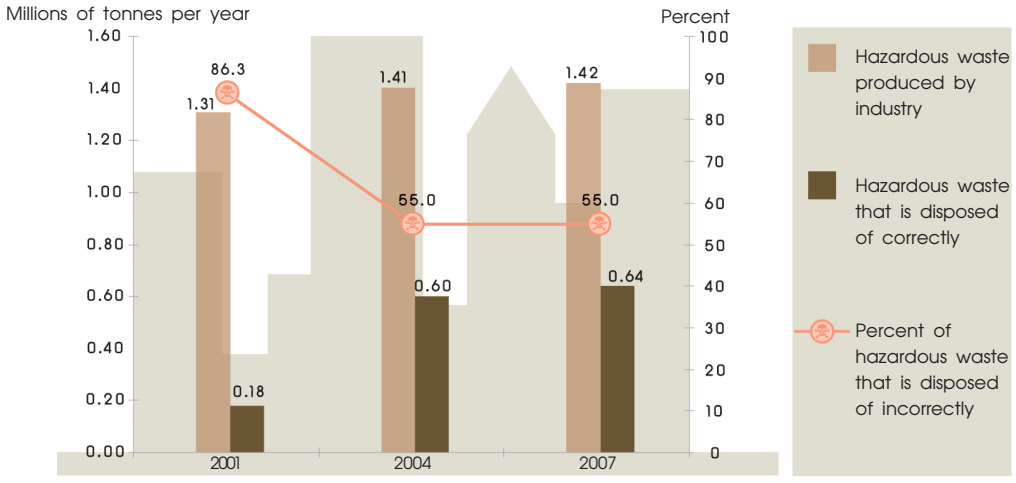
Prepared by Rangsan Pintong, Department of Pollution Control

Incorrect disposal of hazardous waste allows toxic chemicals to pollute the environment and enter food chains.

Households, communities, and factories all produce hazardous waste. In 2004, a total of 1.8 million tonnes of hazardous waste was created in Thailand. Of this waste, 55% was not disposed of correctly. There are two types of hazardous waste. The first is waste from factories such as those making metal coatings, batteries, and leather products, and includes heavy metals, solvents, and acid. The second type of hazardous waste comes from communities, including domestic and commercial activities. Prominent producers include car repair shops, ports, airports, hospitals, and farms. Hazardous materials discarded by communities include fluorescent bulbs containing mercury, light starters containing PCBs, detergents with corrosive ingredients, ammonia, pesticides, motor oil, batteries containing hydrocarbons and heavy metals, and paint thinner containing solvents. Most of these wastes are mixed in with ordinary garbage and are placed in normal landfills which are not designed to cope with hazardous products. The hazardous materials, therefore escape into the environment where they enter food chains, soil, water, and air. They affect the health of the human population and the environment, directly and indirectly. The secret burial and disposal of waste during 2004-2006 in Pak Chong District, Nakhon Ratchasima Province, Sriracha District, Chonburi Province, Huay Khwang District, Bangkok Province, and Tha Muang District, Kanchanaburi Province illustrate the fact that many dangerous wastes are still not disposed of correctly.

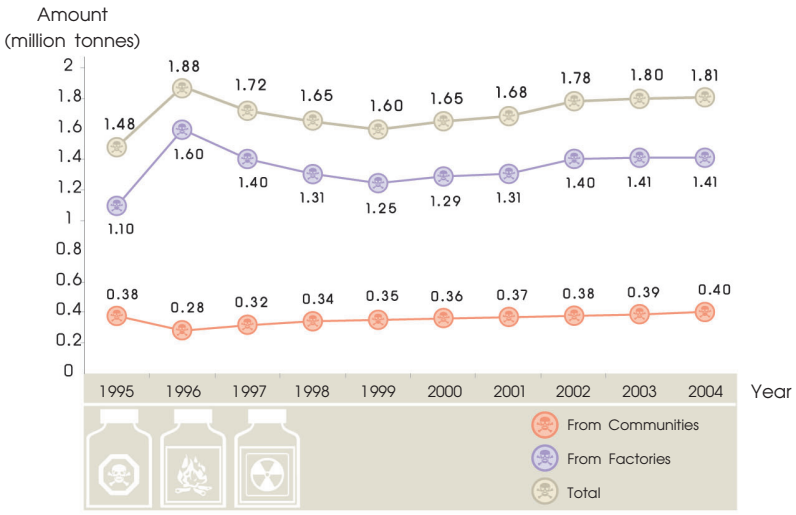
The government needs to support the rapid expansion of centers for hazardous waste control. There should be a reporting system and guidelines for the transfer of hazardous waste. There should be strict penalties for people who do not follow the regulations. The private sector should contribute by installing clean technologies and obeying the rules. The general public needs to act as the eyes and ears of the government by keeping watch for cases of incorrect disposal of hazardous waste and reporting them immediately to the authorities. The public also needs to keep abreast of current scientific information on hazardous wastes, in order to give advice to friends and relatives involved in the production of waste so that everyone can contribute to safe disposal. For instance, people need to avoid mixing dangerous wastes with ordinary garbage, and need to avoid using products that cause hazardous wastes.

Hazardous waste produced by industry, 2001 - 2007



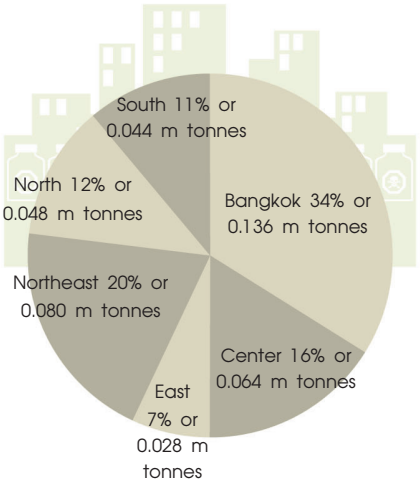
Source: Summary of Pollution in Thailand, 2001, 2004, 2006, Department of Pullution Control, Ministry of Natural Resources and Environment

Production of hazardous waste, 1995-2004



Source: Department of Pollution Control, Ministry of Natural Resources and Environment, 1995 - 2004

Hazardous waste from communities, by region, 2005



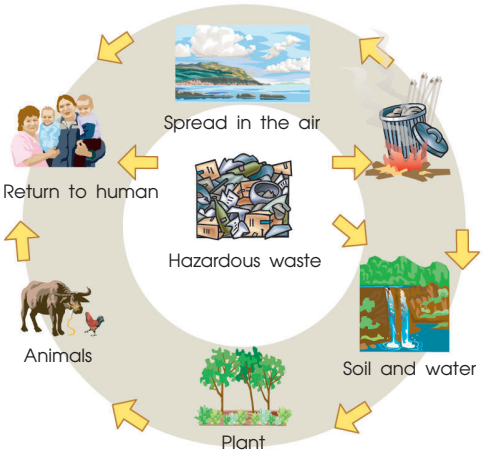
Source : Summary of Pollution in Thailand, 2004,Department of Pullution Control, Ministry of Natural Resources and Environment

Methods for disposing of hazardous waste at a hazardous waste disposal center

Method	Cost per tonne	Capacity
Treat	2,600	A 50 cubic meter facility can treat 27 cubic meters per time
Bury	2,600	A landfill of 354,000 cubic meters capacity can be used for 20 years
Produce fuel	4,500	35 Tonnes per day
Incinerator	5,300	Rotary Kiln with a capacity of 170 tonnes per day, and equipment for controlling air pollution

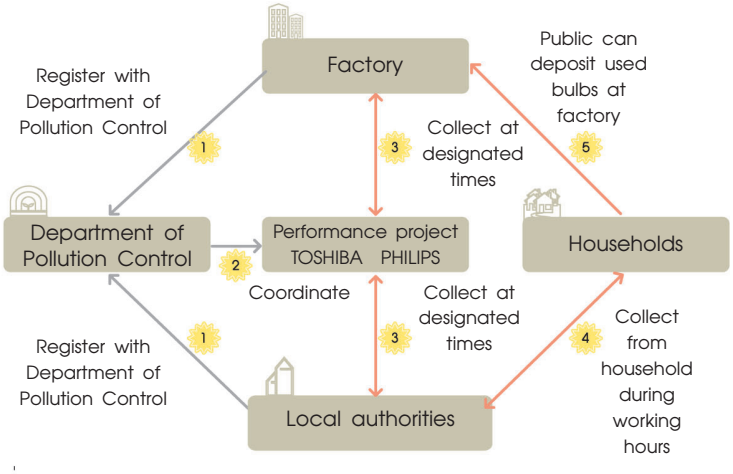
Source : Program to Investigate the Construction of a Center for the Disposal of Hazardous Waste, Department of Pollution Control, 2002

An example of the circulation of hazardous waste such as fluorescent bulbs



Source : Managing Waste from Fluorescent Bulbs in Thailand, Department of Pollution Control, Ministry of Natural Resources and Environment

System for diposing of fluorescent bulbs in Thailand The Department of Pollution Control is responsible for the system and acts as coordinator



Source : Managing waste from fluorescent bulbs in Thailand, Department of Pollution Control, Ministry of Natural Resources and Environment

Quantities of hazardous waste from factories that were disposed of by facilities using incineration, treatment, and burial, 2004

Facilities using incineration, treatment, and burial	Tonnes
Center for Dispoing of Industrial Waste, Mabtaphut, Rayong (GENCO) disposes of all types of industrial waste	68,000
Center for Dispoing of Industrial Waste, Saemdam and Ratchaburi (GENCO) disposes of all types of industrial waste	75,000
The 7 Cement factories use hazardous waste to produce fuel	457,000
Recycling centers	50,000
Total	640,000

Source : Department of Pollution Control, Ministry of Natural Resources and Environment

8 Food supplements

During the period 2003-2006, the advertising budget for food supplements was over one billion baht per year, contributing to over-use of supplements.

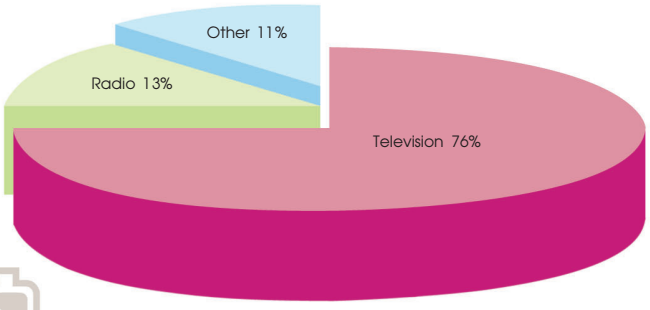
Prepared by Dr Niyada Kiatying-Angsulee and Wanna Sriwiriyanuparb, Chulalongkorn University

Use of food supplements is growing. In one sense, this is a good thing, as it shows that people are concerned about their health. But special promotions, extensive advertising, direct sales, and excessive claims have lead to heavy and inappropriate use that does not constitute true health promotion.

Food supplements are foods that are taken in addition to normal food. In October 2006, about 5,000 food supplements were registered in Thailand. About one-third of these were registered for importation. Thais spend about 20 billion baht per year on supplementary foods and beverages incorporating traditional medicines. The main reason people buy food supplements is that advertising persuades them that supplements are essential. Advertisers claim that supplements can prevent or treat conditions such as high blood pressure or can help them lose weight. Sometimes people take supplements when they are playing sport, studying for an exam, or working hard because they worry that they are not receiving sufficient nutrients. Such beliefs are incorrect.

The advertising budget for food supplements exceeded one billion baht per year for the period 2003-2006. These amounts do not include special promotions and direct sales. Advertising is particularly heavy when a new product is launched. The two brands of birds' nest beverages together spend 200 million baht per year on advertising. The 2-3 brands of chicken beverage spend 150 million baht per year. Most advertisements make misleading claims, which spreads misunderstanding and sometimes harms consumers. The Food and Drugs Office has issued warnings, but there have not yet been information campaigns to reach the general public.

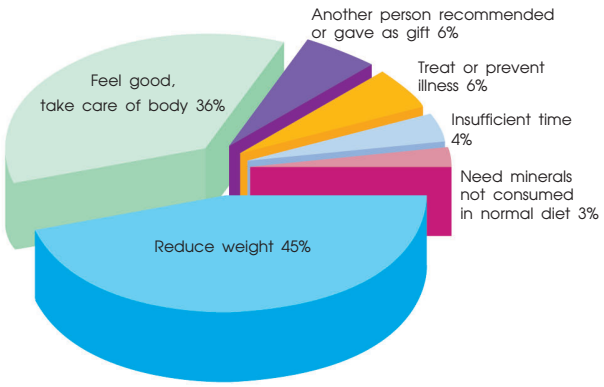
Distribution of advertising budget for food supplements



Source : Media Spending Ltd., 2005

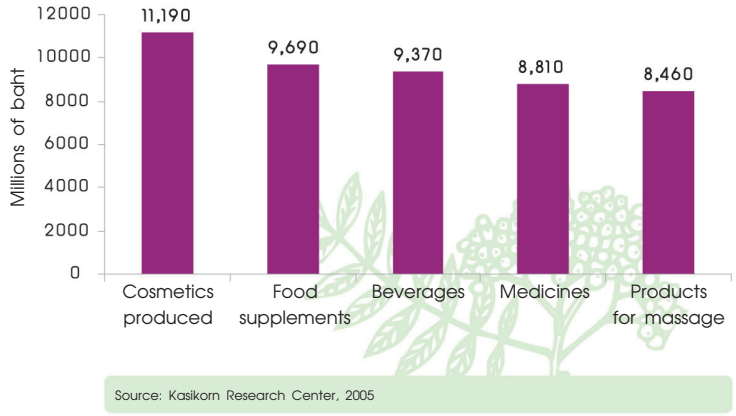
Notes:
1. Advertising through television, radio, newspapers, magazines, hoardings, movies, and Internet
2. Data refer to the following products: vitamins, weight loss products, chicken beverage, birds' nest beverage, fruit soup beverage, fish products, and others.

Reasons for consuming food supplements



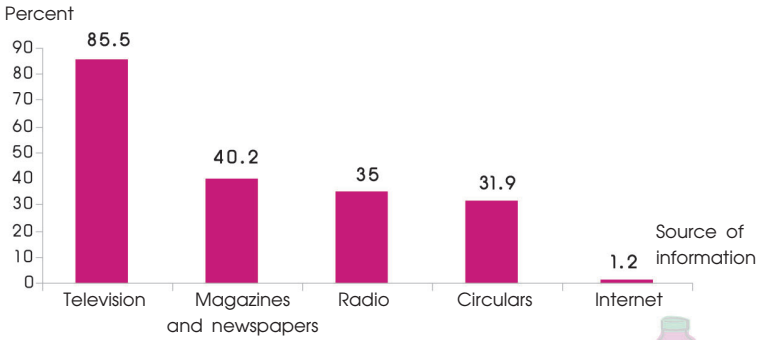
Source: Consumer Protection, 2003

Expenditure on products produced from traditional medicines, 2005



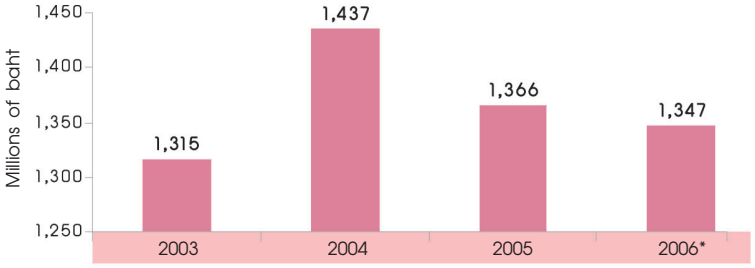
Source: Kasikorn Research Center, 2005

Sources of information about food supplements among Bangkok women aged 60 and over



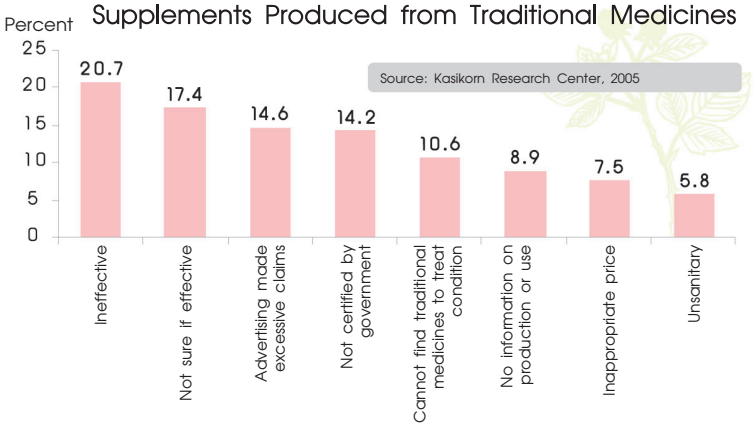
Source: Wanna Sireewiriyanupap ,Use of Health Food Products by Elderly Women in Bangkok, 2006

Advertising budget for food supplements, 2003-2006



Source : Media Spending Ltd.
Notes : 1. Advertising through television, radio, newspapers, magazines, hoardings, movies, and Internet
2. Data refer to the following products: vitamins, weight loss products, chicken beverage, birds nest beverage, fruit soup beverage, fish products, and others.
3. *Estimated from data for January-August 2006

Problems Encountered by Consumers When Using Food Supplements Produced from Traditional Medicines



Source: Kasikorn Research Center, 2005

Example of Food and Drug Administation warnings for food supplements

Product	Warning
All supplements should contain the warning 'children and pregnant women should not consume'. Others should contain additional warnings as follows.	
1. Shark fins	- Not suitable for people with heart disease or recovering from surgery
2. Pollen	- Should not be consumed by people allergic to pollen
3. Khaitosan	- Women who are breastfeeding breastfeeding should not consume - People taking other supplements with large amounts of fat should consume two hours before hours before or after this product - People who are allergic to seafood, and who are underweight, should use with caution
4. Fish oil	- Not for use by people who are allergic to seafood or fish oil - Should be used cautiously by haemophiliacs or by people taking aspirin
5. Evening Primrose oil	- Should not be used by people with a history of epilepsy - Should not be used by people taking drugs for epilepsy
6. Food fiber	- To prevent intestinal blockage, should consume with 1-2 glasses of water
7. Royal jelly	- People who are asthmatic or have allergies should not consume, because may cause severe allergic reaction
8. Products of gingko leaf	- Can interfere with clotting of blood
9. Ginger or ginger products	- Should not be consumed by people with history of kidney stones
10.Artificial sweeteners	- Is not a weight loss-product

9 Consumer protection

Contracts, fixed assets, and food attract the greatest number of complaints.

Prepared by Dr. Vithaya Kulsomboon and Wanna Sriwiriyanuparb,
Health Consumer Protection Project

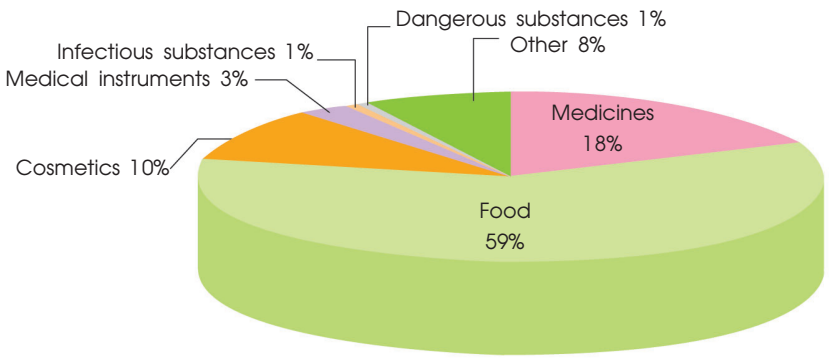
A system to protect consumers from exploitation needs to be established as quickly as possible.

Data on complaints illustrate the problems faced by consumers. The government organizations dealing with consumer protection, Office of the Consumer Protection Board, and the Food and Drug Administation, received a total of 8,371 complaints in 2006, an increase of 1,000 on the previous year. The offices now receive an average of 22.9 complaints per day. The most common type of complaint received at the Office of the Committee for Consumer Protection is concerns contracts and fixed assets. It also receives complaints about other goods, and about misleading advertising. The main issues dealt with by the Office of the Food and Drug Committee are unbranded drinks, unhygienic food, misleading advertising, expired products, and unsanitary premises.

Complaints to the Foundation for Consumers are also increasing. During 2006, it received an average of 1.8 complaints a day. A total of 61.2% of these complaints concerned debts to formal and informal lenders. The increase in the number of complaints demonstrates the need for measures to protect consumers.

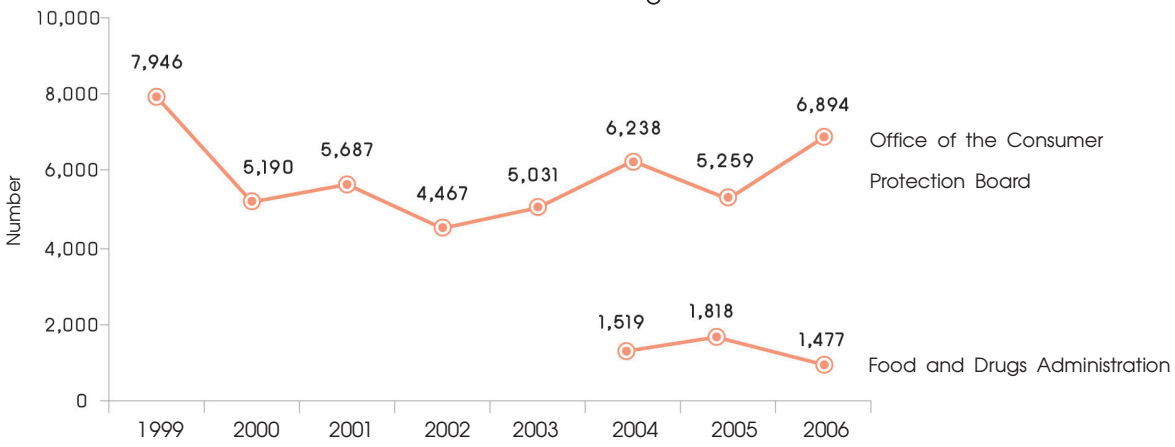
Consumers' bodies and experts recommend that, to address the problems faced by consumers, an independent organization is needed. This organization would collect information on problems facing consumers and lobby for policy reforms. Reforms could include mechanisms and regulations to create standards protecting consumers. However, the suspension of the 1996 People's Constitution following the coup in 2006 lead to the loss of the clause in Section 57 dealing with independent organizations. It is therefore necessary to apply pressure to ensure that the independent consumers' organization envisioned in the 1996 Constitution is in fact established, to deal with the problems faced by consumers.

Complaints received by Food and Drugs Administration



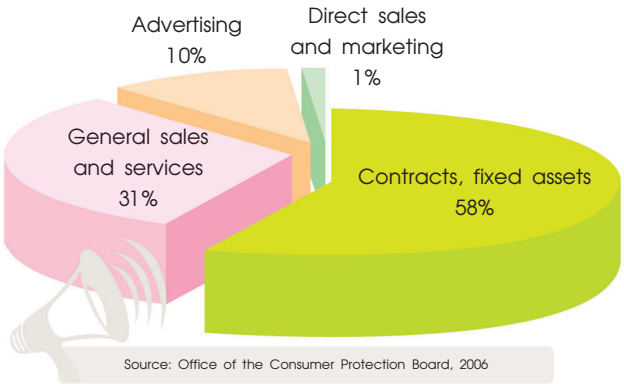
Source: Food and Drugs Administration, 2006

The number of complaints received by Office of the Consumer Protection Board and Food and Drugs Administration



Source: Office of the Consumer Protection Board and Food and Drugs Administration

Complaints received by Office of the Consumer Protection Board



Source: Office of the Consumer Protection Board, 2006

Issues Receiving Complaints

Contracts and fixed assets
- Not conforming to advertisements
- Construction not completed
- Faulty construction

General goods and services
- Faulty goods
- Prices of goods and services
- Cars, including violation of hire purchase agreements, change in interest rates, faulty repairs

Direct sales and marketing
- Sales representatives do not fulfil terms of agreement
- Company refuses to refund goods
- Change in terms of agreement

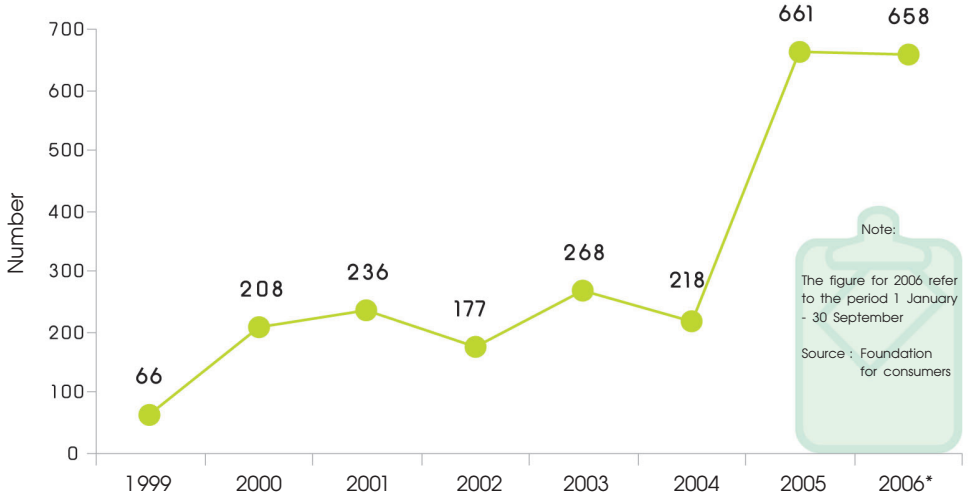
Advertising
- Misleading or excessive claims
- Potentially misleading claims

Health products
- Selling medicines without license Medicines past expiry date Drug mixtures
- Selling food additives without license Food additives past expiry date Unhygenic or low quality food additives

Health services
- Complications due to medical error
- Low quality health services

Debts
- Fraud or deception

Number of complaints to Foundation for consumers



10 Income, Savings, and Debt

Almost one in three debts is for consumption purposes only.

Prepared by the Thai Health Team

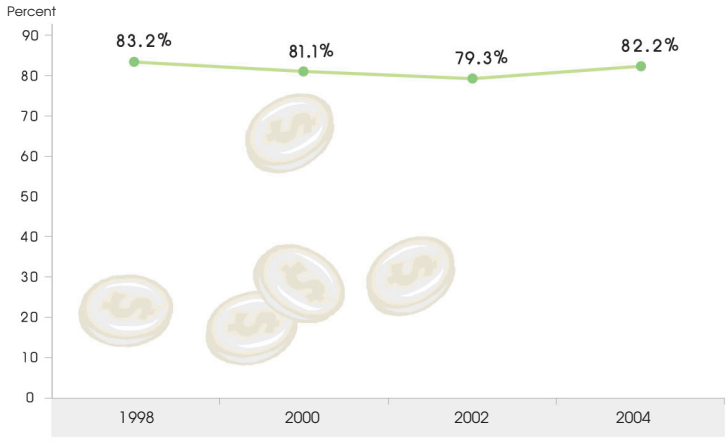
Even though household expenditure remains less than household income, the percentage of household income devoted to expenditures rose over the period 2002-2004.

Most of us prefer to spend money now rather than save, because saving is a long-term process. However, all households need to have sufficient savings to protect themselves against adverse events in the future.

The Household Socio-Economic Surveys over the years 1998 to 2004 show that, although households continue to spend less than they earn, the ratio of expenditure to income has increased steadily since 2002. The increases have been greatest in the North and Northeast, which have the highest ratios of expenditure to income. The biggest item of expenditure is food. More than 70% of households devote at least 30% of their expenditure to food. As many as one in three Thai households report expenditure on gambling, with the highest rates in Bangkok. The proportion of Thai households with debts has been increasing. Between 1998 and 2004, average household debt increased by 50%, from 69,674 baht to 104,571 baht.

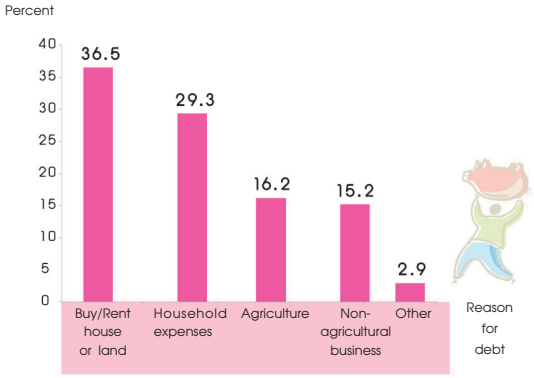
Most debt was for rents or purchases, particularly houses and land. The next most important reason for debt was consumption expenditures. Debts that were not for investment purposes, or that did not lead to increases in income, such as debts for consumption expenditures, collateral, and fines, accounted for one in three of all debts. Worryingly, only two in five Thai households have savings. The proportion of households with savings is lowest in Central Thailand.

Expenditure as a percent of monthly household income, 1998- 2004



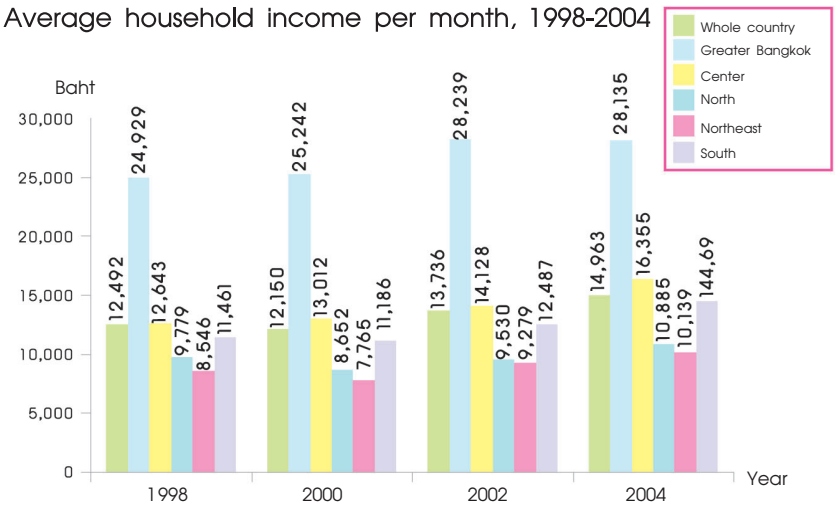
Source: National Statistics Office, Report on Household Social and Economic Surveys, 1998-2004

Percent distribution of household debt by reason for debt, 2004



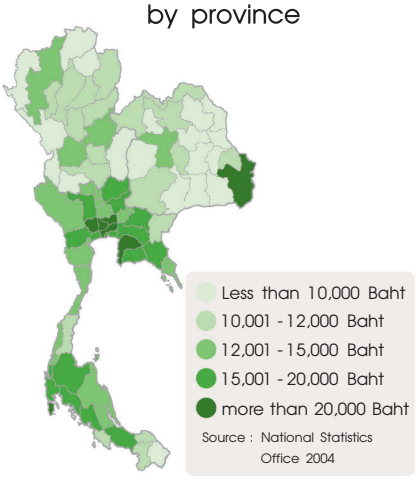
Source : National Statistics Office, Report on Household Social and Economic Surveys, 2004

Average household income per month, 1998-2004

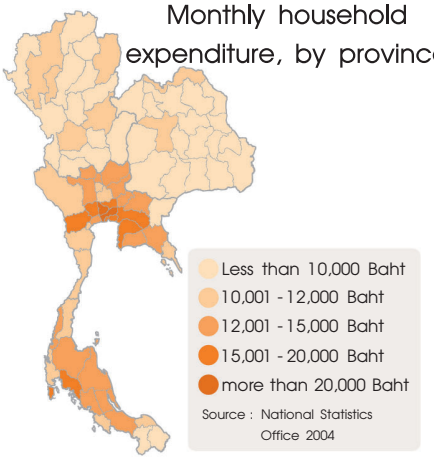


Source : National Statistics Office, Report on Household Social and Economic Surveys, 1998-2004
Note : Greater Bangkok consists of the provinces of Bangkok, Nonthaburi, Patumthani, and Samut Prakan

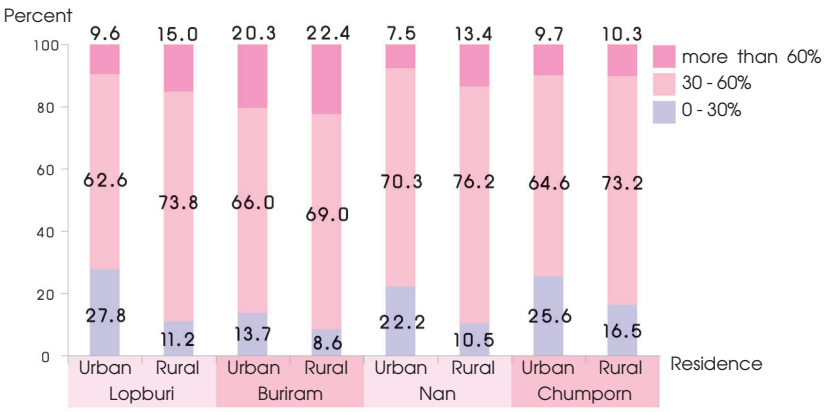
Monthly household income, by province



Monthly household expenditure, by province

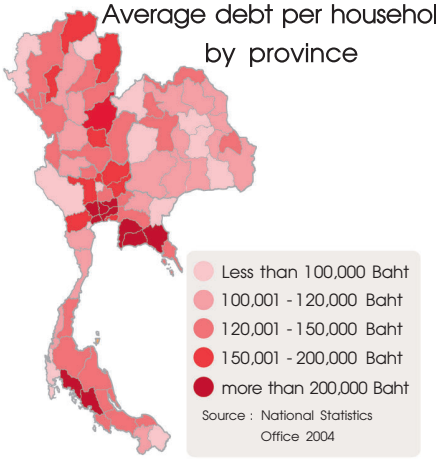


Expenditure on food as a percent of total expenditure

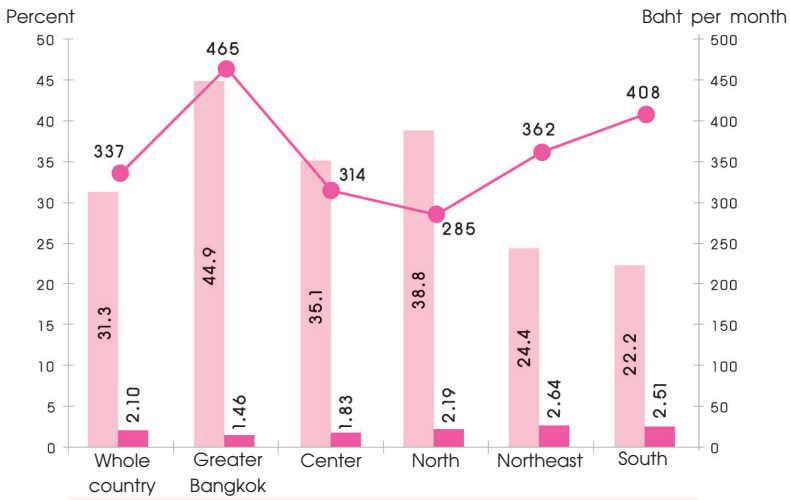


Source : Chururthai Kamchanajittra, Sureeporn punpeng and Ruchapan cherjitt, ปัจจัยเชิงโครงสร้างที่มีผลต่อความยากจน, 2005

Average debt per household, by province

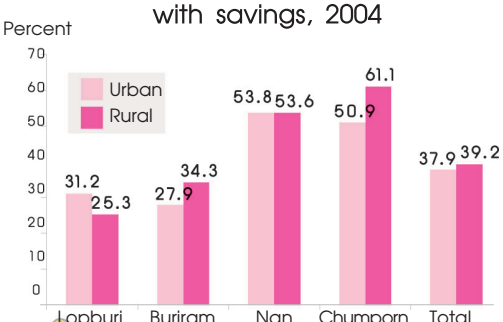


Household expenditure on gambling by region, 2004



Source : Data from National Statistical Office, Cleaned by the University of Chicago and the Thai University of Commerce, 2006
Note: 1. Greater Bangkok consists of the provinces of Bangkok, Nonthaburi, Patumthani, and Samut Prakan
2. Gambling includes the purchase of government lottery tickets, other legal lotteries, and other forms of gambling

Percent of households with savings, 2004



Source : Chururthai Kamchanajittra, Sureeporn punpeng and Ruchapan cherjitt, ปัจจัยเชิงโครงสร้างที่มีผลต่อความยากจน, 2005

11 The Sufficiency economy

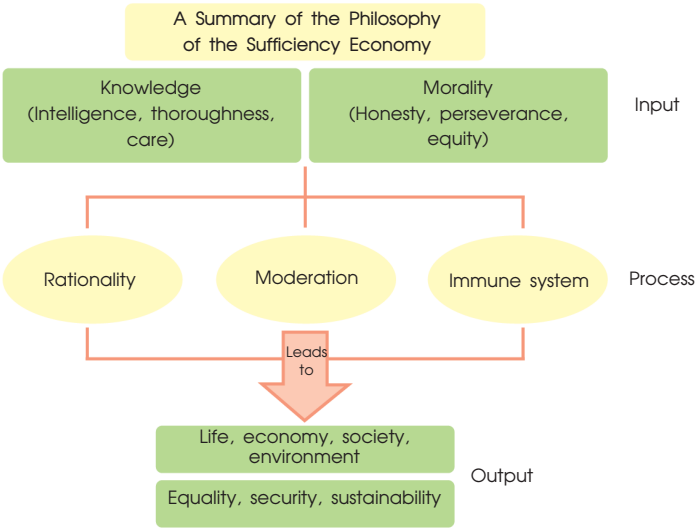
The Sufficiency Economy is relevant not only for farmers, but for businesses too.

Prepared by The Thai Health Team

Most people think that the Sufficiency Economy is only for rural people working as farmers, and not for urban people. But in fact, the philosophy of the Sufficiency Economy can be applied to all parts of society.

The Sufficiency Economy is a philosophy of life that can be followed by people in all levels of society, and can help them improve themselves in an era of globalization. The philosophy is based on three principles: moderation, rationality, and a strong immune system. Putting these principles into practice efficiently requires morality, perseverance, and intelligence. The Sufficiency Economy can be applied not only in farming, but also in private business. Examples of businesses that have applied the principles of the Sufficiency Economy include Siam Cement and the Chumphon Cabana Resort.

Many indicators for measuring the Sufficiency Economy have been proposed, and vary according the way the ideas of the Sufficiency Economy are interpreted. Among the clearest indicators are the ones measuring the Sufficiency Economy from an environmental perspective. These indicators are organized into three groups. The first is inputs, such as ethics and knowledge. The second is processes, such as moderation, rationality, and a strong individual and social immune system. The third is outputs, such as equality and social, economic, and environmental sustainability.

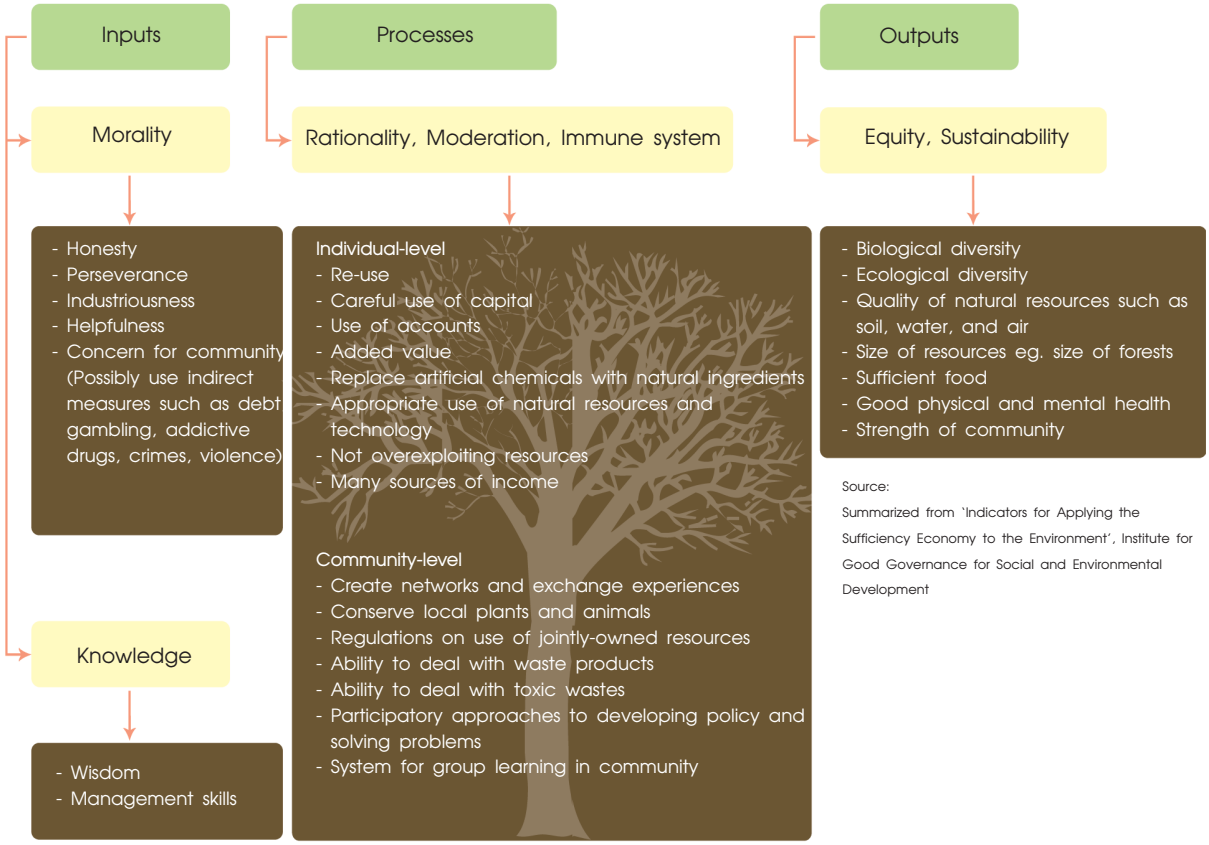


The Philosophy of the Sufficiency Economy

The philosophy of the Sufficiency Economy provides guidance on living for all parts of society, and all levels, from the family to the community to the state. It leads to government based on moderation, particularly in the management of the economy in the era of globalization. Sufficiency implies moderation, rationality, and a strong and flexible immune system. It grows out of internal and external changes. It requires intelligence and great care in applying technical knowledge to planning and implementation. It also requires a strengthening of the heart of the people, particularly government officials. Theoreticians and business people alike need to attend to morals, and to apply intelligence and perseverance to the way they live their lives. This will enable them to adapt successfully to the rapid and comprehensive changes occurring in society, the environment, and culture as a result of globalization.

Summarized from various royal decrees issued on 21 November 1999 to guide all Thai citizens.

Indicators for the Application of the Sufficiency Economy to the Environment



Source:
Summarized from 'Indicators for Applying the Sufficiency Economy to the Environment', Institute for Good Governance for Social and Environmental Development

An example of a business run according to the principles of the sufficiency economy: Siam Cement

Knowledge
- Educate workers, in classes and through on-the-job training
- Establish 'seniors' clubs for retired workers, to provide advice

+

Morality
- Emphasize skills and morality of staff
- Emphasize high-quality work

Moderation
- Hire an appropriate number of people; put people into appropriate jobs
- Organize wages and social security in ways that emphasize equality, while treating shareholders fairly

Rationality
- A systematic recruitment system looking for talented workers
- Use an internal labor market, and continuously upgrade the skills of workers

Strong immune system
- Employees participate in problem solving
- System for building leadership skill, and preparing people for growth and change
- Establish education fund for workers, to help accumulate human capital and enhance long-term competitiveness

Source: www.sufficiencyeconomy.com/images/siamcement.jpg

12 Thai young people gambling to get rich quick

One in three Thai teenagers gambles.
Over half the teenage gamblers bet on cards,
and one in five bets in gambling dens.

Prepared by Dr. Amornwitt Nakhonthap and chulakorn masateianwong, Ramjitti Institute

Gambling can lead to violence and crime. Gambling has caused some Thai teenagers become involved in violence, theft, blackmail, and prostitution.

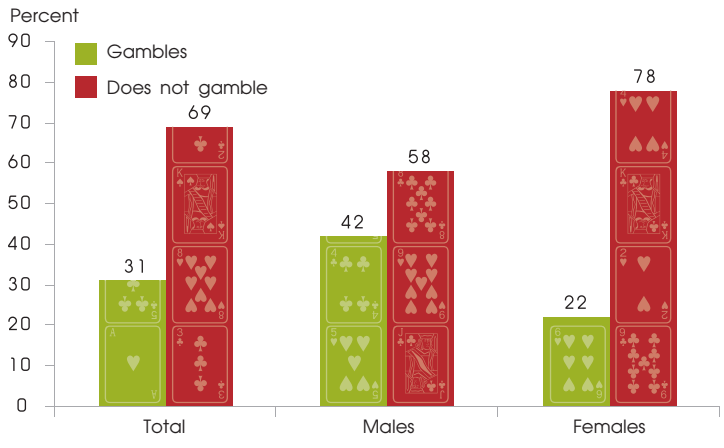
Gambling is popular in Thailand, because it allows people to test their luck, and because it is fun. When people who still lack proper control over their emotions gamble, there is a high probability that they will become addicted. Teenagers become addicted to gambling easily, which is why one in three Thai teenagers gambles. Gambling is more common among males than among females.

Most Thai teenagers who gamble use money that their parents gave them for school and everyday expenses. Gambling can lead young people into debt. Some take desperate measures to pay off their debts, such as theft and blackmail. Some sell their bodies or their girlfriends' or boyfriends' bodies, earning 1,500 to 5,000 baht a time

The first type of gambling that teenagers try may be bets on football results. However, over half of all teenage gamblers play cards for money. A survey of gamblers aged 15 and over found that most people with primary education or less prefer the illegal lottery and the government lottery to other forms of gambling. Dr Kanok Kanchana Virojuraireung, from Prasrimahabhodi Psychiatric Hospital, Ubon Ratchathani states that young people addicted to gambling have the following symptoms: (1) they play whenever they can; (2) they steadily increase the size of the stakes; and (3) even though gambling damages their changes of social advancement, they continue playing, and are unable to stop.

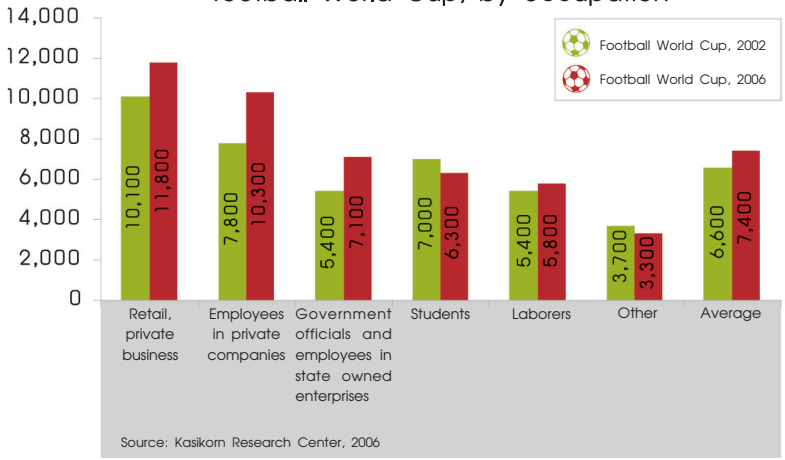
To address the problem of teenage gambling, adults need to set an example within the family. They need to organize more activities involving the whole family. They need promote the principle of seeking proper, meaningful employment. At the same time, government agencies need to introduce strict measures to suppress gambling dens, and offer support to parents.

Gambling among Thai teenage and youth aged 6-25, by sex, 2005



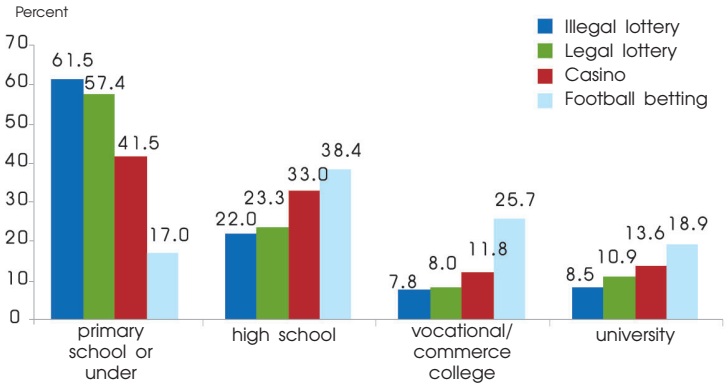
Source : Data from the Child Watch, Ramjitti Institute, supported by the Thai Health Promotion Foundation and the Thai Research Fund

Amount of money set aside for betting on the football World Cup, by occupation



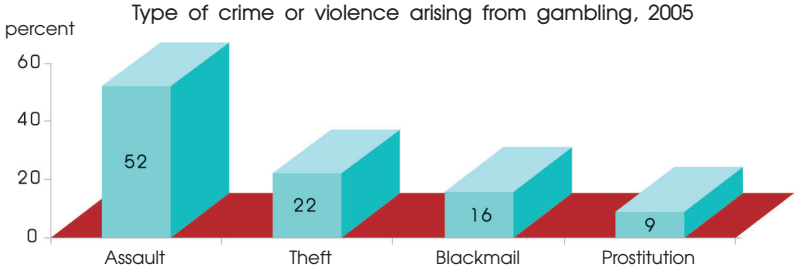
Source: Kasikorn Research Center, 2006

Education level of gamblers



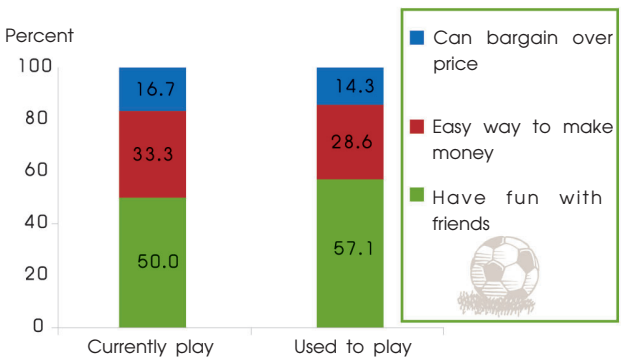
Source: เศรษฐกิจการพนัน, 2004

Type of crime or violence arising from gambling, 2005



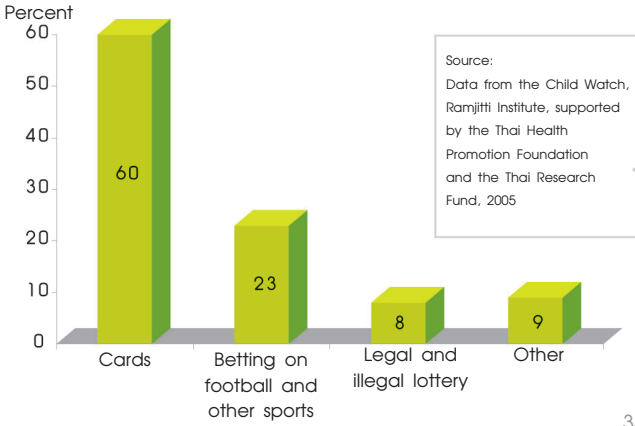
Source: Amornwitt Nakornthap and Others, 2004-2005.

Main reasons for betting on football, 2006



Source : 'Thai people betting on football', a survey on 1-4 May 2006 of 1,064 people in Bangkok and surrounding areas

Popular forms of gambling among children and youth aged 6-25 years, 2005



13 Thai young people in the cyber age

Thai youth spend almost half their waking hours using information and communications technology. Most of the material they receive through these media is poor quality.

Prepared by Dr. Amornwitt Nakhonthap and chulakorn masateianwong, Ramjitti Institute

New communication technologies make our lives more convenient, but nevertheless have harmful consequences, particularly for children and youth.

New communications technologies are having an increasing influence on Thai society. The effects are particularly marked among teenagers, the group most receptive to new technology. Information spread through mobile phones, computers with wireless Internet connections, and televisions helps people keep up to date. However, in Thai society, many teenagers use the new technology in inappropriate ways, so that exposure low-quality media has become a social problem. Children and young people in the cities currently spend about one hour a day talking on mobile phones. Thirty percent of young people are exposed to pornography through cartoons, CDs, and mobile phones. Eighty percent of young people who play electronic games choose violent games. Moreover, the combined time that young people spend watching television, playing on the Internet, talking on mobile phones, and sending text messages adds up to 8 hours a day. Time spent on the Internet is increasing each year.

Children and youth who become addicted to the new technologies and who lack parental guidance are at risk from crime and immorality propagated through the Internet and mobile phones. Examples include fraudulent sales, dating, and Internet gambling. When young people become addicted to electronic media and when the information spread through these media is low quality, parents need to teach their children about using these media correctly during the era of globalization.

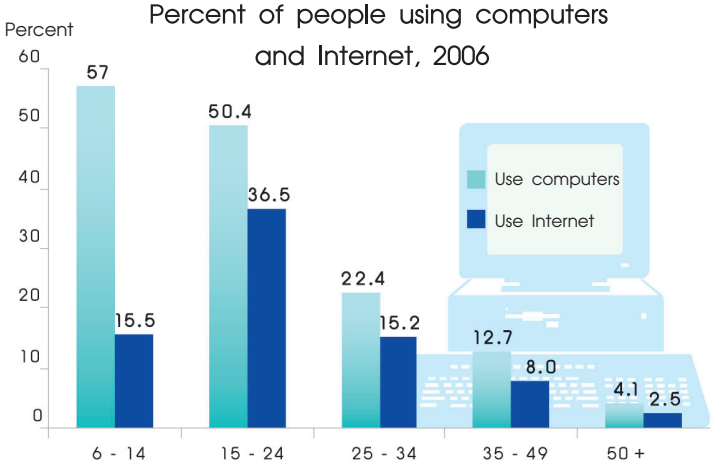
Thai Youth Spend One-Third of their Lives using Information and Communications Technology

- Talk on the telephone 1 hour a day
- Use the Internet 1 hours a day
- Use MP3 players and CD players to listen to music 2 hours a day
- Watch DVDs and VCDs 2 hours a day
- Play computer games 2 hours a day

Source : Cultural Surveillance Department, Ministry of Culture, with Child Watch, Survey of the Culture and Lifestyle of Children

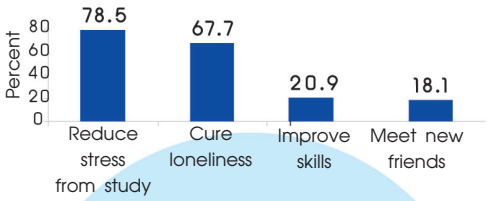
Note : Data collected in September-October 2006 from a sample of 3,360 children and young people.

Percent of people using computers and Internet, 2006



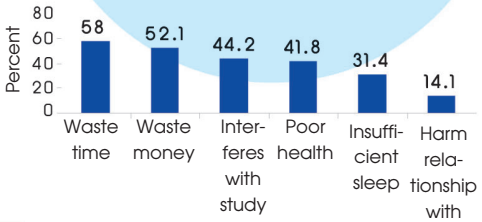
Source : National Statistical Office, Survey of Information and Communications Technology, 2006

Beneficial effects of playing games



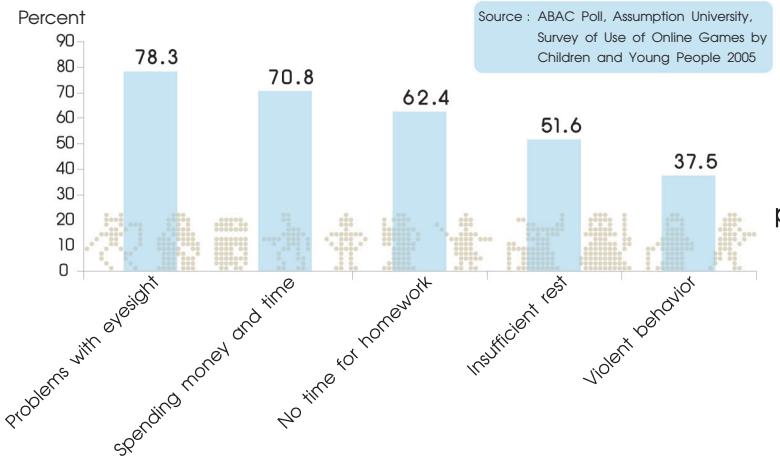
Source : Cultural Surveillance Department, Ministry of Culture, with Child Watch, Survey of the Culture and Lifestyle of Children

Harmful effects of playing games



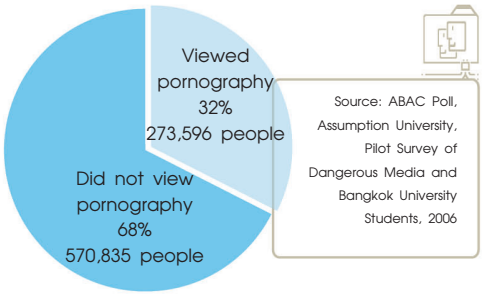
Source : Cultural Surveillance Department, Ministry of Culture, with Child Watch, Survey of the Culture and Lifestyle of Children

The effects of computer games on young people



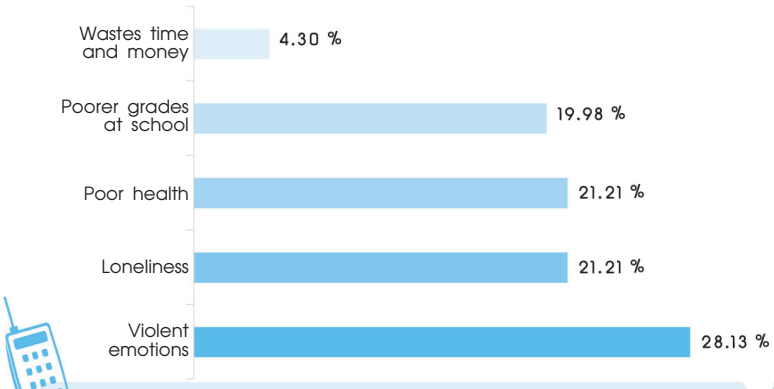
Source : ABAC Poll, Assumption University, Survey of Use of Online Games by Children and Young People 2005

Estimate of number of university students in Bangkok who viewed pornography on the Internet during the previous week



Source: ABAC Poll, Assumption University, Pilot Survey of Dangerous Media and Bangkok University Students, 2006

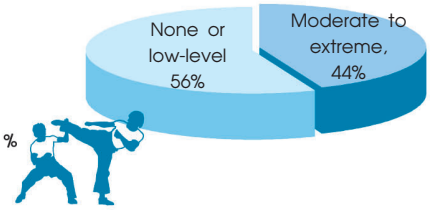
Effects of use of mobile phones, 2005



Source : Cultural Surveillance Department, Ministry of Culture, with Child Watch, Survey of the Culture and Lifestyle of Children

Note : Data collected in September-October 2006 from a sample of 3,360 children and young people.

Type of violence viewed over the Internet



Source : ABAC Poll, Assumption University, Pilot Survey of Dangerous Media and Bangkok University Students, 2006

14 Educational inequalities

Despite efforts to expand coverage, poor children still have inferior access to education.

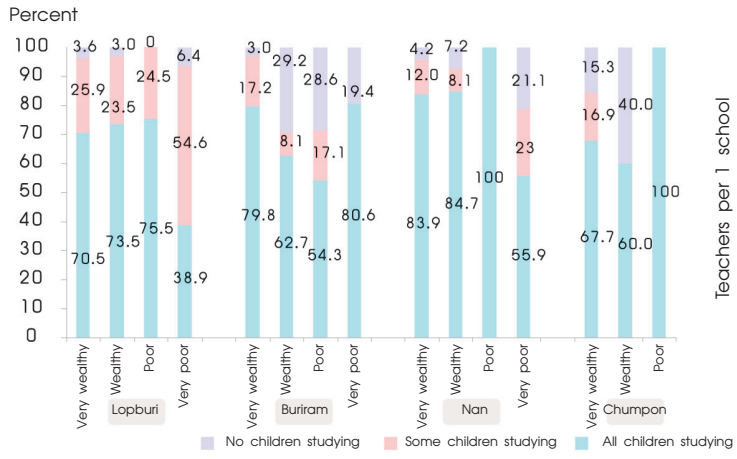
Prepared by The Thai Health Team

Access to education clearly differs by urban and rural residence and by region, despite government policies to increase access. Rural children's opportunities are still limited by poverty, compared with children in Bangkok. Inequalities are apparent in both non-formal and formal education.

All Thai governments have committed themselves to achieving equity in education, but none have managed to achieve their goal. The clearest differences are between urban and rural areas and between regions. This is despite efforts by almost all the relevant government agencies to expand access. Many children and young people still face financial obstacles to further study, because they are forced to earn money for themselves or their families. Non-formals schools are designed to assist this group.

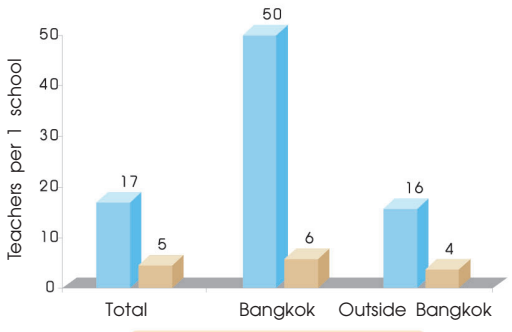
However, the government devotes far more resources to the formal education system, in Bangkok and elsewhere. Data from 2005 show that the average formal school has 17 teachers, and 22 students per teacher. In contrast, non-formal schools have an average of 5 teachers, and 64 students per teacher. Even within the non-formal system, schools in Bangkok receive far more resources than schools outside Bangkok. The limited access that young people outside Bangkok have to quality education therefore reflects government budgetary choices.

School enrolment of children, by the income level of the parents



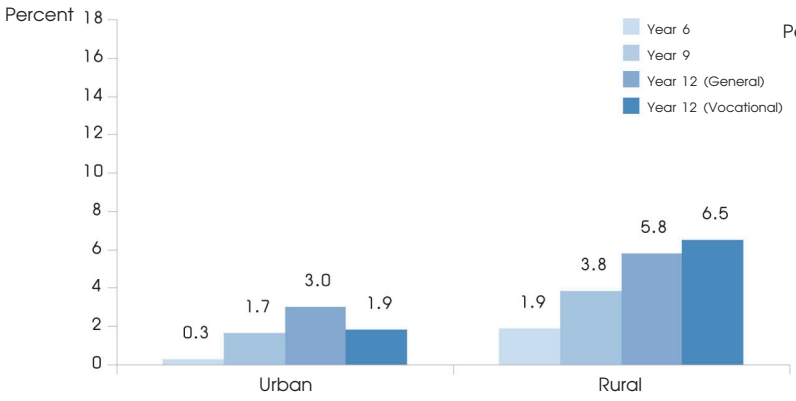
Source : Chururthai Karnchanajittra, Sureeporn punpeng and Ruchapan cherjitt, ปัจจัยเชิงโครงสร้างที่มีผลต่อความยากจน, 2005

Teachers per school in formal and non-formal schools, 2005



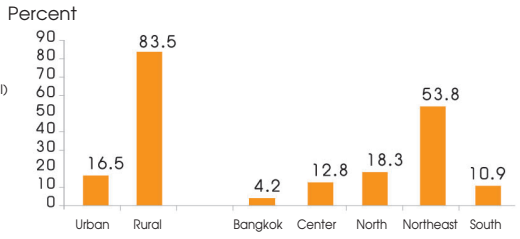
Source : Calculated from official education statistics from 2005, www.moe.go.th/data_stat/

Percent of children who say that cannot continue their educations by education and residence, 2002



Source: Survey of Children and Youth 2002, National Statistical Office

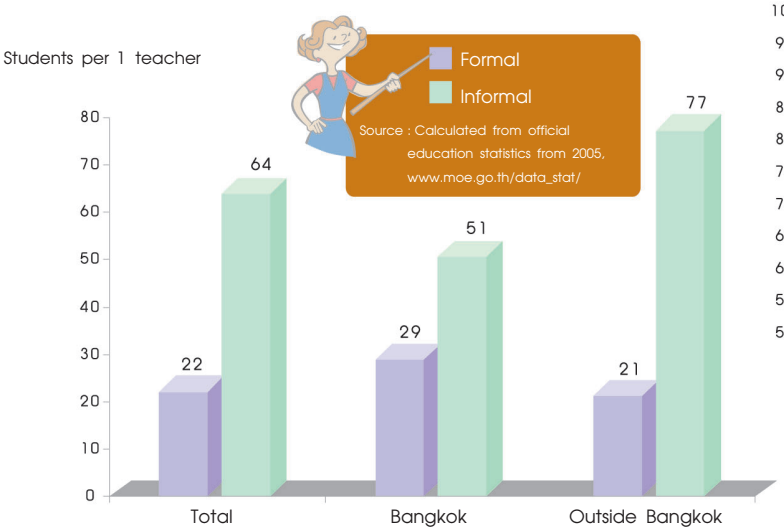
Percent distribution of children who say they cannot continue their educations, by region and residence, 2002



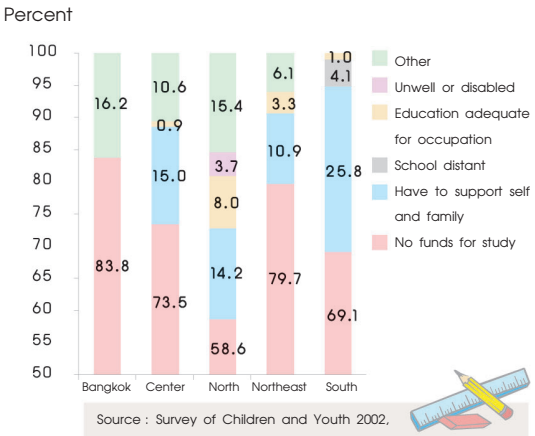
Source : Survey of Children and Youth 2002, National Statistical Office

Note : Refers to children who are unable to continue their schooling in years 6, 9, and 12

Student-teacher ratios, in formal and non-formal schools



Reason for not continuing schooling, by region, 2002



Source : Survey of Children and Youth 2002, National Statistical Office

Educational rights and duties, according to the 1999 National Education Act

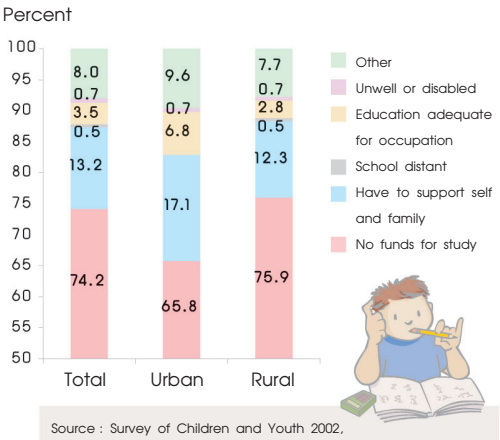
Section 10,
Paragraph 1 "In the provision of education, all individuals shall have equal rights and opportunities to receive basic education provided by the State for the duration of at least 12 years. Such education, provided on a nationwide basis, shall be of quality and free of charge."

Section 14
"Individuals, families, communities, community organizations, private organizations, professional bodies, enterprises, and other social institutions which support or provide basic education shall be entitled to the following benefits as appropriate:

1. State support for knowledge and competencies in bringing up those under their care;
2. State support for the provision of basic education as provided by the law;
3. Tax rebates or exemptions for educational expenditures as provided by the law."

Source: Ministry of Education, www.onec.go.th/Act/acteng/acteng.pdf

Reason for not continuing schooling, by urban-rural residence, 2002



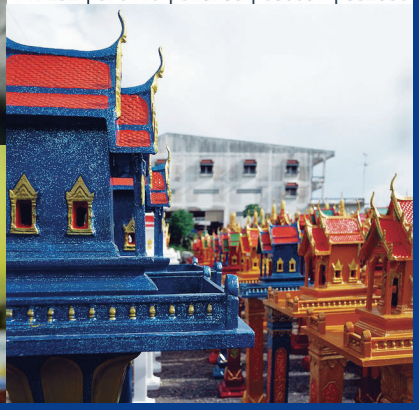
Source : Survey of Children and Youth 2002, National Statistical Office

10 Health Issues and Four Notable Thai Contributions to the Health of Thais

1

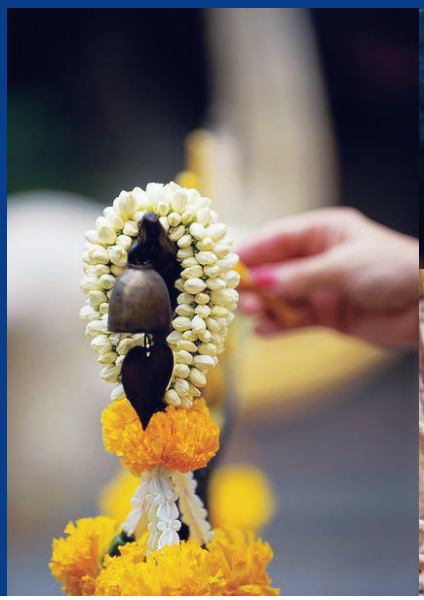
ผลสลากกินแบ่ง งวดประจำวันที่ 1 เมษายน 2549

รางวัลที่ 1 มี 1 รางวัล ๆ ละ 2,000,000 บาท					738365
เลขข้างเคียงรางวัลที่ 1 มี 2 รางวัล ๆ ละ 50,000 บาท					738364 - 738366
รางวัลที่ 1 พิเศษ	สลากกินแบ่งรัฐบาล รางวัลละ 30,000,000 บาท				ชุดที่ 11
	สลากพิเศษ รางวัลละ 16,000,000 บาท				ชุดที่ 65
รางวัลที่ 2 มี 5 รางวัล ๆ ละ 100,000 บาท					
142338	235609	304000	506199	856615	
รางวัลที่ 3 มี 10 รางวัล ๆ ละ 40,000 บาท					
052073	457673	622542	894721	978571	
133290	513400	845022	969453	980475	
รางวัลที่ 4 มี 50 รางวัล ๆ ละ 20,000 บาท					
004737	266306	461864	568888	769225	
011229	277230	484730	572439	772374	
042805	354807	507535	585919	791563	
068499	370950	517467	620544	822045	
117232	375410	518786	680691	832806	



Should the Government Keep the Two- and Three-Digit Lotteries?

When the underground lottery was legalized, stalls selling two-and three-digit lotteries appeared in every corner of Thai society; fresh markets, bus stops, gas stations, and grocery stores. Every place had two-and three-digit lotteries to cater to people's hopes of becoming rich. It is undeniable that buying the lottery is a form of gambling that Thais are most familiar with.



The Hundred Billion Baht Underground Lottery Business Goes Above-Ground

Before the underground lottery was legalized, Dr. Sangsith Piriyarangsan had presented his research "The Gambling Business: A Policy Choice". According to 2001 data, the underground lottery market was 15.7 times larger than that of the Government Lottery Office. While government lottery sales amounted to 34.56 billion baht per year, underground lottery sales soared to 542 billion baht per year, earning 162.2 billion baht worth of profits for underground lottery vendors. A total of 23.7 million people, or 51 percent of those aged 15 and older, bought the underground lottery.

The government lost hundreds of billion baht in revenue. Therefore, Prime Minister Thaksin Shinawatra decided to legalize the underground lottery through a cabinet resolution. The Thaksin cabinet on July 8, 2003, issued a resolution to allow the Government Lottery Office to sell two- and three-digit lotteries starting from July 17, 2003. The argument was that the two- and three-digit lotteries would wipe out the underground lottery vendors from Thailand. In addition, revenue from the two- and three-digit lotteries would be given back to society to ease poor people's hardships in the areas of education, medicine, sports, etc.

Sales of two- and three-digit lotteries totaled 33.168 billion baht in 2004 and increased to 40.469 billion baht in 2005. The Government Lottery Office was highly successful in making the two- and three-digit lotteries the favorite gambling choice of Thais. Sales of two- and three-digit lotteries from August 1, 2003 to November 16, 2006 generated net income of approximately 25 billion baht for the Government Lottery Office's lottery fund.

After the underground lottery had been legalized for approximately 8 months, the Government Lottery Office realized that the winnings were not high enough to extract money from gamblers' pockets. As a result, the 20 million baht jackpot was introduced since the April 16, 2004 draw to lure the public. As of October 2006, over 30 people have won the jackpot prize and the Government Lottery Office has paid over one billion baht in winnings.

The Two- and Three-Digit Lottery Starts to Face Problems

Starting from October 2006, the dreams of the lottery-crazy Thai people to hold million baht winnings started to diminish when Justice Permanent Secretary Jarun Pukditanakul proposed to abolish the jackpot prize. His reason was that luring the public towards vice was illegal and unfair.

Furthermore, the two- and three-digit lottery business was greatly shaken when Deputy Prime Minister and Finance Minister Mr. Pridiyathorn Devakula sent the case of the sale of two- and three-digit lotteries to the Council of State for interpretation. The Council of State ruled that the sale of two- and three-digit lotteries by the government violated the Government Lottery Act of 1974. It also recommended the Ministry of Finance to cancel the July 8, 2003, cabinet resolution and to amend the Government Lottery Act of 1974 if the two-and three-digit lottery scheme where to continue.

Worried that the abolishment of the two- and three-digit lotteries would cause the underground lottery to flourish again, Mr. Pridiyathorn Devakula forwarded the amendment to the National Legislative Assembly on November 21, 2006, so that the government could continue holding the popular lottery. Sales of the two- and three-digit lotteries were suspended for the December 1 and 16, 2006, draws with hopes that they would be able to resume for the December 30, 2006, draw.

However, opposition from the National Legislative Assembly and other parties was stronger than expected. Moreover, information from the Child, Youth and Family Network indicated that before the underground lottery was legalized, only 5 percent of children and youth played the lottery. After the introduction of the two- and three-digit lotteries, this number increased fourfold. As a result, Mr. Pridiyathorn Devakula decided to withdraw the amendment of the Government Lottery Act from the National Legislative Assembly meeting on November 30, 2006. Consequently, the suspension of the sale of two- and three-digit lotteries was extended.

Can the Two- and Three-Digit Lotteries Get Rid of the Underground Lottery?

Prior to the sale of the two- and three-digit lotteries, the Suan Dusit Poll surveyed 5,394 people about the underground lottery and the two- and three-digit lottery during June 15 to July 15, 2003. Results showed that only 7 percent thought that the underground lottery would be completely gone after the introduction of the two- and three-digit lotteries. On the other hand, as much as 72 percent believed that the underground lottery would continue to exist. In addition, 68 percent of those who purchased the underground lottery indicated that they would continue to play the underground lottery despite the availability of the two- and three-digit lotteries.

Three years later, the research "The Underground Lottery" The Two- and Three-Digit Lotteries: the Consumption Behavior of Thai's was released by the University of the Thai Chamber of Commerce's Economics Department. The research reflected the purchasing behavior of the sample group who bought the two- and three-digit lotteries from the first draw until the November 16, 2006, draw. Forty-four percent of the sample group bought

the underground lottery less often because it was hard to buy, they were afraid of breaking the law, they were afraid that they wouldn't receive payment, and the jackpot prize of the two- and three-digit lotteries was attractive. Meanwhile, 27 percent of the sample group continued to purchase the underground lottery. The majority of the underground lottery customers were older than 50, had an income between 5,001-10,000 baht, and had a primary education level or lower. Underground lottery sales fell from 542 billion baht in 2001 to 400 billion baht. This fall in sales meant that the some customers of the underground lottery chose to buy the two- and three-digit lotteries and the government lottery instead.

This proved that the two- and three-digit lotteries did not help to completely get rid of the underground lottery in Thailand as many people, including Prime Minister Thaksin, had expected. The two-and three-digit lotteries only reduced the size of the underground lottery market by about one fifth. On the other hand, it expanded the number of lottery players from 24 million people in 2001 to 30 million people in 2006.

Meanwhile, the continued existence of the underground lottery reflected the effectiveness of the police in cracking down on underground lottery vendors. This was consistent with the results of the ABAC Poll between November 21-30, 2006, regarding "Police and Underground Lottery Vendors: A Case Study of People in Bangkok and the Provinces", which reported that 74 percent were unhappy with the police's performance in solving the problem of underground lottery vendors. In addition, 72 percent believed that the number of people playing the underground lottery would surge in the next 6 months after the Government Lottery Office stopped selling two- and three-digit lotteries.

Cheap Tickets Lure Youths to Vice

Stories on television and in the newspapers about monks giving lottery numbers, lottery numbers from strange vegetables or animals, and people winning the jackpot, as well as publicity from the Government Lottery Office with regards to contributing back to society cause many people see the pros of the two-and three-digit lottery scheme and overlook all the cons. Trying your luck with only 20, 50 and 100 baht has become a norm in Thai society. Therefore, it is not surprising that people of all ages and sexes are increasingly playing the two- and three-digit lotteries. However, the truth is that two- and three-digit lotteries are a vice that leads to social deterioration.

The worse effect of the sale of two- and three-digit lotteries is that gambling has entered the walls of educational institutions, the center of the nation's future. Results of the study of the Child Watch Project also indicate this.

According to Dr. Amornwit Nakhonthap, Director of Ramajitti. Institute, data collected between November 2005 and February 2006 from 150,000 people from primary schools, high schools, vocational schools and universities revealed that 20 percent of children and youth from all educational levels liked to play the two- and three-digit lotteries. On average, 200 baht per month was spent on two- and three-digit lotteries, which is equivalent to 3.6 billion baht per year. Six percent of primary school students, 12 percent of junior high school students, 17 percent of senior high school students, 25 percent of vocational school students and 27 percent of university students bought two- and three-digit lotteries. Compared to children and youth in other regions, children and youth in Bangkok and metropolitan areas were the champions in purchasing two- and three-digit lotteries.

Dr. Amornwit added that an increasing number of children were playing the lottery because two-and three-digit lotteries are easy to purchase, sold everywhere and cheap. With only 20 baht, anyone could purchase a lottery ticket. What's worrying is that playing the two- and three-digit lotteries can lead to other forms of gambling, such as football gambling, which not only causes people to lose money, but also leads to social problems and crimes, such as theft in schools, violence and death.

The above information was the same information that was sent to Mr. Pridiyathorn Devakula. It was a major factor in making him see the shortcomings of the Government Lottery Act in protecting children and youth from two- and three-digit lotteries and influencing him to withdraw the amendment of the Government Lottery Act for the National Legislative Assembly's consideration. Mr. Pridiyathorn Devakula's most recent stance in January 2006 is that the Ministry of Finance will cease the amendment of the Government Lottery Act and the two- and three-digit lottery scheme if the Council of State reaffirms that amendment of the Government Lottery Act of 1974 will nullify the wrongdoings of Thaksin and his associates.

A Tough Choice for the Government

Currently, the Government Lottery Office has 6,000 registered distributors. Each distributor may hire another 50 walkers. Abolishment of the two-and three-digit lotteries will immediately cause at least 300,000 people to lose income to support themselves and their family. Therefore, it is not surprising that the government lottery agents were the first group of people to oppose the abolishment of the two- and three-digit lotteries.

During November 20-21, 2006, the Research Institute of Bangkok University conducted a poll among 1,182 people in Bangkok on their opinion of the government's management of the two- and three-digit lottery

problem. According to the poll, 70 percent said that the two- and three-digit lotteries should not be cancelled because it is a legal form of trying one's luck. In addition, it helps bring income to the government which is better than bringing income to the underground lottery vendors. Also, there is nothing wrong with playing the lottery. Only 30 percent thought that the government should cancel the two- and three-digit lotteries because it was luring people towards vice and people should make better use of the money that they use to buy the lottery tickets.

This was consistent with the results of the research on people's lottery purchasing behavior conducted by the University of the Thai Chamber of Commerce. Eighty percent thought that sales of two- and three-digit lotteries should be continued. If the two- and three-digit lottery is cancelled, 74 percent will revert back to buying the underground lottery. From this viewpoint, it is possible that the government might continue the two-and three-digit lottery scheme to cater to the purchase demands of the majority of the people.

The main arguments against the sale of two-and three-digit lotteries are it lures the people to the vicious cycle of cheap and legal gambling and income from two- and three-digit lotteries is "sin money" from gambling that the government shouldn't use to support society as it might create the wrong value that social vice is beneficial to education. Furthermore, refusal of "sin money" would be an admirable decision of the Surayuth government which supports the self-sufficient economy concept.

However, we must not forget that the "lottery" has been with Thai society for over 100 years. In this day and age when the craze of playing the lottery has spread throughout the nation, completely abolishing the sale of two- and three-digit lotteries will be difficult to accomplish in reality. Justice Permanent Secretary Jurun Pukditanakul, who first initiated the idea of scrapping the jackpot prize, suggested that the government must determine whether it wants income from gambling money. If the government is sure that it doesn't want income from this social vice, the best measure to battle underground lottery business is to reduce the number of lottery draws, from 24 bi-monthly draws to only 12 monthly draws. The draws should also be moved to the 20th or 21st of the month since people don't have much money during that period. Therefore, playing of the underground lottery or the two- and three-digit lotteries should decline.

Dr. Sangsith Piriyarangsan, a supporter of the two- and three-digit lotteries, handed in 4 proposals for the government to reduce public addiction as follows:

1. Not stimulating purchase demand by forbidding distributors from advertising that they sell two- and three-digit lotteries
2. The Government Lottery Office should print a warning on the lottery tickets similar to the warning on cigarette packets
3. Cancel the live broadcast of the lottery drawings
4. The Government Lottery Office should establish a fund under the Ministry of Culture and give money to support campaigns for people to stop gambling, similar to the tobacco tax given to the Thai Health Promotion Foundation for non-smoking campaigns

The National Economic and Social Advisory Council (NESAC) has given recommendations to the government on management of the income from the two- and three-digit lotteries in order to create fairness and transparency in using the money to help poor people. The government should not operate the two- and three-digit lottery scheme itself. Instead, the private sector should operate the scheme under government regulation. If the government operates the scheme, youth will misunderstand that social vice and gambling is good. Income from the two- and three-digit lotteries should not be directly allocated to one specific group, especially scholarships. Instead, the income should be included in the national budget and allocated to society and poor people. The recipients of the money will not be proud or realize its value if the money comes directly from the two-and three-digit lotteries which is a vice, unlike money from the national budget which is from taxes.

In order for the two- and three-digit lottery scheme to be accepted by society, the Ministry of Social Development and Human Security is another agency that must monitor the sale of two- and three-digit lotteries so that it doesn't promote gambling. The ministry must control the purchase of the lottery to be in limited circles and reduce the purchase volume in the long-run.

The Social Development and Human Security Minister Paiboon Wattanasirtham revealed that the ministry has gathered opinions from the public and established a working committee to conduct research under the same framework as the campaign against drinking and smoking which was successful. The ministry has also formulated a policy to propose to the government. The main targets of the campaign are children, youth and poor people.

Once the campaign against vice is finalized, all government units must implement it strictly and continuously with the hope that Thai society will move away from social deterioration and move closer to a moral society. Thai people would work industriously and honestly in order to support themselves and their family as well as follow the self-sufficient economy philosophy, not running around trying to find the winning numbers and dreaming of hitting the jackpot from the two- and three-digit lotteries like they are today.

2

From Chat Room to Video Clips and Camfrog: Getting to Know Online Life

In 2006, negative events related to various forms of high tech communication forced Thai society to take a look at technological advancement with distrust. In this age of technology where almost everyone has a mobile phone, the internet is an important tool in accessing information and a shortcut to experiencing the world. Whether or not we approve of indecent clips, suggestive chat and Camfrog, the new generation is living a part of their life online.

The Online Lifestyle of Thais

Using high tech gadgets is the craze of millions of Thais, especially the Thai youth. According to a report on computer and internet users nationwide by the National Statistical Office, there are 15.4 million computer users, or 26 percent of people aged 6 and above. There are 8.47 million internet users, or 14 percent of people aged 6 and above. Youth between the ages of 15-24 years are the highest internet users compared to other groups. The survey also asked about the type of internet used in the household. It was reported that 52.8 percent of households had high-speed internet.

According to a survey conducted by the National Electronics and Computer Technology Center (NECTEC) in 2005, youth under 20 years old who used the internet increased from 12 percent in 2004 to 21 percent in 2005. The average number of hours spent on the internet was 9.2 hours. The websites most frequently visited by children and youth were entertainment websites (30 percent) while access to educational websites was only 2 percent.

In the area of regular telephones, there is an increasing trend in the number of people applying for telephone numbers. The number of public telephones to the population is also on a rising trend. Most important, mobile phone use has jumped from 22.5 percent in 2002 to 36.7 percent in 2005. In 2006 when there was a survey of people aged 6 and above nationwide, the number of mobile phone users (excluding PCT) was 24.7 million people nationwide, or 42 percent.

It is not surprising that negative impacts from using these high tech equipment have been revealed. In 2006-2007, high tech communication that was the talk of the town was online chat, video clips, and Camfrog.

Is Online Chatting Dangerous?

Online chat can be categorized into 2 types' chatrooms on websites and instant messaging programs that are installed on personal computers. The most popular instant messaging program is MSN Messenger. Because online chat allows internet users to communicate with each other real-time, it is very popular among internet users.

In November 2006, shocking news about the murder of an English teacher from Ubon Ratchathani Province brought Thai society's attention to cyber chatting. The young female teacher met the murderer through online chat, arranged to meet with him in Bangkok and was later killed. Her family had never known the criminal before. The brutality of the murder was not of great interest to the public as the reason why the teacher came to meet the stranger. There were opinions on various websites that the teacher wanted to have a foreign boyfriend so she decided to meet the stranger which eventually led to her death. Other opinions were that online chat is dangerous because it can be used as a tool for deception.

Soon after, news about a female student who filed a police report against a monk for sexual harassment increased society's concern regarding online chat. The couple met each other through online chat and the monk pretended that he was also a student. The monk deceived the woman to meet him at the temple and threatened to call his friends to gang rape her if she refused to sleep with him.

In addition, there is also chatting via regular telephones and mobile phones in the form of audio text. Examples include "Chat Line 1900-1900-xxx" and "1900 xxx xxx For Lonely People." The market for chat via phone is larger than internet chat. The Missing Persons Center of the Mirror Foundation reported that for the first half of 2006, twelve young girls were lured out of their home after they chatted via phone. They were all girls below 15 years old. The number of children that are deceived from chat lines in the form of audio text has been increasing.

The Clip Culture: Personal Rights, Violations and Sexual Crimes

Video clips or short movies that are filmed using mobile phones are very popular among teens and young adults. Video clips of various events such as female students fighting, clips revealing relationships, personal clips that became public and black mail clips were frequently in the news throughout 2006.

Clips from Hidden Cams, Clips that Slipped: Out In mid 2006, there was news about the spread of a 3 minute video clip in which 2 female students were gang raped by 5 male students in a province in the central region. Less than a month later, there was similar news about a female student who was gang raped by fellow male students and the video clip was uploaded on the school website. At the end of the year, there was news about a grade 6 student who was raped by a 14 and 17 year old boy and the video clip was sold to shops that load video clips in the Sampeng area.

Clips Revealing Relationships: Most are about people with close relationships who filmed video clips to watch themselves. But later when the relationship went sour, the video clips are "revealed" or released as a bargaining tool, to get revenge, or to cause embarrassment. For example, there was a case in which a man released pornographic video clips of his ex-girlfriend on various websites because he was angry that his ex-girlfriend had broken up with him. There was also news about a woman who used her mobile phone to film herself having sex with an abbot in a resort. She used the video clip as evidence to prevent the abbot from seeing other women. After they had an

argument, she used the video clip to threaten the abbot, but he pretended not to care, saying that he had connections with a prominent provincial figure. This prompted the woman to release the video clip in public.

Video clips have been connected with people's sexual lives, particularly in using it as a tool in seeking sexual or other benefits. Examples include sexual violation and filming video clips to threaten the victim, love triangles and using clips to reveal the relationship, and clips that slipped out into other people's hands and are commercially sold.

Video clips have also been used to expand social networks. The research "Creating Identity in Online Picture Albums" analyzed 200 online albums on three websites that are frequently used and have a lot of pictures. There was an interesting finding that because online albums allow people to freely select names, songs, pictures to represent themselves, characters, clothes for characters and backgrounds, it provides an opportunity for owners of the online picture album to reveal their true identity. The pictures that are posted are the good-looking pictures and have been touched up before being included in the online album. Different techniques are used to attract viewers. The album owners usually ask viewers to vote for their album. The scores from the votes measure acceptance from this community and are also used as a tool to create relationships with others, whether finding friends or dates.

The Business of Selling Video Clips is Continuously Growing: There are three main sources that sell video clips. The first source is the websites. It is estimated that there are hundreds of websites in which video clips can be downloaded for free or for a price. The price for the download depends on the type and length of the video clip. The second source is mobile phone shops that sell video clips as an additional service in order to attract customers to install other programs, such as programs to listen to music or watch movies and programs to look at pictures. The price of video clips is around 100 baht for 5 clips. The last source is shops that sell VCDs or CD clips. Each VCD costs around 100-200 baht and has many video clips inside.

Who Watches Video Clips?: The online community has created numerous websites related to the show and exchange of video clips. A part of that exchange has turned into business which has become an important factor contributing to the growth of the video clip market. On the other side, many people have access to the internet and live like in the real world, becoming an online community. They create their own personal space such as online diaries and online photo albums in the online community. What's interesting is that many like to openly display their own sexual lifestyle, as well as, closely follow other people's information.

Camfrog: The Grey Area between Personal Rights and Social Violation

"Camfrog" is the name of a computer program for chatting online. The user can chat as a group and see images at the same time. The Camfrog program was launched 2-3 years ago and was adapted for use in many forms such as videoconferencing and chat rooms sharing the same interests. However, Thai society first heard about Camfrog from newspapers as a form of pornography media or a channel to display obscene sexual behavior. Examples of some news were:

"Teenagers in Khon Kaen love to play Camfrog Live Chat Line which is like a radio station. There is a DJ who does seductive acts and also broadcasts live on the internet. Some teenagers skip school to play. The police don't know who to arrest because it is just a gathering of mentally-disturbed people."

"The owner of an internet shop asked the Ministry of Culture to close down or block the Camfrog program as fast as possible. Camfrog is a program for communication. There are many chat rooms, Thai and international. However, the most popular chat room is the one that has obscene shows pornographic movies, strip shows, seductive dancing and sexual intercourse. In the past 2-3 months, almost a hundred thousand people have become members."

"Shocking news! Thais are the third highest users of Camfrog in the world, after Americans and the Chinese. The President of the Thai Webmaster Association explained the problem and urged the National Legislative Assembly to quickly push through the anti-cybercrime legislation. The Ministry of Information and Communication Technology should shut down the program as fast as possible."

What is"Camfrog?"

Camfrog Video Chat is a program created by Camshare LLC that allows users all over the world to broadcast live streaming audio and video. This popular software is known best for the ability to allow over 1,000 users in a live streaming videoconference room. Camfrog is different from other video chat software because it allows users to host their own video chat rooms using the popular "Camfrog Server" software. At present, there are many Camfrog video chat rooms related to travel, sports, language, culture, online games, and sex.

Camfrog has many chat rooms. The chat rooms are categorized according to the conversation topic, for example, rooms for speaking English, Italian and German, rooms for sign language, rooms for talking about songs, and rooms for ghost stories. However, the most use of Camfrog is for watching and performing sexual acts on the internet. Thais are the third greatest users of Camfrog in the world; some use it watch porn on the internet or to perform obscene acts themselves.

Source : http://th.wikipedia.org/wiki/camfrog

The Reaction of Different Groups

Throughout 2006, as well as in 2007, reaction from the government sector towards this high tech form of communication was rather negative and aimed to use government authority to control or eliminate this communication technology which is viewed as a problem. The Ministry of Science and Technology said that it would close down websites that sold pornographic video clips. But the Thai law is unable to promptly deal with the problem. Therefore, parents are advised to use the House Keeper program to block children from viewing inappropriate websites. The anti-cyber crime legislation is being pushed through the National Legislative Assembly in order to solve this problem and will be enacted soon.

The Center for the Protection of Children, Youth and Women, the Royal Thai Police explained that the present law can also be used to punish those who sell or distribute pornographic video clips as they are violating Section 287 of the Thai Penal Code. If the police catches anyone selling or distributing pornographic clips, they can arrest them immediately without a plaintiff filing a report. Therefore, distribution via the website, loading into customers' mobile phones, and forwarding pornographic clips to friends are all illegal. The punishment is imprisonment not exceeding three years or fine not exceeding 6,000 baht, or both. If there is text in the video clip that causes damage to the person in the clip, the punishment will be more.

Blaming the Players Does Not Work: The Law is Out of Date

The Association of Internet Businesses clearly stated that it was against using the Camfrog program for sex shows and condemned internet shops that had the program to serve customers. The Bureau of Technology and Cyber Crime of the Department of Special Investigation (DSI) stated that it would prosecute the group of women who showed their bodies using the Camfrog program. Most of them were businesswomen and company employees. DSI will be the plaintiff in this case as these people have brought damage against the government.

The Ministry of Culture also has the same stance. Director of the Culture Watch Center Ladda Tangsupachai stated that the Center has followed this issue for 2-3 months already as there have been complaints from parents, Child Watch and internet shops. Evidence and information about the service providers and users have already been collected. This case will not be dropped because it occurred in Thailand and was organized by Thais. The server is in Thailand. The police will make the inspection by using Section 287 of the Thai Penal Code that prohibits distribution of obscene pictures to the public. The offenders will be jailed not over three years and fined not over 6,000 baht. However, this punishment is very little, so there are a lot of offenders. There is also the problem of the law being unable to catch up with technology. Mr Poramet Minsiri, Project Chief of thaicleannet.com, stated that this problem is about technology being state-of-the-art and the government laws and regulations being outdated. However, the anti-cyber crime legislation is being reviewed by the National Legislative Assembly and it is a good time to push this law through with severe punishment.

In relation to this issue, Mr. Siripong Witayaviroj, an expert writer about the internet, wrote about the latest situation concerning Camfrog in Thailand in February 2007. Rooms showing obscene acts have disappeared. Only regular chat rooms remain. If the chat room has users who don't follow the rules, the room monitor will "kick" that person out. The best way to look after the internet community is like any other community, that is, members must regulate it themselves. Government control is unlikely to bring any benefits.

Addressing the Fundamental Causes of Online Dangerous

With regards to the occurrence of the use of technology to find information or express oneself concerning sex, one thing that the government units and the media still need to do more is to support the children and youth in the chat rooms and educate them about the dangers of the pornography business.

This occurrence is about people who live in cyberspace and feel that is full of freedom to express themselves and seek new information, especially with regards to sex which is prohibited in real life society. This occurrence is also about businesses that profit from these people using their freedom of expression. Therefore, reaction that criticizes people in cyberspace as having different sexual behavior from those in real society and trying to regulate cyberlife is a view and reaction that does not completely cover online lifestyle, whether the internet or mobile phones. On the other hand, businesses that drive the expansion often neglect and violate personal rights.

The Safe and Creative Internet Fair 2007 at the Thailand Knowledge Park on February 13, 2007, suggested a roadmap to protect youth from becoming online victims. The roadmap included four strategies: *1) Eliminate evil,* that is using legal processes to regulate and punish; *2) Expand good,* that is supporting the use of the internet for creative learning; *3) Create immunity,* that is create campaigns for children and parents be aware of internet danger; and *4) Develop processes,* that is funding and network support.

Whether we like it or not, the online world has surrounded the lives of both users and non-users. For people in society, the skill to spend their life online safely and without harming others is essential in this era of technological advancement. For the online community, regulation of online businesses, fair rules and regulations, and control of cyber crime is important, necessary and very urgent.

3

The "Facts about Medicine" Announcement: The Conflict between the Rights of Doctors and the Rights of Patients

In late 2006, faced with a rise in the number of medical malpractice suits against doctors, the Medical Council of Thailand made an announcement in the Government Gazette entitled "Facts about Medicine". The announcement replaced guidelines originally introduced in 1982. It sparked a heated controversy about doctor-patient relations.

The Medical Council and the "Facts about Medicine" announcement

Medical Council Announcement number 46/2006 on "Facts about Medicine", signed by the President of the Council Dr. Somsak Lohlekha contains the following points:

In order to properly conduct medical procedures in accordance with Article 21 (3) of the 1982 Medical Act the Council agreed on the November 9, 2006 to announce that,

1. Medicine means modern medicine proven by science procedures to produce benefits
2. Medicine cannot diagnose, prevent and/or cure all diseases or all cases. Sometimes only supportive care can be offered. Diagnosis may be impossible in some diseases.
3. Some times in the medical treatment, unwanted circumstances occur despite sufficient caution and care by the medical profession.
4. Medical practitioners shall take the rights and interests of patients into account when choosing medical procedures, giving advice or making referrals.
5. For the benefit of patients, medical practitioners may refuse to treat patients who do not need of immediate treatment and do not face life-threatening conditions, though they must then give appropriate recommendations or refer the patient.
6. Medical practitioners who follow standard procedures and conform to medical ethics shall be entitled to protection from unjust accusations.
7. The work burden, hospital limitations, the physical and mental condition of medical practitioners, and the environment may affect the results and the efficacy of treatments.
8. If patents conceal health information and medical facts from medical practitioners who diagnose and treat them, this may affect the diagnosis and treatment.
9. Failure to follow the advice of medical professional or medical practitioners may affect the treatment and diagnosis.

The announcement had already been redrafted, and the number of provisions reduced from 10 to 9, in response to public comments, but it nevertheless generated controversy. The most heavily criticized provision was Number 5

"For the benefit of patients, medical practitioners may refuse to treat patients who do not need of immediate treatment and do not face life-threatening conditions, but must give appropriate recommendations or refer the patient".

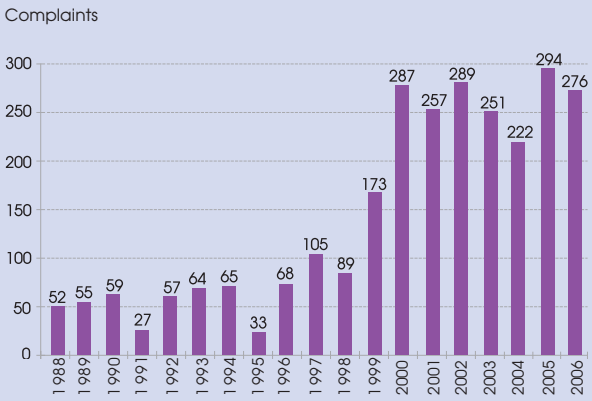
Critics were concerned that the provision allowed doctors to refuse care for condition that were not life-threatening.

Opposing Perspectives on Doctors' and Patients' Rights

Many groups reacted adversely to the announcement. They saw it as an attempt by doctors to protect themselves from malpractice lawsuits.

The number of complaints lodged with the Medical Council of Thailand increased dramatically between 1988 and 2006 (see figure). Every year since 2000, the numbers cases filed against doctors for medical damages exceeded 200. In 2005, nearly 300 complaints were received. This prompted the Medical Council to make their "Facts about Medicine" announcement.

Number of complaints lodged with the Medical Council of Thailand between 1988 and 2006



Source: Secretariat Office of the Medical Council of Thailand, Ministry of Public Health

Pinit Kullavanijaya, Secretary General of the Medical Council of Thailand, claimed that the aim of the "Facts about Medicine" announcement was to protect patients rather than doctors. He stated that sometimes doctors could not adequately treat conditions that they were not sufficiently expert on.

Meanwhile, the Council President insisted that the announcement had been developed for more than four years and had not been drawn up hastily.

Before the announcement, the Council had put forward a "Draft Medical Facts" Announcement (number 46/2006). The draft announcement was the first suggestion that Council members (meaning every medical practitioner in Thailand) might turn down non-emergency patients for the patients' benefit. The rejection would protect doctors from lawsuits.

By including the rights of patients as well as doctors, the announcement tried to clarify the relationship between doctors and the public. Dr. Somsak Lohlekha, in an interview with the Chulalongkorn University Radio Station May 18, 2006, explained as follows

After the announcement on patients' rights in 1998, there were many attempts to explain patients' rights. However, the explanations failed to include information on the responsibilities of patients towards doctors and the right of doctors. It was a one-sided announcement with insufficient information for patients. Owing to a lack of medical information and understanding, there were lots of unsound complaints. When doctors gave explanations, patients thought they were making excuses instead. Most of doctors were correct, but they created a bad impression. They tried to do the right thing, but they received allegations in return. If patients filed lawsuits, doctors had to waste time as well as money for lawyer fees.

Most patients who sue doctors have no time to work. They spend all their time thinking about cases that they do not understand properly, and eventually go bankrupt. Their money is wasted on fees during the years it takes for the court to make a decision. Furthermore, the dead cannot be revived. The Committee therefore drafted the "Facts about Medicine" announcement and proposed that the Committee put it to the public. It was announced together with the patients' rights to help improve people's understanding. The Council also set up an ad hoc committee to consider the announcement. The Committee proposed the announcement for the council's approval.

In response to criticism from various groups and a demand that the Council void the announcement, the Council restated its intention to stick with the Medical Facts announcement. It insisted that the announcement protected patients, and not just medical practitioners.

Dr. Ampon Jindawattana, Secretary of the Committee on Public Health Affairs, National Legislative Assembly, said that the Committee had considered the announcement and was concerned about a widening gap between doctors and the public. The Committee believed that the Medical Council had acted in good faith to communicate medical facts to the public. However, the announcement could lead to misunderstanding. The Committee hoped that, for the people's benefit, the Council would acknowledge concerns and comments, and would review the announcement.

The Network of Victims of Medical Malpractice, led by Preeyanant Lorsermwatthan, reacted angrily to the announcement. It claimed that, although the announcement was correct in places, doctors had not behaved in ways that would earn them the trust ofthe general public. In many instances, the Medical Council had refused to take action, but when the case was taken to court, the court found in the patient's favor

Dr. Pradit Charoenthaitawee, a member of the National Human Rights Commission and former member of the Committee on Medical Ethics, stated that doctors currently pay too much attention to earning money. Each week 3 or 4 people file claims against doctors for medical errors. Dr Pradit described the case of a 70-year-old monk who suffered a compound fraction after falling off a turning train. The monk was treated by Chulalongkorn Hospital, Lerdsin Hospital, Ta Clee Hospital in Nakhon Sawan and the Police Hospital. All these hospitals gave him inadequate treatment, providing only tincture of iodine for a 4-inch-long wound. The Commission had been investigating the case. In addition to this, the Medical Council rarely invited the patients to testify. The Council should improve the training given at medical schools and colleges by adding more lessons on ethics, moral principles and sympathy with patients.

The Consumers Foundation, under Saree Ongsomwang, applied to have the announcement struck down by the Administrative Court. Dr. Niran Pitakwatchara, a former senator from Ubon Ratchathani, stated publicly that the announcement reflected badly on medical practitioners and was an evasion of doctors' responsibilities

The Most Recent Amendment

Only one day after the "Facts about Medicine" announcement, the Council amended the Medical Ethics section of the "Regulations of the Medical Council". The amendments took effect on December 1, 2006.

Article 28 was changed from *"Medical practitioners shall not refuse requests to treat patients whose life are in danger"* to *"Medical practitioners shall not refuse requests to treat patients whose life are in danger, except for patients who are not in need of immediate treatment, though the medical practitioner must provide appropriate recommendations."*

The addition of the extra clause led to fears that doctors might refuse treatment in cases where the patient was not at risk of dying but was at risk of disability or the loss of organs.

In response to the amendment, Dr. Jade Donavanik, Dean of the College of Law at Siam University, commented that doctors appeared to be responsible only for patients who were near death. Everyone else could be refused treatment. The rule went against the government's aim to provide universal coverage. Everyone knew already that doctors could deny treatment for diseases that they did not have the expertise to treat.

Dr. Jade added that, in his opinion, the regulations issued by the of the Medical Council did not have the force of law. They were merely guidelines that members of the professional organization should follow. In cases of violations of consumers' rights, the consumer could submit a complaint to the Consumer Protection Committee or the Medical Council for review.

The Urgent Need to Improve Understanding Between Doctors and Patients

The "Facts about Medicine" announcement and the amended Regulations of the Medical Council damaged the relationship between the Council and the general public. Distrust of doctors had already been growing among patients and their relatives. Mistrust has many harmful consequences. For instance, referring patients with complex conditions to specialists results in a longer queues, and possibly deaths among patients waiting for treatment.

Mistrust can also slow medical progress. Medical practitioners may be excessively concerned about risks arising from new techniques or treatments. Teachers may not give their students the opportunity to practice their skills for fear of malpractice suits. New doctors will therefore have little practical experience. Patients will be over-diagnosed and burdened with extra expenses. Some will receive unnecessary treatments by doctors wishing to avoid accusations of neglect.

The doctor-patient relationship inevitably raises questions about power. Patients have to rely on doctors. Doctors working at public hospitals are overburdened with too many patients, leading to misunderstandings. It is therefore crucial to improve mutual understanding, and to develop effective for addressing problems and injustices.

4

Thai Children and Danger from Sex: More Protection Needed

In 2005, like in 2006, there were sequent news stories about sexual crimes. However, what was worrying was that the victims of the sex violation cases in 2006 were mostly girls younger than 15 years old and the sex offenders were mostly adults close to the children their father, older brother, younger brother, older relative, student friend, teacher and employer. At the same time, the number of youths who committed sexual violation also increased alarmingly. How should Thai society help create safety against sexual violation for our children? How should we solve the problem of youth committing sexual violations at a young age?

As Many as 14 Thai Children a Day Are Sexually Abused

According to the Ramajitti Institute, 3,825 children under 18 years old were sexually abused in 2005. This figure increased to 5,211 people in 2006, or approximately 14 people per day in 2006 compared to 10 people per day in 2005. The rate of the increase was 36 percent, which is consistent with the statistics from the One Stop Crisis Center. The One Stop Crisis Center is operated by hospitals under the Ministry of Public Health across the country and provides assistance to victims of violence and physical and sexual abuse. According to statistics from the One Stop Crisis Center, a total of 14,382 people, or approximately 39 people per day, used the center's services from October 2005 to September 2006. Out of this number, half were children under 18 years old; 5,622 were girls and 1,542 were boys.

Information from the Office of Women's Affairs and Family Development under the Ministry of Social Development and Human Security also verify sexual violence against children. From January to November 2006, there were 796 rape victims. Out of the total, 412 people or 51 percent were girls under 15 years old. In summary, the number of victims of violence in 2006 increased 40 percent compared to 2005 and **young girls were the largest group of those sexually abused.**

Who are the offenders?.

Information from various organizations all indicate that sex offenders are people close to the children, including family members, relatives or friends. However, according to the Office of the National Police, less than half of these offenders have been caught. Between January and December 2006, there were 5,228 police reports concerning rape, sexual abuse, and rape/murder, but arrests were made in only 2,170 cases (see table on page 55).

An Average of 10 Youth Sexual Offenders Arrested Per Day

Dr. Kittipong Kittiyarak, Deputy Permanent Secretary of the Ministry of Justice, stated that there were 31,000 law offenders who were youths in 2001. This number jumped to 43,000 people in 2006. Out of the total, 3,636 people committed sex crimes in 2006, increasing threefold from 1,026 people in 2001. In addition, 3,000 youths were arrested for possession of weapons and bombs in 2006, rising from 900 people in 2001.

It should be noted that the number of sex offenders has been continuously increasing since 2001 (see graph on page 55). Sexual violations include rape, most often date rape, and gang rape. On average, there are ten youths per day who commit sexual violations and are arrested. If the number of youths who commit sexual violations and are not arrested is included, the number of sex offenders will be alarmingly high.

In many sex cases, mobile phones with cameras were used to film video clips and the offenders often used these video clips to blackmail the victims to continue to have sex with them.

When Children Rape Children and Mobile Phones with Cameras Become Weapons

There were many upsetting news about sex cases in 2006. The first one was the case of two 14 and 15 year old girls who were held up by a knife and raped by a group of 15-22 teenage boys near the wall of temple in Bangkok. This case became big news because the girls were raped by as many as 30 people. The news reported that the police were only able to arrest 9 of the rapists.

Later, there was news about a 14 years old Supanburi girl who died after she was beaten and raped by 8 teenage boys that she knew. Then there was news about an eleventh grade student who was gang raped by 5 male student friends from her classroom. The boys used a mobile phone to record a video clip with the girl knowing. Afterwards, the video clip was distributed both in and outside the school. An older student also used the video clip to force to girl to have sex with him, threatening to publicize it if she refused.

A few months later, many cases of girls being raped and filmed on video clip for distribution or blackmail also followed. For example, a grade 6 student was raped by fellow students and the video clip was distributed at mobile phone shops. A 15 year old girl was raped by 11 student friends and the video clip was used to threaten the girl to keep quiet. In a similar case, 5 teenage boys raped a 14 year old girl from the same village at the back of a pickup truck and filmed a video clip to threaten her not to tell anyone.

Standards of the Justice Process: When Grade Two Students Have to Prove Rape by Level 7 Teachers

In mid-2006, every newspaper followed the case of two level 7 teachers under the Bangkok Metropolitan Administration (BMA) who were accused of raping five of their grade 2 students. The BMA assigned a district level committee to investigate the case, but the results of the investigation were rejected by the BMA Deputy Permanent Secretary, also holding the position of the Chairman of the Child Protection Subcommittee, on the grounds that the district level committee focused on individual witnesses of the accused teachers and did not interrogate the complainants. In addition, there was no accompanying medical evidence. This occurrence reflects the difficulty in proving wrongdoing in sex cases between those who have unequal authority and power.

Meanwhile, the Bangkok Governor announced a safety measure for 435 schools under the BMA. The safety measure included six points such as forbidding a female and male teacher to be alone with a student out of the sight of others; teachers keeping an eye on students arguing and fighting as this might be a form of bullying or sexual violation; and teachers in the psychology or social sciences department should analyze the situation to promptly solve the problem. Even though these measures do not solve the root of the problem or prevent the problem from occurring, it may be able to suppress the problem.

Measures to fairly punish the offenders and sensitively protect the children should be the best solution to solve the problem of teachers sexually abusing students. However, the justice process in this case has proceeded very slowly. According to news reports, even though more than 2 months has passed, the process is still in the case summary proceeding stage. At the same time, friends and supporters of the teachers have organized activities to support the teachers' innocence such as petitioning names.

Both of the teachers who have been charged have also acted to prove that they are not guilty by swearing their innocence and also filing a police report against those involved in the case such as the Commander of the Children, Juveniles and Children Division; Ms. Paweena Hongsakul, President of the Paweena Foundation for Children and Women; and the parents of the three children. No matter how this case ends, the question that will arise is **What measures will there be to effectively help the victims despite the inequality in social status and the inequality between "adults" and "children"?**

Sex Abuse against Children Is a Problem Related to Authority

Rape is forced sexual intercourse. In many cases, the victim doesn't dare resist because of threats of violence against the individual or their relatives or fear against authority or power. The status of teacher and student, adult and minor, father and child, employer and employee, creditor and debtor, and senior and junior are often used to pressure and force the "victim" to accept the demands.

Viewing sexual abuse against children as a problem related to authority might help us better understand why sexual abuse is committed against children at an increasingly younger age. That is because in Thai culture, "age" is a factor that makes younger people accept the authority of "adults" without question or negotiation. In addition, if social status is also involved, for example the case of a level 7 teacher raping an 8 years old girl or a teacher having sex with students in exchange for grades, it is undeniable that sexual abuse may occur in Thai society. However, why has it been hard to accept these realities? Denial has also been a major obstacle in establishing effective protective measures, lessening the degree of damage, and providing effective treatment to the victims to quickly overcome the trauma.

Misunderstanding about Sexual Abuse is the Main Obstacle against Solving the Problem

Even though it is evident in the sex abuse cases in the past year that the victim did not invite the trouble, Thai society in general still thinks that the victim is the cause of the sexual violation problems. The victim may have dressed revealingly, have an attractive figure or acted seductively. Thai society also has the mistaken notion that sexual abuse often occurs in dark and deserted places at nighttime. The person who commits the crime is a stranger or a person who has character problems. Thai society also often misunderstands that sexual abuse must involve the use of physical strength and violence; therefore, there must be evidence such as wounds or signs of fighting.

Misunderstanding about rapes still exists in Thai society because it is presented in many activities such as everyday news, soap operas, editorials, commentaries, and blogs.

Guidelines to Solve Sexual Violations in Educational Institutions

The problems that are becoming more apparent and intense indicate that Thai society should have a process to systematically solve the problem of rapes and sexual abuse in educational educations. In addition, there should be a written policy against sexual abuse that is disseminated to students, guardians and all officers of educational institutions. The policy should also clearly define "sexual abuse" and provide details of preventive measures, assistance, and the protection process. The people responsible for implementing the policy should know what to do and how to do it. Moreover, the policy should clearly explain how to encourage the victims to speak up and file complaints.

Lessons learned from the rape crisis center in many parts of the world similarly state that in order to effectively prevent against rape and sexual abuse in educational institutions, three goals must be established as follows:

1. Everyone in the educational institution must be educated about the various forms of sexual violence. This includes teachers, students and all staff of the educational institution. Skills to take care of one's safety and the safety of friends should be developed. The term "sexual abuse" should be clearly defined as well as included in the rules and regulations of the educational institution.

2. There must be measures to prevent sexual abuse such as safety measures in educational institutions that will directly reduce opportunities for sexual abuse, sufficient lighting, safety systems both inside and outside buildings, and campaigns to promote looking after each other's safety. The student handbook should also clearly state sexual abuse problems, provide information on the authority of the educational institution in dealing with the problem, and provide details about the rights of the accused and victims and protection that they will get from the educational institution.

3. There must be appropriate measures to deal with the problem that has occurred such as guidelines to follow when a sex abuse complaint has been filed; a process to protect the rights of the victim and the accused; the people responsible for overseeing the case; and medical, legal, safety, and psychiatric services for the victim.

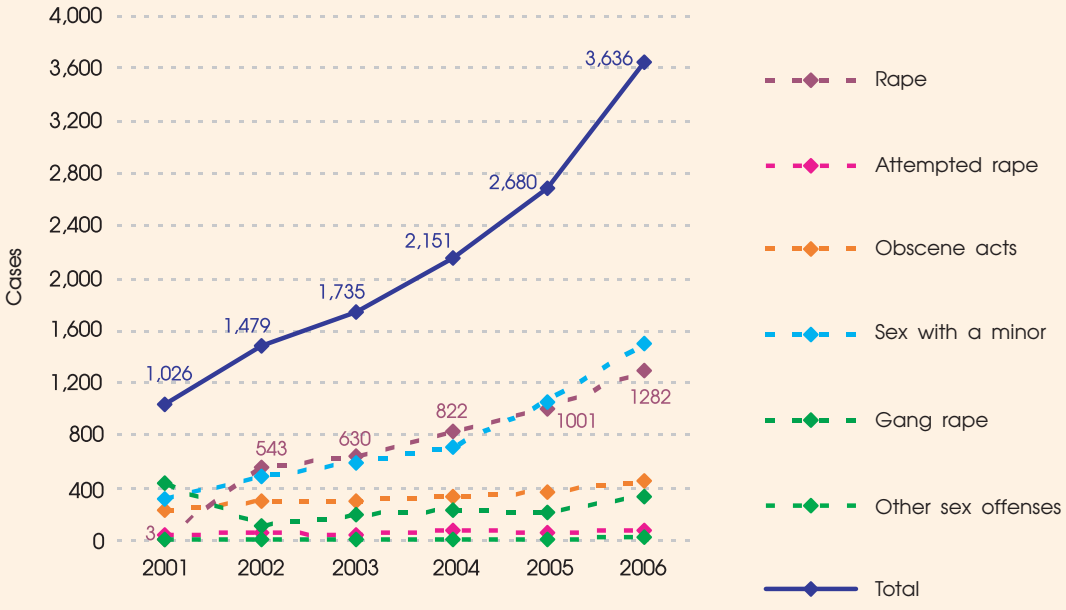
We must change attitudes towards sexual abuse problem. Without changed attitudes, the problem will be insoluble.

Table showing the number of sex abuse cases
and percentage of arrested offenders from 1997-2006

Year	Police reports	Arrested	% arrested
1997	3,741	2,576	68.9
1998	3,540	2,391	67.5
1999	4,005	2,532	63.2
2000	4,053	2,640	65.1
2001	3,857	2,544	66.0
2002	4,445	2,556	57.5
2003	4,818	1,707	35.4
2004	5,052	1,861	36.8
2005	5,065	2,051	40.5
2006	5,288	2,170	41.5

Source: The Thai Health Project. 2007. (Calculated from rape and sexual abuses statistics. Police Information Technology Center, Royal Thai Police office.

Graph showing the number of youths (aged 7-18 years)
from the Department of Juvenile Observation
and Protection who committed sex abuse crimes
from 2001-2006



Source: The Thai Health Project.2007. (Calculated from the number of youth and children-related cases in criminal and sexual abuses all over the country. Department of Juvenile Observation and Prediction. Ministry of Justice.

5

Repeated Flooding: A Worsening Natural Disaster

Flooding is the natural disaster that occurs most often in Thailand. Though the country has experienced many severe natural disasters in the past, they occurred less frequently than today, particularly in the year 2006, when the repeated severe floods deserved to the label of "crisis". At the same time, repeated dry spells are a recurring problem every dry season.

2006 the Flood Crisis Year

The flood crisis in 2006 can be considered the most severe in the past five years (see Table 1). The adversity began in May when flash floods devastated Uttaradit, Sukhothai, Phrae, Lampang and Nan provinces. Laplae and Mueang district in Uttaradit was the worse hit.

Two months later, a southwest monsoon covered the Andaman Sea and the Gulf of Thailand causing heavy rains and severe floods in 22 provinces in the northern, central and southern regions.

In August, Thailand was also hard hit by torrential rains. A southwest monsoon caused heavy floods which brought widespread destruction to Prachuap Khiri Khan and Chumphon provinces. In the north, a low pressure trough caused torrential rains in Nan province as never experienced before. At the end of August, heavy rains continued in Chiang Mai, Lamphun, Lampang, Prae, Sukhothai and Tak provinces.

In September, a low pressure trough continued to lay over the northern, northeastern and central regions. In addition tropical storm Xangsane moved into Thailand in early October, causing continued torrential rains across all regions of Thailand.

From the end of November 2006 to early January 2007, giant waves and strong winds destroyed many coastal areas in the southern provinces both on the Gulf of Thailand and Andaman sides, including Chumphon, Surat Thani, Nakhon Sri Thammarat, Songkhla, Pattalung, Pattani, Yala, Narathiwat, Satun and Trang provinces. The high waves and strong winds have pushed the shoreline back in many provinces, especially at Laem Ta Loom Puk in Nakhon Sri Thammarat province.

The total area affected by floods was 439 districts in 47 provinces throughout Thailand. As many as 1.42 million households, or 6.17 million people, suffered from the floods. There were a total of 337 deaths. The estimated loss from the floods is 7.707 billion baht.

Sickness Caused by the Floods

The severe floods which inundated many provinces not only destroyed homes, assets, roads, schools, temples, and plantation and fishery areas but also brought physical illness. The longer the period of flooding, the greater the dirtiness and the higher the risk of people getting sick from germs in the water. Diseases from flooding include:

1. Athlete's Foot is a fungal infection of the skin caused by long-term exposure to water which causes the skin to flake and blister. Athlete's foot usually appears between the toes, but can spread to the bottom of the feet and toenails. Therefore, after walking in water, wash your feet clean with soap and wipe it dry. Also, avoid wearing damp shoes and socks.
2. Respiratory Infections such as cold with fever and pneumonia are caused by breathing in viruses from the air. Dampness and cold weather lower the body's immunity so there is greater chance of catching the virus.
3. Conjunctivitis or Pink Eye is inflammation of the eye caused by a virus. Using unclean water to wash your face, using dirty hands or dirty towels to rub your eyes, or contact with a pink eye patient's tears can cause pink eye. Though pink eye is not dangerous, it can cause blurring if the virus enters the cornea. Pink eye can be prevented by hand washing, not using things with the patient, washing your eyes immediately with clean water if dust gets in, not letting flies touch your eyes.
4. Gastrointestinal Infections such as diarrhea, typhoid and food poisoning are caused by eating unclean food or drinking contaminated water. Gastrointestinal infections can be prevented by eating newly cooked food that hasn't been in contact with flies, drinking boiled or bottled water, and washing your hands every time before eating.
5. Infections Through Skin Contact are usually caused by bacteria in soil, mud, pools of water and water-ways. The most common is leptospirosis which is caused by contact with water, food, or soil containing urine from infected animals. Symptoms of leptospirosis include high fever, severe headache, muscle aches, red eyes, and/or a rash. If left untreated, it could lead to kidney damage and liver failure and possibly death.
6. Danger from Poisonous Animals such as snakes, centipedes, and scorpions that like to escape the water by entering people's homes.

According the Ministry of Public Health, from August 27 to December 16, 2006, flood victims that were affected from sickness caused by the floods totaled 757,413 people. The 3 most common ailments were athlete's foot (312,703 cases), rashes (96,436 cases) and cold with fever (87,077 cases). The public health officials were able to control and prevent two communicable diseases that came with the floods, pink eye and diarrhea, so the diseases did not spread in a wide circle.

Prolonged Flooding ...Stress... and Increased Risk of Suicide

In areas with prolonged flooding, besides taking care of flood victims with physical sickness, officials have to monitor people's mental health problems. Dr. Taweesin Visanuyothin, Mental Health Department Spokesman, explained that flood victim's mental health situation can be divided into 3 stages:

Stage 1: Prior to the floods, people worry how high the floods will be and how much damage will be caused to their property. They experience low levels of stress and anxiety and may also experience sleeping problems.

Stage 2: During the floods, the level of stress and anxiety increases. Some people cry, some people gaze into space. There are symptoms of depression. Some people are frustrated with hardship during the floods and become easily irritated. The severity of the mental health problems depend on the situation which is different in different areas.

Stage 3: After the floods, the flood victims express their emotions more because they see loss of lives and property. This may lead to suicide.

The impact on mental health is not severe in the first month because the flood victims are interested in the flood situation that they are presently facing. If the situation has not improved by the second and third month, the flood victims will be more anxious and very stressed. This is the period that the flood victims have to be closely monitored to prevent suicide.

Dr. Prat Boonyawongvirot, Permanent Secretary of the Ministry of Public Health, said that the Ministry of Public Health has prepared a plan to monitor suicide, Post Traumatic Stress Disorder (PTSD), depression and drinking for 3 months. In this period, 95 percent of normal people will be able to adjust to the situation.

The Department of Mental Health which is directly responsible for assisting and rehabilitating the mental health of flood victims has gathered a team of psychiatrists and health volunteers who have passed stress training programs to go with the medical mobile units to help residents in flooded areas. The team will identify flood-affected residents with mental health problems and provide treatment. Those with severe mental health problems will be watched over closely. The Department of Mental Health has also distributed 10,000 stress relief guidebooks to the public, provided training to public health officials and health volunteers in the area so that they can provide initial consultation, and opened the 1323 hotline to provide 24-hour advice for flood victims with mental health problems.

Dr. Seri Hongyok, Deputy Director-General of the Department of Mental Health, said that according to the mental health situation analysis of 17 flood-affected

provinces including Tak, Nan, Angthong, Prachin buri, Nonthaburi, Pichit, Ayutthaya, Uthai Thani, Nakorn Sawan, Chai Nat, Chiang Mai, Chaiyaphum, Sing buri, Lopburi, Loei, Nakhon Pathom and Supanburi up until November 2006, there were a total of 7,942 people with mental health problems. 1,238 people had stress and anxiety problems, with the highest number, 191 cases, in Angthong province followed by 173 cases in Ayutthaya province. There were 671 people who had sleeping problems, apprehension and nightmares, with the highest number, 135 cases, in Ayutthaya province followed by 102 cases in Nakhon Sawan province. There were 72 people who attempted to commit suicide, with the highest number, 15 cases, in Nan province followed by 11 cases in Ayutthaya province. All were registered for treatment and close monitoring until full recovery.

Lessons Learned from the Floods

The Office of the National Economics and Social Development Board surveyed the flood-affected areas in the central region and concluded that one of the causes of the floods was expansion of the communities. Both government and private sector construction obstructed water flow. Therefore, when there was lots of water, the water could not flow conveniently. Also, there were insufficient places to hold water. As a result, areas were inundated quickly; the water level was high; and the period of flooding was longer than in the past. The reason for the long period of flooding was that the water was blocked from entering Bangkok and there were no plans to systematically drain the water from the area. Furthermore, the government's warning used technical language which made it difficult for villagers to understand the severity of the flood conditions. The villagers thought that the floods would be like the previous years so they did not make adequate preparations. In addition, the forecast provided for some areas were very inaccurate, for example, the villagers were informed that the water would rise 20 cm, but the water actually rose 70-80 cm.

The severe floods in 2006 were a serious problem and the rural people suffered greatly. Until December 2006, many provincial areas were still inundated under high water levels. However, people in Bangkok were not much affected because farmers in the central region sacrificed 100,000 rai of farmland to let water in to save Bangkok from being flooded. The area could hold as much as 10-20 million cubic meters of water. The villagers' sacrifice for the city people should be remembered.

Man-made Canal Proposal to Solve Flooding

Solving the flooding problem by increasing the water-holding area like in the past can no longer be used because all areas have been flooded. Improving water drainage is often ineffective because the entire system has not been developed; it only relocates the flood from one area to another. Therefore, a project to dig a series of canals to solve the water drainage problem has been proposed. The cost for digging canals 1,000 km long will cost approximately 70 billion baht, which is less than the 100 billion baht cost of constructing skytrain routes in Bangkok to ease traffic.

If the man-made canals can drain 2,000 - 3,000 cubic meters per second, the water in the Chaopraya River will fall 2,000 - 3,000 cubic meters per second, reducing the flooding problem a lot. According to the highest statistics, 6,000 cubic meters of water per second at Nakhon Sawan province was recorded at 4,000 cubic meters per second when reaching Bangkok. Therefore, if the eastern ring canal and the western ring canal can drain 2,000 - 3,000 cubic meters per second, the water will not overflow the banks. Besides helping solve the flooding problem nationwide, the canals will also increase the irrigated areas across the country by 150 million rai.

Tackling the Flooding Problem in the Future

As a result of the severe floods in 2006, the Department of Water Resources, the Ministry of Natural Resources and Environment established a short-term plan to deal with the floods. The plan comprised of: determining the areas with flood risk; establishing management methods prior to, during and after the floods, as well as, clearly identified the responsible units from the national to local levels; and establishing flood relief centers to manage and make decisions during emergencies, release warnings, and coordinate with related organizations.

The flood relief master plan for the medium and long-term will include protecting and rehabilitating forests, establishing boundaries for using highlands, rehabilitating water sources, waterways, and wetlands, amending laws related to public streams, taking back waterways that have been trespassed, developing water storage areas, building reservoirs, improving the accuracy of forecasts and warnings, establishing flood insurance systems, developing city flood protection systems, developing a uniformed management structure of the water basin, and revising the national water policy. The Department of Water Resources, which is the Secretary of the National Water Resources Committee, will collaborate with other related agencies to develop the master plan for the Cabinet's approval.

Scientists around the world agreed that climatic changes and global warming are the cause behind more frequent and severe flooding in many countries. The major factor contributing to global warming is industrial activities performed by humans, from burning fossil fuels to changes in plantation methods.

According to the Intergovernmental Panel of Climate Change, one of the impacts from climatic changes on Thailand concerns water, which might be either heavy rainfall causing floods or rain not falling according to season and causing drought. Meanwhile, the World Report on Changes in Asia in the Future which was written 3-4 years ago stated that almost every region in Thailand will have increased rainfall, the number of hot days will increase, and the winter season will be shorter. The worrying issue is climatic volatility which will lead to more frequent and severe flooding.

In formulating the country's development plans and environment management plans, the government sector must consider climatic changes and its impact in the future. At the same time, the people must quickly try to understand the changes ahead in order to prepare for and adjust to the changes. If Thai society ignores global warming today, solving this problem in the future will be much more difficult.

Table 1 : Flooding Situation and Damages (2002 - 2006)

Year	Population (million people)	Households (million households)	Agricultural area (million rai)	Damages (million baht)
2002	5.08	1.37	10.43	13,385.31
2003	1.87	0.48	1.59	2,050.26
2004	1.79	0.46	1.98	410.86
2005	0.73	0.22	0.89	4,700.10
2006	6.17	1.42	5.97	6,946.82

Source: Disaster Prevention and Mitigation Department, Ministry of Interior (29 November 2006)

Table 2 : Summary of Flooding in 2006 and Details of Damages

Period	Flooded area	No. of deaths	No. of affected people	Initial value of damages (excluding the residents' homes and property)
May 22 - June 30 [1]	5 provinces: Uttaradit, Sukhothai, Phrae, Lampang and Nan	88 cases	352,016 cases	1,344,833,259 baht
July 1-30 [1]	22 provinces: Chiang Rai, Chiang Mai, Mae Hong Son, Tak, Lampang, Lumpoon, Nakhon Ratchasrima, Nakhon Phanom, Udonthani, Roi Et, Chonburi, Rayong, Chanthaburi, Trat, Prachinburi, Phetchaburi, Prachuap Khiri Khan, Chumphon, Satun, Krabi, Trang, Surat Thani	5 cases	48,520 cases	-
August 13-18 [1]	4 provinces: Prachuap Khiri Khan, Chumphon, Ranong, Ubon Ratchathani	-	54,396 cases	93,772,849 baht
August 19-26 [1]	3 provinces: Nan, Chiang Rai, Sukhothai	2 cases	153,574 cases	143,378,478 baht
August 27- December 25 [2]	47 provinces: Chiang Rai, Chiang Mai, Mae Hong Son, Lumphun, Lampang, Prae, Phayao, Uttaradit, Petchabun, Phitsanulok, Sukhothai, Tak, Kamphaengphet, Phichit, Nakorn Sawan, Chai Nat, Uthai Thani, Sing buri, Angthong, Ayutthaya, Lop buri, Saraburi, Suphanburi, Pathumthani, Nontaburi, Nakhon Prathom, Nakhon Nayok, Chonburi, Chachoengsao, Prachinburi, Chantaburi, Trat, Chaiyaphum, Khon Kaen, Udon Thani, Nakorn Ratchasima, Sri Sa Ket, Buri ram, Surin, Ubon Ratchathani, Yasothon, Roi Et, Chumphon, Surat Thani, Nakorn Sri Tammarat, Pang Nga, Bangkok	337 cases	5,198,814 cases	7,707,574,527 baht

(-) no data

Sources: 1. Monthly summary of public hazard, May-August 2006. Department of Disaster Prevention and Mitigation of Interior.
2. Cabinet resolution, December 26,2006

6

The Fire in the South Continues after the Coup

The coup d'etat on September 19, 2006 nd only brought about political change, but also significantly affected the situation in Thailand's three southern border provinces. The government appeared to take a softer stance, beginning with the public apology made by the Prime Minister General Surayuth Chulanont, as well as structural changes in state security organizations and the reestablishment of the Southern Border Provinces Administration Centre. However, the situation remained volatile.

Relations Progressed Slowly during the First Half of 2006

The international press - *The Guardian* of the United Kingdom and *The Standard* of Hong Kong has referred to Thailand as "the Kingdom of Fear" because unpredictable violent eruptions were causing grave security concerns for residents. During the first half of 2006, the Emergency Law, initially enforced on July 16, 2005, was extended in the Southern provinces. The government actions exacerbated the already oppressive environment causing violence to escalate.

In response to public opinion and the People's Alliance for Democracy, Prime Minister Thaksin Shinawatra changed military officers in charge of the Southern situation, from the Minister of Interior to Minister of Defense and to the Army Chief Commander. The daily killings continued, as well as the well-orchestrated simultaneous bomb attacks on twenty-two commercial banks in Yala's five districts on August 31, 2005. The bombings caused many deaths and injuries. In response to the bombings, the Bank of Thailand issued an immediate close order as a protective measure for bank staff and customers.

Prime Minister Thaksin Shinawatra shrugged off responsibility by saying that the responsibility had been transferred to the Army chief Commander. In response to the PM's statement, Army Chief Commander General Sonthi Boonyaratglin said that he wished the three provinces were truly free from politics and that soldiers could do their jobs.

To make matters worse, seven bomb blasts killed 4 people, including foreigners, and injured 59 people in Hat Yai's city center, on September 16, 2006. The district is the economic heart of Songkhla Province, as well as of the lower southern region, consequently the bombings directly impacted the entire area's economy and generally created a great loss.

The economy is driven by the tourist industry. Businessmen claimed that economy was dying, as it had just recovered from the bomb blast in the Hat Yai Airport in the previous year. Bombings in the heart of the city created countrywide ripple effects, particularly for the government who was blamed for its inadequacies. This spate of bombings was the last violent act during the Thaksin government.

The Malaysian Star newspaper published an article saying that tourists from Malaysia were afraid to cross the border to visit brothels in Thailand and that sex work business owners were importing Thai women to provide sex services in Tumpat, Kalantan, the state across the country border that is closest to Sungai Kolok of Narathiwat. Dr. Srisompop Jitrpiromsri, of the Faculty of Political Sciences, Prince of Songkhla University of Pattani campus, has been collecting information on violence in the three southern provinces. He has claimed that the violence worsened during the first eight months of 2006.

Violence at "Kuching Luepah" and Disorganized Education in the Three Southern Provinces

Thai people had been continually threatened by the violence in the three southern provinces. The violent situation that took place on the afternoon of May 19, 2006, in particular, targeting teachers, justifies their fear. The incident began when a hundred soldiers, police officers and officials examined 10 places in the Moo 4, Chaloem Sub-district, Rangae of Narathiwat, and subsequently arrested two suspects for unrest. A group of more than 300 people responded to the arrest by holding two teachers at Kuching Luepah School, Juling Pongkanmoon and Sineenart Thavornsuk, in exchange for the release of the two suspects arrested earlier in the morning.

Both teachers were brutally beaten by a group of men. The injuries of one, Juling, were so severe that she suffered from irreversible brain damage. According to the doctor, only a miracle could save her life and she finally passed away in 2007 after being in a coma for eight months.

Teachers have been targeted as victims in the past; however, the violence at Kuching Luepah disrupted education in the three provinces even more. Deliberate attempts to burn schools took place regularly. The written notice saying "School Closed" was left at the site of killings, burnings and beheadings.

Understandably hundreds of teachers in the area expressed their desire to move out of concerns for their safety and their lives. Along with the teachers leaving, hundreds of schools in Narathiwat were also closed indefinitely. The opportunity for students in the conflicting area to receive an education was disappearing.

The Office of the Educational Inspector 12 in Yala reported that between 2004 and 2006, 71 educational officers were attacked and killed, 112 officers were injured and 110 schools were deliberately burned. In the meantime, Dr. Wachira Pengchan, Director of the Mental Health Department, said that the continued unrest was causing an increasing number of people to be afflicted with mental illness.

The impact was not only experienced by teachers, but also by doctors of whom nearly 42 percent were required to work in the three provinces. According to the GIS database, 502 doctors were needed to meet needs in Pattani, Yala and Narathiwat during 2005. However, doctors were in short supply as the number of doctors working in hospitals was only 290 and 212 more were still needed. Narathiwat required most the doctor (111), followed by Pattani (58) and Yala (43). Needless to say the workload far exceeded the supply of doctors.

To support local area medical staff, the Ministry of Public Health (MOPH) developed security measures for staff and sent in volunteer medical teams from other areas. In addition, the MOPH relocated medical staff and increased their remuneration and benefits.

The assistance also included the budget allocations and the provision of health services at all levels to support staff in conflict areas.

Fire in the South after the Coup d'etat

The first formal statement by the new Prime Minister after the coup, General Surayuth Chulanont, was that his priorities included two things: addressing political conflicts and resolving the violent situation in the south. The latter, in particular, gained positive responses from Islamic leaders.

All eyes have remained focused on the coup d'etat of September 19, 2006, with an expectation that it would positively influence events in the South. The government set a progressive pace soon by announcing the appointment of a new Fourth Army Region Commander Lt.-General Viroj Buacharoon. The Lt.-General soon announced that there would be peace negotiations. General Sonthi Boonyaratglin, Army Chief General and Chairman of the National Security Council stated he had assigned officials to negotiate with the insurgency group in the South.

According to the Sydney Morning Herald, Dr. Mahathir Mohammad, former Malaysian Prime Minister offered to mediate peace negotiations between high ranking Thai officials and the separatist leaders. He also added that the insurgents did not expect either independence or autonomy nor to establish Malay as an official language. A series of meetings was scheduled on the island of Langkawi and in the Malaysian capital of Kuala Lumpur.

The "negotiations" seemed to open a new channel for restoring peace in the south. Gen. Surayuth Chulanont believed in pursuing peace and that constructive meetings would lessen the tension. However, the talks would only take place on the condition that the South would not secede from Thailand.

Later in interview with Al Jazeera television, the General mentioned that various factors contributed to the situation in the South, and it was most important to recognize how people in the South were victims of social injustices. He also visited leaders in the neighboring countries of Malaysia, Indonesia and the Philippines who have all experienced internal conflict and benefited from peace talks with insurgency groups.

Negative Reactions to the Apology

"I apologize to you on behalf of the previous government and on behalf of this government. I have come here to apologize. I would like to reach out my hand to you and to tell you that I was wrong. I sincerely apologize." This quote from the formal apology, made on November 2, 2006, at the C.S. Pattani Hotel in Pattani, was part of the speech given to 1,000 people, including religious leaders, local leaders, who lost their love ones and suffered greatly from the Tak Bai incident. His remarks were greeted by a long round of loud applause and tears.

That was the first and only formal "apology" from a government leader after three years of ongoing conflict in the three southern border provinces. Thai people across the country felt a sense of relief and believed that the apology would ease the situation. However, three days later the unrest burst again.

The question has been raised as to whether the "apology" from the Prime Minister produced any positive effects. The violence continued and Muslim women and children began demonstrating and demanding that their loved ones be released from jail or detention. In response to the demonstration, a group of Thai-Buddhist people gathered and demanded that the government address the problem through the rule of law by just means.

Religions issues are imbedded in the conflict and were involved in Yala's Bannang Sata and Than To Districts on November 8, 2006, when 206 people from 55 Buddhist families fled their homes for Wat Nirotsangkharam in Sataeng of Muang District. The flight was prompted after an attack on the field army at Ban Thanthip School in Yala's Bannang Sata District that resulted in two deaths. The attack was in revenge for the deaths and burning villager's houses.

Due to escalating fears among Thai Buddhists, psychiatrist teams were assigned by the government to provide counseling services. A psychiatrist from the Yala Center Hospital and the Mental Health Center 15 reported that most of villagers were frightened, and people, whose life and properties were attacked, were in critical condition.

Brad Adams, Asia Director of Human Rights Watch, has demanded that the Southern insurgency groups stop attacking and targeting civilians for their political purposes. As he said, their actions were unlawful and had no moral basis.

Government leaders and the National Security Council agree that the attacks had been carefully planned. The aim is to disrupt the peace process, which, if successful, would generate support for the government. By increasing the scale of the violence, the rebels hope to create fear and panic. Overcoming this strategy requires a great deal of time and forbearance.

Dr. Prawes Wasi has argued that the government's "political approach" is correct. The insurgents are worried that they would loose a political contest, which is why they have launched more attacks. They hope to provoke hatred, forcing the government to abandon the political approach and return to violence. The insurgents believe that they can win a violent struggle.

Restructuring: Using Reconciliation and Non-Violent Approaches

Despite the fact that violence in the South continues, the government's non-violent policies introduced some significant changes. For example, the security-related cases of Tak Bai were dismissed and organization black lists were annulled. An initiative to trace the missing lawyer Somchai Neelaphaichit began. Most importantly, key mechanisms responsible for security in the south through two administrative orders issued by the Office of the Prime Minister were reestablished.

The first order concerned peace-building policies in the southern border provinces. The order covers factors related to reconciliation, justice and peace-building in the area.

The second order established a new administrative organizational structure in the southern border provinces with three levels: *1) Policy level:* The National Security Council was given the responsibility for policies and strategies to solve the conflict. *2) Policy support level* was placed under the Internal Security Operations Command (ISOC) chaired by the Army chief Commander. *3) Operational level* was placed under the Fourth Internal Security Operations Command chaired by the Fourth Army Region Commander to oversee the Southern Border Provinces Administrative Centre (SBPAC) and the Civil-Military-Police Unite (CMP).

In addition, the administrative order would also extend the border provinces covering five provinces including Satun, and other four districts of Songkhla: Jana, Tepa, Sabayoy and Natawee. In an effort to revive the Southern economy, the government proposed a special economic zone covering the Fourth region including, tax breaks, interest reduction and support for migrant workers. The order would be effective from January 1, 2007, until December 2009.

The Government's Structural Problems Remain

A survey revealed that the New Year's gift Thai people wanted most was for the situation in the South to be resolved peacefully. The longer the violent conflict continues, the greater the number of deaths and damages incurred. The number of deaths and injuries in 2006 were twice as many as 2005. (Refer to Table 1 and Picture on page 65)

Data collected by the Academic Coordinating Center for People Effected from the Unrest in Three Southern Provinces concluded that during the five-year period 2002-2006, there were 4,063 deaths in total. In another words, 3 people were injured or killed per day, particularly between 2004 and 2006, the number of injuries or deaths was as high as 5 per day. More Muslims were killed than persons who were Buddhist.

The Southern Border Provinces Administration Centre, would begin operating in January 1, 2007 with only 80 staff (of the total 199 requested).

Along with positive changes by the government, changes in the structure of the insurgency were also taking place. According to ISOC Region 4 Secretary-General Major General Chamlong Khunsong, the insurgent's strategy had changed significantly from the past when leaders would declare responsibility for attacks. However, now it is more difficult to identify leaders and forces that are widely dispersed throughout more than 200 villages. The information is similar to Dr. Surachart Bamrungsuk's that "armed teenagers were new fighters in the South. Those arrested and killed were mostly in their teens."

The Thai government continued to seek political solutions by clarifying the government's non-violence policies to Dr. Ekmeleddin Ihsanoglu, Secretary - General of the Organization of Islamic Conference (OIC) in Saudi Arabia.

Acts of terrorism became more prominent the during the first two months of 2007 when a total of 210 violent acts took place that resulted in 75 deaths and 187 injuries. These acts increased during Chinese New Year on February 17-18, 2007, when 51 incidents occurred, including bombings, arson, ambushes and nail traps. Three days later, the insurgents firebombed the largest smoked rubber factory in the South damaging 5,000 tones of rubber worth more than 400 million baht.

Fortunately, Prime Minister Surayuth Chulanont supports channeling talks through the ISOC which involves people's participation. Along with people's involvement, only non-violent approaches will provide sustainable, peaceful and just solutions.

Throughout this time of destabilization in the South, the government has faced may challenges. The following box entitled 4 major measures to solve the Southern unrest of 2007 identifies ways to develop positive responses that will lead to a sustainable and just peace for all.

4 Major Measures to Address Unrest in the Southern Border Province

In 2007 the Peaceful Strategic Administrative Centre for Southern Border Provinces (PSAC) has developed measures to the insurgencies in the three Southern border provinces. There are four major measures as follows;

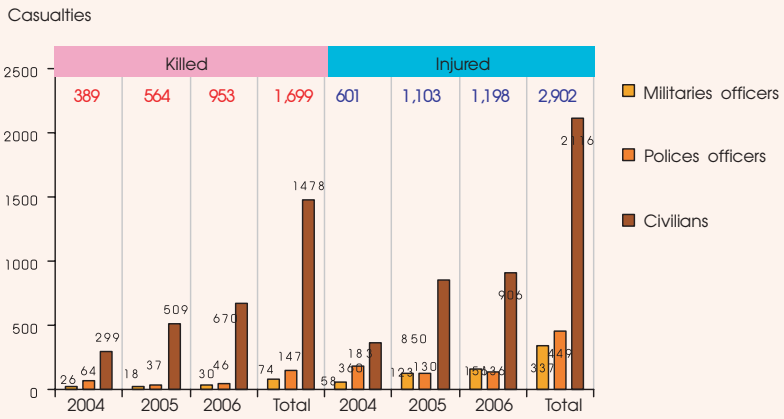
1. Focusing on accepting assistance from overseas organizations, particularly from IOC and neighboring countries, for instance, Malaysia wants to collaborate. They also perceive the situation as an internal affair within Thailand and insist on not interfering.
2. Placing importance on establishing a Justice Administration Office under the Ministry of Justice. It is believed that the cause of insurgencies derived from injustices gained by people in conflicting areas and that their dissatisfaction will take place if the justice is not done.
3. Establishing a special economic zone with tax breaks and interest reduction to motivate the investment and create jobs for local people. This way the Southern economy will be revived along with opportunities for the people to have a better life.
4. Operating proactive works with civil society. The focus is on improving the of life quality for local people and self-sufficiency. The works are under the Southern Border Provinces Administrative Centre (SBPAC).

Summary of violent incidents in three southern border provinces between 2004-2006

No.	Incidents	Number of incidents		
		2004	2005	2006
1	Shooting	531	905	1,040
2	Attack	53	52	39
3	Burning	232	308	281
4	Bombing	76	238	327
5	Theft of weapons, sim cards and electric cords	25	140	10
6	Demonstrations	2	-	14
7	Disturbances/flag burning	33	422	219
8	Beheading	-	12	3
9	Taking hostages	-	1	1
	Total	952	2,078	1,984

Source : Thai Health Report, Institute for Population and Social Research, Mahidol University, 2007 (Calculation was based on data from the Operation Center, National Police Agency, Yala Province)

The comparison of deaths and injuries from insurgencies in the Southern provinces between 2004 and 2006



Source : Thai Health Report, Institute for Population and Social Research, Mahidol University, 2007(Calculation was based on data from the Operation Center, National Police Agency, Yala Province)

7

Thai Students and Violence in Schools

Throughout 2006 and continuing into 2007, there were frequent "abnormal" occurrences in schools. Besides news about students from different vocational schools fighting with weapons, there were incidences about female students in bloody catfights and teachers harshly punishing students both physically and emotionally. This raises the question of whether schools are still safe for children.

The Culture of Using Violence to Solve Problems in Schools

Schools are an important environment for school-age children. However, studies by Dr. Pornpun Boonyaratpun found that only 59 percent of schools taught problem-solving skills without the use of violence. In 2006, there were many incidences that revealed the use of violence to solve problems in schools which shook the Thai educational circle.

In the beginning of the year, there was news about a 14-year old grade 8 female student studying in Samutprakan province who was badly beaten by 2 older female students. Her body was bruised and there was blood around her ear and left arm from bites. The older students were displeased that she was talking to a male student who was the boyfriend of one of the older students. They arranged to meet after school at a place nearby the school to discuss the situation, but the older girls later beat up the younger girl.

Approximately the same time as the above mentioned incident, 30 female high school students were involved in a fight in the middle of a market in Nakhon Sri Thammarat province, which was watched by many people. The police had to step in to stop the fighting. The cause of the fight was a dispute over a boyfriend. Soon after, there was news about female students damaging the property of a private school in Nakhon Sri Thammarat province because they were angry that a teacher had found out about some of them selling sex services and reporting it to the girls' parents.

It seems that fighting among students, especially high school students, are becoming more frequent. However, the incident that shocked Thai society was the attack on 14-15 year old students of a school in Nonthaburi province until they were terribly beaten and bruised. Most important, the incident was filmed on video clip which later became major evidence when a report was filed with the police. In addition, images and sounds of the attack were forwarded via mobile phones throughout the school to shame those involved.

Images and sounds of the girls being attacked, including hair pulling, slapping and kicking the face and head, until the assaulted fell to the ground amongst the cheers of those watching shook Thai society. As a result, we have to seriously take a look at the dangers in schools.

Following this violent incident, Mr. Chaturong Chaisaeng, the Minister of Education at that time, ordered public health researchers to find out what caused the group of female students to behave that way. Results of the psychology tests revealed that the group of female students who were involved in the incident had characteristics of students with risks. Students with risks have low skills in solving problems and conflicts, have difficulty in controlling their emotions, lack discipline, do not respect social rules, and have family problems. From the evaluation that there is high probability that similar incidents will occur in schools in the future, Mr. Chaturong stated the strategy to solve violence among children, which was established when he was deputy prime minister, will be re-implemented.

The Change from Male Student Disputes to Female Student Disputes

In the past, only male students engaged in fights among themselves or with students from different institutions. Fights among male students, especially those from vocational schools, later increased in frequency and violence. There were more weapons, injuries and deaths, including deaths of innocent people. To solve the problem, the police, the Vocational Education Commission and the Ministry of Education had to establish a program to create unity among the different groups, organize activities to change behavior causing unrest and violence, and file court cases in serious cases.

However, the change in the faces of those involved in the disputes from male students to female students, especially high school female students, make us wonder what has happened to these female students' thinking and society.

Dr. Sompong Chitradap from the Faculty of Education, Chulalongkorn University is another person who has observed this change. He said that the past few years have been the period where female students have been given freedom. In the past, female students had to be reserved. But today, female students dare to express themselves in many areas such as dressing and dating. They try to become the center of attention in their circle by talking about their dating experiences and engage in certain activities in order to be socially accepted. Therefore, when another girl steals their boyfriend, they have to show off by slapping or cursing the other girl.

Professor Niti Aewsriwong also observed that *"what's strange is that the boxers are now women, in my time, meeting after school for fights was a male culture."* The culture of female students has now changed. They now use male methods to deal with conflicts.

It could be said that nowadays male and female students have similar behavior, whether coercing money from friends in the classroom, gambling, organizing drug parties, or fooling around.

Thai Students in the "Slap, Hit, Kick" Cycle

Dr. Amornwit Nakhonthap, Director of Ramajitti Institute, revealed that according to the results of the research project about the situation of children and youth in each province, there are as many as 700,000 children, or 10 percent of 7 million students, who are trapped in the cycle of using violence or strength with friends. Many conditions lead the children into violent behavior including broken families, media influence which cause the children to be indifferent to violence, and social conditions that enable the children to easily access vice. If these three social conditions do not change, it can be predicted that violence in Thai society will definitely not decrease. The long-term solution to this problem is to teach children and teenagers methods to deal with violence. Schools should teach skills to peacefully resolve conflicts.

The 2006 year-end report of the situation of children and youth in each province stated that there was a trend that children, especially primary and high school children, are living further apart from their parents and have increasing risk behavior. In addition, one problem is often related to a "set of problems." For example, if a province has a high rate of children who drink, it also has a high rate of children who watch pornography and a high rate of children who have sex. If a province has a high rate of children who make football bets, it also has a high rate of extortion and physical attacks in schools.

As a result of violence in schools, both the attackers and the assaulted students are in a cycle of short-term and long-term danger. That is, in the short-term, the assaulted students are worried and afraid of going to school, which will affect both their studies and relationships with friends and teachers. In the long-term, the students will lose self-confidence, feel worthless, and are likely to experience depression and have relationship problems in their life.

On the other hand, the attackers will have other anti-social behavior, such as willfulness and breaking the rules, in the short-term. Their studies may also be adversely affected. In the long-term, it was found that continued violent behavior would be used with their family, at the office or with society. They also have a tendency to drink alcohol, be addicted to drugs, and commit crimes.

Teachers Punishing Students and Students Bullying Each Other: Silent Violence in Schools

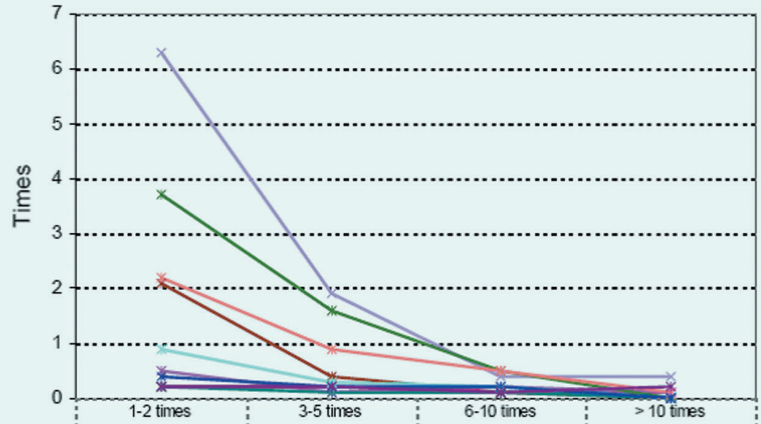
The methods used by some Thai teachers to correct students' behavior such as hitting, pinching, kicking, slapping, pressing hot objects on the student's body, spitting in the mouth, cursing, ridiculing, or public humiliation violate the students' rights as well as may endanger the students. Furthermore, these methods teach the students that it is appropriate and acceptable to use violence to resolve conflicts or to make others follow your demands.

The Ministry of Education's Regulations Concerning Punishment of Students year 2000 stated that there are 5 methods to punish students, including warnings, doing activities, suspension, putting under a bond of good behavior and expelling from school. **It is forbidden to punish students usi ng violent methods, out of spite, with anger or revenge.** It is also forbidden to punish students who are sick or have emotional problems. The age of the student must also be taken into consideration.

However, the survey which was conducted during 2005-2006 in every region to study the attitude and behavior of teachers in building discipline for students indicated that 60 percent of Thai teachers still used violence in punishing students. Some forms of punishment hurt the students both physically and emotionally. Some forms of punishment also damage human pride. These include: putting cloth or things to the student's mouth and/or nose; scorching the student's skin with hot objects; kicking, punching, hitting with hard objects; threatening with a knife or gun; locking up in a dark room; forcing the student to take medicine or a drink mixed with alcohol to calm the student; slapping the face, head or back of the neck; or putting chili or hot or bitter tasting food into the student's mouth (see graph on page 69).

According to the results of the research project about the situation of children and youth in each province, 747 primary school students, or 40 percent, said that they had been physically attacked. In the future, it is likely that more primary school students will be physically attacked by older students because they are considered as being under the authority of the older students. This is in line with the results of the survey about bullying in schools which was conducted during

Graph showing punishment by physical abuse and damaging pride



	1-2 times	3-5 times	6-10 times	> 10 times
Kicking	2.1	0.4	0.1	0.1
Putting chili into the mouth	0.5	0.1	0.2	0.1
Strangling	0.9	0.3	0.2	0.0
Slapping face and head	6.3	1.9	0.4	0.4
Not allow ing to eat	3.7	1.6	0.5	0.0
Putting things into the mouth and nose	0.2	0.2	0.1	0.0
Scorching w ith hot objects	0.2	0.1	0.1	0
Hitting w ith hard objects	2.2	0.9	0.5	0.1
Threatening w ith a w eapon	0.4	0.2	0.2	0
Forcing to take medicine or alcohol	0.2	0.2	0.1	0.2

Source: Sombat Tapanya, 2006

February March 2006 among 3,047 students from grades 4 to 8. The results showed that bullying was high in all regions across the country. 40 percent had been bullied 2-3 times a month. The methods of bullying ranged from verbal teasing to physical attack. Other methods of bullying include spreading gossip, taking money and things, looking down on the person, and sexual harassment. It was found that the eastern region had higher rates of bullies taking money and things and threatening fellow students than other regions.

The students who are bullied often do not tell anyone about being bullied. The older the students, the less chance that they will tell anyone about being bullied. When someone is bullied, fellow students often do not get involved. This culture of silence prevents violence from being recognized and can be considered as one of the bad occurrences in schools.

Stepping out of the Cycle of Danger

Physical and emotional safety in schools is very important to the education of all students at every level. Creating a physically and emotionally safe environment in schools is a delicate matter and requires cooperation from many parties. Most recently, there was positive development in the television industry. The show's rating (P, PG, etc.) is now indicated. This was a result of requests from many sides, especially the Ministry of Culture's Cultural Surveillance Center. Those involved in the television industry were asked to provide ratings for the TV programs in order to reduce the risk of children copying unsuitable behavior since television has great influence on children's thinking and actions. A survey about television and the use violence among youths conducted by ABAC Poll during June 2006 found that *"what is worrisome about Thai children and youth is that they like to use violence which may be the result of copying violent scenes viewed from soap operas, cartoons, movies, news and commercials in television."*

In addition, there were recommendations for schools to provide public places for children to engage in social activities to help others and to receive love and appreciation in return. This will provide opportunities for children to express themselves and be accepted by people around them.

As a result of violence in schools throughout the previous year, the National Health Foundation and the Thai Health Promotion Foundation proposed that the Ministry of Education help promote "Schools without Violence" in 2007 so that schools will be safe places where children can happily study.

The National Health Act: From Concept to Implementation

Passage of the National Health Act is a new precedent in Thai law and politics, as it is the first law where the public participated in the entire drafting process, which exceeded six years. The drafting process involved a large number of public hearings and made its way through three governments before successfully becoming law after the coup on September 19, 2006.

First Steps

The first steps towards reforming Thailand's health system were taken after the introduction of the 1997 Constitution, beginning with the "National Health System" report. This report was prepared by the Senate Committee on Public Health (1996-2000) and related parties, and was submitted to the Senate in March 2000. The submission occurred at the same time as the issuing of the Regulation on the Office of the Prime Minister on National Health System Reform requiring that the National Health System Reform Commission (NHSRC) to be established to push ahead health system reform. The reform focused on preventative medicine or "building before repairing."

The draft National Health Act, the single most important step towards reformation, was intended to be the major law on health, which would lead to a new health system and all necessary components within three years. However, the set-up period was unrealistic and was extended to five years, ending in August 2005.

The reform was based on the "Triangle that Moves the Mountain" approach of Dr. Prawes Wasee, whereby knowledge comes through research, and through social political movements. In accordance with the National Health Development Plan, four strategies were set up:

Knowledge building - To synthesize all knowledge in preparation for drafting the act and to reform the health system. *Collaboration with*

the society - To participate in movements with organizational partners, networks and people eliciting their comments and to hold public hearings

Public communication - To collaborate on drafting the act and to change Thai people's perception of health. Management - To propose the Draft Act and to coordinate the support within three years (2000 - 2003)

In the first year of the reform, the National Health System Reform Office (NHSO) presented the framework to the public. The NHSO also welcomed public involvement in around 1,500 forums where the new health framework would collectively be considered and proposed.

The most important event of the first year, 2001, was the National Health Assembly Forum with up to 150,000 participants. The objective of the forum was to receive comments, share ideas and gather summaries that would be handed to the sub-committee to draft the Act. After that, local public hearings on the draft were organized. The last public hearing was held during the National Health Assembly meeting from August 8-9, 2002, where Prime Minister Thaksin Shinawatra announced that the government would move forward on the draft.

The Original Draft

Through public hearings and collaboration with thousands of people including civil society, academics, government offices, politicians and 3,000 networks, the "Draft National Health Act" or *Thai Health Constitution,* consisting of 93 sections, was finally proposed to the government on September 24, 2002. The main points are as follows:

1. Health is not just a matter of disease and treatment (Section 3): The scope of "health" was expanded to include physical, mental, social and spiritual dimensions. Well-being involves economics, the mind and body, family, community, society, culture and environmental dimensions.
2. Health is the national objective (Section 6): Social well-being was regarded as an ultimate goal, not financial wealth or economic development.
3. Health system is based on the concept of building before repairing (Section 7): The health system is changed from being reactive to diseases and various physical conditions to being offensive or proactive on building health based on sufficiency and respect for human dignity.
4. The respect for human dignity and human value (Section 5, 8-24): Health is a part of human dignity. The right to health is stated in various sections, for example the right to services, the right to die in peace, the right to choose, and the right to information
5. Duties of the State in line with policies in the Constitution (Section 27-31): The Act designated duties of the State for the well-being of all Thai people
6. Health security (Section 32-33): Health security includes social, economic, infrastructure, resources, environmental and political dimensions. It also includes access to services and respect for a person's right to choose from a diverse array of services.
7. Complete health system: The system includes health promotion (Section 66-68), prevention and control of health-threatening factors (Section 69-70), public health services and quality assurance (Section 71-74), local health wisdom (Section 75-77), consumer protection on health (Section 78-79), knowledge and information on health (Section 80-82), health personnel (Section 83-85) and financing for public health services (Section 86-88).

All of these points have been debated by concerned groups. There have been public discussions on issues such as spirituality, the health system, public participation, and patients' rights.

Movements Towards Health Reform

The draft was based on the "Triangle that Moves the Mountain" concept, referring to the interaction between knowledge, society and politics. In its first stage, the draft was mainly moved by academics and members of the public through annual public forums called "the National Health Assembly." The Assembly was a key mechanism activating people's movements from local to national levels.After the draft was submitted to the Government on September 24, 2002, civil society initiated a petition drive to support the draft. Less then two months later on November 2, 2002, a list of 4.7 million names was handed to Mr. Utai Pimchaichon, President of the National Assembly, at a health promotion event for the King.

During fifteen months of Cabinet consideration, people involved in the draft or the "Supporting Network for People's Law Proposal" exercised their rights based on the 1997 Constitution by gathering more than 120,000 names to propose the Draft Act on National Health to the President of the National Assembly on May 2004. Later in August, the Cabinet approved the principles of the Act, which was handed to the Office of the Council of State for review. The revision reduced the numbers of sections from 93 to 52 and was included in the Cabinet's agenda for November 2005. In addition to the two Draft Acts Cabinet also considered three other drafts proposed by the Democrat Party, the Chart Thai Party and the Thai Rak Thai Party.

The House of Representatives finally agreed in principle with 277 voting for the draft, 3 abstaining and no one voting against. Next, the Government draft was considered by the ad hoc committee. However, the draft was placed in suspension when Parliament was dissolved on February 24, 2006, following the coup by the Council for Democratic Reform under Constitutional Monarchy on September 19.

The draft consideration process was resumed after General Surayuth Chulanont was proclaimed Prime Minister and the new Minister of Public Health again proposed the draft to the Cabinet. On November 7, 2006, the Cabinet approved and submitted it to the Assembly, where it was then agreed to in principle under Agenda 1 by 118 votes to 5 and 1 abstention. An ad hoc committee was set up to consider Agenda 2 and 3 on December 27-28, 2006, and received the committee's approval on January 4, 2007.

Two important sections deleted under review of the Council of State were added back into the Act under Section 5/1: *"Health of women includes sexual and reproductive health, which are particular, complex and important to the women's health through their lives, must be strengthened and protected consistently and appropriately"*

Health of the children, the disabled, the elderly and the underprivileged in the society, and the specific groups of people with special health characteristics, must be strengthened and protected consistently and appropriately.

And the Act under Section 9/1: *"A person or group of persons shall have the right to request a health impact assessment of a public policy."*

"A person or group of persons shall have the right to receive information from official units before the introduction of any project or activity which may affect the health of a person or the community, and shall have the right to express opinions on the matter."

Among sensitive and controversial issues, the right to die under Section 12 received the most public scrutiny and criticism. It provides that: *"A person has the right to make a written advance directive expressing his refusal to health care service aiming only to prolong his death at the end of his life or to terminate the suffering from the disease.*

The compliance of the advance directive referred to in the first paragraph shall be in line with rules and procedures set forth in the ministerial regulation.

Medical professionals have the duty to act according to advance directive referred to in the first paragraph; and the execution in compliance to the advance directive shall not be considered illegal and shall be exempt from any liability."

Senator Somkiet Onvimon argued that the right to die was a major issue, but was being dealt with through nothing more than a ministerial order. Patients would have to write a letter stating that they did not wish to receive lifesaving treatment. In practice, patients in a coma will not be able to write a letter. Allowing a patient to die naturally if he or she wants to is perhaps merciful and patients may have the right to ask for this. But medical ethics around the world do not permit doctors to allow their patients to die. If Thai doctors let their patients die, it will lead to numerous complaints and court cases.

Dr. Monkol Na Songkhla responded that the ministerial order provided patients with the right to refuse treatment. Doctors would not have the right to make the decision themselves. If the patient did not write the letter, then the relatives would have to decide instead. If the patients made a decision, the doctors would act accordingly. The Ministry of Public Health had therefore

issued an order explaining which relatives would have the authority to make these decisions. The family, not the doctor, are the ones to decide.

Finally after more than six years, the Draft Act successfully emerged from the participatory process and eventually became law to the delight of all concerned parties, and particulary the Moranamai Association, in particular. One Association member said that 99 members countrywide would be ordained at Wat Chonpratan Ransarit immediately after the enforcement and that the ordination was dedicated to all people involved in the draft.

Benefits from the People's Movement Supporting the National Health Act

The social movement over the six years leading up to the passing of the Act in January 2007 brought important benefits to Thai society:

(1) **A shift in health ideology**: The following items summarize comments and recommendations made on the Act:

- The concept of health has been expanded beyond the concept of absence of disease to include a person's entire well-being, involving physical, mental, social and spiritual dimensions.
- Importance is placed on environmental conditions affecting well-being
- Emphasis was shifted form treating diseases to health promotion or building before repairing.
- The medical system, which previously involved only Western medicine, was changed to a pluralistic system including local wisdom

(2) **The expansion of civil society**: Numbers, issues, activities and roles of civil society increased. The collaboration among people and small local organizations helped facilitate content and social issue development for reforms in all provinces. Relationships and networks were built that extended across provinces.

Civil society was strengthened through local forums for people to exchange and share ideas on well-being. Along with the strengthening, they also learned about the social rights in Thai society. Under the rights, all Thai citizens could have the first institutionalized welfare system.

(3) **Law as a tool for health system development and public policies** that would favor health and well-being in the long term. This means Thai people could apply laws to address well-being for everyone.

From Ideology to Practice: The Next Steps

The National Health Act was designed to be a "Health Constitution" to deal with complex health problems. The Act was not aimed to empower any organization in particular but instead to involve people from all walks of life. The Act proposes guidelines and principles of a health system for Thai people guided by the objective to develop health security, solutions and knowledge.

The Act places importance on rights, information, health security and health promotion for children, the elderly, the poor and the disabled. It emphasizes good health practices of individuals or groups that will not threaten other people's health. There is also a statement about gender discrimination, particularly the discrimination against women whose reproductive health system is complex and different from men's. The statement protects women from social values, cultures and belief that are detrimental to their health.

The Act, including the ideology and principles, emphasizes justice in the health system, in contrast to current practice. The objective of the Act is to solve problems at their root causes. The Act makes the concept of building before repairing the core of the new health system.

The main barrier to the success of the Act is the current emphasis on treatment rather than health promotion.

9

Banning Alcohol Advertising: A Long Way to Go

Followed the coup d'etat on September 19, 2006, the government initiated a policy to ban on all forms of alcohol advertisement 24 hours a day. This policy was aimed at all alcohol manufacturers, both local and foreign. Along with the ban, the government pushed forward the draft Alcohol Consumption Control Act for Cabinet consideration. The situation became a heated issue at the end of 2006 through the first months of 2007.

Thai Society and Alcohol Policies

Alcohol policies have always caused conflict in Thailand. Originally, people were free to consume and produce alcoholic beverages. However, the government later monopolized the alcohol market, including both production and sale. After the 1932 revolution, the state ended its monopoly and supported the development of a free market.

In 1999, the Ministry of Finance developed plans to sell the government alcohol manufacturers, and suggested three alternative strategies to government, ranging from liberal to restrictive:

1. Free all distilled spirits covering special spirits, special blended spirits, mixed spirits and white spirits
2. Free all colored spirits covering special blended spirits, mixed spirits. This second policy excluded white whiskey, which would be produced by state manufacturers only.
3. Free only special spirits. Special blended spirits, mixed spirits and white spirits were to be reserved to state manufacturers only.

On September 15, 1998, the Cabinet agreed on the first policy, freeing all distilled spirits, and also changing of license fees and excise taxes.

The policies led to a debate between those supporting the free market and those favoring greater control of alcohol consumption. In the past five years measures were gradually introduced to curb consumption. *The measures to control alcohol access and purchase* identified specific selling periods (11:00 - 14:00 hrs. and 17:00 - 24:00 hrs. daily), and prohibited people under 18 years old from buying and drinking. They also designated alcohol-free zones, such as religious sites, schools and petrol stations. *The measure to control drinking,* enforced with the amended Bill on Place of Services in 2003, banned alcohol sales to intoxicated persons and people under 20 years old from entering the service places.

The measure on road accident reduction increased penalties for drunk driving, to reduce alcohol-related road accidents. Finally, *the public relations campaigns* run by the Ministry of Public Health (MOPH) categorized alcoholic beverages as a controlled product with warning labels stating that alcohol harms people. The campaigns involved collaboration with civil society groups working on anti-alcohol projects.

From Free Market and Consumption Control to a Total Ban on Alcohol Advertising

Thailand experiences a high number of alcohol-related violence and road accidents. Drunk driving is among the top three causes of death in Thailand. According to research by the Road Safety Network, the risk of road accidents is fourteen times greater when driving under the influence of alcohol. The risk of experiencing critical injuries for vehicle users with over 50 milligrams of alcoholic substance in their blood was 36 times greater than those with lower blood-alcohol levels. Furthermore, 42% of road accidents during seven days of the New Year's holiday are due to drunk-driving. If the government and the society could collaborate on stopping drunk driving through awareness raising campaigns and intensified law enforcement, serious injuries inflicted by drivers under the influence of alcohol could be reduced by 45 percent.

Eventually, the government decided that measures to curb the access to and control of alcohol consumption were insufficient. At the end of 2006, measures to ban all forms alcohol advertising 24 hours a day were proposed by the Food and Drug Association (FDA), Ministry of Public Health. The ban covered advertising on television, radio, published media and open air media.

Further controversy was generated by the submission of a draft Alcohol Control Act for Cabinet approval. It was the first time the government proposed to intervene in the alcohol industry through the control of marketing and sales promotion. The industry anticipated large reductions in profit because of this interference.

The draft was proposed by Mr. Pinij Jarusombat, Minister of Public Health and Chair of the National Alcohol Consumption Control Committee, and contained the following key measures:

1. A 24-hour-ban of alcohol advertising on all media, except advertisements in live broadcast of overseas sports programs;
2. A ban on displaying alcohol products, brands and manufacturers through all types of media;
3. A ban on competitions sponsored by the alcohol industry; and
4. A moratorium on new licenses to sell alcohol drinks in places such as beer gardens.

Nevertheless, the government was concerned about pressure from foreign investors if the Act was implemented. Consequently, Prime Minister Thaksin Shinawatra urged all related parties particularly the business sector and advertising agencies, to review the Act.

However, just a month after the coup d'etat, the government, led by General Surayuth Chulanont, Prime Minister, proposed a draft law on October 17, 2006, with the following main points;

1. The National Alcohol Policy Committee, chaired by the prime minister or deputy prime minister, would be established. Its duty was to set policies, plans and measures to control alcohol beverages, treat and rehabilitate alcohol addicts.
2. The National Alcohol Control Committee, chaired by the minister of public health, would be established. Its duty was to propose policies, plans and measures to control alcohol beverages to the National Alcohol Policy Committee. In addition, the Provincial and Bangkok Committee on Alcohol Control would be set up.
3. The Office of National Alcohol Control Committee would be set up in the Department of Disease Control with administrative functions to serve the two committees.
4. It required that alcohol manufacturers or importers have product labels with warning messages. It designated alcohol-free sites such as temples, government offices, education institutions, public places, dormitories, gas station, etc., and banned the sale of alcohol to anyone under 25 years old. It also banned all forms of media advertising, including brand or logo displayed in places, shows, contest or competition, and other activities with the objective of having the brand or logo perceived. The advertisements in live overseas broadcasts were exempt from the ban.
5. The Act permitted alcohol addicts, or their relatives, or groups of people, or public and private organizations, whose objective was to treat and rehabilitate to seek support from the Alcohol Control Committee for treatment and rehabilitation.
6. Government officers were authorized to examine vehicles, hold or attach alcohol beverages, and issue letters ordering the person to testify.
7. Penalties for violations of the Act were identified.

The Cabinet agreed to have the Act reviewed by a small committee consisting of representatives from the Ministry of General Education, the Ministry of Social Development and Human Securities, Ministry of Justice, Ministry of Industry, Ministry of Public Health and Ministry of Finance.

After the reconsideration period, the Cabinet approved reducing the buyer's age from 25 to 20, and 1966 Bill on Places of Services, that prohibited people under age 20 from entering the entertainment places. The Cabinet also proposed to raise alcohol and tobacco taxes from 2 percent to 4 percent.

A Total Ban and Its Effects

The policy generated extensive comments from related business sectors. Most agreed with the government's effort to reduce irresponsible consumption. Sports associations and activities, could be greatly affected as their primary sources of financial supports for administration, sponsorship, and competition at all levels are financed by alcohol companies.

According to Sumeth Suwannaphrom, member of the Committee on Sport Affairs, House of Representative, "Problems in Thai society are not solely from 24 hours of alcohol advertisement. If the Act is enforced, Thai sports will be affected and will lose an opportunity to continue developing. It would be better to try in a gradual way"

Alcohol manufacturers raised criticisms concerning economics and discriminatory enforcement. In terms of economics, sports and alcohol businesses will be affected the most. Sports will be obviously negatively affected as it relies primarily on alcohol companies for sponsorship. For example the Singha Corporation spends 350 million baht annually for sports sponsorship. One hundred million baht goes to sportspeople, including tennis players, swimmers and golfers, for their education and participation in competition overseas. Another 250 million baht is spent on organizing competitions.

Related business sectors, such as advertising and media agencies, event organizers and marketing groups, also will be hit. The advertising group estimates that alcohol manufacturers spend around 2,000 million baht per year for advertising.

Under the Act, all spirit, beer, wine and other alcoholic beverages produced in Thailand are prohibited from being advertised. The exemption is granted to advertisements in sports programs and movies from overseas. The ban will curtail production and the

import of new spirits and other alcoholic beverages that can be produced in Thailand. Therefore, they have no chance to be advertised and introduced to Thai society. This provides a big advantage to existing companies whose products have been already experiencing high sales in the market place.

Boonchuay Thongcharoenpoolporn, Secretary-General of the Federation on Alcohol Control of Thailand, said that "If the measure are introduced, there should not be any discrimination or double standards. All forms of advertising must be banned, including embedded advertisements in live sport programs from overseas so that no one will take advantage on each other. Taxation must be applied equally to white whiskey also"

There has been a heated public debate over the ban. The MOPH was forced to delay the ban's implementation because the Office of the Council of State invalided the FDA's notification to ban any alcohol-related advertisement 24 hours a day. The MOPH, then submitted the Act to the Council of State to review the decision. The situation brought more criticism from anti-drinking groups.

A group of Mor Anamai members campaigned representing more than 40,000 person from 10,155 district health centers collaborated with shops in villages countrywide to remove alcohol banners or billboards without law enforcement. They also lobbied volunteer networks, the Tambon Administration Office, Provincial Administration Office and local leaders to push forwards the Alcohol Control Act. The effort was coordinated with the stop-drinking project network to campaign for reducing, refraining from and quitting all forms of alcohol consumption.

Along with campaigning, as mentioned above, 28 members of the National Legislative Assembly signed their name supporting submission of the draft Alcohol Consumption Control Act for consideration on February 14, 2007. The Act would be attached to the government's Alcohol Beverage Control Act, which contains similar provisions. After the debate in the Cabinet meeting, the government agreed to consider the Act proposed by the National Legislative Assembly within 30 days and would return to the Assembly to consider. At the present time, the government's Act has been in consideration for more than two months.

Future Solutions to Alcohol-Related Problems

Initiatives in the past five years to curb alcohol-related problems have led to positive developments in society. The National Committee on Alcohol Consumption Control, founded in 2004, was specially assigned to develop policies and guidelines to control alcohol consumption. The Committee, together with other organizations, coordinated monitoring and evaluation studies and popular participation.

The Center for Alcohol Studies was founded in 2004. The Center is a joint effort of the Mental Health Department and the Health Systems Research Institute. Its role is to conduct research and knowledge management to support the control and prevention of alcohol-related problems.

The Healthy Public Policy Program was founded in the same year. The Program, managed by the National Health Foundation, is responsible for public communication management. Finally, the Stop-Drinking Network, working together with the Foundation, organizes events and projects to raise social awareness on the negatives effects of alcohol on health.

All these organizations argue that the government should strengthen the enforcement of existing alcohol-related laws. In addition, they have proposed that new measures with better controls be designed, for instance *taxation, control of the density of alcohol shops, zoning, control of stimulant products targeting young people and a total ban on advertisements.*

The public policy debate over a complete ban of all alcohol advertising and the draft Alcohol Consumption Control Act continues to generate conflict. How the conflicts will be resolved remains to be seen.

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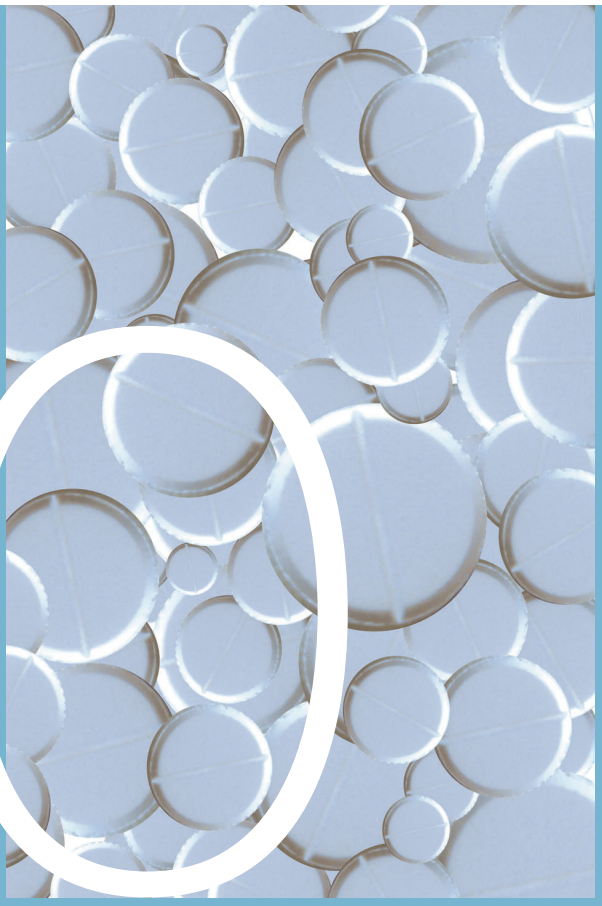


Compulsory Licensing of Three Drugs: Thai People's Right to Life is More Important than Profits

In late 2006 and early 2007,the Thai government applied compulsory licensing to the antiretroviral drugs Efavirenz and Lopinavir-Ritonavir, used for treating HIV/AIDS, and the anti-platelet medicine Clopidogrel, used for treating cardiovascular disease. This is a major victory for the Thai Network of People Living with HIV/AIDS and the Thai government. Even more importantly, it demonstrates the importance Thais place on access to essential drugs.

Fighting for the Right to Life

Approximately 1 million Thais have contracted HIV/AIDS. Of these, over 500,000 are still alive and depend on antiretroviral drugs to be able to lead lives like other people. Antiretroviral drugs extend the lifespan and improve the health of HIV-positive people greatly. However, these drugs are unnecessarily expensive. Tragically, pharmaceutical companies place profits above people, by charging excessively high prices. The people who need the drugs have few ways to respond, because the patent system gives the pharmaceutical companies exclusive rights to produce the drugs.

On October 1, 2003, the Thai government announced that all Thais who needed antiretroviral drugs could have access to them. It also established a special fund to pay for the drugs. Subsequent research on expenditures of antiretroviral drugs recommended that these drugs should be paid for by the universal health care system because production by the Government Pharmaceutical Organization had reduced the price dramatically, and because HIV-positive people who were treated with antiretrovirals were able to become productive members of society again. Once antiretroviral drugs were included within the universal health care system, their price fell by a factor of 18.

The government increased expenditures on health to 170 billion baht, or 12% of total government expenditure in 2007. The budget for treating people with HIV/AIDS is 3.8 billion baht. However, the government is still unable to provide everyone with the medicines they need, because some medicines are prohibitively expensive. The expensive medicines are those where, because of patents, the producers do not face competition.

Moreover, there have been inequities between the three government health insurance schemes. HIV-positive people who belong to the government official scheme or the universal coverage scheme pay nothing for HIV drugs. However, until recently members of the Social Security scheme could receive no more than 5,000 baht's worth of medicines for drug-resistant strains per month. Anything above 5,000 baht had to be paid for by the patient. This policy was introduced on 1 August 2004. It caused severe problems for some HIV-positive people in the scheme.

High drug prices cause many unnecessary deaths among people with HIV. The Thai Network of People Living with HIV/AIDS and many other development organizations working on issues of HIV and health has been campaigning for more than 10 years on behalf of "the right to life" of HIV-positive people. They have argued that Thailand has many means by which to reduce the price of patented drugs, but that compulsory licensing is the most effective (see the discussion on pages 82-83.)

Previous politicians in the Ministry of Public Health have refused to consider compulsory licensing. In fact, in 1992, they revised Thailand's intellectual property laws to strengthen drug patents, 10 years before they were required to by World Trade Organization rules. This was a clear case of foreign drug companies dictating terms to the Thai government.

Previous Attempts to Reduce the Price of HIV Drugs not Subject to Market Competition

Anti-AIDS groups fought hard for a reduction in the price of expensive AIDS drugs during the Thaksin government, when Mr Korn Dabbaransi was Minister of Public Health. Five hundred people from the Thai Network of People Living with HIV/AIDS and 16 other health NGOs set up a protest in front of the Ministry of Public Health, calling for the Ministry to use Section 51 of the Patents Act to introduce compulsory licensing of DDI, a Bristol Squib Myers drug. Despite taking only a short time to develop, DDI was extremely expensive.

In response, Mr. Korn Dabbaransi told the protestors that he would instruct the Government Pharmaceutical Organization to produce a powder form of the drug rather than a pill, because of fears that the drug company would take court action. The following day, the Thai Network of People Living with HIV/AIDS moved the protest to the United States Embassy. They submitted a letter to the US President for a guarantee that the US government would not take action against the Thai government for applying compulsory licensing to DDI. One week later, the US government replied that it would not oppose licensing, if the Thai government believed that it was facing a public health crisis. This reply was in accordance with intellection property regulations. Eight years earlier there had been extensive international campaigns to set out the principle that compulsory licensing was legitimate. However, the Thai government had never exercised this right, citing concerns about a backlash from affected companies. The government also stated that companies had already reduced their prices, though the companies had not guaranteed that they would maintain these low prices.

In February 2006, the Thai Network of People Living with HIV/AIDS started a new campaign, this time directed at Mr. Pinij Jarusombat, the new Minister of Public Health. The Network argued that the minister should use political pressure to prevent Glaxo Smith Kline from patenting the AIDS drug Combid. This drug combines AZT and 3TC into a single tablet. The Network suggested that if political pressure was not sufficient, then the government should use compulsory licensing, so that the drug could be produced by the Government Pharmaceutical Organization. Approximately 5,000 people were using the generic version of the drug produced by the Government Pharmaceutical Organization. The generic drug was about a fifth of the

price of the brand name version Combid. Using the brand name drug would cost Thailand about 400 million baht per month. The Network and the Foundation for Health and Development had been arguing since 1997 that the drug was not sufficiently innovative to warrant a patent. Eventually, Glaxo Smith Kline dropped its patent application and compulsory licensing was not needed.

Compulsory Price Reductions: A Way to Strengthen Bargaining Power

The introduction of universal health insurance by the Thaksin government led to new questions about drugs that were too expensive for use by the general public. The Social Security Office was particularly vocal, because it was unable to afford to provide expensive patented medicines to its members. The Office pointed out that dozens of countries around the world had used compulsory licensing to improve access to essential medicines.

Even big countries in the United States and Canada had used licensing in 2001, in the face of possible anthrax attacks, to overcome shortages of the antibiotic Ciprofloxacin. Brazil used compulsory licensing in 2003 with two anti-AIDS drugs Lopinavir and Efavirenz. On March 17, 2004, Brazil added Tipranavir to this list. Many African countries have used compulsory licensing, including Zambia, Mozambique, Zimbabwe, South Africa, and Cameroon.

In Asia, Malaysia introduced compulsory licensing of four antiviral drugs on May 1, 2003. Malaysia agreed to pay the patent holder royalties equal to 4% of sales, and imported the drugs from India. The following year, Indonesia introduced compulsory licensing for two drugs, paying royalties equal to 0.5% of sales.The most courageous country is India. Having extended copyright legislation to include medicines, in conformance with TRIPS rules, it announced on 23 March 2005, that it would continue producing generic drugs under compulsory licensing. No time limit was given for the licensing. A total of 8,926 drugs were licensed, including AIDS drugs.

In response to these examples, Pinij Jarusombat, who in addition to being Minister of Public Health was also Chair of the Health Insurance Committee, established the "Subcommittee for Implementing the Government Use of Patent for the Patented Essential Drugs". The main task of the subcommittee was to supply the Health Insurance Committee with a set of principles for choosing drugs and medical technology to be covered by compulsory licensing. The subcommittee met only three times between March and May 2006. The committee analysed national and international laws, and reviewed other countries' experiences.The courts ruled that the Social Security Office was not a government agency and, under the Patents Act, did not have the authority to introduce compulsory licensing. The subcommittee therefore recommended to Pinij Jarusombat in his capacity as Minister of Public Health, that a government department carry out the compulsory licensing.

Even though Pinij Jarusombat appeared to agree with the idea of compulsory licensing, for some reason he had taken no further action when the coup occurred on 19 September 2006. Further progress was, however, made by Dr. Mongkol Na Songkhla, the new Minister of Public Health. He instructed the Department of Disease Control exercise its right to introduce compulsory licensing for the first time in Thailand. The drug Efavirenz (brand name Stocrin) was to be produced by the Government Pharmaceutical Organization instead of importing it. Efavirenz was used by all three government health insurance schemes. The compulsory licensing was to extend from December 2006, to December 2011. The Government Pharmaceutical Organization was required to pay 0.5% of revenues from the drug to the patent owners.

Compulsory licensing reduced the price of the drug by about one half. Once the price was reduced, the target for the number of users was increased from 25,000 to 100,000. Compared with buying the brand name drug, the government was able to save 842 million baht per year, or over 4 billion baht over the five-year period. In addition, the Social Security Office was able to announce that from 1 January 2007, members would no longer have to pay out of pocket for medicines to treat drug-resistant strains of HIV.

Moreover, researchers argued that the use of compulsory licensing would increase Thailand's bargaining power, and permit the government to negotiate lower prices from drug companies. This would be especially effective if the Government Pharmaceutical Organization was able to produce generic drugs itself. As an added benefit, Thailand would increase its capacity to research and develop drugs itself, rather than relying on imports.

Foreign Drug Companies Exert Pressure to Prevent Compulsory Licensing

AIDS drugs are not the only drugs that are unnecessarily expensive. Many other drugs, including those for heart disease and every type of cancer, as well as modern technologies, are too expensive to be used by many patients. This is a result of market control by foreign drug companies holding patents. The companies use the protection of intellectual property rules to maximize their profits, in accordance with the rules of capitalism. It is therefore hardly surprising that

the greatest pressure in favor of patents comes from multinational pharmaceutical companies.

According to news reports, foreign drug companies have attempted to influence the Ministry of Finance, and are putting intense pressure on politicians inside and outside parliament. In late January, the Pharmaceutical Producers Association announced that it would be reviewing its all investment plans in Thailand, because of concerns about the Ministry of Public Health's decision to license the two antiretroviral drugs and the anti-platelet drug. They argued that the Ministry's only reason for expropriating the private property of the companies was that it had insufficient funds.

In addition, many embassies and drug companies from the European Union expressed concerns. A representative from the European Union claimed that the companies whose patents had been broken had not previously been contacted by the Ministry of Public Health. In response the Ministry of Public Health wrote to the Department of Intellectual Property, the Ministry of Foreign Affairs, and other organizations to explain that compulsory licensing was permitted under international law and trade agreements. (This issue is considered further on the following page.)

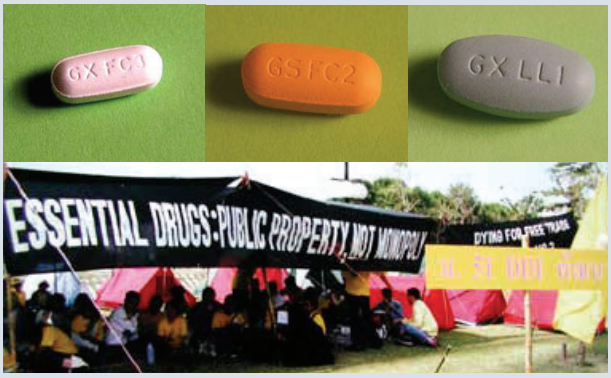
Human Rights Have Priority over Profits

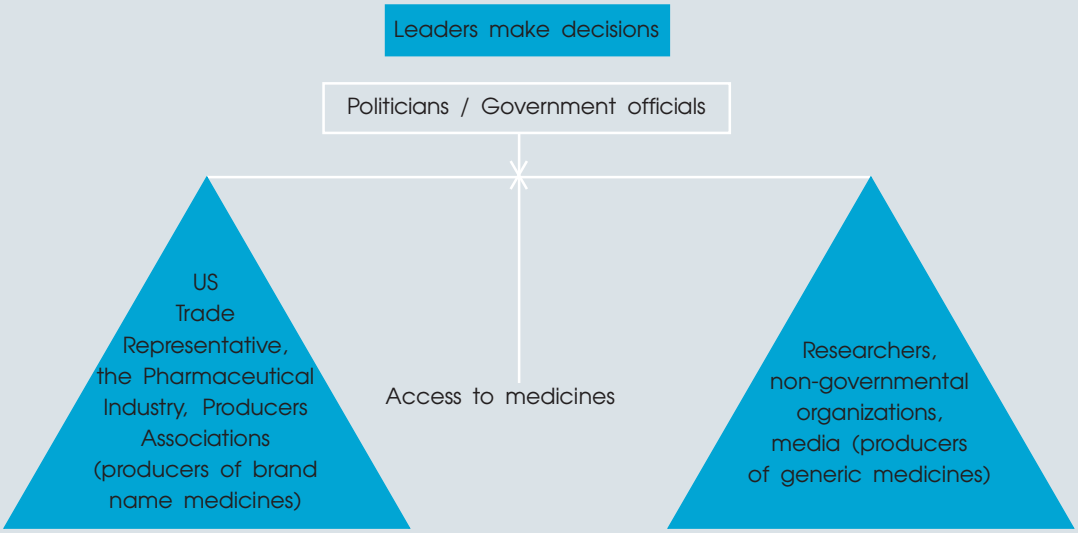
Even though Thailand has many effective laws and regulations for negotiating drug prices, many researchers and members of the public firmly support compulsory licensing. The continuation of the policy depends on decisions made by high-level politicians. If the politicians change their position, civil society needs to be ready to defend licensing. The emphasis in trade negotiations needs to be shifted to effects on the general public. The public needs to have the final say in decisions.

Thailand's first use of compulsory licensing clearly reflects the leadership of Dr. Mongkol Na Songkhla, the Minister of Public Health. His decision has received support from domestic and foreign AIDS group, including international organizations.

Thailand may one day decide to extend compulsory licensing to other drugs, so that it can bring them into the National Essential Drugs List. Cancer and heart disease are also major public health problems in Thailand, and expenditures on drugs for these conditions are much higher than expenditures on drugs for HIV/AIDS. Would consumers groups support compulsory licensing? Would other social groups? Can the Government Pharmaceutical Organization develop the technical capacity to produce the drugs?

Regardless of whether we extend compulsory licensing to other drugs, access to high quality medicines at fair prices depends on three things: the Government Pharmaceutical Organization, consumers groups, and public media who keep the issue in the news. **High quality medicines are not like other commodities. The right to good health is more important than patents.**





Source: Thai Health Report 2007, Institute for Population and Social Research, Mahidol University

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Questions and Answers about the Compulsory Licensing of the Three Drugs

(Based on Facts and Evidences on the 10 Burning Issues Related to the Government Use of Patents on Three Patented Essential Drugs in Thailand: Document to Support Strengthening of Social Wisdom on the Issue of Drug Patent, issued by the Ministry of Public Health and the National Health Security Office, February 2007)

Is compulsory licensing legal?

The compulsory licensing of the three drugs by the Ministry of Public Health is legal under Thailand's Patents Act. The Acts states that, in the interests of public health, government departments, bureaus, and offices may order the production of patented medicines without first gaining the permission of the patent holder. This is in accordance with international intellectual property law, including the Doha Agreement. The Doha Agreement states that member countries of the World Trade Organization have the right to develop their own principles for the compulsory licensing of drugs.

Why did the Ministry of Public Health not negotiate with the patent holders first?

Even though the law does not require that patent holders be consulted, the Ministry of Public Health has tried to negotiate with them since 2001. However, no progress was made. In 2005-2006, the Department of Disease Control tried to obtain lower prices for antiretroviral drugs from all manufacturers, but the manufacturers refused to make significant concessions. Some companies refused to reduce their prices at all. It is widely accepted that negotiating with companies before issuing compulsory licenses achieves little, and only delays people's access to essential medicines. Negotiations after the issuing of compulsory licenses tend to proceed more quickly.

How does the Ministry of Public Health choose medicines for compulsory licensing?

The Ministry of Public Health has followed the principles set out by the Subcommittee for Implementing the Government Use of Patent for the Patented Essential Drugs, which was established by the Social Security Office. The drug or medical technology must be needed for the National Essential Drugs list, must solve a public health problem, or must be used to respond to a public health emergency or epidemic. The drug or technology must be expensive, to the point where the government is not able to provide it to the general public. Patent holders must be compensated at a rate of 0.5% to 2% of revenues. Patent holders who are not satisfied with this rate can negotiate with the Ministry of Public Health. They may ask the Department of Intellectual Property to act on their behalf in these negotiations.

Apart from saving government funds, what other benefits does compulsory licensing bring to the public?

The aim of the compulsory licensing is not to reduce government expenditures but to expand access as a result of reduced prices. In the case of Clopidogrel,

overall expenditures are likely to increase. The important point is that Thai people have access to essential medicines to improve the health and extend their lives.

What effect does compulsory licensing have on pharmaceutical companies, the international pharmaceutical market, and Thailand's international trade?

Patented medicines are normally extremely expensive because of the lack of competition. If the government does not have sufficient funds to include these within the government health insurance schemes, then many people will not have access to them. Drug companies, therefore make no sales to these people. After compulsory licensing, competition is introduced. The Thai pharmaceuticals market constitutes only 0.5% of the global market, and probably less than 0.1% of the market for brand name drugs. The effect of compulsory licensing on drug companies is very small. On the other hand, it will have many beneficial effects for Thai pharmaceutical companies who will have an opportunity to improve their production skills. Thai companies may also be able to negotiate voluntary licensing, which will encourage technological transfer.

Has the Ministry of Public Health consulted other ministries, and why did it not submit the issue to the Cabinet?

The Ministry of Public Health has worked closely with all relevant public agencies, including the Ministry of Commerce. The Ministry of Public Health invited representatives from the Department of Intellectual Property, the Office of the Council of State, and the Law Association to meetings to seek their opinion on legal matters. According to Thai law, the decision to use compulsory licensing can be taken by any government agency and does not require approval from the Ministry of Commerce or the Cabinet.

Will compulsory licensing deter foreign pharmaceutical companies from investing in Thailand?

Does pharmaceutical research and development in Thailand lag that of other countries? At present almost all pharmaceutical companies in Thailand are Thai-owned. Foreign pharmaceutical companies closed down most of their factors 10-20 years ago. Foreign companies already invest very little in research and development in Thailand. Most of the research they do is clinical trials and market research. If foreign companies want to continue introducing new drugs in Thailand, they will need to continue this sort of research. The Thai population is large and is subject to a wide variety of illnesses, and the Thai health and information systems are effective, so Thailand is a good place for conducting pharmaceutical trials.

There are reports that the Director of the World Health Organization disagrees with Thailand's policies. Do any international organizations support Thailand?

Dr. Margaret Chan, the Director-General of the World Health Organization, has not disagreed with Thailand's policies, and has not stated that governments should consult with patent holders before introducing compulsory licensing. The Assistant Director-General for Health Technology and Pharmaceuticals, Dr. Howard Zucker, has clearly stated that the World Health Organization supports existing multilateral agreements, including those governing intellectual property rights and trade under the World Trade Organization. Thailand has received letters of support from many international organizations including the Consumer Project on Technology, and the Third World Network. Twenty-two United States senators have notified the US Trade Representative that they support Thailand's position.

Why do the pharmaceutical manufacturers claim that the Ministry of Public Health refused to negotiate with them after the introduction of compulsory licensing?

After announcing the introduction of compulsory licensing, the Ministry of Public Health provided all manufacturers with an opportunity to discuss the new measures. It has never refused to talk to any company, before or after licensing. The government has established a Committee for the Negotiation of Patented Drug Prices, which will be responsible for further negotiations.

How can we be sure that the imported or locally-produced generic drugs will have the same quality as the brand name drugs?

According to Thai regulations, all imported or locally-produced generic drugs that are included in the quality guidelines issued by the World Health Organizations must conform to those guidelines. Generic drugs are equivalent in quality to brand name drugs.

Regardless of whether generic drugs are covered by the World Health Organization guidelines, they must be approved by the Department of Medical Sciences and registered with the Food and Drug Administration. Once a drug has been registered, the Quality Control Section of the Government Pharmaceutical Organization must check the quality one final time before the drug is sent to the Department of Disease Control or health facilities.

4 Four Notable Thai Contributions to the Health of Thais

Innovative Wheelchairs for Disabled and Elderly People 1

Technological progress has lead to improved aids for people with disabilities and elderly persons, including better wheelchairs providing people with greater freedom and independence. Thai engineers have invented a new high-tech wheelchair that allows the disabled and elderly to go to places that were previously inaccessible.

The new wheelchair was invented by engineers from the Center for Engineering Services and Development, King Mongkut Institute of Technology. The engineers have been working on wheelchairs since 2002. They received the Inventors' Award in 2006 from the National Research Council of Thailand.

What distinguishes the new wheelchair from ordinary wheelchairs is the computerized steering system. The user controls speed and direction using a joystick. The wheelchair is able to drive over obstacles and across rough surfaces. It can be used virtually everywhere - at home, in hospitals, public places, and shopping malls, and in elevators. The wheelchair is built with everyday materials, is very durable, and is powered by batteries.

The new wheelchair is an important contribution to the quality of life for disabled and elderly people in Thailand. By producing the wheelchair itself, Thailand can also reduce expenditures on imported wheelchairs.

Progress in Protecting Thais from Bird Flu 2

Since the first cases of the H5N1 strain of bird flu (avian influenza) in 2003, the virus has spread to every region of the world. More than sixty countries have now reported the disease. Between December 2003 and March 2007, 277 people around the world contracted bird flu, and 167 died.

Bird flu has now entered "Stage 3" in the development of an epidemic. It can be transmitted from humans to animals and, in rare cases, from humans to humans. An epidemiologist at Harvard University has stated that a "Stage 4" influenza epidemic, in which the virus spreads from human to human, could kill more than 62 million people around the world, and could last many months. The worst effects would be felt in developing countries.

Thailand has the third greatest risk in the world of experiencing an epidemic, behind Vietnam and China. However, Thailand has made great progress in preparing for a possible epidemic. Thai researchers have made significant discoveries, publishing more than 20 articles in international journals during 2006. Three achievements deserve particular mention:

1. Thais have developed a kit for testing for bird flu. The test requires only 1-5 minutes. Saliva from the patient is mixed with chemicals and placed in a receptacle.
2. The Department of Medical Sciences has developed a mobile lab for diagnosing cases of bird flu at the place where the outbreak occurs. The lab is one of the best of its kind in the world.
3. Thai scientists have learned how to produce an influenza vaccine. The next step is to build a factory to produce the vaccine in Thailand. Thai pharmacists have learnt to produce the drug tamiflu. Thailand no longer needs to import the drug or its components, leading to huge cost savings. The Government Pharmaceutical Organization can manufacture more than 400,000 tablets per day. It is also now possible to test whether a person is infected with a drug-resistant strain of the virus, which helps with treatment, and with monitoring changes in the virus.

Work to Develop a Vaccine for Dengue Fever is Almost Finished 3

Dengue fever is found throughout Thailand with the number of cases sometimes reaching 100,000 per year. The disease may be less common than it once was, but the economic costs are nevertheless enormous. In 2006, 42,456 cases were reported, of whom 59 died. The cost to the economy was 2-10 billion baht. Vaccines are the best way to control the disease.

Scientists around the world are developing vaccines that are suited to conditions in each country where dengue fever occurs. In Thailand development of the vaccine is carried out by the Medical Biotechnology Unit, a collaborative venture between the Faculty of Medicine, Siriraj Hospital, Mahidol University and the National Center for Genetic Engineering and Biotechnology. The Unit has been working on dengue fever for several decades. Their work has included scientific discoveries, such as fast and accurate methods for diagnosing the disease. They are now close to developing a Thai vaccination for dengue fever.

The Unit has developed three methods for diagnosing dengue fever, depending on the length of time that the patient has had the disease. The first method is based on the analysis of genetic material, and can be used to identify the strain of dengue fever. The second is based on the detection of antibodies, which shows whether patient has been infected previously. The third method detects which of four kinds of protein is present, and is used to treat the patient and prevent shock.

In 1984, Mahidol University established a Center for Vaccine Development at Mahidol University. Researchers at the Center predict that a vaccine to protect against all four strains of the virus will be available within 1-2 years. Only one injection will be required. The vaccine is currently in safety trials.

While waiting for the vaccine to become generally available, the best method for controlling the disease is to destroy places where mosquitos breed. The Health Science Research Institute in the Department of Medical Sciences has been searching for new substances to use against the larvae of the mosquito that carries dengue fever. They have found a bacterium that can be used instead of dangerous chemicals to kill larvae in water containers. The bacteria need to be applied once per month. Staff at the Institute have also been studying traditional Thai medicines that protect against bites from the mosquito. They have found that oil from the rhizome of the khamin khun plant is highly effective. The protection lasts for 7-8 hours. The oil can also be added to water, where it interferes with the ability of adults to lay eggs and with the development of the larvae.

Thai Students Win an International Competition to Build a "Independent" Robot 4

When buildings collapse, or there are fires, floods, or other natural disasters, rescue workers are often unable to assist victims trapped in the ruins because of fears for their own safety. An ideal solution to this problem would be a robot that was able to search for victims more effectively than humans.

The World Robocup Rescue 2006 competition in Bremen, Germany, is an international competition organized by the Robocup Federation to stimulate the development of rescue robots. Thais can be proud of the fact that students from the King Mongkut Institute of Technology gained first place in the competition, ahead of Germany, the hosts, the United States and Japan, the world technological leaders, and more than 10 other countries.

By using advanced technology, the Thai robot is able to act independently. It has an extraordinary ability to locate humans and to take decisions in situations such as fires, floods, earthquakes, and collapsed buildings. The robot has 10 wheels, and can travel on all kinds of terrain or climb over barriers. It can find people trapped under rubble and help them escape. The judges were particularly impressed by the robot's sensors, which look for heat and carbon dioxide to locate people. The robot also transmits information to a computer screen.

Not only did the Thai students come first in the world, but they did so in a competition with important social benefits. The students received assistance from the Thai Robotic Society and from the company Siam Cement. The sponsors' aim was to encourage technological innovation that meets social needs, and to demonstrate Thai technological skills to the world.

...some people say that they want me to reach 120 years old...Why not?... By looking after one's health, and being careful, it may be possible...

His Majesty the King, December 4, 2004

The Scent of the Lamduan Flower:

Preparing for an Aging Society

The Scent of the Lamduan Flower:

Preparing for an Aging Society

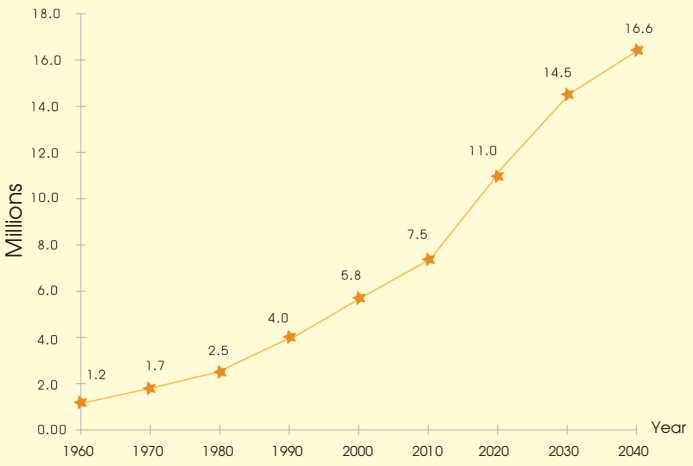
The world is getting older, presenting many countries, including Thailand, with a novel challenge. The number of old people is growing quickly. To cope with these changes, "Thailand's" social and economic structures need to be rapidly transformed. We need to reform existing systems and invent new ones.

Towards an Aging Society

O Rapid changes

The lamduan flower, the official flower of the elderly in Thailand, is about to bloom. Thailand will soon become an aging society. Only 20 years ago, in 1990, Thailand had about four million people aged 60 and over, making up about 7% of the total population. Ten years later, the number of elderly people had risen to six million. At present, it is about seven million. By 2020, it will be 11 million, or 17% of the total population of 65 million. Roughly one in six Thais will be 60 or over.

The number of elderly people in Thailand, 1960-2040



Source : Patama Vapattanawong, 2006, Institute for Population and Social Research, Mahidol University

Who are the elderly?

The 2003 Elderly Persons Act defines the elderly as those aged 60 years and over. This definition is different from that used in developed countries, which use an age limit of 65 years. We can divide the elderly into three groups: the young elderly (ages 60-69), the middle elderly (ages 70-79), and the old elderly (ages 80 and over.) A total of 59.1% of Thai elderly persons belong to the young elderly group, 31.1% belong to the middle elderly group, and 9.8% belong to the old elderly group.

Some experts on aging recommend that Thailand should raise the definition of elderly to 65 years and over. This would bring Thailand in line with developed countries. Moreover, Thai life expectancy at birth is now 72 years, and around 2 in 3 Thai persons ages 60-64 are still in the workforce.

Source: Varachai Thongthai, 2006, Institute for Population and Social Research, Mahidol University

Centenarians

According to statistics form the registration system, in 2005, Thailand had 28,236 people aged 100 and over, of whom 11,751 were males and 16,485 were females. In addition, there are 250,000 people in the register who do not give a birth date. Some of these people may be aged 100, or more.

However, careful analysis of the registration data shows that the true number of centenarians is likely to be much less than 28,236. Many of the so-called centenarians are people who have died but whose deaths have not been registered. An even larger number of people have incorrect dates of birth. Mistakes were particularly likely to occur during the changeover from Thai to international dates.

The National Statistical Office, using data from the 2005-2006 Survey of Population Change, has estimated that in 2005 Thailand had approximately 8,000 people aged 100 and over, of whom 2,800 were men and 5,300 women.

The Population Projections Committee at the Institute for Population and Social Research, Mahidol University, has estimated that in 2006, there were 5,800 centenarians in Thailand, of whom 2,200 were men and 3,600 women.

To promote the scientific study of centenarians in Thailand, the Institute for Population and Social Research is setting up a Center for Centenarian Studies. The Center will conduct demographic and sociological research on centenarians.

Before long, we will know the true number of centenarians in Thailand.

Source: Pramote Prasatkul, 2006. Institute for Population and Social Research, Mahidol University

The number of old people has been growing faster than other age groups for at least 10 years. The growth rate will increase further over the next 20 years, before slowing down, though the number of older people is likely to keep on increasing until at least 2050

These changes in age structure are a direct consequence of two demographic phenomena. The first is the tendency for Thais to have far fewer children than in the past because of the successes of the family planning programs. The number of births each year is steadily decreasing. The second is the development of medical and public health systems over many decades, which have extended the length of people's lives. Thais currently have a life expectancy of 72 years (68 for males and 75 for females). These demographic phenomena have coincided with major changes in Thailand's social and economic environment.

When the number of children is falling, and when adults are living longer, the number of old people accumulates. Falls

in the population share of young people imply rises in the population share of old people. *This phenomenon is like water accumulating behind a dam when water is flowing into the reservoir faster than it is flowing out.*

Thailand has now reached a new demographic turning point with the advent of an aging society. We can perhaps call this turning point the "population structure revolution", following the "reproductive revolution" of 20 years ago. These changes are occurring very rapidly. Thai society has little time to prepare itself to face the challenge. If we do not develop strategies quickly and prepare ourselves properly, the challenge could become a crisis.

O Before population aging

Not long ago, Thailand was a society of young people. Thailand will soon be a society of old people. The period before aging fully takes hold is like the period before the flowering of the lamduan flower.

Thai society is in the midst of some important changes.Before population aging begins, there is a short period when the changes in population structure make it easier to develop the economy and improve the lives of the population. During this period, the number of children has fallen significantly, but the number of people in the working ages is still increasing, and the proportion in older ages is still low. These are the conditions we face at present. The ratio between the number of people outside the working ages (children and old people) and the number of people in the working ages is very low. In other words, the "dependency ratio" is low. In societies with this age structure, there are many workers for each child or old person. Production exceeds consumption. This gives a major boost to the economy, particularly savings and investment, at the household and the national level.

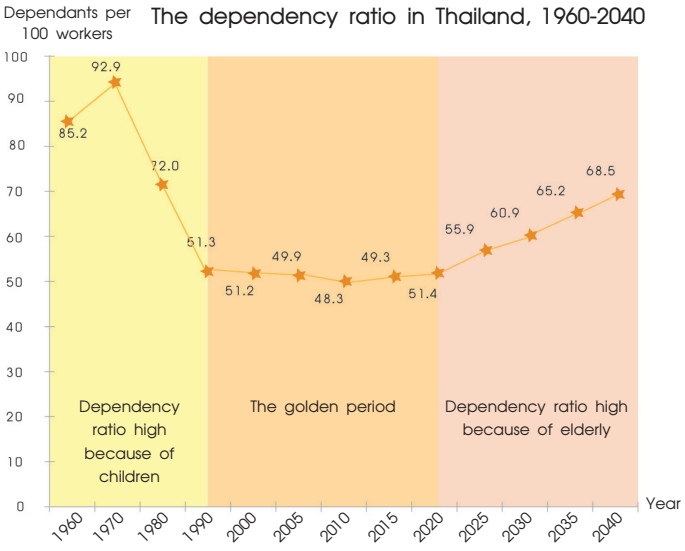
This period is known as the "demographic dividend," because it is the time when the economy receives the greatest assistance from demographic change. The number of dependants is low compared with the number of providers. In Thailand, this period extends from 1990 to 2020, or 30 years. On average, there are two workers for every dependant. The ratio of workers to dependants is higher than it has ever been in history.

The Lamduan flower: The official flower of the elderly in Thailand.

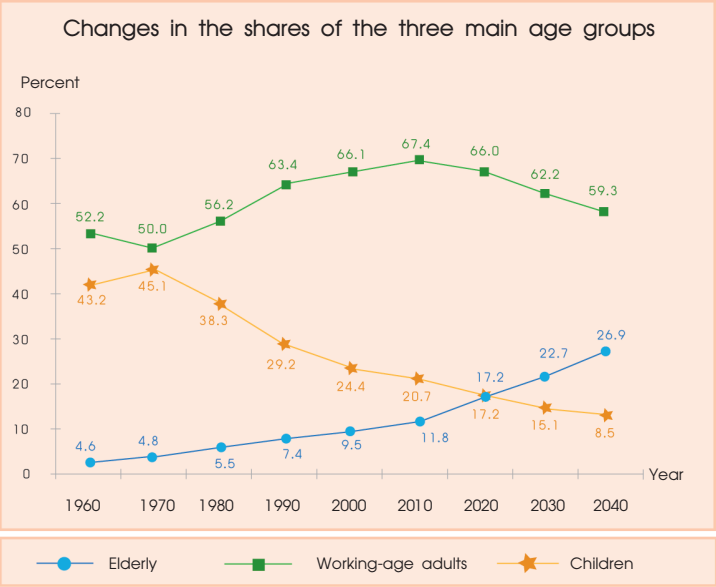
The lamduan is a large flowering tree that lives for over 100 years. Its leaves are green all year long, and its flowers are a bright cream color. The petals of the flower are strong, and take a long time to wilt. In the past, Thais believed that growing the lamduan could help keep the house cool and fresh. The cabinet chose the lamduan as the official flower of the elderly on 14 December 1982. The cabinet also declared the 13th of April, the first day of the traditional Thai year, to be the official day of the elderly.

Source: www.maipradabonline/maimongkol/lumduon.htm

The dependency ratio in Thailand, 1960-2040

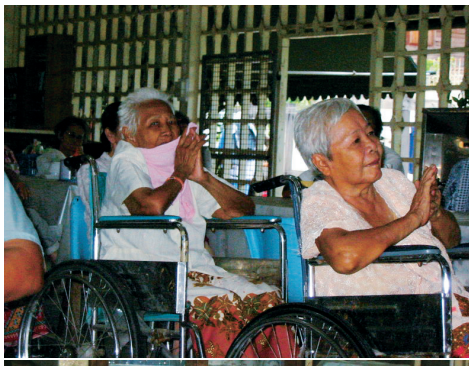


Source : Patama Vapattanavong. 2006. Institute for Population and Social Research, Mahidol University



Note: 1) 1960, 1980, 2000 calculated from population census 2) 2020-2040 calculated from population projection

Source: Patama Vapattanavong. 2006. Institute for Population and Social Research, Mahidol University



Thailand has reached a new demographic turning point with the advent of an aging society. We can perhaps call this turning point the "population structure revolution", following the "reproductive revolution" of 20 years ago.

Once this period has passed, the dependency ratio will start to rise because of increases in the population share of older people. The rises in the dependency ratio owe nothing to increases in the number of children, since the number of children will, in fact, continue falling. Long-term population projections show that in 2040, there will be twice as many old people as children in Thailand: 16.6 million people aged 60 and over versus 8.5 million aged less than 15. *Once we reach that point, the challenge of coping with population aging will have become acute.*

The Elderly: Resource or Burden?

The best way to answer the question of whether older people are a resource or burden is to examine the changes that take place naturally throughout the aging process. It is then possible to identify the contributions and needs of older people. To aid understanding, we can divide old age into three phases based on health status. Normally these phases occur at particular ages, although this varies from person to person.

1. Active aging During the "active aging" phase, people can usually look after themselves and care for others. Their economic productivity is similar to that of people in younger age groups. For most people, the active aging period occurs during the ages 60 to 69. These ages are often a high point of people's lives from the point of view of experience, intelligence, and analytical skills. Their mental and physical faculties are still vigorous. If given the opportunity, people in these ages can make important contributions to their families, communities, and society. In some cases, active aging extends into the 70s, but in others this phase can be very short. The duration of active aging depends on people's health seeking behavior when still young, and on the contributions of the rest of society.

2. Resting During the"resting" phase, most people's health is still moderately good, even if they are beginning to weaken, or have health problems that interfere with their lives. Some people experience reduced mobility. Many people have reduced hearing and vision, as well as dental problems, and stiff joints. But most people's concentration, memory, and analytical abilities are more-or-less intact. Some people have disabilities or chronic illnesses, but most can still look after themselves, particularly in their everyday activities. Some people carry out work that does not require intense physical exertion, or work from home, but they may lose their ability to assist others. Although most people over 70 fit this profile, some exhibit these symptoms in their 60s. The 70s are a period of rest more than a period of work. Older people in this age group typically start to withdraw and seek peace and quiet, or look back on their lives.

3. Dependency During the "dependent" stage, health problems become more frequent. The bodily organs deteriorate, and some people become seriously disabled. In many cases, people require extensive daily assistance from others. Indeed, some people become dependent on others from an earlier age, depending on their physical health, and their health behavior. The length of the period of dependency varies according to each individual's general health and level of disability. Generally, the longer we live the greater the likelihood of relying on others, particularly in the era of medical technology, which extends our lives further and further.

The life expectancy of the elderly, according to health status, 2002

Sex / Age	Average years of life remaining	Average years of life remaining, in good	Average years of life remaining, in poor heath or disabled
Male 60-64	19.80	18.05	1.75
65-69	16.75	14.90	1.85
70-74	14.14	12.15	1.99
75-79	11.73	9.59	2.14
80-84	10.01	7.62	2.38
85 +	9.38	6.54	2.84
Female 60-64	22.51	19.90	2.61
65-69	18.90	16.22	2.68
70-74	15.65	12.91	2.77
75-79	12.63	9.78	2.85
80-84	10.21	7.20	3.01
85 +	8.73	5.40	3.33

Source : Rakchanyaban, Uthaithip. 2004. Active Life Expectancy among the Thai Elderly Population. Ph.D. Thesis, Institute for Population and Social Research, Mahidol University

If we look at the natural changes that occur during old age, we need to accept that there are times in old people's lives when they are a "resource", and times when they are a "burden". The length of these two periods depends on two sets of causes. One is internal factors such as health and work skills, which depend on experiences over the whole lifetime. The other is external factors such as the work opportunities that society provides to older people of all abilities.

During the "resource" period, if external factors, such as the availability of appropriate work and the existence of social support, are favorable, and if the elderly themselves retain their vitality, then they can make important contributions to their own welfare and that of their families and communities. But during the "dependency" period, old people become a net burden, because they lose the capacity to help themselves or others.

To say that older people become a "burden" means that society (families and communities) have a duty to look after them appropriately. The motive for providing care may be love, or gratitude, or respect for the older people's human dignity, or some combination of these things. In any case, the "burden" should not be something that people take on unwillingly. Looking after older people is a natural responsibility of younger generations.

A Resource That Should Not Be Overlooked

Older people can be asset to society, and can contribute to their families and communities just like other workers, provided their health remains good. But older people also have a special advantage: a lifetime's accumulated experience. This knowledge is irreplaceable. If used properly, it can benefit not just old people and their families, but the whole of society.

We look at the natural changes that occur during old age, we need to accept that there are times in old people's lives when they are a "resource", and times when they are a "burden".

Work status of the elderly, 2005

thousands of people

Work status	Males	Females	Overall
All elderly	3,013.2	3,706.5	6,719.7
1. In the labor force	1,535.5	1,068.9	2,604.4
O Employed	1,529.2	1,062.3	2,591.5
- Agricultural	NA	NA	1,690.4
- Non-agricultural	NA	NA	901.0
O Unemployed	3.7	1.8	5.5
O Waiting for season	2.5	4.9	7.4
2. Not in the labor force	1,477.8	2,637.5	4,115.3
O Domestic	27.7	575.0	602.7
O workerUnable to work	1,323.7	2,027.2	3,350.9
O Other	126.4	35.3	161.7

Source: National Statistical Office, 2005
Note: The "labor force" includes people with and without regular incomes.

However, in reality, the contributions that older people can make during the period of "active aging" are limited by other factors besides health. These factors include the availability of appropriate work, and employment rules and regulations. For instance, an older person may still be physically capable of working, but may not be able to find suitable work, or is prevented from working by a maximum working age. In these circumstances, people still in the active aging phase are unable to find an outlet for their abilities.

This section will look further at older people's contribution to society, including participation in the work force, and contributions to maintaining Thai culture.

O Older workers: An under-used resource

Data from the Labor Force Survey during the second quarter of 2005 show that only one in three Thais aged 60 or over are still in the workforce. Almost all old people who work do so in the informal sector. They are self-employed, are unpaid family workers, or work for pay only occasionally. The 2005 Labor Force Survey reports that 2.3 million older people work in the informal sector. This is equivalent to almost 90% of the 2.6 million older people who still work. About two-thirds of older people working in the informal sector are men.

These figures reflect the influence of labor regulations in Thailand. Most formal sector employers, such as the government and state-owned enterprises, have compulsory retirement at age 60, even when an individual is capable of continuing working. Many people who must retire at age 60 are in fact capable of continuing, and would like to do so for the sake of self-worth, dignity, and economic security. When they can no longer work in the formal sector, they seek work in the informal sector. However, the majority of older people working in the informal sector have always done so, including farmers and casual laborers, who make up about two-thirds of all older workers. Most people in this group continue working as long as they are physically able.

The 2005 Labor Force Survey found that elderly people who work, do so for an average of 40 hours per week; the 2001 Labor Force Survey reported a similar figure. The 2005 Survey found that older workers had a monthly income of 4,900 Thai baht per month; the 2001 Survey reported a slightly higher figure of 5,500 Thai baht per month. Males have higher incomes than females, and urban people have higher incomes than rural people. The highest incomes are found in Bangkok. Despite the fact that these incomes are fairly low, almost two-thirds of older people who earned an income reported that their income was sufficient. Around one-third said that their incomes were not sufficient, and about 1% said that their incomes were higher than necessary.

However, not every old person has an income. The Survey of the Elderly in 2002 found that 90% of old people had an income from one source or another, but the remaining 10% did not have an income or did not answer the question. Of those who received an income, 40% received it from working, 35% from a family member, and 25% from interest, savings, pensions, or welfare payments.

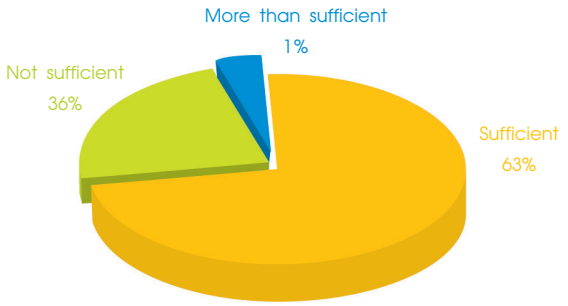
Income in these surveys can mean payments in cash or payments in kind, and the nature of the work can be defined fairly clearly. However, many old people do other types of work that is often overlooked because it does not contribute directly to production. These types of work free up other members of the family to seek employment. Examples are looking after the house, doing house-work, and minding grandchildren. Data from the 2002 Survey of the Elderly show that 63% of women over 60, and 47% of men over 60, do this sort of work.

Working hours and incomes of the elderly, 2001 and 2005

Sex and region	Average hours of work per week		Average income per month (baht)	
	2001	2005	2001	2005
Total	40.4	39.8	5,534.8	4,918.8
Male	40.1	39.9	6,375.0	5,753.1
Female	41.1	39.8	3,905.8	3,436.2
Residence				
Urban	47.9	46.7	9,153.3	9,863.1
Rural	38.1	38.0	3,513.5	3,069.4
Region				
Bangkok	54.2	52.1	13,793.6	18,093.1
Central	45.6	44.7	5,322.8	4,878.5
North	43.1	39.6	2,215.3	2,649.0
Northeast	34.2	38.4	5,557.7	3,157.5
South	35.2	33.3	2,814.3	4,378.9

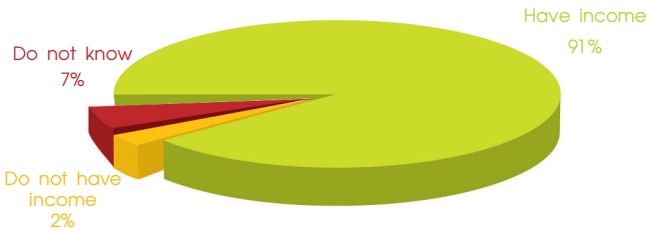
Source : Calculated from data from the Labor Force Survey, April-June, 2001 and 2005, National Statistical Office

Income satisfaction among elderly who have their own incomes



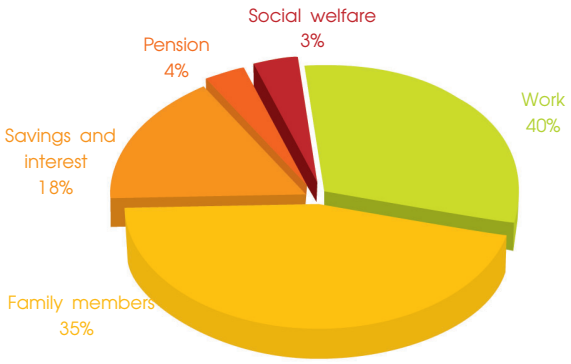
Note: Average annual income per person is 41,179 baht.
Source: Report on the Survey of the Elderly in Thailand, 2002, National Statistical Office

Percent of elderly who have income



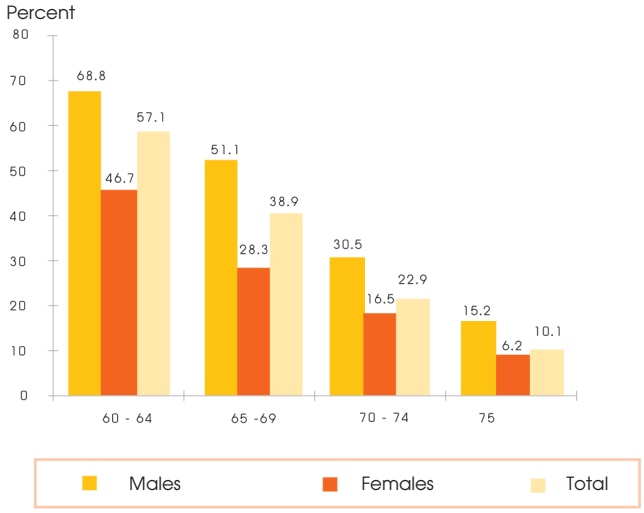
Source: Report on the Survey of the Elderly in Thailand, 2002, National Statistical Office

Percent distribution of elderly by source of income



Source: Report on the Survey of the Elderly in Thailand, 2002, National Statistical Office

Percent of elderly who would like to work



Source: Report on the Survey of the Elderly in Thailand, 2002, National Statistical Office

Despite the lack of attention that this sort of work receives, it is extremely important. If other family members did not receive this assistance from older people, their lives would be significantly more difficult. In fact, having elderly parents to help with childcare and housework is probably part of most Thai people's definition of the ideal family. Moreover, the ability to contribute in this way helps old people maintain their self-esteem. It also strengthens links between the three generations living together something that is impossible to put a price on.

However, when we examine current social and economic trends, and trends that are likely to take place in the future, it seems likely that the role of old people in the family will gradually weaken. The proportion of old people living with adult children is likely to gradually decline. In fact, the proportion has already started declining. Thailand is beginning to resemble countries with an aging society, such as, Japan, the United States, and developed countries in Europe.

Most elderly people whose health is still good want to continue working. In fact, many people would prefer not to retire until they are forced to by physical disability. The 2002 Survey of the Elderly found that the proportion of older people who wish to continue working varies by age and by sex. Those in the younger age groups are more likely to want to continue working than those in the older age groups, and males are more likely to want to continue working than females. The two most important factors governing desire to continue working are health status and the availability of suitable work. Among those aged 60-64, 57% wish to work (69% for males and 47% for females). Among older age groups, the proportions wishing to work decline, until at age 75 and over, only one in 10 people want to work (see figure). These statistics indicate that if suitable work is available, many old people will remain in the workforce, particularly in the ages 60-69, when people maintain much of their former vigor. If Thai people's health and life expectancy continues to improve in future, then the proportion of persons wanting to work will grow.

Many people aged 60 and over enjoy good physical and mental health. Indeed, many are at their peak in terms of productivity and ability to take decisions. They can continue working for many more years.

However, if they are forced to stop working because of compulsory retirement, or because employment rules are not suitable for them, then their potential is wasted. Society still does not properly benefit from the skills of older people. They are a hidden resource

If older people are able to continue working, this brings clear benefits to the old people themselves and to society. The elderly can maintain self-respect, and avoid feeling that they are a burden on anyone. They can be proud of their continued contribution to society. *As noted above, the work itself can help the elderly maintain good health. Work can be a kind of life-extending medicine.* In addition, the longer older people continue working, they more time they have to save money and to contribute to social security schemes. They will have more financial resources to rely on when the time comes to retire. The time when people are producers rather than dependants is extended.

In sum, if elderly people can stay in the workforce, their income is better, their health is better, and their financial position when they eventually leave the workforce is better. The social burden is also reduced.

Thailand has only recently begun considering the possibilities for extending the working life. There are still many barriers to continued employment by older people. The structure of the labor market is still not conducive to the employment of old people. One barrier is retirement rules. Another is the difficulty that older people face in receiving occupational training. Another is the tendency for employers to insist on fulltime work, which often does not suit older people.

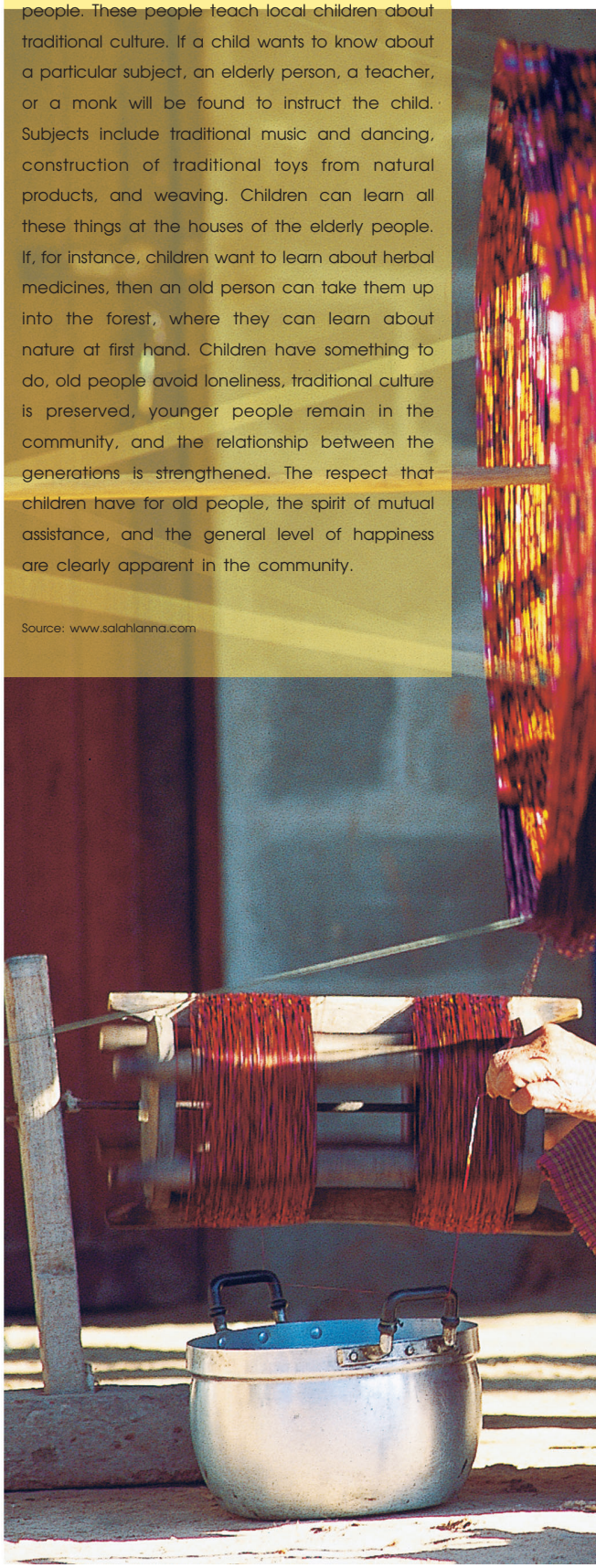
In the future, life expectancies will continue to increase. If we maintain compulsory retirement at age 60, the length of time that people in the formal sector spend as consumers rather than producers will increase. This will adversely affect family finances, and in the long run will threaten the viability of social security schemes. This is likely to create pressures for older people to work longer. The government will have to expand the opportunities for older people to obtain paid employment, through, for instance, shifting the retirement age or providing skills training to older people. Older people can then fulfill their potential.

Countries that are already experiencing population aging, such as Singapore, place a high priority on policy reforms that increase labor force participation rates among older people. Singapore has raised the retirement age from 60 to 62, and intends to raise it still further to 67. In addition, Singapore has adjusted pay rates to encourage the employment of older people, and reduced employers' social security contributions if they hire the older workers. Similarly, Japan has raised the retirement age

Grandparents teach the grandchildren

The Elderly People's Association in Mae Wang District, Chiang Mai Province has, since 1996, cooperated with villages, temples, and schools to run a program called "Grandparents Teach the Grandchildren." The core members are Grandpa Jaikham Tapanyo, and about 30 other elderly people. These people teach local children about traditional culture. If a child wants to know about a particular subject, an elderly person, a teacher, or a monk will be found to instruct the child. Subjects include traditional music and dancing, construction of traditional toys from natural products, and weaving. Children can learn all these things at the houses of the elderly people. If, for instance, children want to learn about herbal medicines, then an old person can take them up into the forest, where they can learn about nature at first hand. Children have something to do, old people avoid loneliness, traditional culture is preserved, younger people remain in the community, and the relationship between the generations is strengthened. The respect that children have for old people, the spirit of mutual assistance, and the general level of happiness are clearly apparent in the community.

Source: www.salahlanna.com



Thailand has many knowledgeable and talented elderly people. These people are a kind of "brain bank," distributed across the country. They lack the opportunity to contribute to national development. What we can we do to help them contribute

Her Majesty the Queen, 11 August 2000

from 60 to 65, has introduced many new labor laws, increased training, and removed legal obstacles to employing the elderly. Thailand can benefit from the experience of these countries

Repositories of wisdom and guardians of Thai culture

A person must live for at least 60 years before society bestows the title "elderly" on him or her. But society does not respect older people simply for their age. Older people have something that is invisible, but nevertheless tangible: the inherited wisdom from earlier generations, together with the experiences from their own lifetimes. The elderly can pass this knowledge on to younger generations, through teaching, through acting as examples themselves, and through providing advice. The elderly are like a store of wisdom that society can draw from. They are a form of "cultural capital." The wisdom of the elderly has passed the test of experience, and has been transmitted from generation to generation. This wisdom concerns ways of living, as well as, morality and aesthetics.

Their knowledge includes ways of making a living and maintaining health that are consistent with the natural environment and with the social conditions. Examples include agricultural techniques, fishing methods, ways of building houses, ways of nurturing families and communities, and traditional medicines and cures. Elderly people inherited this knowledge from elderly people before them and handed it to the younger generation. Such intergenerational transfer of knowledge and technology, in essence, is a form of cultural reporduction which is a distinctive part of Thai society. Indeed, it is a central part of Thai Culture, as culture consists of ways of living.

The elderly also pass on morals and artistic skills from earlier generations. Elderly people are well qualified to act as moral advisors to younger people, based on their learning and life experience. Moreover, many elderly people are highly knowledgeable in Thai traditional arts. Some have achieved national recognition for their skills. Transmitting Thai cultural traditions is one of the crucial contributions made by older people.

Another concrete example of older people's cultural capital is the "village sages" found throughout Thailand. These are people who have lived exemplary lives, and who have acquired local reputations for their wisdom. Many participate in cultural networks, and belong to the 3,000 provincial, district, and sub-district cultural organizations across the country. In addition, old people play important roles in the 250 Cultural Centers and 100 Centers for the Restoration of Community Culture. Older people act as advisors and as models for cultural centers.

As these examples demonstrate, older people are true "brain banks", whom younger generations can consult, modifying the advice to suit current circumstances. It is, therefore, essential to increase old people's participation in community activities. This will not only generate benefits for society, but will also enhance the physical and mental health of older people, and encourage the exchange of ideas among older people, and between older and younger people. The most appropriate setting for the transmission of knowledge from older to younger generations is the family and the community. Elderly people are closest to their family and their neighbors, and cultivating ideas is easiest within the family and community. Thai culture has traditionally emphasized instruction provided in families, and to a lesser extent, in communities. The traditional instructors have been those in the grandparents' generation, who receive respect from almost everyone.

However, it is not clear how long the family and community can keep playing this role, since both are becoming weaker. Their strength is being sapped by new

The Brain Bank

The Brain Bank was established by cabinet decision in 2000, in response to a suggestion by the Queen on 11 August 2000. The Queen suggested that retired people come together to work for the public good. The Brain Bank brings together qualified retired people to help pass on knowledge and experience to younger generations. The Bank is administered and coordinated by the Thai Development Foundation. The National Economic and Social Development Board acts as secretary.

Members of The Brain Bank provide knowledge and skills in 21 areas branches specializing in different areas of knowledge. In 2005, it had 2,629 members from every province of the country. Members have both passive and proactive roles. They are, for instance, invited to act as mentors and advisors to help strengthen local economies, social capital, and cultures.

Source: Data from http://brainbank.nesdb.go.th/ and from The Situation of the Elderly in Thailand 2004.

educational systems that downplay the role of the family and community, and by the flood of messages and images of popular culture from the media. It is becoming less and less common for older and younger generations to live together, their ideas are diverging, and the amount of interpersonal contact is decreasing. The opportunities for families and communities "the two most fundamental social institutions" to contribute to the transmission of knowledge from young to old are decreasing.

In these circumstances, the best way to enhance old people's contribution to maintaining Thai culture is to strengthen the family and the community. This way, old people will have an opportunity to mix with other generations. To strengthen the family and community, Thailand will need to develop new mechanisms, and strengthen existing ones, from the level of the family to the level of the community and society.

Some people are attempting to increase the participation of the elderly in community events. The elderly themselves have been aware of the need to increase their participation for many years, as demonstrated by the establishment of clubs for retired officials throughout the country. Examples of measures to increase participation include clubs established at the Ministry of Public Health and the Ministry of Education in Bangkok. Retirees' clubs have also been established by State-Owned Enterprises, and by private companies. Moreover, many people in local communities have set up their own clubs and societies, sometimes with encouragement from government agencies. These clubs have organized social activities, carried out health promotion, and enhanced social solidarity. They are common in both rural and urban areas. Activities include social meetings, exercise, religious ceremonies, and household income generation.

Care for the Elderly

The elderly have different needs from other age groups. Society must provide them with care appropriate to meet these needs. Natural physical deterioration means that older people's organs do not work as well as they used to, and that they are susceptible to illness and injury, particularly chronic conditions. In severe cases, older people can be physically disabled and unable to help themselves. This means that older people require many types of care, including treatment for physical and mental illnesses, but also economic and social assistance.

This section looks at the current situation and trends in care for the elderly in Thailand. It discusses older people's most significant needs, and services catering to these needs. The section covers medical treatment, long-term care, care provided in families, care provided by formal institutions, health insurance, and income protection.

The health of the elderly: Changes in illness and changes in needs

Improvements in the health care system over recent decades mean that Thais enjoy better health in old age than they used to. However, old people still have more illnesses and more chronic conditions than young people. The policy implication is that as the population ages all the mortality and sickness rates, and health care costs will increase proportionately.

Thailand can learn from the experiences of Japan and Singapore. In Singapore in 1995, people aged 65 and over constituted only 7% of the population but accounted for 17% of total health expenditure, and 19% of expenditure on outpatients. In Japan in 2002, health care expenditure per person aged 65 and over was equivalent to 10% of GDP per capita. The figure rose to 25% of GDP per capita for people aged 80 and over, and peaked at 30%.

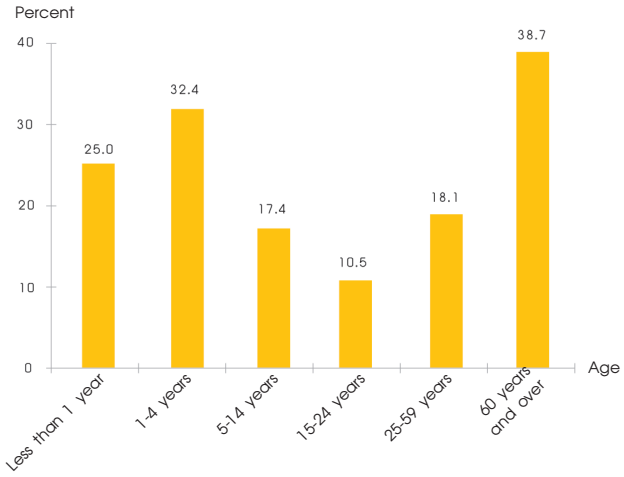
Thailand lacks good data on health expenditures by age. However, illness rates and chronic conditions are higher among the elderly than at other ages, so it is safe to assume that expenditures are highest among the elderly, even if the difference is not as pronounced as in Singapore and Japan.

An economic analysis conducted for the Health Systems Research Institute still gives a good general overview of likely changes in health care expenditure in Thailand, even though the research was published in 1999, and the exact estimates are somewhat out of date. The estimates cover the period 1997-2011. They distinguish between two types of expenditures: (1) payments made by the government through the Ministry of Public Health, including payments for retired officials; and (2) out-of-pocket payments made by older people, estimated from data for the poorest sector. The findings from the analysis are summarized in Table of projections of expenditure on health care for elderly people 1997-2011.

As can be seen in the table, overall expenditures were expected to rise by a factor of 2.5 over the 15-year period, from 14,340.9 to 35,549.7 million baht. The fastest increases were expected to occur among retired officials, for whom expenditures were projected to rise by a factor of 7. Expenditures on other older people were expected to rise by only 50%. (At the time the research was undertaken, the Thirty Baht Scheme, providing universal coverage, had not yet been introduced.) It is clear that, when the number of older people increases, and when the health insurance system changes, health expenditures increase.

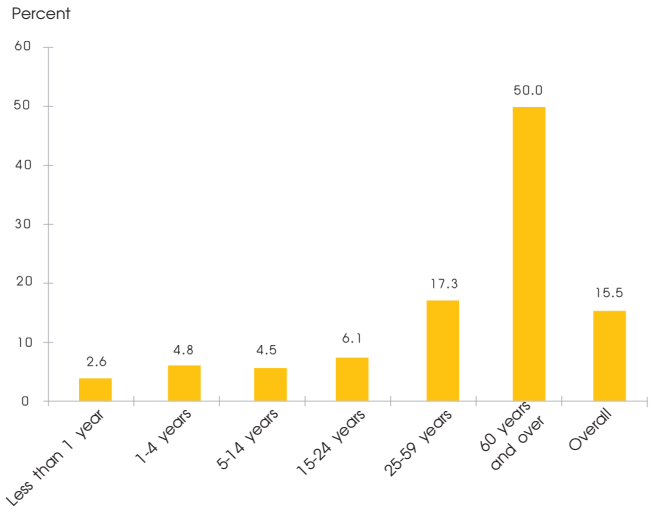
The illness profile of an aging society differs from that of a young one. These differences are summarized in the theory of the "epidemiological transition." In an aging society, illness rates for infectious diseases and malnutrition are relatively low, while rates for chronic conditions

Percent of population that is unwell, by age



Source: Health and Welfare Survey, 2005, National Statistical Office

Percent of population with chronic illnesses, by age



Source: Health and Welfare Survey, 2005, National Statistical Office.

Projections of expenditure on health care for elderly people 1997-2011

Type of expenditure	Year				Increase (times)
	1997	2002	2007	2011	
Ministry of Public Health expenses	2,325.2	4,446.0	6,432.4	8,307.7	3.6
Insurance Scheme for Retired Officials	1,762.1	4,232.0	9,352.2	12,278.9	7.0
Elderly people not covered by scheme for retired officials	10,253.6	11,852.4	13,279.6	14,963.1	1.5
Total	14,340.9	20,530.4	29,064.2	35,549.7	2.5

Note: Projections constructed before the introduction of the universal coverage (the Thirty Baht Scheme)

Source : Summarized from data in report by Sukanya Nithungkorn and Nongnuch Sunthornchawakarn, 1999

and illnesses attributable to deterioration of bodily organs are high. Common conditions include dementia, cancer, anemia, emphysema, diabetes, high blood pressure, paralysis, tuberculosis, and arthritis. Most of these conditions are difficult or impossible to cure and require heavy health expenditures.

Data from the Third National Health Examinations Survey in 2003-2004 show that 4 in 5 elderly aged 60-69 and 9 in 10 elderly aged 80 and over have one or more chronic illnesses. Illness rates are higher for women than for men. Among people admitted to hospital, the elderly tend to have longer stays than the young.

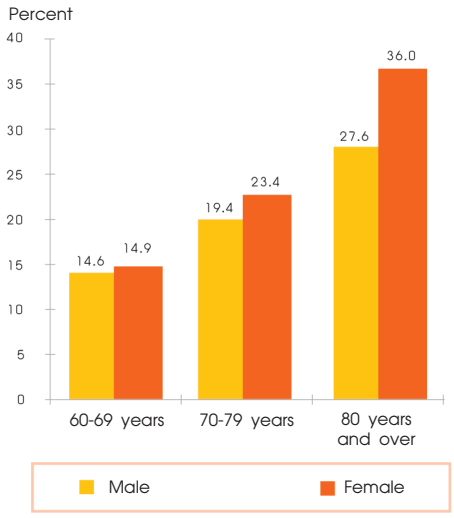
The elderly typically require different types of medical care than the young. As Thailand becomes an aging society, doctors and nurses will need new skills. Many countries with aging populations have established special services for the elderly. Thailand has paid special attention to the needs of the elderly for many years. The first "Elderly Persons Clinics" were opened in 1963, and the first Elderly Persons Health Programs and Elderly Persons Associations were established one year earlier. However the number of functioning Elderly Persons Clinics is still insufficient, and improvements in quality still need to be made. Most such clinics exist in large hospitals, such as regional or provincial hospitals. Only in 2005 did the government introduce a policy that every district hospital should have an Elderly Persons Clinic, in order to comply with the provisions of the 2003 Elderly Act. The type of care provided at Elderly Persons Clinics varies according to the capacity of the hospital. However, at a minimum there is usually a special examination room for elderly people, and elderly people do not have to wait a long time for service and have a special waiting area.

Once Thailand becomes an aging society, rates of illness and death will rise. Health expenditures will rise accordingly.

Some clinics at government hospitals cater effectively to the special needs of old people, within the resources available. However, the number of such clinics is still small. Specialist wards providing long-term care to the elderly are still rare, perhaps because hospitals mainly emphasize short-term services for the elderly. However, the chronic illnesses typical among the elderly require long-term treatment. Specialist hospitals for the elderly operated by the private sector tend to charge high fees, which puts them out of the reach of most elderly people.

Mr. Jamras Soisermsap, Elderly People's Association, Thepa District Hospital, Songkhla Province plays the violin to reduce stress levels among patients. (Photo courtesy of Dr. Suwit Wiriyapongsukit.)

Disability rates among the elderly, by age and sex, 1999



Source : Based on data from UNFPA Country Technical Service Team for East and South-East Asia, 2006

Providing specialist health services to the elderly requires qualified staff, particularly doctors and nurses who specialize in geriatric medicine and who understand the particular health problems experienced by the elderly. The numbers of doctors and nurses with specialist training in geriatric medicine is still extremely small. However, doctors and nurses with training in family medicine and recuperative medicine can deal with most of the conditions common among the elderly.

The elderly often suffer from several medical conditions at the same time. If they visit a large hospital, they are likely to see several specialists, and to receive multiple drugs. A doctor with training in geriatric medicine can help coordinate the diverse treatments, though the number of doctors with these skills is not yet large.

O Long-term care: Still searching for an appropriate model

Another important health need of older people is long-term care. Long-term care is required by older people who cannot look after themselves, such as those with chronic diseases or disabilities, or those who do not have anyone to look after them, because they do not have children, or because their children do not live with them.

Disability rates are higher among the elderly than among other age groups. Moreover, disability rates continue to increase as people age. Women aged 60-69 have a disability rate of 15%, while those aged 80 and over have a rate of 36%. Similarly, men aged 60-69 have the same disability rate as women, while those aged 80 and over have a rate of 28%

In around 10 years' time, the number of old people with disabilities will be even higher, according the report Health Problems of the Elderly by Professor Suthichai Jittapankul and colleagues,

supported by the Institute for Health Systems Research, and published in 1999. This report predicts that in 2015, Thailand will have 1,648,685 disabled elderly people, or about 18% of the elderly population of 9 million. Of these 412,910 will be unable to leave the house unassisted, 78,622 will be bedridden, and 602,316 will require assistance with everyday living.

The fundamental questions for long-term care are: Who will look after elderly people who are unable to look after themselves? and Where will the care be provided?

According to Thai traditions, caring for the elderly is the responsibility of children and grandchildren, and should take place in the family. Thais believe that looking after elderly parents is a way of repaying the debt owed to them, and is consistent with religious precepts. However, although this tradition is still honored, in practice, caring for old people in the family is becoming increasingly difficult. There are two reasons for this.

First, many families lack someone who can provide continuous care. All adult family members need to look for work outside the home, to earn money to support the household. Sometimes adults need to migrate for work, leaving their elderly parents to live alone. Moreover, in some cases parents leave young children for the grandparents to look after, adding to the older people's problems. Some old people are discarded by their children, and must look after themselves.

Some scholars argue that in all Asia societies, including Thailand, the people responsible to care for children and the elderly are mostly women, because in the past women had few opportunities to work outside the home. Most women were "assigned" responsibility for care giving, (even though it is unfair.) In modern times, even though more women must work outside the home, men refuse to assist women with their responsibilities. Society has yet to develop new mechanisms for providing care to children and the elderly. This is becoming an increasingly important social problem.

Second, many health problems faced by the elderly need to be treated by people with specialist knowledge. Examples include chronic illnesses, disability, mental illnesses, and dementia. Even though families can provide the most love and concern, they often lack the necessary skills and experience, as well as, lack the necessary equipment.

Taking care of elderly people within the family is becoming increasingly difficult.

In these circumstances, it is probably necessary for some older people who are unable to help themselves, to be cared for in settings other than the family. Care must be provided by the community or by other appropriate institutions.

This is an important challenge facing Thai society. It is certain that in the near future the demand for long-term care will increase because the number of elderly people with disabilities or chronic illnesses will increase. Will Thailand be able to develop institutions to take care of elderly people who cannot take care of themselves? Will Thailand be able to train enough caregivers to keep up with the rising number of people requiring long-term care?

The answers are not yet clear. However, we already have some evidence on what will happen, since changes in the provision of long-term care have been occurring for at least 10 years in urban areas such as Bangkok. Families are beginning to hire professional caregivers, to assist older people with everyday activities when family members themselves are unable to do so. The common pattern is for families to hire staff from health care organizations. There are many different arrangements. Sometimes the caregiver provides assistance at the family home, sometimes in hospitals, and sometimes in nursing homes. Some of these institutions provide residences where older people can live, and provide assistance with daily activities and health care. However, there are other models, in both the public and private sector, such as Elderly People's Centers and Community Centers for Elderly People.

These sorts of institutions are mainly confined to urban areas. Most are established by private, for-profit organizations, and access is, therefore, restricted. Community organizations established for the old people themselves are extremely rare, and most are still at an experimental stage.

There have been programs to train people in the provision of geriatric care for more than 10 years, but the number of training institutions and the number of people who have received training is still small. Precise statistics are difficult to find, because many training institutions are not registered. According to estimates for 2005, produced by the Office for Private Education within the Ministry of Education, which is responsible for this sort of training institution, there were 98 institutions across the country, of which 36 were in Bangkok, and 62 elsewhere. There were 587 teachers and 6,552 students. Many of these schools provide training in geriatric care and in childcare. All such schools are supposed to register to comply with the Private Education Act, but many do not, so the true number of schools is certainly higher than 98. Syllabuses are set by the Ministry of education in collaboration with the ministry of Public Health and the Nursing counsil.

Numbers of institutions serving the elderly, by type of institution

Type of institution	Number
1. Government institutions	
Elderly people's clinic	808
- In provincial hospitals	25
- In district hospitals	716
- In other hospitals	67
Social services centers for the elderly	7
Old people's homes	20
2. Private institutions	
Old people's homes	18
Health centers	54
Rest and rehabilitation centers	12
Foundations	598
Associations	57
Other	28
3. Community institutions	
Elderly people's centers in community temples	200

Source: http://oppo.opp.go.th/

Researchers from the Office for Planning and Policy at the Ministry of Public Health have constructed estimates of the need for health care providers from 1995 to 2015. The researchers estimated that 41,275 - 64,798 personnel are needed for providing health care to old people. Of these 21,303 - 42,607 are needed for providing care in people's homes and 19,972 - 22,191 for providing care in institutions. The researchers recommend that the government emphasize care-giving in homes and communities.

Care within the family: Declining Trend

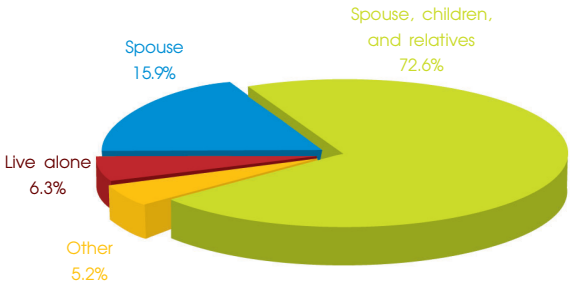
Thai people believe that assisting the elderly is the duty of children and grandchildren. It has acquired the status of a religious duty, and is tied up with ideas of gratitude, merit, and heaven and hell. Assisting the elderly remains a social imperative. At present, almost 3 in 4 older people live with their spouse, children, or other relatives. Slightly more than 1 in 4 live only with a spouse, live alone, or in some other arrangement such as in an old people's home.

Old people who do not live with their family remain a small minority. However, the existence of this group nevertheless indicates that changes have been occurring in the Thai family, and is a sign of problems that elderly people will face in the future. The proportion of older people living with their families is similar in urban and rural areas. The proportion of elder persons who are not living with families is likely to rise gradually. The rise may not be rapid, but it will be persistent. It is a result of current socio-economic trends, which lead to family members migrating to look for work or to improve their lives.

Co-residence is an indicator of who provides care to older people. The people the elderly are most likely to live with are their children, including unmarried and married children. Next most common are spouses, relatives, and others. These are the people who provide the most family-based care. The most common types of assistance are provision of money, clothes, household goods, and help with daily living. The Survey of the Elderly in Thailand 2002 found that the proportion of elderly who received these types of assistance ranged from 56% to 82%, according to their needs.

However, while it is true that the elderly receive assistance from family members they live with, the elderly also provide assistance. Older people whose health is still good are particularly likely to provide assistance, either through working to earn money for the

Whom do the elderly live with?



Source : Report on the Survey of the Elderly, 2002, National Statistical Office

family, or through helping around the home, for instance, by doing housework, or looking after the grandchildren. Such work is very important. Not only does it strengthen the relationship between the generations, it also frees up working-age people to work full time.

At present, the family is still an important source of support for most elderly people, particularly for necessities such as food, clothes, and money. Living with other family members is a fundamental determinant of receiving (and giving) assistance, even though the amount and quality of the assistance is not known. The exchange of support is a vital source of mental well-being for older people.

Nevertheless, there is a clear tendency for the Thai family to weaken. Co-residence and mutual assistance within the family is changing. The assistance that elderly people receive from the family is likewise changing. Indeed, the transformation of the Thai family has already begun, and in the near future this will be readily apparent. The type of assistance provided in the family will depend on the pace and magnitude of socio-economic trends.

Japan provides an indication of what the future may bring. Japan is an industrialized country, and has experienced rapid population aging earlier than Thailand. In the past 20 or so years, the role of the family in providing old age support has been reduced dramatically in every aspect. Particularly important is the reduction in the provision of long-term care and support for daily living, which have shifted out of the family and been taken over by formal institutions. Now Japanese people have to save and prepare carefully for their old age.

Japanese attitudes have changed accordingly. It is interesting to note that in a society that values the family highly such as Japan, data from annual surveys over the last 20 years show that increasing numbers of people in younger generations no longer agree with many traditional practices, including caring for old people inside the family. Many also no longer agree with the practice of ancestor worship. Fewer people approaching old age state that they will depend on their families for support. Instead, they will rely on their own savings. These new attitudes indicate that there have been profound changes in the Japanese family.

These sorts of changes are not yet visible in the Thai family, but it may not be long before they do appear, just as happened in Japan.

Percent of elderly assistance to family members, by type of assistance (Respondents could give more than one answer)

Type of assistance	Percent
Take care of house	29.5
Money	26.9
Look after grandchildren	26.4
Obtain or prepare food	26.2
Occupation	3.0

Source: Report on the Survey of the Elderly, 2002, National Statistical Office

The type of assistance to the elderly provided in the family will depend on the pace and magnitude of socio-economic change and how the society adjusts to it.

Assistance outside the family: Looking to the community

The weakening of family-based support for the elderly, or the increased difficulty of providing family-based support, creates a need for institutions outside the family. The importance of non-familial institutions will grow in coming decades, as will the number of older people.

In the past, there was little need for non-familial institutions to care for the elderly, because most people lived in extended families. Providing care to the elderly was relatively easy. Moreover, in the past, life expectancies were short, and there were fewer illnesses that made old people unable to take care of themselves. Old people who did not have work, or did not have children, were cared for by relatives or by the community. Religious institutions such as temples also played a role as a safety net. They would provide shelter, food, and peace of mind in the final stages of people's lives. In the past, old people who lacked any other means of support would be ordained as monks or nuns. Problems were avoided through the existing system of social capital.

The few institutions for supporting old people outside the community are welfare organizations established by the state or by private groups. These organizations are well known. An example is Elderly People's Homes, the first of which was set up in 1953, in Bang Khae under the Department of Social Welfare. Over the following 20 years, Elderly People's Homes were set up in every region of Thailand. At present, they are overseen by the Department of Social Development and Social Security, in the Ministry of Social Development and Human Security. These homes take in old people who are very poor or who lack family members to take care of them. Some residents do not have to pay anything, while others pay some living costs. Altogether, the homes have about 2,500 residents.

The main strength of the Elderly People's Homes is that they alleviate the often severe problems faced by the residents. However, the homes face shortages of resources and qualified staff. They are unable to accept all those who apply. The biggest weakness of the homes is that the residents are cut off from their families and communities, depriving them of an important source of mental wellbeing.

Recently, policy makers have decided to reduce the reliance on formal old people's homes. Instead, provision of old age support should be, as much as possible, the responsibility of local government and communities. The justification for this policy is that local organizations are closest to old people and understand their problems and needs best. The Ministry of Social Development and Human Security has, since 2003, been devolving responsibility for Elderly People's Homes to Provincial Administrative Organizations and Sub-District Administrative Organizations that are ready to do so. The Ministry of Interior has been assisting communities to

establish Elderly People's Associations. This is just one example of the ways in which the government is trying to encourage communities to become involved in activities for the elderly.

The devolution to communities has advantages and disadvantages, and there are many challenges to implement it effectively.

The best feature of the policy is that it allows old people to remain with their families and communities. Moreover, most of the caregivers themselves are likely to belong to the old people's communities. This reduces the problems that elderly people have adjusting to new surroundings and new people. Many communities may already have the necessary resources, including financial and social capital. It will help with the implementation of the policy if communities can find some or all of the resources themselves, relieving pressure on the government budget. It will then be possible to increase access.

However, there are limits to the care that communities can provide elderly people, particularly health care. Communities can provide only the most basic types of health care. If more sophisticated curative care is needed, then old people will have to go to health centers, district hospitals, and provincial hospitals.The greatest challenge facing these policies, more important even than budgets, is the need to obtain community involvement. It requires the establishment of groups of community leaders, and drawing on reserves of cooperation and social capital, inside and outside the community. The challenges are similar for rural and urban communities.

But whatever challenges it faces, this policy is highly promising. Thai society needs to ensure that the policy succeeds.

Even if we still do not have a model for community-based care that exactly meets the all the requirements, there are nevertheless promising signs. Attempts are being made to develop models that respond to the needs of older people (among other objectives). An example is a program that has been implemented in rural areas where volunteers visit old people at their homes. Another is the community program that looks after the long-term health of older people. Even though these two programs have different structures and objectives, both of them aim to provide care in the community, by the community. Both are based on the principle that elderly people should not be separated from their familiar environment, and that the community should be the source of support.

In late 2006, the National Economic and Social Development Board released a report on four community-based programs looking after the long-term health of the elderly. One program has been set up in a sub-district each of four provinces: Phayao, Yasothon, Suphanburi, and Nakhon Sri Thammarat. The four sub-districts varied greatly in their social capital, local governments, and health profiles. These characteristics affected the type of programs that were set up and their level of success.

All four case study programs provided both social activities and health care, though a relatively greater emphasis was on the social activities. The only community to develop an extensive health care system was the sub-district in Nakhon Sri Thammarat. This community developed its own innovative system. It provided primary health services such as exercise, screening for common illnesses of older people, diabetes and hypertension clinics, basic medical care, and home visits, like the three other communities. However, it also provided home-based care for people with chronic illnesses, a system of emergency care and referrals, monthly health education and health checks, physiotherapy, and a medical hotline. The reason the community in Nakhon Sri Thammarat was able to organize better services was that it was an urban community, it had more money, local politicians played a larger role, and staff were better prepared.

The case studies identified the following factors that determine the success of a program:

1. **Strong social capital,** including human and institutional capital, such as community leaders, religious leaders, government officials, local leaders, community organizations, religious organizations, village health volunteers, and local government.
2. **Local traditions still remain strong,** and communities still follow traditional practices. Frequent community ceremonies and events, to build solidarity and maintain traditional culture.
3. **Economic resources,** including local budgets or the ability to raise funds locally, local sources of capital such as village banks, village or sub-district health funds, Sub-District Administrative Organization funds, municipality budgets, and methods of raising money such as traditional religious fundraising events.
4. **Support from local government**
5. **Tightly knit communities,** such as those based on kinship, with a well-developed civil society. Good information dissemination, inside and outside the community.
6. **Supportive central government policies,** including the Devolution Act, the Universal Health Care scheme, the National Long-Term Plan for Aging, and the Sub-District Health Promotion Fund.

All of these factors, aside from central government policies, relate to the strength of local communities. We can conclude that the strength of the community is the main determinant of whether

Elderly people's rights enshrined in legislation

The 2003 Elderly Act, Section 11, states that elderly people should receive the following:

1. Health care facilities should provide special services to elderly people so that they receive rapid, convenient services
2. Provision of information and training to help them in their daily lives
3. Vocational training
4. Encourage self-improvement; assist networks and mutual assistance for social activities
5. Buildings and public places should be safe and convenient for elderly people
6. Appropriate subsidies for use of public transport
7. Exemption from fees to enter government-run facilities
8. Government assistance in cases of family abandonment
9. Advice on solving family problems
10. Assistance with accommodation, food, and clothing, where necessary
11. Payment of allowance, where necessary
12. Assistance with funerals13. Other assistance as defined by the Committee

Source: Elderly Act 2003

community-based care of the elderly will succeed. Without strong communities, such programs are extremely difficult.

O Social security: The need for a fair system

The 2003 Elderly Act addresses the security needs of the elderly. Security has many dimensions, including health, finance, society, culture, education, occupations, self-development, and poverty relief.

Since 1993, old people who have financial difficulties or who lack a family to look after them have qualified for a living allowance paid for by the government. Initially, the allowance was worth 200 baht a month; it is now worth 500 baht a month. However, since the budget is limited, recipients of the allowance are chosen by village committees. The National Economic and Social Development Board estimates that one in 10 old people have no income and no one on whom they can depend. In 2006, there were 6,617,300 old people in Thailand, implying that there are about 668,300 who need assistance. However, the government provides funding for only 400,000 allowances. In addition, research has shown that the administrative system for the allowance still needs improvement. For instance, the committees that select recipients do not always follow the principles of the program, and some of the people who receive allowances are not in fact poor.

Consequently, many people who should qualify for the allowance miss out.We now look at two particularly important types of social security: health insurance schemes, and income protection schemes.

O Health insurance: The type best of insurance is to prepare wisely for old age

Older people are now covered by the same general health insurance systems as the rest of the population. The 2003 Elderly Act contains provisions setting out many of the

rights of older people, including medical care and public health. There is also the Second National Plan on the Elderly, 2002-2021, which sets out a strategy with five components: reforming the health system for older people and combining it with education services; income security; culture; and welfare. The key points are summarized in Table below. The main health insurance systems catering to old people are as follows:

1. Health insurance for employees of the government and state-owned enterprises. Members can only use government health facilities, except in emergencies, when a doctor must verify that the old person's life would otherwise be endangered. Funding is provided from general taxation. The scheme includes at most 5% of all old people.
2. Universal health insurance (formerly known as the "Thirty Baht Scheme"). This scheme provides basic medical care to the entire population, including the elderly, except those who qualify for the government officials' scheme. Initially, members were required to pay 30 baht for treatment. However, after the coup on 19 September 2006, the government stopped collecting the 30 baht fee. Now all that people need is a card identifying the government health facility where they are registered. No fee is collected.

Principal strategies and policies of the Second National Plan for the Elderly, 2002-2021

Strategy	Policies
1. Prepare people for a high-quality old age	• Income insurace for old people • Life-long learning • Encourage social attitudes of respect towards the elderly
2. Capacity-building among elderly people	• Increase health knowledge include prevention, self-care, and health promotion • Strengthen elderly people's organizations • Increase opportunities for working and earning money • Encourage talented elderly • Encourage media to produce programs on elderly • Ensure that elderly people have suitable homes and environments
3. Social protection	• Income protection • Family protection • Assistance systems and networks • Reform public services to make them more accessible for elderly people • Community-based social and health services that reach the maximum number of elderly • Increase cooperation among community, local, religious, and private organizations
4. Develop national-level policies for the elderly, and build capacity among people working on issues of elderly	• National systems for working on issues of the elderly • Support individuals working on issues of the elderly
5. Review and extend knowledge about the elderly, and evaluate progress in implementing the National Plan for the Elderly	• Support research institutions review and extend knowledge about the elderly • Evaluate policies implementing the Second National Plan for the Elderly • Modernize information systems on the elderly

Source: Second National Plan for the Elderly, 2002-2021, http://oppo.opp.go.th

3. Voluntary health insurance. This is private health insurance sold, for instance, by insurance companies and banks. This system covers only a small proportion of old people, most of whom are relatively wealthy.

Whatever the health insurance scheme, the most effective form of health insurance is for people to look after their health throughout their lives. In other words, health security in old age is something that must be built up while still young, by always taking care of one's health and avoiding substances that are harmful to mental and physical health. It is therefore important not to economize on measures to promote mental and physical health.

O Income security: Start preparing when young

Income insurance is essential to a secure life, especially for elderly people who are no longer able to work. Life expectancy is increasing, but older people still have difficulty finding appropriate employment, and so must spend increasing lengths of time without paid work. Without income insurance, older people cannot live securely.

In the past, people in Thailand had a traditional method for obtaining income security and care in old age. Under the traditional family system, after they had distributed the inheritance (such as land and property) equally to the children, parents would keep one portion for themselves. This was the parents' source of security. If none of the children provided support, the parents could use the assets to pay for their daily expenses. If one of the children did provide support (normally the one who continued living with the parents after marriage), then the parents would give the extra portion to that child. This was a simple but effective method of obtaining security.

However, this method worked best when family property formed an effective bargaining chip, when children had little choice over what occupation to pursue and few other ways to obtain capital. Now, when families have few assets, and younger generations have more choices of occupation and more ways to obtain capital, the method is less effective.

Because of economic and cultural changes, people now have to rely more on themselves, from youth to old age. Constructing personal income insurance has become vitally important. It will become even more important in the future, as the number of older people grows, and as life expectancies and expectations about acceptable living standards rise. All these things imply

that income insurance will be a crucial determinant of happiness among older people. Those who reach old age without some form of income insurance are unlikely to be secure.

As with health insurance, income insurance is something that needs to start while people are still young. People must learn to save when young. There are two sorts of savings schemes: compulsory schemes and voluntary schemes.

Current systems of savi ng for old age

Compulsory schemes		Voluntary schemes	
Social Security Fund (Child support, pension)	Retirement fund for government officials	Provident Fund	Retirement Mutual Funds
• Defined benefit • Private employees and temporary government employees • Employers and employees each pay 3% of wage (up to maximum wage of 15,000 baht) • Government pays 1% of wage	• Defined contribution • Government officials only • Employees and government each contribute 3% of wage	• Defined contribution • Private employees, employees of state-owned enterprises, and temporary government workers • Employers and employees each pay 2-15% of wage	• Open to everyone • Must buy at least 5,000 baht worth of units per year • Returns tax deductible up to 15% of income or 300,000 baht

Source: Ministry of Finance, www.fpo.go.th/fseg/Source/Research/R13/Presentation.ppt, accessed on 15 December 2006

A. Compulsory savings schemes

These schemes enforce long-term saving among formal sector workers, to ensure that when people retire they will have sufficient income to live. There are two types:

1. **Pensions and lump sum payments for government officials.** These are defined contribution schemes for government permanent employees. Members pay 3% of their income into the scheme each month, and the government contributes a further 3%. The scheme had 1.2 million members in December 2006.

2. **Social Security Fund.** This covers private sector employees and temporary government employees. It is a defined benefit scheme that is administered by the state under the Social Security Act. This Act requires that all enterprises with one or more employees must participate. Employees and employers contribute equal amounts to the fund, and the government makes a further contribution. Members receive benefit assistance with illness, accidents, childbirth, disability, death, child support, old age, and unemployment. If a member has contributed to the fund for at least 15 years, and is aged 55 or over, then he or she can receive an old-age pension, calculated according to a specified formula. At present, no one receives the old-age allowance since the fund is less than 15 years old. The first payouts of the old-age allowance will begin in 2014. In late December 2006, the Social Security Fund had 8.9 million members, or 24% of all workers.

At present, policymakers are discussing the possibility of setting up a "National Retirement Fund" under the Ministry of Finance. If the fund is in fact established, then it will assist all workers, including those inside the formal sector, such as employees of the government and private enterprises, and those outside the formal sector, such as farmers and the self-employed. At present work is being undertaken on the legislation to set up the fund.

B. Voluntary savings schemes

These schemes have similar aims to the compulsory ones, but are run by private organizations under the supervision of the government. There are two types of funds:

1. **The Provident Fund** (PVD) serves employees of private companies, state-owned enterprises, and the government. Employees and employers pay into the fund at a rate of 2-15% of monthly income. In December 2006, the Provident Fund had 1.8 million members.

Contribution rates for Social Security Fund

Type of benefit	Maximum rate	Employee	Employer	Government
Illness, childbirth, disability, death	1.5	1.5	1.5	1.5
Child support, pension	3.0	3.0	3.0	1.0
Unemployment	5.0	0.5	0.5	0.25
Total	9.5	5.0	5.0	2.75

Note: "Contributions" refer to amounts that employees, employers, and the government must pay into the fund each month. Rates of contribution are based on wage of 1,650 to 15,000 baht per month.
Source: Social Welfare Office, Ministry of Labor and Social Welfare.

2. The Retirement Mutual Funds (RMF) are a vehicle for long-term savings, open to anyone. Members must buy at least 5,000 baht worth of units from a fund each year for at least 5 years before they can request their principal and interest. Payments made into a fund are tax-deductible up to a limit of 15% of income or 300,000 baht. In December 2006, there were 70 such funds.

As with health insurance, income insurance is something that needs to start while people are still young. People must learn to save when young.

In the long run, schemes such as the Social Security Scheme and the Provident Fund may face difficulties if the policies are not changed. The government could experience financial difficulties because the number of old people will increase quickly while the number of workers will remain static because of declining birth rates. The funds will have to pay out large amounts to retirees, but their income will not be growing.

Even though the number of people joining voluntary funds is increasing, coverage is still not as high as it should be. Membership is generally limited to people with regular incomes, who are still a minority of the Thai labor force. Altogether, the number of people belonging to one kind of fund or other is about 12 million, or about 1 in 3 of the 37 million workers in the country. Almost all of the remaining 2 in 3 workers are farmers or non-formal workers, such as casual laborers, domestic workers, seasonal workers, drivers, or shopkeepers.

The reason these workers do not belong to any long-term savings scheme is probably because they lack any sort of surplus income to save, and because they lack information about savings. Whatever the reason, there is a strong possibility that these workers will lack income security after they retire.

Participation in long-term savings funds

Type of fund	Size of fund (millions of baht)	Members
Social Security Fund - All funds - Funds for pensions and child support	396,910.37 322,395.78	8,882,922
Fund for government officials	320,762.98	1,176,514
Provident Fund	386,251.94	1,801,753
Retirement Mutual Funds	25,475.24	70

Source: Ministry of Finance

In addition, these formal savings mechanisms, informal mechanisms are becoming more common. One example is community savings schemes such as, Community Funds, Village Banks, and Cremation Societies. The community savings schemes aim to pool community savings for mutual benefit to assist each other in everything from children's schooling to health care to funerals.

Another aim of the community schemes is to enhance solidarity within the community, and to help people improve themselves in ethical and sustainable ways. Some of the better-developed community schemes use the capital to assist elderly people within the community. This is what has happened, for instance, in the village funds of Nam Khao and Khlong Pia villages of Songkhla Province, and other similar village funds of in Trad and Chantaburi Provinces.

However, in general, Thai people's savings behavior is still not appropriate for an aging society. This is true for compulsory and for voluntary forms of saving. People still lack sufficient knowledge about savings mechanisms. The reason may be because Thailand has little experience with saving for old age, and a sufficiently attractive savings mechanism has not yet been developed. The situation is very different from that of countries such as Korea and Taiwan.

Countries that have experienced more population aging than Thailand place great emphasis on saving. Having sufficient savings is not just a matter of taking care of individual needs. It also contributes towards the health of the economy, since savings are a source of capital. High savings can promote economic development and reduce the capital account deficit.

Thai people's savings behavior needs to change. Thai people still do not save sufficiently for retirement.

Preparing to Meet the Challenges

Looking at the coming demographic changes and the trends in the care of the elderly it is clear that Thailand is facing a number of challenges. This final section looks at some of the short-term and long-term challenges, and discusses some of the policy changes needed.

Policies for short-term challenges

The years before the arrival of the aging society are a "golden" period for economic development. During this period, the ratio between dependents (children and older people) and workers is very low. The low ratio assists saving and national development. If the "quality" of the workers is high during this period, then Thailand will reap many benefits. However, the golden period will last only another 10 years.

The challenge is to maximize the economic benefits from the golden period.

Clearly, the only way to do this is to ensure that Thailand's 37 million workers have the highest possible quality. The higher their productivity, the higher the surpluses, because of large number of people in the working ages compared with those in the dependent ages (children and old people.) The economy should flourish under these conditions. This will allow Thailand to better prepare for the arrival of the aging.

Thailand faces the difficult task of quickly improving the skills of the workforce before the golden period is over. This is compounded by the fact that average levels of education the workers'are still low, and the quality of education is not as high as it should be. Moreover, the types of graduates produced by the education do not match the needs of the market. Workers with middle-level qualifications are in particularly short supply.

The government and private sector must cooperate in forming policies to lift the skill levels of Thai workers. This includes ensuring that people's skills match the needs of the new competitive environment. The changes need to be made quickly, in the short term rather than the long term.

O Policies for long-term challenges

The long-term challenges involve preparing Thai people and systems to support people in making the transition to an aging society. The preparation involves the following issues:

- Preparing people of all ages (young, working-age, and old) for the aging process with includes having high quality and secure lives.
- Constructing social systems and mechanisms that facilitate a secure helping Thais to attain security in an aging society.
- Strengthening families and communities so that they are able to support older people themselves.
- Establish a social, cultural, and physical environment that is appropriate for older people.
- Allow the elderly to participate in development to the best of their abilities.

The issues need to be considered by the public, by government agencies, and by all other stakeholders, to make sure that the policies are put into practice.

Measures to address the challenge of population aging must include the following.

1. Ensuring that people have optimal health. The key to this policy is the health promotion system. Health promotion has to begin in childhood and continue until old age. Families and communities must be encouraged to participate and to improve the health of their members. The elderly should receive particular attention. The health care system needs to be designed in a way that it does not overextend government resources. The public should have a choice of health care systems, though every system must perform to an acceptable standard.

2. Improving the productivity of workers of all ages, so that the workforce can respond to the needs of a rapidly growing productive sector. The education system needs to be reformed to make it more effective. Numbers of places in each subject need to be controlled to be consistent with labor demand. The government must encourage life-long learning, especially through private study, through public educational institutions such as libraries and the Internet, and through information technology.

3. Establish systems and mechanisms to promote long-term financial and economic security. A successful aging society must have a labor rules and practices that are appropriate for old people, and must have an attractive mechanism for saving for old age. Older people need work that is less physically demanding, for instance, or has shorter hours. Savings mechanisms must be established that covers the entire workforce, including people in the informal sector such as farmers and casual laborers.

The challenge of preparing for the aging society: The views of the Ministry of Social Development and Human Security

O What problems do the elderly face now and in the future? What policies does the Ministry of Social Development and Human Security have to respond to these problems?

The biggest problem is provision of care. Due to changes in relationship between the family, and to migration to the cities in search of work, many elderly lack anyone to look after them, and have to rely more on themselves. Most live in the countryside and lack good access to social services. The Ministry of Social Development and Human Security therefore emphasizes communities, and mutual assistance within communities. The Ministry has developed a strategy for dealing with present and future problems of the elderly by strengthening the community. Institutions such as local organizations, networks, government agencies, private organizations, and volunteers can provide welfare services to the elderly. The strategy includes the extending the system of village elderly-care volunteers to include every community, so that elderly people are not neglected by society.

O What will the government do about differences in the quality of life of the elderly?

The government no longer views the elderly as passive recipients, but instead sees them as active providers or as people who have made great contributions to society who should enjoy a good quality of life for as long as possible. Elderly people's rights are protected by the 2003 Elderly Act, which increases their economic and social opportunities through means such as the health insurance system, living allowances, and village elderly-care volunteers. Elderly people who are still in good health can participate

in Elderly Associations and carry out activities for the elderly or for society, which benefits from their accumulated experience.

What can be done to encourage families and communities to provide the same level of old-age support that they did in the past?

The government has a policy of encouraging communities to participate more in the provision of old-age support. Local networks have an important role in providing services inside communities. Village Elderly-Care Volunteers work with members of the old person's family. This raises awareness of the problems of the elderly, in the family and the community. People are then able to address these problems using resources, creating a sustainable system of old-age support.

What tangible measures can be taken to improve the security of the elderly?

At present many government agencies are implementing the idea of "Secure Elderly." Taking a general view, security means preparing Thai society adequately, including children, working-age adults, and the elderly themselves. Every aspect of development has to contribute to improving human capacities. Social insurance, mutual assistance, and social welfare all rely on cooperation between the government, the private sector, and other stakeholders. The Second National Plan for the Elderly (2002-2021) clearly sets specified responsible agencies, goals, and timeframes. There are three sets of objectives. 1) Strengthen elderly persons' organizations at the national and local level. 2) Encourage communities to play appropriate roles in the provision of care. 3) The National Committee for the Elderly, which includes officials and members of the public, has to set out policy directions and strategies and make sure that they are implemented.

Source: Wanlop Ploytabtim, Permanent Secretary of the Ministry of Social Development and Human Security, November 2006.

4. Strengthen families and communities. The social and economic development of the country need to take account of effects on the family and community. It has to support the creation of employment in local communities, to allow families to continue to live together. This will increase the likelihood that older people receive care from people within their families. Communities need to be strengthened through supporting the establishment of community groups and organizations to carry out social and economic activities. Emphasis needs to be given to the health of the population, based on mutual assistance.

5. Strengthen society, culture, and the environment in ways that promote the security of the aging society. Community institutions such as temples, schools, and village groups need to be revived. This will lead to greater cooperation, and to the strengthening of valued cultural traditions such as gratitude towards parents, observance of religious precepts, and respect for the aged. Public services need to be designed that they can be used safely by older people. The legal rights of older people need to be protected.

6. Increase elderly people's participation in development, at the community and national levels. Mechanisms need to be established so that society can benefit from the accumulated wisdom of the elderly. Educational institutions and community organizations can make an important contribution towards this goal. Policymakers should consider increasing the retirement age to make it consistent with demographic trends, with elderly people's need for work, and with the requirements of the market.All these policies are consistent with the strategies set out in the Second National Plan for the Elderly.

Mechanisms to achieve success

To prepare successfully for the aging society, many social sectors must cooperate and work effectively. The three most important are the researchers, the political system, and the general public.

Researchers need to study the problems faced by the elderly, to suggest possible solutions to these problems, and to evaluate the success of these solutions. Researchers appear to be giving adequate attention to aging, and many studies have already been completed. Most of these studies do not aim to make specific policy recommendations, but many nevertheless delineate the nature of current problems and needs. There is already a body of research that policymakers can use to guide policy.

The political system has responded very slowly to the issue of population aging. For instance, the process of developing the Elderly Act began in 1994, but the Act was not passed until 2003, almost 10 years later. More recently, policy development may have become faster, but a long-term savings scheme covering all types of workers has still not been developed.

Another problem is that work on the elderly is still divided across many government agencies. There are 16 government departments across 11 ministries who are responsibility for issues related to the elderly. Moreover, most government activity concerns the provision of social welfare. More attention needs to be paid to strengthening families and communities so that they can take responsibility for the elderly, or at least for their basic needs.

Building up appropriate mechanisms is still a slow process because of a lack of awareness and resources.

Addressing the issues of population aging depends on more than the strength of the individual institutions. It requires unity and cooperation. This requires further attention. Policymakers need to work more closely with researchers and civil society, so that policy is based on evidence produced by research and society.

Thailand needs to prepare itself for the arrival of the flowering of the lamduan flower. We must make sure that the flower is bright and healthy.

Grandma Tussana Jongpipien: Still going strong at 83

At 83, Grandma Tussana Jongpipien is still in fresh and vigorous, with no concerns and anxiety. It is immediately clear that she is an elderly person with excellent physical and mental health.

Many people who meet Grandma Tussana cannot resist asking her what the secret is to good health and long life.

"Genetics might play a part, since my mother lived to 102," answers Grandma Tussana, "But what is really important is exercising regularly since childhood."

When she was a high school student she was an athlete, specializing in 100 meter sprints. When young she went jogging from 3 - 5 am every day. After marrying, she continued playing sports, including golf, badminton. When she reached 50, she took up gentler forms of exercise and activities, such as, aerobics, dancing, and singing.

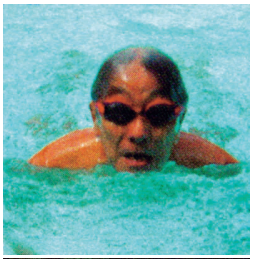
Another piece of advice is to maintain a positive attitude, to avoid stress, and to keep contact with friends. A very important factor for Mrs. Tussana is that she has a close family, including children and grandchildren who are grateful towards her. These things are a form of life-extending medicine.

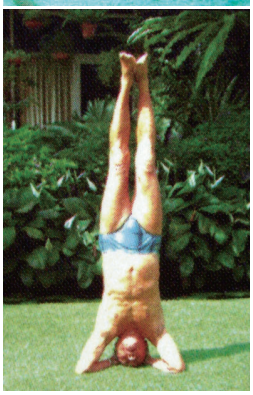
Work also contributes to her self-confidence. Most of the work she does is in the area of social services. Every day she works as a volunteer for diverse organizations, as she has done for 50 years. Through work she makes friends, gains experience and knowledge, and obtains happiness and satisfaction.

Mrs. Tussana appears to do every sort of volunteer work. She is a member committee member of the Brain Bank, a member of the National Women's Council, and has served on committees dealing with many issues, including floods, the tsunami, and conflict in Southern Thailand. She is dedicated to this sort of work, because it brings her happiness.

Even at age 83, Grandma Tussana continues working. In her free time, aside from looking after the house, reading, and following the news, she writes poetry. But what she enjoys the most is dancing and singing.

Exerted from interview, 25 February 2007.





Dr. Chek Dhanasiri: I want to get old and die at age 120

Dr. Chek Dhanasiri's name is well known, but not many people know the secret of having excellent health past age 80-of still seeming like a young man in body and mind.

In the past 40 years, Dr. Chek has never taken medicine and has had colds only twice. The most recent time was 10 years ago. He cannot remember any ailments more serious than a cold.

His method for maintaining such good health is not, in fact, a secret. Everyone can do it, if they pay sufficient attention to food, exercise, and attitudes.

"Eat like an elephant, a horse, a cow, a buffalo, a rhinoceros, or a giraffe." Dr. Chek appears to be joking, but in fact he means you should eat high fiber food, including lots of fruit and vegetables, and to avoid eating meat, especially in old age. You can then avoid illnesses. Dr. Chek says that rural people actually eat better than Bangkok people.

Dr. Chek emphasizes that exercise does not need to be expensive. Many types of work done by farmers, or by housekeepers, are good exercise. If bending over at work leads to a sore back, then passive exercise such as massage can help. Running, swimming, yoga, tai chi, and aerobics are all suitable for older people. What is important is to exercise regularly.

Dr. Chek certainly exercises regularly. Over the past 40 years, he has swum 7,900 kilometers. This statistic is displayed at the local swimming club. He also has countless trophies, especially for old people's competitions.

However, mental peace is also extremely important. Among older people, this can be found in religious practice. For Buddhists, this means observing the Five Precepts, and, ideally, practicing meditation. People can meditate anywhere, at home, at the temple, or at work. Exercising is also a form of meditation.

"When I swim for 30-40 minutes, it is like walking meditation-left, right, still. It gives me enormous energy."

"I am to live to 120." Fifteen years ago, I decided to get old and die at age 120.

Eat lots of fruit, vegetables, and fiber. Reduce consumption of fat and meat. Exercise regularly, and avoid stress. These are the keys to health and long life, according to Dr. Chek, who, even at age past 80, still does not recognize old age.

Exerted from interview, 7 November 2006

APPENDIXES: References

1. Dementia: An Epidemic on the horizon

Current Therapeutic Research. Clinical and Experimental.Lancet .2005. **Global prevalence of dementia: a Delphi consensus study**, Vol.366. December 2005.

Office of Welfare Promotion, Protection and Empowerment of Vulnerable Groups. Ministry of Social Development and Human Security.2005. **Situation Report on the Elderly in Thailand 2004**. Bangkok : Bureau of National Budha Press.

2. Occupational Health

Bureau of Epidemiology, Department of Disease Control, Ministry of Public Health. 2002. **Annual Epidemiological Surveillance Report 2002.**

Bureau of Epidemiology, Department of Disease Control, Ministry of Public Health. 2002. **Annual Epidemiological Surveillance Report 2003.**

Bureau of Epidemiology, Department of Disease Control, Ministry of Public Health. 2002. **Annual Epidemiological Surveillance Report 2004.**

National Statistical Office. 2006. **Report on Population Characteristics The 2005-2006 Surv ey of Population Change.** Bangkok: National Statistical Office.

Social Security Office, Ministry of Labour. 2006.(http://www.sso.go.th/knowledge/link/36-48.htm)

3. Mental illness

Department of Mental Health, Ministry of Public Health.2003. **The National Survey of the Prevalence of Mental Illness in 2003**.Nonthaburi: Department of Mental Health.

Porntep Siriwanarangsan. 2004.The National Epidemiology Survey on Mental Health in Thailand. **Jounal of Mentall Health of Thailand 2004**.12 (3).

Thoranin kongsuk, ed.2006.**องค์ความรู้โรคซึมเศร้า: ผลการทบทวนหลักฐานทางวิชาการ**.Nonthaburi: Department of Mental Health.

Thoranin kongsuk.2003.**The 2003 National Survey on Stress of Thai people**.Nonthaburi: Department of Mental Health.

4. Happiness

ABAC Poll Research Center, Assumption University. 2006. Monthly Report on the Happiness Indexes in Thailand, December 2006.

Aphisit Thamrongworrangkul, Thanthip Thamrongworrangkul.2006. **Sustainable Community Development for Quality of Life and a Healthy Environment.** Khon Kaen.

Conceptual Framework for the Development of a Happiness Index for Thai Society. Conference Proceedings, Thai Health Council, 2006.

Rossarin Gray, et al. 2006. **Happiness Indexes in Chainat and Kanchanaburi Provinces: Part of a Local Participatory Research Program for Addressing Poverty in Western Thailand.** N.p.: Nakornpathom.

The Centre for Bhutan Studies. 2004. Gross National Happiness: A New Development Strategy.Trans. Jaesani Sukjirudtikan. N.p.

The new economics foundation. **The Unhappiness index.** 2006. (http://www.happyplanetindex.org/survey.htm)

5. Risk factors for Cardiovascular Disease

Non communicable Disease and Mental Health. World Health Organization.2002. **Integrated Management of Cardiovascular risk.** Report of a WHO Meeting Geneva, 9-12 July 2002.

The Thai Working Group on Burden of Disease and Injuries, International Health Policy Program.2006.

Yaowarat Porapukham, et al. 2006. **The Third National Health Examination Survey in 2004.**

6. Risks from secondhand smoke

ABAC Poll Research Center, Assumption University. 2004. **Children's Attitudes towards parents who smoke: A case study of Year 2-4 students in Bangkok.**

Buppha Sirirassamee, et al. 2005. **International tabacco control policy (Thailand) adolescents survey wave (2005)**.Nakornpathom: Institute for Population and Social Research.

Mondha Kengganpanich, et al. 2005. **Implementation and Attitudes towards the Protection of Health of Non-Smokers Act 1992.** Tobacco Contro Research and Knowledge Management Center (TRC). Bangkok: Mahidol University.

Naowarut Charoencha, et al. 2006. **Global Air Monitoring Study : A multi-Country Comparison of Levels of Indoor Air Pollution in Different Workplaces.Results from Thailand May 2005.**

7. Hazardous waste

Department of Pollution Control, Ministry of Natural Resources and Environment. **Managing waste from fluorescent bulbs in Thailand.** (http://www.pcd.go.th/info_serv/haz_lamp.htm)

Department of Pollution Control, Ministry of Natural Resources and Environment. 2005.**State of Environment Report 2005.** The National Environment conference, Octorber 2005.

Department of Pollution Control, Ministry of Natural Resources and Environment.2006. State of Thailand's Pollution.(http://gendb.pcd.go.th/hers/)

Department of Pollution Control, Ministry of Natural Resources and Environment.2006. **Summary of Pollution in Thailand, 2001, 2004 , and 2006.**

Department of Pollution Control, Ministry of Natural Resources and Environment.2006. **State of Environment Report 2004.**

8. Food Supplements

Cabinet. 2004.**Report of Cabinet Conference in Strategic of Development of Herbal Medication Industry.**

Food Control Division. 2006. **คำถาม อาหารเสริมยี่ห้อ...ลดความอ้วนได้จริงไหมคะ กินแล้วจะมีอันตรายไหมคะ.** 13 February 2006. (http://www.qmaker.com/fda/new/web_cms/topic.php?top_ID=170&SubCol_ID=56&Col_ID=19&PHPSESSID=6411cefae676c1916426fe5a801e71).

Kaew Kangsadalampai, Tussanee Nanudorn. 2003. **แนวโน้มของผลิตภัณฑ์เสริมอาหาร ที่ส่งผลกระทบต่อสุขภาพและเศรษฐกิจ.** รายงานฉบับสมบูรณ์ ของ โครงการ สร้างสุขภาพอย่างไรไม่พึ่งอาหารเสริม.Vol 3.

Kaew Kangsadalampai, **สร้างสุขภาพอย่างไรไม่ต้องพึ่งอาหารเสริม.** รายงานฉบับสมบูรณ์ ของ โครงการ สร้างสุขภาพอย่างไรไม่พึ่งอาหารเสริม.Vol 6.

Kasikorn Research Center. 1999. **สมุนไพรไทย : อนาคตสดใส ... ในปี 2000. กระแสทรรศน์.** 5 (964). On 27 December 1999.

Kasikorn Research Center. 2000. **อาหารเสริมสุขภาพปี'44 : ตลาดจะขยายตัว...ต้องให้ความรู้ผู้บริโภค.** กระแสทรรศน์. (964). On 21 December 2000.

Kasikorn Research Center. 2003. **ยาสมุนไพรไทย อนาคตที่สดใส ทั้งตลาดใน และตลาดนอก.** Thai Economy Watch. 9 (1288), 27 June 2003.

Kasikorn Research Center. 2004. **Behaviour toward using Herbal Medication products for Treatment.**

Kasikorn Research Center. 2004. Spices and Thai Hearb. Manager Online. On 12 April 2004.

Kasikorn Research Center. 2005. **Behaviour toward using Herbal Medication products.** Executive Summary.

Kasikorn Research Center. 2005. Herbal Medication products in 2005: Market Price 48,000 Million baht.

Ministry of Public Health. 2005. **Food Supplement.** Food Act B.E. 2522.Ministry of Public Health Warnings (293), 2005. 15 December 2005.

Niyada Kiatying-Angsulee. 2003. **Measure of Control The New Food Supplement in Other Countries.** รายงานฉบับสมบูรณ์ ของ โครงการ สร้างสุขภาพอย่างไรไม่พึ่งอาหารเสริม. Vol 5.

Niyada Kiatying-Angsulee. 2006. **Survey of Food Supplement Advertising on Website.**

Niyada Kiatying-Angsulee. 2006. **บริโภคนิยม บริโภคสุขภาพ.** Ubonrat Siriyuwosuk, eds. Consumer Rights, Human Rights.

Tussanee Nanudorn.2003. **The Situation of Supporting Food Supplement Sale.** รายงานฉบับสมบูรณ์ ของ โครงการ สร้างสุขภาพอย่างไรไม่พึ่งอาหารเสริม.Vol 3.

Wanna Siwiriyanuphap. 2006. **การใช้ผลิตภัณฑ์เสริมอาหารเพื่อดูแลสุขภาพของสตรีสูงอายุในกรุงเทพมหานคร.** Thesis. Chulalongkorn University.

9. Consumer Protection

Foundation for Consumers. 2006.

Office of the Consumer Protection Board. 2006.

Food and Drug Administration. 2006.

10. Income, Savings, and Debt

National Statistical Office. 1998**Report of the Household Socio-Economic Survey 1998.** Bangkok: National Statistical Office.

National Statistical Office. 2000.**Report of the Household Socio-Economic Survey 2000.** Bangkok: National Statistical Office.

National Statistical Office. 2002.**Report of the Household Socio-Economic Survey 2002.** Bangkok: National Statistical Office.

National Statistical Office. 2004.**Report of the Household Socio-Economic Survey 2004.** Bangkok: National Statistical Office.

หวยบนดิน เป้าหมายล้างอิทธิพล. **The Krungthep turakij.** 17 October 2006 : 5.

11. The Sufficiency economy

Aphisit Thamrongworrangkul, Thanthip Thamrongworrangkul.2006. **Sustainable Community Development for Quality of Life and a Healthy Environment.** Khon Kaen. (http://sufficiencyeconomy.blogspot.com/2006/08/sufficiency-strategy-map.html)

Good Governance for Social Development and The Environment Institute. 2006. Summary of the development on Environment Sufficiency Economy Indicator. The Sufficiency Economy Conference: 23-27 November 2006. Kasetsart University.

Kasem Watanachai. 2006. การเรียนรู้ที่แท้และพอเพียง. Bangkok: Matichon Publishing House.=Thaipat Institute. 2006.

12. Thai young people gambling to get rich quick

ABAC Poll Research Center, Assumption University. 2005. **การสำรวจภาคสนามเรื่อง โครงการวิจัยเพื่อเฝ้าระวังรักษาคุณภาพเยาวชนไทยกับปัจจัยเสี่ยงต่อออบายมุขและสิ่งเสพติด รอบสถาบันการศึกษา.**

Amornwit Nakhontap, et al. 2005. **Child Watch 2004- 2005.** The Ramchit Institute supported by the Thai Health Promotion Foundation and the Thai Research Fund.

Amornwit Nakhontap, et al. 2005. **เด็กไทยในมิติวัฒนธรรม.** Child Watch, Ministry of Culture.Bangkok: National Coalition for the Protection of Childrn and Families.

Amornwit Nakhontap, et al. 2006. **การสำรวจวัฒนธรรมการใช้ชีวิตของเยาวชนในเรื่อง ชีวิตกับความเสี่ยง.** The Ramchit Institute, Ministry of Culture.

Kasikorn Research Center. 2006. (www.krc.co.th/tfrc/cgi/ticket/ticket.exe/948329012 9/tfrc/thai/research/res06/jun/lbus874.htm.)

Suan Dusit Poll .Thai people betting on football: a survey on 1-4 May 2006. (http://dusitpoll.dusit.ac.th/2549/2549_040.html)

13. Thai Young People in the Cyber Age

ABAC Poll Research Center, Assumption University. 2005. **Survey of Use of Games by Children and Young People.**

ABAC Poll Research Center, Assumption University. 2006. (http://www.abacpoll.com).

ABAC Poll Research Center, Assumption University. 2006. **การสำรวจความคิดเห็นของเยาวชนในสถานการณ์ปัญหาการคุกคามทางเพศและเพศสัมพันธ์ในกลุ่มเยาวชน.** (http://www.abacpoll.com).

Amornwit Nakhontap, Chulakorn Masethienwong. 2006.**รู้สาร ทันสื่อ : แนวคิดและแนวทางการเสริมสร้างสุขภาวะและการเรียนรู้เรื่องการรับสื่ออย่างมีคุณค่าด. เอกสารชุดแนวคิดและแนวทางการเสริมสร้างสุขภาวะและการเรียนรู้เพื่อเสริมสร้างสุขภาพและทักษะชีวิตให้แก่เด็ก.**

Media Monitor.2005.(http://www.mediamonitor.in.th/)

National Statistical Office. 2006. **Report on the Survey of Information Technology 2006.** Bangkok: National Statistical Office.

The Ramchit Institute, Child and Adolescent Mental Health Rajanakarindra Institute. 2006. **รายงานการสำรวจ พฤติกรรมการเล่นเกมในวัยรุ่น และการดูแลลูก ๆ กับการเล่นเกม**

The Ramchit Institute, Ministry of Culture. 2005. **Survey of the Culture and Lifestyle of Children.** Bangkok: National Coalition for the Protection of Childrn and Families.

The Ramchit Institute, Ministry of Culture. 2006. **Survey of the Culture and Lifestyle of Children.**

The Ramchit Institute, the Thai Health Promotion Foundation ,and the Thai Research Fund.2005. **The Strategic for Development Children and families.** Child Watch. 2004-2005.

The Thai Health Promotion Foundation. (http://www.thaihealth.or.th/).

14. Educational inequalities

Ministry of Education. (http://www.moe.go.th/data_stat/).

National Statistical Office. 2002.**Survey of Children and Youth 2002.** Bangkok: National Statistical Office.

National Statistical Office. 2006.**Report on Population Characteristics The 2005-2006 Surv ey of Population Change.** Bangkok: National Statistical Office.

Vichean keatsing. The Average Education Year in 2004-2005. (http://www.moc.moe.go.th/Download/write/Learning_Agv.pdf)

10 Health Issues

(1). Should the Government Keep the Two- and Three-Digit Lotteries ?

คนไทยติดทั้งหวยบนดิน-ใต้ดิน ผู้มีรายได้ต่ำ การศึกษาน้อย อายุเยอะ ชอบเสี่ยงสุด. Thairath. 6 December 2006.

ขงเลิกรางวัลแจ็กพ็อต 'หวยบนดิน' ปลัด ยธ.ระบุ "มอมเมา". Dailynews. 6 October 2006.

เด็กกรุงเทพฯ-ปริมณฑลครองแชมป์เล่นหวยบนดิน. Bangkokbusiness. 4 December 2006.

ได้เวลาเดินหน้าหวยออนไลน์ ริ้อระบบหวยบนดิน แก้กติกาจ่ายรางวัล. Manageronline. 19 November 2006.

ทีดีอาร์ไอหวั่นสังคมแตกแยก แนะศึกษาพฤติกรรมการเล่นหวย ก่อนชูธงค้านหรือเดินหน้าหวยบนดิน. Posttoday. 23 November 2006.

ท่าทีคลังต่อ หวยบนดิน ท่าทีไม่จริงใจที่จะแก้ปัญหา ห่วงทั้งกระแสห่วงทั้งรายได้. Matichon. 24 November 2006.

ปลัด ยธ. แนะไอเดีย ออกหวยเดือนละงวดเดียว. Thairath. 21 November 2006.

ปั๊ว-เดินโพยโวยแหลก ปชป. จี้รัฐเอาผิดทักษิณ คตส. ฮึ่มลับมีดรอเชือด. Dailynews. 19 November 2006.

ผีหวยเฮี้ยนไม่เลิก 70% ยอมให้หลอก. Thaipost. 13 December 2006.

ไฟเขียวหวยบนดิน แก้กฎหมายส่งรายได้เข้ารัฐ. Available from http://www.prachatai.com 22 November 2006.

รัฐตั้งทีมรณรงค์ละเลิกเล่นหวย เน้นเด็ก-คนจนเป็นเป้าสำคัญ. Komchadleuk. 29 November 2006.

รัฐบาลถอยดีกว่า กม. หวยบนดินเว้นยาว. Thairath. 1 December 2006.

เราจะจัดการเรื่อง หวย อย่างไรดี. Bangkokbusiness Bizweek. 15 December 2006.

"หม่อมอุ๋ย" ลั่นเลิกหวยบนดิน หากกฤษฎีกายืนยันล้างมลทิน. Matichon. 12 January 2007.

หมื่นล้าน...กำไรหวย ถังข้าวสาร..นักการเมือง. Matichon. 23 November 2006.

หวยบนดิน. Khoasod. 27 November 2006.

หวยบนดิน-ทางออกสู่ภาคสังคม. Manageronline.18 February 2550.

หวยใต้ดิน...ไม่มีวันตาย. Prachachart Business. 1 June 2006.

เสนอ รมว.ยุติธรรมเลิกปลัดคลังขี้แค่ความเห็นกองสลากผวา-ยอดวูบ. Dailynews. 6 October 2006.

555 ตำรวจเสยะยิ้ม "หวยใต้ดิน" ฟื้นคืนชีพ!. Manageronline. 20 November 2006.

Field survey Policeman and lottery vender in public eye : A case study of people in Bangkok and province. Available from: (www.abacpoll.au.edu/policereform/academic/Resdoc.html)

Field survey "Underground lottery" VS "Ground lottery" in Thai public eye. Available from: (http://dusitpoll.dusit.ac.th/2546/2546_399.html)

(2). From Chat Room to Video Clips and Camfrog: Getting to Know Online Life

คลิปฉาวโผล่อีก! 5 นักเรียนชายรุมโทรม 2 นักเรียนหญิง ม.ต้น. Dailynews. 28 June 2006

คลิปโป๊ ภัยร้ายจากเทคโนโลยี. Manageronline. 28 November 2006.

จับเณรมารศาสนา แชทลวงนักศึกษา ขยี้กาม ในกุฏิวัด. Dailynews. 2 August 2006.

จี้จัดระเบียบทีวีสาธารณะสกัดมิวสิคโป๊. Komchadleuk. 5 December 2006.

โจ๋ไทยนับแสนแห่เล่น "แคมฟร็อกโซว์ลามก". Khoasod. 18 December 2006.

7 โจ๋โทรม ม.2 อัดวีดิโอแจก แพร่เว็บไซต์ ร.ร. Khoasod. 29 July 2006

แชทไลน์ ธุรกิจสีเทาที่ต้องการคำตอบ...Matichon. 4 July 2006.

แชทเสียว ภาพสะท้อนของสังคมทราม. Matichon. 5 June 2006.

ตะลึง!! คนไทยเล่นเว็บ "แคมฟร็อก" มากเป็นอันดับ 3 ของโลก. Bangkokbusiness. 19 December 2006.

พระครู-สาวใหญ่ คลิปโผล่บนเตียงในรีสอร์ต. Khoasod. 29 June 2006.

ประสบการณ์ "แคมฟร็อก" โปรแกรม โชว์สด บนเน็ต. Matichon weekly. 16-22 February 2007. p100.

ภัยออนไลน์ระบาดหนัก โจ๋ไทยรับ-เล่นเน็ตหาเซ็กส์! Khoasod.14 February 2007.

มหันตภัยโลกไซเบอร์ !!! บทเรียนสอนใจ เตือนภัยคนชอบแชท. manageronline. 15 May 2006.

รวบมือแพร่คลิปโป๊ แบล็กเมล์อดีตแฟน. Komchadleuk. 15 May 2006.

รู้ตัว-โป๊ camfrog 10 สาวซ่าตะลึง-สาวออฟฟิศ. Khoasod. 2 December 2006.

สลด! เด็กหญิง 11 ขวบถูกขืนใจตกเป็นเหยื่อคลิปมือถือ!. Manageonline. 13 November 2006.

อัลบั้มภาพออนไลน์...เมื่อ สมบัติส่วนตัว กลายเป็นสาธารณะสมบัติ Manageronline. 28 November 2006

Nattaya Boonpakdi. Sexual abuse.. online or offline? .World today. 19 May 2006.

National Statistical Office. Preliminary report of the 2005 Information and Communication Technology Survey.(Household) 2006.

http://th.wikipedia.org. 28 January 2550.

(3). The "Facts about Medicine" Announcement: The Conflict between the Rights of Doctors and the Rights of Patients

Chumsak Pruksapong. "ยุ่งนักก็อย่ารักษา". Thailand Medical time. 16-31 December 2005. p 45.

Jade Donavanik. Manageronline. 17 December 2006.

Matichon. 7 December 2006.

Matichon. 11 December 2006.

Matichon. 17 December 2006.

Posttoday. 16 December 2006.

Pradit Jaroenthaitawee. Posttoday.18 December 2006.

Saree Ongsomwang anf Nirun Pitakwatchara. Thaipost. 18 December2006.

Somsak Lohlekha. "The Medical fact dratting" Interviewed Document from the Chulalongkorn University radio station. 18 May 2006.

The Medical Council of Thailand. An announcement on Medical facts. 30 November 2006.

The Medical Council's regulation about ethic on medical treatment 2006. The government gazette.p 25. Vol.123 Part 115 d.

(4). Thai Children and Danger from Sex: More Protection Needed

กทม.ตีกลับผลสอบครูข่มขืนเด็กสั่งสอบเพิ่มให้เวลาอีก 7 วัน. Dailynews. 22 August 2006.

2 ครูสาบานหน้าพระหลวงพ่อโสธร ยันบริสุทธิ์ไม่ได้ข่มขืนเด็ก. Dailynews. 16 August 2006.

จ่อรวบ 11 โจ๋รุมโทรม ม.3 รอผล รพ. มัด. Komchadleuk. 21 November 2006.

จับแล้ว 6 ใน 30 ทรชนหื่นข่มขืน 2 เด็กสาว. Dailynews. 15 March 2006.

จับแก๊งหื่นโทรม น.ร.หญิง-ถ่ายคลิป. Khoasod. 1 September 2006.

จับแก๊งโจ๋-ข่มขืนถ่าย "คลิป" ดญ.14. Khoasod. 23 November 2006.

จับจ้องมองเด็กไทย ข่าวดี-ข่าวร้ายปี 2006. manageronline. 29 December 2006.

ดญ.วัย 14 โดน 4 โจ๋รุมโทรมดับอนาถ. Khoasod. 4 September 2006.

รวบแล้ว 3 เยาวชนขืนใจ-ถ่ายคลิป ป.6. บ้านเมือง. 15 November 2006.

สถานศึกษาต้องสร้างกลไกเชิงระบบเพื่อสู้ปัญหาข่มขืน. Posttoday. 19 August 2006.

สถิติความรุนแรงต่อเด็ก-สตรีพุ่ง ตะลึง! ทุก 15 นาทีมีเหยื่อถูกข่มขืน 20 คน. Dailynews. 8 December 2006.

สถิติคดีอาญาที่น่าสนใจรายเดือนทั่วราชอาณาจักร Available from: http://www.police.go.th/statistic/dn_main.htm.

49 สถิติวัยโจ๋ก่อความรุนแรง-ปัญหาทางเพศเพิ่มขึ้น 3 เท่า. Dailynews. 10 January 2007.

สลดสังคม!! พ่อพิมพ์ของชาติขอมีเซ็กซ์กับนร. แลกเกรด. Dailynews. 10 September 2006.

อภิรักษ์คลอดกฎเหล็กป้องกันละเมิดทางเพศเด็กใน ร.ร. Thairath. 16 August 2006.

(5). Repeated Flooding: A Worsening Natural Disaster

กก. ทรัพยากรน้ำ เตรียมเสนอ ครม. อนุมัติแผนแม่บทบรรเทาอุทกภัย 24 ต.ค. นี้. Naewna. 20 October 2006.

ผู้ประสบภัยเครียดจัด สธ. จัดทีมฟื้นฟูสภาพจิตใจ. Matichon. 6 November 2006.

พิษ "น้ำท่วม" นาน 7% คิดฆ่าตัวตาย. Banmuang. 11 November 2006.

ภัยน้ำท่วม ร้ายกว่าที่คิด. Khoasod. 18 October 2006.

...มันมากับน้ำท่วม!!! ระวัง...5โรคร้ายระบาดหนัก. Naewna. 18 October 2006.

รายงานเสวนา: โลกร้อนกับเอเชียตะวันออกเฉียงใต้. Available from: (http://www.biothai.net/autopage1/show_page.php?t=16&s_id=47&d_id=46)

"โลกร้อน"กับเมืองไทย ใครว่าเป็นเรื่องไกลตัว. Khoasod. 3 January 2006.

สธ.ชี้พบผู้ป่วยจากภัยน้ำท่วมพุ่งกว่า 700,000 ราย. Manageronline. 19 November 2006.

สธ. เสนอของบ 141 ล. ช่วยหลังน้ำลด พบชาวบ้านคิดฆ่าตัวตาย 72 ราย. Dailynews. 16 December 2006.

สูญเสีย-ซึมเศร้า-คิดสั้น "ฆ่าตัวตาย" อุทกภัย..ตลายสึนามิ. Dailynews. 26 October 2006.

แสงสินธุ์ กิจตั้งจรัส. มหันตภัย "น้ำท่วม" ทางออกที่ "คลองขุด". Matichon. 26 December 2006.

Cabinet resolution . 7 November 2006. Available from: (http://www.thaigov.go.th)

Cabinet resolution . 26 December 2006. Available from: (http://www.thaigov.go.th)

http://www.moph.go.th/show_hotnew.php?idHot_new=2860. 9 January 2006

Office of the National Economic and Social Development Board. Social outlook vol.4 December 2006. p12.

Summary of the public danger situation on May 2006 Department of Disaster Prevention and Mitigation, Ministry of Interior. Available from: (http://www.disaster.go.th).

Summary of the public danger situation on July 2006 Department of Disaster Prevention and Mitigation, Ministry of Interior. Available from: (http://www.disaster.go.th).

Summary of the public danger situation on August 2006 Department of Disaster Prevention and Mitigation, Ministry of Interior. Available from: (http://www.disaster.go.th).

Summary of the public danger situation on November 2006 Department of Disaster Prevention and Mitigation, Ministry of Interior. Available from: (http://www.disaster.go.th).

(6). The Fire in the South Continues after the Coup

ความเหมือน ในความต่างรัฐบาลสุรยุทธ์-ทักษิณ กับ "ไฟใต้" ที่ยังไม่สงบ. Matichon weekly . 23 February 1 March 2007. p11.

คิงดอมออฟเฟียร์ (1) เมื่อย่ำค่ำ ฆาตรกรก็มาเยือน. เทศมองไทย. Matichon weekly. 3-9 February 2006.

ทหารเปิด 4 มาตรการดับไฟใต้ เชื่อปี 50 สถานการณ์ทุเลา. Bangkokbusiness. 8 January 2550.

ไทยพุทธปิดถนนท้างรัฐต้านกฎหมู่แลกผู้ต้องหา. Posttoday. 28 December 2006.

พระใต้ผวา งดบิณฑบาต. Thaipost. 12 November 2006.

"พลเอกสนธิส่งคนหารือกลุ่มป่วนใต้แต่ไม่ใช่การเปิดโต๊ะเจรจา". Posttoday. 5 October 2006.

แพทยสภาเบรก "ม.นราธิวาส" ผลิตหมอ อ้างไม่ตั้งคณะวิทย์ฯ-ไม่ได้ร่างหลักสูตร. Matichon. 20 December 2006.

ไฟใต้ทำชาวบ้านป่วยโรคทางจิตเพิ่มจากความเครียด หวาดระแวง. Manageronline. 27 December2006

ตั้งพระนาย นั่ง ผอ.ศอ.บต. ขยายจว. ชายแดนใต้เป็น 5 จังหวัด. Matichon. 3-9 November 2006.

มหาธีร์เผยแผนสันติภาพ เจรจากลุ่มป่วนใต้. Bangkokbusiness. 9 October 2006.

หนีภัยโจรใต้ ยกช่องไปมาเลย์ นักเที่ยวไม่ข้ามมา สาวไทยบุกกลับตัน. Khoasod. 28 August 2006.

วัยรุ่นติดอาวุธ นักรบใหม่ในภาคใต้. Matichonweekly. 1-9 December 2006. p 37.

หมอประเวศเชื่อดับไฟใต้ ไม่เหมือนการเปิดสวิตช์ไฟ. Thairath. 21 November 2006

"สุรยุทธ์ลงใต้ให้เลิกบัญชีดำ". Thairath. 9 November 2006.

องค์กรสิทธิ์เรียกร้องผู้ก่อความไม่สงบ หยุด! ใช้พลเรือนเป็นเป้า. Issara news institute. Thai Journalist Association . 17 November 2006. (Available from:http://www.tjanews.org)

Interviewing Information from Wanlee Dhamakosit . The director of Mental Health center 15 Songkla.19 January 2550.

http://www.tjanews.org/cms/

http://www.moph.go.th/news_ole.php?idNews=01&select_page=13&current=14

Srisompob Jitpiromsri. 2006. "32 months of violence in south: Report situation 1 January 2004 - 31 August 2006". Political science faculty. Prince of Songkla University, Pattani campus.

(7). Thai Students and Violence in Schools

ตะลึง ผลวิจัยสุขภาพ เด็กไทยด้อยสติปัญญา-ฮิตความรุนแรง. Matichon. 1 November 2006.

ตะลึงวัยรุ่นไทยกว่า 10 % อยู่ในวัฏจักร ตบ-ตี-ตื้บ. Matichon. 28 June 2006.

น.ร. หญิงตะลุมบอน ตบกันนัว แย่ง ม. 5 ลูกชายเลี่ยง. Thairath. 19 February 2006.

นักเรียนหญิงชั้นมัธยมตบแหลกแย่งแฟนหนุ่ม กัดดิ่งหูเลือดสาด. Komchadleuk. 15 February 2006.

นิธิ เอียวศรีวงศ์. "มาอีติ๋ม เย็นนี้เจอกัน". Matichonweekly. 14-20 July 2006.

โรงเรียนคุ้มครองเด็ก ลดปัญหาการรังแกกันในเด็กนักเรียน. Matichon. 27 June 2006.

สังคมตื่นตะลึง น.ร. หญิงเลือดเดือด จิกหัวตบ-กระทืบซ้ำ อัดโชว์ คลิปวิดีโอ. Matichon weekly. 23-29 June 2006 : p 97

สื่อโทรทัศน์กับการใช้ความรุนแรงในกลุ่มเยาวชน: กรณีศึกษานักเรียน/นักศึกษาในเขตกรุงเทพมหานคร. Abacpoll Assumption University 5-21 June 2006.

สรุปสถานการณ์เด็กไทยปี 48-49 ตะลึง วัยรุ่นอายุต่ำกว่า 19 ทำคลอดวันละ 200 คน. Matichon. 28 December 2006.

ห่วงเด็กประถมทำร้ายกันมากขึ้น. Matichon. 28 June 2006.

Sombat Tapanya. 2006. Attitude survey toward discipline behavior promotion of the teacher to student. Research report submitted to National Health Foundation.

Sombat Tapanya. 2006. Investigation of violence in schools. Research report submitted to National Health Foundation.

(8). The National Health Act: From Concept to Implementation

สนช.ไฟเขียวพรบ.สุขภาพ ให้สิทธิการตายผู้ป่วยโคม่า-หมดทางรักษา Naewna. 5 January 2007.

สภาผ่านร่าง พ.ร.บ.สุขภาพแห่งชาติ สมเกียรติเตือนระวังการุณยฆาต. Matichon. 5 January 2007.

Ampol Jindawattana. 2000. ปฏิรูประบบสุขภาพ ทำไม อะไร อย่างไร. Nontaburi: National Health System Reform office.

Ampol Jindawattana. 2007. เกาะติดสนช. เฝ้ารอพ.ร.บ.สุขภาพ: จดหมายเปิดผนึกฉบับที่ 20. Mimeograph.

National Health System Reform Office. 2006."กว่าจะถึงวันนี้ของร่างพ.ร.บ.สุขภาพแห่งชาติ" ใน Matichon weekly. 6-12 January 2006.

National Health System Reform committee. 2002. หนึ่งปีปฏิรูป: หนึ่งปีแรกของการปฏิรูประบบสุขภาพแห่งชาติ. Nontaburi: National Health System Reform office.

National Health System Reform Office. 2002. Thai Health Charter. Nontaburi: National Health System Reform office.

http://www.mohanamai.com/program/index.php?Category=document

Kritaya Archavanitkul, Prapart Pintobtang and Kullapa Vajanasara. 2005. Synthesis report on learning process of health assembly in movement public policy. Research submitted to Thai Health Promotion Foundation.

Prawes Wasi. 2546. การปฏิวัติเงียบ: การปฏิรูประบบสุขภาพ. Nontaburi: National Health System Reform office. P.30-35.

Teerayuth Boonmi. 2002. Review: วิจารณ์ พ.ร.บ.สุขภาพแห่งชาติ. Mimeograph. p 10.

(9). Banning Alcohol Advertising: A Long Way to Go

กีฬาไทยโอดไร้เงินขาดใจ ห้ามโฆษณาเหล้ากระเทือนหนักแน่ Komchadleuk. 18 October 2006.

แข่งเรือยาวตายสนิทเจอก.ม.คุมเหล้า-เบียร์. Komchadleuk. 24 October 2006.

ครม.ตีกลับกม.คุมเหล้า สุรยุทธ์ชี้ห้าม 25 ปีทางปฏิบัติท้ายาก Komchadleuk. 18 October 2006.

ครูเพลงอีสานโต้รัฐ งดเหล้าผ่านสื่อไร้ผล. Komchadleuk 23 October 2006.

ตีกลับ พรบ.คุมสุรา ทบทวน ต่ำกว่า 25 ห้ามซื้อ Thairath. 18 October 2006.

"ต่ำกว่า 20 ปีห้ามซื้อ-เพิ่มภาษี2% "มติ 7 รมต.กำหนดในพ.ร.บ.เหล้า" Komchadleuk. 24 October 2006.

ทักษิณ ต้านเสียงกลุ่มทุนน้ำเมาไม่ไหว เบรก "พินิจ จารุสมบัติ" ฐานเศรษฐกิจ. 16 February 2006.

ธุรกิจน้ำเมาในอุ้งมือรัฐ บีบก็ตาย คลายก็รอด Thaipost. 22 October 2006.

วิจัยพบขี้เมาขับรถวันละ 1.5 ล้านคน เสี่ยงเจ็บ-ตายทุกนาที. Bangkokbusiness. 15 January 2550.

หมออนามัยชู่ล่าชื่อ10ล้าน สนับสนุนคุมโฆษณาเหล้า. Matchon.1 December 2006.

2 กฎหมายคุมเหล้าเข้าสภานิติบัญญัติ 28 สนช.เสนอ 14ก.พ.นี้ประกบร่าง รบ. Matichon. 10 February 2007

Bandit Sornpaisarn. Et al. 2005. Evolution of Policy on controlling alcohol problem in Thailand. Bangkok: Center for Alcohol Study. p 6-7.

(10). Compulsory Licensing of Three Drugs: Thai People's Right to Life is More Important than Profits

ไทยประกาศความเป็นไท ด้วยการบังคับลดราคายาเอดส์. Posttoday. 12 December2006.

บริษัทยาประกาศหยุดลงทุนในไทย ตอบโต้ สธ.ลุยผลิตยาติดสิทธิบัตร. manageronline. 25 January 2007.

หมอไร้พรมแดนกร้าว สหรัฐอย่าขวางรัฐบาลชิงแก้ไข้มาตรการผลิตยาถูกให้ผู้ติดเชื้อ,ประชาไท. 6 January 2550.

"หลักเกณฑ์และอัตราสำหรับประโยชน์ทดแทนกรณีผู้ประกันตนที่ติดเชื้อ HIV และผู้ประกันตนที่เป็นโรคเอดส์". ประกาศคณะกรรมการการแพทย์ตามพระราชบัญญัติประกันสังคม. Mimeograph.

วิภาคแห่งวิพากษ์. "กรณีบังคับใช้สิทธิ สาธารณสุขยุคหมอมงคลกับบรรษัทยาข้ามชาติ" Matichon. 15 February 2007.

อียูร้องทัก "มาตรการบังคับใช้สิทธิ" ดอกไม้แด่ผู้ป่วย ก้อนหินถึงบริษัทยา (ข้ามชาติ). Matichonweekly. 16-22 February 2007. p14.

National Health Security office. "เลขา สปสช. ย้ำสิทธิมนุษยชนต้องอยู่เหนือการค้าในการบังคับใช้สิทธิบัตรยาเอดส์". 29 November 2006. Mimeograph.

Facts and evidence on the 10 burning issues related to the government use of patents on three patented essential drugs in Thailand . Document to support strengthening of social wisdom on the issue of drug patent. Ministry of Health. Available from: http://www.moph.go.th. Cited 7 February 2007.

Wittaya Kulsomboon, Satitpong Tanawiriyakul and Wasan Pinyowiwat. 2004. "การวิเคราะห์ต้นทุนผลได้เพื่อรวมสิทธิ ประโยชน์การให้ยาต้านเชื้อไวรัสเอชไอวีในระบบประกันสุขภาพถ้วนหน้า" Journal of Health Science13(6):1022-1033.

Wittaya Kulsomboon. 2007. "ใช้สิทธิผลิตยาเพื่อสมดุลย์การค้าและสุขภาพ". Consumer protection on health Project. The document published on the midnight university website. (http://www.midnightuniv.org)

Four Notable Thai Contributions to the Health of Thais

(1) Innovative Wheelchairs for Disabled and Elderly People

- รถเข็นไฟฟ้าติดจอยสติ๊กช่วยผู้พิการสัญจรปลอดภัย. Bangkokbusiness. 21 December 2005.
- รถเข็นไฮเทคช่วยคนพิการ ควบคุมผ่านจอยสติ๊กสั่งรถเลี้ยว-ข้ามสิ่งกีดขวาง. 22 December 2005

(2) Progress in Protecting Thais from Bird Flu

- กรมวิทย์คิดค้นชุดทดสอบไข้หวัดนกสำเร็จ. Matichon, 6 September 2006.
- กรมวิทยาศาสตร์การแพทย์ พร้อมผลิตวัคซีนหวัดนก "พันธุ์ใหม่", Ministry of Health. 18 August 2006.
- นักวิจัยไบโอเทค- จุฬาฯ สังเคราะห์สารตั้งต้นยาต้าน "หวัดนก" ได้เอง. Manageronline . 3 August 2006.
- ไบโอเทคจับมือศิริราชพัฒนาวัคซีนต้านหวัดนก เสนอตั้งโรงงานผลิต. Manageronline. 20 December 2006.
- หวั่นไข้หวัดนกระบาดใหญ่ อาจคร่าชีวิตคนถึง 62 ล้าน. Thairath . 25 December 2006.
- Flu 'could wipe out 62 million'. http://news.bbc.co.uk/1/hi/health/6 99717.stm.
- http://www.who.int/csr/disease/avian_influenza/country/cases_table_2007_01_12/en/index.html.

(3). Work to Develop a Vaccine for Dengue Fever is Almost Finished

- เม็ดแบคทีเรียกำจัดลูกน้ำ ผลงานกรมวิทย์ ช่วยตัดตอนไข้เลือดออก. Komchadleuk, 20 June 2548.
- National Center for Genetic Engineering and Biotechnology. 2005. จากความรู้สู่การป้องกัน : กรณีระบาดไข้เลือดออก. The downloaded Document from www.biotec.or.th
- Bureau of Vector Borne Disease. Department of Disease Control. Situation of Dengue Infection, 52 th week December 2006. htpp://dhf.ddc.moph.go.th.
- Apiwat tawatsin, Usawadi Tawara and Yenjit Techadamrongsin. Kamin chan : Its effective for protecting the mosquito. Health Sciences Research Institute. Department of Medical science.

(4). Thai Students Win an International Competition to Build a "Independent" robot

- เด็กไทยสร้างความสำเร็จเป็นครั้งแรก คว้าแชมป์โลก หุ่นยนต์กู้ภัย "World Robocup Rescue 2006" ที่เยอรมนี. 19 June 2006. wwwsiamcement.com/newsite/th.
- ทีมนักประดิษฐ์ หุ่นยนต์กู้ภัย ไปเยอรมนี ถึงเวลาโชว์ ไอคิวเด็กไทย ให้โลกทึ่ง!!! Matichon 7 June 2006
- เบื้องหลังความสำเร็จ หุ่นยนต์กู้ภัย ฝีมือเยาวชนไทยในเวทีโลก. Thairath. 3 July 2006.
- Robot Community. http://www.tpa.or.th/robot/index.php?option=com_frontpage&Itemid=1
- Thai Robotic Society. http://www.trs.or.th/.
- Thailand Rescue Robot 2006. http://www.rescue.eng.kmitnb.ac.th/.

The Scent of the Lamduan Flower: Preparing for an Aging Society

Apinya Wechayachai. 2001. The evaluation of the allowance for the elderly. Nonthaburi: Health Systems Research Institute.

Bureau of Empowerment for Older Persons. 2003. Report on the 2002 survey of elderly in Thailand.

Bureau of Empowerment for Older Persons. 2005. Situation of the Thai elderly for the year 2004. Bangkok: Office of National Buddhism

Bureau of Empowerment for Older Persons. 2006. Situation of the Thai elderly for the year 2005. Bangkok: Office of National Buddhism.

Chatchanee Chantacharoonpong and Vithan Charoenphon. How the money-saving could help economic growth and Thai stock market . The SET NOTE article. The Stock Exchange of Thailand. Available from: http://www.set.or.th/setresearch/setnote_p1.html. (15 November 2006).

Chek Dhanasiri. 2002. How are the Thai medical services for the future?. Bangkok: The Kenetic Company.

Chiraluk Jongsathitman, Pornprapa Sinthunawa and Naphat Sirisamphan. 2000. An evaluation of governmental homes for the aged: case studies of the three homes for the aged. Nonthaburi: Health Systems Research Institute.

Chor Chayin Petchayapaisit. 2001. The guidelines and level measures relating to the older person's welfare in Thailand. Nonthaburi: Health Systems Research Institute.

Ghazy Mujahid. 2006. Population Ageing in East and South-East Asia: Current Situation and Emerging Challenges. Bangkok : UNFPA Country Technical Services Team for East and South-East Asia , 2006. (Papers in Population Ageing : No. 1)

Institute for Population and Social Research. Mahidol University Population Projections for Thailand, 2005-2025. Nakhonpathom: Institute for Population and Social Research, Mahidol University

John Knodel and Chanpen Seangtienchai. 2005. Rural Parents with Urban Children: Social and Economic Implications of Migration on the Rural Elderly in Thailand. Population Studies Center research Report . (Online). (cited 2006 Aug 23); Available from : URL: www.globalaging.org/ruralaging/world/2005/urban.pdf

Jitapunkul, S., Kunanusont, C., Phoolcharoen, W. and Suriyawongpaisal, P. (1999) Health Problems of Thai elderly (A National Survey), Bangkok: National Health Foundation and Ministry of Public Health.

Jitapunkul, S., Chayovan, N. and Yodpetch, S. (eds) 2001. Elderly in Thailand: An Extensive Review of Current Data and Situation and Policy and Research Suggestion, Bangkok: The Thailand Research Fund.

Merril Silverstein, Zhen Cong and Shuzhuo Li. 2006. Intergenerational Transfer and Living arrangements of Older People in Rural China: Consequences for Psychological Well-Being.

Journal of Gerontology: Social Sciences 2006. Vol. 61B, No.5, S256-S266.

Office of National Economics and Social Development Board, 2005. Strategy framework for preparedness Thai society for aging. Priminister office.

Office of National Economics and Social Development Board. 2006. The Tenth National Economic and Social Development Plan 2007-2011. Priminister office.

Ogawa, Naohiro and Robert Retherford, D. 1993. Care of the Elderly in Japan: Changing Norms and Expectations. Journal of Marriage and the Family. 55(3):585-597.

Ogawa, Naohiro and Robert Retherford, D. 1997. Shifting Costs of Caring for the Elderly Back to Families in Japan: Will It Work?. Population and Development Review. 23:59-94.

Pattama Vapatanawong. 2006. Aging population in Thailand. (Unpublished Manuscript)

Pramote Prasartkul. 2006. "Centenarians" or Population aged over 100 years old in Thailand,. (Unpublished manuscript)

Pra Dharmapitok (Por.Or.Payutto).1996. Dharmma for elderly. Bangkok: Bhuddhadham foundation.

Rakchanyaban, Uthaitip. 2004. Active life expectancy among the Thai Elderly Population. doctoral dissertation. Faculty of Graduate Studies, Mahidol University.

Samrit Srithammrongsawas. et.al. 2006. The pattern of long-term health care by community for elderly. International Health Policy Proram.

Sasipat Yodpet . 2006. Development system for Long term care in family of elderly. Documentary for meeting. 13 July 2006, Royal River Hotel. Bangkok.

Sirintorn Chansirikanjana. 2006. Long-Term care at home for developing a quality of life for Thai elderly. Documents for meeting on the public policy for good quality life of elderly. 13 July 2006. The Royal river hotel Bangkok.

Siriphan Sasat and Tuenjai Pukdeeprom. 2006. The knowledge review project: the formal aging caregiver in Thailand. Bangkok: The Thailand Research Fund.

Social Security Office. 2006. Annual report 2005. Nonthaburi: Social Security Office.

Somchai Ruechupan and Surassawadee Hoonpayont. 2005. The study project of risk and social effect for informal labor: Preliminary Feasibility of Savings and Pension System Options. Fiscal policy office. Ministry of Finance.

Sukanya Nitungkorn and Nongnuch Soothornchawakan. 1999. Resource allocation for improving quality of life of the aged: a proposed guideline. Nonthaburi: Health Systems Research Institute.

Suwatana Sripirom. 2006. Preparedness for aging society. Fiscal policy office. Ministry of Finance. Available from: : http://oppo.opp.go.th/info/news_public.htm. (14 September 2006)

Suwit Wibulpolprasert, Pintusorn Hempisut and Tippawan Issarapattanasakul. 1997. Demand for disabled elderly carers in Thailand for the next two decades. Journal of Health Science.

Varachai Thongthai. 2006. The 2006 National Population Annual Symposium November 23-24th Bangkok: Thai Population Association, 2006.

Wanapa Sritanyarat and Pongpan Aroonsang, Editoors. 2002. Health service system and health insurance for the elderly in Thailand : A knowledge synthsis. Konkaen: Klangnana Wittaya.

Wathinee Boonchalksi and Yupin Vorasiriamorn. 2001. Thailand's aged care in private senter. Nakhonpathom: Institute for Population and Social Research, Mahidol University.
Worawes Suwanrada. 2006. Concept and elderly social welfare systemization : Case studies of Japan and Thailand. Documentary for meeting. 19 July 2006. Set up by National health foundation .
Yaowarat Porapakkham, Supatra Atibho. 2000. Health status and its trend of the aged. Nonthaburi: Health Systems Research Institute.
Yaowarat Porapakkham and Pornpan Boonyarattapan , Editor. 2006. The report of Thailand population health examination survey III 2003-2004. Nonthaburi: Health Systems Research Institute.
World Health Organization. 2002. Current and Future Long-Term Care Needs. (Online). (cited 2006 Aug 23); Available from : http://www.who.int/chp/knowledge/publications/ltc_needs/en/index.html

Key informants

Boonrasri Burapathanin. Director of Workmen's Compensation fund office. Interview, 7 December 2006.
Chek Dhanasiri. Interview, 7 November 2006.
Tassana Jongpeepien. Interview, 25 February 2007.
Wanlop Phloytabtim. Permanent Secretary of Ministry of Social Development and Human Security.15 December 2006.

The Process of Writing of the Thai Health Report 2007

Health Indicators Work methods

1. A working group was established consisting of qualified people from organizations that collect reliable health data. The members of the working group contributed entries for the Indicators section. Each entry was required to do the following things:
   - Explain why the topic is important to the general public
   - Give contextual information about the selected indicators
   - Provide up-to-date, trustworthy data
2. After members of the working group had completed drafts, the Management Committee for the Thai Health Report provided feedback, with the assistance of relevant experts. The aim was to identify any gaps, and to ensure that the entries conformed to the objectives of the report. The Management Committee also wrote summaries for each entry.
3. The entries were checked by experts.
4. The Management Committee made a final revision, and, together with a graphic designer, put the data in a form that is easy to understand.

Process for choosing indicators

The indicators were chosen by the Management Committee, under the guidance of the Steering Committee. The principles used for choosing the indicators were as follows:
- The data were reliable, and were available at a national or regional level
- Research cited in the text must be relevant to the selected indicators
- Some of the indicators should be chosen based on recommendations from experts
- The data had to reflect conditions at the time of the report

Ten Health Issues and Four Notable Contributions

The 10+4 Issues section has discussions of ten important health issues from the past year, ranked from 1 to 10, plus summaries of four notable contributions made by Thais towards the health of Thais. The ten issues were chosen using the following criteria:
- The issues arose during the previous year
- The issues have broad implications for the health of Thais, including people's safety and security
- The issue may be a policy affecting health that has been introduced or implemented during the past year
- The issue is new
- The issue arose often during the past year

The four notable contributions are scientific discoveries or innovations that enhance the health, including the social health, of the Thai public.

To rank issues, the following procedure was followed:
- A survey was conducted in which members of the public were asked to rate the importance of selected current issues, including issues not featuring in the news. The ratings were expressed using a Likert scale, ranging from 0 (unimportant) to 2 (very important).
- The survey data were analyzed to rank the issues.
- The rankings were approved by the Thai Health Report Steering Committee.

Special Topic for the Year

Special topics can be issue-oriented, or target group-oriented, with the type alternating from year to year. The topic may be chosen from the 10 Health Issues of the year before. The principles for selecting a topic are as follows:
- The topic is important to policy
- The topic is important to the general public
- The topic is complex

Procedure

1. The Steering Committee chooses the special topic for the year
2. The Thai Health Report team constructs an outline for the chapter
3. Experts are commissioned to write reports on aspects of the topic, in close collaboration with the Thai Health Report team
4. The Thai Health Report team combines the reports, and rewrites them in a way that will be easily understood by the general public. The results are then checked by experts.
5. Advisors to the project check and edit the report a final time. A graphic designer then constructs the art work, and the report is sent to the printers.

Experts 2007

Name	Organization	Reviewers
1. Dr.Suwit Wibulpolprasert	Office of Permanent Secretary, Ministry of Public Health	Whole report
2. Dr.Wichai Chokewiwat	Department of Development of Thai Traditional and Alternative Medicine, Ministry of Public Health	Whole report
3. Ms.Parichart Siwaraksa	Researcher	Whole report
	Experts	
1. Dr.Wichai Aekplakorn	Ramathibodi Hospital	Risk factors for cardiovascular disease
2. Dr Orapichaya Krairert	Ramathibodi Hospital	Dementia : an epidemic on the horizon
3. Dr Sirinthorn Chansirikanchana	Ramathibodi Hospital	Dementia : an epidemic on the horizon
4. Action On Smoking and Health Foundation		Risks from secondhand smoke
5. Mr. Vitaya Kulsomboon	Health Consumer Protection Project	Consumer protection
6. Ms.Wanna Siwiriyanuphap	Health Consumer Protection Project	Consumer protection and food additives
7. Dr. Niyada Kiatying-angsulee	Faculty of pharmaceutical sciences Chulalongkorn university	Food additives
8. Dr. Taweesin Visanuyothin	Department of Mental Health, Ministry of Public Health	Mental illness
9. Dr. Amornwit Nakhontap	Ramajitti institue	Youth gambling and Thai youth in the cyber age
10. Ms. Chulakorn Masetenwong	Ramajitti institue	Youth gambling and Thai youth in the cyber age
11. Mr. Rungsan Pintong	Pollution Control Department	Hazardous waste
12. The Thai Health Team	Institute for Population and Social Research, Mahidol University	Occupational health, Happiness, Income, savings, and debt, The sufficiency economy, Educational inequalities.

Steering Committee 2007

Name	Organization	Position
1. Dr.Suwit Wibulpolprasert	Office of Permanent Secretary, Ministry of Public Health	Committee Chair
2. Dr.Wichai Chokewiwat	Department of Development of Thai Traditional and Alternative Medicine, Ministry of Public Health	Committee
3. Dr.Ampon Jindawatthana	National Health System Reform Office	Committee
4. Dr.Kritsada Ruengareerat	Thai Health Foundation Promotion	Committee
5. Dr.Pinit Fahumnouyphol	Health System Research Institute	Committee
6. Dr.Narong Kasitipradith	Office of Permanent Secretary, Ministry of Public Health	Committee
7. Dr.Chuchai Suppawong	National Human Rights Commission of Thailand	Committee
8. Ms.Apinya Wechayachai	Faculty of Social Administration, Thammasat University	Committee
9. Dr.Suttilak Smitasiri	Nutrition Research Institute, Mahidol University	Committee
10. Ms.Yuwadee Kardkarnklai	National Health Foundation	Committee
11. Ms.Parichart Siwaraksa	Researcher	Committee
12. Ms. Jirawan Boonperm	Economic and Social Statistics Bureau	Committee
13. Ms.Warunya Teokul	National Economic and Social Development Board	Committee
14. Mr.Pibpop Thongchai	Foundation for Children	Committee
15. Dr.Wilasinee Pipitkul	Faculty of Communication Art, Chulalongkorn University	Committee
16. Mr.Surin Kitnitchi	Klongkanomjeen Community, Sena district, Ayutthaya province	Committee
17. Ms.Benjamaporn Chantraphat	Thai Health foundation Promotion	Committee
18. Dr.Churnrurtai Kanchanachitra	Institute for Population and Social Research, Mahidol University and Associate Secretary	Committee
19. Dr.Chai Podhisita	Institute for Population and Social Research, Mahidol University and Associate Secretary	Committee
20. Dr.Kritaya Archavanichkul	Institute for Population and Social Research, Mahidol University and Associate Secretary	Committee
21. Dr.Umaporn Pattaravanich	Institute for Population and Social Research, Mahidol University and Associate Secretary	Committee
22. Ms.Kullawee Siriratmongkhon	Institute for Population and Social Research, Mahidol University	Project assistant
23. Ms.Hathairat Seangdung	Institute for Population and Social Research, Mahidol University	Project assistant
24. Ms.Suporn Jaratsit	Institute for Population and Social Research, Mahidol University	Project assistant

The Thai Health Report Team

1. Dr. Churnrurtai Kanchanachitra	Main Editor
2. Dr. Chai Podhisita	Editor "The Scent of the Lamduan Flower: Preparing for an Aging Society"
3. Dr. Kritaya Archavanitkul	Editor "10 Health Issues"
4. Dr. Umapron Patravanich	Editor "14 Health Indicators"
5. Ms. Suporn Jarassit	Research assistant
7. Ms. Kullawee Siriratmongkon	Research assistant
8. Ms. Hathairat Seangdung	Research assistant

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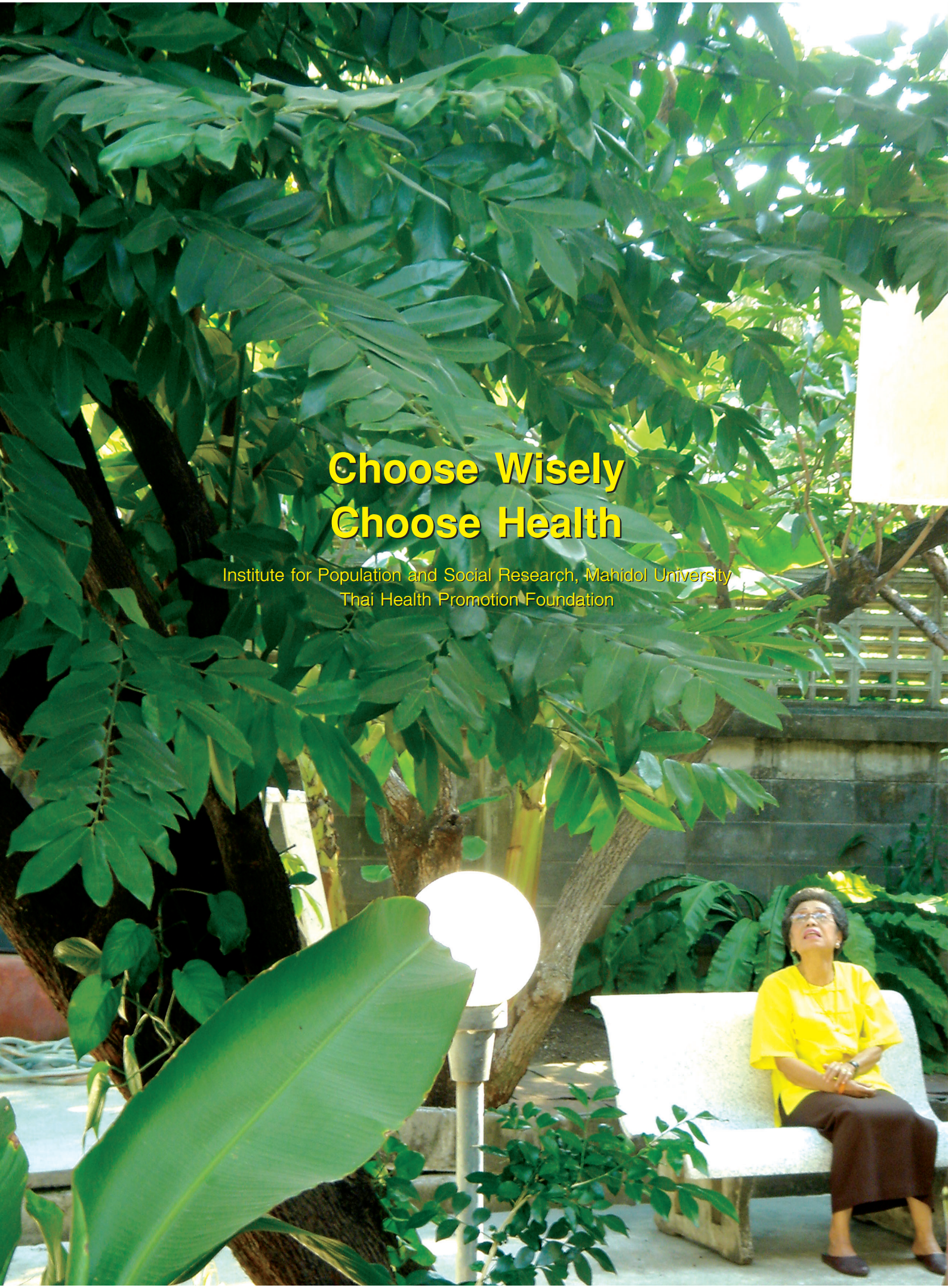
The Thai Health Report team



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